

National Visitor Use Monitoring Results

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**USDA Forest Service
Region 1**

FLATHEAD NATIONAL FOREST

National Visitor Use Monitoring Project

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INTRODUCTION

Scope and purpose of the National Visitor Use Monitoring project

The National Visitor Use Monitoring (NVUM) project was implemented as a response to the need to better understand the use of, importance of and satisfaction with national forest system recreation opportunities. National forest plans, Executive Order 12862 (Setting Customer Service Standards), and implementation of the National Recreation Agenda require this level of understanding. The agency's Strategic and Annual Performance Plans require measuring trends in user satisfaction and use levels to be able to improve public service. It will assist 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; SE Experiment Station; May 2001 (<http://www.fs.fed.us/recreation/recuse/recuse.shtml>).

In conjunction with guidelines and recommendations from the Outdoor Recreation Review Commission, the USDA-Forest Service has estimated recreation use and maintained records since the 1950s. Many publications on preferred techniques for estimating recreation use at developed and dispersed recreation sites were sponsored by Forest Service Research Stations and Universities. Implementation of these recommended methodologies takes specific skills, a dedicated work force, and strict adherence to an appropriate sampling plan. The earliest estimates were designed to estimate use at developed fee recreation facilities such as campgrounds. These estimates have always been fairly reliable because they are based upon readily observable, objective counts of items such as a fee envelope.

Prior to the mid-1990s, the forest Service used its Recreation Information Management (RIM) system to store and analyze recreation use information. Forest managers often found they lacked the resources to both manage the recreation facilities and simultaneously monitor visitor use following the established protocols. In 1996, the RIM monitoring protocols were no longer required to be used.

In 1998 a group of research and forest staff were appointed to investigate and pilot a recreation sampling system that would be cost effective and provide statistical recreation use information at the forest, national, and regional level. Since that time, a permanent sampling system (NVUM) has been developed. Several Forest Service staff areas including Recreation, Wilderness, Ecosystem Management, Research and Strategic Planning and Resource Assessment are involved in implementing the program. A four-year cycle of data collection was established. In any given year, 25 percent of the national forests conduct on-site interviews and sampling of recreation visitors. The first 25 percent of the forests included in the first four-year cycle completed sampling in December of 2000. The last 25 percent of the first, four-year cycle forests will complete their sampling in September 2003. The cycle begins again in October 2004. This ongoing cycle will provide quality recreation information needed for improving citizen centered recreation services.

Definition of Terms

NVUM has standardized definitions of visitor use measurement to ensure that all national forest visitor measurements are comparable. These definitions are the same as established by the forest Service since the 1970s, however the application of the definition is stricter. 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 NVUM basic use measurements are *national forest visits* and *site visits*. In addition, information about the visitor’s trip is also collected. Along with these use measurements basic statistics, which indicate the precision of the estimate, are given. These statistics include *the confidence level, and error rate*. The definitions of these terms follow.

National forest visit - 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.

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

Recreation trip – the duration of time beginning when the visitor left their home and ending when they got back to their home.

Confidence level and error rate - used together these two terms define the reliability of the estimated visits. The confidence interval defines the range of values around the estimated visits with a specified level of certainty. The error rate (which is never a bad thing like making an error on a test) is the upper and lower bounds of the confidence interval. The lower the error rate and the higher the confidence level the better the estimate. An 80 percent confidence interval is very acceptable at a broad national or forest scale. The two terms are used to statistically describe the estimate. For example: At the 80 percent confidence level there are 209 million national forest visits plus or minus 17 percent. In other words we are 80 percent confident that the true number of national forest visits lies between 173.5 million and 244.5 million.

CHAPTER 1: SAMPLE DESIGN AND IMPLEMENTATION

The NVUM Process and Definition of Terms

To participate in the NVUM process, forests first categorized all recreation sites and areas into six basic categories called “site types”: Day Use Developed Sites (DUDS), Overnight Use Developed Sites (OUDS), Wilderness, General Forest Areas (GFA), On-Forest Viewing Corridors (OFVC), and Off-Forest Recreation Activities. Only the first four categories are considered “true” national forest visits and were included in the estimate provided. Within these broad categories every open day of the year for each site/area was rated as either high, medium or low exiting recreation use. Sites and areas that were closed or had “0” use was also identified. Each day on which a site or area is open is called a site day and is the basic sampling unit for the survey. Results of this forest categorization are shown in Table 1.

A map showing all General Forest Exit locations and On-Forest Viewing Corridors was prepared. Both the categorization and the map are archived with the NVUM data for use in future sample years. NVUM also provided training materials, equipment, survey forms, funding, and the protocol necessary for the forest to gather visitor use information.

NVUM terms used in the site categorization framework are defined below:

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

Site types -- stratification of a forest recreation site or area into one of six broad categories as defined in the paper: Forest Service National Visitor Use Monitoring Process: Research Method Documentation, May 2001, English et al. The six categories are Day Use Developed sites (DUDS), Overnight Use Developed Sites (OUDS), General Forest Areas (GFA), Wilderness (WILD), On-Forest View Corridors (OFVC), and Off-Forest Recreation Activities (Off Forest).

Proxy – information collected at a recreation site or area that is related to the amount of recreation visitation received. The proxy information must pertain to all users of the site, it must be an exact tally of use 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, 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 day at the sample site.

Use level strata - for either proxy or nonproxy sites, each day that a recreation site or area was open for recreation, the site day was categorized as either high, medium or low exiting recreation traffic, or closed. Closed was defined as either administratively closed or “0” use. For example Sabino Picnic Area (a DUDS nonproxy site) is closed for 120 days, has high exiting use on open weekends (70 days) and medium exiting recreation use on open midweek days (175 days). This accounts for all 365 days of the year at Sabino Picnic area. This process was repeated for every developed site and area on the forest.

Constraints On Uses of the Results

The information presented here is valid and applicable at the forest level. It is not designed to be accurate at the district or site level. The quality of the visitation estimate is dependent on the preliminary sample design development, sampling unit selection, sample size and variability, and survey implementation. First, preliminary work conducted by forests to classify sites consistently according to the type and amount of visitation influences the quality of the estimate. Second, visitors sampled must be representative of the population of all visitors. Third, the number of visitors sampled must be large enough to adequately control variability. Finally, the success of the forest in accomplishing its assigned sample days, correctly filling out the interview forms, and following the sample protocol influence the error rate. The error rate and coefficient of variation will reflect all these factors. The smaller the error rate, the better the estimate. Interviewer error in asking the questions is not reflected in this error rate.

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.

The Forest Stratification Results

The results of the recreation site/area categorization and accomplished sample days done by this forest are displayed in Table 1. This table describes the population of available site days open for sampling. This information was obtained from work done by the forest prior to the actual surveys. Every site and area on the forest was categorized as high, medium, low, or closed exiting recreation use. This categorization was then used to randomly select sampling days for this forest. The project methods paper listed on page one describes the sampling process and sample allocation formulas in detail. Basically, at least eight sample days per stratum are randomly selected for sampling and more days are added if the stratum is very large. Also displayed on the table is the percentage of sample days per stratum accomplished by the forest.

Table 1. The population of available site days open for sampling and the percentage of days sampled within each stratum on the Flathead National Forest.

Strata	Nonproxy			Proxy		
	Total days in nonproxy population	Days sampled #	percent	Total days in proxy population	Days sampled #	percent
OUDS H	382	10	2.6			
OUDS M	1231	13	1.0	4077	15	.4
OUDS L	2989	9	.3			
DUDS H	207	9	4.3			
DUDS M	915	12	1.3	364	6	1.6
DUDS L	1005	8	.8			
Wild H	774	13	1.7			
Wild M	4312	20	.2			
Wild L	2747	9	.7			
GFA H	2225	26	1.2			
GFA M	8719	46	.5			
GFA L	11208	12	.1			
TOTALS	36714	187		4441	21	

CHAPTER 2: VISITATION ESTIMATES

Visitor Use Estimates

Nationally there were 209 million national forest visits plus or minus 17 percent error rate at the 80 percent confidence level. These visitors participated in 257 million site visits that included 14.3 million Wilderness visits. Additionally, another 258 million people enjoyed viewing national forest scenery from non-Forest Service managed travel ways. A national report with additional information is available (<http://www.fs.fed.us/recreation/recuse/recuse.shtml>).

Region 1, the “Northern Region” includes national forest system lands in Montana, North Dakota and portions of northern Idaho and northwest South Dakota. It received 13.2 million national forest visits +/- 23 percent at the 80 percent confidence level. As shown in Table 2, three national forests in region 1 were sampled in the first year of the project. The results from these forests were then expanded to estimate total regional recreation use as explained in the project methods paper listed on page 1.

Table 2. Annual recreation use estimates by forest for region 1. 1/

Forest	National Forest Visits		Site Visits		Wilderness Visits	
	Visits (millions)	Error Rate +/- %	Visits (millions)	Error Rate +/- %	Visits (millions)	Error Rate +/- %
Beaverhead-Deerlodge	1.1	18.7	1.3	17.6	.016	30.0
Flathead	1.4	7.5	1.6	6.8	.022	22.1
Nez Perce	0.5	18.2	0.6	19.1	.039	42.6
R1 expanded use estimate for CY 2000 <u>2/</u>	13.2	23.0	15.3	21.9	.337	25.1

1/ Region 1, the “Northern Region” includes national forest system lands in Montana, North Dakota and portions of northern Idaho and northwest South Dakota.

2/ Calendar year

The Flathead National Forest participated in the National Visitor Use Monitoring (NVUM) project from January 1 through December 31, 2000. The main contact person was Jerry Hess. The forest was assigned 225 sample days and accomplished 208 of them (92 percent). Seven Forest Service employees conducted the interviews; two of them conducted 75 percent of the interviews. Both the K-Hill pneumatic traffic counter and the Trailmaster Infrared counter were used in the project. The forest coordinator felt that the K-hill pneumatic counter undercounted about 20 percent of the time and that the Trailmaster counted accurately close to 100 percent of the time. The forest coordinator said the sample year would reflect lower than normal recreation use because the forest was closed to recreation for 18 days from mid-August to early September due to large fires. Also river floating is a big activity on this forest and no recreation sampled occurred during the main part of the season.

Recreation use on the Flathead National Forest for calendar year 2000 at the 80 percent confidence level was 1,409,245 national forest visits +/-7.5 percent. There were 1,627,670 site visits, an average of 1.1 site visits per national forest visit. Included in the site visit estimate are 22,868 Wilderness visits.

A total of 1036 visitors were contacted on the Flathead National Forest during the sample year. Of these, 14 percent refused to be interviewed. Of the 893 people who agreed to be interviewed, about 25 percent were not recreating, including .8 percent who just stopped to use the bathroom, 12.3 percent were working, 5.9 percent were just passing through, and 6.0 percent had some other reason to be there. About 75 percent of those interviewed said their primary purpose on the forest was recreation and 77.3 percent of them were exiting for the last time. Of the visitors leaving the forest that agreed to be interviewed, about 58 percent were last exiting recreation visitors (the target interview population).

Description of Visitors

Basic descriptors of the forest visitors were developed based upon those visitors interviewed then expanded to the national forestvisitor population. About seventy-six percent of the Flathead National Forest visitors were male and 24 percent were female (Table 3). About twenty percent of the visitors were under age 16 and not interviewed. About 2 percent of the visitors were over 70 years old and the 41-50 year old age group comprised almost 26.7 percent of the visitors. See Table 4 for a complete age group break-out.

Table 3. Gender distribution of Flathead National Forest visitors.

Gender	76 percent males	24 percent females
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Table 4. Age distribution of Flathead National Forest visitors.

Age Group	Percent in group
Under 16	20.4
16-20	3.6
21-30	12.6
31-40	14.3
41-50	26.7
51-60	14.2
61-70	6.5
Over 70	1.7

Visitors categorized themselves into one of 7 race/ethnicity categories. Almost 99 percent of the visitors were ethnically white. Table 5 gives a detailed breakout by category.

Table 5. Race/ethnicity of Flathead National Forest visitors.

Category	Total percent national forest visits
Black/African American	0.0
Asian	0.2
White	98.9
American Indian/Alaska Native	0.6
Native Hawaiian or Other Pacific Islander	0.0
Spanish, Hispanic, or Latino	0.3
Other	0.0

Over three percent (3.4 percent) of forest visitors were from another country. The survey did not collect country affiliation. Visitors most frequently reported zip codes are shown in Table 6. The forest can determine what percent of local visitor use they have by comparing the local forest zip codes to those listed. The zip code data for the forest will also soon be available on a database. This information can be used with programs such as “fipzip” for more extensive analysis.

Table 6. Zip codes of Flathead National Forest recreation visitors.

Zip Code	Frequency	Percent
59901	111	24.0
59912	50	10.8
59937	42	9.1
59911	41	8.8
59801	12	2.6
59922	10	2.2
59919	8	1.7
59404	6	1.3
59806	6	1.3
59903	6	1.3
59701	5	1.1
59927	5	1.1
59932	5	1.1
59900	4	.9
59904	3	.6
59917	3	.6
59401	2	.4
59474	2	.4
59715	2	.4
59802	2	.4
59804	2	.4
59826	2	.4
59902	2	.4
59910	2	.4
59920	2	.4
59926	2	.4
59935	2	.4
123 other zip codes	1 each	

Average number of people per vehicle and average axle count per vehicle in survey

There was an average of 2.2 people per vehicle on the forest with an average of 2.1 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.

CHAPTER 3: WILDERNESS VISITORS

Several questions on the NVUM survey form dealt directly with use of designated Wilderness. Wilderness was sampled 42 days on the forest. There were 29 percent female and 71 percent male visitors to Wilderness on the forest. See Table 7 for the age distribution.

Table 7. Age distribution of Wilderness visitors on Flathead National Forest.

Age group	Percent in group
Under 16	13.0
16-20	2.5
21-30	2.3
31-40	74.5
41-50	3.4
51-60	3.4
61-70	0.9
Over 70	0.0

Wilderness visitors were ethnically white (100 percent). See Table 8 for race/ethnicity distribution.

Table 8. Race/ethnicity of Flathead National Forest Wilderness visitors.

Category	Total percent national forest visits
Black/African American	0
Asian	0
White	100
American Indian/Alaska Native	0
Native Hawaiian or Other Pacific Islander	0
Spanish, Hispanic, or Latino	0
Other	0

The Wilderness visitors were from a wide variety of zip codes. The distribution of Wilderness visitor zip codes is shown in Table 9.

Table 9. Zip codes of Flathead National Forest Wilderness visitors.

Zip Code	Frequency	Percent
59860	2	11.8
59911	2	11.8
59421	1	5.8
59501	1	5.8
59715	1	5.8
59801	1	5.8
59804	1	5.8
59826	1	5.8
59833	1	5.8
59868	1	5.8
59903	1	5.8
66801	1	5.8
80512	1	5.8
84720	1	5.8
97068	1	5.8

The average length of stay in Wilderness on the forest was 35.7 hours. In addition, all visitors were asked on how many different days they entered into designated Wilderness during their national forest visit even if we interviewed them at a developed recreation site or general forest area. Of those visitors who did enter designated Wilderness, they entered 1.0 different days.

Over ninety-four percent (94.5 percent) of those interviewed in Wilderness said they used the services of a commercial guide.

Table 10 gives detailed information about how the Wilderness visitors rated various aspects of the area. An example of how to interpret the information: Visitors rated the importance of the condition of forest roads a 4.0 (important) and they rated their satisfaction with the condition of forest roads a 2.9 (somewhat satisfied). This means the forest may increase visitor satisfaction on the condition of forest roads to Wilderness. Fifty-four percent of visitors said the condition of forest roads was fair and 46 percent said the condition was good.

Wilderness visitors on the average rated their visit 3.0 (on a scale from 1 to 10 where 10 is very crowded and 1 means hardly anyone was there) concerning crowding, meaning they felt there were few people there. 100 percent of visitors rated crowding a 3.

Table 10. Satisfaction of visitors at designated Wilderness on Flathead National Forest.

Item Name	Item by percent response category					Mean ** Satisfaction Of visitors	Mean** Importance To visitors
	P	F	A	G	VG		
Scenery	0	0	0	0	100	5.0	4.0
Available parking	0	0	46	0	54	4.1	3.0
Parking lot condition	0	0	0	100	0	4.0	3.0
Cleanliness of restrooms	0	54	0	46	0	2.9	3.0
Condition of the natural environment	0	0	0	0	100	5.0	4.0
Condition of developed recreation facilities	0	0	0	100	0	4.0	4.0
Condition of forest roads	0	54	0	46	0	2.9	4.0
Condition of forest trails	0	0	54	46	0	3.5	5.0
Availability of information on recreation	0	0	0	100	0	4.0	3.0
Feeling of safety	0	0	0	46	54	4.5	3.0
Adequacy of signage	0	0	46	54	0	3.1	4.0
Helpfulness of employees	0	0	0	100	0	4.0	3.0
Attractiveness of the forest landscape	0	0	0	46	54	4.5	4.0
Value for fee paid	0	0	0	0	100	5.0	4.0

* Scale is: P = poor F = fair A = average G = good VG = very good

** Scale is: 1= not very satisfied /important 2 = somewhat satisfied/ important 3 = moderately satisfied/ important 4 = satisfied/ important 5 = very satisfied/ important

The Wilderness visitors on the forest spent an average of \$126.68 within 50 miles of the Wilderness. They also spend an average of \$1,198.27 annually on all outdoor recreation related expenditures (see Table 11).

Table 11. Average per person national forest trip expenditures within 50 miles of recreation site for Wilderness visitors to Flathead National Forest.

Expenditure category	Average expenditure \$00.00
Government owned lodging	0.00
Privately owned lodging	0.00
Food/drink at restaurants and bars	14.35
Other food and beverages	76.82
Gasoline and oil	44.00
Other transportation (plane, bus, etc.)	0.00
Activities (including guide fees and equipment rental)	0.00
Entry, parking, or recreation use fees	0.00
Souvenirs/ clothing	0.00
Any other expenses	0.00

CHAPTER 4: DESCRIPTION OF THE VISIT

Through the interview process a description of what visitors did during their national forest visit was also developed. This basic information includes participation in various recreation activities, length of stay on the national forest and at recreation sites, visitor satisfaction with national forest facilities and services, and economic expenditures.

The average length of stay on Flathead National Forest for a national forest visit was 35.6 hours. Eleven percent of visitors stayed overnight on the forest.

In addition, visitors reported how much time they spent on the specific recreation site at which they were interviewed. Average time spent varied considerably by site and is displayed in Table 12.

Table 12. Flathead National Forest site visit length of stay (in hours) by site/type.

Site Visit Average	DUDS	OU DS	Wilderness	GFA
20.6	4.5	70.6	35.7	12.9

The average Flathead National Forest visitor went to 1.15 sites during their national forest visit. Forest visitors sometimes go to just one national forest site or area during their visit. For example, downhill skiers may just go the ski area and nowhere else. Eighty-eight percent of visitors went only to the site at which they were interviewed.

During their visit to Flathead National Forest the top recreation activities of the visitors were downhill skiing, viewing wildlife/nature, general relaxation, viewing scenery, and fishing. The visitor picked one of these activities as their primary activity for their current recreation visit to the forest. The top primary activities were downhill skiing, viewing scenery, cross-country skiing, developed site camping, , and fishing (Table 13). Please 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.

Table 13. Activity participation and primary activity for the Flathead National Forest.

Activity	Percent participation	Percent who said it was their primary activity
Camping in developed sites (family or group)	8	8
Primitive camping	1	0
Backpacking, camping in unroaded areas	1	0
Resorts, cabins and other accommodations on Forest Service managed lands (private or Forest Service run)	1	0
Picnicking and family day gatherings in developed sites (family or group)	5	1
**Viewing wildlife, birds, fish, etc on national forest system lands	29	7
**Viewing natural features such as scenery, flowers, etc on national forest system lands	22	14
Visiting historic and prehistoric sites/area	0	0
Visiting a nature center, nature trail or visitor information services	4	0
Nature Study	6	0
General/other- relaxing, hanging out, escaping noise and heat, etc,	25	2
Fishing- all types	16	8
Hunting- all types	6	5
Off-highway vehicle travel (4-wheelers, dirt bikes, etc)	1	0
Driving for pleasure on roads	13	3
Snowmobile travel	1	1
Motorized water travel (boats, ski sleds, etc)	8	1
Other motorized land/air activities (plane, other)	1	0
Hiking or walking	15	2
Horseback riding	1	0
Bicycling, including mountain bikes	1	0
Non-motorized water travel (canoe, raft, etc.)	5	3
Downhill skiing or snowboarding	44	42
Cross-country skiing, snow shoeing	14	9
Other non-motorized activities (swimming, games and sports)	6	2
Gathering mushrooms, berries, firewood, or other natural products	6	4

* less than 1 percent participation

** first version of survey form used October through March had these two viewing categories combined as viewing scenery

Use of constructed facilities and designated areas

Twenty-five percent of the last exiting recreation visitors interviewed were asked about the types of constructed facilities and special designated areas they used during their visit. The most used facilities

were forest roads, boat launches, and developed campgrounds. The most used specially designated area was Scenic Byways. Table 14 provides a summary of reported facility and special area use.

Table 14. Percentage use of facilities and specially designated areas on the Flathead National Forest.

Facility/ Area Type	Percent who said they used (national forest visits)
Developed campground	6
Swimming area	4
Hiking, biking, or horseback trails	5
Scenic byway	5
Designated Wilderness	1
Visitor center, museum	0
Forest Service office or other info site	0
Picnic area	3
Boat launch	7
Designated Off Road Vehicle area	0
Other forest roads	32
Interpretive site	3
Organization camp	2
Developed fishing site/ dock	2
Designated snowmobile area	0
Downhill ski area	0
Nordic ski area	0
Lodges/Resorts on National Forest System land	1
Fire Lookouts/Cabins Forest Service owned	2
Designated snow play area	0
Motorized developed trails	4
Recreation residences	0

Economic Information

Twenty-five percent of visitors interviewed were asked about the primary destination of their recreation trip. Since some people may incorporate a visit to the national forests as only part of a larger trip away from home, not all visitors chose the national forest as their primary destination. Eighty-nine percent of visitors went only to the national forest on their trip. Of the 11 percent of visitors that went to other areas, 78 percent said this forest was their primary trip destination.

Visitors were asked to select one of several substitute choices, if for some reason they were unable to visit this national forest. Their responses are shown in Table 15. Almost fifty-one percent of the visitors would have gone somewhere other than this forest to pursue the same activity, while 4 percent would have come back to this forest another time.

The average recreation visitor on the forest was away from home on their trip for 72.3 hours. Eighty-nine percent of the visitors went only to this national forest on their trip and 11 percent said they had gone to other places such as other national forests, parks or recreation areas.

In the 12 months prior to the interview the visitors had come to this forest 3.1 times to participate in their identified main activity.

Table 15. Substitute behavior choices of visitors on Flathead National Forest.

Substitute Choice	Percent who would have...
Gone somewhere else for the same activity	50.8
Gone somewhere else for a different activity	17.9
Come back another time	4.0
Stayed home	26.2
Gone to work at their regular job	0.7
None of these	0.4

Average yearly spending on outdoor recreation

In a typical year, visitors to this forest spent an average of \$2,069.22 on all outdoor recreation activities including equipment, recreation trips, memberships, and licenses.

Visitors average spending on a trip to Flathead National Forest

Visitors estimated the amount of money spent they spent within a 50 mile radius of the recreation site at which they were interviewed during their recreation trip to the area (which may include multiple national forest visits, as well as visits to other forests or parks). Table 16 shows average estimated expenditures by ten categories. These expenditures are higher than the true average spending per person per national forest visit. To obtain a correct average spending per national forest visit, these figures would have to be reduced to account for spending that is attributable to visits to other areas, and for visitors who make

several separate national forest visits during their stay in the area. It is recommended that forests work with economists in their forest and region to obtain the correct spending profiles and estimate the economic impacts of this spending.

Table 16. Average per person national forest trip expenditures on the Flathead National Forest within 50 miles of recreation site.

Expenditure Category	Average expenditure \$00.00
Government owned lodging	2.31
Privately owned lodging	53.88
Food/drink at restaurants and bars	61.69
Other food and beverages	23.20
Gasoline and oil	53.67
Other transportation (plane, bus, etc.)	45.50
Activities (including guide fees and equipment rental)	22.58
Entry, parking, or recreation use fees	7.70
Souvenirs/ clothing	13.86
Any other expenses	39.65

Visitor Satisfaction Information

Twenty-five percent of visitors interviewed on the forest rated their satisfaction with the recreation facilities and services provided. Although their satisfaction ratings pertain to conditions at the specific site or area they visited, this information is not valid at the site-specific level. The survey design does not allow enough responses for every individual site or area on the forest to draw these conclusions. Rather, the information is generalized to overall satisfaction with facilities and services on the forest as a whole.

Visitors' site-specific answers may be colored by a particular condition on a particular day at a particular site. For example, a visitor camping in a developed campground when all the forest personnel are off firefighter and the site has not been cleaned. Perhaps the garbage had not been emptied or the toilets cleaned during their stay, although the site usually receives excellent maintenance. The visitor may have been very unsatisfied with the cleanliness of restrooms.

In addition to how satisfied visitors were with facilities and services they were asked how important that particular facility or service was to the quality of their recreation experience. The importance of these elements to the visitors' recreation experience is then analyzed in relation to their satisfaction. Those elements that were extremely important to a visitor's overall recreation experience and the visitor rated as poor quality are those elements needing most attention by the forest. Those elements that were rated not important to the visitors' recreation experience need the least attention.

Tables 17 through 19 summarize visitor satisfaction with the forest facilities and services by site type. In Table 17 note that visitors said the condition of forest trails in developed day use sites is somewhat important (2.6) to the quality of their recreation experience and they rated their satisfaction with the condition of forest trails as satisfied (3.9). The item by response category column in the second column

of the table gives more information about how visitors answered the satisfaction question. For example, for condition of forest trails, 12 percent rated their satisfaction with the condition of forest trails as fair, 20 percent as average, 33 percent as good, and 35 percent as very good. Improving the condition of forest trails at Day Use Developed sites may increase visitor satisfaction.

Table 18 summarizes information about visitor satisfaction with Overnight Developed sites such as campgrounds and resorts on the forest and Table 19 summarizes the visitor's satisfaction with the general forest areas. Wilderness satisfaction is reported in Table 10.

Table 17. Satisfaction of visitors at Day Use Developed Sites on the Flathead National Forest.

Item Name	Item by percent response category by*					Mean ** Satisfaction Of visitors	Mean** Importance To visitors
	P	F	A	G	VG		
Scenery	0	0	6	15	79	4.7	3.8
Available parking	6	0	19	41	34	4.0	4.1
Parking lot condition	0	0	8	57	35	4.3	3.3
Cleanliness of restrooms	1	0	22	31	46	4.2	4.2
Condition of the natural environment	0	0	6	27	67	4.6	4.1
Condition of developed recreation facilities	0	0	20	45	35	4.2	3.4
Condition of forest roads	2	2	19	41	36	4.1	4.4
Condition of forest trails	0	12	20	33	35	3.9	2.6
Availability of information on recreation	1	0	16	46	37	4.2	3.4
Feeling of safety	0	0	1	52	47	4.5	3.8
Adequacy of signage	0	6	15	51	28	4.0	3.6
Helpfulness of employees	0	0	12	20	68	4.6	4.1
Attractiveness of the forest landscape	0	0	0	19	81	4.8	4.2
Value for fee paid	0	0	22	29	49	4.3	4.2

* Scale is: P= poor F = fair A = average G = good VG = very good

** Scale is: 1= not very satisfied /important 2 = somewhat satisfied/ important 3 = moderately satisfied/ important 4 = satisfied/ important 5 = very satisfied/ important

Table 18. Satisfaction of visitors at Overnight Developed Sites Flathead National Forest.

Item Name	Item by percent response category by*					Mean ** Satisfaction Of visitors	Mean** Importance To visitors
	P	F	A	G	VG		
Scenery	0	0	0	6	94	4.9	4.8
Available parking	0	7	7	0	86	4.6	4.5
Parking lot condition	0	8	0	16	76	4.6	4.6
Cleanliness of restrooms	0	0	0	81	19	4.2	5.0
Condition of the natural environment	0	0	0	94	6	4.1	4.8
Condition of developed recreation facilities	0	0	0	100	0	4.0	4.1
Condition of forest roads	7	0	84	9	0	2.9	3.1
Condition of forest trails	0	0	62	0	38	3.8	2.9
Availability of information on recreation	0	0	84	16	0	3.2	3.1
Feeling of safety	0	0	0	76	24	4.2	3.2
Adequacy of signage	0	0	6	87	7	4.0	3.1
Helpfulness of employees	0	6	0	62	32	4.2	3.4
Attractiveness of the forest landscape	0	0	0	13	87	4.9	4.1
Value for fee paid	7	0	84	9	0	2.9	3.4

* Scale is: P = poor F = fair A = average G = good VG = very good

** Scale is: 1= not very satisfied /important 2 = somewhat satisfied/ important 3 = moderately satisfied/ important 4 = satisfied/ important 5 = very satisfied/ important

Table 19. Satisfaction of visitors in General Forest Areas on Flathead National Forest.

Item Name	Item by percent response category by*					Mean ** Satisfaction of visitors	Mean** Importance to visitors
	P	F	A	G	VG		
Scenery	0	3	3	17	77	4.7	4.3
Available parking	8	0	35	24	33	3.7	3.3
Parking lot condition	5	36	18	27	14	2.7	3.1
Cleanliness of restrooms	35	0	0	23	42	3.4	3.6
Condition of the natural environment	0	3	2	65	30	4.2	4.5
Condition of developed recreation facilities	0	0	31	53	16	3.8	3.5
Condition of forest roads	5	6	47	30	12	3.4	3.6
Condition of forest trails	5	0	13	44	38	4.1	4.3
Availability of information on recreation	5	0	26	36	33	3.9	3.7
Feeling of safety	0	0	0	62	38	4.4	4.3
Adequacy of signage	0	5	50	26	19	3.6	3.7
Helpfulness of employees	0	0	5	52	43	4.4	3.8
Attractiveness of the forest landscape	0	3	36	20	41	4.0	4.3
Value for fee paid	0	8	34	32	26	3.8	2.9

* Scale is: P = poor F = fair A = average G = good VG = very good

** Scale is: 1= not very satisfied /important 2 = somewhat satisfied/ important 3 = moderately satisfied/ important 4 = satisfied/ important 5 = very satisfied/ important

Crowding

Visitors rated their perception of how crowded the site or area they were recreating in 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 20 summaries mean perception of crowding by site type on a scale of 1 to 10 where 1 means hardly anyone was there, and a 10 means the area was perceived as overcrowded.

Table 20. Perception of crowding by visitor on the Flathead National Forest by site type (percent site visits).

Perception of crowding	Overnight Developed Sites	Day Use Developed Sites	Wilderness	General Forest Areas
10 Over crowded	0	0	0	3
9	0	0	0	0
8	0	0	0	7
7	62	11	0	2
6	0	6	0	0
5	13	21	0	0
4	0	6	0	11
3	6	33	100	41
2	0	14	0	8
1 hardly anyone there	19	9	0	28

Other comments from visitors

Visitors were asked if there were any accommodations or assistance that the forest could offer that would be helpful to the visitor and anyone in their group to improve their recreation experience. If the forest received any responses, they are summarized below.

Table 21. List of comments received from visitors on the Flathead National Forest.

Site Name	Is there any other accommodation or assistance we could offer? Comments
Big Mountain Ski Area Day Use	Someone on duty early AM Keep the road in good shape Hellroaring bathrooms hard to get to, add signs on lower parking lots at skiers end Not enough parking, like going rate of 1999/2000 ski pass Consolidate lifts
Blacktail Ski Area Day Use	Get rocks out of runs
Hungry Horse Dam VIS Day Use	Leave access to unimproved road More parking for extra vehicles
North Lion Lake Picnic Day Use	Need drinking water/ fix pump Campground host (bathrooms cleaned) Clean the toilets Campground host at Lost Johnny Point was not friendly and didn't clean outhouses
Swan Lake Day Use	Open more roads More fish
Tally Lake Day Use	I would like to see more places where jet skis are banned
Ashley South 912/679 jct. General forest area	More fishing or better fishing access in this area (with boat and trailer)
McGinnis Creek Rd #803 General forest area	Open more roads
Radar #17 General forest area	Better signage here than State has in Newberry Better signage on trails
West Side Reservoir Rd 895- general forest area	More facilities and camp spots Open more roads Clean the restrooms
Holland Lake Lodge Overnight sites	Fee for group site too high (\$750.00) concessionaire