



United States
Department of
Agriculture

Forest Service

Natural Resource
Manager

National Visitor
Use Monitoring
Program



Last updated:
28 September 2016

Visitor Use Report

Nantahala-Pisgah NFs (National Forests in North Carolina)

USDA Forest Service Region 8

National Visitor Use Monitoring Data collected FY 2008

CONTENTS

1. Introduction

- 1.1. Scope and purpose of the National Visitor Use Monitoring program
- 1.2. Methods
- 1.3. Definition of Terms
- 1.4. Limitations of the Results

2. Visitation Estimates

- 2.1 Forest Definition of Site Days
- 2.2. Visitation Estimates

3. Description of the Recreation Visit

- 3.1. Demographics
- 3.2. Visit Descriptions
- 3.3. Activities

4. Economic Information

- 4.1. Spending Segments
- 4.2. Spending Profiles
- 4.3. Total Direct Spending
- 4.4. Other Visit Information
- 4.5. Household Income
- 4.6. Substitute Behavior

5. Satisfaction Information

- 5.1. Crowding
- 5.2. Disabilities

6. Wilderness Visit Demographics

7. Appendix Tables

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 mean 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 be 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	4	79	5.1
DUDS	HIGH	8	782	1.0
DUDS	MEDIUM	8	2,309	0.3
DUDS	LOW	10	7,233	0.1
DUDS	DUR4	8	178	4.5
DUDS	FR1	12	1,351	0.9
DUDS	FR3	8	1,390	0.6
DUDS	PTC1	8	1,321	0.6
OU DS	MEDIUM	1	68	1.5
OU DS	LOW	8	417	1.9
OU DS	DUR4	8	1,669	0.5
OU DS	DUR5	8	1,100	0.7
OU DS	FE4	7	1,760	0.4
OU DS	FR5	8	312	2.6
OU DS	SUP4	7	329	2.1
GFA	VERY HIGH	8	7,503	0.1
GFA	HIGH	14	6,256	0.2
GFA	MEDIUM	14	10,727	0.1
GFA	LOW	24	22,797	0.1
WILDERNESS	VERY HIGH	8	70	11.4
WILDERNESS	HIGH	8	209	3.8
WILDERNESS	MEDIUM	8	455	1.8
WILDERNESS	LOW	10	3,907	0.3
Total		207	72,222	0.3

* 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 Subunit 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*	5,467	±21.8
→ Day Use Developed Site Visits	1,639	±12.9
→ Overnight Use Developed Site Visits	111	±22.4
→ General Forest Area Visits	3,564	±32.9
→ Designated Wilderness Visits†	153	±20.9
Total Estimated National Forest Visits§	4,612	±23.4
→ Special Events and Organized Camp Use‡	4	±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	883	789	582
Overnight Use Developed Sites	294	271	81
Undeveloped Areas (GFAs)	486	440	213
Designated Wilderness	403	375	263
Total	2,066	1,875	1,139

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

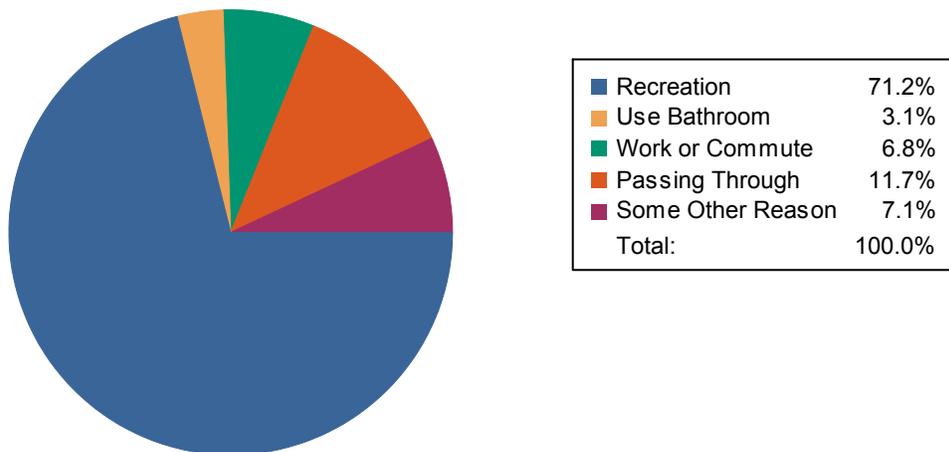
Form Type†	Developed Day Use Site	Developed Overnight	Undeveloped Areas (GFAs)	Wilderness	Total
Basic	191	28	74	85	378
Economic	195	28	69	85	377
Satisfaction	196	25	70	93	384
Total	582	81	213	263	1,139

* 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



3. DESCRIPTION OF THE RECREATION VISIT

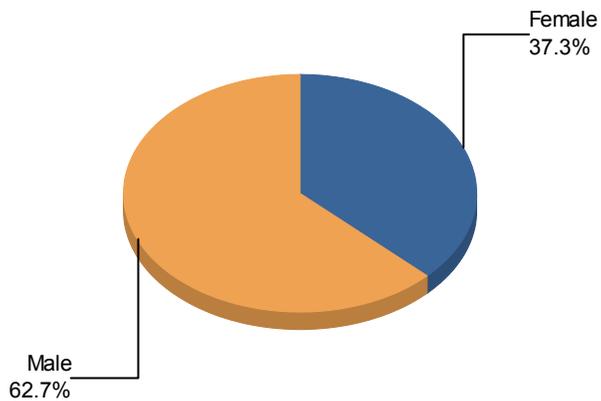
3.1. Demographics

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 38 percent of visits are made by females. American Indian/Alaska Natives (2.3%) are the most common racial or ethnic minority. The age mix for visits is quite evenly distributed across age classes. About 4 percent of visits are made by people aged 70 and up. Over 17 percent of the visiting population is in their forties and there are about the same percentages of people in their twenties as there are in their fifties. Just over 15 percent of the visiting population is children under the age of 16. This forest serves a mostly local client base. Nearly 47 percent of visits come from people who live within 25 miles of the forest, and another 14 percent come from distances between 25 and 50 miles. However, nearly 20 percent of visits come from people who live more than 200 miles away.

Table 5. Percent of National Forest Visits* by Gender

Gender	Survey Respondents†	National Forest Visits (%)‡
Female	1,192	37.3
Male	1,478	62.7
Total	2,670	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.

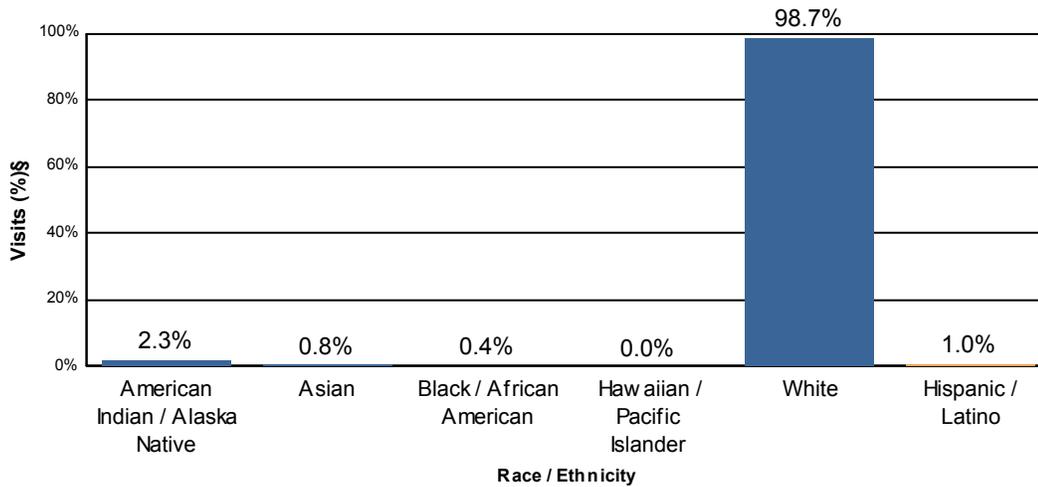
† Non-respondents to gender questions were excluded from analysis.

‡ 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	22	2.3
Asian	14	0.8
Black / African American	11	0.4
Hawaiian / Pacific Islander	1	0.0
White	1,075	98.7
Total	1,123	102.2#

Ethnicity†	Survey Respondents‡	National Forest Visits (%)§
Hispanic / Latino	15	1.0



* 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.

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

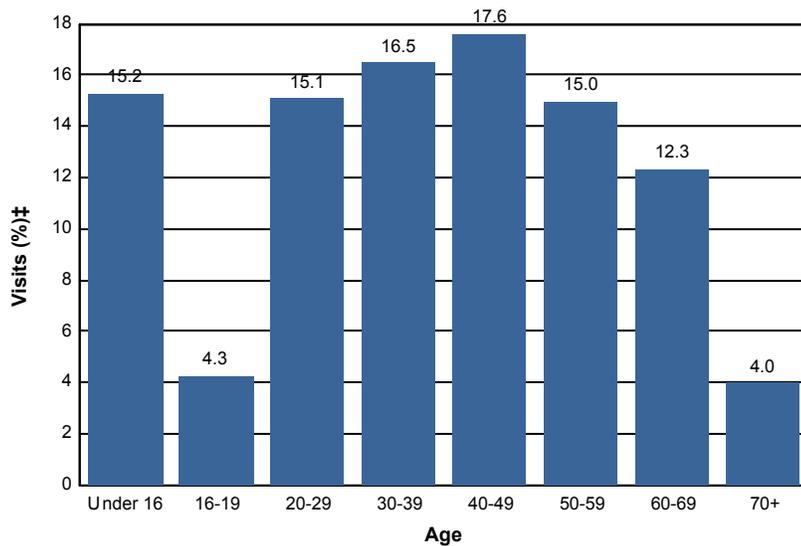
† Race and Ethnicity were asked as two separate questions.

‡ 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	15.2
16-19	4.3
20-29	15.1
30-39	16.5
40-49	17.6
50-59	15.0
60-69	12.3
70+	4.0
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.

† 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)
28806	North Carolina	Buncombe County	12.1	31
28734	North Carolina	Macon County	11.3	29
28906	North Carolina	Cherokee County	10.5	27
28771	North Carolina	Graham County	9.0	23
28712	North Carolina	Transylvania County	6.6	17
28805	North Carolina	Buncombe County	6.3	16
28803	North Carolina	Buncombe County	5.9	15
Foreign Country			5.5	14
28801	North Carolina	Buncombe County	5.5	14
28739	North Carolina	Henderson County	5.1	13
28768	North Carolina	Transylvania County	5.1	13
28741	North Carolina	Macon County	4.3	11
Unknown Origin*			4.3	11
28715	North Carolina	Buncombe County	4.3	11
28732	North Carolina	Henderson County	4.3	11

* 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	47.0
26 - 50 miles	13.8
51 - 75 miles	5.1
76 - 100 miles	3.2
101 - 200 miles	10.9
201 - 500 miles	11.0
Over 500 miles	8.9
Total	99.9

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.

Most visits to the Nantahala/Pisgah are day visits. The average visit lasts less than 10 hours; over half of the visits to this forest last less than 4 hours. Less than 13 percent of the visits involve recreating at more than one location on the forest. There is a sizeable segment of frequent visitors. Just over 19 percent of all visits are made by people who visit more than 50 times per year, including a number who visit over 100 times per year. Conversely, over 45 percent of the visits are made by people who visit at most 5 times per year.

Table 10. Visit Duration

Visit Type	Average Duration (hours)‡	Median Duration (hours)‡
Site Visit	4.8	2.0
Day Use Developed	1.6	1.0
Overnight Use Developed	51.7	42.3
Undeveloped Areas	4.6	2.0
Designated Wilderness	8.3	3.0
National Forest Visit	9.7	3.0

* 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. 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 Subunit 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.

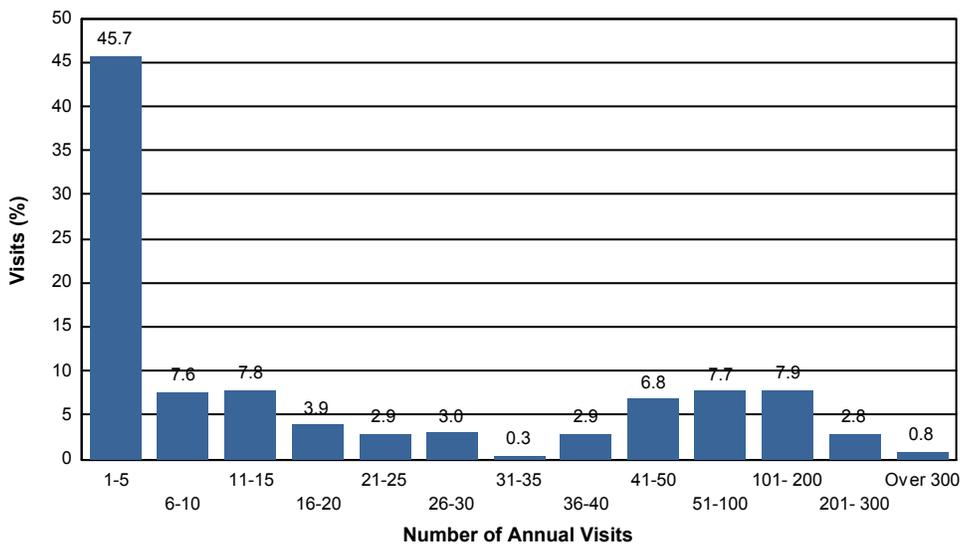
During the interview, visitors were asked how often they visit this national forest for all recreational activities, and how often for their primary activity. Table 12 summarizes the percent of visits that are made by those in each frequency category for this Subunit.

Table 11. Group Characteristics

Characteristic	Average
Percent of visits that were to just one national forest site during the National Forest Visit*	87.4
Number of national forest sites visited on National Forest Visit*	1.3
Group Size	2.3
Axles per Vehicle	2.0

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

Number of Annual Visits	Visits (%)†	Cumulative Visits (%)
1 - 5	45.7	45.7
6 - 10	7.6	53.3
11 - 15	7.8	61.0
16 - 20	3.9	64.9
21 - 25	2.9	67.8
26 - 30	3.0	70.8
31 - 35	0.3	71.1
36 - 40	2.9	74.0
41 - 50	6.8	80.8
51 - 100	7.7	88.5
101 - 200	7.9	96.4
201 - 300	2.8	99.2
Over 300	0.8	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.

The majority of the visits to the Nantahala/Pisgah engage in hiking/walking (60.4%) during their visit, including over 38 percent for whom it is their primary activity. Viewing scenery (55.0%) while on the Nantahala/Pisgah is also a popular activity; about 15 percent of visits report that it is their primary activity. Over one third of the visits come to relax (37.9%), although for most it is not their primary activity

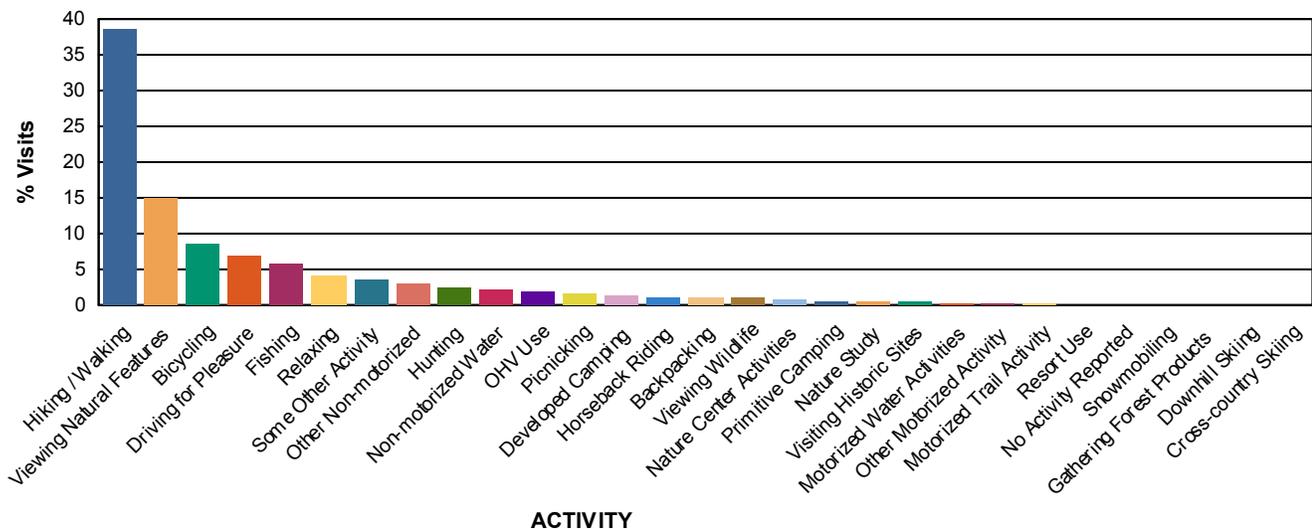
Use of Constructed Facilities and Designated Areas

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
Hiking / Walking	60.4	38.5	2.4
Viewing Natural Features	55.0	15.0	4.0
Relaxing	37.9	4.0	10.8
Driving for Pleasure	32.0	6.9	2.2
Viewing Wildlife	30.9	0.9	2.9
Nature Center Activities	11.2	0.8	1.8
Bicycling	10.1	8.6	2.0
Picnicking	10.0	1.6	1.6
Fishing	8.4	5.8	3.7
Nature Study	7.0	0.5	2.4
Other Non-motorized	5.9	3.0	2.6
Visiting Historic Sites	4.8	0.5	1.7
Gathering Forest Products	3.7	0.0	0.0
Some Other Activity	3.6	3.5	4.1
Developed Camping	3.2	1.2	25.0
Non-motorized Water	2.8	2.1	3.8
Hunting	2.5	2.5	6.8
Motorized Trail Activity	2.3	0.1	3.0
Backpacking	2.2	1.1	28.8
OHV Use	2.1	2.0	3.6
Primitive Camping	1.1	0.5	62.5
Horseback Riding	1.0	1.1	4.0
Resort Use	0.4	0.0	56.7
Motorized Water Activities	0.3	0.2	3.8
Other Motorized Activity	0.2	0.1	1.8
Snowmobiling	0.0	0.0	0.0
Downhill Skiing	0.0	0.0	0.0
Cross-country Skiing	0.0	0.0	0.0
No Activity Reported	0.0	0.0	

% Main Activity



* 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	6.4
Scenic Byway	38.7
Visitor Center or Museum	15.6
Designated ORV Area	2.7
Forest Roads	0.3
Interpretive Displays	5.0
Information Sites	10.2
Developed Fishing Site	3.8
Motorized Single Track Trails	2.7
Motorized Dual Track Trails	2.7
None of these Facilities	53.8

* 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.

† 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.

About 63 percent of the visits to this forest are people on day trips away from home. Almost 15

percent of the visits have some other location as their primary destination, and are on a side trip when they come to the Nantahala/Pisgah. Over 28 percent of the visits include an overnight stay away from home while on their trip. Almost 27 percent spend the night within 50 miles of the forest. Most that spend the night in the area do so in a rented home, condo, cabin, lodge or hotel not on this forest. About half of the visiting parties spend \$40 or less per party per visit. Just over 29 percent of the visiting population comes from households in the \$50,000 to \$74,999 range; just over 21 percent come from households in the \$25,000 to \$49,999 range.

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

	Non-Local Segments			Local Segments			Non-Primary‡	Total
	Day	Overnight on NF	Overnight off NF	Day	Overnight on NF	Overnight off NF		
Number of National Forest Visits								
Percent of National Forest Visits								

* 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

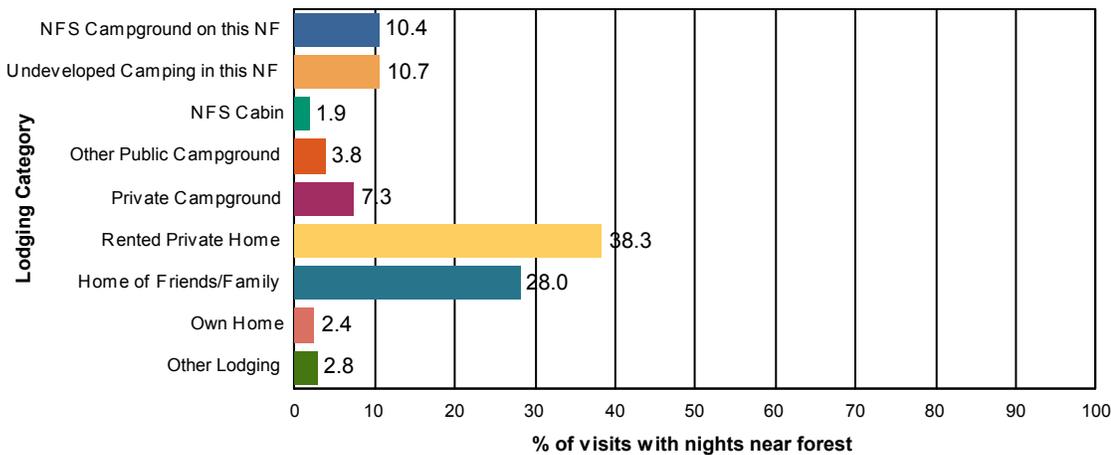
There are several other important aspects of the trips on which the recreation visits to the forest are made. These are summarized in Table 16. The first aspect relates to total amount spent by the recreating party on the trip. This includes spending not just within 50 miles of the forest, but anywhere. 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	\$362
Median Total Trip Spending per Party	\$40
% NF Visits made on trip with overnight stay away from home	31.5%
% NF Visits with overnight stay within 50 miles of NF	29.5%
Mean nights/visit within 50 miles of NF	5.2
Area Lodging Use	% Visits with Nights Near Forest
NFS Campground on this NF	10.4%
Undeveloped Camping in this NF	10.7%
NFS Cabin	1.9%
Other Public Campground	3.8%
Private Campground	7.3%
Rented Private Home	38.3%
Home of Friends/Family	28.0%
Own Home	2.4%
Other Lodging	2.8%

Area Lodging Use

% Visits with Nights Near Forest



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	20.0
\$25,000 to \$49,999	21.4
\$50,000 to \$74,999	29.4
\$75,000 to \$99,999	12.1
\$100,000 to \$149,999	9.2
\$150,000 and up	7.9
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

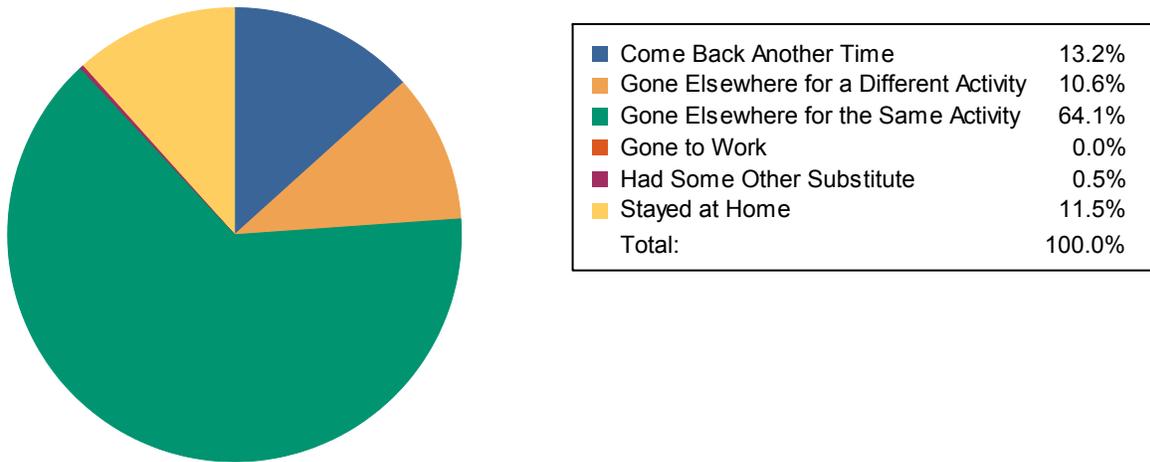
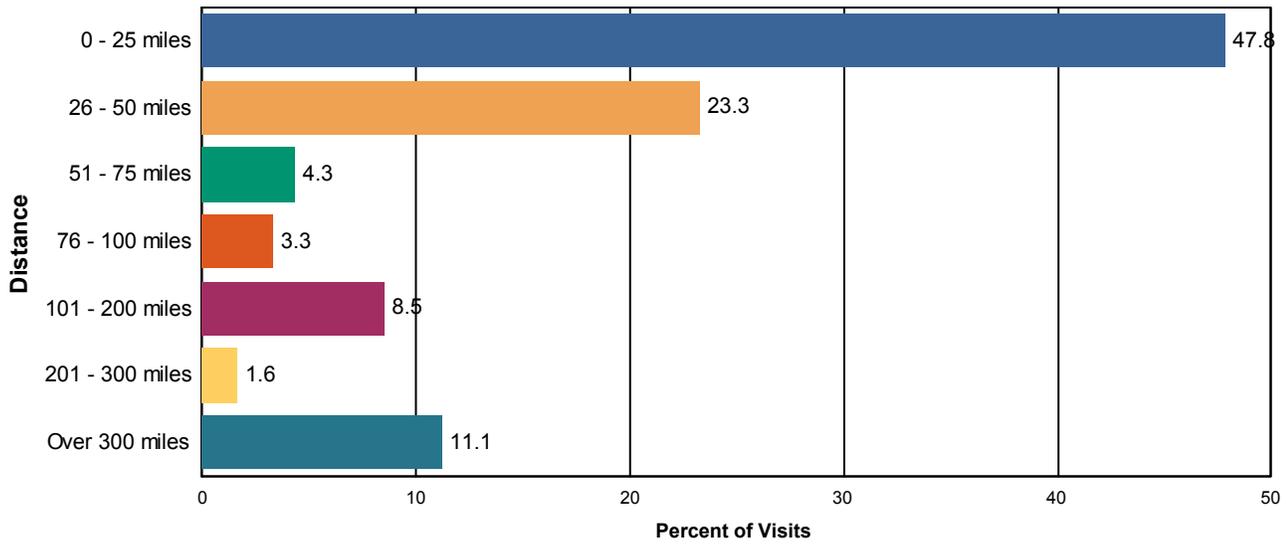


Figure 4. Reported Distance Visitors Would Travel to Alternate Location



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.

The overall satisfaction results showed that almost 83 percent of the people who visited were very satisfied with the overall quality of their recreation experience. Another 13 percent were somewhat satisfied. Less than 1 percent expressed any level of dissatisfaction. Composite Index scores for Developed Sites showed that all satisfaction elements were above the 85% national satisfaction target. Perception of safety was above 85% for Undeveloped Areas and access and perception of safety both were higher than 85% for Wilderness. The Percent Meets Expectation scores for perception of safety were over 80% all types of sites. Importance-Performance scores were quite good for the Nantahala/Pisgah. Forest managers are doing a good job for the majority of facilities and services across all site types, although there are a couple areas that may need focus for General Forest Areas (restroom cleanliness, availability of recreation information and road condition) and Wilderness (restroom cleanliness and availability of recreation information). The majority of the visiting population is somewhat to very satisfied with road condition and adequacy of signage forest-wide. Over 84 percent of the visits report that road condition is very to somewhat important and about the same (83.59%) feel that adequacy of signage is somewhat to very important.

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

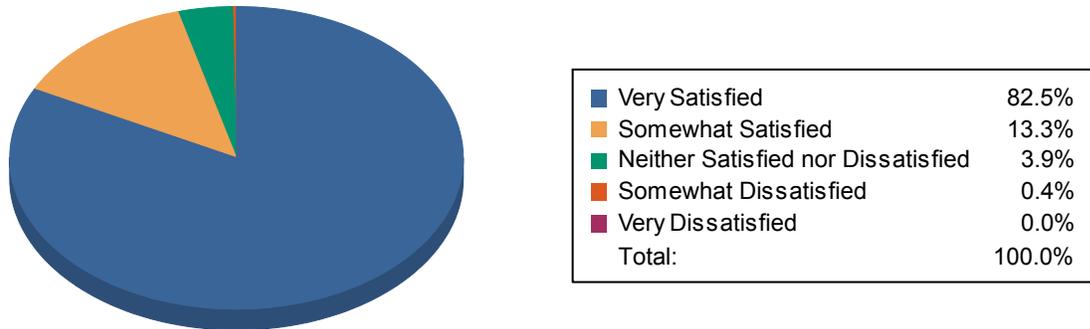


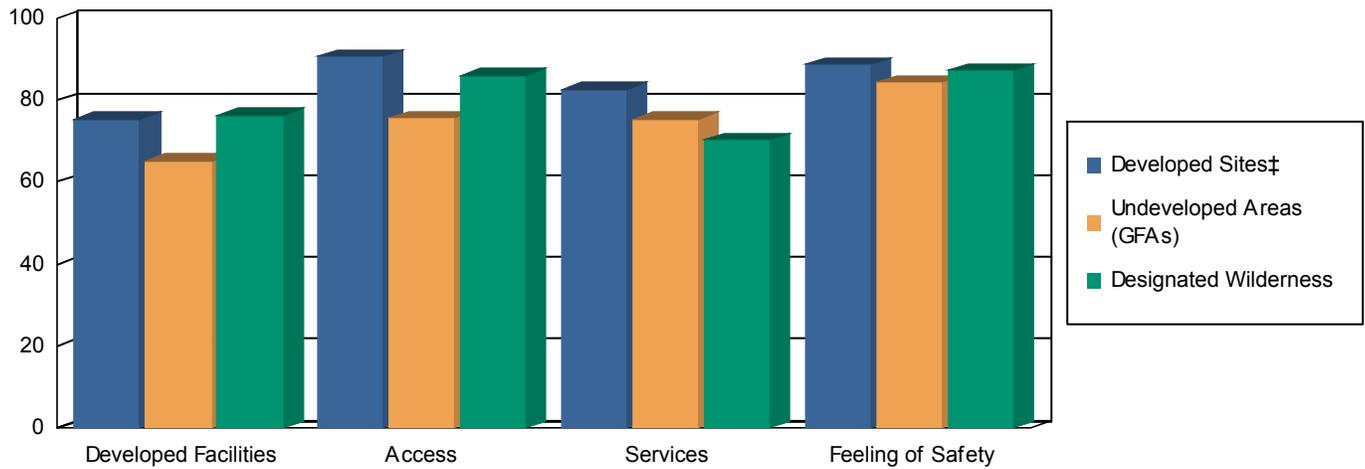
Table 18. Percent Satisfied Index† Scores for Aggregate Categories

Satisfaction Element	Satisfied Survey Respondents (%)		
	Developed Sites‡	Undeveloped Areas (GFAs)	Designated Wilderness
Developed Facilities	86.7	68.3	77.1
Access	94.5	83.9	89.4
Services	85.5	73.4	64.6
Feeling of Safety	96.1	97.0	94.7

† 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	Keep up the Good Work
Parking Availability	Keep up the Good Work
Parking Lot Condition	Keep up the Good Work
Rec. Info. Availability	Keep up the Good Work
Road Condition	Keep up the Good Work
Feeling of Safety	Keep up the Good Work
Scenery	Keep up the Good Work
Signage Adequacy	Keep up the Good Work
Trail Condition	Keep up the Good Work
Value for Fee Paid	Keep up the Good Work

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	Keep up the Good Work
Interpretive Displays	Keep up the Good Work
Parking Availability	Keep up the Good Work
Parking Lot Condition	Keep up the Good Work
Rec. Info. Availability	Keep up the Good Work
Road Condition	Keep up the Good Work
Feeling of Satefy	Keep up the Good Work
Scenery	Keep up the Good Work
Signage Adequacy	Keep up the Good Work
Trail Condition	Keep up the Good Work
Value for Fee Paid	Keep up the Good Work

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	*
Interpretive Displays	Keep up the Good Work
Parking Availability	Keep up the Good Work
Parking Lot Condition	Keep up the Good Work
Rec. Info. Availability	Concentrate Here
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	Keep up the Good Work
Value for Fee Paid	*

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

Table 22. Importance-Performance Ratings for Designated Wilderness

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	*
Interpretive Displays	Low Priority
Parking Availability	Keep up the Good Work
Parking Lot Condition	Keep up the Good Work
Rec. Info. Availability	Concentrate Here
Road Condition	Keep up the Good Work
Feeling of Safety	Keep up the Good Work
Scenery	Keep up the Good Work
Signage Adequacy	Keep up the Good Work
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

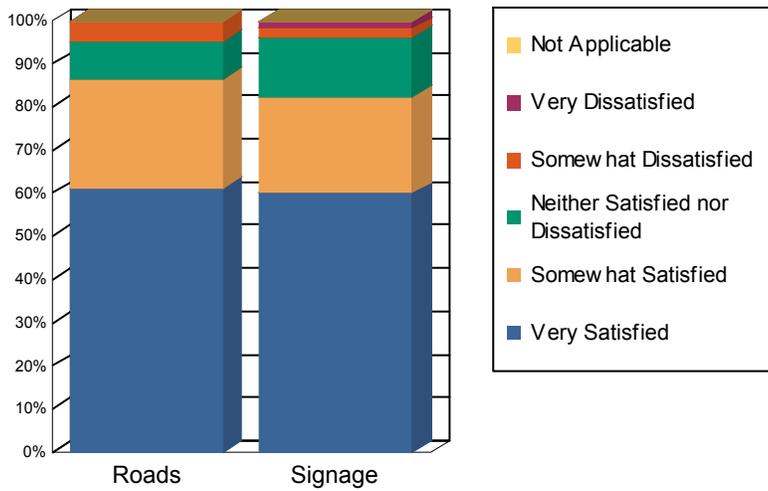
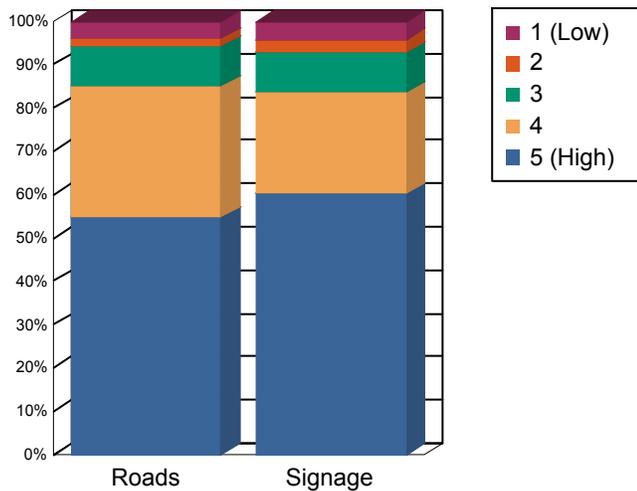


Figure 7b. Importance of Forest-wide Road Conditions & Signage Adequacy



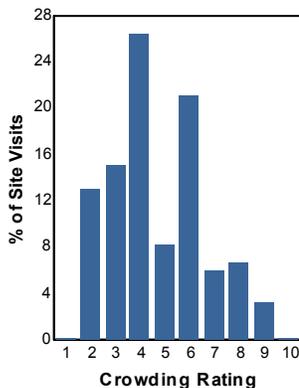
5.1. Crowding

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.

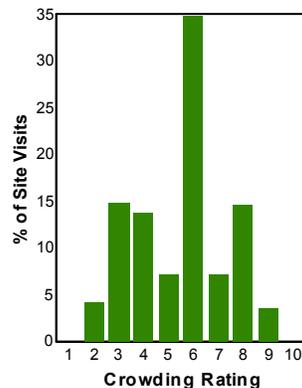
Table 23. Percent of Site Visits* by Crowding Rating and Site Type

Crowding Rating†	Site Types (% of Site Visits)			
	Day Use Developed Sites	Overnight Use Developed Sites	Undeveloped Areas (GFAs)	Designated Wilderness
10 - Overcrowded	0.2	0.0	2.0	3.1
9	3.2	3.6	1.2	0.6
8	6.7	14.5	3.9	5.3
7	6.0	7.3	3.1	1.3
6	21.1	34.8	21.5	22.7
5	8.2	7.3	7.0	15.9
4	26.3	13.7	17.2	26.0
3	15.0	14.7	18.1	18.8
2	13.0	4.1	26.2	6.0
1 - Hardly anyone there	0.2	0.0	0.0	0.2
Average Rating	4.7	5.5	4.2	4.8

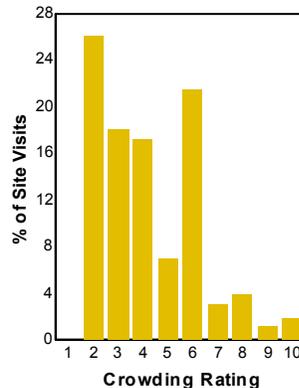
Day Use Developed Sites



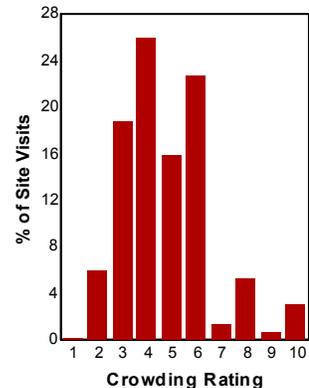
Overnight Use Developed Sites



Undeveloped Areas (GFAs)



Designated Wilderness



* 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

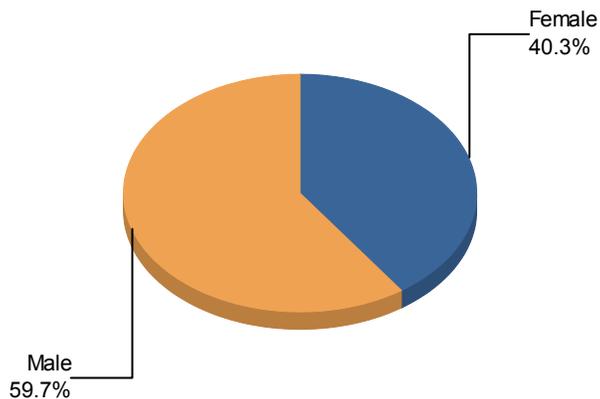
Item	Percent
% of visits that include a group member with a disability	4.3
Of this group, percent who said facilities at site visited were accessible	96.8

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 subunit. 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	295	40.3
Male	340	59.7
Total	635	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.

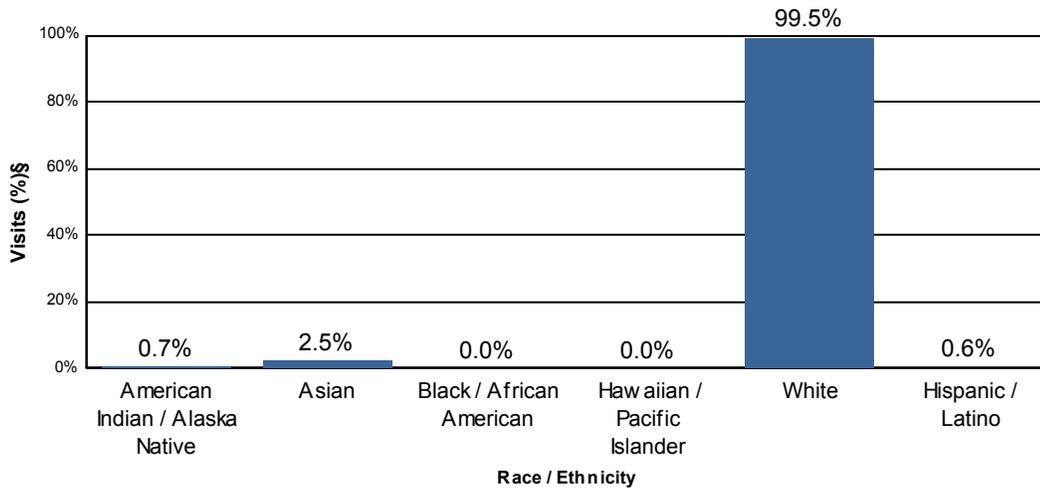
† Non-respondents to gender questions were excluded from analysis.

‡ 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	5	0.7
Asian	4	2.5
Black / African American	0	0.0
Hawaiian / Pacific Islander	0	0.0
White	253	99.5
Total	262	102.7#

Ethnicity†	Survey Respondents‡	Wilderness Site Visits (%)§
Hispanic / Latino	3	0.6



* 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%.

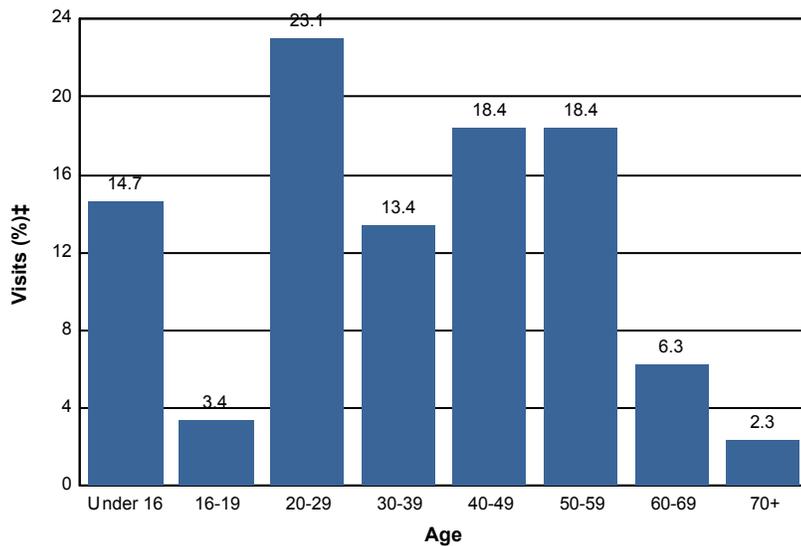
† Race and Ethnicity were asked as two separate questions.

‡ 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	14.7
16-19	3.4
20-29	23.1
30-39	13.4
40-49	18.4
50-59	18.4
60-69	6.3
70+	2.3
Total	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 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)
28771	North Carolina	Graham County	12.1	8
28801	North Carolina	Buncombe County	10.6	7
28806	North Carolina	Buncombe County	9.1	6
28734	North Carolina	Macon County	9.1	6
28803	North Carolina	Buncombe County	7.6	5
28792	North Carolina	Henderson County	6.1	4
28716	North Carolina	Haywood County	6.1	4
28906	North Carolina	Cherokee County	6.1	4
28779	North Carolina	Jackson County	6.1	4
28759	North Carolina	Henderson County	4.5	3
27104	North Carolina	Forsyth County	4.5	3
28778	North Carolina	Buncombe County	4.5	3
28715	North Carolina	Buncombe County	4.5	3
37385	Tennessee	Monroe County	4.5	3
28805	North Carolina	Buncombe County	4.5	3

* 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)
28806	North Carolina	Buncombe County	2.7	31
28734	North Carolina	Macon County	2.5	29
28906	North Carolina	Cherokee County	2.4	27
28771	North Carolina	Graham County	2.0	23
28712	North Carolina	Transylvania County	1.5	17
28805	North Carolina	Buncombe County	1.4	16
28803	North Carolina	Buncombe County	1.3	15
Foreign Country			1.2	14
28801	North Carolina	Buncombe County	1.2	14
28739	North Carolina	Henderson County	1.1	13
28768	North Carolina	Transylvania County	1.1	13
28741	North Carolina	Macon County	1.0	11
Unknown Origin*			1.0	11
28715	North Carolina	Buncombe County	1.0	11
28732	North Carolina	Henderson County	1.0	11
28791	North Carolina	Henderson County	0.9	10
28804	North Carolina	Buncombe County	0.9	10
28704	North Carolina	Buncombe County	0.8	9
28904	North Carolina	Clay County	0.8	9
28759	North Carolina	Henderson County	0.8	9
28713	North Carolina	Swain County	0.7	8
28787	North Carolina	Buncombe County	0.7	8
28792	North Carolina	Henderson County	0.7	8
28716	North Carolina	Haywood County	0.7	8
28730	North Carolina	Buncombe County	0.6	7
28711	North Carolina	Buncombe County	0.5	6
37385	Tennessee	Monroe County	0.5	6
28655	North Carolina	Burke County	0.5	6
30606	Georgia	Clarke County	0.4	5
28786	North Carolina	Haywood County	0.4	5
28753	North Carolina	Madison County	0.4	5
28752	North Carolina	McDowell County	0.4	5
28748	North Carolina	Buncombe County	0.4	5
28714	North Carolina	Yancey County	0.4	5
28742	North Carolina	Henderson County	0.4	5
28723	North Carolina	Jackson County	0.4	5
28717	North Carolina	Jackson County	0.4	4
37803	Tennessee	Blount County	0.4	4
28901	North Carolina	Cherokee County	0.4	4
28702	North Carolina	Swain County	0.4	4

28690	North Carolina	Burke County	0.4	4
28754	North Carolina	Madison County	0.4	4
29072	South Carolina	Lexington County	0.4	4
37920	Tennessee	Knox County	0.4	4
28761	North Carolina	McDowell County	0.4	4
28729	North Carolina	Henderson County	0.4	4
28092	North Carolina	Lincoln County	0.4	4
28778	North Carolina	Buncombe County	0.4	4
28743	North Carolina	Madison County	0.4	4
27510	North Carolina	Orange County	0.4	4
28779	North Carolina	Jackson County	0.4	4
28043	North Carolina	Rutherford County	0.3	3
37743	Tennessee	Greene County	0.3	3
28722	North Carolina	Polk County	0.3	3
37801	Tennessee	Blount County	0.3	3
37643	Tennessee	Carter County	0.3	3
32312	Florida	Leon County	0.3	3
28708	North Carolina	Transylvania County	0.3	3
29334	South Carolina	Spartanburg County	0.3	3
30512	Georgia	Union County	0.3	3
29687	South Carolina	Greenville County	0.3	3
29678	South Carolina	Oconee County	0.3	3
28638	North Carolina	Caldwell County	0.3	3
30144	Georgia	Cobb County	0.3	3
28789	North Carolina	Jackson County	0.3	3
27295	North Carolina	Davidson County	0.3	3
28756	North Carolina	Polk County	0.3	3
27104	North Carolina	Forsyth County	0.3	3
32566	Florida	Santa Rosa County	0.3	3
29650	South Carolina	Greenville County	0.3	3
28207	North Carolina	Mecklenburg County	0.3	3
30030	Georgia	DeKalb County	0.3	3
30064	Georgia	Cobb County	0.3	3
28781	North Carolina	Cherokee County	0.3	3
33548	Florida	Hillsborough County	0.2	2
37617	Tennessee	Sullivan County	0.2	2
32789	Florida	Orange County	0.2	2
37331	Tennessee	McMinn County	0.2	2
28607	North Carolina	Watauga County	0.2	2
30075	Georgia	Fulton County	0.2	2
29201	South Carolina	Richland County	0.2	2
30546	Georgia	Towns County	0.2	2
27609	North Carolina	Wake County	0.2	2
29609	South Carolina	Greenville County	0.2	2
30324	Georgia	Fulton County	0.2	2
37604	Tennessee	Washington County	0.2	2
32086	Florida	St. Johns County	0.2	2
37753	Tennessee	Cocke County	0.2	2
28905	North Carolina	Cherokee County	0.2	2
29662	South Carolina	Greenville County	0.2	2
28701	North Carolina	Buncombe County	0.2	2

37354	Tennessee	Monroe County	0.2	2
28728	North Carolina	Buncombe County	0.2	2
30101	Georgia	Cobb County	0.2	2
30306	Georgia	Fulton County	0.2	2
29063	South Carolina	Richland County	0.2	2
21212	Maryland	Baltimore city	0.2	2
37618	Tennessee	Sullivan County	0.2	2
29673	South Carolina	Greenville County	0.2	2
28604	North Carolina	Avery County	0.2	2
70118	Louisiana	Orleans Parish	0.2	2
29617	South Carolina	Greenville County	0.2	2
37343	Tennessee	Hamilton County	0.2	2
28773	North Carolina	Polk County	0.2	2
27502	North Carolina	Wake County	0.2	2
28777	North Carolina	Mitchell County	0.2	2
28510	North Carolina	Pamlico County	0.2	2
27516	North Carolina	Orange County	0.2	2
33713	Florida	Pinellas County	0.2	2
28115	North Carolina	Iredell County	0.2	2
32757	Florida	Lake County	0.2	2
29630	South Carolina	Pickens County	0.2	2
28721	North Carolina	Haywood County	0.2	2
35209	Alabama	Jefferson County	0.2	2
30338	Georgia	DeKalb County	0.2	2
29803	South Carolina	Aiken County	0.2	2
30047	Georgia	Gwinnett County	0.2	2
30004	Georgia	Fulton County	0.2	2
42141	Kentucky	Barren County	0.2	2
37309	Tennessee	McMinn County	0.2	2
29205	South Carolina	Richland County	0.2	2
28204	North Carolina	Mecklenburg County	0.2	2
30041	Georgia	Forsyth County	0.2	2
27265	North Carolina	Guilford County	0.2	2
28790	North Carolina	Henderson County	0.2	2
27612	North Carolina	Wake County	0.2	2
37027	Tennessee	Williamson County	0.2	2
29412	South Carolina	Charleston County	0.2	2
30305	Georgia	Fulton County	0.2	2
70005	Louisiana	Jefferson Parish	0.2	2
28226	North Carolina	Mecklenburg County	0.2	2
37323	Tennessee	Bradley County	0.2	2
28681	North Carolina	Alexander County	0.2	2
28746	North Carolina	Rutherford County	0.2	2
29676	South Carolina	Oconee County	0.2	2
28277	North Carolina	Mecklenburg County	0.2	2
29407	South Carolina	Charleston County	0.2	2
28552	North Carolina	Pamlico County	0.1	1
29356	South Carolina	Spartanburg County	0.1	1
33567	Florida	Hillsborough County	0.1	1
62012	Illinois	Macoupin County	0.1	1
06877	Connecticut	Fairfield County	0.1	1

37214	Tennessee	Davidson County	0.1	1
28547	North Carolina	Onslow County	0.1	1
29485	South Carolina	Dorchester County	0.1	1
07042	New Jersey	Essex County	0.1	1
31324	Georgia	Bryan County	0.1	1
29730	South Carolina	York County	0.1	1
22630	Virginia	Warren County	0.1	1
35804	Alabama	Madison County	0.1	1
78750	Texas	Travis County	0.1	1
29607	South Carolina	Greenville County	0.1	1
31763	Georgia	Lee County	0.1	1
37207	Tennessee	Davidson County	0.1	1
29601	South Carolina	Greenville County	0.1	1
27299	North Carolina	Davidson County	0.1	1
77301	Texas	Montgomery County	0.1	1
29646	South Carolina	Greenwood County	0.1	1
49001	Michigan	Kalamazoo County	0.1	1
34748	Florida	Lake County	0.1	1
43130	Ohio	Fairfield County	0.1	1
19390	Pennsylvania	Chester County	0.1	1
37601	Tennessee	Washington County	0.1	1
33904	Florida	Lee County	0.1	1
49441	Michigan	Muskegon County	0.1	1
72211	Arkansas	Pulaski County	0.1	1
35216	Alabama	Jefferson County	0.1	1
29016	South Carolina	Richland County	0.1	1
29576	South Carolina	Horry County	0.1	1
35205	Alabama	Jefferson County	0.1	1
32533	Florida	Escambia County	0.1	1
29651	South Carolina	Greenville County	0.1	1
27130	North Carolina	Forsyth County	0.1	1
27292	North Carolina	Davidson County	0.1	1
30571	Georgia	White County	0.1	1
70119	Louisiana	Orleans Parish	0.1	1
29680	South Carolina	Greenville County	0.1	1
75149	Texas	Dallas County	0.1	1
38655	Mississippi	Lafayette County	0.1	1
24250	Virginia	Scott County	0.1	1
28472	North Carolina	Columbus County	0.1	1
30533	Georgia	Lumpkin County	0.1	1
94901	California	Marin County	0.1	1
30605	Georgia	Clarke County	0.1	1
34952	Florida	St. Lucie County	0.1	1
28613	North Carolina	Catawba County	0.1	1
35080	Alabama	Shelby County	0.1	1
35244	Alabama	Jefferson County	0.1	1
20102	Virginia	Loudoun County	0.1	1
30736	Georgia	Catoosa County	0.1	1
28327	North Carolina	Moore County	0.1	1
31089	Georgia	Washington County	0.1	1
30143	Georgia	Pickens County	0.1	1

02131	Massachusetts	Suffolk County	0.1	1
32635	Florida	Alachua County	0.1	1
28659	North Carolina	Wilkes County	0.1	1
28751	North Carolina	Haywood County	0.1	1
33609	Florida	Hillsborough County	0.1	1
38506	Tennessee	Putnam County	0.1	1
47586	Indiana	Perry County	0.1	1
32176	Florida	Volusia County	0.1	1
29108	South Carolina	Newberry County	0.1	1
27023	North Carolina	Forsyth County	0.1	1
24523	Virginia	Bedford County	0.1	1
35206	Alabama	Jefferson County	0.1	1
30621	Georgia	Oconee County	0.1	1
27513	North Carolina	Wake County	0.1	1
99588	Alaska	Valdez-Cordova Census Area	0.1	1
38018	Tennessee	Shelby County	0.1	1
30501	Georgia	Hall County	0.1	1
34241	Florida	Sarasota County	0.1	1
32092	Florida	St. Johns County	0.1	1
30080	Georgia	Cobb County	0.1	1
31548	Georgia	Camden County	0.1	1
30016	Georgia	Newton County	0.1	1
27932	North Carolina	Chowan County	0.1	1
31088	Georgia	Houston County	0.1	1
91101	California	Los Angeles County	0.1	1
77399	Texas	Polk County	0.1	1
35094	Alabama	Jefferson County	0.1	1
45432	Ohio	Montgomery County	0.1	1
28117	North Carolina	Iredell County	0.1	1
39564	Mississippi	Jackson County	0.1	1
32625	Florida	Levy County	0.1	1
81201	Colorado	Chaffee County	0.1	1
32065	Florida	Clay County	0.1	1
08071	New Jersey	Gloucester County	0.1	1
42104	Kentucky	Warren County	0.1	1
37727	Tennessee	Cocke County	0.1	1
66614	Kansas	Shawnee County	0.1	1
33702	Florida	Pinellas County	0.1	1
33774	Florida	Pinellas County	0.1	1
70438	Louisiana	Washington Parish	0.1	1
29550	South Carolina	Darlington County	0.1	1
29169	South Carolina	Lexington County	0.1	1
39520	Mississippi	Hancock County	0.1	1
28273	North Carolina	Mecklenburg County	0.1	1
30263	Georgia	Coweta County	0.1	1
72704	Arkansas	Washington County	0.1	1
39503	Mississippi	Harrison County	0.1	1
28571	North Carolina	Pamlico County	0.1	1
33511	Florida	Hillsborough County	0.1	1
28626	North Carolina	Ashe County	0.1	1
33708	Florida	Pinellas County	0.1	1

34667	Florida	Pasco County	0.1	1
28718	North Carolina	Transylvania County	0.1	1
14222	New York	Erie County	0.1	1
28078	North Carolina	Mecklenburg County	0.1	1
98363	Washington	Clallam County	0.1	1
37716	Tennessee	Anderson County	0.1	1
27511	North Carolina	Wake County	0.1	1
70508	Louisiana	Lafayette Parish	0.1	1
28104	North Carolina	Union County	0.1	1
27205	North Carolina	Randolph County	0.1	1
32813	Florida	Orange County	0.1	1
30553	Georgia	Franklin County	0.1	1
21842	Maryland	Worcester County	0.1	1
37204	Tennessee	Davidson County	0.1	1
43913	Ohio	Jefferson County	0.1	1
70637	Louisiana	Beauregard Parish	0.1	1
08867	New Jersey	Hunterdon County	0.1	1
45426	Ohio	Montgomery County	0.1	1
30542	Georgia	Hall County	0.1	1
30750	Georgia	Walker County	0.1	1
28605	North Carolina	Watauga County	0.1	1
28697	North Carolina	Wilkes County	0.1	1
64152	Missouri	Platte County	0.1	1
37367	Tennessee	Bledsoe County	0.1	1
29501	South Carolina	Florence County	0.1	1
40830	Kentucky	Harlan County	0.1	1
73072	Oklahoma	Cleveland County	0.1	1
45371	Ohio	Miami County	0.1	1
31064	Georgia	Jasper County	0.1	1
30276	Georgia	Coweta County	0.1	1
33868	Florida	Polk County	0.1	1
37772	Tennessee	Loudon County	0.1	1
28772	North Carolina	Transylvania County	0.1	1
30114	Georgia	Cherokee County	0.1	1
28815	North Carolina	Buncombe County	0.1	1
28816	North Carolina	Buncombe County	0.1	1
29036	South Carolina	Lexington County	0.1	1
28025	North Carolina	Cabarrus County	0.1	1
28758	North Carolina	Henderson County	0.1	1
06489	Connecticut	Hartford County	0.1	1
03079	New Hampshire	Rockingham County	0.1	1
35463	Alabama	Tuscaloosa County	0.1	1
31308	Georgia	Bryan County	0.1	1
32712	Florida	Orange County	0.1	1
28138	North Carolina	Rowan County	0.1	1
29466	South Carolina	Charleston County	0.1	1
38501	Tennessee	Putnam County	0.1	1
37814	Tennessee	Hamblen County	0.1	1
35622	Alabama	Morgan County	0.1	1
46038	Indiana	Hamilton County	0.1	1
28120	North Carolina	Gaston County	0.1	1

30097	Georgia	Fulton County	0.1	1
30350	Georgia	DeKalb County	0.1	1
28612	North Carolina	Burke County	0.1	1
30453	Georgia	Tattnall County	0.1	1
33478	Florida	Palm Beach County	0.1	1
29605	South Carolina	Greenville County	0.1	1
34684	Florida	Pinellas County	0.1	1
18940	Pennsylvania	Bucks County	0.1	1
15003	Pennsylvania	Beaver County	0.1	1
30328	Georgia	Fulton County	0.1	1
37726	Tennessee	Morgan County	0.1	1
27560	North Carolina	Wake County	0.1	1
10025	New York	New York County	0.1	1
31513	Georgia	Appling County	0.1	1
37777	Tennessee	Blount County	0.1	1
27313	North Carolina	Guilford County	0.1	1
28203	North Carolina	Mecklenburg County	0.1	1
28540	North Carolina	Onslow County	0.1	1
22192	Virginia	Prince William County	0.1	1
32609	Florida	Alachua County	0.1	1
30705	Georgia	Murray County	0.1	1
77706	Texas	Jefferson County	0.1	1
27608	North Carolina	Wake County	0.1	1
28405	North Carolina	New Hanover County	0.1	1
80816	Colorado	Teller County	0.1	1
29611	South Carolina	Greenville County	0.1	1
70518	Louisiana	Lafayette Parish	0.1	1
28017	North Carolina	Cleveland County	0.1	1
47906	Indiana	Tippecanoe County	0.1	1
27705	North Carolina	Durham County	0.1	1
13617	New York	St. Lawrence County	0.1	1
34228	Florida	Manatee County	0.1	1
27344	North Carolina	Chatham County	0.1	1
37890	Tennessee	Jefferson County	0.1	1
38029	Tennessee	Shelby County	0.1	1
30033	Georgia	DeKalb County	0.1	1
94107	California	San Francisco County	0.1	1
17603	Pennsylvania	Lancaster County	0.1	1
30339	Georgia	Fulton County	0.1	1
29657	South Carolina	Pickens County	0.1	1
29212	South Carolina	Lexington County	0.1	1
30236	Georgia	Clayton County	0.1	1
29566	South Carolina	Horry County	0.1	1
32055	Florida	Columbia County	0.1	1
28745	North Carolina	Haywood County	0.1	1
27808	North Carolina	Beaufort County	0.1	1
38967	Mississippi	Montgomery County	0.1	1
28432	North Carolina	Columbus County	0.1	1
32703	Florida	Orange County	0.1	1
27013	North Carolina	Rowan County	0.1	1
28205	North Carolina	Mecklenburg County	0.1	1

33898	Florida	Polk County	0.1	1
28625	North Carolina	Iredell County	0.1	1
37128	Tennessee	Rutherford County	0.1	1
32034	Florida	Nassau County	0.1	1
27607	North Carolina	Wake County	0.1	1
42127	Kentucky	Barren County	0.1	1
28304	North Carolina	Cumberland County	0.1	1
23113	Virginia	Chesterfield County	0.1	1
37062	Tennessee	Williamson County	0.1	1
33414	Florida	Palm Beach County	0.1	1
30582	Georgia	Towns County	0.1	1
28167	North Carolina	Rutherford County	0.1	1
93101	California	Santa Barbara County	0.1	1
12721	New York	Sullivan County	0.1	1
48160	Michigan	Monroe County	0.1	1
35801	Alabama	Madison County	0.1	1
95616	California	Yolo County	0.1	1
37129	Tennessee	Rutherford County	0.1	1
32211	Florida	Duval County	0.1	1
27253	North Carolina	Alamance County	0.1	1
30039	Georgia	Gwinnett County	0.1	1
32578	Florida	Okaloosa County	0.1	1
37878	Tennessee	Blount County	0.1	1
30214	Georgia	Fayette County	0.1	1
11947	New York	Suffolk County	0.1	1
34602	Florida	Hernando County	0.1	1
27517	North Carolina	Orange County	0.1	1
48855	Michigan	Livingston County	0.1	1
23236	Virginia	Chesterfield County	0.1	1
20912	Maryland	Montgomery County	0.1	1
32807	Florida	Orange County	0.1	1
02130	Massachusetts	Suffolk County	0.1	1
29206	South Carolina	Richland County	0.1	1
30540	Georgia	Gilmer County	0.1	1
37615	Tennessee	Washington County	0.1	1
30019	Georgia	Gwinnett County	0.1	1
55009	Minnesota	Goodhue County	0.1	1
37421	Tennessee	Hamilton County	0.1	1
29621	South Carolina	Anderson County	0.1	1
46172	Indiana	Putnam County	0.1	1
28763	North Carolina	Macon County	0.1	1
30701	Georgia	Gordon County	0.1	1
37737	Tennessee	Blount County	0.1	1
77011	Texas	Harris County	0.1	1
29329	South Carolina	Spartanburg County	0.1	1
30043	Georgia	Gwinnett County	0.1	1
34470	Florida	Marion County	0.1	1
27870	North Carolina	Halifax County	0.1	1
27020	North Carolina	Yadkin County	0.1	1
87710	New Mexico	Colfax County	0.1	1
27587	North Carolina	Wake County	0.1	1

28368	North Carolina	Harnett County	0.1	1
49503	Michigan	Kent County	0.1	1
28036	North Carolina	Mecklenburg County	0.1	1
31634	Georgia	Clinch County	0.1	1
34734	Florida	Orange County	0.1	1
32622	Florida	Bradford County	0.1	1
29020	South Carolina	Kershaw County	0.1	1
31005	Georgia	Houston County	0.1	1
55902	Minnesota	Olmsted County	0.1	1
48079	Michigan	St. Clair County	0.1	1
37312	Tennessee	Bradley County	0.1	1
94108	California	San Francisco County	0.1	1
28630	North Carolina	Caldwell County	0.1	1
32605	Florida	Alachua County	0.1	1
28705	North Carolina	Mitchell County	0.1	1
32836	Florida	Orange County	0.1	1
33785	Florida	Pinellas County	0.1	1
27341	North Carolina	Randolph County	0.1	1
31069	Georgia	Houston County	0.1	1
29075	South Carolina	Newberry County	0.1	1
29455	South Carolina	Charleston County	0.1	1
28216	North Carolina	Mecklenburg County	0.1	1
37211	Tennessee	Davidson County	0.1	1
30161	Georgia	Floyd County	0.1	1
37127	Tennessee	Rutherford County	0.1	1
28269	North Carolina	Mecklenburg County	0.1	1
01463	Massachusetts	Middlesex County	0.1	1
33021	Florida	Broward County	0.1	1
28726	North Carolina	Henderson County	0.1	1
46032	Indiana	Hamilton County	0.1	1
34996	Florida	Martin County	0.1	1
91941	California	San Diego County	0.1	1
32607	Florida	Alachua County	0.1	1
10547	New York	Westchester County	0.1	1
28412	North Carolina	New Hanover County	0.1	1
28645	North Carolina	Caldwell County	0.1	1
28037	North Carolina	Lincoln County	0.1	1
38340	Tennessee	Chester County	0.1	1
07724	New Jersey	Monmouth County	0.1	1
33408	Florida	Palm Beach County	0.1	1
32826	Florida	Orange County	0.1	1
35748	Alabama	Madison County	0.1	1
32693	Florida	Gilchrist County	0.1	1
33704	Florida	Pinellas County	0.1	1
10302	New York	Richmond County	0.1	1
48433	Michigan	Genesee County	0.1	1
28785	North Carolina	Haywood County	0.1	1
29720	South Carolina	Lancaster County	0.1	1
32136	Florida	Flagler County	0.1	1
27282	North Carolina	Guilford County	0.1	1
42420	Kentucky	Henderson County	0.1	1

33972	Florida	Lee County	0.1	1
30506	Georgia	Hall County	0.1	1
27606	North Carolina	Wake County	0.1	1
30711	Georgia	Murray County	0.1	1
11791	New York	Nassau County	0.1	1
33140	Florida	Miami-Dade County	0.1	1
34105	Florida	Collier County	0.1	1
11229	New York	Kings County	0.1	1
32608	Florida	Alachua County	0.1	1
28903	North Carolina	Cherokee County	0.1	1
30175	Georgia	Pickens County	0.1	1
28352	North Carolina	Scotland County	0.1	1
28422	North Carolina	Brunswick County	0.1	1
29642	South Carolina	Pickens County	0.1	1
29464	South Carolina	Charleston County	0.1	1
36109	Alabama	Montgomery County	0.1	1
32548	Florida	Okaloosa County	0.1	1
30519	Georgia	Gwinnett County	0.1	1
37891	Tennessee	Hamblen County	0.1	1
31406	Georgia	Chatham County	0.1	1
37722	Tennessee	Cocke County	0.1	1
37650	Tennessee	Unicoi County	0.1	1
32207	Florida	Duval County	0.1	1
32904	Florida	Brevard County	0.1	1
27571	North Carolina	Wake County	0.1	1
32250	Florida	Duval County	0.1	1
37122	Tennessee	Wilson County	0.1	1
28902	North Carolina	Clay County	0.1	1
46260	Indiana	Marion County	0.1	1
32168	Florida	Volusia County	0.1	1
29349	South Carolina	Spartanburg County	0.1	1
26501	West Virginia	Monongalia County	0.1	1
33469	Florida	Palm Beach County	0.1	1
70592	Louisiana	Lafayette Parish	0.1	1
39330	Mississippi	Clarke County	0.1	1
28602	North Carolina	Catawba County	0.1	1
76502	Texas	Bell County	0.1	1
28227	North Carolina	Mecklenburg County	0.1	1
32087	Florida	Baker County	0.1	1
34120	Florida	Collier County	0.1	1
24401	Virginia	Staunton city	0.1	1
28401	North Carolina	New Hanover County	0.1	1
53094	Wisconsin	Jefferson County	0.1	1
25612	West Virginia	Logan County	0.1	1
60417	Illinois	Will County	0.1	1
32131	Florida	Putnam County	0.1	1
30024	Georgia	Gwinnett County	0.1	1
30677	Georgia	Oconee County	0.1	1
36587	Alabama	Mobile County	0.1	1
37804	Tennessee	Blount County	0.1	1
62428	Illinois	Cumberland County	0.1	1

37333	Tennessee	Polk County	0.1	1
30741	Georgia	Walker County	0.1	1
33803	Florida	Polk County	0.1	1
63901	Missouri	Butler County	0.1	1
29631	South Carolina	Pickens County	0.1	1
30062	Georgia	Cobb County	0.1	1
08822	New Jersey	Hunterdon County	0.1	1
30005	Georgia	Fulton County	0.1	1
29672	South Carolina	Oconee County	0.1	1
20141	Virginia	Loudoun County	0.1	1
27105	North Carolina	Forsyth County	0.1	1
34119	Florida	Collier County	0.1	1
33331	Florida	Broward County	0.1	1
28311	North Carolina	Cumberland County	0.1	1
30022	Georgia	Fulton County	0.1	1
32780	Florida	Brevard County	0.1	1
31757	Georgia	Thomas County	0.1	1
30720	Georgia	Whitfield County	0.1	1
28211	North Carolina	Mecklenburg County	0.1	1
27597	North Carolina	Wake County	0.1	1
30527	Georgia	Hall County	0.1	1
30513	Georgia	Fannin County	0.1	1
16201	Pennsylvania	Armstrong County	0.1	1
29316	South Carolina	Spartanburg County	0.1	1
32038	Florida	Columbia County	0.1	1
30817	Georgia	Lincoln County	0.1	1
36693	Alabama	Mobile County	0.1	1
27713	North Carolina	Durham County	0.1	1
21136	Maryland	Baltimore County	0.1	1
40508	Kentucky	Fayette County	0.1	1
39465	Mississippi	Forrest County	0.1	1
37381	Tennessee	Rhea County	0.1	1
33603	Florida	Hillsborough County	0.1	1
29414	South Carolina	Charleston County	0.1	1
27055	North Carolina	Yadkin County	0.1	1
40422	Kentucky	Boyle County	0.1	1
32301	Florida	Leon County	0.1	1
27704	North Carolina	Durham County	0.1	1
33407	Florida	Palm Beach County	0.1	1
27103	North Carolina	Forsyth County	0.1	1
70364	Louisiana	Terrebonne Parish	0.1	1
37830	Tennessee	Anderson County	0.1	1
29040	South Carolina	Sumter County	0.1	1
24151	Virginia	Franklin County	0.1	1
80127	Colorado	Jefferson County	0.1	1
44615	Ohio	Carroll County	0.1	1
37302	Tennessee	Hamilton County	0.1	1
29070	South Carolina	Lexington County	0.1	1
72015	Arkansas	Saline County	0.1	1
32640	Florida	Alachua County	0.1	1
28689	North Carolina	Iredell County	0.1	1

37917	Tennessee	Knox County	0.1	1
32738	Florida	Volusia County	0.1	1
27278	North Carolina	Orange County	0.1	1
33813	Florida	Polk County	0.1	1
37764	Tennessee	Sevier County	0.1	1
34797	Florida	Lake County	0.1	1
02574	Massachusetts	Barnstable County	0.1	1
28731	North Carolina	Henderson County	0.1	1
37687	Tennessee	Carter County	0.1	1
28438	North Carolina	Columbus County	0.1	1
32257	Florida	Duval County	0.1	1
29681	South Carolina	Greenville County	0.1	1
32801	Florida	Orange County	0.1	1
33912	Florida	Lee County	0.1	1
33484	Florida	Palm Beach County	0.1	1
13027	New York	Onondaga County	0.1	1
27614	North Carolina	Wake County	0.1	1
45140	Ohio	Clermont County	0.1	1
38545	Tennessee	Putnam County	0.1	1
29692	South Carolina	Greenwood County	0.1	1
30087	Georgia	DeKalb County	0.1	1
32259	Florida	St. Johns County	0.1	1
36608	Alabama	Mobile County	0.1	1
37919	Tennessee	Knox County	0.1	1
49444	Michigan	Muskegon County	0.1	1
75042	Texas	Dallas County	0.1	1
37314	Tennessee	Monroe County	0.1	1
27712	North Carolina	Durham County	0.1	1
28403	North Carolina	New Hanover County	0.1	1
32735	Florida	Lake County	0.1	1
28223	North Carolina	Mecklenburg County	0.1	1
36830	Alabama	Lee County	0.1	1
27360	North Carolina	Davidson County	0.1	1
29658	South Carolina	Oconee County	0.1	1
37379	Tennessee	Hamilton County	0.1	1
33556	Florida	Hillsborough County	0.1	1
37174	Tennessee	Maury County	0.1	1
37403	Tennessee	Hamilton County	0.1	1
33467	Florida	Palm Beach County	0.1	1
37909	Tennessee	Knox County	0.1	1
28719	North Carolina	Swain County	0.1	1
30135	Georgia	Douglas County	0.1	1
37620	Tennessee	Sullivan County	0.1	1
28105	North Carolina	Mecklenburg County	0.1	1
27514	North Carolina	Orange County	0.1	1
30342	Georgia	Fulton County	0.1	1
33477	Florida	Palm Beach County	0.1	1
22207	Virginia	Arlington County	0.1	1
48640	Michigan	Midland County	0.1	1
29708	South Carolina	York County	0.1	1
28056	North Carolina	Gaston County	0.1	1

28747	North Carolina	Transylvania County	0.1	1
28709	North Carolina	Buncombe County	0.1	1
29164	South Carolina	Aiken County	0.1	1
48317	Michigan	Macomb County	0.1	1
38133	Tennessee	Shelby County	0.1	1
53714	Wisconsin	Dane County	0.1	1
29541	South Carolina	Florence County	0.1	1
28139	North Carolina	Rutherford County	0.1	1
33991	Florida	Lee County	0.1	1
78259	Texas	Bexar County	0.1	1
38803	Mississippi	Lee County	0.1	1
42167	Kentucky	Monroe County	0.1	1
63664	Missouri	Washington County	0.1	1
30092	Georgia	Gwinnett County	0.1	1
78730	Texas	Travis County	0.1	1
28421	North Carolina	Pender County	0.1	1
24018	Virginia	Roanoke County	0.1	1
27529	North Carolina	Wake County	0.1	1
76016	Texas	Tarrant County	0.1	1
11968	New York	Suffolk County	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	3.5	4.0	9.1	28.6	54.9	4.3	4.8	145
Developed Facilities	1.0	5.0	4.8	17.8	71.4	4.5	4.6	183
Condition of Environment	0.0	0.6	2.2	19.3	77.9	4.7	4.9	196
Employee Helpfulness	0.0	0.0	7.7	10.8	81.5	4.7	4.7	104
Interpretive Displays	0.4	5.1	10.7	21.0	62.8	4.4	4.3	177
Parking Availability	0.1	1.9	1.5	9.5	87.0	4.8	4.7	195
Parking Lot Condition	0.0	2.6	2.9	8.2	86.3	4.8	4.5	193
Rec. Info. Availability	1.0	0.9	17.9	26.6	53.6	4.3	4.4	176
Road Condition	0.0	0.0	6.3	15.9	77.7	4.7	4.7	170
Feeling of Safety	0.0	1.8	2.3	9.3	86.6	4.8	4.8	191
Scenery	0.9	1.8	4.7	12.8	79.8	4.7	4.8	196
Signage Adequacy	3.2	2.3	4.6	30.3	59.7	4.4	4.5	189
Trail Condition	0.0	1.4	5.5	11.8	81.2	4.7	4.7	161
Value for Fee Paid	0.0	1.4	0.1	8.8	89.7	4.9	4.7	115

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	11.9	1.6	3.0	28.0	55.6	4.1	4.9	23
Developed Facilities	0.0	7.4	1.3	27.3	64.0	4.5	4.6	24
Condition of Environment	0.0	0.0	1.3	36.9	61.8	4.6	4.9	25
Employee Helpfulness	0.0	1.7	0.0	10.1	88.2	4.8	4.9	18
Interpretive Displays	0.0	4.3	29.4	16.6	49.7	4.1	4.0	22
Parking Availability	0.0	7.4	3.6	3.0	86.0	4.7	4.8	24
Parking Lot Condition	0.0	0.0	8.1	15.1	76.8	4.7	4.4	22
Rec. Info. Availability	7.6	11.3	1.5	24.1	55.5	4.1	4.4	22
Road Condition	0.0	0.0	6.9	17.4	75.7	4.7	4.9	24
Feeling of Safety	0.0	0.0	0.0	4.4	95.6	5.0	5.0	25
Scenery	0.0	0.0	0.0	8.6	91.4	4.9	4.7	25
Signage Adequacy	0.0	15.9	12.3	18.6	53.2	4.1	4.4	25
Trail Condition	0.0	0.0	1.8	7.5	90.7	4.9	4.8	22
Value for Fee Paid	0.0	1.6	0.0	7.9	90.5	4.9	4.8	22

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	16.6	8.3	28.3	10.8	35.9	3.4	4.4	27
Developed Facilities	3.9	2.5	4.1	30.8	58.7	4.4	4.2	26
Condition of Environment	0.0	1.8	4.8	25.1	68.2	4.6	4.9	60
Employee Helpfulness								8
Interpretive Displays	0.0	7.8	19.5	37.2	35.5	4.0	4.0	43
Parking Availability	2.0	7.1	10.4	25.3	55.0	4.2	4.6	56
Parking Lot Condition	2.0	2.0	6.1	17.0	72.7	4.6	4.3	53
Rec. Info. Availability	2.2	5.9	24.6	32.2	35.0	3.9	4.2	49
Road Condition	6.1	8.5	11.9	33.8	39.7	3.9	4.2	56
Feeling of Safety	0.0	0.0	3.0	14.5	82.5	4.8	4.7	59
Scenery	1.8	0.0	3.0	12.2	82.9	4.7	4.8	60
Signage Adequacy	5.5	2.6	16.6	13.8	61.5	4.2	4.4	53
Trail Condition	0.0	0.0	7.8	32.1	60.1	4.5	4.7	55
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-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	1.5	12.7	25.0	25.7	35.1	3.8	4.1	64
Developed Facilities	0.0	0.0	6.4	22.5	71.2	4.6	4.3	55
Condition of Environment	0.0	0.9	5.3	16.6	77.2	4.7	4.9	93
Employee Helpfulness								3
Interpretive Displays	7.6	9.7	23.8	27.7	31.2	3.7	3.9	80
Parking Availability	0.9	0.9	7.7	17.2	73.4	4.6	4.6	93
Parking Lot Condition	0.2	0.0	6.6	30.9	62.3	4.6	4.2	92
Rec. Info. Availability	0.5	8.2	32.2	31.3	27.9	3.8	4.0	86
Road Condition	0.0	3.5	11.4	26.1	59.0	4.4	4.4	86
Feeling of Safety	0.0	0.9	4.4	7.7	87.0	4.8	4.8	93
Scenery	0.0	0.0	1.6	5.3	93.2	4.9	4.9	93
Signage Adequacy	3.3	6.9	16.3	13.3	60.2	4.2	4.5	93
Trail Condition	0.0	4.0	7.5	13.9	74.6	4.6	4.7	93
Value for Fee Paid								2

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.