

Visitor Preferences for Interpretation in the Kennecott Mill Town, Wrangell – St. Elias National Park Final Report

Study & Report by:

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November 2005

With the Cooperation of:

**Wrangell – St. Elias National Park
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PO Box 439
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Executive Summary

This report compiles the results from a study on visitor preferences for interpretation in the Kennecott Mill Town within Wrangell St – Elias National Park (WRST). The study was conducted in cooperation of the University of Alaska Fairbanks and the National Park Service during the summer of 2004.

Study Objectives

WRST managers are in the process of developing a support facilities plan for the Kennecott Valley, which includes the historic Kennecott Mill Town. This study was designed to assess significant visitor experiences and learn how those experiences contributed to preferences for management actions.

Methods

An on-site survey of visitors to the Kennecott Mill Town was conducted. During the summer season each day was divided into morning and afternoon time blocks which were then randomly selected for sampling. During the selected time block, every third visitor to leave the Mill Town who was over age 18 was asked to participate in the survey. Participants were asked to complete a four-page on site survey that covered seven broad topics: 1) demographics, 2) sources of information about Kennecott, 3) trip characteristics, 4) participation in activities, 5) importance and quality of available interpretation, 6) trip motivations, and 7) preferences for six management options. The survey asked respondents to rate the following six management options on a five point scale ranging from “would strongly detract from experience” to “would strongly add to experience”:

- Further stabilization of the Old Mill Town buildings,
- The opportunity to explore the inside of more Mill Town buildings,
- The opportunity to explore the outside of more Mill Town buildings,
- The addition of signs and exhibits explaining the historical significance of the Old Mill Town buildings,
- The addition of a film explaining the historical significance of the Kennecott Mill Town, and
- The addition of an audio-guided tour explaining the significance of the Kennecott Mill Town.

It was hypothesized that visitors could be placed into distinct groups based on their motivations for visiting and activity participation. Furthermore, it was believed these groups would vary in their preferences for management options. Visitors were also expected to differ on their preferences for interpretation based on their season of visit (summer vs. spring and fall) and their residency (Alaska resident vs. nonresident). While the survey was not conducted during the spring or fall, the summer visitors were divided into mid-summer and late-summer season visitors to test for differences.

Key Results

A total of 233 visitors participated in the survey (response rate = 66.4%). A nonresponse test revealed no differences between those who responded and those who declined to participate.

Using a K-means cluster analysis we grouped visitors into groups based on similarities in reasons (motivations) for visiting the Kennicott Valley. It was felt that five distinct groups best represented the data. Common themes within each group emerged when the motivations were analyzed in conjunction with activity participation, demographics and travel characteristics. The five groups were categorized as: 1) Outdoor Enthusiasts (16%), 2) Park Experience (32%), 3) History Buff (22%), 4) Generalist (10%), and 5) Tourist (20%) (combined n of the five groups = 206).

Some differences in management preferences were detected between these groups. Most notably, the Outdoor Enthusiasts held a neutral opinion or were slightly against the six management options when compared with the Park Experience group. Of the six management options, the audio guided tour of the Mill Town had the least support from all visitor groups.

Season of visit (mid-summer vs. late-summer) did not explain many differences in the visitors. Although some significant differences in activity participation were found, no differences were detected in preferences for management options between mid-summer and late-summer visitors. Differences between resident and nonresident visitors were found on many trip characteristics, activities, demographics, and importance and quality of interpretation. However, when compared by residency, visitors differed on only one of the six management options. Alaska residents felt audio guided tours would, on average, slightly detract from their experience while nonresidents felt, on average, the audio guided tours would slightly add to their experience in the Mill Town.

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Study Background and Objectives

In 1998 the National Park Service (NPS) purchased many of the Kennecott Mill Town buildings in Wrangell – St. Elias National Park and Preserve (WRST) and has since been in the long process of stabilizing and rehabilitating the buildings. Park visitation has the potential to increase in the coming years due to an increase in the visibility and accessibility of the Kennicott Valley (note: the Kennecott Mill Town is spelled differently than Kennicott valley, river, and glacier). Public awareness of the Valley has increased with the addition of the WRST visitor center on the Richardson Highway in Copper Center. Moreover, access in the Kennicott Valley is gradually becoming less difficult and therefore more enticing to a broader range of park visitors. Only a few years ago, summer access to McCarthy (Kennecott’s gateway community) and Kennecott was limited to a handcart strung across the river or by airplane. Today a foot bridge spans the river, allowing for a less daring entrance to the park, which makes visiting the Kennicott Valley more attractive to the general public. These improvements could, in turn, be linked to a shift from primarily backcountry users to a larger presence of frontcountry visitors. Access may not be the only aspect promoting the growth of visitation to WRST. Proposals have been put forth to relieve congestion in Alaska parks with high visitation by promoting visitation to the other parks such as WRST.

WRST managers are in the process of developing a support facilities plan for the Kennicott Valley, which includes the historic Kennecott Mill Town. Because very little information exists on front country users in WRST, managers felt it would be difficult to generate a viable management plan without knowing visitor preferences and expectations. Past visitor studies such as one conducted by Glaspell and Watson (2003) have focused on backcountry uses of park resources (National Park Service 2005). To date, no systematic study of visitor preferences representing all frontcountry users to the Kennecott Mill Town has been conducted (Brokaw, Pers. Comm. 2005).

Baseline information on frontcountry visitors can assist park managers in selecting appropriate management actions to guide the future of the Kennicott Valley by understanding how management actions will affect visitors. Kennicott Valley visitors may differ in how they would like to see the park managed: some may desire restoration of the Mill Town with interactive interpretive facilities, whereas others may feel such development detracts from the historic nature of the town and would prefer the solitude and stillness of its current “ghost town” state. While the official position of the NPS is to stabilize and prevent building deterioration rather than fully restore the Mill Town buildings (Gilbert et al. 2001), visitor preferences can be used to guide the level of interpretation and the appropriate medium through which it is to be provided. Because park managers have noted anecdotal evidence of visitor preferences regarding development and information needs, they posed four specific questions they felt would help address their concerns:

- What are the significant visitor experiences?
- How can the significant visitor experiences inform us about what types of interpretation to provide (waysides, audio, publications, etc.)?
- What do visitors think is the significance of Kennecott?
- How do people get information about Kennecott prior to arriving?

Past experience with visitors has led park managers to believe that visitors differ in several ways. For instance, evening visitors are thought to be seeking a more primitive and unimproved setting than daytime visitors. Managers believe that demographics and preferences differ based on the time of the season visitors come to the park. For example, it is thought that Alaskan visitors and Kennicott Valley residents seek the “ghost town” feel and will dominate in the spring and fall seasons, while the summer will bring more nonresidents who prefer a more developed the Mill Town.

These four questions and the hypothesis that visitor preferences would vary with their motivations guided the study design. Cluster analysis was used to group visitors by similar motivations, then preferences for management options were then analyzed by visitor group using analysis of variance (ANOVA). Differences in time of visit, season of visit, and residency were analyzed with Chi-square measures of association.

Methods

Survey Instrument

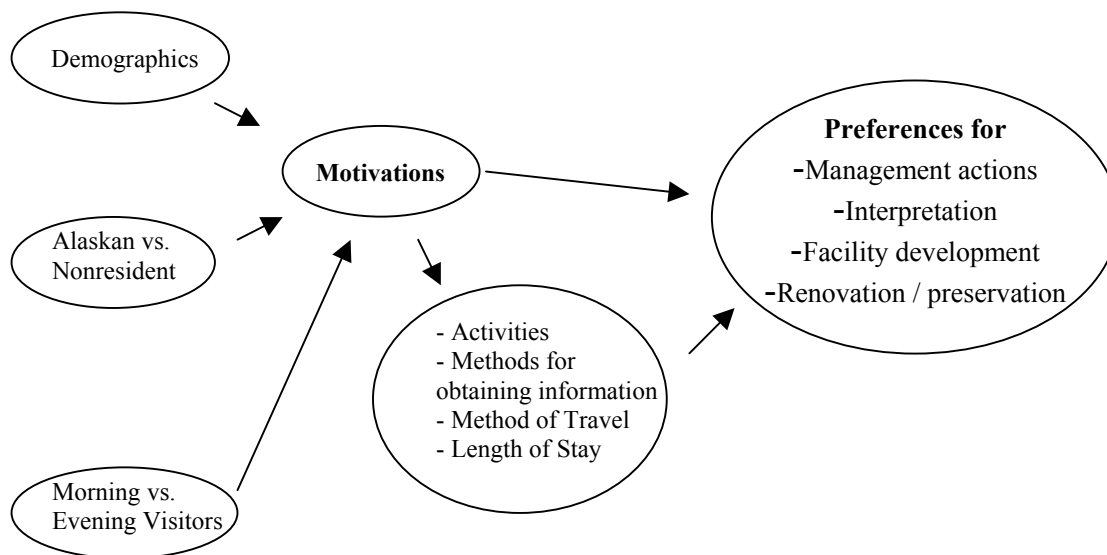
The survey was designed to address the four management questions listed above. An onsite written survey was used to gather visitor information. Time and budgetary constraints necessitated the onsite written survey. A mail-back or telephone survey format would have provided extensive information about each visitor, but these survey designs would have been prohibitively expensive. Personal interviews would have yielded the most detailed information on an individual level but would have been extremely time-consuming, and achieving a sample size from which confident inferences to all Kennecott visitors could be made would have been difficult.

It was decided to query the visitors’ significant experiences by gauging what motivated them to come to the park. If visitors’ expectations regarding experiences are understood, then park managers could provide appropriate settings to facilitate these experiences. Therefore the development of the survey instrument was guided by the concept that 1) motivations directly influence visitor preferences for management actions and preferences for interpretation and 2) visitor motivations indirectly influence preferences for management actions and interpretation through activities, trip characteristics and methods of obtaining information (Figure 1). Visitor age, residency, and time of day of visit were hypothesized to influence visitor motivations. The hypothesized model guided survey development; cluster analysis techniques and ANOVA were used to test the relationships assuming that each cluster is a unique bundle of motivations and activity

preferences. Performing a cluster analysis on motivations to identify user groups is a technique used in previous recreation research studies (Manfredo and Larsen 1993).

Because visitor motivations played a prominent role in the study, a valid method to measure them was needed. Motivational theory has been studied and applied extensively within the framework of recreation literature. The techniques for assessing motivations chosen for this study, the Recreation Experience Preference (REP) scales, were developed during the late 1960s and early 1970s (Driver et al. 1991). The REP scales consist of a set of 43 questions intended to measure aspects of 19 broad desired outcomes, also known as motivations. The conceptual basis for the REP scales came from Lawler's expectancy-valence theory which states that people will expend effort (i.e. pay money or drive to a park) with the expectation of certain performances (i.e. participation in hiking or attending an interpretive program, etc.) which in turn will lead to higher level outcomes (i.e. physical fitness or learning). Driver believed that better managerial decisions regarding settings and facilities could be made by basing them on visitors' desired outcomes rather than on the activity itself. Since the development of the REP scales, multiple studies have been undertaken to assess their reliability and validity with generally positive results (Rosenthal et al. 1982, Manfredo et al. 1996).

Figure 1. Conceptual Model Explaining Visitor Preferences



The final step in the development of the survey instrument was a pre-test for the clarity of the format and the questions. The pre-test was conducted at the University of Alaska Museum. Ten visitors were asked to complete the survey under the assumption that they

had just walked through the Mill Town. Their comments were used to help identify unclear questions and instructions. The Museum was not an optimal site for pre-testing the survey instrument because setting and content are vastly different from the Kennecott Mill Town, yet it remained the best pre-season viable alternative. One benefit was that Museum visitors are demographically similar to the Mill Town visitors. Feedback from the pre-test was incorporated into the final survey. The final survey instrument was submitted to and approved by the Office of Management and Budget (#1024-0224, NPS #04-032). The last step involved printing the survey as a four-page, 8½ x 11” booklet (See Appendix A for a copy of the survey).

Sampling Plan

A truly randomized sample is one in which each visitor has a chance of being sampled. Achieving a random sample is desirable because it allows inferences to be made regarding the entire population. To ensure each visitor had a chance of being sampled, the sample frame covered the 2004 summer season, Memorial Day through Labor Day. Initially, the sample frame was stratified into day and evening visitors to test for differences that might exist between these two groups. Each day was divided into two four-hour time blocks (9am-1pm and 1pm-5pm) and the evening consisted of one four-hour time block (5pm-9pm). A two-stage cluster sample formula (see Figure 2) was used to determine the number of clusters (time blocks) to sample from each strata and the number of elements (visitors) to sample within each cluster.

Figure 2. Two Stage Cluster Sample Formulas for Determining Sample Size (Cochran 1977)

$$m = \frac{s_2}{\sqrt{s_1^2 - \frac{s_2^2}{M_i}}} \quad n = \frac{s_1^2 - \frac{s_2^2}{M_i} + \frac{s_2^2}{m}}{V(\hat{\mu})}$$

where:

n = the number of clusters (i.e. time blocks) sampled and
 m = the number of elements (i.e. visitors) sampled per cluster
 s_1^2 = the estimated variance between clusters
 s_2^2 = the estimated variance within a cluster
 M_i = the average number of elements per cluster
 $V(\hat{\mu})$ = the variance of the estimated mean of the population

After talks with park managers, it was concluded the initial sample plan was too ambitious for the resources available. Park employees conducted most of the surveying, and to comply with their schedules, the evening time block was dropped and the second of day time blocks was extended by one hour resulting in a time block that ended at 6pm

rather than 5pm. Although eliminating the evening time block sacrificed the ability to test for differences between day and evening visitors, we believed evening visitors represented a small fraction of the total summer visitors and that the sample plan revision represented the best use of available resources.

The beginning of the survey was scheduled to coincide with the opening day of the WRST season, but was delayed until June 11 due to the survey approval process at the Office of Management and Budget. The delay eliminated the opportunity to sample from the early-summer season (Memorial Day through mid-June).

The above sample size formula required some estimates of visitor variability. As previously stated there was no survey-based information available on front-country visitors in WRST. Furthermore, no data containing multiple time blocks spanning the summer and shoulder seasons (spring and fall) from a comparable Alaska national park could be found. Therefore a Rocky Mountain National Park (RMNP) visitor study that included multiple time blocks per day during the summer and fall was used to provide an estimate of variance. To err on the conservative side, data with the highest variance was used as sample data for the WRST sample size calculations. The final sampling plan called for randomly sampling 6 visitors per time block across 37 time blocks for a total sample size of 222. The number of time blocks sampled was adjusted to 53 to account for nonresponders. Because it is difficult to randomly sample six visitors per day when daily Mill Town visitation figures are unknown, a systematic sample of every third visitor to exit the Kennecott Mill Town at the National Creek Bridge was employed. Also by sampling every third visitor, the chance of surveying two people from the same group was reduced, thereby minimizing concerns of independence of observations within the sample. Visitors younger than 18 years of age were not allowed to participate in the survey because they do not represent part of the voting public.

Study Implementation

Fifty-three time blocks were surveyed between June 11 and September 6, 2004. A short introduction script was developed for the survey administrator to follow when addressing potential participants. The script was designed so each administrator gave potential respondents the same information so as not to bias the respondents' answers. Visitors leaving the Mill Town were asked to voluntarily complete the written survey at the Depot. The Depot is an old railroad depot now used by the National Park Service as its visitor center. It is located adjacent National Creek just outside of the Old Mill Town and was a strategic location from which to conduct the survey because visitors who are exiting the Old Mill Town must pass by it.

Those declining to participate were asked to answer two short questions: 1) whether they had been to Kennecott on a prior occasion and 2) their preference towards further stabilization of existing structures in the Mill Town. Along with the two questions, the survey administrator noted four observations for each nonrespondent: their gender, the number of people in their group, the number of children in their group, and whether they

exited the park in the morning or the afternoon time block. These six variables were used to check for a nonresponse bias.

Analysis

Study results are reported in three sections. The first consists of descriptive statistics for all respondents. It includes an Importance-Performance Matrix (IPM) for the information services available in the Kennicott Valley and a Potential for Conflict Index (PCI) analysis for the various management options presented in the survey. Both concepts are explained in more detail later in this report. The second section focuses on analyzing the data when stratified by residency, time of day the visit occurred, and season the visitors came to the Mill Town. Differences in the strata were detected through the use of Chi-square (χ^2) measures of association. The third section reports the identification of different user groups by cluster analysis techniques. Chi-square tests were again used to analyze how the descriptive statistics differ between the five groups. PCI analysis was implemented to investigate varying opinions of the management options within clusters. Finally, ANOVA was used to test for differences in management preferences between the five clusters.

Results

Bound on the Error of Estimation

Based upon sample size calculations, all parameters, such as means, calculated from a sample are estimated to be within a certain percentage of the true population parameter. Thus the bound on the error of estimation for this study was $\pm 7.8\%$. Actual survey results showed that roughly two-thirds of the applicable questions had a bound on the error of estimation within $\pm 5\%$ (see Appendix B for exact bounds on applicable questions). All bounds in this study are presented with a confidence interval of 95%. Therefore a $\pm 5\%$ bound on the error of estimation is interpreted as 95 of every 100 (i.e. 95% of the time) samples taken from the same population of visitors should result in a mean that is $\pm 5\%$ of the mean estimated in this study. In other words, there is a 95% confidence that the true means lie within $\pm 5\%$ of the means presented in this study.

Response Rate

The study resulted in 233 completed surveys and a response rate of 66.4%. The response rate was lower than predicted. The difference in expected and actual response rates can probably be attributed the unanticipated problem of visitors who were pressed for time to catch a scheduled shuttle bus from the Kennecott Mill Town to McCarthy.

Nonresponse Check

A total of 118 visitors chose not to participate in the survey. A nonresponse check was conducted to investigate whether the nonresponders differed significantly from those who completed the survey. Six variables were tested for differences between responders and nonresponders. The three dichotomous variables were analyzed with Pearson's Chi-square test. The time of visit displayed weak evidence of differences (Table 1) between respondents and nonrespondents. The differences were not great enough to warrant weighting the data.

Table 1. Results of Dichotomous Variable Nonresponse Test

Nonresponse Variable		Respondent	Nonrespondent	n	χ^2	df	sig.
Gender	Male	54.5%	52.9%	324	0.069	1	0.79
	Female	45.5%	47.1%				
Prior Visit	Yes	23.0%	21.6%	310	0.070	1	0.79
	No	77.0%	78.4%				
Time of Visit	Morning	30.4%	40.2%	341	3.312	1	0.07
	Afternoon	69.6%	59.8%				

The three remaining variables violated a critical assumption of the independent-samples t-test: normal distribution. Therefore they were analyzed using a nonparametric method called the Mann-Whitney test (Table 2), which does not incorporate a predetermined distribution curve in the calculation.

Table 2. Results of Nonparametric Mann-Whitney Test

Nonresponse Variable	Respondent		Nonrespondent		Mann-Whitney U	sig.
	Mean	n	Mean	n		
Number of people in group	3.02	218	2.74	102	10996.50	0.868
Number of children in group	0.20	217	0.26	99	10370.50	0.399
Structure Stabilization	4.00	218	3.80	94	10056.50	0.785

The Mann Whitney test combines and ranks, from lowest to highest, all observations from two independent samples (i.e. respondent and nonrespondent). The Mann-Whitney U is a comparison of the similarity of the rankings of the two samples (respondents and

nonrespondents). The calculated “U” is then compared to a critical “U” value for the two given sample sizes. When the calculated “U” exceeds the critical value for a particular significance level there is no evidence that differences exist between the two samples. None of the three response items were found to be significantly different.

Baseline Visitor Statistics for the Kennecott Mill Town

The following section details frequencies and other basic statistics gathered from the survey questions on demographics, trip characteristics, activities, importance of interpretive services, quality of interpretive services, and preferences for management actions. Results include all respondents. The tables below list percentages in order of rank. Note that not all questions have the same sample size due to item nonresponse. Sample sizes (n) are included with each table and figure.

Visitor Demographics

Table 3. Gender of Survey Respondents

Male	54.4%
Female	45.6%

• n = 228

Table 4. Age Groups of Respondents

50-59 years of age	27.9%
40-49	19.7%
30-39	17.2%
18-29	15.5%
60-69	11.6%
70 and up	8.2%

- n = 227
- Ages ranged from 18 to 79 years with a mean age of 46.

Table 5. Residency of Survey Respondents

Contiguous United States	54.1%
Alaska (Outside Kennicott Valley)	26.2%
Foreign	17.1%
Kennicott Valley	2.6%

• n = 233

- Respondents came from a wide variety of locations. At least 16 cities or villages in Alaska, 35 states, and 10 foreign countries are represented in the results.
- Approximately 71% of the respondents lived outside of Alaska.
- Foreign visitors may be under represented due to anecdotal evidence of a high nonresponse rate.

Table 6. Race of Survey Respondents

White	98.7%
Asian	1.3%
Alaska Native	0.9%

• n = 227

Table 7. Ethnicity of Survey Respondents

Non-Hispanic	97.2%
Hispanic	2.8%

• n = 216

Table 8. Education of Survey Respondents

Bachelor's Degree	39.6%
Graduate Degree	37.1%
High School Diploma or GED	22.9%
No High School Diploma	0.4%

- n = 232
- Each category represents the minimum education level of respondent.

Trip Characteristics

Many of the trip characteristic questions were categorical rather than interval or continuous. For instance, instead of having visitors recall the number of hours spent in the Mill Town, they were asked to circle the category of time that included the amount of time they spent in the Mill Town. Averages calculated from the categorical data would not be appropriate, therefore frequencies are presented. The results below give a good indication of how much time visitors spent in the Kennicott Valley and how they got there.

Table 9. Breakdown of Visitors Sampled

	Time blocks sampled	Visitors Sampled	Respondents	Response Rate	Respondents / time block
<u>Time of Year</u>					
Mid Summer	44	294	187	63.6%	4.25
Late Summer	9	56	46	82.1%	5.11
n		350	233		
<u>Time of Day</u>					
Morning	28	118	71	60.2%	2.54
Afternoon	25	230	160	69.6%	6.40
n		348	231		

- Mid-summer season is defined as June 11th, 2004 through August 24th, 2004 and represents 44 sampled time blocks
- Late-summer season is defined as August 25th, 2004 through Labor Day (Sept 6th, 2004) and represents 9 sampled time blocks

Table 10. Number of Days Respondents Spent
in the Kennicott Valley

2 to 3 days	62.6%
1 day	22.5%
4 to 6 days	7.9%
15 days plus	5.3%
7 to 14 days	1.8%

- n = 227

Table 11. Number of Hours Respondents Spent
in the Kennecott Mill Town

2 to 4 hours	31.1%
4 to 6 hours	21.2%
17 hours plus	18.0%
Less than 2 hours	17.1%
6 to 16 hours	12.6%

• n = 222

Table 12. Method of Travel to the Kennicott
Valley

Car/Truck	67.2%
Airplane	18.8%
Tourbus	10.5%
Other	2.2%
Motorhome	1.3%

• n = 229

Table 13. Method of Travel to Alaska by
Nonresident Respondents

Commercial Airline	77.8%
Alaska Highway	15.6%
Other	3.0%
Ferry	2.4%
Cruise Ship	1.2%

• n = 167

Table 14. Travel Companions of Survey Respondents

	Percent	Average group size
Family	39.5%	2.85 ^{a,b}
Family & Friends	23.6%	3.67 ^b
Friends	18.5%	3.07 ^b
Other	9.4%	3.40 ^b
Alone	9.0%	1.60 ^a

- n = 233
- Group size was an observed value by survey administrator
- ^{a,b} Results with the same superscript letter are not significantly different at $\alpha = 0.05$

- Respondents who specified traveling “Alone” had a significantly smaller group size than those who specified traveling with “Family & Friends”, “Friends” and “Other” ($\alpha = 0.05$)

Table 15. Private Travelers versus Tour Group

Private Travelers	90.0%
Tour Group Travelers	10.0%

- n = 231

Table 16. Prior Visitation by Respondent

First Time Visit to Kennicott Valley	76.8%
Had a Prior Visit to Kennicott Valley	23.2%

- n = 220

Activities

Kennecott Valley visitors participated in a wide variety of activities. The most popular activities stated by respondents were exploring the Mill Town, hiking, and sightseeing (Table 17). Nature walks and wildlife viewing were not popular primary activities but had a high participation rate among visitors at near 57% and 49% respectively. This indicates that while these activities are not popular primary activities, they are an integral part of the visitor experience. It is important that visitors continue to have the opportunity to participate in these secondary activities.

Table 17. Primary Activities and Overall Participation in Activities by Respondents

Activity	Respondent Listed as Primary Activity ^a	Respondent Participated in Activity ^b
Hiking	33.9%	70.8%
Exploring the Mill Town	26.5%	76.4%
Sightseeing	13.2%	72.5%
Backpacking	7.4%	21.9%
Other	6.3%	14.2%
Nature Walks	4.8%	56.7%
Camping	3.7%	30.9%
Interpretive Programs	2.1%	26.6%
Rafting	1.1%	3.9%
Wildlife Viewing	0.5%	48.5%
Biking	0.5%	9.4%
Mountaineering	-	6.4%
Climbing	-	5.6%
Fishing	-	5.6%

a. n = 189

b. n = 233

Popular primary activities specified under the “Other” category were photography (n = 3) and visiting with friends and family (n = 4). The three most popular “Other” activities respondents listed in the overall activity participation category were glacier walks (n = 9), photography (n = 6), and flight seeing (n = 6).

Sources of Information

Nonresident responders received information about the Kennicott Valley from a wide variety of sources, and about 90% obtained information before they traveled to Alaska (Table 18). Of significance was the large percentage of respondents that acquired their information through word of mouth and from travel books such as the Milepost and Lonely Planet (Table 19).

Table 18. Nonresident Respondent Sources of Information

Other	47.3%
NPS Website	18.8%
Websites Other Than NPS Site	9.7%
Tour Company	9.7%
Did Not Obtain Any Info Outside Alaska	7.9%
Travel Agency	6.7%

• n = 165

Table 19. Categorization of “Other” Option in Table 18

Category	Frequency	Percent of Other Category	Percent of Total Sources of Information
Word of Mouth	30	39.0%	18.2%
Travel Books	30	39.0%	18.2%
Miscellaneous	6	7.8%	3.6%
Park Materials	4	5.2%	2.4%
Club	4	5.2%	2.4%
Kennicott Businesses	2	2.6%	1.2%
None Specified	1	1.3%	0.6%

• n = 77

As seen in Table 20, nonresident responders preferred information consisting of either mostly written material with some photographic content or a mix of written and photographic content.

Table 20. Nonresident Respondent Sources of Information

Mostly Written w/Some Photographs	49.6%
Mostly Photographs w/Some Written	43.6%
Mix of Written and Photographs	3.8%
Verbal	3.0%

• n = 133

It should be noted that the verbal category may be under-represented in Table 19. The category was not an option on the survey but was added to the dataset due to the large number of respondents who added the category in their response. In retrospect, it would have been beneficial to have included a “verbal” category as a response choice. Indeed a closer inspection of the nonresidents responding to the “source of information” question but not the “format of information” question (n = 32) yielded 17 responses that could have fit in a “verbal” category. Therefore, approximately half of the nonresidents that left the “format of information” question blank may have done so because a “verbal” option was not available.

Just over half (54.9%, n = 224) of all respondents claimed to have obtained information about the Kennicott Valley within Alaska prior to arrival in the park. Of those who obtained information, about one-fifth did so in Anchorage (Table 21). This can probably be attributed to the fact that Anchorage is the largest population center in the state and also a major port of entry for the nonresidents.

Table 21. Towns/Sources of Information within Alaska for All Survey Respondents

Source/Town	n	Percent of Respondents
Anchorage	26	21.1%
None Specified	19	15.4%
WRST Visitor Center	17	13.8%
Friends/Verbal	12	9.8%
Other Alaska Towns	11	8.9%
Copper Center	9	7.3%
Fairbanks	6	4.9%
Glennallen	6	4.9%
Print/Video	5	4.1%
Chitina	5	4.1%
Misc. (Not in Towns)	4	3.3%
Valdez	2	1.6%
Tok	1	0.8%

• n = 123

The majority of all respondents ranked history as their primary subject of interest in the Kennicott Valley (Table 22). The low response rate to this question can be attributed to confusion about how many subjects to rate. Respondents who checked more than one answer were excluded from this section of the analysis.

Table 22. Respondents' Primary Subject of Interest

History	60.2%
Geology	17.7%
Wildlife	8.3%
Ecology	8.3%
Other	5.5%

• n = 181

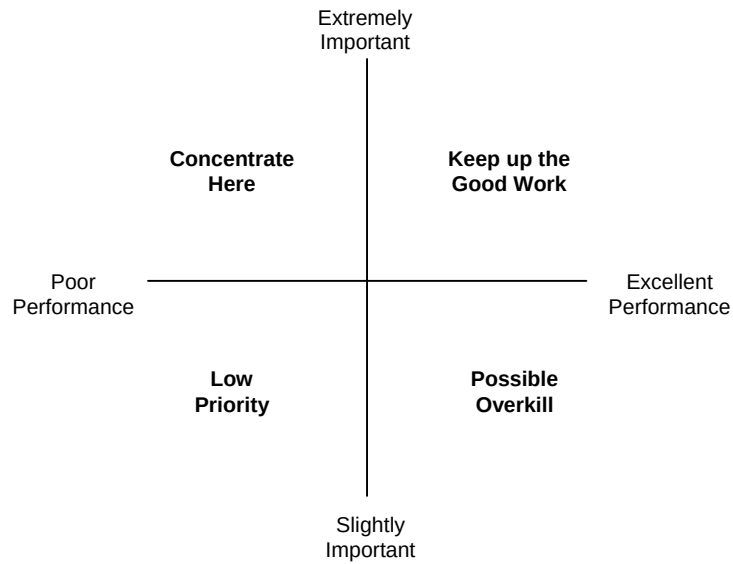
Importance and Quality of Interpretation in the Kennecott Mill Town

Survey respondents were asked to rate the importance to their visit and quality of the following six information services currently available in the Kennecott Valley: park brochures, depot visitor center exhibits, ranger led interpretive walks/talks, privately led interpretive walks/talks, the park orientation film, and the bookstore material. Respondents also were asked to rate the importance of adding two information services not currently available: an audio guided tour of the Mill Town and a film explaining the historical significance of the Mill Town. Importance responses were recorded on a five-point scale ranging from “not at all important” to “extremely important”. The quality of information services was also rated on a five point Likert-type scale ranging from “poor quality” to “high quality.” For those who did not use a particular interpretive service a box labeled “did not use” was included with each quality-of-information-service question.

Importance – Performance Matrix

The importance – performance matrix (IPM) is a graphical representation of perceived importance of a good or service with relation to its performance evaluation. The IPM aggregates the importance and performance data onto a four-region graph (Figure 3). Although originally developed for marketing research, the technique is also applicable in the natural resources field for the evaluation of goods and services. In theory, a user implicitly expects to derive satisfaction from an investment of time or money into a good or service. The difference in a user’s expected satisfactions and realized satisfactions would be the perceived quality of the good or service. If on average users are rating the importance as high and the quality as low on a particular good or service, then user expectations are not being met and management should examine how the good or service can be improved. The IPM allows managers to easily determine where to concentrate their efforts to improve interpretive services for their users (Borrie and Birzell 2001).

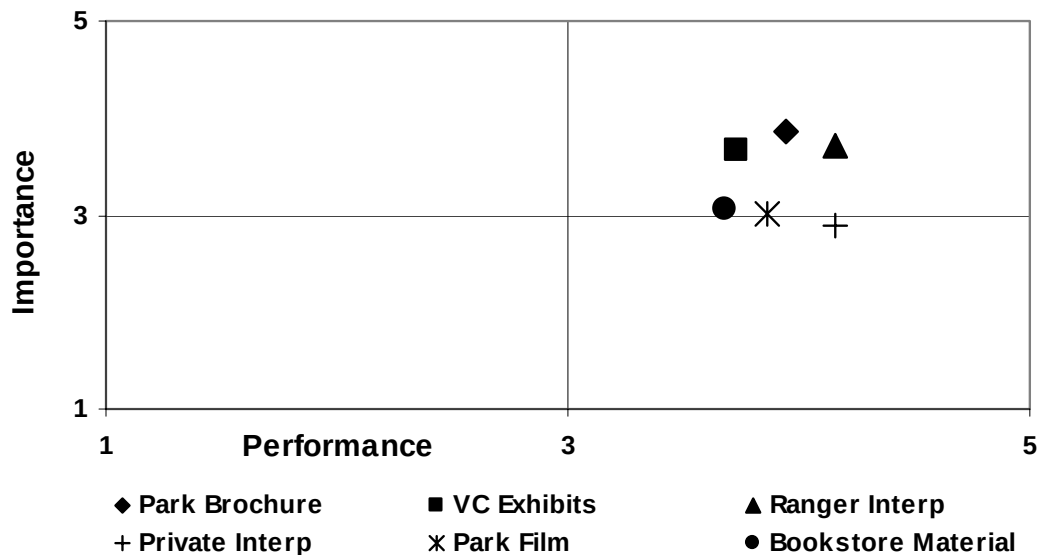
Figure 3. Example of Importance Performance Matrix with Four Regions



• Adapted from Borrie and Birzell, 2001

The IPM presented in Figure 4 uses data from the six interpretive services currently available in the Kennicott Valley. Because there is no assessment of quality for the two hypothetical interpretation options, they are not included in the IPM.

Figure 4. Importance – Performance Matrix for Interpretive Services



- Importance n's = 179 to 208, Performance n's = 53 to 173
- Response scale for Importance: "Not at all Important - 1" to "Extremely Important - 5"
- Response scale for Quality: "Low Quality - 1" to "High Quality - 5"

- The evaluations of all six interpretive services fall within acceptable quadrants according to IPM guidelines set forth by Borrie and Birzell (2001).
- Visitors felt park ranger led interpretation was more important than interpretive walks/talks led by private companies although the quality was perceived as roughly the same for both services.
- Controlling for multiple comparisons, visitor importance ratings of the Park Film, Private Interpretation, and Bookstore Material are significantly different from the importance ratings of Ranger Interpretation, Visitor Center Exhibits, and the Park Brochure at the significance level of $\alpha = 0.01$.

Preferences for Management Options in the Kennecott Mill Town

To assess the six management actions in the context of the entire population, a technique called the Potential for Conflict Index (PCI) was used. The PCI (Manfredo et al. 2003) is calculated from scaled response data that has a neutral point (i.e. neither adds nor detracts from experience). The PCI value can range from 0 to 1 where a result close to 1 represents a high potential for conflict. While the name “Potential for Conflict Index” implies conflict between users, it is in fact a useful tool to evaluate any item for which respondents may have differing opinions. A more detailed inspection of the PCI shows that it represents the ratio of responses that a particular management action would add to a visitor’s experience to the responses that it would detract from a visitor’s experience, with each response weighted according to the distance it falls from the neutral point (i.e. the further from the neutral point, the more weight assigned to the response). The original question had a response scale ranging from 1 “strongly detracts from experience” to 5 “strongly adds to experience” with a 3 being neutral. To calculate the PCI, the data were rescaled to a neutral response of 0 and a range from -2 (strongly detracts) to 2 (strongly adds). For reporting purposes, the data is expressed on the original response scale, 1 through 5. The following figure (Figure 5) is the equation used to calculate the PCI:

Figure 5. PCI Calculation Formula

$$PCI = \left[1 - \left| \frac{\sum_{i=1}^{n_a} |X_a|}{X_t} - \frac{\sum_{i=1}^{n_d} |X_d|}{X_t} \right| \right] * \frac{X_t}{Z}$$

where:

PCI = Potential for Conflict Index

X_a = an individual’s “adds to experience” score (e.g., 1 or 2)

n_a = all individuals with “adds to experience” scores

X_d = an individual’s “detracts from experience” score (e.g., -1 or -2)

n_d = all individuals with “detracts from experience” scores

$$X_t = \sum_{i=1}^{n_a} |X_a| + \sum_{i=1}^{n_d} |X_d|$$

Z = the maximum possible sum of all scores, extreme score*n or $Z = 2n$

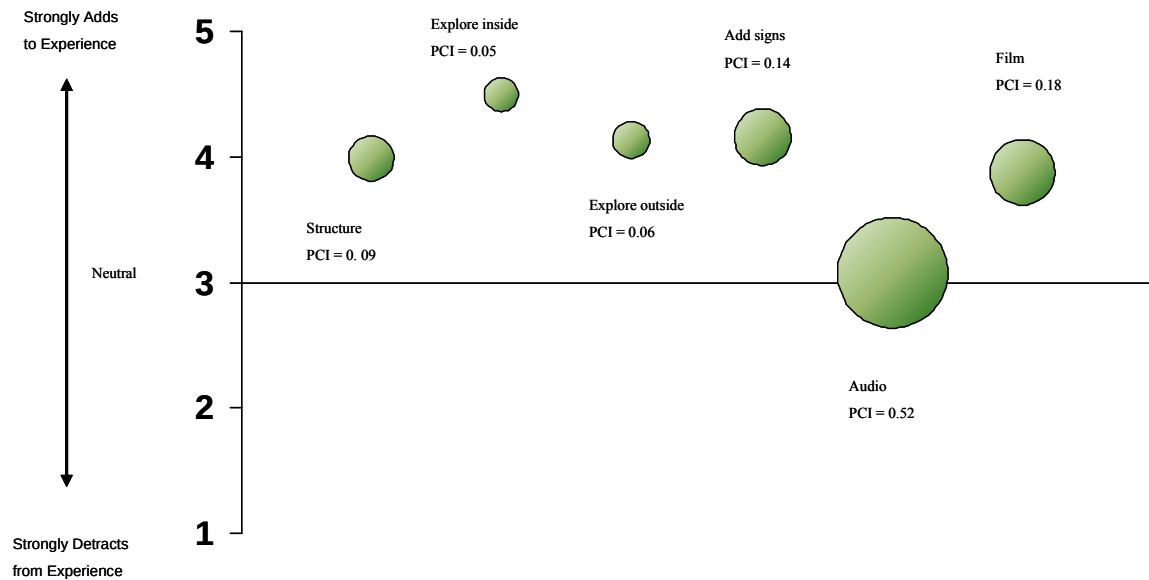
The PCI is represented graphically by a bubble graph with the x-axis representing the neutral score of zero. Each bubble, which corresponds to one management action, is centered over the mean of the response data. The size of the bubble corresponds to the PCI value: a smaller bubble equals a smaller PCI value. A PCI near zero means most of the responses are on one side of the scale and those falling on the opposite side are close to neutral. One extreme case would be if all responses fall on one side of the scale

resulting in a PCI of zero, meaning opinions are similar. Alternatively if 50% of the respondents state that a management action strongly detracts from the experience and the other 50% of the respondents state that it strongly adds to the experience, then a large difference of opinion exists. Such a case would result in a PCI of 1 and strong differences of opinion regarding the management action. When displayed in figures in this report, the PCI value for each management action is listed next to its bubble.

Throughout the duration of this report, the six management options will be abbreviated as follows:

- **Structure** - further stabilization of existing historical Mill Town structures
- **Explore inside** - An opportunity to explore the inside of Old Mill Town buildings
- **Explore outside** - An opportunity to explore the outside of Old Mill Town buildings
- **Add signs** - The addition of signs and exhibits in the Kennecott Mill Town explaining its historical significance
- **Audio** - A headphone audio guided tour of the Kennecott Mill Town
- **Film** - A film telling the historic story of Kennicott Valley

Figure 6. Potential Conflict Index for Six Management Options, All Visitors



- n's by management option: Structure = 225; Explore inside = 226; Explore outside = 223; Add signs = 226; Audio = 225; Film = 224
- Results include all visitors
- Response scale: "Strongly detracts from experience - 1" to "Strongly adds to experience - 5"

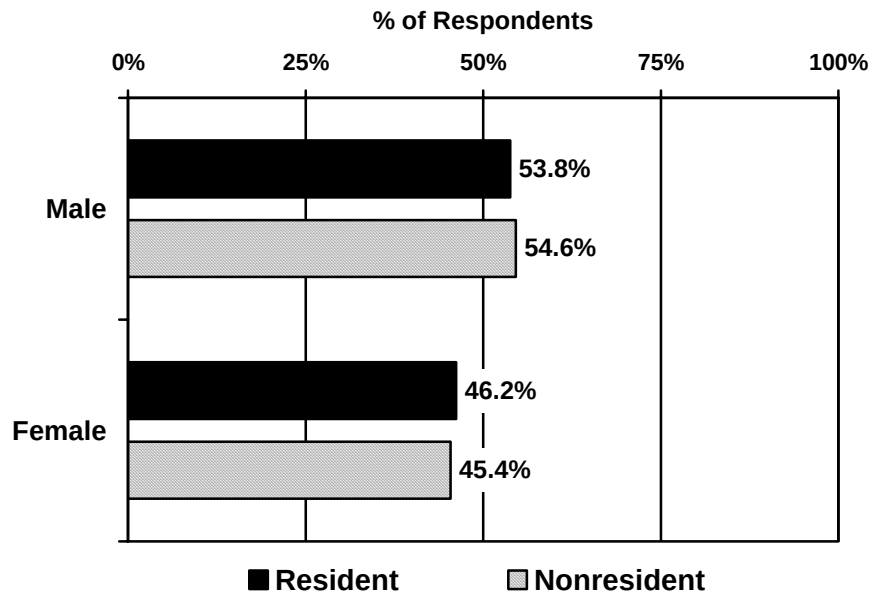
- The audio guided tour has the largest difference of opinion among the six management options.
- Exploring the inside of Mill Town buildings has the lowest potential for conflict and also ranks the highest on the scale of adding to visitor experiences.
- Further structure stabilization, exploring the outside of more Mill Town buildings, the addition of signs and exhibits, and a film explaining the historical significance all rank fairly high on the "add to visitor experience" end of the scale and have relatively low potentials for conflict.

Results Stratified by Residency

This section examines Alaska resident versus nonresident visitors to determine if and how they differ from each other. Differences in frequencies between the two groups can be detected through the use of a Chi-square test. Unlike analysis of variance (ANOVA) techniques, the Chi-square test for differences does not have an associated post hoc test to determine where the two groups differ. Therefore, much of the analysis in this section of the report states when differences are detected but not necessarily where the groups differ. The Chi-square value, degrees of freedom, and significance are reported with each figure and table in this section. When applicable, t-tests and ANOVA techniques are utilized. All critical values and significance are reported.

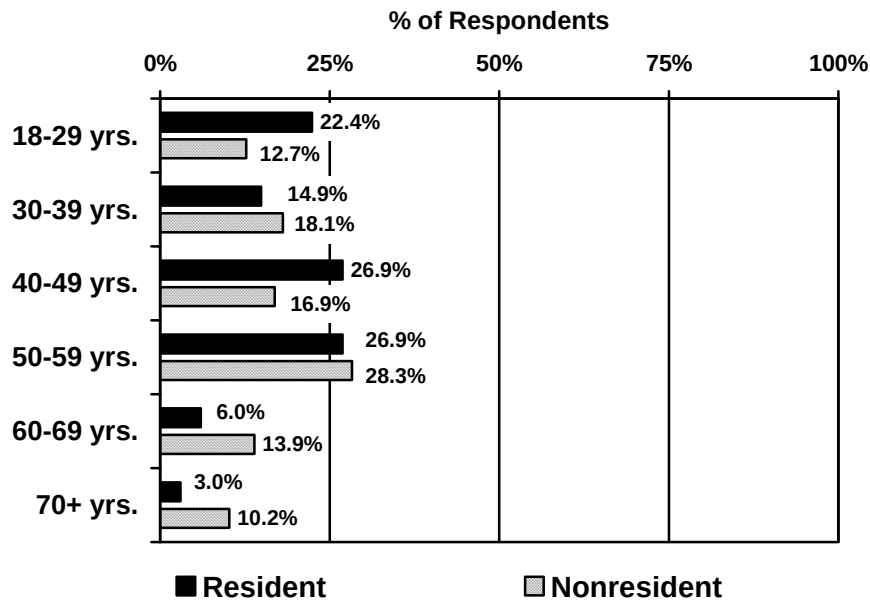
Demographics Stratified by Residency

Figure 7. Gender of Respondents Stratified by Residency



- Resident n = 65, Nonresident n = 163
- $\chi^2 = 0.011$, df = 1, sig. = 0.918

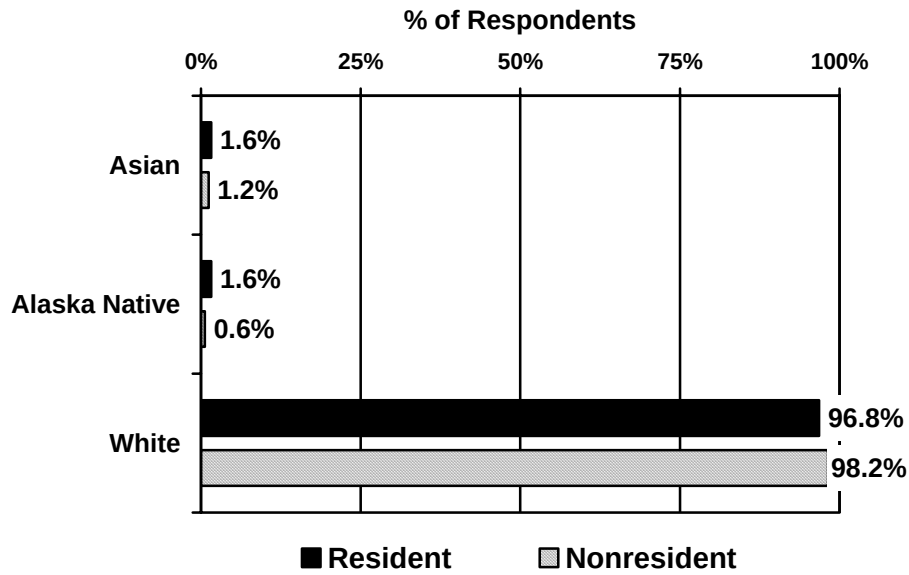
Figure 8. Age Category of Respondents, Stratified by Residency



- Resident n = 67, Nonresident n = 166
- $\chi^2 = 11.301$, df = 5, sig. = 0.046

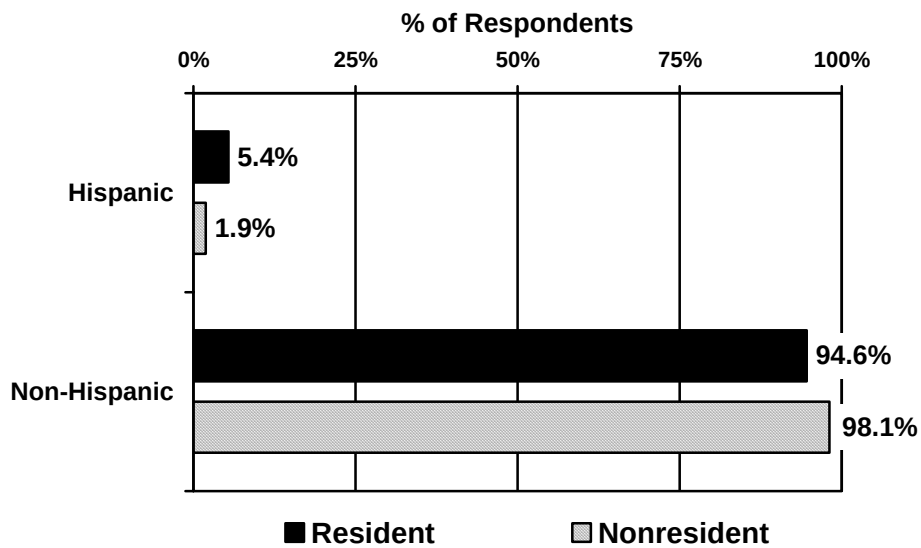
- The Chi-square test on age categories shows evidence of significant differences.
- The mean age for resident visitors was 42.72 and for nonresident visitors 47.38. Using a t-test examine differences in average age shows Alaska resident respondents are on average significantly younger than nonresident respondents ($t = -2.262$, $df = 225$, $p \text{ value} = 0.025$).

Figure 9. Race of Respondents, Stratified by Residency



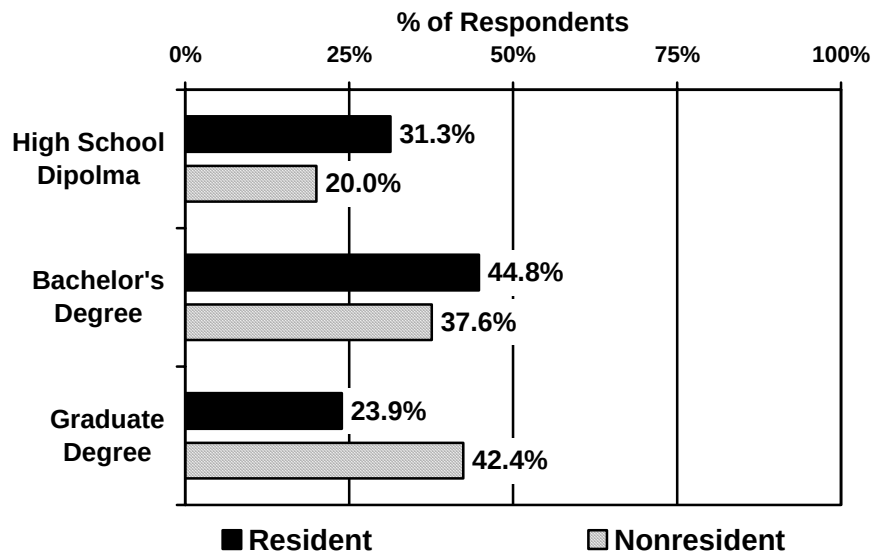
- Resident n = 63, Nonresident n = 164
- $\chi^2 = 0.549$, df = 2, sig. = 0.760

Figure 10. Ethnicity of Respondents, Stratified by Residency



- Resident n = 56, Nonresident n = 160
- $\chi^2 = 1.862$, df = 1, sig. = 0.172

Figure 11. Education of Respondents, Stratified by Residency

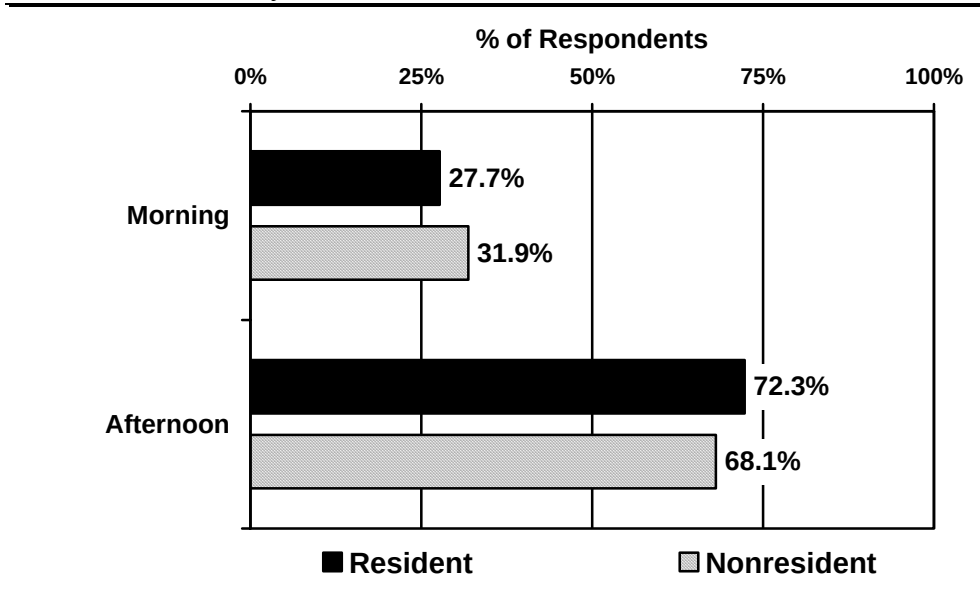


- Resident n = 67, Nonresident n = 165
- $\chi^2 = 7.677$, df = 2, sig. = 0.022

- There is evidence that education levels differ between Alaska residents and nonresidents.

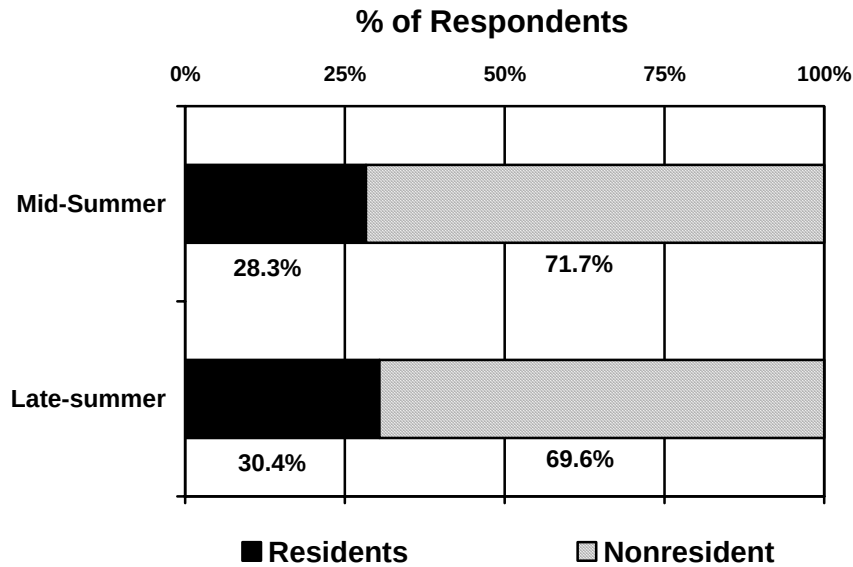
Trip Characteristics Stratified by Residency

Figure 12. Time Block of Visitation of Respondents, Stratified by Residency



- Resident n = 65, Nonresident n = 166
- $\chi^2 = 0.394$, df = 1, sig. = 0.530
- Morning time block is defined as 9am through 1pm and represents 28 sampled time blocks
- Afternoon time block is defined as 1pm through 6pm and represents 25 sampled time blocks

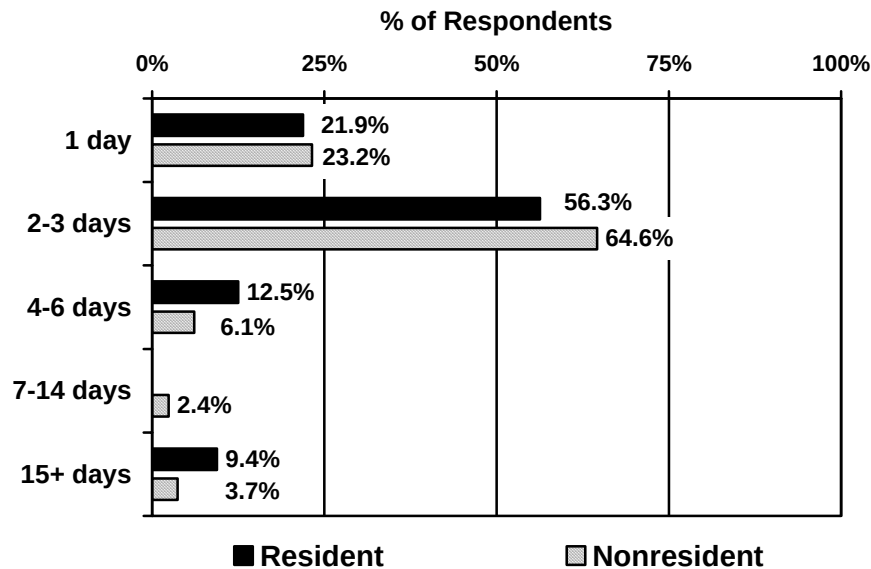
Figure 13. Season of Visitation of Respondents, Stratified by Residency



- Resident n = 67, Nonresident n = 166
- $\chi^2 = 0.079$, df = 1, sig. = 0.779
- Mid-summer season is defined as June 11, 2004 through August 24, 2004 and represents 44 sampled time blocks
- Late-summer season is defined as August 25, 2004 through Labor Day (Sept 6, 2004) and represents 9 sampled time blocks

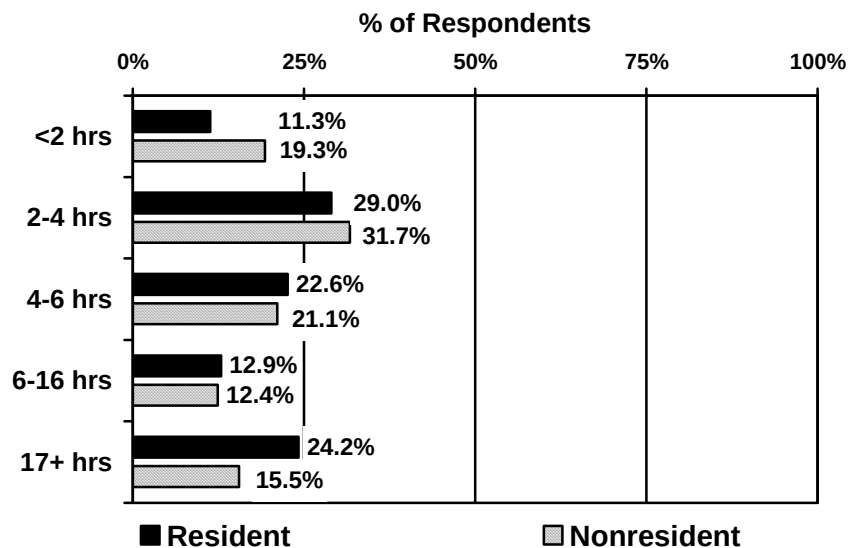
- The proportion of residents to nonresidents is not significantly different between mid-summer and late-summer respondents. Note that no early-season data were collected (Memorial Day through June 10). Further research may or may not indicate differences in visitor residency during the spring season.

Figure 14. Length of Stay in the Kennicott Valley of Respondents, Stratified by Residency



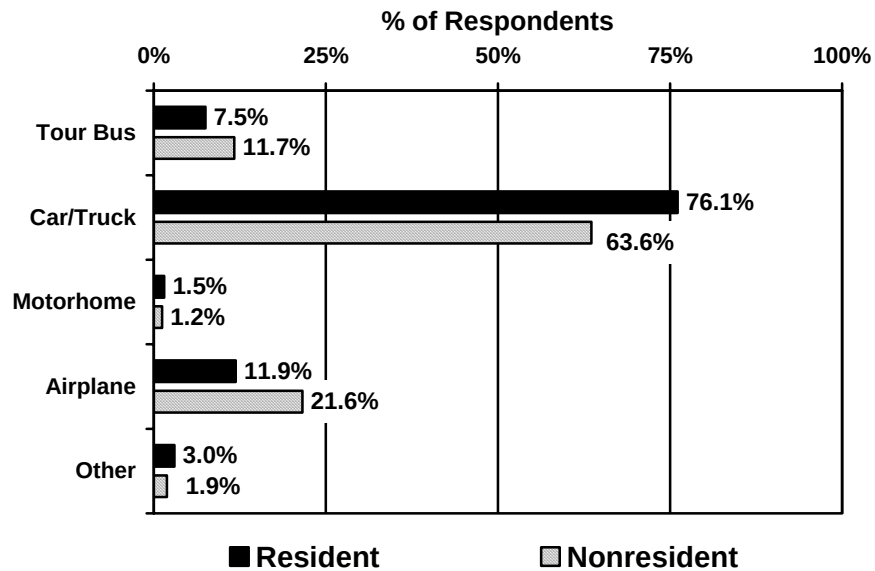
- Resident n = 64, Nonresident n = 164
- $\chi^2 = 7.363$, df = 4, sig. = 0.118

Figure 15. Length of Stay in the Kennecott Mill Town of Respondents, Stratified by Residency



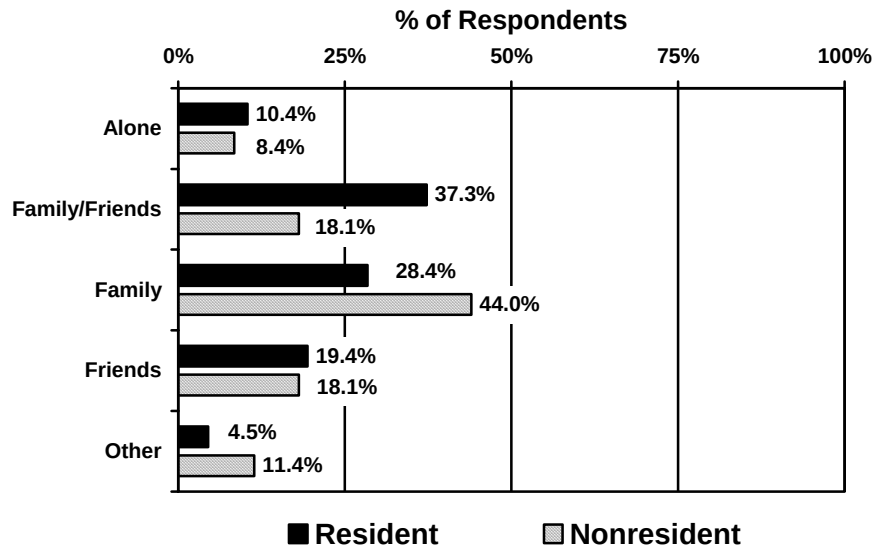
- Resident n = 62, Nonresident n = 161
- $\chi^2 = 3.694$, df = 4, sig. = 0.449

Figure 16. Method of Travel to the Kennicott Valley of Respondents,
Stratified by Residency



- Resident n = 67, Nonresident n = 162
- $\chi^2 = 4.592$, df = 4, sig. = 0.332

Figure 17. Travel Companions of Respondents, Stratified by Residency



- Resident n = 67, Nonresident n = 166
- $\chi^2 = 13.151$, df = 4, sig. = 0.011

- Significant differences exist in the travel companions of resident and nonresident respondents.

As mentioned in the introduction of the report within the nonresponse analysis, the variables “group size” and “number of children in group” exhibited nonnormal distributions; therefore the nonparametric Mann-Whitney test was used. The Mann-Whitney test is again used to check for differences in group size and number of children between residents and nonresidents (Table 23). For a discussion on how the Mann-Whitney test works, refer to page 7 of the report.

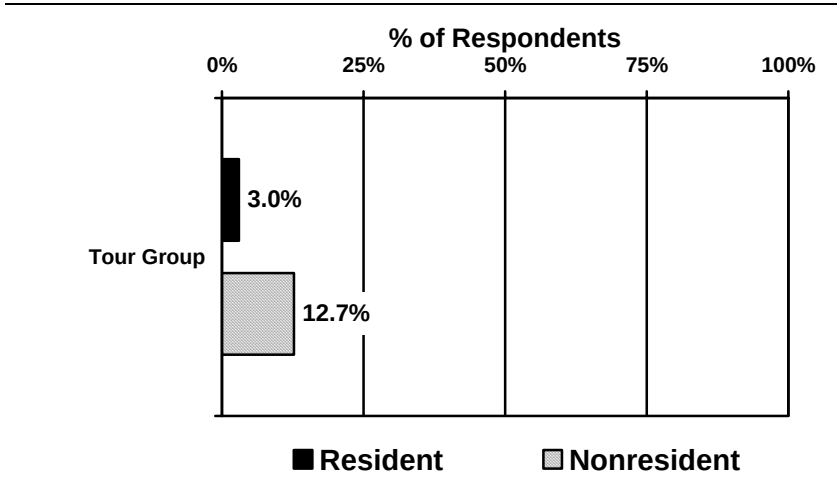
Table 23. Mann-Whitney Test of Respondent Group Size and Number of Children Present, Stratified by Residency

	Alaska resident		Nonresident		Mann-Whitney U	sig.
	Mean	n	Mean	n		
Number of people in group*	3.14	63	2.97	162	4728.00	0.367
Number of children in group*	0.39	62	0.14	162	4321.50	0.009

* Variables were observed by survey administrator and numbers may be misrepresented if party members or children were not present at the time the survey was administered

- Group size did not differ between residents and nonresidents.
- Alaska residents were, on average, likely to have more children present than nonresident travelers.

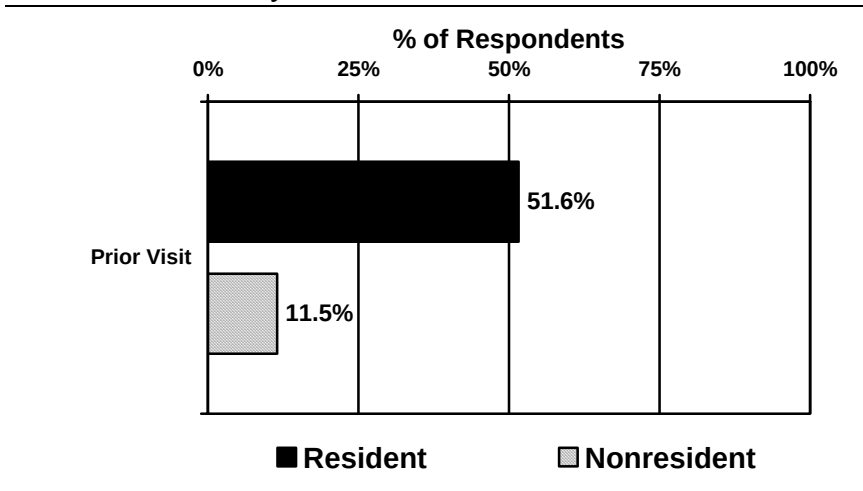
Figure 18. Respondents Traveling by Tour Group, Stratified by Residency



- Resident n = 66, Nonresident n = 165
- $\chi^2 = 4.944$, df = 1, sig. = 0.026

- Nonresident respondents were significantly more likely to travel as part of a tour group than are residents.

Figure 19. Respondents with Prior Visitation, Stratified by Residency



- Resident n = 64, Nonresident n = 156
- $\chi^2 = 40.824$, df = 1, sig. < 0.001

- Respondents that were Alaska residents were, on average, more likely to have visited the Kennicott Valley on a previous occasion.

Activities Stratified by Residency

Table 24. Activities by Participation and by Primary Activity, Stratified by Resident

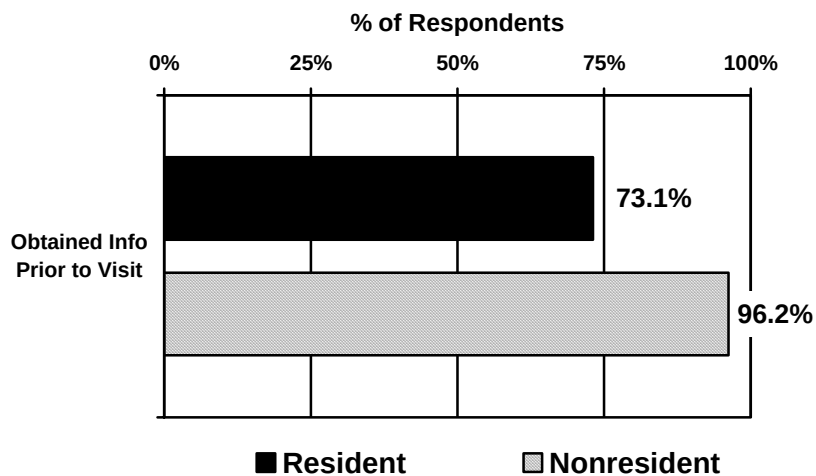
	Percent Participation					Primary Activity	
	Resident	Nonresiden t	χ^2	df	sig.	Resident	Nonresid ent
Hiking	74.6%	69.7%	0.564	1	0.453	28.8%	35.8%
Sight seeing	74.6%	72.1%	0.151	1	0.687	9.6%	14.6%
Explore Mill Town	74.6%	77.6%	0.232	1	0.630	34.6%	23.4%
Nature Walks	61.2%	55.2%	0.709	1	0.400	3.8%	5.1%
Wildlife Viewing	52.2%	47.3%	0.470	1	0.493	-	0.7%
Backpacking	31.3%	18.2%	4.813	1	0.028	3.8%	8.8%
Interp. Programs	26.9%	26.7%	0.001	1	0.975	-	2.9%
Camping	26.9%	32.7%	0.765	1	0.382	3.8%	3.6%
Biking	19.4%	5.5%	10.801	1	0.001	1.9%	-
Other	17.9%	12.7%	1.049	1	0.306	13.5%	3.6%
Rafting	7.5%	2.4%	3.244	1	0.072	-	1.5%
Mountaineering	6.0%	6.7%	0.038	1	0.845	-	-
Fishing	6.0%	5.5%	0.024	1	0.877	-	-
Climbing	4.5%	6.1%	0.226	1	0.635	-	-

- Percent Participation n = 232
- Primary Activity n = 189
- Primary Activity $\chi^2 = 15.412$, df = 10, sig. = 0.118
- Activities in bold are significant at $\alpha = 0.05$

- The top five activities for both strata showed similar participation levels.
- There is significant evidence that Alaska residents are on average more likely to go backpacking and biking in the Kennicott Valley than nonresidents.
- Hiking is the most frequent primary activity among nonresidents; exploring the Mill Town is the most common among Alaska residents.
- There is no difference in primary activities between Alaska residents and nonresidents.

Information Sources Stratified by Residency

Figure 20. Respondents Who Obtained Information Prior to Visit, Stratified by Residency



- Resident n = 67, Nonresident n = 156
- $\chi^2 = 25.860$, df = 1, sig. < 0.001

- There is very strong evidence of differences between residents and nonresidents on obtaining information prior to visitation.

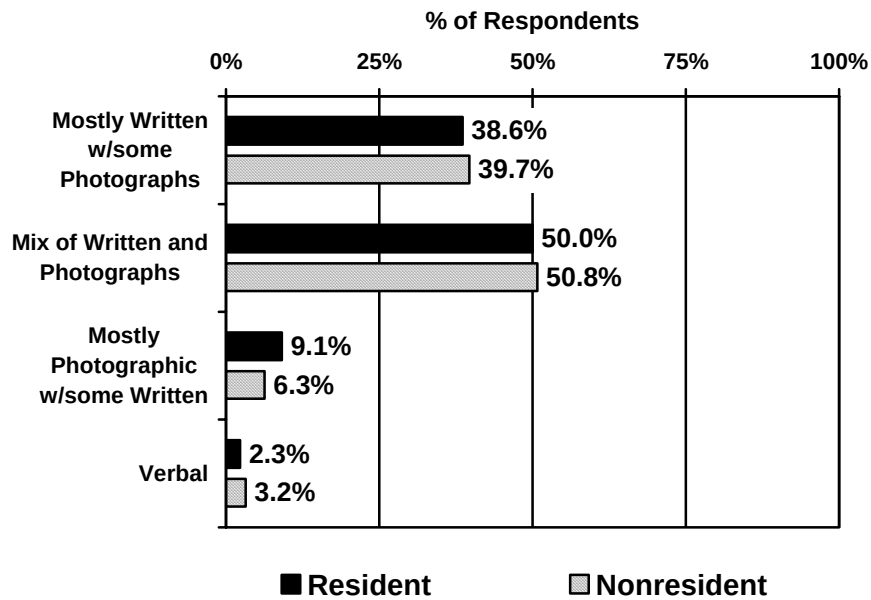
Table 25. Town or Source of Information within Alaska, Stratified by Residency

	Resident	%	Nonresident	%	Total
Anchorage	16	32.7%	10	13.5%	26
None Specified	6	12.2%	13	17.6%	19
WRST VC	3	6.1%	14	18.9%	17
Friends/Verbal	7	14.3%	5	6.8%	12
Other AK towns	6	12.2%	5	6.8%	11
Copper Center	3	6.1%	6	8.1%	9
Fairbanks	3	6.1%	3	4.1%	6
Glennallen	0	0.0%	6	8.1%	6
Print/Video	2	4.1%	3	4.1%	5
Chitina	1	2.0%	4	5.4%	5
Other	1	2.0%	3	4.1%	4
Valdez	0	0.0%	2	2.7%	2
Tok	1	2.0%	0	0.0%	1
Total	49		74		123

• $\chi^2 = 20.261$, $df = 12$, $sig. = 0.0623$

- The Chi-square test shows very weak evidence of differences between resident and nonresident visitors with regards to their sources of information.

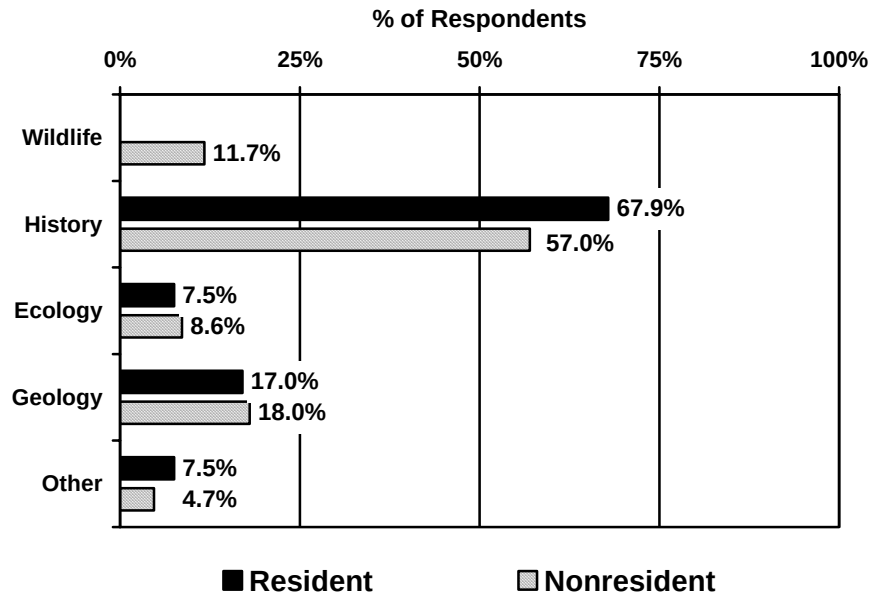
Figure 21. Format of Information Visitors Received within Alaska,
Stratified by Residency



- Resident n = 44, Nonresident n = 63
- $\chi^2 = 0.346$, df = 3, sig. = 0.951

- Verbal information may be under-represented because it was not included as a specific response category on the survey.

Figure 22. Primary Subject of Interest, Stratified by Residency



- Resident n = 53, Nonresident n = 128
- $\chi^2 = 7.574$, df = 4, sig. = 0.108

- Alaska resident and nonresident visitors do not significantly differ on their primary subject of interest.
- Only nonresidents listed wildlife as a primary subject of interest within the Kennicott Valley.

Importance and Quality of Interpretation Stratified by Residency

Importance of Interpretive Services

To test for differences in importance and quality of interpretive services between residents and nonresidents an independent-samples t-test was employed. The results for importance of interpretive services (Table 26) suggest that, on average, residents find the depot visitor center exhibits and bookstore materials significantly more important ($\alpha = 0.05$) than nonresidents.

Table 26. T-Test Results for Importance of Services, Stratified by Residency

	<u>Alaska resident</u>		<u>Nonresident</u>				
	Mean	n	Mean	n	t - value	df	sig.
<u>Currently Available</u>							
Park Brochure	3.80	66	3.83	156	0.202	220	0.840
Depot VC Exhibits*	3.86	66	3.55	154	-2.314	171.41	0.022
Ranger Interpretation	3.95	65	3.62	141	-1.838	204	0.067
Private Interpretation	2.92	65	2.89	141	-0.144	204	0.885
Park Orientation Film	3.05	59	3.02	129	-0.180	186	0.857
Bookstore Material	3.32	62	2.96	142	-2.010	202	0.046
<u>Hypothetical</u>							
Add Outdoor Exhibits	3.80	65	3.56	155	-0.145	218	0.150
Add Audio Tour	2.76	66	2.84	151	0.418	215	0.677

• Mean score based on Likert-scale responses ranging from “Not at all important – 1” to “Extremely important – 5”

* Unequal variances assumed

- On average, Alaska resident respondents place more importance depot visitor center exhibits and bookstore material than nonresident respondents.
- Both groups, on average, rate privately led interpretive services as the least important information service currently available.
- Neither group on average places much importance on adding an audio guided tour of the Mill Town.

Quality of Interpretive Services

Resident and nonresident visitors had, for the most part, similar opinions on the quality of information services in the Kennicott Valley. Statistically, the only significant difference ($\alpha = 0.05$) in perception of quality between the two groups was for the park orientation film (Table 27). The nonresident respondents on average felt the orientation film was of higher quality than the resident visitors.

Table 27. T-Test Results for Quality of Services, Stratified by Residency

	Alaska resident		Nonresident				
	Mean	n	Mean	n	t - value	df	sig.
Currently Available							
Park Brochure	3.81	54	3.95	130	-0.824	182	0.411
Depot VC Exhibits	3.67	52	3.76	128	-0.503	178	0.616
Ranger Interpretation	4.22	23	4.05	58	0.620	79	0.537
Private Interpretation*	3.76	25	4.26	62	-1.583	32.76	0.123
Park Orientation Film	3.39	18	4.07	42	-2.253	58	0.028
Bookstore Material	3.50	34	3.76	70	-1.259	102	0.211

• Mean score based on Likert-scale responses ranging from “Low quality – 1” to “High quality – 5”

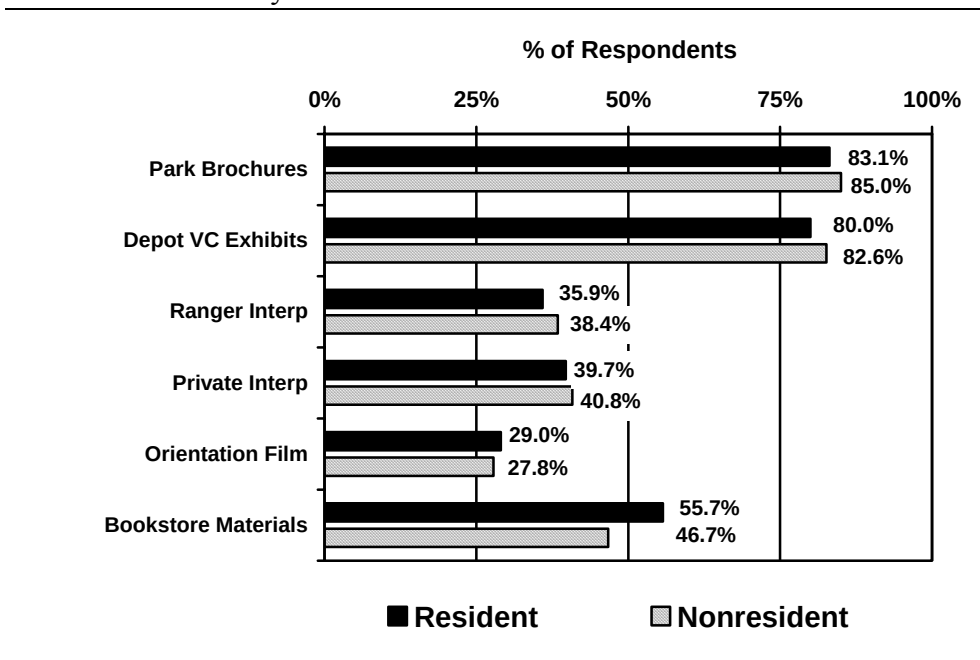
* Unequal variances assumed

- Alaska resident respondents rated the quality of the park orientation film significantly lower than the nonresident respondents.

Use of Interpretive Services Stratified by Residency

Information services costing the least and having the easiest access receive the highest use from the visitors as seen in Figure 23. The highest use rates for information services were in park brochures and the depot visitor center exhibits. Neither of these services required the user to pay a fee or to be somewhere at a certain time. The interpretation requiring monetary investment by the user or attendance at a specific time had much lower participation levels. On average there are no differences ($\alpha = 0.05$) in the proportions of residents versus nonresidents that participate in each of the six information services.

Figure 23. Respondents' Use of Interpretive Services, Stratified by Residency



- Resident n = 61 to 65, Nonresident n = 150 to 155
- Park Brochure $\chi^2 = 0.124$, Depot VC Exhibits $\chi^2 = 0.205$, Ranger Interp $\chi^2 = 0.117$, Private Interp $\chi^2 = 0.023$, Park Orientation Film $\chi^2 = 0.032$, Bookstore Material $\chi^2 = 1.428$
- All tests have df = 1

Preferences for Management Options Stratified by Residency

Overall, the residents and nonresidents differed very little on their preferences for the six management actions. The audio guided tour is the one management option where respondents differed. Nonresident respondents felt the audio guided tours would slightly add to their experience. The mean score for the group was 3.19 which lies just above the neutral score of 3. Alaska resident respondents on the other hand rated the audio guided tours with a mean score of 2.77, meaning it would slightly detract from their experience. The difference between the two groups is significant at the $\alpha = 0.05$ level ($t = -2.141$, $df = 223$, $p = 0.033$). Both groups had relatively high PCI values for the audio guided tours (resident PCI = 0.42, nonresident PCI = 0.47) denoting a fairly strong difference of opinion within the groups.

The survey did not directly attempt to gauge why visitors prefer certain management actions over others, therefore one can only speculate or indirectly assess these preferences for management actions through visitors' motivations, information preferences, and activities. The analysis and discussion of clusters is an indirect method for linking the visitor motivations, demographics, activities, information sources, and trip characteristics to their preferences for management actions (see page 50). It is possible that nonresidents have greater exposure to audio guided tours and feel the information provided by such tours outweighs any negative connotations associated with the audio headsets. On the other hand Alaskans may feel the audio guided tours are a sign of commercialization and urbanization that they would not like to see associated with a remote wilderness park such as Wrangell – St. Elias National Park.

Results Stratified by Season of Visitation

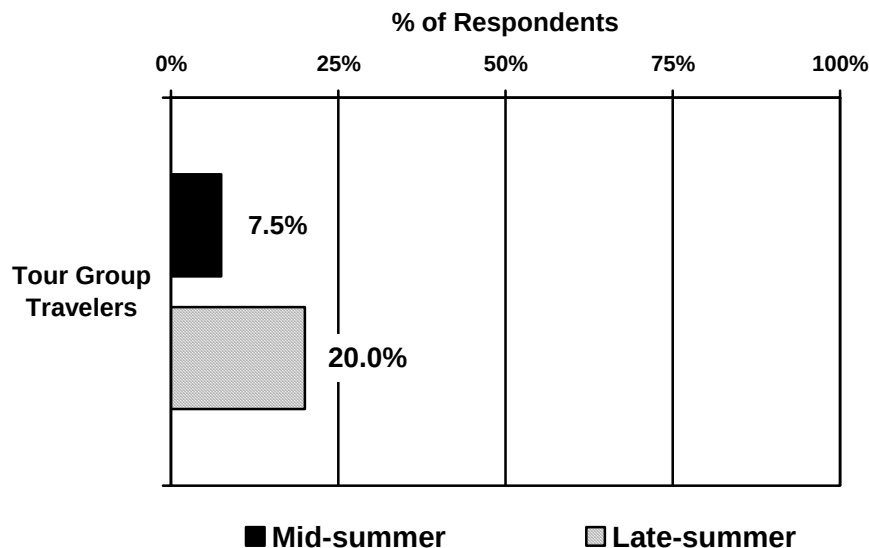
This section of the report analyzes respondents by mid-summer versus late-summer visitation. Mid-summer visitors are defined as those who visited the Mill Town between June 11 and August 24. The spring season (before Memorial Day) and the fall (after Labor Day) have been anecdotally noted to have lower visitation and are believed to consist of more Alaska residents than non residents. Because the survey did not extend beyond the NPS season (Memorial Day through Labor Day), the shoulder season of late-summer (August 25 through Labor Day) was used to investigate visitor differences that may be begin to appear during the transition to fall. The study was originally designed to also include the early-summer shoulder season, but as previously stated survey administration did not begin until June 11 pending study approval.

The vast majority of results stratified by season of visit show no differences between the two groups. In order to avoid repetition, only data where differences were detected are included. Season of visit was tested against the same variables as when stratified by residency.

Trip Characteristics Stratified by Season of Visitation

Late-summer respondents are significantly more likely to travel with a tour group, although they represent less than one quarter of the late-summer visitors (Figure 24).

Figure 24. Tour Group, Stratified by Season of Visitation



- Mid-summer n = 186, Late-summer n = 45
- $\chi^2 = 6.288$, df = 1, sig. = 0.012
- Mid-summer season is defined as June 11, 2004 through August 24, 2004 and represents 44 sampled time blocks
- Late-summer season is defined as August 25, 2004 through Labor Day (Sept 6, 2004) and represents 9 sampled time blocks

Activities Stratified by Season of Visitation

Participation levels in a couple of activities differed significantly by the respondents' season of visit. The primary activities of mid-summer versus late summer respondents showed significant differences (Table 28).

Table 28. Activities by Participation and by Primary Activity, Stratified by Season of Visitation

	Percent Participation					Primary Activity	
	Mid-summer	Late-summer	χ^2	df	sig.	Mid-summer	Late-summer
Sight seeing	76.3%	58.7%	5.807	1	0.016	14.3%	9.5%
Explore Mill Town	75.8%	80.4%	0.442	1	0.506	28.6%	19.0%
Hiking	71.0%	71.7%	0.011	1	0.918	32.7%	38.1%
Nature Walks	57.5%	54.3%	0.152	1	0.697	2.7%	11.9%
Wildlife Viewing	50.0%	43.5%	0.628	1	0.428	-	2.4%
Interp Programs	28.5%	19.6%	1.502	1	0.220	1.4%	4.8%
Backpacking	24.2%	13.0%	2.673	1	0.102	9.5%	-
Other	13.4%	17.4%	0.472	1	0.492	6.8%	4.8%
Biking	9.7%	8.7%	0.041	1	0.839	-	2.4%
Camping	30.1%	34.8%	0.377	1	0.539	2.7%	7.1%
Mountaineering	8.1%	0.0%	3.966	1	0.046	-	-
Climbing	6.5%	2.2%	1.276	1	0.259	-	-
Rafting	4.8%	0.0%	2.316	1	0.128	1.4%	-
Fishing	4.8%	8.7%	1.037	1	0.308	-	-

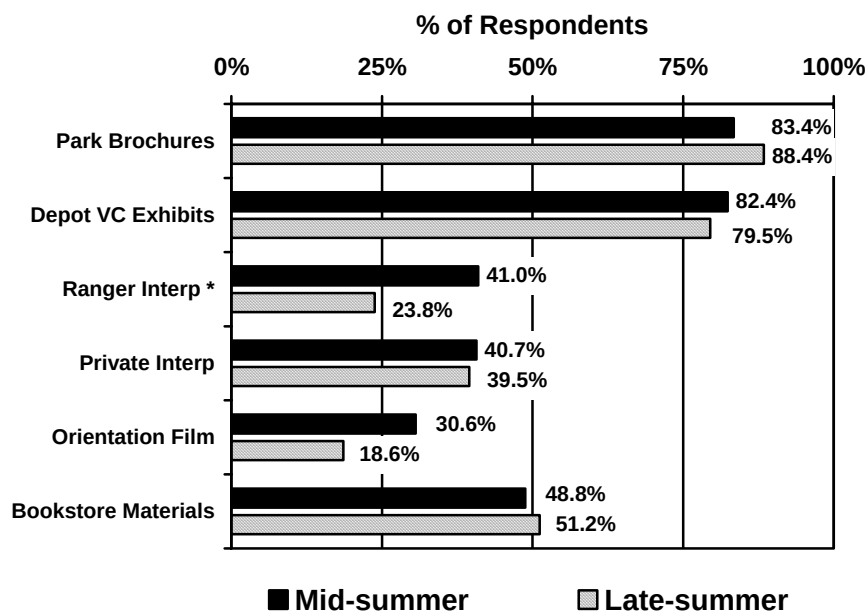
- Percent Participation n = 232
- Primary Activity n = 189
- Primary Activity $\chi^2 = 23.047$, df = 10, sig. = 0.011
- Percent Participation in activities in bold are significant at $\alpha = 0.05$
- Mid-summer season is defined as June 11, 2004 through August 24, 2004 and represents 44 sampled time blocks
- Late-summer season is defined as August 25, 2004 through Labor Day (Sept 6, 2004) and represents 9 sampled time blocks

- The seasonal activity of mountaineering shows significant evidence of differences between mid-summer and late-summer visitors.
- There is weak evidence that activities such as backpacking and rafting have higher participation levels by mid-summer respondents.
- Evidence of significant differences exists in primary activities between mid-summer and late-summer respondents.

Use of Interpretation Stratified by Season of Visitation

Respondents, when stratified by season of visit showed differences in use of interpretive services. Most notable was the significantly lower usage of ranger led interpretive walks/talks by the late-summer respondents (Figure 25). There are two explanations: 1) the group of late-summer respondents who did not use ranger led interpretive walks/talks placed a lower level of importance on the interpretive walks/talks than mid-summer user respondents, thereby choose not to participate in the programs or 2) the late-summer nonuser respondents would like to participate in ranger led interpretive walks/talks but they are unavailable to them (typically, park rangers do not provide scheduled interpretive services beyond mid-August due to a dramatic decline in visitation that occurs that time of year).

Figure 25. Respondents' Use of Interpretive Services, Stratified by Season of Visitation



- Mid-summer n = 168 to 176, Late-summer n = 42 to 44
- Park Brochure $\chi^2 = 0.641$, Depot VC Exhibits $\chi^2 = 0.191$, Ranger Interp $\chi^2 = 4.273$, Private Interp $\chi^2 = 0.019$, Park Orientation Film $\chi^2 = 2.436$, Bookstore Material $\chi^2 = 0.076$
- All above tests have df = 1
- Mid-summer season is defined as June 11, 2004 through August 24, 2004 and represents 44 sampled time blocks
- Late-summer season is defined as August 25, 2004 through Labor Day (Sept 6, 2004) and represents 9 sampled time blocks
- * Ranger Interp significantly different at $\alpha = 0.05$

The following four groups were examined for differences in importance of interpretive services: mid-summer users of ranger interpretation, mid-summer nonusers of ranger interpretation, late-summer users of ranger interpretation, and late-summer nonusers of ranger interpretation. An ANOVA was used to compare the mean importance levels between the groups. Differences were found among the four groups (p-value < 0.001).

Because the ANOVA technique signifies there are differences in the four groups but does not specify which groups differ, Tukey's HSD post hoc test was used to determine which groups differed. Table 29 illustrates where differences between the groups occur. Those that do not share a common superscript letter are significantly different at the $\alpha = 0.05$ level. The late-summer nonusers of ranger interpretation have a statistically lower perceived importance than the mid-summer users of ranger interpretation which supports the first hypothesis. Secondly, mid-summer and late-summer nonuser respondents held statistically similar importance scores and both rated the importance statistically lower than the mid-summer season visitors who used the ranger led interpretive walks/talks. This second conclusion appears to invalidate the second hypothesis, that visitors had lower participation due only to the fact that the ranger-led walks/talks were not available in the late summer.

Table 29. ANOVA Results of Visitors Use of Ranger Led Interpretive Services and Perceived Importance of Service

	Mean importance score	n
Late-summer nonusers of ranger interpretation	3.39 ^a	31
Mid-summer nonusers of ranger interpretation	3.45 ^a	89
Late-summer users of ranger interpretation	3.90 ^{a,b}	10
Mid-summer users of ranger interpretation	4.21 ^b	70

- Groups sharing a common superscript letter are **not** significantly different at $\alpha = 0.05$
- Scores based on 5 point Likert-scale with 1= not at all important, 3 = somewhat important, 5 = extremely important
- Mid-summer season is defined as June 11, 2004 through August 24, 2004 and represents 44 sampled time blocks
- Late-summer season is defined as August 25, 2004 through Labor Day (Sept 6, 2004) and represents 9 sampled time blocks

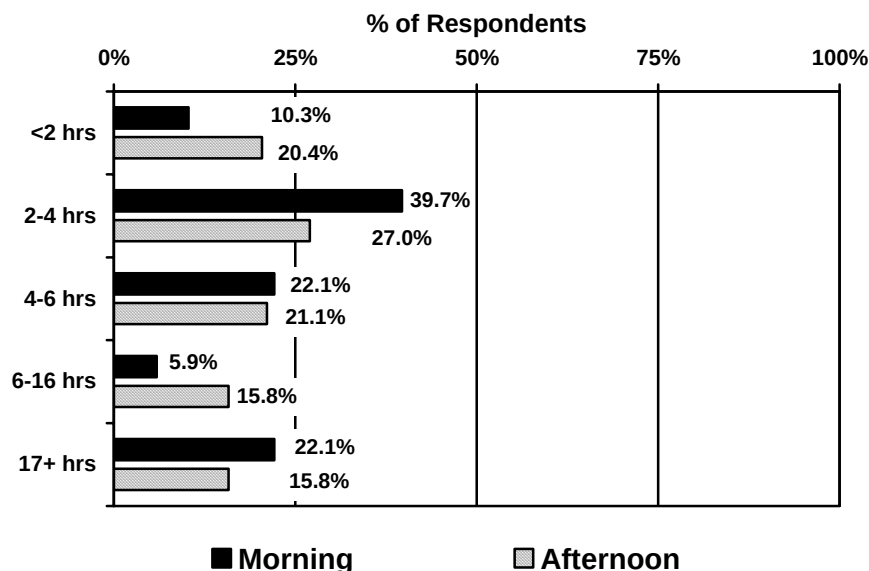
Results Stratified by Time Block of Visitation

The surveys were conducted as visitors left the Mill Town, therefore the time block during which the survey was completed represents the time frame the visitor was in (or hiking beyond) the Mill Town. Originally, the study was designed to investigate possible differences between daytime and evening visitors but as noted earlier the evening time blocks were removed from the sampling plan because they were difficult to sample given the available resources. The decision was made to stratify by morning and afternoon visitors because the study differentiated between these two time blocks. Significant differences were not expected. The morning time block began at 9am and ended at 1pm. The afternoon time block continued from 1pm through 6 pm. As park managers expected from the outset, these visitors differed very little and only those areas where they were significantly different are reported in this section.

Trip Characteristics Stratified by Time Block of Visitation

The one trip characteristic that differed by morning and afternoon respondents was their length of stay within the Mill Town (Figure 26). This result is not surprising given that visitors who departed the Mill Town before 1pm had less time in the day to spend in the Mill Town. The peak at “17+ hours” could be explained by visitors who either stayed in the Kennicott Glacier Lodge or visitors returning from an overnight camping trip.

Figure 26. Visitor Length of Stay in the Mill Town, Stratified by Time Block of Visitation

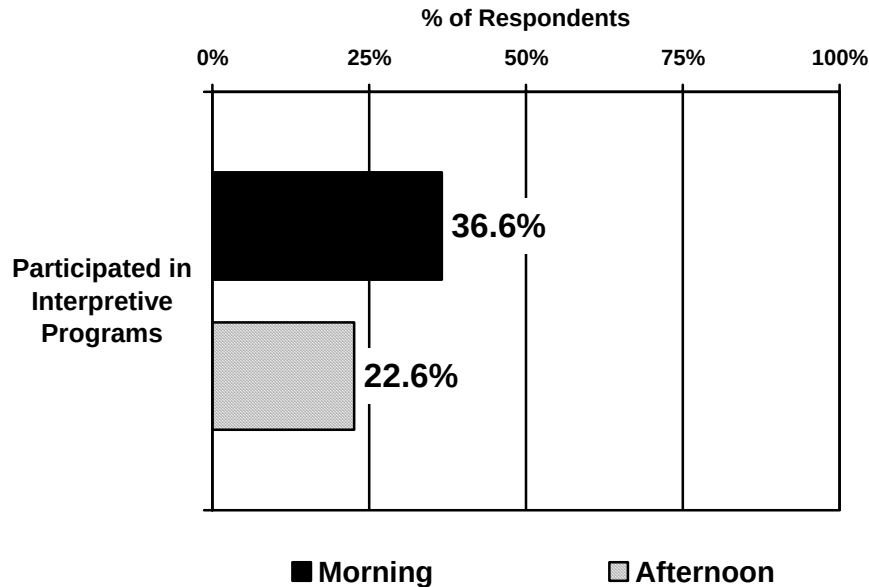


- Morning n = 68, Afternoon n = 152
- $\chi^2 = 9.926$, df = 4, sig. = 0.042
- Morning time block is defined as 9am through 1pm and represents 28 sampled time blocks
- Afternoon time block is defined as 1pm through 6pm and represents 25 sampled time blocks

Activities Stratified by Time Block of Visitation

Participation levels in activities by morning and afternoon respondents were for the most part very similar. One activity where a difference between afternoon and morning respondents was detected was in participation in interpretive programs (Figure 27).

Figure 27. Participation in Interpretive Programs, Stratified by Time Block of Visitation

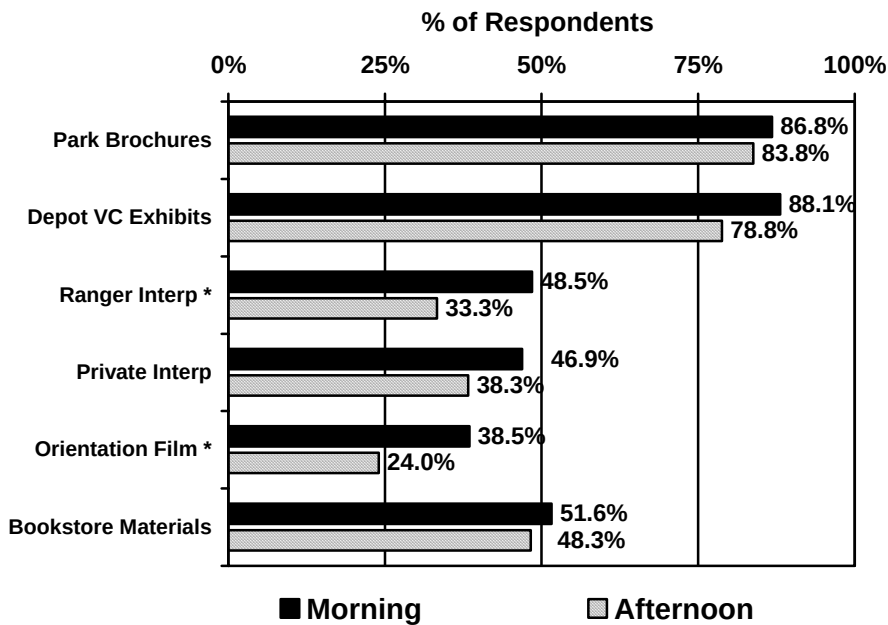


- Morning n = 71, Afternoon n = 159
- $\chi^2 = 4.871$, df = 1, sig. = 0.027
- Morning time block is defined as 9am through 1pm and represents 28 sampled time blocks
- Afternoon time block is defined as 1pm through 6pm and represents 25 sampled time blocks

Use of Interpretation Stratified by Time Block of Visitation

Differences ($\alpha = 0.05$) in use levels of interpretive services were detected between the strata, specifically in the ranger interpretation and the orientation film.

Figure 28. Respondents' Use of Interpretive Services, Stratified by Time Block of Visitation



- Morning n = 64 to 68, Afternoon n = 145 to 151
- Park Brochure $\chi^2 = 0.320$, Depot VC Exhibits $\chi^2 = 2.651$, Ranger Interp $\chi^2 = 4.437$, Private Interp $\chi^2 = 1.377$, Park Orientation Film $\chi^2 = 4.640$, Bookstore Material $\chi^2 = 0.192$
- All above tests have df = 1
- Morning time block is defined as 9am through 1pm and represents 28 sampled time blocks
- Afternoon time block is defined as 1pm through 6pm and represents 25 sampled time blocks
- * Ranger Interp & Orientation Film significantly different at $\alpha = 0.05$

Cluster Analysis

Cluster analysis is a statistical method for grouping data based on similar attributes. Studies in recreation often apply cluster analysis to define different subgroups of recreationists. Examples of grouping variables would be motivations, activities, preferences, attitudes. Once the groups have been defined, differences in management preferences by cluster can be examined.

It was thought that visitors would have varying reasons for visiting WRST and these reasons could be “attributes” for grouping visitors. Eight motivational reasons (referenced in this report as domains) were hypothesized to be relevant to the WRST study: exercise, learning, creativity, family, companionship, history, solitude, and nature. The domains were loosely developed within the framework of Driver’s Recreation Experience Preference (REP) scales. Adaptations were made so the domains would have more relevance to WRST. For example, a subset of questions representing solitude was chosen from the “Escape from Physical Pressures” REP domain for inclusion in the WRST survey and then labeled as solitude in this report. Two or three statements intended to represent each domain were included on the survey and used as the measure of the domain. The results of the similar questions form a “scale.” The statements on the survey that make up a scale are referred to in this report as “scale items” to distinguish them from other questions on the survey (see Appendix A, page 75 for scale items). Most of the scale items were chosen from Driver’s list of REP scales for their high construct validity demonstrated in a meta-analysis of the scales conducted by Manfredo et al. (1996). The remaining scale items were developed for this study because of the unique aspect of WRST.

The advantage to using several scale items is that the consistency in respondents’ answers, or reliability, can be assessed. If several questions intended to measure the same motivational reason for visiting WRST are answered consistently, the “scale” is said to be reliable. If the questions are not reliable, they are not a good measure of the motivations for visiting. Cronbach’s alpha, a measure of correlation among the scale items, was used to test the reliability. Measurement theory states that if the scale items within a domain are not highly correlated, then the scale items may not be measuring the same thing, in this case motivation. Current literature indicates an alpha of 0.6 or higher is needed for sufficient reliability (Manfredo et al. 1996). The creativity domain resulted in a very low correlation and was discarded for the purposes of the cluster analysis (Table 30). The family and companionship domains exhibited higher reliability when analyzed together than when separate. Since the two domains are closely related they were combined into one domain for the cluster analysis. The result was a total of six domains: exercise, learning, history, family/companionship, solitude, and nature. Each domain score was an average of its scale item scores.

Two different cluster analysis techniques were used to create the five user groups. The first method, hierarchical cluster analysis, starts with all cases separate and proceeds to group the most similar cases together. The process is repeated until all cases have been combined into one group. Viewing the results of the hierarchical cluster analysis in a

branching diagram, or dendrogram, allows visual determination of case groupings and simple identification of outliers. Using the six reliable motivational domains with the hierarchical cluster analysis resulted in a data set containing 213 cases (respondents who did not complete motivational domains were excluded). Seven cases were identified as outliers. Six of the seven cases were again evident as outliers in a box plot of the 213 cases based on their combined domain mean scores. The outliers were excluded from the K-means cluster analysis data set so as not to influence the grouping results¹. In summary, all seven outliers were either neutral or in favor of seeing further structure stabilization within the Mill Town. One respondent was neutral to more interpretive services (film, audio tour, and signage) while the remaining six were equally split on their opinions for the interpretive services. Appendix C contains a more detailed analysis of the 7 outlier cases.

Table 30. Reliability Scores for Motivational Scales

Domain	Reliability Index
Exercise	0.899
Learning	0.705
History	0.732
Creativity	0.521
Family	0.688
Companionship	0.556
Family/Companion (Combined)	0.740
Solitude	0.860
Nature	0.826

Hierarchical cluster analysis is not effective when more than one group is hypothesized to exist in the data because there are not clear breakpoints. Therefore a second clustering method called K-means cluster analysis was used to identify distinct groups. The most notable difference between the K-means cluster analysis and the hierarchical cluster analysis is that the user can specify the number of groups with the K-means method (the hierarchical method will continue to merge similar groups until all cases are part of one large group). We ran trials of the cluster analysis with the remaining 206 valid cases with groups of three, four, five, and six. The trial run with five groups appeared to show the greatest separation between the groups' motivation domains (Table 31).

The five groups determined by the K-means cluster analysis were then labeled based upon their dominant motivational domain scores and other prevailing characteristics. Note that the creativity domain was excluded from the K-means cluster analysis due to low reliability, therefore the influence of creativity on the five groups is unknown. Perhaps creativity is a defining motivation for one of the above groups. This is a shortcoming of the study that unfortunately cannot be corrected at this point but should be addressed if the study is replicated in the future.

¹ The outliers were excluded from the cluster analysis only and not from any other descriptive statistics in the report.

The following section reviews the dominant characteristics of each visitor group. Thereafter will be an analysis and discussion of each group's preferences for interpretation. Detailed descriptive statistics for all clusters can be found in Appendix D.

Table 31. K-means Cluster Analysis Final Domain Mean for the Five Specified Groups

Domain	Cluster #				
	1	2	3	4	5
Solitude	4.09	4.49	3.18	3.40	3.97
History	2.64	4.58	4.37	2.52	4.07
Nature	4.45	4.59	3.49	3.56	4.07
Learning	3.79	4.15	2.95	2.38	3.60
Family/Companion	3.26	3.46	2.63	2.55	1.97
Exercise	4.44	4.54	3.80	2.90	2.40
Group n	33	65	46	21	41
Percentage of all respondents	16.0%	31.6%	22.3%	10.2%	19.9%

- Scores based on Likert-scale response from “Not at all important – 1” to “Extremely important – 5”
- Clusters formed based on simple Euclidean distances

Cluster 1: The Outdoor Enthusiast Visitor

Nature, exercise, and solitude were the three dominant motivations for this group. Learning scores were also quite high. These visitors are generally not primarily motivated by the history of the area. Their interest in aspects of the park other than history is illustrated by the activities in which they participate and their primary subjects of interest. While the majority within each of the four other groups rated history as their primary subject of interest, only 14.8% of the Outdoor Enthusiasts rated history similarly. This group also had the highest percentage of backpackers, hikers, mountaineers and climbers.

Some travel characteristics highlighted this group as well. There were very few foreigners in this group and their typical length of stay in the Kennicott Valley was about two to three days. The Outdoor Enthusiasts primarily travel with their family and friends, but also had the highest percentage traveling solo (18.2%). Finally, about one quarter had visited the Kennicott Valley on a prior occasion.

The Outdoor Enthusiasts received information about WRST from a wide variety of sources. The NPS website (31.8%) was the most popular source, but word of mouth and the Milepost were also important. Fifty percent obtained information about WRST within Alaska.

The Outdoor Enthusiast on average tended to be the same age as the other groups and nearly half (48.5%) had attained a bachelor's degree.

Cluster 2: The Park Experience Visitor

The two most prominent attributes of WRST are the rugged mountainous wilderness and the historical mining activity that took place in the Kennicott Valley. The Park Experience visitor, who represents about 30% of the visitors, is presumably visiting WRST to experience the wilderness and historical aspects of the park. These visitors ranked at the top of all six motivational domains illustrating that multiple aspects of the park are quite important to them. These visitors had high participation rates in exploring the Mill Town (82.8%), hiking (76.6%), nature walks (57.8%), and wildlife viewing (53.1%). Also, biking was most popular among this group (17.2%).

History, geology, and wildlife were the top three primary subjects of interest, accounting for 90% of the group, again illustrating their diverse interests in the park. Thirty-three percent of the Park Experience nonresident visitors obtained their primary information from the internet, with about two-thirds of them visiting the NPS website. Travel books and word of mouth made up a substantial portion of information sources for those not using the internet. Approximately 67% of this group obtained information in Alaska prior to their visit to WRST. The visitor center in Copper Center was used as a source of information by about 10% of the Park Experience group.

About one-third were Alaska residents. The average age was 45 and 34% of the group had achieved a graduate degree. These visitors typically remained in the Kennicott Valley for about two or three days and over 60% spent four or more hours in the Mill Town. The Park Experience visitors traveled with family and friends and roughly 18% traveled with children.

Cluster 3: The History Buff Visitor

The History Buffs are differentiated from the other groups by having a particularly high interest in the history of the Kennicott Valley. History was the primary motivator for this group, while solitude, exercise, and learning were not as important. Note that it is possible the learning score was low because the two scale items dealt with learning about nature and ecology; neither being closely related to history. The History Buff participation rates in backpacking, hiking, wildlife viewing, and nature walks were comparatively lower than the other groups. Exploring the Mill Town was a very popular activity among this group with participation near 83%. The History Buffs overwhelmingly chose history as their primary subject of interest.

The Internet was not a popular information source for this group. Many nonresident History Buffs used word of mouth and travel books to get information on WRST before their visit to Alaska. Sixty percent of the group obtained information within Alaska, but before their arrival at the park.

Twenty percent of the History Buffs came from Alaska, while another 20% came from foreign countries. They stayed only a short time in the Kennicott Valley (93% stayed three days or less) and over half stayed in the Mill Town between 2 and 6 hours. Roughly two-thirds were male, 39% had a graduate degree, and the group's average age was 50 years.

Cluster 4: The Generalist Visitor

A typical Generalist visitor was moderately motivated to visit WRST in all six domains, although no one domain stood out from the others in importance. The Generalist was interested in sight seeing, wildlife viewing, fishing, camping, nature walks. Exploring the Mill Town and attending interpretive programs were not high on their list. The Generalist was primarily interested in the subjects of history (60%) and geology (25%). They represent a small proportion of WRST summer visitation at about 10%.

Just over 20% of these visitors did not obtain any information before arriving in Alaska. Of those that did obtain prior information, about half used guide books such as the Milepost and Lonely Planet. Once in Alaska, many Generalists obtained their information in Anchorage and Fairbanks.

The typical generalist visitor was more likely to be male, less educated than the other groups, with an average age of 42.67 years. Children were most common with this group, although the children were present only about 20% of the time. The group was a mix of resident, nonresident, and nonresident foreign visitors.

Cluster 5: The Tourist Visitor

While technically all visitor groups were tourists, this group appears to represent the tourist who is a little less adventurous than the others and prefers a more structured visit. This group was highly motivated by history, nature, and solitude to visit the park. Exercise and family/companionship were of very low importance to these people. Of all five groups, the Tourists had the highest participation rates in interpretive programs (41.5%) and exploring the Mill Town (85.4%). Sightseeing, wildlife viewing, and hiking were other popular activities for this group. Backpacking was very uncommon among the Tourists. The historical nature of the park was very important to this group: 41% listed exploring the Mill Town as their primary activity and 70.6% rated history as the subject that they were interested in most.

Nearly half of these visitors traveled to the Kennicott Valley by plane or tour bus. The tourists had very short trips to the Kennicott Valley; most were less than three days. Much of their time in the valley was spent in the Mill Town. Although no data were

collected on where visitors lodged while in the valley, it is possible many of these visitors were staying in the Kennicott Glacier Lodge. This is hypothesized due to the high percentage of visitors who remained in the Mill Town for over 17 hours, none of whom claimed to have participated in backpacking. While nearly 25% of the other four visitor groups had been in the Kennicott Valley on a prior occasion, nearly all the Tourists were first time visitors.

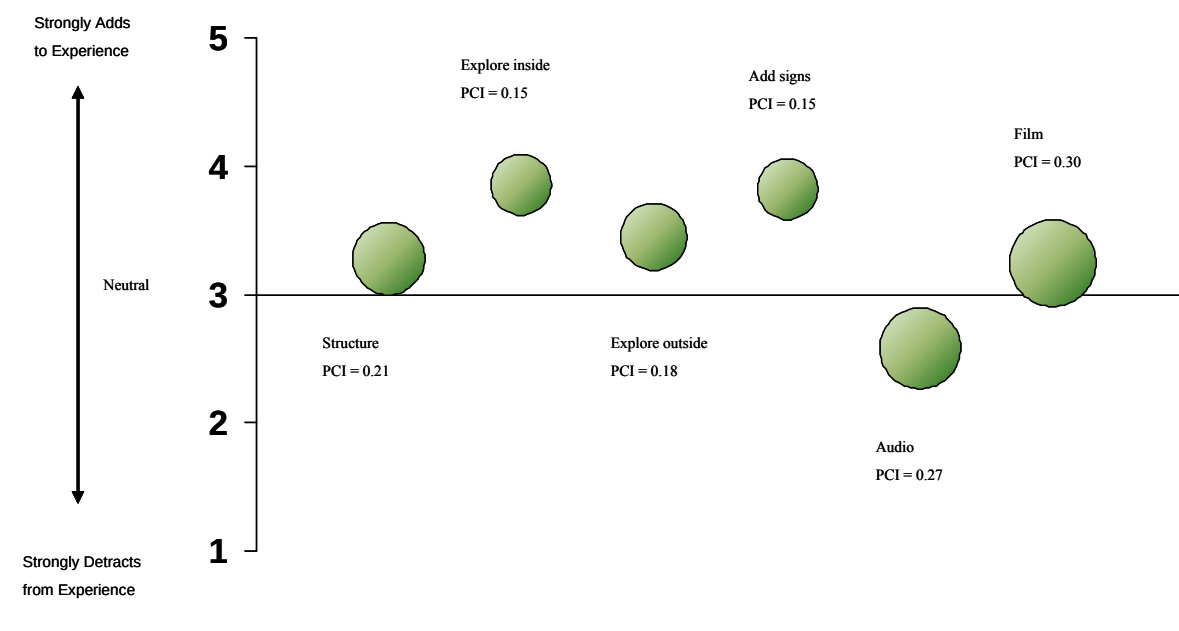
Over 90% of the nonresident Tourists gathered information before coming to Alaska. They were the most frequent users of travel agents, tour companies, and websites other than the official NPS website. Several specified using the Kennicott Glacier Lodge website. The Tourist visitors used the official NPS website as their primary source of information 25% of the time.

Preferences for Management Options by Cluster

Potential for Conflict Index among Management Options by Cluster

Each of the five groups identified in the cluster analysis supposedly represents a homogenous subset of the WRST visitors. Therefore it follows that the members within each group should hold similar views on the how the Mill Town should be managed. Potential for Conflict Index (PCI) values were recalculated for each of the five clusters under the assumption that the PCI values would be smaller for each cluster when compared to the PCI values for the entire group. Please note that the sizes of the bubbles within one figure are not related to the sizes of the bubbles in other figures. When comparing one management option between the clusters, the PCI values should be used as a point of comparison. The results follow:

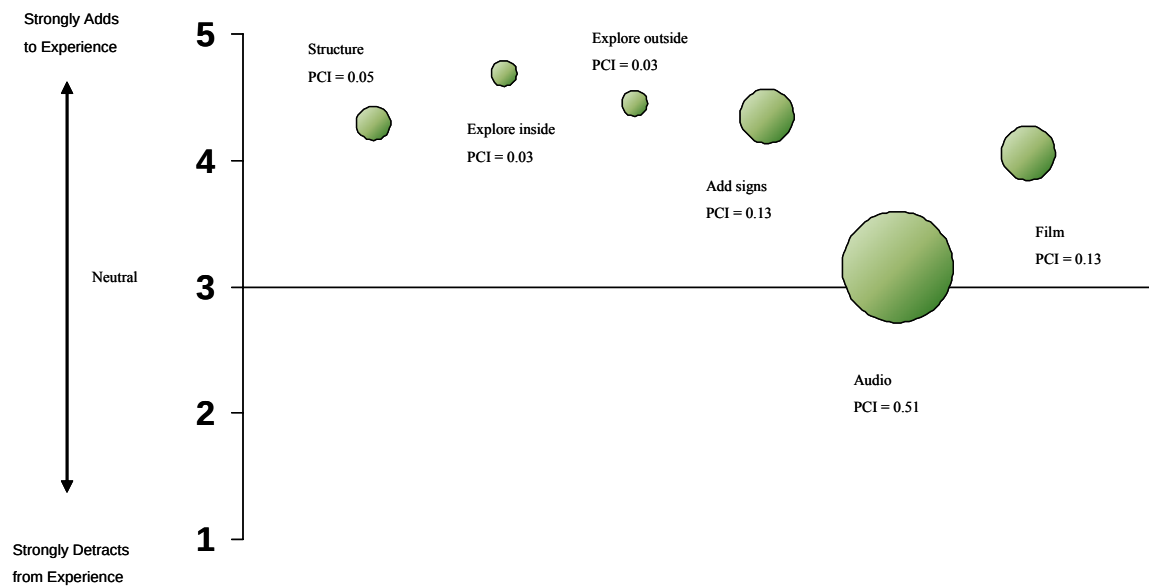
Figure 29. Potential for Conflict Index for the Outdoor Enthusiast Group



- n = 33
- Results include data from cluster 1
- Response scale was “Strongly detracts from experience – 1” to “Strongly adds to experience – 5”

- Outdoor Enthusiasts appear to be more polarized within their group on the Structure, Explore inside, Explore outside, and Film options when compared to all visitors.
- Audio tours are on average slightly unfavorable to this group and there is more consensus within the group than among all visitors combined (all visitors Audio PCI = 0.52). The Outdoor Enthusiasts are the only group that feels the audio guided tours would detract from their experience.

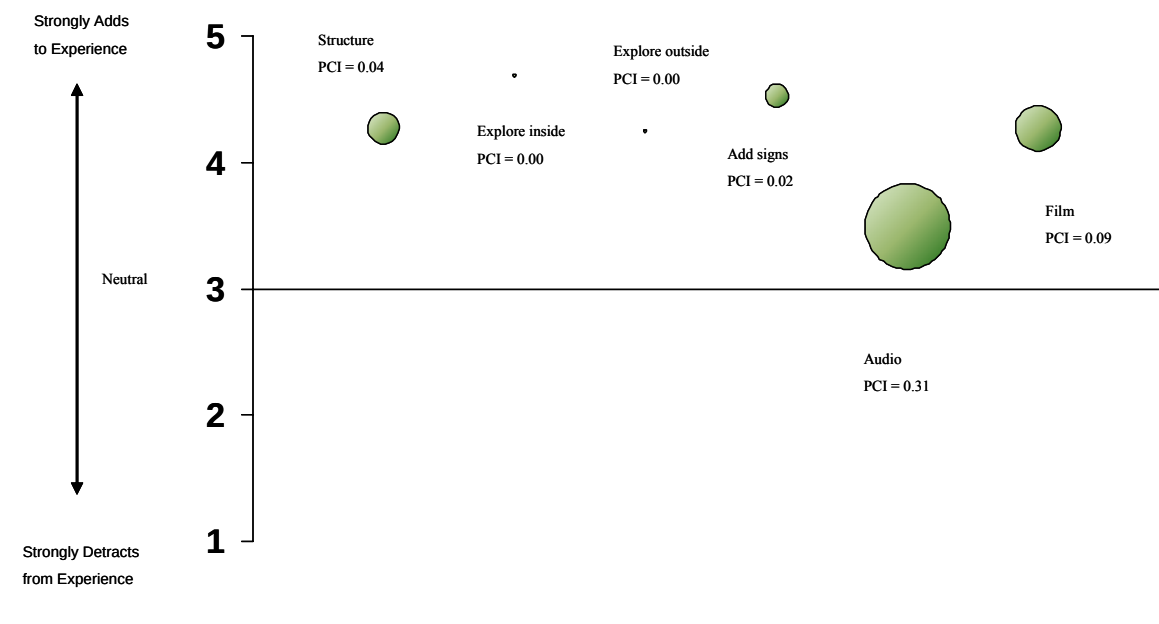
Figure 30. Potential for Conflict Index for Park Experience Group



- n range = 61 to 62
- Results include data from cluster 2
- Response scale was “Strongly detracts from experience – 1” to “Strongly adds to experience – 5”

- All management options except Audio show more agreement for the Park Experience group.
- There is similar disagreement on the audio guided tour option among the Park Experience group and all visitors combined (all visitors Audio PCI = 0.52).

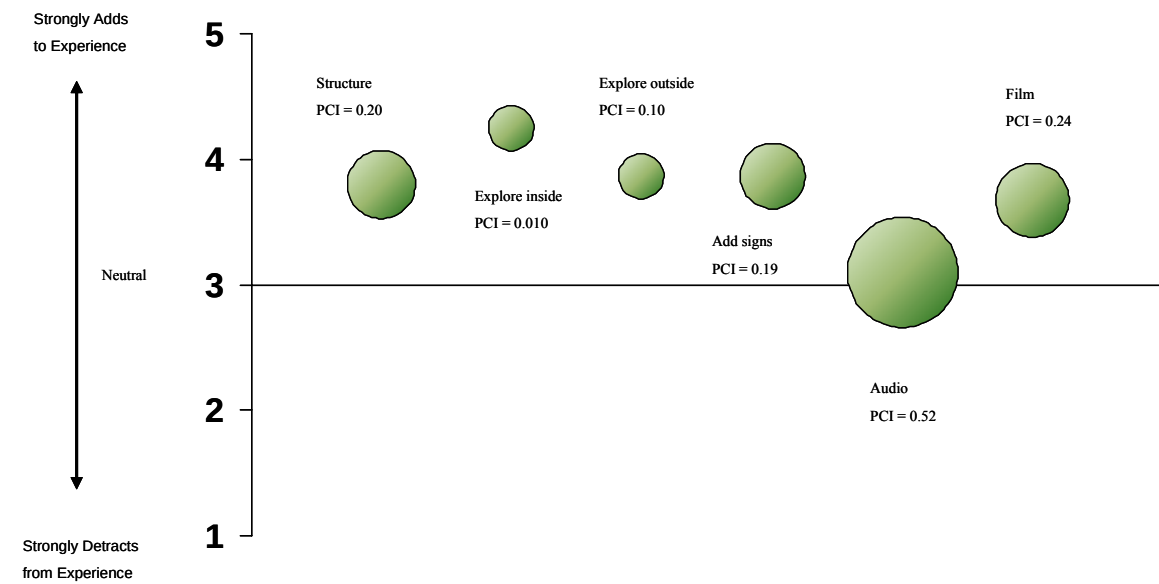
Figure 31. Potential for Conflict Index for History Buff Group



- n = 45
- Results include data from cluster 3
- Response scale was “Strongly detracts from experience – 1” to “Strongly adds to experience – 5”

- All History Buffs are in favor of having the opportunity to explore the inside and outside of more Mill Town buildings. Exploring the inside of more Mill Town buildings has very high support from this group.
- Structure stabilization, the addition of signs and exhibits in the Mill Town, and a film explaining the historical significance of the Mill Town all have very little opposition from this group.
- History Buffs are mildly in favor of the audio guided tour option and show less potential for conflict that the Park Experience, Generalist, and Tourist groups.

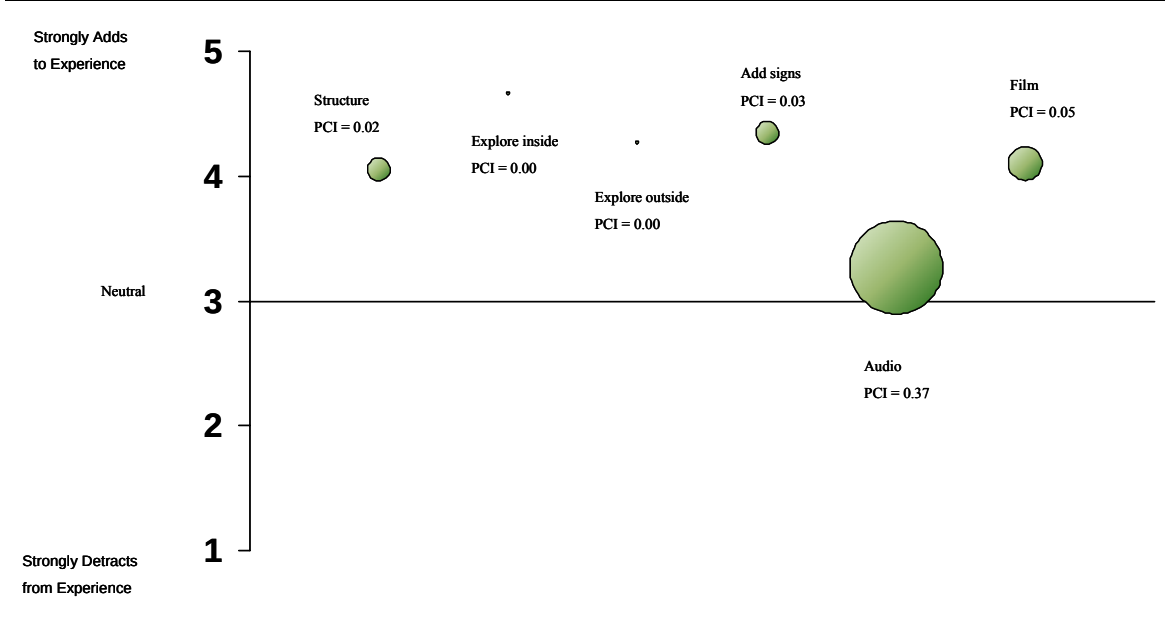
Figure 32. Potential for Conflict Index for Generalist Group



- n range = 20 to 21
- Results include data from cluster 4
- Response scale was “Strongly detracts from experience – 1” to “Strongly adds to experience – 5”

- The Generalists show more conflict on all options except the audio guided tours than all visitors combined. Note that many of the PCI values are still relatively low.
- Once again audio guided tours show the highest potential for conflict index and it is equal to the PCI for all visitors combined.

Figure 33. Potential for Conflict Index for Tourist Group



- n range = 40 to 41
- Results include data from cluster 5
- Response scale was “Strongly detracts from experience – 1” to “Strongly adds to experience – 5”

- The Tourists show little to no conflict on five of the six management options. The ability to explore the inside and outside of more buildings unanimously adds to the experience of this group.
- The Tourists are on average neutral towards an audio guided tour of the Mill Town, but there are some conflicting opinions within the group.

Differences in Preferences for Management Options among the Five Visitor Groups

As noted above in the PCI diagrams, preferences for the six management options varied between the five visitor types. Except for a few cases illustrated below, the visitors groups were generally either neutral or in favor of the each of the six management options. All options involving further development of the Mill Town area through structure stabilization, addition of signage, and ability to explore more Mill Town buildings had moderately strong appeal to the visitors.

Table 32. Preferences for Management Options by Five Visitor Groups

Option 1: Further Stabilization of Mill Town Buildings		
	Mean Score	n
Outdoor Enthusiast	3.27 ^a	33
Generalist	3.80 ^{a,b}	20
Tourist	4.05 ^b	41
History Buff	4.27 ^b	45
Park Experience	4.29 ^b	62
Option 2: Explore the <i>Inside</i> of More Old Mill Town Buildings		
	Mean Score	n
Outdoor Enthusiast	3.85 ^a	33
Generalist	4.24 ^{a,b}	21
Tourist	4.66 ^b	41
Park Experience	4.68 ^b	62
History Buff	4.69 ^b	45
Option 3: Explore the <i>Outside</i> of More Old Mill Town Buildings		
	Mean Score	n
Outdoor Enthusiast	3.45 ^a	33
Generalist	3.86 ^{a,b}	21
History Buff	4.24 ^{b,c}	45
Tourist	4.27 ^{b,c}	41
Park Experience	4.45 ^c	62

- Groups sharing a common superscript letter are **not** significantly different at $\alpha = 0.05$
- Scores based on Likert-scale with “Strongly detracts from experience – 1”, “Neutral – 3”, “Strongly adds to experience – 5”

Table 32. Tukey’s HSD Post Hoc Test Results (continued)**Option 4:** Addition of Interpretive Signs & Exhibits in Old Mill Town

	Mean Score	n
Outdoor Enthusiast	3.82 ^a	33
Generalist	3.86 ^a	21
History Buff	4.35 ^{a,b}	62
Tourist	4.35 ^{a,b}	40
Park Experience	4.53 ^b	45

Option 5: Addition of an Audio Guided Tour of the Old Mill Town

	Mean Score	n
Outdoor Enthusiast	2.58 ^a	33
Generalist	3.10 ^{a,b}	21
History Buff	3.15 ^{a,b}	61
Tourist	3.27 ^{a,b}	41
Park Experience	3.49 ^b	45

Option 6: Addition of a Historical Film of the Old Mill Town

	Mean Score	n
Outdoor Enthusiast	3.24 ^a	33
Generalist	3.67 ^{a,b}	21
History Buff	4.05 ^b	61
Tourist	4.10 ^b	41
Park Experience	4.27 ^b	45

- Groups sharing a common superscript letter are **not** significantly different at $\alpha = 0.05$
- Scores based on Likert-scale with “Strongly detracts from experience – 1”, “Neutral – 3”, “Strongly adds to experience – 5”

- The Outdoor Enthusiast and Generalist visitors feel all six management options would do significantly less to add to their experiences in the Mill Town than the Park Experience visitors
- The History Buff, Tourist, and Park Experience Visitors do not differ in their management preferences for the six management options.

Discussion

Before the study, visitors were believed to differ based on four aspects: residency status, the time of season of visit, the time of day of visit and motivations for visiting the park. After analyzing the results, residency and visitor motivations accounted for many differences; time of season and time of day did not differentiate visitors to the same degree.

Differences when Respondents are Stratified by Residency

Although many significant differences existed between Alaska residents and nonresidents, a few should be reiterated. Alaska visitors were younger on average at 42.7 years; nonresidents averaged 47.4 years ($t = -2.262$, $df = 225$, $sig. = 0.025$). Nonresidents were significantly more likely to travel as part of a tour group than Alaskans ($\chi^2 = 4.944$, $df = 1$, $sig. = 0.026$). On the other hand, Alaskans were more likely to have made a previous visit to the Kennicott Valley ($\chi^2 = 40.824$, $df = 1$, $sig. < 0.001$).

Resident and nonresident respondents held very similar views on five of the six hypothetical management options. Audio guided tours were significantly less attractive ($t = -2.141$, $df = 223$, $sig. = 0.033$) to Alaskans who on average rated the potential information service at 2.77, the result being that it would slightly detract from their experience². Nonresidents gave the audio guided tours an average rating of 3.19, or it would slightly add to their experience. Although the average ratings are on opposite sides of the neutral point, preferences within each group are not harmonious. Relatively high PCI values within each group (resident PCI = 0.42, nonresident PCI = 0.47) signify that some explanation other than residency is driving the difference of opinion on this issue.

Differences when Respondents are Stratified on Season of Visit

The most notable difference when stratifying by season of visit is the decline in use of ranger-led interpretive walks/talks by late-summer respondents. Two hypotheses as to why this occurred are put forth and tested: 1) late-summer nonusers of ranger led interpretation do not value the service as highly as mid-summer users, therefore choose not to use it, and 2) the interpretive services are not available to the respondent as park managers stop scheduling the services with the dramatic decline in fall visitation. Using an ANOVA it was determined that there were differences ($F = 6.769$, $df = 3$, $sig. < 0.001$) between four groups:

- 1) mid-summer users of ranger interpretation ($n = 70$),
- 2) mid-summer nonusers of ranger interpretation ($n = 89$),
- 3) late-summer users of ranger interpretation ($n = 10$), and
- 4) late-summer nonusers of ranger interpretation ($n = 31$)

² The response scale was a 5 point Likert-scale ranging from “Strongly detracts from my experience – 1” to “Strongly adds to my experience – 5”. A score of “3” denotes indifference toward the management option.

Tukey's HSD was used to determine which groups differed. Late-summer nonusers of ranger led interpretive walks/talks place a statistically lower importance on the service than mid-summer users of ranger interpretation. This suggests that the late-summer nonusers of ranger interpretation might have willingly not participated in the service. In addition, the late-summer nonusers place a similar importance on the mid-summer nonusers further suggesting that unavailability of the ranger led interpretation is not the only cause of the decline in use.

Differences when Respondents are Stratified by Time Block

Respondents were very similar when stratified by visitation in the morning versus afternoon time blocks. Morning respondents claimed higher participation in interpretive programs ($\chi^2 = 4.871$, $df = 1$, $sig. = 0.027$). While morning respondents may have a higher participation rate in interpretive programs, the total number of afternoon respondents claiming participation in interpretive programs was larger due to the greater number of afternoon visitors.

Differences when Respondents are Analyzed by Varying Motivations

The study showed that not all respondents are in search of the same experiences at the Kennecott Mill Town. Using a K-means cluster analysis, five groups ($n = 206$) were identified as having different significant experiences: the outdoor enthusiast visitor (16%), the park experience visitor (32%), the history buff visitor (22%), the generalist visitor (10%), and the tourist visitor (20%). Each group was initially defined by their motivations for coming to the park and the activities in which they participated. Also examined was how the groups differed by travel characteristics, primary subject of interest in the Kennicott Valley, and demographics. A brief description of each group follows:

- **Outdoor Enthusiast:** Highly motivated to experience nature and solitude and to get exercise. They had high participation rates in outdoor activities such as hiking and backpacking. Most of this group were U.S. residents and traveled with their family and friends.
- **Park Experience:** Very high scores in all six motivation domains. Popular activities among this group were exploring the Mill Town, hiking, wildlife viewing and biking. This group traveled more frequently as a family including children. A likely reason these visitors come to Kennicott Valley is because it is part of the National Park System.
- **The History Buff:** This group is primarily motivated by the history of the area, but also enjoyed the exercise. Respondents were almost unanimous in stating history was their primary subject of interest. Participation in outdoor activities was comparatively low, but exploring the Mill Town was very popular. These visitors stayed

a relatively short time in the Kennicott Valley but spent comparatively more time in the Mill Town.

- The Generalist: No one motivation was significantly more important than the others and all were fairly low when compared with the other groups. Camping and fishing were some of the popular activities for this group while exploring the Mill Town and participation in interpretive programs were not popular. Primary subjects of interest were history and geology. Many of the nonresidents in this group did not obtain information before their arrival in Alaska.
- The Tourist: These visitors appear to prefer a more structured visit and are probably a little less adventurous than the other groups. They were highly motivated by history, nature and solitude; exercise and family/companionship were very low motivators. Sightseeing, wildlife viewing, and hiking were popular activities. Many reached the Kennicott Valley by plane or tour bus. Nearly all were first time visitors to the Kennicott Valley.

Analyzing the five visitor groups with preferences for interpretation revealed some important differences between the groups. The outdoor enthusiast visitor, on average, rated all six hypothetical management options significantly lower ($\alpha = 0.05$) than the park experience visitor. All five visitor groups, on average, felt that an audio guided tour of the Mill Town would do the least to improve their experience and, in the case of the outdoor enthusiast, the audio guided tours slightly detracted from their experience. A closer inspection of the audio guided tour option showed that of the six management options, it represented the greatest difference of opinion within four of the five visitor groups. The PCI values ranged from 0.27 to .052. The addition of signs and exhibits explaining the historical significance of the Mill Town was highly acceptable to all groups and was not as controversial as the addition of the audio guided tour.

Visitor Sources of Information

While the NPS website was the most frequent source of pre-trip information for the nonresidents sampled ($n = 31$), verbal information ($n = 30$) and travel books ($n = 30$) were used almost as often. Anchorage was cited most often as the town within Alaska where respondents obtained information about the Kennicott Valley. Significantly more nonresidents ($\chi^2 = 25.86$, $df = 1$, $sig. < 0.001$) obtained information in Alaska, prior to their visit to the Kennicott Valley.

Conclusion

Park managers were interested in determining the significant experiences of Kennecott Mill Town visitors and how those experiences could guide the development of interpretation for the Mill Town. Using motivations to cluster visitors into groups gave insight into the variety of reasons people come to the Kennicott Valley. When the motivation groups are considered with their activity participation and travel characteristics, one begins to understand what was significant for each type of visitor. Also, analyzing visitor preferences for interpretation in the context of the five groups, helps explain differences in visitor preferences. Managers can use this data to design interpretive programs or services that target visitor groups most likely to participate, while taking into account how other groups might respond. Finally, the survey showed where and how visitors obtained information before their arrival to the park.

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APPENDIX A: Copy of Survey

SURVEY OF VISITOR PREFERENCES FOR INTERPRETATION AT WRANGELL – ST. ELIAS NATIONAL PARK

DIRECTIONS

The purpose of this survey is to provide park management with information regarding user preferences on interpretation. The information gathered from this survey will help shape park management. Please take a few minutes to complete this survey on your experiences in the park. Follow the directions listed at the top of each section. Please direct any questions you may have to the person administering the survey. To complete the survey, you must be at least 18 years of age. Thank you.

PRIVACY ACT and PAPERWORK REDUCTION ACT statement: 16 U.S.C. 1a-7 authorizes collection of this information. This information will be used by park managers to better serve the public. Response to this request is voluntary. No action may be taken against you for refusing to supply the information requested. The permanent data will be anonymous. Please do not put your name or that of any member of your group on the questionnaire. Data collected through visitor surveys may be disclosed to the Department of Justice when relevant to litigation or anticipated litigation, or to appropriate Federal, State, local or foreign agencies responsible for investigating or prosecuting a violation of law. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Burden estimate statement: Public reporting burden for this form is estimated to average 8 minutes per response. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, WASO Administrative Program Center, National Park Service, 1849 C Street, N.W., Washington, D.C. 20240.

If you have questions regarding your rights as a research participant, please contact the Research Coordinator in the University of Alaska Fairbanks Office of Research Integrity, at (907) 474-7800 (Fairbanks area), or 1-866-876-7800 (outside the Fairbanks area), or by e-mail at fyirb@uaf.edu

1) Please circle one answer per question regarding your trip to the Kennicott Valley:

A) WHERE DO YOU LIVE?

MCCARTHY

ELSEWHERE IN ALASKA

CONTIGUOUS US / HAWAII

CANADA

OTHER

SPECIFY: _____

SPECIFY: _____

SPECIFY: _____

B) HOW LONG DO YOU PLAN TO STAY IN THE KENNICOTT VALLEY?

1 DAY

2-3 DAYS

4-6 DAYS

7-14 DAYS

15 + DAYS

C) HOW LONG DID YOU STAY AT KENNECOTT MILL TOWN?

<2 HRS

2-4 HRS

4-6 HRS

6-16 HRS

17 + HRS

D) BY WHAT METHOD DID YOU TRAVEL TO THE KENNICOTT VALLEY?

TOURBUS

CAR / TRUCK

MOTORHOME

AIRPLANE

OTHER

SPECIFY: _____

E) IF NOT AN ALASKA RESIDENT, BY WHAT METHOD OF TRAVEL DID YOU ARRIVE IN ALASKA?

COMMERCIAL AIRLINE

ALASKA HIGHWAY

FERRY

CRUISE SHIP

OTHER

SPECIFY: _____

F) WHO ARE YOU TRAVELING WITH?

ALONE

FAMILY & FRIENDS

FAMILY

FRIENDS

OTHER

SPECIFY: _____

G) ARE YOU TRAVELING WITH A TOUR GROUP?

YES	NO				
H) HAVE YOU VISITED THE KENNICOTT VALLEY BEFORE?					
YES	NO	IF YES, WHEN WAS YOUR LAST VISIT? ____/____ (MO. / YR.)		APPROXIMATELY HOW MANY TIMES PER YEAR DO YOU VISIT? ____	

2) Please checkmark (✓) ALL activities in which you participated, or plan to participate in, while in the Kennicott Valley:

☐ MOUNTAINEERING ☐ HIKING ☐ SIGHTSEEING ☐ CLIMBING ☐ WILDLIFE VIEWING
☐ BACKPACKING ☐ FISHING ☐ RAFTING ☐ INTERPRETIVE PROGRAMS
☐ NATURE WALKS ☐ CAMPING ☐ BIKING ☐ EXPLORING THE HISTORIC MILL TOWN
☐ OTHER (specify): _____

3) Please checkmark (✓) the PRIMARY activity in which you participated, or plan to participate in, while in the Kennicott Valley:

☐ MOUNTAINEERING ☐ HIKING ☐ SIGHTSEEING ☐ CLIMBING ☐ WILDLIFE VIEWING
☐ BACKPACKING ☐ FISHING ☐ RAFTING ☐ INTERPRETIVE PROGRAMS
☐ NATURE WALKS ☐ CAMPING ☐ BIKING ☐ EXPLORING THE HISTORIC MILL TOWN
☐ OTHER (specify): _____

4) The questions in part 4 relate to information you may have received before your arrival to the Kennicott Valley. Alaska residents please start with question 4B: (Please circle one response for each question below)

A) IF VISITING ALASKA, WHAT WAS YOUR PRIMARY SOURCE OF INFORMATION ABOUT THE KENNICOTT VALLEY BEFORE YOUR ARRIVAL TO ALASKA?

NATIONAL PARK SERVICE WEBSITE: www.nps.gov/wtst	INTERNET OTHER THAN NATIONAL PARK SERVICE WEBSITE SPECIFY: _____	TRAVEL AGENT	TOUR COMPANY	OTHER SPECIFY: _____	DID NOT OBTAIN ANY INFORMATION
1) WHAT WAS THE FORMAT OF THE MAJORITY OF THIS INFORMATION?					
MOSTLY WRITTEN INFORMATION WITH SOME PHOTOGRAPHS	MIX OF WRITTEN INFORMATION AND PHOTOGRAPHS	INFORMATION INCLUDING MANY PHOTOGRAPHS WITH SOME CAPTIONS			
2) DID YOU FIND THIS INFORMATION USEFUL FOR YOUR TRIP PREPARATION?					
YES		NO			

B) DID YOU OBTAIN INFORMATION ABOUT THE KENNICOTT VALLEY WITHIN ALASKA BUT PRIOR TO YOUR ARRIVAL TO THE KENNICOTT VALLEY?

YES NO IF YES, PLEASE SPECIFY TOWN WHERE YOU OBTAINED INFO: _____

1) WHAT WAS THE FORMAT OF THE MAJORITY OF THIS INFORMATION?

MOSTLY WRITTEN INFORMATION WITH SOME PHOTOGRAPHS MIX OF WRITTEN INFORMATION AND PHOTOGRAPHS INFORMATION INCLUDING MANY PHOTOGRAPHS WITH SOME CAPTIONS

2) DID YOU FIND THIS INFORMATION USEFUL FOR YOUR TRIP PREPARATION?

YES NO

C) WHAT SUBJECT ABOUT THE KENNICOTT VALLEY INTERESTS YOU THE MOST?

WILDLIFE	HISTORY	ECOLOGY	GEOLOGY	OTHER
SPECIFY: _____				

Continue on Next Page →

5) a) Please rate the importance of the following informational services currently available in the Kennicott Valley: *(Please circle one response to each item below)*

	NOT AT ALL IMPORTANT			SOMEWHAT IMPORTANT		EXTREMELY IMPORTANT
A) PARK BROCHURES	1	2	3	4	5	
B) VISITOR CENTER EXHIBITS	1	2	3	4	5	
C) INTERPRETIVE WALKS / TALKS GUIDED BY RANGERS	1	2	3	4	5	
D) INTERPRETIVE WALKS / TALKS GUIDED BY PRIVATE COMPANIES	1	2	3	4	5	
E) PARK ORIENTATION FILM	1	2	3	4	5	
F) BOOKSTORE MATERIAL	1	2	3	4	5	

b) Although currently not available, please rate the importance of adding the following informational services in the Kennicott Valley: *(Please circle one response to each item below)*

	NOT AT ALL IMPORTANT			SOMEWHAT IMPORTANT		EXTREMELY IMPORTANT
A) OUTDOOR PANELS OR EXHIBITS	1	2	3	4	5	
B) AUDIO GUIDED TOURS	1	2	3	4	5	

6) Please rate the quality of the following informational services you used while in the Kennicott Valley. Indicate in the far right column if you did not use the service: *(Please circle one response to each item below)*

	LOW QUALITY				HIGH QUALITY	DID NOT USE (✓)
A) PARK BROCHURES	1	2	3	4	5	☐
B) VISITOR CENTER EXHIBITS	1	2	3	4	5	☐
C) INTERPRETIVE WALKS / TALKS GUIDED BY RANGERS	1	2	3	4	5	☐
D) INTERPRETIVE WALKS / TALKS GUIDED BY PRIVATE COMPANIES	1	2	3	4	5	☐
E) PARK ORIENTATION FILM	1	2	3	4	5	☐
F) BOOKSTORE MATERIAL	1	2	3	4	5	☐

7) Although currently not available, if the following management actions or opportunities had been in place in the Kennecott Mill Town how would your trip have been impacted? *(Please circle one response to each item below)*

	WOULD STRONGLY DETRACT FROM MY EXPERIENCE			NEITHER DETRACT NOR ADD		WOULD STRONGLY ADD TO MY EXPERIENCE
A) FURTHER STABILIZATION OF EXISTING HISTORICAL MILL TOWN STRUCTURES	1	2	3	4	5	
B) AN OPPORTUNITY TO EXPLORE THE <i>INSIDE</i> OF OLD MILL TOWN BUILDINGS	1	2	3	4	5	
C) AN OPPORTUNITY TO EXPLORE THE <i>OUTSIDE</i> OF OLD MILL TOWN BUILDINGS	1	2	3	4	5	
D) THE ADDITION OF SIGNS AND EXHIBITS IN THE KENNECOTT MILL TOWN EXPLAINING ITS HISTORICAL SIGNIFICANCE	1	2	3	4	5	
E) A HEADPHONE AUDIO GUIDED TOUR OF KENNECOTT MILL TOWN	1	2	3	4	5	
F) A FILM TELLING THE HISTORIC STORY OF KENNICOTT VALLEY	1	2	3	4	5	

Continue on Next Page →

8) Please circle the importance level that best describes your reasons for visiting the Kennicott Valley on this trip: (Please circle one response to each item below)

	NOT AT ALL IMPORTANT		SOMEWHAT IMPORTANT		EXTREMELY IMPORTANT
TO EXPERIENCE TRANQUILITY	1	2	3	4	5
TO BE AWAY FROM CROWDS OF PEOPLE	1	2	3	4	5
TO LEARN ABOUT THE HISTORY OF THE AREA	1	2	3	4	5
TO ENJOY THE SOUNDS AND SMELLS OF NATURE	1	2	3	4	5
TO BE IN A NATURAL SETTING	1	2	3	4	5
TO EXPERIENCE NATURAL QUIET	1	2	3	4	5
TO OBSERVE WILDLIFE	1	2	3	4	5
TO LEARN MORE ABOUT NATURE	1	2	3	4	5
TO LEARN ABOUT THE ECOLOGY OF THE AREA	1	2	3	4	5
TO BE IN A HISTORICAL SETTING	1	2	3	4	5
TO DO SOMETHING CREATIVE SUCH AS PAINT, SKETCH, OR PHOTOGRAPH	1	2	3	4	5
TO GAIN A NEW PERSPECTIVE ON LIFE	1	2	3	4	5
TO BRING YOUR FAMILY CLOSE TOGETHER	1	2	3	4	5
TO BE WITH FAMILY	1	2	3	4	5
TO BE WITH FRIENDS	1	2	3	4	5
TO BE WITH OTHERS WHO ENJOY THE SAME THINGS YOU DO	1	2	3	4	5
TO FEEL GOOD AFTER BEING PHYSICALLY ACTIVE	1	2	3	4	5
TO GET EXERCISE	1	2	3	4	5

9) Please provide the following demographic information:

A) AGE _____							
B) GENDER (Circle one)		MALE		FEMALE			
C) ARE YOU HISPANIC OR LATINO? (Circle one)		YES – HISPANIC OR LATINO		NO – NOT HISPANIC OR LATINO			
D) WHAT IS YOUR RACE? (Circle one or more races to indicate what you consider yourself to be)		AMERICAN INDIAN	ALASKA NATIVE	WHITE	BLACK OR AFRICAN-AMERICAN	NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER	ASIAN
E) EDUCATION LEVEL (Circle one)		GRADE SCHOOL	SOME HIGH SCHOOL	HIGH SCHOOL DIPLOMA OR GED	SOME COLLEGE / TECHNICAL SCHOOL	BACHELOR'S DEGREE	SOME GRADUATE SCHOOL
							GRADUATE DEGREE

10) Additional Comments:

Thank you for time.

APPENDIX B: Standard Error of Mean for Applicable Survey Questions

Confidence intervals with a 95% confidence are presented below. Therefore a $\pm 5\%$ bound on the error of estimation would be interpreted as 95 of every 100 samples taken from a population will result in a mean that is $\pm 5\%$ of the estimated mean.

Table B1. Standard Error of Mean for Applicable Survey Questions

Question	N	Mean	Standard Error of Mean	95% CI
Reason for visiting Kenn Valley - Observe Wildlife	226	3.814	0.074	$\pm 3.91\%$
Reason for visiting Kenn Valley - Learn more about nature	226	3.434	0.071	$\pm 4.11\%$
Reason for visiting Kenn Valley - Learn about history of area	231	3.948	0.071	$\pm 3.61\%$
Reason for visiting Kenn Valley - Learn about ecology of area	226	3.527	0.073	$\pm 4.17\%$
Reason for visiting Kenn Valley - Get exercise	228	3.605	0.083	$\pm 4.60\%$
Reason for visiting Kenn Valley - Gain new prospective on life ^a	225	2.640	0.087	$\pm 6.58\%$
Reason for visiting Kenn Valley - Feel good after being physically active	228	3.763	0.076	$\pm 4.04\%$
Reason for visiting Kenn Valley - Experience tranquility	225	3.729	0.075	$\pm 4.03\%$
Reason for visiting Kenn Valley - Experience natural quiet	229	3.987	0.068	$\pm 3.41\%$
Reason for visiting Kenn Valley - Enjoy sounds & smells of nature	226	4.066	0.064	$\pm 3.16\%$
Reason for visiting Kenn Valley - Do something creative ^a	227	2.546	0.097	$\pm 7.65\%$
Reason for visiting Kenn Valley - Bring family close together	214	2.379	0.095	$\pm 7.98\%$
Reason for visiting Kenn Valley - Be with others enjoy same as you	225	3.133	0.090	$\pm 5.74\%$
Reason for visiting Kenn Valley - Be with friends	213	2.737	0.101	$\pm 7.39\%$
Reason for visiting Kenn Valley - Be with family	214	2.907	0.107	$\pm 7.36\%$
Reason for visiting Kenn Valley - Be in natural setting	227	4.203	0.062	$\pm 2.95\%$
Reason for visiting Kenn Valley - Be in historical setting	228	3.811	0.074	$\pm 3.88\%$
Reason for visiting Kenn Valley - Be away from crowds of people	225	3.804	0.076	$\pm 4.01\%$
Rate quality of info services used - VC exhibits	220	4.145	0.086	$\pm 4.14\%$
Rate quality of info services used - Ranger interpretation	215	5.284	0.077	$\pm 2.93\%$
Rate quality of info services used - Private interpretation	215	5.237	0.080	$\pm 3.06\%$
Rate quality of info services used - Park orientation film	213	5.399	0.077	$\pm 2.86\%$
Rate quality of info services used - Park brochure	218	4.239	0.083	$\pm 3.90\%$
Rate quality of info services used - Bookstore material	211	4.853	0.093	$\pm 3.84\%$
Rate importance of info services available - Park brochure	222	3.824	0.068	$\pm 3.58\%$
Rate importance of info services available - VC exhibits	220	3.645	0.071	$\pm 3.91\%$
Rate importance of info services available - Ranger interpretation	206	3.728	0.084	$\pm 4.50\%$
Rate importance of info services available - Private interpretation	206	2.903	0.095	$\pm 6.52\%$
Rate importance of info services available - Park orientation film	188	3.027	0.091	$\pm 5.99\%$
Rate importance of info services available - Bookstore material	204	3.069	0.084	$\pm 5.48\%$
Rate importance of adding info services - Outdoor panels/exhibits	220	3.632	0.076	$\pm 4.16\%$
Rate importance of adding info services - Audio guided tour	217	2.816	0.092	$\pm 6.52\%$
How would your trip have been impacted - Structure stabilization	319	3.933	0.063	$\pm 3.23\%$
How would your trip have been impacted - Film of park history	224	3.866	0.076	$\pm 3.96\%$
How would your trip have been impacted - Explore outside of Mill Town	223	4.126	0.063	$\pm 3.05\%$
How would your trip have been impacted - Explore inside Mill Town	226	4.487	0.057	$\pm 2.52\%$
How would your trip have been impacted - Audio guided tour	225	3.071	0.091	$\pm 5.89\%$
How would your trip have been impacted - Addition of signs & exhibits	226	4.150	0.073	$\pm 3.53\%$

^a Results not used in the cluster analyses

APPENDIX C: Cluster Analysis Outlier Examination

The following seven respondents were excluded from the cluster analysis section of the report, but included in all other descriptive statistics within the report. These outlier cases, determined by the hierarchical cluster analysis, consisted of visitors who rated all but one or two motivation scales very low and hence had very low domain scores. Had they been included in the K-means cluster analysis, they would have strongly influenced the grouping of the other cases. Therefore it was felt that it would be best to analyze these cases separately.

Outlier 1

This individual from Michigan visited the Mill Town primarily for the opportunity to take photographs of the Mill Town. The individual was strongly against the historical film, audio guided tour, and addition of signs and exhibits in the Mill Town yet desired the opportunity to explore the inside and outside of more Old Mill Town buildings. The respondent gathered information primarily from the internet and cited using the NPS website as well as other websites.

Outlier 2

This individual came to the Kennicott Valley primarily to visit friends and participate in hiking. This respondent did not use any of the interpretive services currently offered in the Mill Town and felt the addition of a historical film, audio tour, or signage in the Mill Town would greatly detract from his experience. On the other hand, this respondent was very interested in exploring more Old Mill Town buildings and seeing further stabilization in the Mill Town. This individual received information about the Kennicott Valley from Cordova.

Outlier 3

This Californian who once worked for Kennecott Corporation (although it is not clear that the individual worked in Alaska) was primarily interested in learning about the history of the area and technology of the era. The respondent wanted to see further stabilization of the Mill Town buildings but was indifferent about more opportunities to explore the inside and outside of the buildings. The respondent was in favor of having more interpretive services available such as signs and a film of the historic significance, but did not feel as though an audio guided tour was appropriate.

Outlier 4

Outlier 4 was from New Hampshire who was very interested in the historical and ecological aspects of the Kennicott Valley. This visitor was strongly in favor of all six management options, especially the addition of outdoor exhibits and panels. This respondent obtained information primarily from travel books and did not do any further research on the area once in Alaska.

Outlier 5

History was very important to this visitor from South Dakota. This respondent did not obtain any information prior to visiting the Valley. This person was neutral to seeing

further structure stabilization and agreed strongly with the remaining five management actions. This visitor felt that audio guided tours were a very important interpretive service. This respondent remained in the Kennicott Valley for one day and spent between two and four hours in the Mill Town.

Outlier 6

This visitor listed family as a primary motivation for visiting the Kennicott Valley. The United Kingdom native found the scenery to be the primary subject of interest regarding the Valley. This person's primary source of information was a daughter living in Alaska, but also noted that information was obtained in Fairbanks. This respondent wished to see further stabilization of the structures in the Mill Town along with the opportunity to explore the inside and outside of more of the Old Mill Town buildings. Signs/exhibits and audio guided tours would detract from this visitor's experience but a film telling the historical significance of the Kennicott Valley would be of interest.

Outlier 7

The final outlier case was visiting from Fairbanks. This respondent's primary motivation for visiting the Kennicott Valley was the history. This visitor obtained mostly written information in Fairbanks and had visited the Valley on a prior occasion. Finally, this visitor was neutral to an audio guided tour and addition of signage to the Mill Town and moderately in favor of the other four options.

APPENDIX D: Comprehensive Results Stratified by Cluster

The following tables are the frequencies and/or averages for each question stratified by cluster group. The clusters are as follows:

- 1 – Outdoor Enthusiast
- 2 – Park Experience
- 3 – History Buff
- 4 – Generalist
- 5 – Tourist

Demographics

Table D1. Residency

	Cluster				
	1	2	3	4	5
Alaska resident	36.4%	32.3%	21.7%	33.3%	22.0%
Nonresident	63.6%	67.7%	78.3%	66.7%	78.0%
<u>Where do you live?</u>					
McCarthy	6.1%	1.5%	0.0%	4.8%	2.4%
Elsewhere in AK	30.3%	30.8%	21.7%	28.6%	19.5%
Contiguous US/Hawaii	60.6%	53.8%	56.5%	42.9%	56.1%
Canada	0.0%	1.5%	0.0%	0.0%	0.0%
Other	3.0%	12.3%	21.7%	23.8%	22.0%
n	33	65	46	21	41

- Alaska vs. Nonresident $\chi^2 = 3.587$, $df = 4$, $sig. = 0.465$
- Where do you live $\chi^2 = 15.054$, $df = 16$, $sig. = 0.521$

Table D2. Gender

	Cluster				
	1	2	3	4	5
Female	59.4%	50.8%	32.6%	33.3%	50.0%
Male	40.6%	49.2%	67.4%	66.7%	50.0%
n	32	65	46	21	40

- $\chi^2 = 7.832$, $df = 4$, $sig. = 0.098$

Table D3. Average Age

	Cluster				
	1	2	3	4	5
Mean Age	42.03	45.32	49.72	42.67	46.95
n	32	63	46	21	40

F = 1.858, df = 4, sig. = 0.119

Table D4. Education Level

	Cluster				
	1	2	3	4	5
Some High School	0.0%	1.6%	0.0%	0.0%	0.0%
H.S. Diploma/GED	3.0%	6.3%	4.3%	0.0%	2.4%
Some College/Technical School	12.1%	15.6%	19.6%	42.9%	14.6%
Bachelor's Degree	36.4%	29.7%	26.1%	33.3%	19.5%
Some Graduate School	12.1%	12.5%	10.9%	0.0%	12.2%
Graduate Degree	36.4%	34.4%	39.1%	23.8%	51.2%
n	33	64	46	21	41

• $\chi^2 = 20.354$, df = 20, sig. = 0.436

Travel Characteristics

Table D5. Average Group Size

	Cluster				
	1	2	3	4	5
Average Number in Group	2.88	2.65	3.35	3.14	3.45
n	33	62	43	21	40

• $F = 1.436$, $df = 4$, $sig. = 0.224$

Table D6. Number of Children in Group

	Cluster				
	1	2	3	4	5
No Children	87.88%	82.26%	83.72%	80.00%	90.00%
One Child	3.03%	2.90%	4.65%	15.00%	7.50%
Two Children	9.09%	4.84%	11.63%	5.00%	2.50%
n	33	62	43	20	40

• $\chi^2 = 7.955$, $df = 8$, $sig. = 0.438$

Table D7. Season of Visit

	Cluster				
	1	2	3	4	5
Mid-summer	90.9%	72.3%	76.1%	66.7%	90.2%
Late-summer	9.1%	27.7%	23.9%	33.3%	9.8%
n	33	65	46	21	41

• $\chi^2 = 9.903$, $df = 4$, $sig. = 0.042$

Table D8. Length of Stay in the Kennicott Valley

	Cluster				
	1	2	3	4	5
1 day	12.9%	10.9%	42.2%	19.0%	17.5%
2-3 days	64.5%	68.8%	51.1%	61.9%	75.0%
4-6 days	9.7%	9.4%	6.7%	14.3%	7.5%
7-14 days	3.2%	3.1%	0.0%	0.0%	0.0%
15+ days	9.7%	7.8%	0.0%	4.8%	0.0%
n	31	64	45	21	40

• $\chi^2 = 28.156$, $df = 16$, $sig. = 0.030$

Table D9. Length of Stay in the Kennecott Mill Town

	Cluster				
	1	2	3	4	5
Less than 2 hrs	25.8%	6.3%	2.0%	44.4%	15.4%
2-4 hours	22.6%	31.3%	37.8%	22.2%	30.8%
4-6 hours	19.4%	25.0%	20.0%	11.1%	17.9%
6-16 hours	12.9%	15.6%	15.6%	11.1%	7.7%
17+ hours	19.4%	21.9%	6.7%	11.1%	28.2%
n	31	64	45	18	39

• $\chi^2 = 24.607$, $df = 16$, $sig. = 0.077$

Table D10. Method of Travel to Kennicott Valley

	Cluster				
	1	2	3	4	5
Tourbus	9.4%	9.2%	4.5%	9.5%	12.5%
Car/Truck	68.8%	76.9%	68.2%	85.7%	47.5%
Motorhome	3.1%	0.0%	4.5%	0.0%	0.0%
Airplane	15.6%	13.8%	22.7%	4.8%	30.0%
Other	3.1%	0.0%	0.0%	0.0%	10.0%
n	32	65	44	21	40

• $\chi^2 = 29.718$, $df = 16$, $sig. = 0.020$

Table D11. Method of Travel to Alaska by Nonresidents

	Cluster				
	1	2	3	4	5
Commercial Air	81.0%	81.8%	65.7%	78.6%	87.9%
AK Highway	9.5%	9.1%	25.7%	21.4%	9.1%
Ferry	4.8%	4.5%	0.0%	0.0%	0.0%
Cruiseship	0.0%	2.3%	2.9%	0.0%	0.0%
Other	4.8%	2.3%	5.7%	0.0%	3.0%
n	21	44	35	14	33

• $\chi^2 = 13.532$, $df = 16$, $sig. = 0.633$

Table D12. Tour Group versus Private Travelers

	Cluster				
	1	2	3	4	5
With Tour Group	9.1%	9.4%	8.7%	4.8%	12.2%
Private Travel	90.9%	90.6%	91.3%	95.2%	87.8%
n	33	64	46	21	41

• $\chi^2 = 0.945$, df = 4, sig. = 0.918

Table D13. Travel Companions

	Cluster				
	1	2	3	4	5
Alone	18.2%	6.2%	4.3%	4.8%	7.3%
Family & Friends	18.2%	24.6%	23.9%	38.1%	19.5%
Family	45.5%	40.0%	41.3%	28.6%	39.0%
Friends	9.1%	16.9%	17.4%	23.8%	31.7%
Other	9.1%	12.3%	13.0%	4.8%	2.4%
n	33	65	46	21	41

• $\chi^2 = 18.728$, df = 16, sig. = 0.283

Table D14. Prior Visitation

	Cluster				
	1	2	3	4	5
Yes	27.3%	29.0%	24.4%	26.3%	2.7%
No	72.7%	71.0%	75.6%	73.7%	97.3%
n	33	62	45	19	37

• $\chi^2 = 10.537$, df = 4, sig. = 0.032

Table D15. Primary Subject of Interest

	Cluster				
	1	2	3	4	5
Wildlife	11.1%	8.9%	2.9%	5.0%	5.9%
History	14.8%	64.4%	88.2%	60.0%	70.6%
Ecology	37.0%	4.4%	0.0%	5.0%	5.9%
Geology	25.9%	15.6%	8.8%	25.0%	17.6%
Other	11.1%	6.7%	0.0%	5.0%	0.0%
n	27	45	34	20	34

• $\chi^2 = 52.720$, df = 16, sig. < 0.001

Activities

Table D16. Percent Participation by Activity

	Cluster					Chi-square	df	sig.
	1	2	3	4	5			
Mountaineering	15.2%	7.8%	2.2%	4.8%	2.4%	7.030	4	0.134
Hiking *	90.9%	76.6%	56.5%	76.2%	70.7%	12.381	4	0.015
Sightseeing	69.7%	70.3%	73.9%	76.2%	75.6%	0.671	4	0.955
Climbing	15.2%	6.3%	2.2%	9.5%	0.0%	9.388	4	0.052
Wildlife Viewing	48.5%	53.1%	37.0%	61.9%	53.7%	4.816	4	0.307
Backpacking *	51.5%	29.7%	10.9%	19.0%	9.8%	24.089	4	0.000
Fishing	9.1%	4.7%	2.2%	14.3%	0.0%	8.100	4	0.088
Rafting	6.1%	3.1%	0.0%	9.5%	4.9%	4.255	4	0.373
Interpretive Programs	21.2%	29.7%	21.7%	14.3%	41.5%	7.450	4	0.114
Nature Walk	60.6%	57.8%	47.8%	66.7%	58.5%	2.613	4	0.625
Camping	21.1%	29.7%	34.8%	42.9%	29.3%	3.284	4	0.511
Biking	12.1%	17.2%	4.3%	14.3%	2.4%	8.311	4	0.081
Exploring Mill Town *	69.7%	82.8%	82.6%	57.1%	85.4%	9.513	4	0.049
Other	15.2%	17.2%	8.7%	23.8%	4.9%	6.366	4	0.173
n (per activity)	33	64	46	21	41			

* Rows in bold denote significance at $\alpha = 0.05$

Table D 17. Participation in Primary Activities

	Cluster				
	1	2	3	4	5
Hiking	60.7%	26.1%	34.2%	50.0%	19.4%
Sightseeing	0.0%	17.4%	18.4%	10.0%	11.1%
Wildlife Viewing	0.0%	2.2%	0.0%	0.0%	0.0%
Backpacking	21.4%	6.5%	5.3%	0.0%	8.3%
Rafting	0.0%	2.2%	0.0%	0.0%	2.8%
Interpretive Programs	3.6%	2.2%	2.6%	0.0%	2.8%
Nature Walks	7.1%	4.3%	2.6%	5.0%	5.6%
Camping	0.0%	6.5%	10.5%	0.0%	0.0%
Biking	0.0%	2.2%	0.0%	0.0%	0.0%
Exploring Mill Town	0.0%	28.3%	26.3%	15.0%	41.7%
Other	7.1%	2.2%	0.0%	20.0%	8.3%
n	28	46	38	20	36

• $\chi^2 = 63.13$, $df = 40$, $sig. = 0.011$

Sources of Information

Table D18. Nonresident Sources of Information Prior to Arrival in Alaska

	Cluster				
	1	2	3	4	5
NPS Website	31.8%	22.2%	8.6%	14.3%	24.2%
Other Website	4.5%	11.1%	5.7%	7.1%	18.2%
Travel Agent	4.5%	6.7%	5.7%	0.0%	12.1%
Tour Company	4.5%	6.7%	8.6%	7.1%	15.2%
Other	50.0%	46.7%	65.7%	50.0%	21.2%
Did not Obtain Info	4.5%	6.7%	5.7%	21.4%	9.1%
n	22	45	35	14	33

• $\chi^2 = 24.202$, $df = 20$, $sig. = 0.234$

Table D19. Details of “Other” Sources of Information from Table D18

	Cluster				
	1	2	3	4	5
Verbal	40.0%	38.1%	47.8%	14.3%	57.1%
Brochures/Magazine /Newspaper	0.0%	0.0%	13.0%	0.0%	0.0%
Travel Books	40.0%	28.6%	34.8%	85.7%	42.9%
Hotel	10.0%	4.8%	0.0%	0.0%	0.0%
NPS Material	0.0%	9.5%	0.0%	0.0%	0.0%
Self Research	0.0%	4.8%	0.0%	0.0%	0.0%
Television/Video	0.0%	4.8%	0.0%	0.0%	0.0%
Miscellaneous	10.0%	9.5%	4.3%	0.0%	0.0%
n	10	21	23	7	7

• $\chi^2 = 26.03$, $df = 28$, $sig. = 0.572$

Table D20. Format of Information Received by Nonresidents Prior to Trip

	Cluster				
	1	2	3	4	5
Mostly written/some photo	52.9%	42.1%	46.7%	75.0%	57.7%
Mix of written & photo	35.3%	52.6%	43.3%	25.0%	42.3%
Mostly photo/some written	5.9%	5.3%	3.3%	0.0%	0.0%
Verbal	5.9%	0.0%	6.7%	0.0%	0.0%
n	17	38	30	8	26

• $\chi^2 = 9.974$, $df = 12$, $sig. = 0.618$

Table D21. Information Received within Alaska, but Prior to Arrival to Kennicott Valley

	Cluster				
	1	2	3	4	5
Yes	50.0%	67.2%	60.0%	55.0%	35.0%
No	50.0%	32.8%	40.0%	45.0%	65.0%
n	32	61	45	20	40

• $\chi^2 = 10.921$, $df = 4$, $sig. = 0.027$

Table D22. Sources of Information Received within Alaska

	Cluster				
	1	2	3	4	5
Anchorage	31.3%	19.5%	18.5%	27.3%	7.1%
None Specified	18.8%	14.6%	18.5%	0.0%	14.3%
WRST VC	6.3%	19.5%	7.4%	9.1%	21.4%
Friends/Verbal	6.3%	14.6%	11.1%	18.2%	7.1%
Other AK towns	0.0%	9.8%	11.1%	0.0%	14.3%
Copper Center	25.0%	4.9%	7.4%	9.1%	0.0%
Fairbanks	6.3%	2.4%	3.7%	9.1%	0.0%
Glennallen	6.3%	2.4%	7.4%	9.1%	7.1%
Print/Video	0.0%	2.4%	3.7%	9.1%	7.1%
Chitina	0.0%	4.9%	3.7%	9.1%	7.1%
Other	0.0%	0.0%	7.4%	0.0%	7.1%
Valdez	0.0%	4.9%	0.0%	0.0%	0.0%
Tok	0.0%	0.0%	0.0%	0.0%	7.1%
n	16	41	27	11	14

• $\chi^2 = 41.21$, $df = 48$, $sig. = 0.745$

Table D23. Format of Information Received within Alaska

	Cluster				
	1	2	3	4	5
Mostly written/some photo	35.7%	31.4%	37.5%	22.2%	58.3%
Mix of written & photo	50.0%	60.0%	58.3%	44.4%	41.7%
Mostly photo/some written	14.3%	8.6%	4.2%	11.1%	7.4%
Verbal	0.0%	0.0%	0.0%	22.2%	2.1%
n	14	35	24	9	12

• $\chi^2 = 24.417$, $df = 12$, $sig. = 0.018$

APPENDIX E: Categorized Survey Comments

The survey resulted in 99 written comments by visitors. Nine broad themes emerged from the comments. The following section shows breakdown of the nine themes along with the transcription of all comments under each theme. Case numbers from Table E2 represent arbitrarily assigned, unique numbers given to each completed survey for referencing purposes.

Table E1. Themes Represented in Visitor Comments

Theme	# of Comments
General Appreciation	31
Additional Interpretation	17
Stabilization/Rehab	15
Miscellaneous	9
Trail Maintenance	7
Access	7
Commercialization	6
Wildlife/Wilderness	5
Kennecott Info	2

Table E2. Transcribed Comments Listed by Theme

Case

General Appreciation / Gratitude Theme

- | | |
|----|--|
| 14 | Scott's history was excellent |
| 27 | During the first few hours I have enjoyed walking around the ruins and talking with the staff – what a wonderful place with much history. I'm looking forward to more exploring this evening. The presentations attended which were lead by the SCA & student volunteer were very informative. |
| 30 | During our first of 2 days here, it has been very interesting to observe the historical bldgs and speak with the local staff. Looking forward to more exploring tomorrow. All were very helpful. I am amazed at seeing a "Park in Progress" and especially appreciated being able to explore the area without needless barriers. Even the folks working on the bldg restoration have been full of great info. NPS is faced with a true challenge in how to make this experience accessible. I found the local shuttles great. Good driver and folks up to the experience will find their way here. |
| 35 | Great place, thanks! |
| 49 | Great park. Very pristine. |
| 51 | Really enjoyed site. Was helpful to be with friends who are Alaskans to explain things. P.S.- we are here to repair & raise the million dollar bridge. |

- 54 I love to be in Alaska – thank you.
- 78 Thanks ☺
- 115 Nature talk very informative – a good intro to the hike we took. Thanks.
- 119 Very knowledgeable rangers. This place is amazing. Keep up the good work!
- 121 Very beautiful – will come again – people in the parking lot are NOT VERY friendly & welcoming ☺
- 133 Very interesting people and places. Staff helpful – Thanks.
- 136 Enjoyed the area, mill history, scenery, etc.
- 139 Thanks for asking the public’s opinions.
- 152 Wonderfully helpful staff!
- 162 Thanks
- 172 Enjoyed immensely
- 183 Thanks!
- 189 The views are incredible. I have had an amazing time here. The setting is amazing and the tranquility is blissful. I used no informational resources about this location – I fly by the seat of my pants. I don’t use services very often but I think they are valuable to those who are less experienced.
- 192 Good luck!
- 204 All the programs we experienced were excellent... the edible plant walk, the kids talk, and the 15 minute film.
- 229 I love this place
- 248 Kennicott Rocks!
- 273 Really beautiful (Beth age 12). Very interesting.
- 275 Awesome place!
- 280 Had a great time! Thanks!
- 316 Looks like you are headed in the right direction!
- 322 Would recommend to anyone. Very beautiful. Everyone is helpful and informative. Keep it as it is!
- 325 Thanks a million - you guys are great!
- 342 A wonderful experience!
- 347 I had a wonderful time. Its been one of my favorite experiences in Alaska thus far. I'm definitely coming back soon.

Additional Interpretation Theme

- 67 Would like the historical information to be more directed toward the development/technology of the mining operation rather than the children of the era.
- 100 Good start. Need more opportunities to view films & take tours. Should have film at least a few times per day. We were here 4 hours and missed all the films and tours. Self-guided info could also be very helpful.
- 107 The area obviously has potential for further interpretation for the public.

- 127 We would have appreciated a film on a ½ to 1 hour basis. Arrived too late for AM film or program and needed to leave too early for PM program. We came out for day from Kenny Lake.
- 157 An operating model layout of the Copper River & Northwestern Railway would greatly add to my historic area experience!
- 197 I enjoyed the hikes to the glacier and mine – it would be great to have more trails and exhibits along the trails.
- 200 I was surprised that the park rangers did not offer some sort of guiding through the town. I have visited several national parks and this is the first I have found that did not offer free educational material in some form beyond a brochure.
- 201 The private tours were long & expensive – and ranger guided tours did not seem available (although there were rangers in the area). Thus we attempted a self-guided tour which was difficult due to the lack of outside posted information & limited printed tour material. I wish we could have learned more.
- 233 1) consider biking trails, walking or running trails in place of existing railroad beds. 2) Would like to see a "tram" display or interpretive station.
- 237 1) need some more info about tramways & mines so we know how they were used/built, etc. 2) more info on what is currently being done to these buildings - what is historic preservation? What is happenings?
- 244 Saw a bear! Hotel spectacular! Great food. Wonderful place! Wish buildings were labeled and historic information provided.
- 246 I would have really enjoyed a brochure which gave a walking tour of historic Kennicott, much like the one offered for McCarthy.
- 276 Explain how everything was powered, i.e. coal/steam, etc.
- 305 An operating model layout of the Copper River & Northwestern Railway would greatly add to my historic area experience!
- 311 Some small interpretive signs near glacier about glacial activity would be good.
- 345 This area has greatly improved since my first visit in 2000 when there was no one to answer my questions. Suggestion: extend ranger-guided tours through Labor Day.
- 349 More informational signage. Some info on what the buildings were used for. The audio guided tour is a great idea.

Stabilization / Rehabilitation Theme

- 41 Nice park. Don't spend too much money on Kennecott restoration. Get all motor vehicles out of Kennecott except pre-1930 and do restoration & maintenance slowly with 1910 labor and tools only.
- 81 I enjoy coming here very much. The place is growing more and more activity, but who's to say stop?? It is for everyone, but historical charm and aesthetic are not necessarily strengthened by over-reparations & rebuilding → leave some to nature.
- 105 Keep the buildings from falling down and if possible open some up for tours inside would be cool.

- 109 I believe that you need to stabilize and restore some things on the buildings. But does it have to be so obvious? I mean come on what is up with the front of the Mill Building? White paint around the windows or some sides of the windows and inside the new wood rails could be finished to look old. That would make my experience more enjoyable.
- 120 We loved the ranger talks, think it would be great to have more in depth discussions/tours available... As well as seeing building interiors. Stabilizing the buildings would be great, but rebuilding entirely would take away authenticity. Audio & video tours would be too impersonal...too urban.
- 128 Stabilize the structures!!
- 137 I think all building should be restored and have people dressed and telling stories and something about the people and history
- 170 Nice hotel & accommodations, some good service. Don't rehabilitate the place. Let it safely decay. Provide info for individual use. It will never be Denali, so don't piss away my tax dollars on stupid park.
- 178 I hope that the buildings in the Mill Town will be stabilized to the point that they will not collapse and are safe, but not fully restored from a ruinous state. Its existence as a ghost town is extremely evocative.
- 180 Great place, but would like to be able to get inside buildings. After restoration I am sure that will be possible.
- 256 Enjoyed the restoration efforts & keep on the good work - enjoy the history and remoteness.
- 261 Limit access to private parties and small tour groups of no more than 10/12 people. Restore to what it was like in the days of activity as much as possible.
- 274 It's a great place to visit. We look forward to coming back when future restoration is complete.
- 323 While it is very interesting to see Kennicott in its natural state of decay, I would be really excited to come back in 10 years when some of the buildings are restored and it will be more possible to get a feeling for what life might have been like here when it was a working mill.
- 334 We enjoyed our stay! Beautiful sights. It would be a shame if the old village would be lost.

Miscellaneous Comments

- 77 Save the mine, pave the road, change the admission fees, more better organized tours.
- 80 Didn't appreciate motorcyclist on trail. Otherwise wonderful experience.
- 87 It would be nice to see some of the machinery and/or equipment operating.
- 149 I wish this survey would have been a little shorter.
- 169 Remove the Pilgrims – they are not who they pretend to be. Create tension in the town and detract from the experience and at times feel unsafe.
- 196 Would have stayed longer & enjoyed more but low on cash most places only take.
- 198 Please think about foreign languages
- 206 Questionnaire is poorly designed and largely inapplicable to this particular site
- 278 Encountered the Pilgrim family at the bridge - took their van - major negative impact on our initial perception of the Park.

Trail Maintenance Theme

- 16 We would like to see more trail & well maintained trails. We would love to see more signage on the trails and in town. The rangers were very friendly and helpful. The exhibits at the visitor centers were excellent. Thank you.
- 17 Some maintenance at the top of the trail would be appreciated
- 104 I would be helpful to have trailheads in the areas going out to glacier & mines.
- 158 Better signs for the Kennecott Circle walk (just after cottage 22)
- 165 The Erie Mine Trail needs work – better trail markers and cleaner trail. I thought the moraine part was a little dangerous for a hiking trail.
- 241 Route to Bonanza mine should be better indicated by sign
- 277 Would appreciate trail maintenance on trail to Jumbo mine. Would appreciate period finished home on exhibit. Would appreciate mining oriented information & geologic information. But don't change this place too much.

Access Theme

- 167 We have heard that the Park Service wants to encourage more use of this park to take some load off Denali. If so, more & better access needs to be provided; i.e. improved road, rest areas, etc.
- 202 Parking too high. Should have shuttle bus from kiosk center and charge less.
- 282 I thin the NPS should open up their campground @ mile 59 of McCarthy Road! This is not a day-use area (3-4 hour drive!) and overnight facilities should be available (not by private parties). If it remains closed, this information should be available at the Copper Center Visitor Center: Camping is not free!
- 315 Keep the ambiance of Old Kennicott, while allowing access - a great job thus far!!
- 333 The commercial folks running campgrounds, buses, parking need some more structure. Park needs to provide parking, campsites, and more easy access to Kennecott.
- 339 \$25 for inside mine tour is prohibitively expensive.
- 348 Provide transportation to the glacier.

Commercialization Theme

- 68 Outsourcing public property is a crime. National Parks are for the enjoyment of all – rich or poor. Scale back rather than price people out of the experience.
- 89 Please don't commercialize it. Just fix it up a little. Thank you!
- 116 The public should have access to National Park buildings. The concessionaires should not have a monopoly on our park buildings. They can still have their tour and spice it up with lunch, souvenirs, ...and privately owned buildings. But the NPS and the public should not be paying for the buildings and denying access via the NPS ranger walks and talks.

230 It is beautiful here! It is important not to commercialize the experience of visiting this place. Keep cars to a minimum or the main street will be ruined. If McCarthy wants cars and trucks - fine but do not let any more up here! Also, although the history of this town is fascinating the desire to pour money into restoring these buildings must be balanced against the more important goal of protecting the wilderness ecosystems throughout this gorgeous park.

260 Do not over develop this place, you'll kill the magic.

285 Please keep this place quiet and remote! Industrial tourism doesn't belong here!!

Wildlife/Wilderness Theme

42 The integrity of the natural environment here is of immense importance. The historical stuff should be allowed to disappear while, at the same time, measures are taken to protect the natural environment from pollution from the mining materials and from ATV's, vehicles, and other anthropogenic sources. I'd like to see only non-motorized access into the area. If they could do it that way 150 years ago, they could do it today. The glacier and forests and streams are worth all the protection from despoilment as possible.

138 Saw a black bear. (Great)

267 More of our country's wild areas should be protected as Wilderness!!!

272 Bears show no fear of humans. Relocation of certain animals may be in the best interest of those bears and also the visitors.

289 A beautiful unspoiled area, chance to see things - mountains, glaciers, scenery in general, bears, etc - you cannot see or experience in England. A super location which generates a good feeling and a chance to meet interesting people. Great!

Kennecott Information Theme

154 Park needs further clarification on how to get here. I was under the impression McCarthy was on the other side of the footbridge. Very poor - not well run shuttle service (pay at bridge) - "fly by night" - didn't stick with schedule.

307 Park Service personnel at Highway (Copper Center) Visitor Center very helpful; informative - one had been to park which is invaluable to us. Ranger station at Chitina didn't know anything about the road despite being advertised as place for up to day road info.....useless.