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National Visitor
Use Monitoring
Program

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Visitor Use Report

Kootenai NF

USDA Forest Service
Region 1

National Visitor Use Monitoring
Data collected FY 2007

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1. INTRODUCTION

1.1. Scope and purpose of the National Visitor Use Monitoring program

The National Visitor Use Monitoring (NVUM) program provides reliable information about recreation visitors to national forest system managed lands at the national, regional, and forest level. Information about the quantity and quality of recreation visits is required for national forest plans, Executive Order 12862 (Setting Customer Service Standards), and implementation of the National Recreation Agenda. To improve public service, the agency's Strategic and Annual Performance Plans require measuring trends in user satisfaction and use levels. NVUM information assists Congress, Forest Service leaders, and program managers in making sound decisions that best serve the public and protect valuable natural resources by providing science based, reliable information about the type, quantity, quality and location of recreation use on public lands. The information collected is also important to external customers including state agencies and private industry. NVUM methodology and analysis is explained in detail in the research paper entitled: Forest Service National Visitor Use Monitoring Process: Research Method Documentation; English, Kocis, Zarnoch, and Arnold; Southern Research Station; May 2002 (http://www.fs.fed.us/recreation/programs/nvum).

In 1998 a team of research scientists and forest staff developed a recreation sampling system (NVUM) that provides statistical recreation use information at the forest, regional, and national level. Several Forest Service staff areas including Recreation, Wilderness, Ecosystem Management, Research and Strategic Planning and Resource Assessment were involved in developing the program. From January 2000 through September 2003 every national forest implemented this methodology and collected visitor use information. This application served to test the method over the full range of forest conditions, and to provide a rough national estimate of visitation. Implementation of the improved method began in October 2004. Once every five years, each National Forest and Grassland has a year of field data collection.

This NVUM data is useful for forest planning and decision making. The description of visitor characteristics (age, race, zip code, activity participation) can help forest staff identify their recreation niche. Satisfaction information can help management decide where best to place limited resources that would result in improved visitor satisfaction. Economic expenditure information can help forests show local communities the employment and income effects of tourism from forest visitors. In addition, the visitation estimates can be helpful in considering visitor capacity issues.

1.2. Methods

To define the sampling frame, staff on each forest classify all recreation sites and areas into five basic categories called "site types": Day Use Developed Sites (DUDS), Overnight Use Developed Sites (OUDS), Designated Wilderness Areas (Wilderness), General Forest Areas (GFA), and View Corridors (VC). Only the first four categories are counted as national forest recreation visits and are included in the visit estimates. The last category is used to track the volume of people who view national forests from nearby roads; since they do not get onto agency lands, they cannot be counted as visits. For the entire sampling year, each day on each site was given a rating of very high, high, medium, low, or no use according to the expected level of recreational visitors who

would be observed leaving that location for the last time (last exiting recreation use) on that day. The combination of a calendar day and a site or area is called a site day. Site days are the basic sampling unit for the NVUM protocol. Results of this forest categorization are shown in Table 1.

In essence, visitation is estimated through a combination of traffic counts and surveys of exiting visitors. Both are obtained on a random sample of locations and days distributed over an entire forest for a year. All of the surveyed recreation visitors are asked about their visit duration, activities, demographics, travel distance, and annual usage. About one-third were also asked a series of questions about satisfaction. Another one-third were asked to provide information about their income, spending while on their trip, and the next best substitute for the visit.

1.3. Definition of Terms

NVUM has standardized measures of visitor use to ensure that all national forest visitor measures are comparable. These definitions are basically the same as established by the Forest Service in the 1970's. Visitors must pursue a recreation activity physically located "on" Forest Service managed land in order to be counted. They cannot be passing through; viewing from non-Forest Service managed roads, or just using restroom facilities. The visitation metrics are ***national forest visits*** and ***site visits.*** NVUM provides estimates of both and confidence interval statistics measuring the precision of the estimates. The NVUM methodology categorizes recreation facilities and areas into specific site types and use levels in order to develop the sampling frame. Understanding the definitions of the variables used in the sample design and statistical analysis is important in order to interpret the results.

National forest visit is the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A national forest visit can be composed of multiple site visits. The visit ends when the person leaves the national forest to spend the night somewhere else.

Site visit is the entry of one person onto a national forest site or area to participate in recreation activities for an unspecified period of time. The site visit ends when the person leaves the site or area for the last time on that day.

A ***confidence interval*** is a range of values that is likely to include an unknown population value, where the range is calculated from a given set of sample data. Confidence intervals are always accompanied by a ***confidence level***, which tells the degree of certainty that the value lies in the interval. Used together these two terms define the reliability of the estimate, by defining the range of values that are needed to reach the given confidence level. For example, the 2008 national visitation estimate is 175.6 million visits, with a 90% confidence interval of 3.2%. In other words, given the NVUM data, our best estimate is 175.6 million visits, and given the underlying data, we are 90% certain that the true number is between 170.0 million and 181.2 million.

Recreation trip is the duration of time beginning when the visitor left their home and ending when they return to their home.

Site day - a day that a recreation site or area is open to the public for recreation purposes.

Proxy - information collected at a recreation site or area that is directly related to the amount of

recreation visitation received. The proxy information must pertain to all users of the site and it must be one of the proxy types allowed in the NVUM pre-work directions (fee receipts, fee envelopes, mandatory permits, permanent traffic counters, group reservations, ticket sales, and daily use records).

Nonproxy - a recreation site or area that does not have proxy information. At these sites a 24-hour traffic count is taken to measure total use for one site day at the sample site.

Use level - for each day of the year for each recreation site or area, the site day was categorized as very high, high, medium or low last exiting recreation traffic, or no exiting use. No Use could means either that the location was administratively closed, or it was open but was expected to have zero last exiting visitors. For example a picnic area may listed as having no use during winter months (120 days), high last exiting recreation volume on all other weekends (70 days) and medium last exiting recreation use on the remaining midweek days (175 days). This accounts for all 365 days of the year. This process was repeated for every site and area on the forest.

1.4. Limitations of the Results

The information presented here is valid and applicable at the forest, regional, and national level. It is not designed to be accurate at the district or site level. The quality of the visitation estimate is dependent on the sample design development, sampling unit selection, sample size and variability, and survey implementation. First, preliminary work conducted by forests to identify and consistently classify sites and access points according to the type and amount of expected exiting visitation is the key determinant of the validity and magnitude of the visitation estimate. Second, the success of the forest staff in accomplishing its assigned set of sample days, correctly filling out the interview forms, and following the field protocols influence the reliability of the results, variability of the visitation estimate, and validity of the visitation descriptions. Third, the variability of traffic counts within a sampling stratum affects the reliability of the visitation estimates. Fourth, the range of visitors sampled must be representative of the population of all visitors. Finally, the number of visitors sampled must be large enough to adequately control variability. The results and confidence intervals will reflect all these factors.

Confidence intervals indicate the reliability of the visitation estimate, given the underlying data. Large confidence intervals indicate high variability in the national forest visit (NFV), site visit (SV) and Wilderness visit estimates. Variance is caused primarily by a small sample size in number of days or having a few sampled days where the observed exiting visitation volume was very different from the normal range. For example, on a particular National Forest in the General Forest Area low stratum, there were 14 sample days. Of these 14 sample days, 13 days had visitation estimates between zero and twenty. The remaining day had a visitation estimate of 440. So the stratum mean was about 37 per day, standard error was about 116, and the 90% confidence interval width is 400% of the mean. Causes for such outlier observations are not known, but could include a misclassification of the day (a high use day incorrectly categorized as a low use day), unusual weather, malfunctioning traffic counter, or reporting errors. Eliminating the unusual observation from data analysis would reduce the variability. However, unless the NVUM team had reason to suspect the observation was incorrect they did not eliminate these unusual cases.

The descriptive information about national forest visitors is based upon only those visitors that were interviewed. Every effort was made to incorporate distinct seasonal use patterns and activities that

vary greatly by season into the sampling frame. The sampling plan took into account both the spatial and seasonal spread of visitation patterns across the forest. Even so, because of the small sample size of site-days, or because some user groups decline to participate in the survey, it is possible to under-represent certain user groups, particularly for activities that are quite limited in where or when they occur.

Note that the results of the NVUM activity analysis DO NOT identify the types of activities visitors would like to have offered on the national forests. It also does not tell us about displaced forest visitors, those who no longer visit the forest because the activities they desire are not offered.

Some forest visitors were counted and included in the total forest use estimate but were not surveyed. This included visitors to recreation special events and organization camps. Their characteristics are not included in the visit descriptions.

Caution should be used in interpreting any comparisons of these results with those obtained during the 2000 - 2003 period. Differences cannot be interpreted as a trend. Several method changes account for the differences, for both visitation estimates and visit characteristics. One key factor is that the first application of the NVUM process was largely a national beta-test of the method, and significant improvements occurred following it. The NVUM process entailed a completely new method and approach to measuring visitation on National Forest lands. Simply going through the NVUM process for the first time enabled forest staff to do a much better job thereafter in identifying sites, accurately classifying days into use level strata, and ensuring consistency across all locations on the forest. These improvements enhanced the validity of all aspects of the NVUM results. Sampling plans and quality control procedures were also improved.

2. VISITATION ESTIMATES

2.1. Forest Definition of Site Days

The population of site days for sampling was constructed from information provided by forest staff. For each site, each day of the year was given a rating of very high, high, medium, low, or none according to the expected volume of recreation visitors who would be leaving the site or area for the last time (last exiting recreation use). The stratum, a combination of site type and use level, was then used to construct the sampling frame. The results of the recreation site/area stratification and days sampled are displayed in Table 1.

Table 1. Site Days and Percentage of Days Sampled by Stratum

Stratum*		Days Sampled	Site Days# in Use Level/Proxy Population	Sampling Rate (%)&
Site Type†	Use Level‡ or Proxy Code§			
DUDS	VERY HIGH	12	115	10.4
DUDS	HIGH	16	364	4.4
DUDS	MEDIUM	12	863	1.4
DUDS	LOW	8	1,282	0.6
DUDS	DUR5	10	365	2.7
DUDS	ST1	10	50	20.0
OUDS	HIGH	10	30	33.3
OUDS	MEDIUM	10	328	3.0
OUDS	LOW	7	1,776	0.4
OUDS	DUR4	11	102	10.8
OUDS	FE4	12	1,641	0.7
OUDS	RE2	12	1,827	0.7
GFA	HIGH	18	1,499	1.2
GFA	MEDIUM	19	6,409	0.3
GFA	LOW	12	8,622	0.1
WILDERNESS	HIGH	11	108	10.2
WILDERNESS	MEDIUM	14	493	2.8
WILDERNESS	LOW	8	746	1.1
Total		212	26,620	0.8

* Stratum is the combination of the site type and use level or proxy code. Sample days were independently drawn within each stratum.

† DUDS = Day Use Developed Site, OUDS = Overnight Use Developed Site, GFA = General Forest Area ("Undeveloped Areas"), WILDERNESS = Designated Wilderness

‡ Use level was defined independently by each forest by defining the expected number of recreation visitors that would be last-exiting a site or area on a given day. The forest developed the range for very high, high, medium, and low and then assigned each day of the year to one of the use levels.

§ Proxy Code - If the site or area already had counts of use (such as fee envelopes or ski lift tickets) the site was called a proxy site and sampled independent of nonproxy sites.

Site Days are days that a recreation site or area is open to the public for recreation purposes.

& 0.0 - This value is less than five one-hundredths.

2.2. Visitation Estimates

Visitation estimates are available at the national, regional, and forest level. This document provides only National Forest level data. Other documents may be obtained through the National Visitor Use Monitoring web page: www.fs.fed.us/recreation/programs/nvum.

When reviewing the results, users should discuss with forest staff if this forest experienced any unusual circumstances such as forest fires, floods, or atypical weather that may have created an unusual recreation use pattern for the year sampled. Table 2 displays the number of national forest visits and site visits by site type for this National Forest.

Table 2. Annual Visitation Estimate

Visit Type	Visits (1,000s)	90% Confidence Level (%)#
Total Estimated Site Visits*	989	±18.6
→ Day Use Developed Site Visits	124	±22.8
→ Overnight Use Developed Site Visits	29	±34.1
→ General Forest Area Visits	824	±22.1
→ Designated Wilderness Visits†	12	±32.8
Total Estimated National Forest Visits§	892	±18.9
→ Special Events and Organized Camp Use‡	1	±0.0

* A Site Visit is the entry of one person onto a National Forest site or area to participate in recreation activities for an unspecified period of time.

† Designated Wilderness visits are included in the Site Visits estimate.

‡ Special events and organizational camp use are not included in the Site Visit estimate, only in the National Forest Visits estimate. Forests reported the total number of participants and observers so this number is not estimated; it is treated as 100% accurate.

§ A National Forest Visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

This value defines the upper and lower bounds of the visitation estimate at the 90% confidence level, for example if the visitation estimate is 100 +/-5%, one would say "at the 90% confidence level visitation is between 95 and 105 visits."

The quality of the use estimate is based in part on how many individuals were contacted during the sample day and how many complete interviews were obtained from which to estimate NVUM numbers and visitor descriptions. Table 3 and Table 4 display the number of visitor contacts, number of completed interviews by site type and survey form type. This information may be useful to managers when assessing how representative of all visitors the information in this report may be.

Table 3. Number of Individuals Contacted by Site Type

Site Type	Total Individuals Contacted	Individuals Who Agreed to be Interviewed	Recreating Individuals Who Are Leaving for the Last Time That Day
Day Use Developed Sites	687	669	475
Overnight Use Developed Sites	347	342	121
Undeveloped Areas (GFAs)	541	510	341
Designated Wilderness	293	289	52
Total	**1,868**	**1,810**	**989**

Table 4. Number of Complete Interviews* by Site Type and Form Type

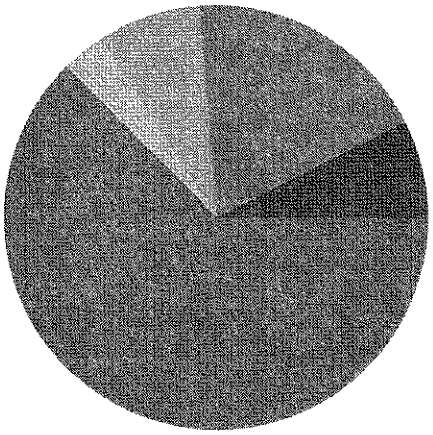
Form Type†	Developed Day Use Site	Developed Overnight	Undeveloped Areas (GFAs)	Wilderness	Total
Basic	176	50	118	21	365
Economic	158	42	115	17	332
Satisfaction	141	29	108	14	292
Total	**475**	**121**	**341**	**52**	**989**

* Complete interviews are those in which the individual contacted agreed to be interviewed, was recreating on the national forest and was exiting the site or area for the last time that day.

† Form type is the type of interview form administered to the visitor. The Basic form did not ask either economic or satisfaction questions. The Satisfaction form did not ask economic questions and the Economic form did not ask satisfaction questions.

Visitors were interviewed regardless of whether they were recreating at the site or not, however the interview was discontinued after determining that the reason for visiting the site was not recreation. Figure 1 displays the various reasons visitors gave as their purpose for stopping at the sample site.

Figure 1. Purpose of Visit by Visitors Who Agreed to be Interviewed



Recreation	62.5%
Use Bathroom	3.2%
Work or Commute	7.8%
Passing Through	19.0%
Some Other Reason	7.4%
Total:	100.0%

3. DESCRIPTION OF THE RECREATION VISIT

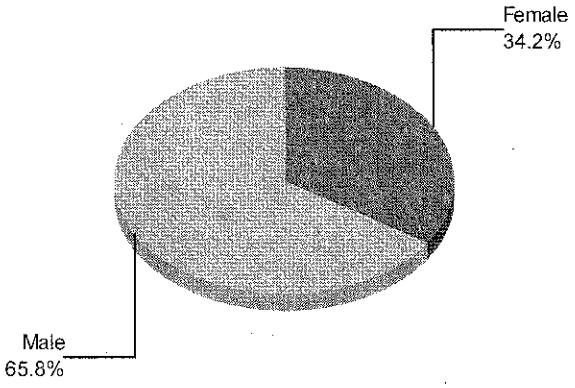
3.1. Demographics

Descriptions of forest recreational visits were developed based upon the characteristics of interviewed visitors (respondents) and expanded to the national forest visitor population. Basic demographic information helps forest managers identify the profile of the visitors they serve. Management concerns such as providing recreation opportunities for underserved populations may be monitored with this information. Table 5, Table 6 and Table 7 provide basic demographic information about visitors interviewed regarding Gender, Race/Ethnicity, and Age, respectively. Table 8 shows the 15 most common reported origins for recreation visitors. A complete list of reported zip codes for respondents is found in Appendix A. Table 9 provides information about self reported travel distance from home to the interview site.

Demographic results show that almost 69 percent of visits are made by males. Spanish, Hispanic, or Latino visitors (1.6%) are the most common racial or ethnic minority. There are relatively few older people in the visiting population. Only about 5 percent of visits are made by people aged 70 and up. One fifth of the visiting population is in their fifties and over 18 percent are in their forties. Just over 19 percent of the visiting population is children under the age of 16. This forest serves a mostly local client base. Over half of the visits are made by people who live within 25 miles of the forest, and nearly 68 percent of visits come from people who live within 50 miles of the forest.

Table 5. Percent of National Forest Visits* by Gender

Gender	Survey Respondents†	National Forest Visits (%)‡
Female	976	34.2
Male	1,283	65.8
Total	**2,259**	**100.0**



* A National Forest Visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

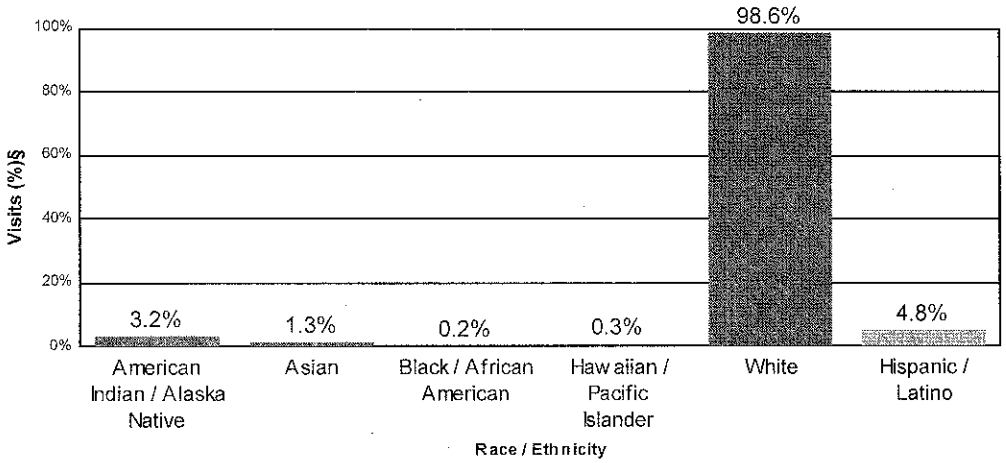
† Non-respondents to gender questions were excluded from analysis.

‡ Calculations are computed using weights that expand the sample of individuals to the population of National Forest Visits.

Table 6. Percent of National Forest Visits* by Race/Ethnicity

Race †	Survey Respondents‡	National Forest Visits (%)§
American Indian / Alaska Native	14	3.2
Asian	3	1.3
Black / African American	1	0.2
Hawaiian / Pacific Islander	5	0.3
White	656	98.6
Total	679	103.6#

Ethnicity†	Survey Respondents‡	National Forest Visits (%)§
Hispanic / Latino	15	4.8



* A National Forest Visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

Respondents could choose more than one racial group, so the total may be more than 100%.

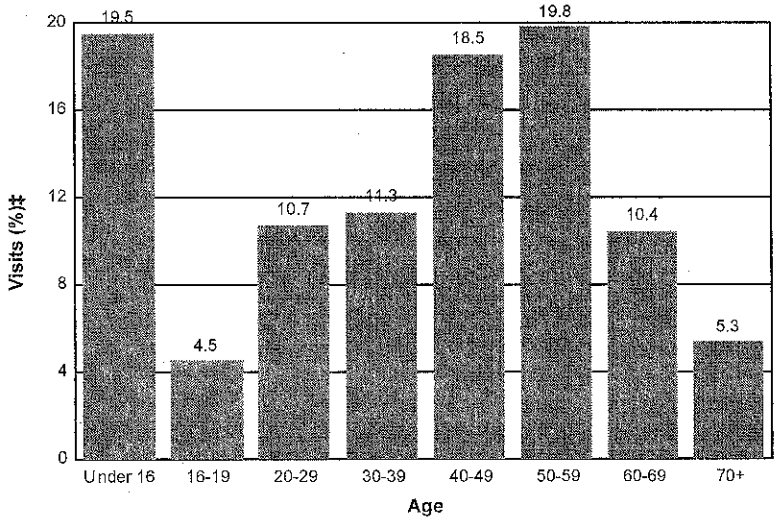
† Race and Ethnicity were asked as two separate questions.

‡ Non-respondents to race/ethnicity questions were excluded from analysis.

§ Calculations are computed using weights that expand the sample of individuals to the population of National Forest Visits.

Table 7. Percent of National Forest Visits* by Age

Age Class	National Forest Visits (%)‡
Under 16	19.5
16-19	4.5
20-29	10.7
30-39	11.3
40-49	18.5
50-59	19.8
60-69	10.4
70+	5.3
Total	**100.0**



* A National Forest Visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

† Non-respondents to age questions were excluded from analysis.

‡ Calculations are computed using weights that expand the sample of individuals to the population of National Forest Visits.

Table 8. Top 15 Most Commonly Reported ZIP Codes, States and Counties of National Forest Survey Respondents

ZIP Code	State	County	Percent of Respondents	Survey Respondents (n)
59923	Montana	MT, Lincoln County	42.6	285
59935	Montana	MT, Lincoln County	15.5	104
59917	Montana	MT, Lincoln County	10.2	68
Foreign Country			5.7	38
59901	Montana	MT, Flathead County	4.8	32
59853	Montana	MT, Sanders County	3.6	24
Unknown Origin*			3.4	23
83805	Idaho	ID, Boundary County	2.5	17
83864	Idaho	ID, Bonner County	2.2	15
83811	Idaho	ID, Bonner County	1.8	12
59801	Montana	MT, Missoula County	1.6	11
59930	Montana	MT, Lincoln County	1.6	11
59802	Montana	MT, Missoula County	1.5	10
59918	Montana	MT, Lincoln County	1.5	10
59937	Montana	MT, Flathead County	1.3	9

* Includes respondents reporting no ZIP code or an invalid ZIP code.

Table 9. Percent of National Forest Visits* by Distance Traveled

Miles from Survey Respondent's Home to Interview Location†	National Forest Visits (%)
0 - 25 miles	49.8
26 - 50 miles	10.1
51 - 75 miles	8.4
76 - 100 miles	4.1
101 - 200 miles	9.3
201 - 500 miles	5.9
Over 500 miles	12.5
Total	100.1

Note: Blank cells indicate that insufficient data were collected to make inferences.

* National Forest Visits are defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

† Travel distance is self-reported.

3.2. Visit Descriptions

Characteristics of the recreation visit such as length of visit, types of sites visited, activity participation and visitor satisfaction with forest facilities and services help managers understand recreation use patterns and use of facilities. This allows them to plan workforce and facility needs. The average national forest visit length of stay and average site visit length of stay by site type on this forest is displayed in Table 10. Since the average values displayed in Table 10 may be influenced by a few people staying a very long time, the median value is also shown.

Visit durations on the Kootenai are relatively short. Over half of all recreation visits last less than 5 hours. Fewer than half of the visits to overnight sites last a full 24 hours. About three-quarters of the people who visit the forest for recreation go to only one place on the forest during their visit. Frequent visitors are more common on this forest than on many others. Here, 38 percent of all visits are made by people who visit the forest more than 50 times per year. Only about a quarter of all visits are made by people who visit 5 times per year or less.

Table 10. Visit Duration

Visit Type	Average Duration (hours)‡	Median Duration (hours)‡
Site Visit	8.9	3.0
Day Use Developed	1.9	1.1
Overnight Use Developed	36.4	19.0
Undeveloped Areas	8.8	4.0
Designated Wilderness	12.6	5.0
National Forest Visit	10.2	4.3

* A Site Visit is the entry of one person onto a national forest site or area to participate in recreation activities for an unspecified period of time. Sites and areas were divided into four site types as listed here.

† A National Forest Visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

‡ If this variable is blank not enough surveys were collected to make inferences.

Many of the respondents on this National Forest went only to the site at which they were interviewed (Table 11). Some visitors went to more than one recreation site or area during their national forest visit and the average site visits per national forest visit is shown below. Also displayed are the average people per vehicle and average axles per vehicle. This information in conjunction with traffic counts was used to expand observations from individual interviews to the full forest population of recreation visitors. This information may be useful to forest engineers and others who use vehicle counters to conduct traffic studies.

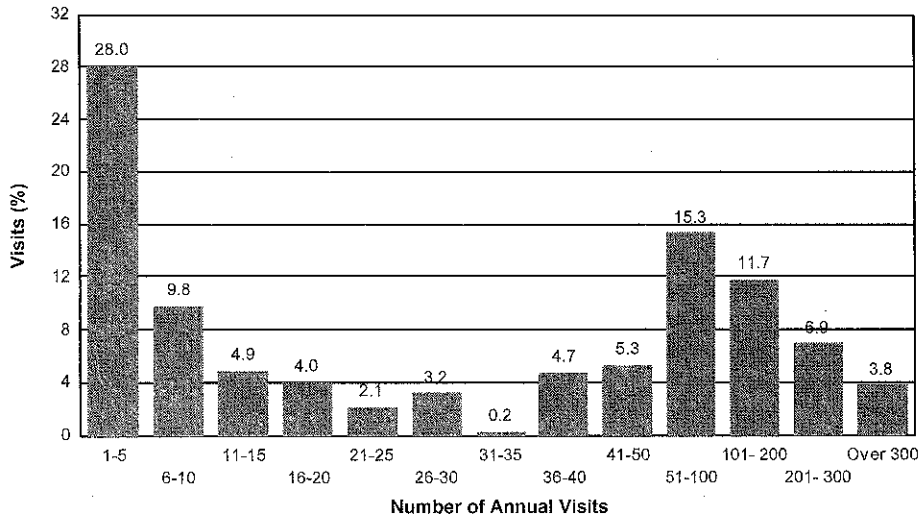
During the interview, visitors were asked how often they visit this national forest for all recreational activities, and how often for their primary activity. Table 12 summarizes the percent of visits that are made by those in each frequency category for this National Forest.

Table 11. Group Characteristics

Characteristic	Average
Percent of visits that were to just one national forest site during the National Forest Visit*	76.0
Number of national forest sites visited on National Forest Visit*	1.3
Group Size	2.3
Axles per Vehicle	2.1

Table 12. Percent of National Forest Visits* by Annual Visit Frequency

Number of Annual Visits	Visits (%)†	Cumulative Visits (%)
1 - 5	28.0	28.0
6 - 10	9.8	37.8
11 - 15	4.9	42.7
16 - 20	4.0	46.7
21 - 25	2.1	48.8
26 - 30	3.2	52.0
31 - 35	0.2	52.2
36 - 40	4.7	56.9
41 - 50	5.3	62.2
51 - 100	15.3	77.5
101 - 200	11.7	89.3
201 - 300	6.9	96.2
Over 300	3.8	100.0



* A National Forest Visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

† The first row indicates the percent of National Forest Visits made by persons who visit 1 to 5 times per year. The last row indicates the percent of National Forest Visits made by persons who visit more than 300 times per year.

3.3. Activities

After identifying their main recreational activity, visitors were asked how many hours they spent participating in that main activity during this national forest visit. Some caution is needed when using this information. Because most national forest visitors participate in several recreation activities during each visit, it is more than likely that other visitors also participated in this activity, but did not identify it as their main activity. For example, on one national forest 63 % of visitors identified viewing wildlife as a recreational activity that they participated in during this visit, however only 3% identified that activity as their main recreational activity. The information on average hours viewing wildlife is only for the 3% who reported it as a main activity.

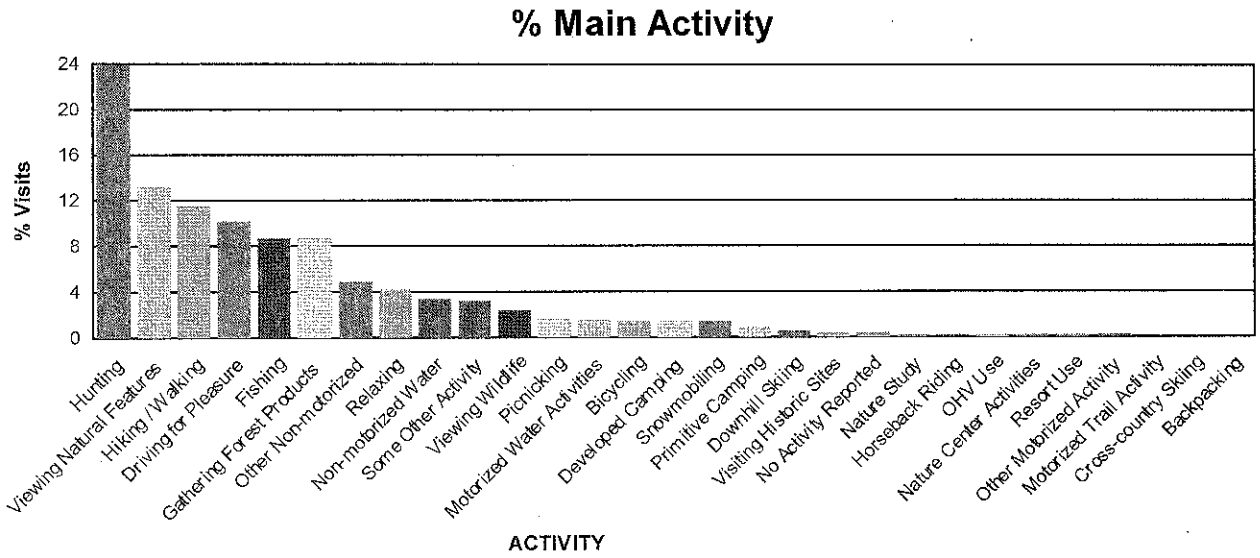
Hunting (23.9%) is the most common primary activity on the Kootenai, followed by viewing scenery (13.1%), hiking/walking (11.4%) and driving for pleasure (10.1%). Driving for pleasure is an activity that is engaged in for almost half of all visits. Hiking and the two viewing activities are participated in on over 40 percent of visits.

Use of Constructed Facilities and Designated Areas

About one-third of recreation visitors interviewed were asked about whether they made use of a targeted set of facilities and special designated areas during their visit. These results are displayed in Table 14.

Table 13. Activity Participation

Activity	% Participation*	% Main Activity‡	Avg Hours Doing Main Activity
Driving for Pleasure	49.2	10.1	2.9
Viewing Wildlife	46.4	2.3	3.2
Hiking / Walking	44.8	11.4	2.8
Viewing Natural Features	40.3	13.1	3.8
Hunting	28.2	23.8	7.5
Relaxing	26.7	4.1	7.4
Fishing	18.8	8.7	3.5
Gathering Forest Products	16.4	8.5	3.4
Other Non-motorized	10.9	4.7	2.3
Picnicking	10.9	1.5	4.4
Developed Camping	8.1	1.2	33.5
Bicycling	6.6	1.3	5.5
Some Other Activity	6.4	3.1	1.9
Nature Study	6.2	0.1	1.1
Motorized Water Activities	6.2	1.4	9.7
Non-motorized Water	6.1	3.2	2.1
Visiting Historic Sites	4.3	0.3	4.8
Nature Center Activities	4.1	0.0	1.3
Primitive Camping	3.9	0.8	42.7
Backpacking	3.3	0.0	0.0
Cross-country Skiing	3.0	0.0	0.0
Snowmobiling	2.0	1.2	4.0
Motorized Trail Activity	1.3	0.0	0.0
Downhill Skiing	1.1	0.5	4.4
Resort Use	1.0	0.0	48.0
OHV Use	0.9	0.1	38.0
Horseback Riding	0.9	0.1	4.3
No Activity Reported	0.1	0.3	
Other Motorized Activity	0.0	0.0	36.0



* Survey respondents could select multiple activities so this column may total more than 100%.

‡ Survey respondents were asked to select just one of their activities as their main reason for the forest visit. Some respondents selected more than one, so this column may total more than 100%.

Table 14. Percent of National Forest Visits* Indicating Use of Special Facilities or Areas

Special Facility or Area	% of National Forest Visits†
Developed Swimming Site	14.5
Scenic Byway	33.7
Visitor Center or Museum	3.0
Designated ORV Area	2.7
Forest Roads	12.7
Interpretive Displays	7.3
Information Sites	6.8
Developed Fishing Site	15.2
Motorized Single Track Trails	2.9
Motorized Dual Track Trails	9.2
None of these Facilities	41.5

* A National Forest Visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

† Survey respondents could select as many or as few special facilities or areas as appropriate.

4. ECONOMIC INFORMATION

Forest managers are usually very interested in the impact of National Forest recreation visits on the local economy. As commodity production of timber and other resources has declined, local communities look increasingly to tourism to support their communities. When considering recreation-related visitor spending managers are often interested both in identifying the average spending of individual visitors (or types of visitors) and the total spending associated with all recreation use. Spending averages for visitors or visitor parties can be estimated using data collected from a statistically valid visitor sampling program such as NVUM. To estimate the total spending associated with recreation use, three pieces of information are needed: an overall visitation estimate, the proportion of visits in the visitor types, and the average spending profiles for each of the visitor types. Multiplying the three gives a total amount of spending by a particular type of visitor. Summing over all visitor types gives total spending.

About one-third of the NVUM surveys included questions about trip-related spending within 50 miles of the site visited. Spending data collected from 2000 to 2003 were analyzed at Michigan State University by Dr. Daniel Stynes and Dr. Eric White. A description of that analysis and the results are in the report "Spending Profiles of National Forest Visitors: NVUM four-year report", available at http://www.fs.fed.us/recreation/programs/nvum/NVUM4YrSpending.pdf. Analysis of spending data for the 2005 - 2009 data collection periods was completed in summer of 2010.

4.1. Spending Segments

The spending that occurs on a recreation trip is greatly influenced by the type of recreation trip taken. For example, visitors on overnight trips away from home typically have to pay for some form of lodging (e.g., hotel/motel rooms, fees in a developed campground, etc.) while those on day trips do not. In addition, visitors on overnight trips will generally have to purchase more food during their trip (in restaurants or grocery stores) than visitors on day trips. Visitors who have not traveled far from home to the recreation location usually spend less than visitors traveling longer distances, especially on items such as fuel and food. Analysis of spending patterns has shown that a good way to construct segments of the visitor market with consistent spending patterns is the following seven groupings:

1. local visitors on day trips,
2. local visitors on overnight trips staying in lodging on the national forest,
3. local visitors on overnight trips staying in lodging off the national forest, and
4. non-local visitors on day trips,
5. non-local visitors on overnight trips staying in lodging on the national forest,
6. non-local visitors on overnight trips staying in lodging off the forest,
7. non-primary visitors.

Local visitors are those who travel less than 50 road miles from home to the recreation site visited and non-local visitors are those who travel greater than 50 road miles to the recreation site visited. Non-primary visitors are those for whom the primary purpose of their trip is something other than recreating on that national forest. Table 15 shows the distribution of visits by spending segment.

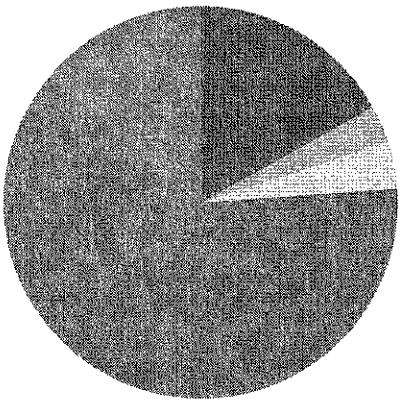
Nearly 60 percent of all visits are made by local area residents on day trips away from home.

Another 17 percent of visits are non-local residents on day trips away from home. Somewhat more than one in every eight visits is made by someone whose primary recreation destination is someplace other than this forest. Because so many of the visits are day trips, the median spending per part per trip is only about $20.00. Most visits come from households of very modest means. Thirty percent of visits are made by people who report an annual household income of under $25,000. Over 38 percent are made by people show household income is between $25,000 and $50,000.

Table 15. Distribution of National Forest Visits* by Market Segment†

	Non-Local Segments			Local Segments				
	Day	Overnight on NF	Overnight off NF	Day	Overnight on NF	Overnight off NF	Non-Primary‡	Total
Number of National Forest Visits	151,601	26,753	35,671	526,145	26,753	8,918	115,930	891,771
Percent of National Forest Visits	17	3	4	59	3	1	13	100

Percent of National Forest Visits



Non-Local Day	17.0%
Non-Local Overnight on NF	3.0%
Non-Local Overnight off NF	4.0%
Local Day	59.0%
Local Overnight on NF	3.0%
Local Overnight off NF	1.0%
Non-Primary	13.0%
Total:	100.0%

* A National Forest Visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

† The market segments shown here relate to the type of recreation trip taken. A recreation trip is defined as the duration of time beginning when the visitor left their home and ending when they got back to their home. "Non-local" trips are those where the individual(s) traveled greater than approximately 50 miles from home to the site visited. "Day" trips do not involve an overnight stay outside the home, "overnight on-forest" trips are those with an overnight stay outside the home on National Forest System (NFS) land, and "overnight off-forest" trips are those with an overnight stay outside the home off National Forest System land.

‡ "Non-primary" trips are those where the primary recreation destination of the trip was somewhere other than the national forest under consideration.

Individuals are urged to consult an economist when interpreting the NVUM economic tables.

4.2. Spending Profiles

Spending profiles for each segment for this forest can be found in the Stynes and White report noted above. Appendix Table A-1 in that report identifies whether the forest has a high-spending profile (Table 7 of Stynes and White), an average profile (Table 5), or a low-spending profile (Table 8). It is essential to note that these spending profiles are in dollars spent per **party**. Obtaining per-visit spending is accomplished by dividing the spending for each segment by the average people per party for the forest and segment found in Appendix Table A-3 of that report.

4.3. Total Direct Spending

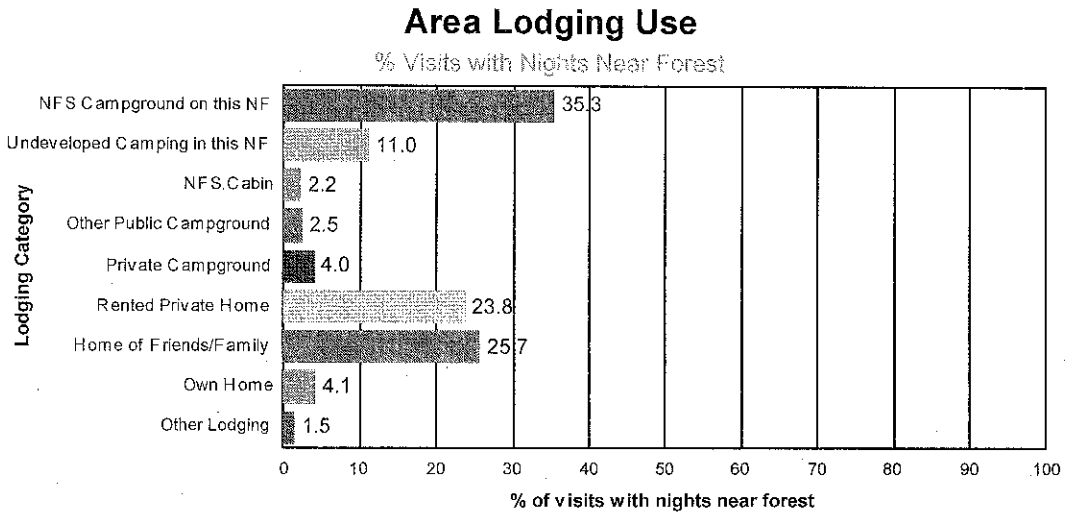
Total direct spending made within 50 miles of the forest and associated with national forest recreation is calculated by combining estimates of per-visit spending averages from the spending profiles with estimates of the number of national forest visits in the segment. The number of visits in the segment equals the percentage in Table 15 times the number of National Forest visits reported in Table 2.

4.4. Other Visit Information

There are several other important aspects of the trips on which the recreation visits to the forest are made. These are summarized in Table 16. The first aspect relates to total amount spent by the recreating party on the trip. This includes spending not just within 50 miles of the forest, but anywhere. The table shows both the average and the median. Another set describes the overall length of the trips on which the visits are made. The table shows the percent of the visits that were made on trips where the person stayed away from home overnight (even though the forest visit may be just a day visit), and the average total nights away from home and nights spent within 50 miles of the forest. For those spending one or more nights in or near the forest, the table shows the percentage that selected each of a series of lodging options. Together, these results help show the context of overall trip length and lodging patterns for visitors to the forest.

Table 16. Trip Spending and Lodging Usage

Trip Spending	Value
Average Total Trip Spending per Party	$254
Median Total Trip Spending per Party	$20
% NF Visits made on trip with overnight stay away from home	22.0%
% NF Visits with overnight stay within 50 miles of NF	17.4%
Mean nights/visit within 50 miles of NF	7.5
Area Lodging Use	**% Visits with Nights Near Forest**
NFS Campground on this NF	35.3%
Undeveloped Camping in this NF	11.0%
NFS Cabin	2.2%
Other Public Campground	2.5%
Private Campground	4.0%
Rented Private Home	23.8%
Home of Friends/Family	25.7%
Own Home	4.1%
Other Lodging	1.5%



4.5. Household Income

Visitors were asked to report a general category for their total household income. Only very general categories were used, to minimize the intrusive nature of the question. Results help indicate the overall socio-economic status of visitors to the forest, and are found in Table 17.

Table 17. Percent of National Forest Visits* by Annual Household Income

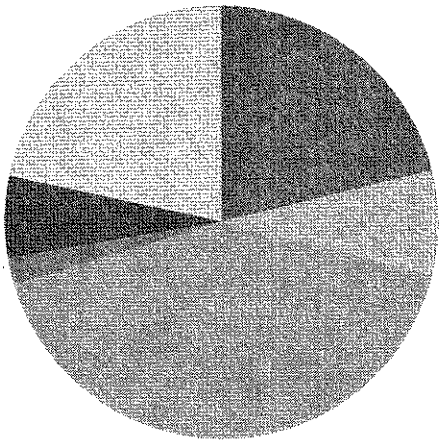
Annual Household Income Category	National Forest Visits (%)
Under $25,000	29.7
$25,000 to $49,999	38.3
$50,000 to $74,999	16.8
$75,000 to $99,999	6.8
$100,000 to $149,999	5.1
$150,000 and up	3.3
Total	100.0

* National Forest Visits are defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

4.6. Substitute Behavior

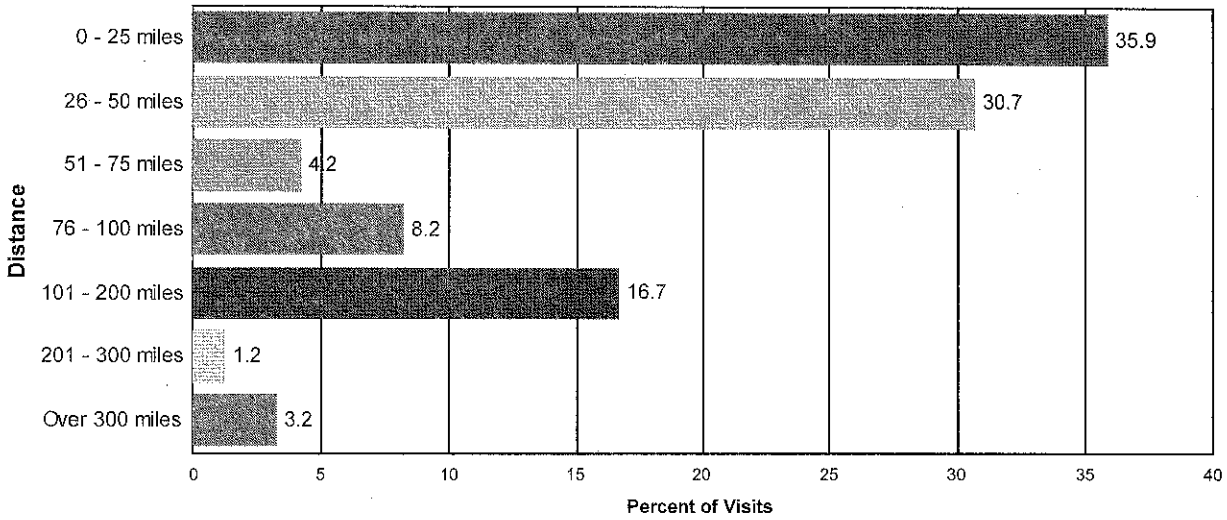
Visitors were asked to select one of several substitute choices, if for some reason they were unable to visit this national forest (Figure 3). Choices included going somewhere else for the same activity they did on the current trip, coming back to this forest for the same activity at some later time, going someplace else for a different activity, staying at home and not making a recreation trip, going to work instead of recreating, and a residual 'other' category. On most forests, the majority of visitors indicate that their substitute behavior choice is activity driven (going elsewhere for same activity) and a smaller percentage indicate they would come back later to this national forest for the same activity. For those visitors who said they would have gone somewhere else for recreation they were asked how far from their home this alternate destination was. These results are shown in Figure 4.

Figure 3. Substitute Behavior Choices



Come back another time	21.0%
Gone Elsewhere for a Different Activity	7.8%
Gone Elsewhere for the Same Activity	41.4%
Gone to Work	2.0%
Had some other substitute	6.1%
Stayed at home	21.8%
Total:	100.0%

Figure 4. Reported Distance Visitors Would Travel to Alternate Location



5. SATISFACTION INFORMATION

An important element of outdoor recreation program delivery is evaluating customer satisfaction with the recreation setting, facilities, and services provided. Satisfaction information helps managers decide where to invest in resources and to allocate resources more efficiently toward improving customer satisfaction. Satisfaction is a core piece of data for national- and forest-level performance measures. To describe customer satisfaction, several different measures are used. Recreation visitors were asked to provide an overall rating of their visit to the national forest, on a 5-point Likert scale. About one-third of visitors interviewed on the forest rated their satisfaction with fourteen elements related to recreation facilities and services, and the importance of those elements to their recreation experience. Visitors were asked to rate the specific site or area at which they were interviewed. Visitors rated both the importance and performance (satisfaction with) of these elements using a 5-point scale. The Likert scale for importance ranged from not important to very important. The Likert scale for performance ranged from very dissatisfied to very satisfied. Although the satisfaction ratings specifically referenced the area where the visitor was interviewed, the survey design does not usually have enough responses for any individual site or area on the forest to present information at a site level. Rather, the information is generalized to overall satisfaction within the three site types: Day Use Developed (DUDS), Overnight Use Developed (OUDS), General Forest Areas, and on the forest as a whole.

The satisfaction responses are analyzed in several ways. First, a graph of overall satisfaction is presented in Figure 5. Next, two aggregate measures were calculated from the set of individual elements. The satisfaction elements most readily controlled by managers were aggregated into four categories: developed facilities, access, services, and visitor safety. The site types sampled were aggregated into three groups: developed sites (includes both day use and overnight developed sites), dispersed areas, and designated Wilderness. The first aggregate measure is called "Percent Satisfied Index (PSI)", which is the proportion of all ratings for the elements in the category where the satisfaction ratings had a numerical rating of 4 or 5. Conceptually, the PSI indicator shows the percent of all recreation customers who are satisfied with agency performance. The agency's national target for this measure is 85%. It is usually difficult to consistently have a higher satisfaction score than 85% since given tradeoffs among user groups and other factors. Table 18 displays the aggregate PSI scores for this forest.

Another aggregate measure of satisfaction is called "Percent Meet Expectations (PME)". This is the proportion of satisfaction ratings in which the numerical satisfaction rating for a particular element is equal to or greater than the importance rating for that element. This indicator tracks the congruence between the agency's performance and customer evaluations of importance. The idea behind this measure is that those elements with higher importance levels must have higher performance levels. Figure 6 displays the PME scores by type of site. Lower scores indicate a gap between desires and performance.

An Importance-Performance Analysis (IPA) (Hudson, et al, Feb 2004) was calculated for the importance and satisfaction scores. A target level of importance and performance divides the possible set of score pairs into four quadrants. For this work, the target level of both was a numerical score of 4.0. Each quadrant has a title that helps in interpreting responses that fall into it, and that provides some general guidance for management. These can be described as:

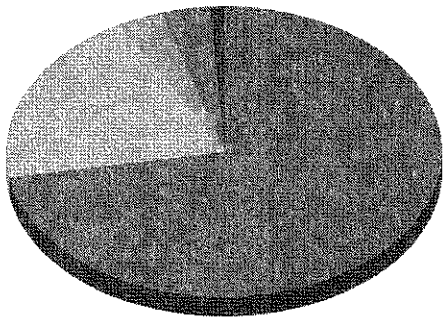
1. Importance at or above 4.0, Satisfaction at or above 4.0: **Keep up the good work**. These are items that are important to visitors and ones that the forest is performing quite well;
2. Importance at or above 4.0, Satisfaction under 4.0: **Concentrate here**. These are important items to the public, but performance is not where it needs to be. Increasing effort here is likely to have the greatest payoff in overall customer satisfaction;
3. Importance below 4.0, Satisfaction above 4.0: **Possible overkill**. These are items that are not highly important to visitors, but the forest's performance is quite good. It may be possible to reduce effort here without greatly harming overall satisfaction;
4. Importance below 4.0; Satisfaction below 4.0: **Low Priority**. These are items where performance is not very good, but neither are they important to visitors. Focusing effort here is unlikely to have a great impact.

We present tables that show the I-P rating title for each satisfaction element. Each sitetype is presented in a separate table. Results are presented in Tables 19 - 22.

The numerical scores for visitor satisfaction and importance for each element by site type, and the sample sizes for each are presented in Appendix B (Tables B1 - B4). Most managers find it difficult to discern meaning from these raw tables; however they may wish to examine specific elements once they have reviewed the other satisfaction information presented in this section. Note that if an element had fewer than 10 responses no analyses are performed, as there are too few responses to provide reliable information. Finally, visitors were asked about their overall satisfaction with and the importance of road condition and the adequacy of signage. Figure 7a and Figure 7b show the results.

Results for overall satisfaction are quite high. Over ninety percent of visits report being somewhat or very satisfied with their visits. The results for the composite satisfaction indices are a good deal lower. Ratings for perception of safety are over ninety percent of each type of site. However, for the rest, only the composite access rating in Wilderness is at or above the national target of 85% satisfaction.

Figure 5. Percent of National Forest Visits by Overall Satisfaction Rating



Very Satisfied	72.3%
Somewhat Satisfied	19.8%
Neither Satisfied nor Dissatisfied	3.1%
Somewhat Dissatisfied	3.6%
Very Dissatisfied	1.2%
Total:	100.0%

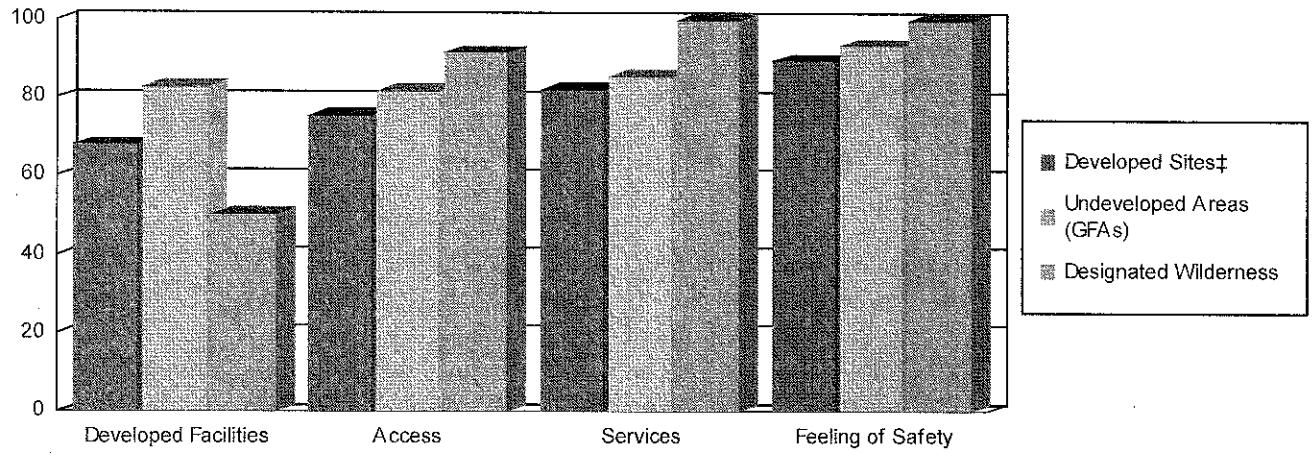
Table 18. Percent Satisfied Index† Scores for Aggregate Categories

Satisfaction Element	Satisfied Survey Respondents (%)		
	Developed Sites‡	Undeveloped Areas (GFAs)	Designated Wilderness
Developed Facilities	78.2	71.0	58.9
Access	79.9	75.6	95.7
Services	65.0	51.0	60.4
Feeling of Safety	94.5	96.6	100.0

† This is a composite rating. It is the proportion of satisfaction ratings scored by visitors as good (4) or very good (5). Computed as the percentage of all ratings for the elements within the sub grouping that are at or above the target level, and indicates the percent of all visitors that are reasonably well satisfied with agency performance.

‡ This category includes both Day Use and Overnight Use Developed Sites.

Figure 6. Percent Meets Expectations Scores*



* "Percent Meet Expectations (PME)" is the proportion of satisfaction ratings in which the numerical satisfaction rating for a particular element is equal to or greater than the importance rating for that element. This indicator tracks the congruence between the agency's performance and customer evaluations of importance. The idea behind this measure is that those elements with higher importance levels must have higher performance levels. Lower scores indicate a gap between desires and performance.

‡ This category includes both Day Use and Overnight Use Developed Sites.

Table 19. Importance-Performance Ratings for Day Use Developed Sites

Satisfaction Element	Importance-Performance Rating
Restroom Cleanliness	Keep up the Good Work
Developed Facilities	Keep up the Good Work
Condition of Environment	Keep up the Good Work
Employee Helpfulness	Keep up the Good Work
Interpretive Displays	Low Priority
Parking Availability	Keep up the Good Work
Parking Lot Condition	Keep up the Good Work
Rec. Info. Availability	Possible Overkill
Road Condition	Keep up the Good Work
Feeling of Satefy	Keep up the Good Work
Scenery	Keep up the Good Work
Signage Adequacy	Possible Overkill
Trail Condition	Keep up the Good Work
Value for Fee Paid	Concentrate Here

Table 20. Importance-Performance Ratings for Overnight Developed Sites

Satisfaction Element	Importance-Performance Rating
Restroom Cleanliness	Keep up the Good Work
Developed Facilities	Keep up the Good Work
Condition of Environment	Keep up the Good Work
Employee Helpfulness	*
Interpretive Displays	Low Priority
Parking Availability	Keep up the Good Work
Parking Lot Condition	Keep up the Good Work
Rec. Info. Availability	Possible Overkill
Road Condition	Concentrate Here
Feeling of Satefy	Keep up the Good Work
Scenery	Keep up the Good Work
Signage Adequacy	Keep up the Good Work
Trail Condition	*
Value for Fee Paid	*

* The data was not reported for items with fewer than 10 responses.

Table 21. Importance-Performance Ratings for Undeveloped Areas (GFAs)

Satisfaction Element	Importance-Performance Rating
Restroom Cleanliness	Concentrate Here
Developed Facilities	Keep up the Good Work
Condition of Environment	Keep up the Good Work
Employee Helpfulness	Low Priority
Interpretive Displays	Low Priority
Parking Availability	Possible Overkill
Parking Lot Condition	Possible Overkill
Rec. Info. Availability	Low Priority
Road Condition	Concentrate Here
Feeling of Satefy	Keep up the Good Work
Scenery	Keep up the Good Work
Signage Adequacy	Possible Overkill
Trail Condition	Keep up the Good Work
Value for Fee Paid	Low Priority

Table 22. Importance-Performance Ratings for Designated Wilderness

Satisfaction Element	Importance-Performance Rating
Restroom Cleanliness	*
Developed Facilities	*
Condition of Environment	Keep up the Good Work
Employee Helpfulness	*
Interpretive Displays	*
Parking Availability	Possible Overkill
Parking Lot Condition	*
Rec. Info. Availability	Low Priority
Road Condition	Keep up the Good Work
Feeling of Satefy	Keep up the Good Work
Scenery	Keep up the Good Work
Signage Adequacy	Possible Overkill
Trail Condition	Keep up the Good Work
Value for Fee Paid	*

* The data was not reported for items with fewer than 10 responses.

Figure 7a. Satisfaction with Forest-wide Road Conditions & Signage Adequacy

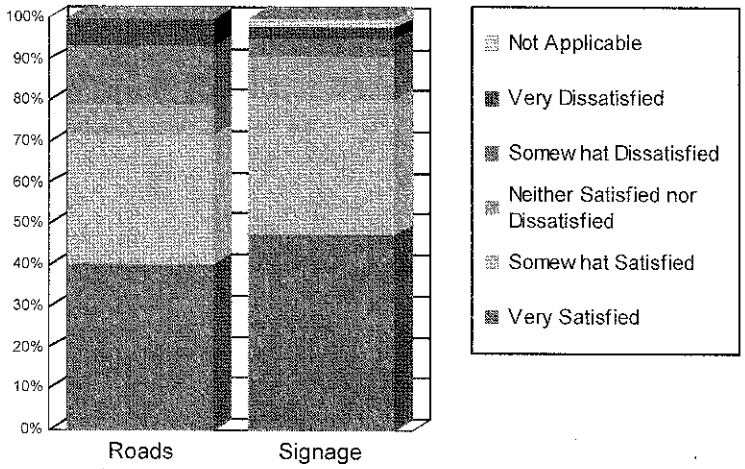
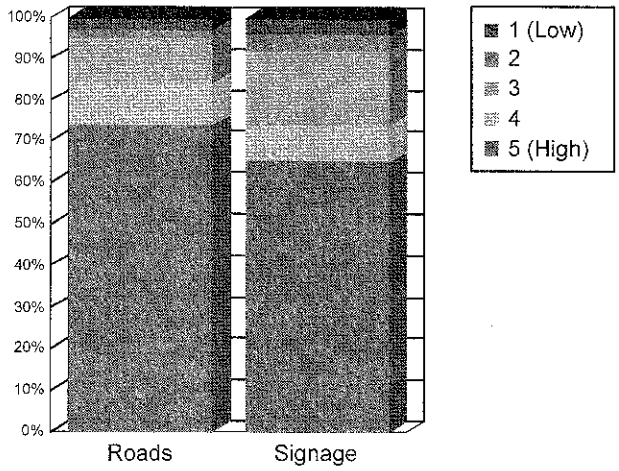


Figure 7b. Importance of Forest-wide Road Conditions & Signage Adequacy

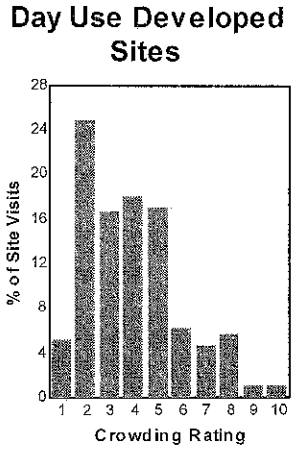


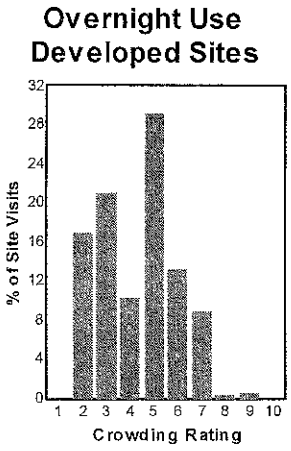
5.1. Crowding

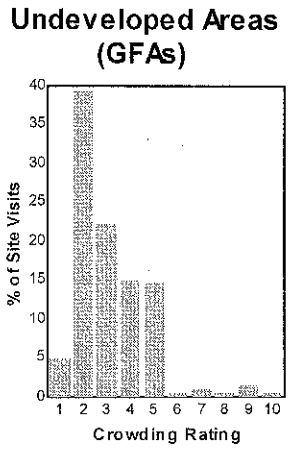
Visitors rated their perception of how crowded the recreation site or area felt to them. This information is useful when looking at the type of site the visitor was using since someone visiting a designated Wilderness may think 5 people is too many while someone visiting a developed campground may think 200 people is about right. Table 23 shows the distribution of responses for each site type. Crowding was reported on a scale of 1 to 10 where 1 denotes hardly anyone was there, and a 10 indicates the area was perceived as overcrowded.

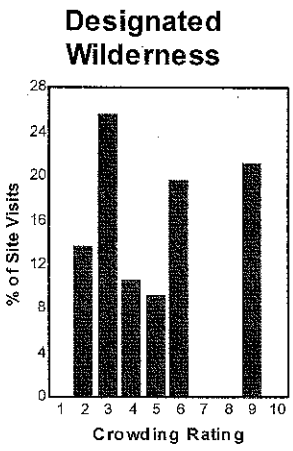
Table 23. Percent of Site Visits* by Crowding Rating and Site Type

Crowding Rating†	Site Types (% of Site Visits)			
	Day Use Developed Sites	Overnight Use Developed Sites	Undeveloped Areas (GFAs)	Designated Wilderness
10 - Overcrowded	1.1	0.0	0.5	0.0
9	1.1	0.6	1.5	21.2
8	5.6	0.3	0.5	0.0
7	4.6	8.9	1.0	0.0
6	6.1	13.2	0.5	19.7
5	17.0	29.1	14.6	9.1
4	17.9	10.2	15.0	10.6
3	16.6	21.0	22.1	25.7
2	24.8	16.8	39.3	13.7
1 - Hardly anyone there	5.2	0.0	4.9	0.0
Average Rating	**4.0**	**4.3**	**3.2**	**5.0**









* A Site Visit is the entry of one person onto a national forest site or area to participate in recreation activities for an unspecified period of time.

† Survey respondents rated how crowded the site or area they were interviewed at was using a scale of 1 to 10 where 1 meant hardly anyone was there and 10 meant the site or area was overcrowded.

5.2. Disabilities

Providing barrier-free facilities for recreation visitors is an important part of facility and service planning and development. One question asked if anyone in their group had a disability. If so, the visitor was then asked if the facilities at the sites they visited were accessible for this person (Table 24).

Table 24. Accessibility of National Forest Facilities by Persons with Disabilities

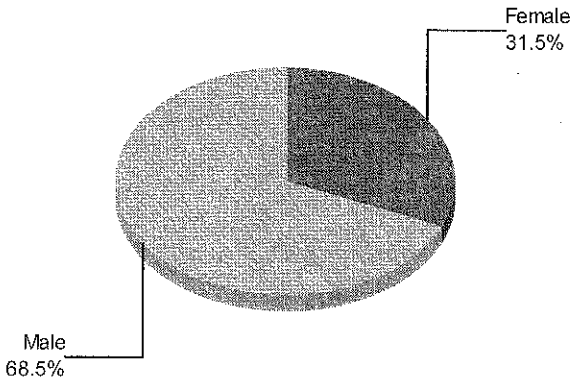
Item	Percent
% of visits that include a group member with a disability	10.9
Of this group, percent who said facilities at site visited were accessible	78.2

6. WILDERNESS VISIT DEMOGRAPHICS

Visits to Wilderness are sometimes made by a particular subset of the overall visitor population. In this chapter, tables are presented that describe the demographic characteristics of those who visit designated wilderness on this forest. Table 25 shows the gender breakdown, Table 26 the racial and ethnicity distribution, and the Table 27 age composition. In Table 28, a frequency analysis of Zip Codes obtained from respondents is presented, to give a rough idea of the common origins of Wilderness visitors.

Table 25. Percent of Wilderness Site Visits* by Gender

Gender	Survey Respondents†	Wilderness Site Visits (%)‡
Female	50	31.5
Male	81	68.5
Total	131	100.0



* A Site Visit is the entry of one person onto a National Forest site or area to participate in recreation activities for an unspecified period of time.

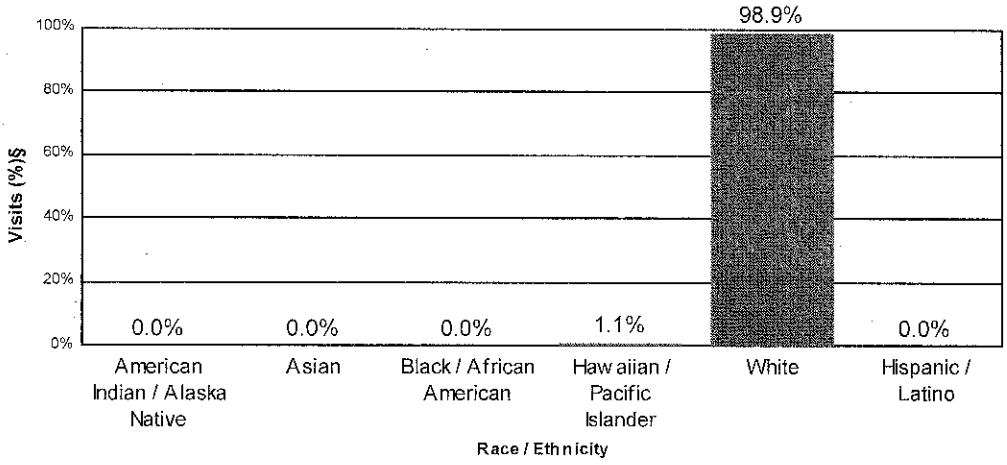
† Non-respondents to gender questions were excluded from analysis.

‡ Calculations are computed using weights that expand the sample of individuals to the population of Wilderness Site Visits.

Table 26. Percent of Wilderness Site Visits* by Race/Ethnicity

Race †	Survey Respondents‡	Wilderness Site Visits (%)§
American Indian / Alaska Native	0	0.0
Asian	0	0.0
Black / African American	0	0.0
Hawaiian / Pacific Islander	1	1.1
White	50	98.9
Total	51	100.0#

Ethnicity†	Survey Respondents‡	Wilderness Site Visits (%)§
Hispanic / Latino	0	0.0



* A Site Visit is the entry of one person onto a National Forest site or area to participate in recreation activities for an unspecified period of time.

Respondents could choose more than one racial group, so the total may be more than 100%.

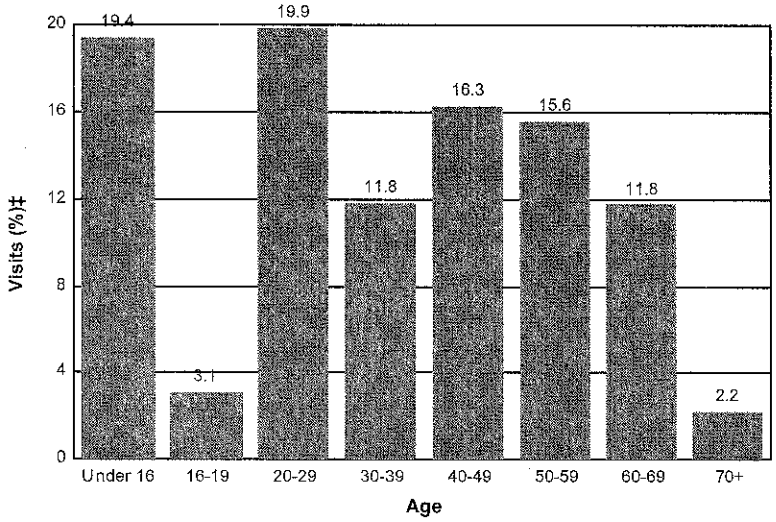
† Race and Ethnicity were asked as two separate questions.

‡ Non-respondents to race/ethnicity questions were excluded from analysis.

§ Calculations are computed using weights that expand the sample of individuals to the population of Wilderness Site Visits.

Table 27. Percent of Wilderness Site Visits* by Age

Age Class	Wilderness Site Visits (%)‡
Under 16	19.4
16-19	3.1
20-29	19.9
30-39	11.8
40-49	16.3
50-59	15.6
60-69	11.8
70+	2.2
Total	**100.1**



* A Site Visit is the entry of one person onto a National Forest site or area to participate in recreation activities for an unspecified period of time.

† Non-respondents to age questions were excluded from analysis.

‡ Calculations are computed using weights that expand the sample of individuals to the population of Wilderness Site Visits.

Table 28. Top 15 Most Commonly Reported ZIP Codes, States and Counties of Wilderness Survey Respondents

ZIP Code	State	County	Percent of Respondents	Survey Respondents (n)
59923	Montana	MT, Lincoln County	52.3	23
59901	Montana	MT, Flathead County	11.4	5
83864	Idaho	ID, Bonner County	6.8	3
59935	Montana	MT, Lincoln County	4.5	2
50036	Iowa	IA, Boone County	2.3	1
85332	Arizona	AZ, Yavapai County	2.3	1
99208	Washington	WA, Spokane County	2.3	1
99201	Washington	WA, Spokane County	2.3	1
59925	Montana	MT, Flathead County	2.3	1
06492	Connecticut	CT, New Haven County	2.3	1
59635	Montana	MT, Lewis and Clark County	2.3	1
Unknown Origin*			2.3	1
83858	Idaho	ID, Kootenai County	2.3	1
98105	Washington	WA, King County	2.3	1
83814	Idaho	ID, Kootenai County	2.3	1

* Includes respondents reporting no ZIP code or an invalid ZIP code.

7. APPENDIX TABLES

APPENDIX A - Complete List of ZIP Codes

Table A-1. ZIP Codes, States and Counties of National Forest Survey Respondents

ZIP Code	State	County	Percent of Respondents	Survey Respondents (n)
59923	Montana	MT, Lincoln County	28.8	285
59935	Montana	MT, Lincoln County	10.5	104
59917	Montana	MT, Lincoln County	6.9	68
Foreign Country			3.8	38
59901	Montana	MT, Flathead County	3.2	32
59853	Montana	MT, Sanders County	2.4	24
Unknown Origin*			2.3	23
83805	Idaho	ID, Boundary County	1.7	17
83864	Idaho	ID, Bonner County	1.5	15
83811	Idaho	ID, Bonner County	1.2	12
59801	Montana	MT, Missoula County	1.1	11
59930	Montana	MT, Lincoln County	1.1	11
59802	Montana	MT, Missoula County	1.0	10
59918	Montana	MT, Lincoln County	1.0	10
59937	Montana	MT, Flathead County	0.9	9
59844	Montana	MT, Sanders County	0.7	7
59934	Montana	MT, Lincoln County	0.5	5
59873	Montana	MT, Sanders County	0.5	5
59860	Montana	MT, Lake County	0.5	5
83854	Idaho	ID, Kootenai County	0.5	5
59874	Montana	MT, Sanders County	0.5	5
59859	Montana	MT, Sanders County	0.5	5
59601	Montana	MT, Lewis and Clark County	0.5	5
59635	Montana	MT, Lewis and Clark County	0.4	4
59803	Montana	MT, Missoula County	0.4	4
83815	Idaho	ID, Kootenai County	0.4	4
59912	Montana	MT, Flathead County	0.4	4
99203	Washington	WA, Spokane County	0.4	4
83856	Idaho	ID, Bonner County	0.4	4
83860	Idaho	ID, Bonner County	0.4	4
99205	Washington	WA, Spokane County	0.4	4
83858	Idaho	ID, Kootenai County	0.4	4
59828	Montana	MT, Ravalli County	0.3	3
83847	Idaho	ID, Boundary County	0.3	3
59925	Montana	MT, Flathead County	0.3	3
83845	Idaho	ID, Boundary County	0.3	3
59105	Montana	MT, Yellowstone County	0.2	2
59864	Montana	MT, Lake County	0.2	2
59865	Montana	MT, Lake County	0.2	2
98236	Washington	WA, Island County	0.2	2

59920	Montana	MT, Flathead County	0.2	2
59501	Montana	MT, Hill County	0.2	2
59718	Montana	MT, Gallatin County	0.2	2
99224	Washington	WA, Spokane County	0.2	2
59933	Montana	MT, Lincoln County	0.2	2
83835	Idaho	ID, Kootenai County	0.2	2
83814	Idaho	ID, Kootenai County	0.2	2
99201	Washington	WA, Spokane County	0.2	2
59102	Montana	MT, Yellowstone County	0.2	2
91350	California	CA, Los Angeles County	0.2	2
99208	Washington	WA, Spokane County	0.2	2
95724	California	CA, Nevada County	0.1	1
98407	Washington	WA, Pierce County	0.1	1
83607	Idaho	ID, Canyon County	0.1	1
98264	Washington	WA, Whatcom County	0.1	1
99202	Washington	WA, Spokane County	0.1	1
98367	Washington	WA, Kitsap County	0.1	1
17078	Pennsylvania	PA, Lebanon County	0.1	1
37174	Tennessee	TN, Maury County	0.1	1
98146	Washington	WA, King County	0.1	1
99163	Washington	WA, Whitman County	0.1	1
95519	California	CA, Humboldt County	0.1	1
15943	Pennsylvania	PA, Cambria County	0.1	1
99141	Washington	WA, Stevens County	0.1	1
90245	California	CA, Los Angeles County	0.1	1
99508	Alaska	AK, Anchorage Borough	0.1	1
80487	Colorado	CO, Routt County	0.1	1
21056	Maryland	MD, Anne Arundel County	0.1	1
77087	Texas	TX, Harris County	0.1	1
97086	Oregon	OR, Clackamas County	0.1	1
53070	Wisconsin	WI, Sheboygan County	0.1	1
99207	Washington	WA, Spokane County	0.1	1
53010	Wisconsin	WI, Fond du Lac County	0.1	1
94109	California	CA, San Francisco County	0.1	1
98052	Washington	WA, King County	0.1	1
59823	Montana	MT, Missoula County	0.1	1
59903	Montana	MT, Flathead County	0.1	1
85365	Arizona	AZ, Yuma County	0.1	1
59106	Montana	MT, Yellowstone County	0.1	1
83840	Idaho	ID, Bonner County	0.1	1
29646	South Carolina	SC, Greenwood County	0.1	1
98311	Washington	WA, Kitsap County	0.1	1
94122	California	CA, San Francisco County	0.1	1
83616	Idaho	ID, Ada County	0.1	1
98103	Washington	WA, King County	0.1	1
11746	New York	NY, Suffolk County	0.1	1
83655	Idaho	ID, Payette County	0.1	1
94937	California	CA, Marin County	0.1	1
38201	Tennessee	TN, Carroll County	0.1	1
97330	Oregon	OR, Benton County	0.1	1
50036	Iowa	IA, Boone County	0.1	1

98036	Washington	WA, Snohomish County	0.1	1
81303	Colorado	CO, La Plata County	0.1	1
54467	Wisconsin	WI, Portage County	0.1	1
85332	Arizona	AZ, Yavapai County	0.1	1
59804	Montana	MT, Missoula County	0.1	1
99005	Washington	WA, Spokane County	0.1	1
81211	Colorado	CO, Chaffee County	0.1	1
94933	California	CA, Marin County	0.1	1
56537	Minnesota	MN, Otter Tail County	0.1	1
30157	Georgia	GA, Paulding County	0.1	1
97229	Oregon	OR, Washington County	0.1	1
97914	Oregon	OR, Malheur County	0.1	1
83801	Idaho	ID, Kootenai County	0.1	1
85251	Arizona	AZ, Maricopa County	0.1	1
78539	Texas	TX, Hidalgo County	0.1	1
98296	Washington	WA, Snohomish County	0.1	1
97322	Oregon	OR, Linn County	0.1	1
99212	Washington	WA, Spokane County	0.1	1
82937	Wyoming	WY, Uinta County	0.1	1
76028	Texas	TX, Johnson County	0.1	1
99016	Washington	WA, Spokane County	0.1	1
81301	Colorado	CO, La Plata County	0.1	1
62906	Illinois	IL, Union County	0.1	1
58104	North Dakota	ND, Cass County	0.1	1
03301	New Hampshire	NH, Merrimack County	0.1	1
98366	Washington	WA, Kitsap County	0.1	1
98122	Washington	WA, King County	0.1	1
59101	Montana	MT, Yellowstone County	0.1	1
83127	Wyoming	WY, Lincoln County	0.1	1
32954	Florida	FL, Brevard County	0.1	1
84770	Utah	UT, Washington County	0.1	1
40223	Kentucky	KY, Jefferson County	0.1	1
98499	Washington	WA, Pierce County	0.1	1
98057	Washington	WA, King County	0.1	1
84017	Utah	UT, Summit County	0.1	1
99021	Washington	WA, Spokane County	0.1	1
98674	Washington	WA, Cowlitz County	0.1	1
91709	California	CA, San Bernardino County	0.1	1
17050	Pennsylvania	PA, Cumberland County	0.1	1
21620	Maryland	MD, Kent County	0.1	1
97801	Oregon	OR, Umatilla County	0.1	1
83804	Idaho	ID, Bonner County	0.1	1
98335	Washington	WA, Pierce County	0.1	1
59842	Montana	MT, Mineral County	0.1	1
99019	Washington	WA, Spokane County	0.1	1
78727	Texas	TX, Travis County	0.1	1
99574	Alaska	AK, Valdez-Cordova Census Area	0.1	1
99026	Washington	WA, Spokane County	0.1	1
68502	Nebraska	NE, Lancaster County	0.1	1
83869	Idaho	ID, Kootenai County	0.1	1
83826	Idaho	ID, Boundary County	0.1	1

59602	Montana	MT, Lewis and Clark County	0.1	1
59922	Montana	MT, Flathead County	0.1	1
60067	Illinois	IL, Cook County	0.1	1
98241	Washington	WA, Snohomish County	0.1	1
99219	Washington	WA, Spokane County	0.1	1
33870	Florida	FL, Highlands County	0.1	1
23112	Virginia	VA, Chesterfield County	0.1	1
07450	New Jersey	NJ, Bergen County	0.1	1
84003	Utah	UT, Utah County	0.1	1
83442	Idaho	ID, Jefferson County	0.1	1
72076	Arkansas	AR, Pulaski County	0.1	1
06492	Connecticut	CT, New Haven County	0.1	1
98632	Washington	WA, Cowlitz County	0.1	1
55102	Minnesota	MN, Ramsey County	0.1	1
98801	Washington	WA, Chelan County	0.1	1
86305	Arizona	AZ, Yavapai County	0.1	1
99006	Washington	WA, Spokane County	0.1	1
19465	Pennsylvania	PA, Chester County	0.1	1
28462	North Carolina	NC, Brunswick County	0.1	1
86406	Arizona	AZ, Mohave County	0.1	1
94553	California	CA, Contra Costa County	0.1	1
94502	California	CA, Alameda County	0.1	1
83706	Idaho	ID, Ada County	0.1	1
59866	Montana	MT, Mineral County	0.1	1
21771	Maryland	MD, Frederick County	0.1	1
95404	California	CA, Sonoma County	0.1	1
59740	Montana	MT, Madison County	0.1	1
59808	Montana	MT, Missoula County	0.1	1
93420	California	CA, San Luis Obispo County	0.1	1
59547	Montana	MT, Blaine County	0.1	1
85018	Arizona	AZ, Maricopa County	0.1	1
92840	California	CA, Orange County	0.1	1
98178	Washington	WA, King County	0.1	1
53151	Wisconsin	WI, Waukesha County	0.1	1
93001	California	CA, Ventura County	0.1	1
55419	Minnesota	MN, Hennepin County	0.1	1
46237	Indiana	IN, Marion County	0.1	1
99119	Washington	WA, Pend Oreille County	0.1	1
80403	Colorado	CO, Jefferson County	0.1	1
60091	Illinois	IL, Cook County	0.1	1
99206	Washington	WA, Spokane County	0.1	1
77375	Texas	TX, Harris County	0.1	1
34476	Florida	FL, Marion County	0.1	1
94551	California	CA, Alameda County	0.1	1
96110	California	CA, Modoc County	0.1	1
33331	Florida	FL, Broward County	0.1	1
84097	Utah	UT, Utah County	0.1	1
98105	Washington	WA, King County	0.1	1
92064	California	CA, San Diego County	0.1	1
97338	Oregon	OR, Polk County	0.1	1
11590	New York	NY, Nassau County	0.1	1

44333	Ohio	OH, Summit County	0.1	1
11232	New York	NY, Kings County	0.1	1
84321	Utah	UT, Cache County	0.1	1
98115	Washington	WA, King County	0.1	1
80212	Colorado	CO, Denver County	0.1	1
92571	California	CA, Riverside County	0.1	1
43221	Ohio	OH, Franklin County	0.1	1
85086	Arizona	AZ, Maricopa County	0.1	1
17547	Pennsylvania	PA, Lancaster County	0.1	1
28791	North Carolina	NC, Henderson County	0.1	1
59904	Montana	MT, Flathead County	0.1	1
59911	Montana	MT, Flathead County	0.1	1
87109	New Mexico	NM, Bernalillo County	0.1	1
59915	Montana	MT, Lake County	0.1	1
92109	California	CA, San Diego County	0.1	1
98119	Washington	WA, King County	0.1	1
59840	Montana	MT, Ravalli County	0.1	1
30736	Georgia	GA, Catoosa County	0.1	1
83669	Idaho	ID, Ada County	0.1	1
03820	New Hampshire	NH, Strafford County	0.1	1
83638	Idaho	ID, Valley County	0.1	1
59701	Montana	MT, Silver Bow County	0.1	1
95125	California	CA, Santa Clara County	0.1	1
97053	Oregon	OR, Columbia County	0.1	1
99204	Washington	WA, Spokane County	0.1	1
97537	Oregon	OR, Jackson County	0.1	1
97306	Oregon	OR, Marion County	0.1	1
59405	Montana	MT, Cascade County	0.1	1
49091	Michigan	MI, St. Joseph County	0.1	1
85737	Arizona	AZ, Pima County	0.1	1
60187	Illinois	IL, DuPage County	0.1	1
59845	Montana	MT, Sanders County	0.1	1
83452	Idaho	ID, Teton County	0.1	1
12309	New York	NY, Schenectady County	0.1	1
98346	Washington	WA, Kitsap County	0.1	1
98248	Washington	WA, Whatcom County	0.1	1
92102	California	CA, San Diego County	0.1	1
83873	Idaho	ID, Shoshone County	0.1	1
98532	Washington	WA, Lewis County	0.1	1
85272	Arizona	AZ, Pinal County	0.1	1
97536	Oregon	OR, Jackson County	0.1	1
85710	Arizona	AZ, Pima County	0.1	1
98371	Washington	WA, Pierce County	0.1	1
99012	Washington	WA, Spokane County	0.1	1
89423	Nevada	NV, Douglas County	0.1	1
98841	Washington	WA, Okanogan County	0.1	1
98370	Washington	WA, Kitsap County	0.1	1
92117	California	CA, San Diego County	0.1	1
89107	Nevada	NV, Clark County	0.1	1
99901	Alaska	AK, Ketchikan Gateway Borough	0.1	1
98329	Washington	WA, Pierce County	0.1	1

59715	Montana	MT, Gallatin County	0.1	1
85711	Arizona	AZ, Pima County	0.1	1
97211	Oregon	OR, Multnomah County	0.1	1
90717	California	CA, Los Angeles County	0.1	1
79852	Texas	TX, Brewster County	0.1	1
89510	Nevada	NV, Washoe County	0.1	1
70757	Louisiana	LA, Iberville Parish	0.1	1

* Includes respondents reporting no ZIP code or an invalid ZIP code.

APPENDIX B - Detailed Satisfaction Results

Table B-1. Satisfaction for Visits to Day Use Developed Sites

Satisfaction Element	Percent Rating Satisfaction as:					Mean Rating§	Mean Importance†	No. Obs‡
	Very Dissatisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Somewhat Satisfied	Very Satisfied			
Restroom Cleanliness	6.0	7.4	13.3	21.1	52.2	4.1	4.6	116
Developed Facilities	10.0	3.5	1.7	26.5	58.2	4.2	4.3	134
Condition of Environment	4.5	8.9	2.8	19.5	64.2	4.3	4.7	133
Employee Helpfulness	11.2	0.0	12.1	11.6	65.1	4.2	4.3	52
Interpretive Displays	3.7	2.8	39.0	8.1	46.4	3.9	3.3	89
Parking Availability	14.5	2.9	0.0	7.0	75.6	4.3	4.4	140
Parking Lot Condition	13.2	1.9	5.2	10.0	69.8	4.2	4.2	139
Rec. Info. Availability	3.4	5.9	23.7	18.7	48.3	4.0	3.5	115
Road Condition	3.7	12.5	3.6	28.9	51.3	4.1	4.4	138
Feeling of Satefy	0.0	3.3	3.1	9.2	84.3	4.7	4.6	136
Scenery	0.0	3.2	2.4	8.5	85.9	4.8	4.6	141
Signage Adequacy	3.5	15.8	11.8	13.5	55.3	4.0	3.7	138
Trail Condition	0.0	7.8	16.9	16.0	59.3	4.3	4.5	73
Value for Fee Paid	0.0	0.0	48.5	12.1	39.4	3.9	4.1	42

NOTE: The data was not reported for items with fewer than 10 responses. Satisfaction and Importance were asked as two separate questions so one of these may have 10 responses even though the other does not.

§ Scale: Very Dissatisfied = 1, Somewhat Dissatisfied = 2, Neither Satisfied nor Dissatisfied = 3, Somewhat Satisfied = 4, Very Satisfied = 5

† Scale: Not Important = 1, Somewhat Important = 2, Moderately Important = 3, Important = 4, Very Important = 5

‡ No. Obs is the number of survey respondents who responded to this item.

Table B-2. Satisfaction for Visits to Overnight Developed Sites

Satisfaction Element	Percent Rating Satisfaction as:					Mean Rating§	Mean Importance†	No. Obs‡
	Very Dissatisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Somewhat Satisfied	Very Satisfied			
Restroom Cleanliness	1.9	16.4	14.5	1.1	66.0	4.1	5.0	27
Developed Facilities	0.3	14.7	8.5	27.1	49.5	4.1	4.8	26
Condition of Environment	0.0	0.3	0.0	29.5	70.2	4.7	4.9	29
Employee Helpfulness								6
Interpretive Displays	0.3	0.0	54.7	15.1	29.9	3.7	3.4	23
Parking Availability	0.3	0.3	0.0	22.8	76.6	4.8	4.5	26
Parking Lot Condition	0.0	16.8	0.4	18.8	64.1	4.3	4.1	21
Rec. Info. Availability	0.0	0.0	40.5	13.7	45.8	4.1	3.8	27
Road Condition	0.0	38.2	0.0	28.8	33.0	3.6	4.7	29
Feeling of Satefy	0.3	0.0	0.0	0.6	99.2	5.0	5.0	27
Scenery	0.0	0.0	0.0	0.0	100.0	5.0	4.8	29
Signage Adequacy	12.7	0.0	13.8	10.2	63.3	4.1	4.4	28
Trail Condition	0.0	0.0	39.0	0.9	60.1	4.2		10
Value for Fee Paid								6

NOTE: The data was not reported for items with fewer than 10 responses. Satisfaction and Importance were asked as two separate questions so one of these may have 10 responses even though the other does not.

§ Scale: Very Dissatisfied = 1, Somewhat Dissatisfied = 2, Neither Satisfied nor Dissatisfied = 3, Somewhat Satisfied = 4, Very Satisfied = 5

† Scale: Not Important = 1, Somewhat Important = 2, Moderately Important = 3, Important = 4, Very Important = 5

‡ No. Obs is the number of survey respondents who responded to this item.

Table B-3. Satisfaction for Visits to Undeveloped Areas (GFAs)

Satisfaction Element	Percent Rating Satisfaction as:					Mean Rating§	Mean Importance†	No. Obs‡
	Very Dissatisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Somewhat Satisfied	Very Satisfied			
Restroom Cleanliness	10.4	2.1	24.3	9.0	54.2	3.9	4.4	28
Developed Facilities	0.0	6.3	18.3	1.2	74.2	4.4	4.3	42
Condition of Environment	0.0	2.8	7.4	35.1	54.6	4.4	4.5	89
Employee Helpfulness	0.0	0.0	40.1	38.6	21.3	3.8	3.7	29
Interpretive Displays	0.0	1.1	70.3	14.3	14.3	3.4	2.9	42
Parking Availability	0.0	0.7	14.9	24.7	59.7	4.4	3.8	63
Parking Lot Condition	0.0	0.0	20.4	25.4	54.2	4.3	3.8	56
Rec. Info. Availability	0.9	2.6	54.7	13.1	28.8	3.7	3.0	48
Road Condition	9.8	13.9	8.3	28.5	39.5	3.7	4.6	77
Feeling of Satefy	0.0	2.4	1.1	19.1	77.5	4.7	4.2	87
Scenery	0.0	0.0	2.8	16.7	80.5	4.8	4.6	90
Signage Adequacy	1.4	2.1	28.1	27.8	40.5	4.0	3.7	68
Trail Condition	0.0	7.2	20.6	13.3	59.0	4.2	4.4	62
Value for Fee Paid	0.0	2.8	84.8	0.0	12.4	3.2	3.3	15

NOTE: The data was not reported for items with fewer than 10 responses. Satisfaction and Importance were asked as two separate questions so one of these may have 10 responses even though the other does not.

§ Scale: Very Dissatisfied = 1, Somewhat Dissatisfied = 2, Neither Satisfied nor Dissatisfied = 3, Somewhat Satisfied = 4, Very Satisfied = 5

† Scale: Not Important = 1, Somewhat Important = 2, Moderately Important = 3, Important = 4, Very Important = 5

‡ No. Obs is the number of survey respondents who responded to this item.

Table B-4. Satisfaction for Visits to Designated Wilderness*

Satisfaction Element	Percent Rating Satisfaction as:					Mean Rating§	Mean Importance†	No. Obs‡
	Very Dissatisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Somewhat Satisfied	Very Satisfied			
Restroom Cleanliness								3
Developed Facilities								3
Condition of Environment	0.0	0.0	0.0	31.7	68.3	4.7	4.7	14
Employee Helpfulness								1
Interpretive Displays								7
Parking Availability	0.0	0.0	5.8	5.8	88.4	4.8	3.6	12
Parking Lot Condition							3.6	9
Rec. Info. Availability	0.0	11.6	34.9	21.7	31.7	3.7	2.5	12
Road Condition	0.0	5.1	0.0	50.8	44.1	4.3	4.5	13
Feeling of Satefy	0.0	0.0	0.0	0.0	100.0	5.0	4.7	13
Scenery	0.0	0.0	0.0	4.6	95.4	5.0	4.7	14
Signage Adequacy	0.0	0.0	25.7	19.7	54.6	4.3	3.4	14
Trail Condition	0.0	0.0	0.0	10.2	89.8	4.9	4.5	13
Value for Fee Paid								1

NOTE: The data was not reported for items with fewer than 10 responses. Satisfaction and Importance were asked as two separate questions so one of these may have 10 responses even though the other does not.

§ Scale: Very Dissatisfied = 1, Somewhat Dissatisfied = 2, Neither Satisfied nor Dissatisfied = 3, Somewhat Satisfied = 4, Very Satisfied = 5

† Scale: Not Important = 1, Somewhat Important = 2, Moderately Important = 3, Important = 4, Very Important = 5

‡ No. Obs is the number of survey respondents who responded to this item.

* Data supplied is for all Designated Wilderness on the forest combined. Data was not collected for satisfaction for each individual Wilderness on the forest.