

National Visitor Use Monitoring Results
USDA Forest Service
National Summary Report

Data collected through FY 2007

Last updated 28 October 2008

INTRODUCTION

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 group of research 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. Using a five year rotation, every national forest will collect information a second time from October 2004 through September 2009.

Before the surveys begin, each forest stratifies 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 considered "true" national forest recreation visits and are included in the visit estimates. Each site was given a rating of very high, high, medium, low, or no use for the likelihood of finding recreational visitors leaving a site or area for the last time (last exiting recreation use) for each day of the year. Each day on which a site or area is open is called a site day. Site day 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 View Corridors was prepared and 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.

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 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*. NVUM provides estimates of both types of visits and statistics measuring the precision of the estimates. These statistics include the error rate and

associated confidence interval widths at the 90 percent confidence level. 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. Following are the definition of the important terms used in this report.

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 return to their home.

Confidence level -- defines the degree of certainty that a range of values contains the true value of what is being estimated. For example, a 90% confidence level refers to the range of values within which the true value will fall 90% of the time. Higher confidence levels necessarily cover a larger range of values.

Confidence interval width - defines the reliability of the visit estimates. The confidence level defines the desired level of certainty. The size of the interval that is needed to reach that level of certainty is the confidence interval width. The confidence interval width is expressed as a percent of the visitation estimate and defines the upper and lower bounds of the confidence interval. The smaller the confidence interval, the more precise is the estimate. A 90 percent confidence level is very acceptable for most social science applications. For example: In 2004, the Forest Service reported that there were about 204 million national forest visits plus or minus 3 percent at the 90 percent confidence level. So we are 90 percent certain that the true number of national forest visits lies between 198 million and 210 million.

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 five broad categories as defined in the paper: Forest Service National Visitor Use Monitoring Process: Research Method Documentation, May 2002, English et al. The categories are Day Use Developed sites (DUDS), Overnight Use Developed Sites (OUDS), General Forest Areas (GFA), Wilderness (WILD). Two other categories were also developed but not used in the final site visit estimates. These were View Corridors and Off-Forest Recreation Activities. For details see the methods paper (English et al).

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 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 site day at the sample site.

Use level - for proxy or nonproxy sites, each day that a recreation site or area was open for recreation, the site day was categorized as very high, high, medium or low last exiting recreation traffic, or no use. No Use was defined as either administratively closed or having zero expected last exiting use. For example Sabino Picnic Area (a DUDS nonproxy site) is no use for 120 days, has high last exiting recreation use on open weekends (70 days) and medium last 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.

VISITATION ESTIMATES

This document reports national and regional totals for visitation and visitor characteristics. Forest-level results will be posted as they are available on the National Visitor Use Monitoring web page: www.fs.fed.us/recreation/programs/nvum/. Table 1 displays the number of national forest visits and site visits by site type for the National Forest System. The site visit estimate includes the Wilderness site visits. Table 2 shows the number of National Forest Visits in each Forest Service region.

Table 1. National visitation estimate for the National Forest System, for fiscal year 2007.

| Visit Type | | |
|---|--------------------|-----------------------------------|
| | Visits (thousands) | 90% confidence interval width (%) |
| Total Estimated Site Visits | 206,291 | 3.2 |
| Designated Wilderness Visits ^a | 6,358 | 7.6 |
| Total Estimated National Forest Visits | 178,625 | 3.4 |

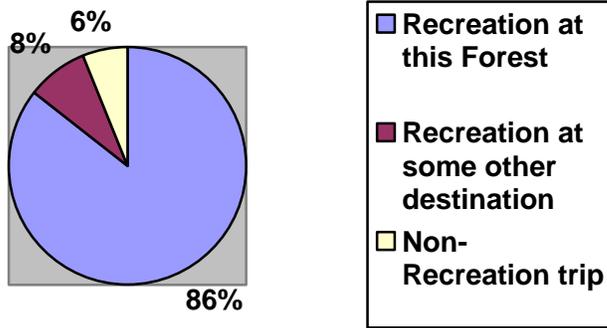
^a Designated Wilderness visits are included in the Site Visits estimate.

Table 2. Regional visitation estimates for the National Forest System, for fiscal year 2007.

| Region | National Forest Visits (1000s) | 90% Confidence interval, as % of visits |
|--------|--------------------------------|---|
| 01 | 11,265 | 10.9 |
| 02 | 31,025 | 6.9 |
| 03 | 20,502 | 16.8 |
| 04 | 21,315 | 8.8 |
| 05 | 28,702 | 6.0 |
| 06 | 20,495 | 6.3 |
| 08 | 25,867 | 10.9 |
| 09 | 17,033 | 9.4 |
| 10 | 2,421 | 17.1 |
| TOTAL | 178,625 | 3.4 |

Most people who recreate on National Forests have that forest as the primary destination for their recreation trip. For others, the visit to the forest was a secondary destination, or a side trip for a non-recreation trip. Figure 1 displays the proportion of visits made on several trip purposes.

Figure 1. Purpose of trip on which National Forest visit was made, for fiscal year 2007.



DESCRIPTION OF THE RECREATION VISIT

Demographics

Descriptions of forest recreational visits were developed based upon the characteristics of interviewed visitors (respondents) and expanded to the national forest visitor population. Tables 3 through Table 5 provide basic demographic information regarding Gender, Race/Ethnicity, and Age, respectively. Figure 2 provides information about self reported travel distance from home to the recreation site. Table 6 shows origin locations for foreign visitors.

Table 3. Percent of National Forest Visits by gender, fiscal year 2007.

| Gender | National Forest Visits (%) |
|--------|----------------------------|
| Female | 33.1 |
| Male | 66.9 |
| Total | 100.0 |

Table 4. Percent of National Forest Visits by race and ethnicity, fiscal year 2007.

| Race/Ethnicity ^a | National Forest Visits (%) |
|---|----------------------------|
| American Indian/Alaska Native | 1.8 |
| Asian | 1.8 |
| Black/African American | 0.8 |
| Native Hawaiian or other Pacific Islander | 0.6 |
| White | 94.5 |
| Spanish, Hispanic, or Latino | 4.2 |
| | |

Table 5. Percent of National Forest Visits by age class, fiscal year 2007.

| Age | National Forest Visits (%) |
|-------------|----------------------------|
| Under 16 | 18.9 |
| 16-19 | 3.1 |
| 20-29 | 12.7 |
| 30-39 | 16.4 |
| 40-49 | 20.0 |
| 50-59 | 16.2 |
| 60-69 | 9.4 |
| 70 and over | 3.5 |
| Total | 100.2 |

Figure 2. Distribution of National Forest visits by travel distance categories, fiscal year 2007.

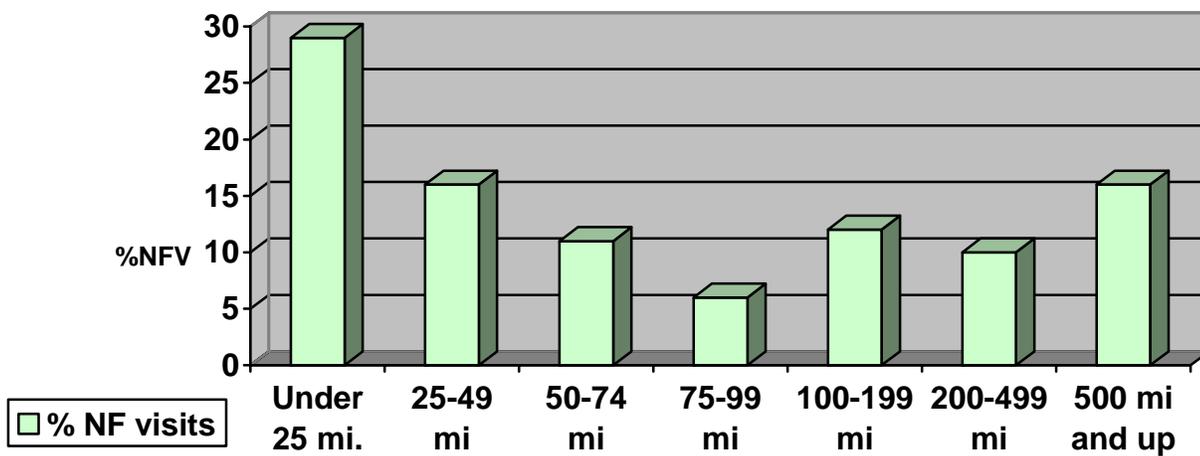


Table 6. Percent of National Forest Visits by origin for foreign visitors, fiscal year 2007.

| ORIGIN | PERCENT OF NF VISITS |
|-------------------|-------------------------------------|
| Asia | <0.1 |
| Canada | 0.4 |
| Europe | 0.8 |
| Mexico | <0.1 |
| South America | 0.1 |
| Some other origin | 0.2 |

Visit Descriptions

Characteristics of the recreation visit such as length of visit, types of sites visited, activity participation and visitor satisfaction with forest facilities are often important aspects of visitation. The average national forest visit length of stay and average site visit length of stay by site type is displayed in Table 7. Since the average values displayed in Table 7 may be influenced by a small number of people staying a very long time, median values are also shown. Figure 3 shows the distribution of visit durations for National Forest visits, and visits to Wilderness areas.

Many visitors to National Forests only go to one location on that visit (Table 8). Some visitors do go to more than one recreation site or area during their national forest visit and the average site visits per national forest visit is shown. Also displayed is the average people per vehicle for those on a recreation visit.

Visitors were asked how often they visit this national forest for all recreational activities, and how often for their primary activity. Table 9 summarizes the percent of visits that are made by those in each frequency category for this National Forest.

Table 7. Visit duration for National Forest visits, fiscal year 2007.

| Visit Type | Average Duration (hours) | Median Duration (hours) |
|-------------------------|--------------------------|-------------------------|
| | Site Visit | 12.5 |
| Day Use Developed | 3.7 | 2.3 |
| Overnight Use Developed | 43.9 | 39.2 |
| Undeveloped Areas | 13.5 | 3.0 |
| Designated Wilderness | 15.0 | 3.9 |
| National Forest Visit | 23.1 | 4.4 |

Figure 3. Distribution of National Forest and Wilderness visits by duration categories, fiscal year 2007.

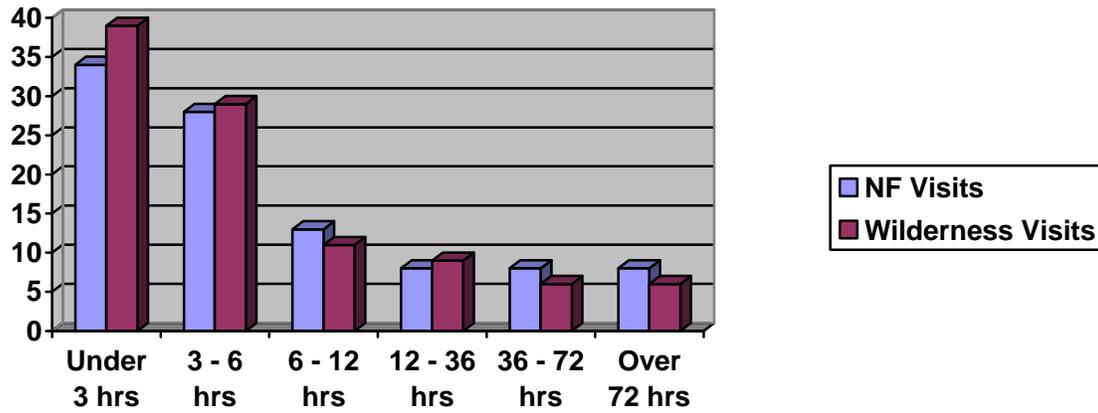


Table 8. Other visit characteristics for National Forest recreation visits, fiscal year 2007.

| Characteristic | |
|--|-------|
| Percent of recreational visitors who visit just one National Forest site during their entire National Forest Visit | 91.5% |
| Average number of national forest sites visited during each National Forest Visit | 1.2 |
| Average Group size | 2.6 |

Table 9. Percent of National Forest Visits by annual visit frequency, fiscal year 2007.

| Number of Reported Annual Forest Visits | Percent of National Forest Visits | |
|---|-----------------------------------|---------------|
| | All Activities | Main Activity |
| 1 – 5 times per year | 43.50 | 55.98 |
| 6 – 10 times per year | 12.85 | 12.71 |
| 11 – 15 times per year | 8.25 | 6.49 |
| 16 – 20 times per year | 5.54 | 4.66 |
| 21 – 25 times per year | 3.93 | 2.97 |
| 26 – 30 times per year | 4.03 | 2.97 |
| 31 – 35 times per year | 0.72 | 0.78 |
| 36 – 40 times per year | 2.47 | 1.78 |
| 41 – 50 times per year | 4.66 | 3.09 |
| 51 – 100 times per year | 7.14 | 4.87 |
| 101 – 200 times per year | 3.90 | 2.31 |
| 201 – 300 times per year | 1.89 | 0.93 |
| Over 300 times per year | 1.11 | 0.45 |

Activities

In the second round of NVUM data collection, a new question about activity participation was asked. After identifying their main recreational activity, visitors were asked how many hours they spent participating in that main activity during this national forest visit. 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. Table 10 displays activity participation results.

Table 10. Activity participation for National Forest recreation visits, fiscal year 2007.

| Activity | % of visitors who participated in this activity ^a | % indicating as their primary activity ^b | Average hours spent in primary activity ^c |
|----------------------------|--|---|--|
| Developed Camping | 9.1 | 3.6 | 45.0 |
| Primitive Camping | 4.2 | 0.9 | 33.7 |
| Backpacking | 2.6 | 0.9 | 32.7 |
| Resort Use | 2.1 | 0.4 | 36.7 |
| Picnicking | 10.1 | 1.8 | 3.0 |
| Viewing Natural Features | 51.0 | 13.4 | 3.5 |
| Visiting Historic Sites | 7.1 | 0.5 | 2.7 |
| Nature Center Activities | 6.2 | 0.4 | 2.6 |
| Nature Study | 7.0 | 0.1 | 8.9 |
| Relaxing | 38.0 | 6.7 | 18.5 |
| Fishing | 12.2 | 7.0 | 7.1 |
| Hunting | 9.1 | 8.0 | 13.2 |
| OHV Use | 4.6 | 1.9 | 7.4 |
| Driving for Pleasure | 23.7 | 4.6 | 2.9 |
| Snowmobiling | 3.0 | 2.6 | 4.9 |
| Motorized Water Activities | 3.3 | 1.2 | 5.8 |
| Other Motorized Activity | 0.5 | 0.1 | 5.1 |
| Hiking / Walking | 39.6 | 16.5 | 3.8 |
| Horesback Riding | 1.3 | 0.7 | 5.5 |
| Bicycling | 3.9 | 2.0 | 2.9 |
| Non-motorized Water | 2.9 | 1.4 | 5.4 |
| Downhill Skiing | 15.4 | 14.8 | 9.1 |
| Cross-country Skiing | 3.2 | 2.4 | 3.1 |
| Other Non-motorized | 6.6 | 2.5 | 3.5 |
| Gathering Forest Products | 4.4 | 1.1 | 3.8 |
| Viewing Wildlife | 40.1 | 2.3 | 6.0 |
| Motorized Trail Activity | 3.9 | 1.2 | 5.0 |
| Some Other Activity | 5.8 | 2.9 | 4.5 |
| No Activity Reported | 5.0 | 5.7 | . |

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

^b Respondents were asked to select one activity as their main one. Some selected more than one, so this column may total more than 100%.

^c Computed only for those who indicated the activity was the main activity on their visit.

Use of constructed facilities and designated areas

About one-third of recreation visitors interviewed were asked about the facilities and special designated areas they used during their visit. Results are displayed in Table 11.

Table 11. Reported National Forest visitor use of constructed facilities, fiscal year 2007.

| FACILITY/ Area | Percent of NF visits including use of this item (%) |
|------------------------------|---|
| Developed Swimming Site | 6.3 |
| Scenic Byway | 24.2 |
| Museum / Visitor Center | 7.0 |
| Designated OHV Area | 6.1 |
| Forest Roads | 16.4 |
| Interpretive Displays | 5.9 |
| Information Sites | 5.9 |
| Developed Fishing Site | 6.2 |
| Motorized Single Track Trail | 3.6 |
| Motorized Dual Track Trails | 6.3 |
| None of these | 32.0 |

ECONOMIC INFORMATION

Many people are interested in the impact of National Forest recreation visits on the surrounding local economy. To estimate the total spending associated with recreation use, three pieces of information are needed: an overall visitation estimate, the proportion of visits in a series of 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. For the first round of sampling, spending data were analyzed at Michigan State University by Dr. Daniel Stynes and Dr. Eric White. 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 second round will commence after all the data for that round are collected. For now, only round 1 spending profiles are available.

Spending Segments

The spending that occurs on a recreation trip is greatly influenced by the type of 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) while those on day trips do not. In addition, visitors on overnight trips generally purchase more food during their trip in restaurants or grocery stores than visitors on day trips. Visitors who have not traveled far from home 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 and non-local visitors are those who travel greater than 50 road miles. Non-primary visitors are those for whom the primary purpose of their trip is something other than recreating on that national forest. Table 12 shows the national distribution of visits by spending segment.

Table 12. Percent of National Forest Visits by Spending Segment, fiscal year 2007.

| | Non-local Segments | | | Local Segments | | | Non-Primary | Total |
|-----------------------------------|--------------------|-----------------|------------------|----------------|-----------------|------------------|-------------|-------|
| | Day | Overnight on NF | Overnight off NF | Day | Overnight on NF | Overnight off NF | | |
| Percent of National Forest Visits | 13.9 | 10.4 | 15.7 | 41.6 | 2.7 | 0.9 | 14.8 | 100.0 |

Spending Profiles

National average spending profiles for each segment can be found in Table 5 of the Stynes and White report noted above. 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 segment found in Appendix Table A-3 of that report.

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 12 times the number of National Forest visits reported in Table 1 of this report.

Other Information

There are several other economic aspects of the trips on which the recreation visits to the forest are made. These are summarized in Table 13. 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. These data are only available for Round 2 data.

Table 13. Visitor Trip Information, fiscal year 2007.

| Item | |
|---|----------|
| Average total trip spending per visiting party | \$583.00 |
| Median total trip spending per visiting party | \$70.00 |
| Percent of visits that occur on trip with an overnight stay away from home | 43.5 |
| Percent of visits that occur on trip with an overnight stay within 50 miles of the visited forest | 39.3 |
| For overnight visits, average number of nights within 50 miles of the forest | 4.8 |
| For those staying overnight within 50 miles of the forest, Percent indicating each type of Lodging | . |
| NF campgrounds ON the national forest | 19.8 |
| Camping in undeveloped areas of the national forest | 12.2 |
| Cabins, lodges, hotels or huts ON the national forest | 6.4 |
| Other public campgrounds (Park Service, BLM, State, other) | 2.6 |
| Private campgrounds NOT on the national forest | 2.4 |
| Rented home, condo, cabin, lodge or hotel NOT on the nf | 37.9 |
| Private home of friend or relative | 13.1 |
| Home, cabin, or condo visitor owns | 9.3 |
| Other | 1.6 |

Household Income

Beginning in the second round of data collection, respondents 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 14.

Table 14. Household income of National Forest recreation visits. Fiscal year 2007.

| Household Income Categories | Percent of visits from the income category |
|-----------------------------|--|
| Under \$25,000 | 10.3 |
| \$25,000 to \$49,999 | 23.3 |
| \$50,000 to \$74,999 | 23.1 |
| \$75,000 to \$99,999 | 17.4 |
| \$100,000 to \$149,999 | 15.4 |
| \$150,000 and up | 10.5 |

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 4). 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. Most often, 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. Round 2 of data collection added an additional question for visitors: for those visitors who said they would have gone somewhere for recreation they were asked how far from their home this alternate destination was. These results are shown in Figure 5.

Figure 4. Substitute behavior choices of National Forest visitors, fiscal year 2007.

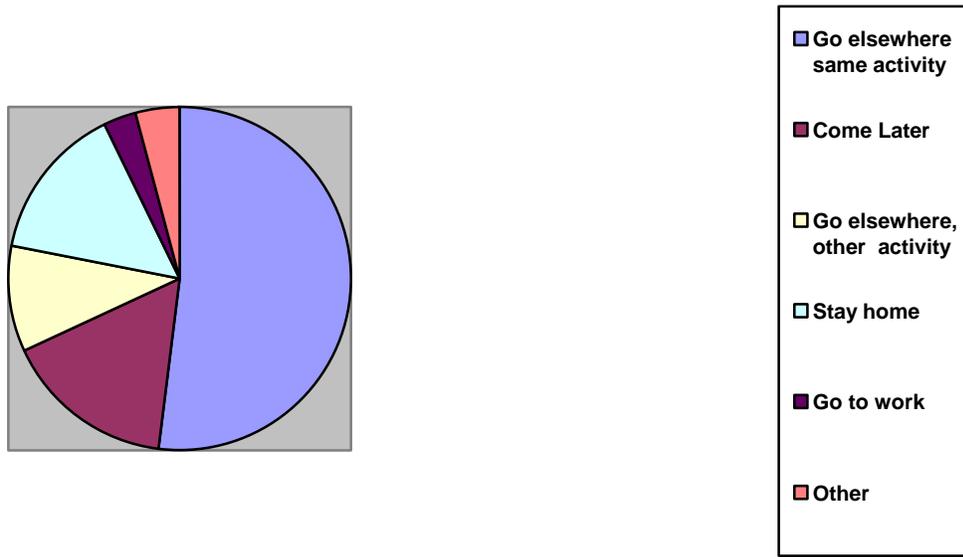
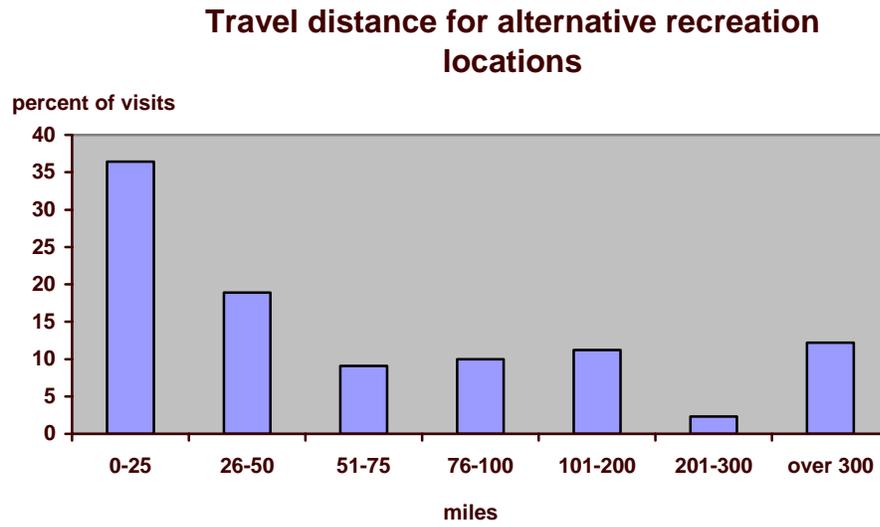


Figure 5. Reported distance visitors would travel to alternative recreation locations, fiscal year 2007 .



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. Starting in Round 2, all recreation visitors were asked to provide an overall rating of their visit to the national forest, on a 5-point Likert scale. For both rounds, 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 for Round 2 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 15 displays the aggregate PSI scores for this forest for both rounds of NVUM.

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.

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.

The numerical scores for visitor satisfaction and importance for each element by site type, and the sample sizes for each are presented in Appendix A (Tables A1 – A4). 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, in Round 2 visitors were asked about their overall satisfaction with and the importance of road condition and the adequacy of signage. Figures 7a and 7b show the results.

Figure 5. Percent of National Forest visits by overall satisfaction rating, fiscal year 2007.

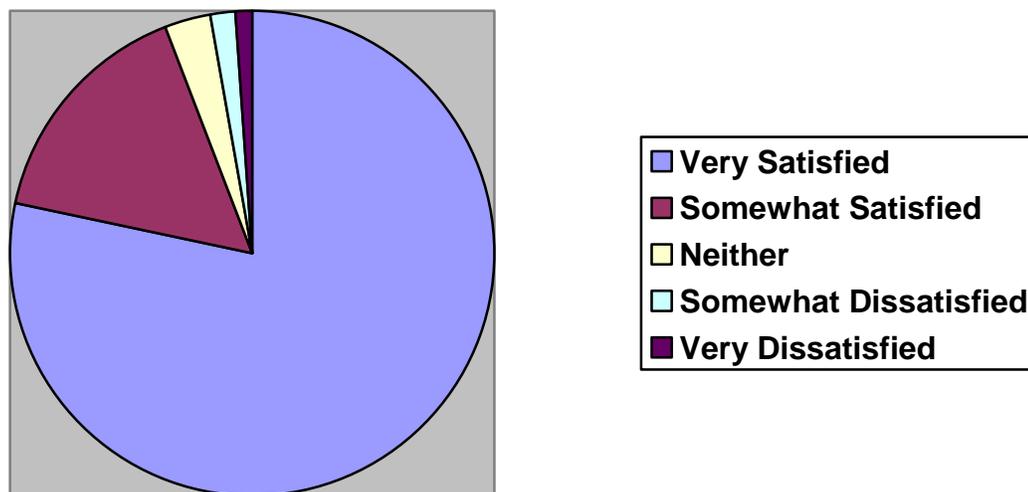


Table 15. National Forest visitation Percent Satisfaction Index^a scores for aggregate categories, fiscal year 2007.

| Items Rated | Satisfied Survey Respondents (%) | | |
|---|----------------------------------|--------------------------|-----------------------|
| | Developed Sites ^b | Undeveloped Areas (GFAs) | Designated Wilderness |
| Developed Facilities (includes restroom cleanliness and facility condition) | 84.9 | 81.6 | 78.6 |
| Access (includes parking availability, parking lot condition, road condition and trail condition) | 86.1 | 81.4 | 87.2 |
| Services (includes availability of information, signage, employee helpfulness) | 82.5 | 76.0 | 76.4 |
| Perception of Safety | 94.8 | 92.9 | 95.8 |

^aThis is a composite rating. It is the proportion of satisfaction ratings scored by visitors as good/satisfied or very good/very satisfied. It is computed as the percentage of all ratings for the elements within the grouping that are at or above the target level, and indicates the percent of all visits where the person was satisfied with agency performance.

^bThis category includes both Day Use and Overnight Use Developed Sites.

Figure 6. Percent Meets Expectations scores for National Forest visits by type of site, fiscal year 2007.

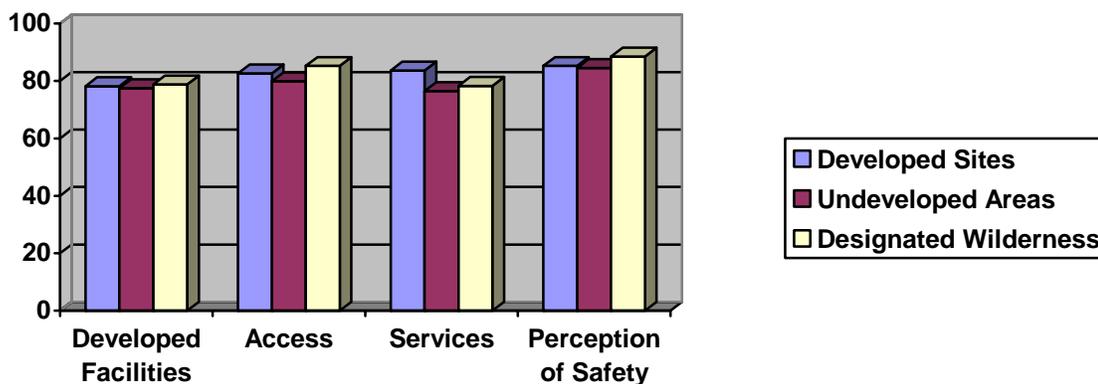


Table 16. Importance – Performance ratings for satisfaction elements, Day Use Developed Sites, Sherwood National Forest (National Visitor Use Monitoring ZRND1YR and QRND2YR data)

| ITEM | Day Use Developed Sites | Overnight Use Developed Sites | General Forest Area | Designated Wilderness |
|-------------------------------------|--------------------------------|--------------------------------------|----------------------------|------------------------------|
| Restroom cleanliness | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work |
| Developed facility condition | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Possible Overkill |
| Condition of environment | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work |
| Employee helpfulness | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work |
| Interpretive display | Possible Overkill | Possible Overkill | Low Priority | Possible Overkill |
| Parking availability | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Possible Overkill |
| Parking lot condition | Keep up the Good Work | Keep up the Good Work | Possible Overkill | Possible Overkill |
| Rec. info. available | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work |
| Road condition | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work |
| Feeling of safety | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work |
| Scenery | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work |
| Signage adequacy | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work |
| Trail condition | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work |
| Value for fee paid | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work | Keep up the Good Work |

* Indicates fewer than 10 people responded, so no information is provided due to small sample size.

Figure 7a. Overall Satisfaction with Road Condition and Signage Adequacy, fiscal year 2007.

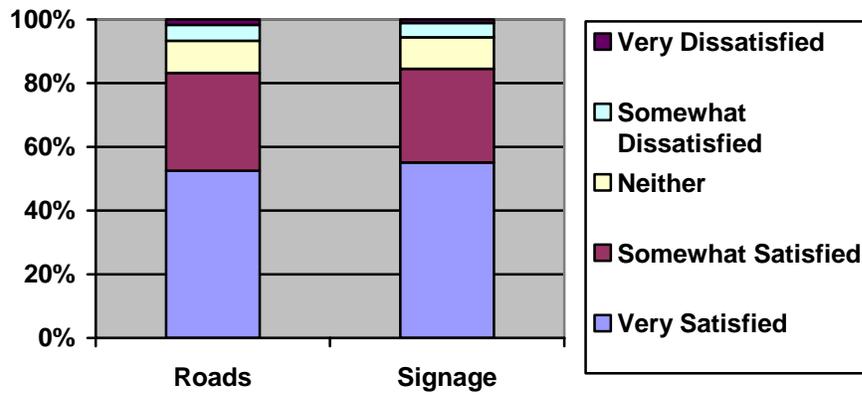
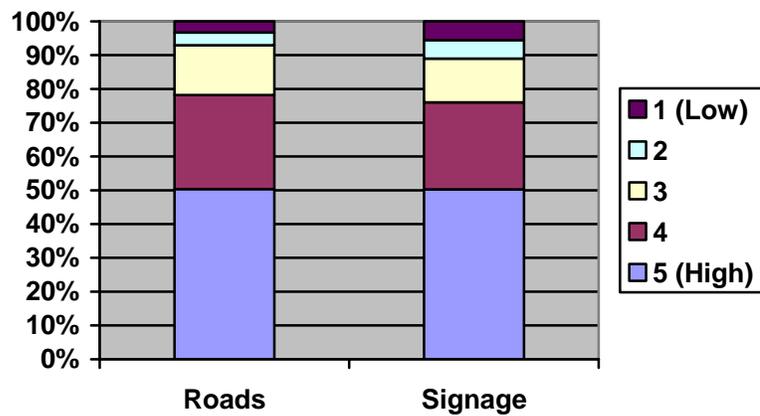


Figure 7b. Overall Importance ratings for Road Condition and Signage Adequacy, fiscal year 2007.



Crowding

Visitors rated their perception of how crowded the recreation site or area felt to them. Such perceptions must consider the type of site the visitor was using, since in a designated Wilderness 20 people may seem quite crowded, while at a ski area or swimming beach 250 people may seem quite unused. Table 17 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 17. National Forest visitor perceptions of crowding by site type, fiscal year 2007.

| Perception of Crowding by Site Types (Percent site visits %) | | | | |
|--|--------------------------------------|-------------------------------|--------------------------|-----------------------------|
| Crowding Rating | Day Use Developed Sites ^c | Overnight Use Developed Sites | Undeveloped Areas (GFAs) | Designated Wilderness Areas |
| 10 Overcrowded | 1.6 | 3.3 | 1.6 | 0.8 |
| 9 | 2.7 | 6.3 | 2.2 | 2.4 |
| 8 | 6.1 | 9.2 | 3.7 | 3.4 |
| 7 | 7.0 | 8.4 | 4.5 | 4.8 |
| 6 | 13.5 | 13.7 | 10.0 | 9.5 |
| 5 | 14.6 | 14.9 | 12.1 | 14.0 |
| 4 | 13.6 | 9.9 | 11.5 | 13.8 |
| 3 | 14.8 | 9.9 | 16.6 | 16.0 |
| 2 | 15.9 | 16.9 | 21.5 | 22.0 |
| 1 Hardly anyone there | 10.3 | 7.5 | 16.4 | 13.3 |

Disabilities

Providing barrier-free facilities for recreation visitors is an important part of facility and service planning and development. In round two of data collection, a specific question asked visitors if anyone in their group had a disability. If they responded yes, the visitor was then asked if the facilities at the sites they visited were accessible for this person (Table 18).

Table 18. Accessibility for National Forest visits by persons with disabilities, fiscal year 2007.

| Item | Percent |
|--|---------|
| % of visitors interviewed with group member having a disability | 7.6 |
| Of this group, percent who said facilities at site visited were accessible | 79.2 |

WILDERNESS VISIT DEMOGRAPHICS

Visits to Wilderness are sometimes made by a particular subset of the overall visitor population. In this section, tables are presented that describe the demographic characteristics of those who visit designated wilderness on this forest. Table 19 shows the gender breakdown, Table 20 the racial and ethnicity distribution, and Table 21 the age composition.

Table 19. Gender distribution of visits to National Forest Wilderness, fiscal year 2007.

| Gender | % of National Forest Visits |
|--------|-----------------------------|
| Female | 36.6 |
| Male | 63.4 |
| Total | 100.0 |

Table 20. Race/Ethnicity distribution of visits to National Forest Wilderness, fiscal year 2007.

| Race/Ethnicity ^a | National Forest Visits (%) |
|---|-------------------------------|
| American Indian/Alaska Native | 1.2 |
| Asian | 2.2 |
| Black/African American | 0.7 |
| Native Hawaiian or other Pacific Islander | 0.2 |
| White | 95.6 |
| | |
| Spanish, Hispanic, or Latino | 3.2 |
| | |

^a The race/ethnicity questions were not asked identically in rounds 1 and 2. Due to OMB requirements in round 2, “Spanish, Hispanic or Latino” was presented in a separate question because it is an ethnicity not a race. In round 2 respondents first stated whether they were of this ethnicity, then in a separate question were asked which ones of the racial categories they felt applied to them. Respondents could choose more than one racial group. “Other” was allowed in round 1 but OMB required its removal in round 2.

Table 21. Age distribution of visits to National Forest Wilderness, fiscal year 2007.

| Visitor Characteristics | % of National Forest Visits |
|-------------------------|-----------------------------|
| Under 16 | 9.3 |
| 16-19 | 3.1 |
| 19-29 | 15.6 |
| 30-39 | 17.6 |
| 40-49 | 21.0 |
| 50-59 | 20.5 |
| 60-69 | 9.8 |
| 70 and over | 3.1 |
| Total | 100.0 |

Appendix A. Detailed Satisfaction Results

Table A-1. Satisfaction of National Forest recreation visitors at Developed Day Use sites, fiscal year 2007.

| ITEM | Percent Poor | Percent Fair | Percent Average | Percent Good | Percent Very Good | Avg Rating | Mean Importance |
|------------------------------|--------------|--------------|-----------------|--------------|-------------------|------------|-----------------|
| Restroom cleanliness | 3.2 | 4.7 | 12.5 | 28.3 | 51.3 | 4.2 | 4.4 |
| Developed facility condition | 0.5 | 1.7 | 8.3 | 27.6 | 61.9 | 4.5 | 4.3 |
| Condition of environment | 0.7 | 1.7 | 4.9 | 26.7 | 65.9 | 4.6 | 4.7 |
| Employee helpfulness | 0.4 | 0.8 | 5.4 | 20.9 | 72.5 | 4.6 | 4.5 |
| Interpretive displays | 1.7 | 3.8 | 20.0 | 27.6 | 47.0 | 4.1 | 3.9 |
| Parking availability | 2.0 | 4.2 | 8.6 | 22.3 | 62.9 | 4.4 | 4.2 |
| Parking lot condition | 1.8 | 2.4 | 10.2 | 26.9 | 58.7 | 4.4 | 4.0 |
| Rec. info. availability | 1.7 | 4.0 | 13.9 | 28.4 | 52.0 | 4.3 | 4.1 |
| Road condition | 1.3 | 3.3 | 9.6 | 32.2 | 53.6 | 4.3 | 4.2 |
| Feeling of safety | 0.4 | 1.0 | 3.7 | 20.1 | 74.9 | 4.7 | 4.6 |
| Scenery | 0.1 | 0.8 | 2.0 | 12.5 | 84.6 | 4.8 | 4.6 |
| Signage adequacy | 1.2 | 3.7 | 10.9 | 28.6 | 55.6 | 4.3 | 4.2 |
| Trail condition | 0.5 | 1.9 | 8.5 | 28.0 | 61.1 | 4.5 | 4.4 |
| Value for fee paid | 1.9 | 7.7 | 10.2 | 27.0 | 53.2 | 4.2 | 4.5 |

*Scale is: Poor = 1 Fair = 2 Average = 3 Good = 4 Very good = 5

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

Table A-2. Satisfaction of National Forest recreation visitors at Developed Overnight sites, fiscal year 2007.

| ITEM | Percent Poor | Percent Fair | Percent Average | Percent Good | Percent Very Good | Avg Rating | Mean Importance |
|------------------------------|---------------------|---------------------|------------------------|---------------------|--------------------------|-------------------|------------------------|
| Restroom cleanliness | 2.3 | 4.7 | 12.6 | 23.6 | 56.8 | 4.3 | 4.5 |
| Developed facility condition | 0.8 | 2.6 | 7.8 | 32.5 | 56.4 | 4.4 | 4.3 |
| Condition of environment | 0.7 | 1.7 | 5.1 | 25.2 | 67.3 | 4.6 | 4.7 |
| Employee helpfulness | 1.7 | 1.6 | 5.4 | 17.7 | 73.7 | 4.6 | 4.5 |
| Interpretive displays | 2.5 | 5.2 | 23.8 | 27.3 | 41.2 | 4.0 | 3.9 |
| Parking availability | 1.4 | 3.3 | 8.5 | 24.1 | 62.7 | 4.4 | 4.2 |
| Parking lot condition | 1.2 | 2.3 | 9.9 | 25.3 | 61.2 | 4.4 | 4.0 |
| Rec. info. availability | 3.8 | 8.9 | 15.3 | 28.4 | 43.6 | 4.0 | 4.1 |
| Road condition | 3.0 | 4.7 | 10.9 | 35.3 | 46.2 | 4.2 | 4.2 |
| Feeling of safety | 0.2 | 0.8 | 5.0 | 20.2 | 73.8 | 4.7 | 4.6 |
| Scenery | 0.4 | 0.8 | 1.9 | 16.1 | 80.8 | 4.8 | 4.7 |
| Signage adequacy | 2.4 | 4.4 | 11.9 | 25.4 | 56.0 | 4.3 | 4.3 |
| Trail condition | 0.9 | 2.5 | 5.9 | 36.5 | 54.2 | 4.4 | 4.3 |
| Value for fee paid | 1.8 | 3.0 | 8.7 | 25.8 | 60.7 | 4.4 | 4.5 |

*Scale is: Poor = 1 Fair = 2 Average = 3 Good = 4 Very good = 5

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

Table A-3. Satisfaction of National Forest recreation visitors in General Forest Areas, fiscal year 2007.

| ITEM | Percent Poor | Percent Fair | Percent Average | Percent Good | Percent Very Good | Avg Rating | Mean Importance |
|------------------------------|--------------|--------------|-----------------|--------------|-------------------|------------|-----------------|
| | | | | | | | |
| Restroom cleanliness | 3.9 | 6.5 | 12.9 | 27.1 | 49.6 | 4.1 | 4.2 |
| Developed facility condition | 1.9 | 1.8 | 10.4 | 32.4 | 53.5 | 4.3 | 4.1 |
| Condition of environment | 1.3 | 2.8 | 5.9 | 27.6 | 62.3 | 4.5 | 4.7 |
| Employee helpfulness | 1.3 | 1.9 | 8.5 | 19.9 | 68.4 | 4.5 | 4.3 |
| Interpretive displays | 3.4 | 6.4 | 22.5 | 27.9 | 39.8 | 3.9 | 3.8 |
| Parking availability | 2.4 | 4.1 | 9.7 | 24.5 | 59.3 | 4.3 | 4.0 |
| Parking lot condition | 2.4 | 4.0 | 11.1 | 27.4 | 55.2 | 4.3 | 3.8 |
| Rec. info. availability | 3.8 | 6.3 | 17.9 | 31.5 | 40.5 | 4.0 | 4.0 |
| Road condition | 3.0 | 7.5 | 13.1 | 33.6 | 42.8 | 4.1 | 4.1 |
| Feeling of safety | 0.4 | 1.5 | 5.2 | 22.9 | 70.0 | 4.6 | 4.5 |
| Scenery | 0.3 | 0.9 | 3.4 | 15.7 | 79.8 | 4.7 | 4.6 |
| Signage adequacy | 3.9 | 6.8 | 12.0 | 32.4 | 44.9 | 4.1 | 4.1 |
| Trail condition | 1.0 | 4.3 | 11.0 | 30.6 | 53.1 | 4.3 | 4.3 |
| Value for fee paid | 3.0 | 3.1 | 9.1 | 23.2 | 61.6 | 4.4 | 4.2 |

*Scale is: Poor = 1 Fair = 2 Average = 3 Good = 4 Very good = 5

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

Table A-4. Satisfaction of National Forest Wilderness Visitors, fiscal year 2007.

| ITEM | Percent Poor | Percent Fair | Percent Average | Percent Good | Percent Very Good | Avg Rating | Mean Importance |
|------------------------------|--------------|--------------|-----------------|--------------|-------------------|------------|-----------------|
| Restroom cleanliness | 5.4 | 8.4 | 13.8 | 22.8 | 49.6 | 4.0 | 4.0 |
| Developed facility condition | 1.3 | 1.0 | 11.5 | 28.8 | 57.3 | 4.4 | 3.9 |
| Condition of environment | 0.3 | 1.4 | 3.2 | 20.8 | 74.4 | 4.7 | 4.8 |
| Employee helpfulness | 0.9 | 0.9 | 5.7 | 14.2 | 78.3 | 4.7 | 4.3 |
| Interpretive displays | 4.3 | 6.1 | 19.8 | 29.9 | 39.9 | 4.0 | 3.6 |
| Parking availability | 0.7 | 4.6 | 8.2 | 19.6 | 67.0 | 4.5 | 3.9 |
| Parking lot condition | 0.8 | 2.3 | 9.1 | 22.4 | 65.5 | 4.5 | 3.5 |
| Rec. info. availability | 1.8 | 5.2 | 16.9 | 29.7 | 46.3 | 4.1 | 4.1 |
| Road condition | 1.6 | 3.9 | 10.6 | 34.6 | 49.3 | 4.3 | 4.0 |
| Feeling of safety | 0.4 | 0.5 | 3.2 | 19.4 | 76.4 | 4.7 | 4.4 |
| Scenery | 0.0 | 0.4 | 2.0 | 10.9 | 86.7 | 4.8 | 4.7 |
| Signage adequacy | 2.7 | 8.0 | 15.0 | 27.4 | 46.8 | 4.1 | 4.2 |
| Trail condition | 0.9 | 3.0 | 6.2 | 30.2 | 59.6 | 4.4 | 4.4 |
| Value for fee paid | 1.9 | 2.2 | 6.1 | 16.2 | 73.6 | 4.6 | 4.3 |

*Scale is: Poor = 1 Fair = 2 Average = 3 Good = 4 Very good = 5

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