

# **Great Smoky Mountains National Park**

## **Visitor Study Summer 1996**

**Report 88**  
**Visitor Services Project**  
**Cooperative Park Studies Unit**



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# **Great Smoky Mountains National Park Visitor Study**

**Summer 1996**

Margaret Littlejohn

**Report 88**

April 1997

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Margaret Littlejohn is VSP Coordinator, National Park Service, based at the Cooperative Park Studies Unit, University of Idaho. I thank Chris Wall, Kristin FitzGerald, Tanya Tarar and the staff and volunteers of Great Smoky Mountains National Park for their assistance with this study. The VSP acknowledges the Public Opinion Lab of the Social and Economic Sciences Research Center, Washington State University, for its technical assistance.

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## Visitor Services Project Great Smoky Mountains National Park Report Summary

- This report describes part of the results of a visitor study at Great Smoky Mountains National Park during July 7-13, 1996. A total of 1,191 questionnaires were distributed. Visitors returned 919 questionnaires for a 77% response rate.
- This report profiles Great Smoky Mountains NP visitors. A separate appendix has visitors' comments about their visit; this report and the appendix contain a comment summary.
- Seventy-seven percent of the visitors were in family groups. Thirty-six percent of Great Smoky Mountains NP visitors were in groups of two; 35% were in groups of three or four. One percent were in guided tour groups; less than one percent were in school groups. Many visitors (39%) were aged 31-50 and 26% were aged 15 years or younger.
- Among Great Smoky Mountains NP visitors, 2% were international visitors. They were from the United Kingdom (23%), Canada (17%) and several other countries. United States visitors were from Tennessee (17%), Florida (11%), North Carolina (8%), Ohio (8%), Alabama (8%) and 31 other states, plus Washington, D.C.
- In the past year, many visitors (62%) had visited once. When asked how often they had visited during the past five years, almost two-thirds (65%) were repeat visitors. Over half of the visitors (54%) said the park was their primary destination. Seventy-seven percent of the visitors said visiting Great Smoky Mountains NP was one of the reasons they came to the area.
- Two-thirds of the visitors (66%) spent less than one day in the park. Common activities at Great Smoky Mountains NP were viewing scenery (96%), viewing wildflowers/wildlife (73%), photography (56%) and visiting historic sites (54%).
- Many visitors (71%) entered the park more than once during this trip. Fourteen percent of the visitors used more than one vehicle to travel into the park. The Gatlinburg entrance was the most used entrance and exit from the park. The Cades Cove Loop Road was the most visited place in the park (52%).
- For the use, importance and quality of services, it is important to note the number of visitor groups who responded to each question. The most used information services by 669 respondents were the park brochure/map (74%), visitor center information desk (46%), and park newspaper (38%). According to visitors, the most important services were ranger-led walks/talks (94% of 37 respondents) and self-guided trails (91% of 221 respondents). The best quality services were ranger-led walks/talks (97% of 36 respondents) and visitor center staff (92% of 191 respondents).
- The most used facilities or services by 778 respondents were the restrooms (83%), highway directional signs (61%), and trails (51%). According to visitors, the most important facilities were campgrounds (98% of 95 respondents) and restrooms (96% of 618 respondents). The best quality facilities were the telephones (86% of 58 respondents), highway directional signs (86% of 447 respondents) and picnic areas (86% of 273 respondents).
- For total expenditures, the average summer visitor group spent \$564. The average per capita expenditure was \$168. The median visitor group expenditure (50% of groups spent more; 50% spent less) was \$440.
- Most visitors (90%) rated the overall quality of services in the park as "good" or "very good." Visitors made many additional comments.

For more information about the Visitor Services Project, please contact the University of Idaho Cooperative Park Studies Unit; phone (208) 885-7129 or 885-7863.
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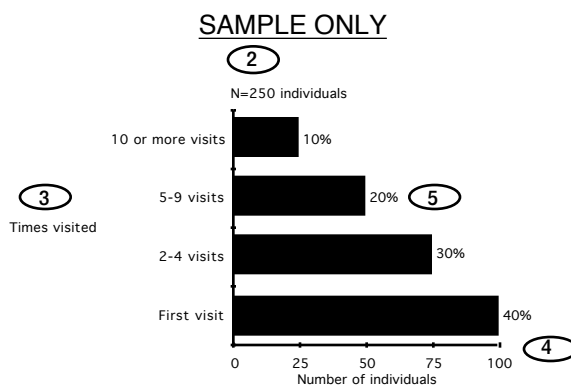
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## INTRODUCTION

This report describes the results of a study of visitors to Great Smoky Mountains National Park (referred to as "Great Smoky Mountains NP"). This visitor study was conducted July 7-13, 1996 by the National Park Service (NPS) Visitor Services Project (VSP), part of the Cooperative Park Studies Unit at the University of Idaho.

A **Methods** section discusses the procedures and limitations of the study. A **Results** section follows, including a summary of visitor comments. Next, an **Additional Analysis** page helps managers request additional analyses. The final section has a copy of the **Questionnaire**. The separate appendix includes comment summaries and visitors' unedited comments.

Many of this report's graphs resemble the example below. The large numbers refer to explanations following the graph.



1 Figure 4: Number of visits

- 1: The figure title describes the graph's information.
- 2: Listed above the graph, the 'N' shows the number of visitors responding and a description of the chart's information. Interpret data with an 'N' of less than 30 with **CAUTION!** as the results may be unreliable.
- 3: Vertical information describes categories.
- 4: Horizontal information shows the number or proportions in each category.
- 5: In most graphs, percentages provide additional information.

## METHODS

### Questionnaire design and administration

The questionnaire design used the standard format of previous Visitor Services Project studies. A copy of the questionnaire is included at the end of this report.

Interviews were conducted with and questionnaires distributed to a sample of selected visitors visiting Great Smoky Mountains National Park during July 7-13, 1996. Visitors completed the questionnaire after their visit and then returned it by mail. Visitors were sampled as they entered at the Gatlinburg, Oconaluftee, Townsend entrances, Deep Creek and Greenbriar entrances (see Table 1).

**Table 1: Number of questionnaires distributed as each location**

Location	Questionnaires distributed	
	Number	%
Gatlinburg entrance	439	37
Oconaluftee entrance	366	31
Townsend entrance	300	25
Deep Creek	56	5
Greenbriar	30	3
GRAND TOTAL	1,191	101

Visitor groups were greeted, briefly introduced to the purpose of the study and asked to participate. If visitors agreed, the interview took approximately two minutes. These interviews included determining group size, group type and the age of the adult who would complete the questionnaire. This individual was asked his or her name, address and telephone number for the later mailing of a reminder-thank you postcard.

Two weeks following the survey, a reminder-thank you postcard was mailed to all participants. Replacement questionnaires were mailed to participants who had not returned their questionnaires four weeks after the survey. Eight weeks after the survey, a second replacement questionnaire was sent to a random sample of visitors who had not returned their questionnaires.

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Returned questionnaires were coded and the information entered into a computer. Frequency distributions and cross-tabulations were calculated using a standard statistical software package. Respondents' comments were summarized.

### **Data analysis**

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This study collected information on both visitor groups and individual group members. Thus, the sample size ('N'), varies from figure to figure. For example, while Figure 1 shows information for 917 groups, Figure 5 presents data for 1,884 individuals. A note above each figure's graph specifies the information illustrated.

### **Sample size, missing data and reporting errors**

Occasionally, a respondent may not have answered all of the questions, or may have answered some incorrectly. Unanswered questions create missing data and cause the number in the sample to vary from figure to figure. For example, although 919 questionnaires were returned by visitors, Figure 1 shows data for only 917 respondents.

Questions answered incorrectly due to carelessness, misunderstanding directions and so forth, turn up in the data as reporting errors. These create small data inconsistencies.

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Like all surveys, this study has limitations which should be considered when interpreting the results.

### **Limitations**

1. It is not possible to know whether visitor responses reflect actual behavior. This disadvantage applies to all such studies and is reduced by having visitors fill out the questionnaire soon after they visit the park.
2. The data reflect visitor use patterns of visitors to the selected sites during the study period of July 7-13, 1996. The results do not necessarily apply to visitors during other times of the year.
3. Caution is advised when interpreting any data with a sample size of less than 30, as the results may be unreliable. If the sample size is less than 30, the word "**CAUTION!**" is included in the graph, figure or table.

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During the study week, weather conditions at Great Smoky Mountains NP were fairly typical of summer conditions.

### **Special conditions**

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## GREAT SMOKY MOUNTAINS RESULTS

### Visitors contacted

At Great Smoky Mountains, 1,377 visitor groups were contacted; 86% (1,191 groups) accepted questionnaires. A total of 919 visitor groups completed and returned their questionnaires, a 77% response rate.

Table 2 compares information collected from the total sample of visitors contacted and the actual respondents who returned questionnaires. The non-response bias was insignificant.

**Table 2: Comparison of total sample and actual respondents**

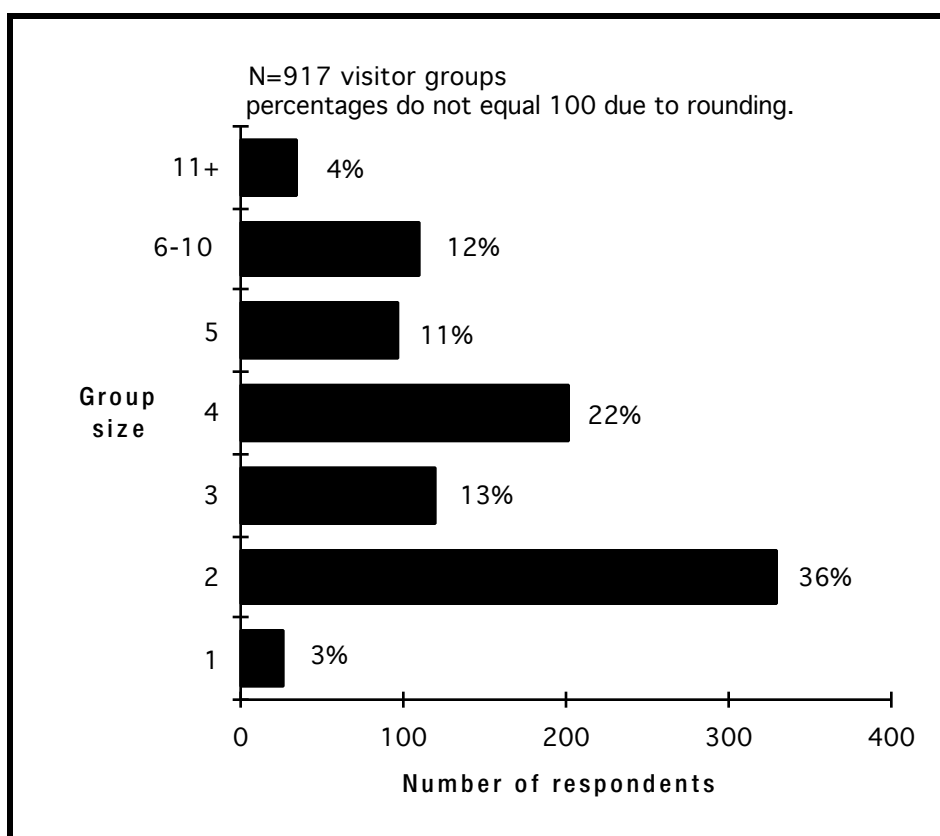
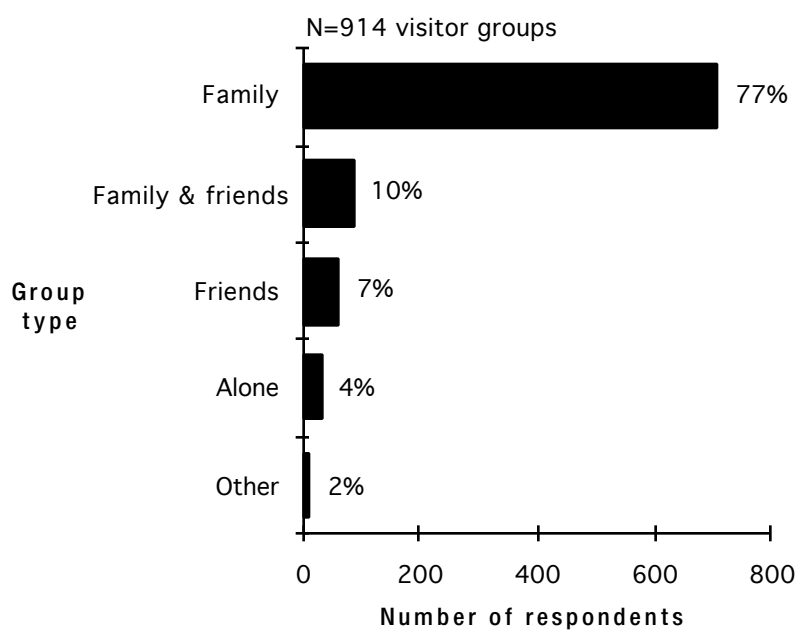
Variable	Total sample		Actual respondents	
	N	Avg.	N	Avg.
Age of respondent (years)	1,188	42.0	901	43.2
Group size	1,190	3.8	917	4.0

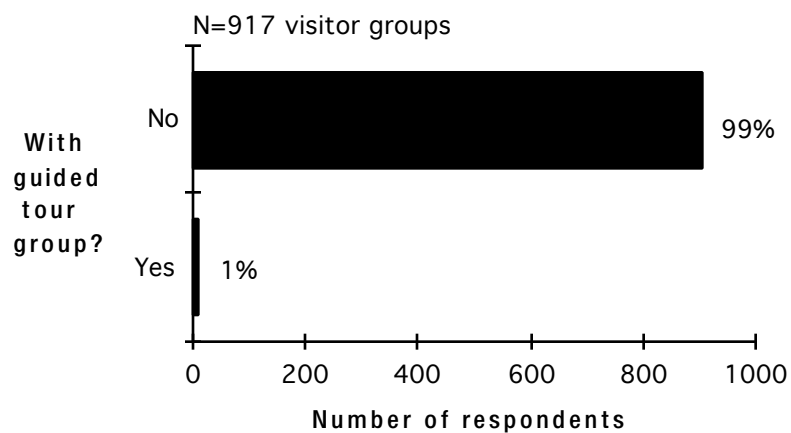
### Demographics

Figure 1 shows group sizes, which varied from one person to 40 people. Thirty-six percent of visitors came in groups of two; 35% came in groups of three or four. Seventy-seven percent were families (see Figure 2). "Other" groups included spouse, business associates, church group and conference group. One percent of the visitors were traveling with a guided tour group (see Figure 3). Less than one percent of the visitors were traveling with a school/college group (see Figure 4).

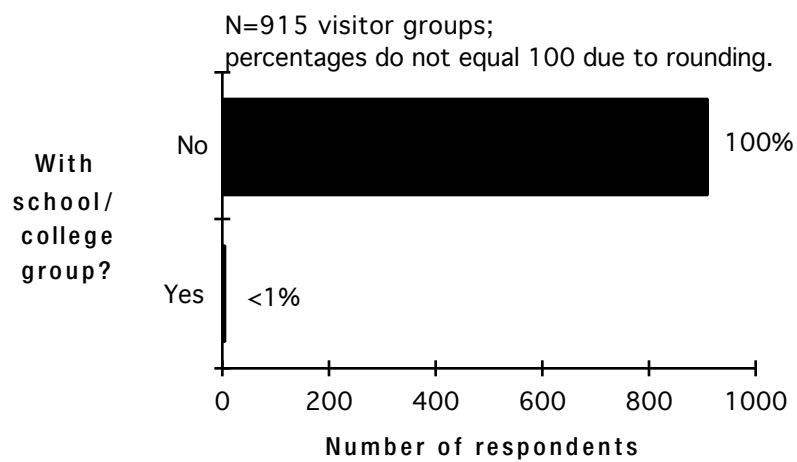
The most common visitor ages were 31-50 years (39%), as shown in Figure 5. Twenty-six percent of visitors were aged 15 years or younger. When asked about the number of visits to Great Smoky Mountains during the past year, most visitors (62%) said they were first-time visitors (see Figure 6). Of the groups who visited the park during the past five years, 65% were repeat visitors (see Figure 7).

International visitors comprised 2% of Great Smoky Mountains visitors. They were from United Kingdom (23%), Canada (17%), Germany (11%), Holland (11%) and 8 other countries, as shown in Table 3. United States visitors were from Tennessee (17%), Florida (11%), North Carolina (8%), Ohio (8%), Alabama (8%), 31 other states and Washington, D.C., as shown in Map 1 and Table 4.

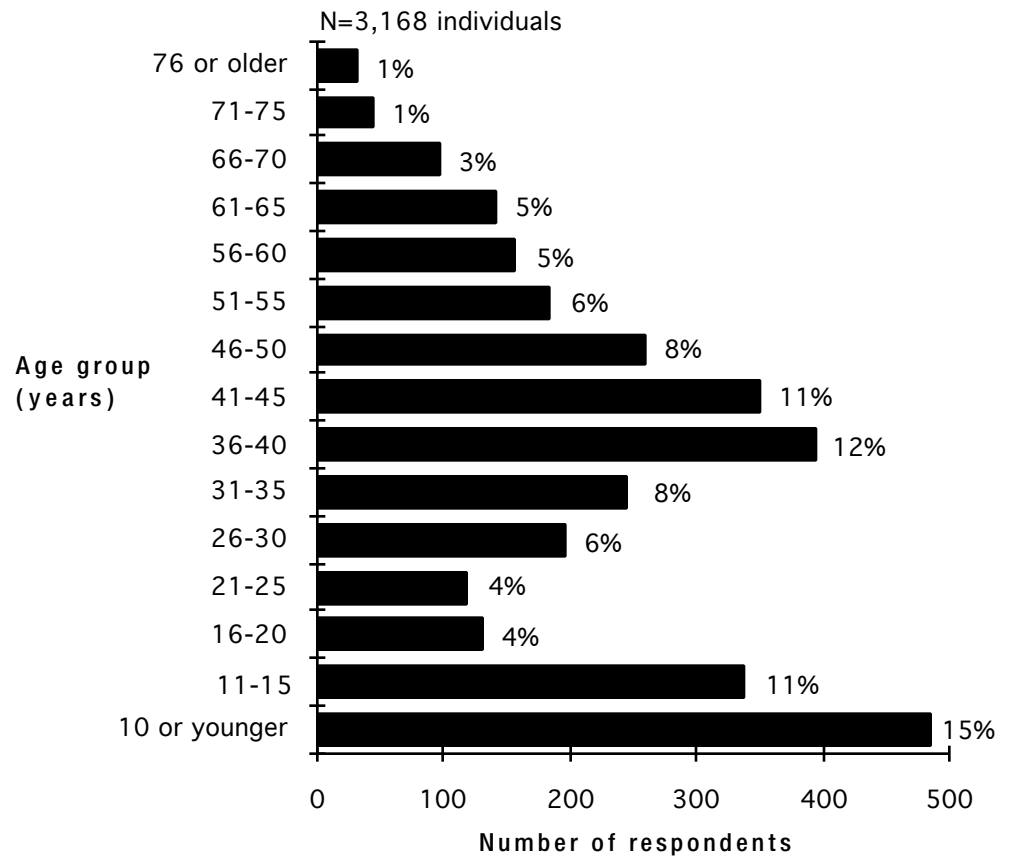
**Figure 1: Visitor group sizes****Figure 2: Visitor group types**

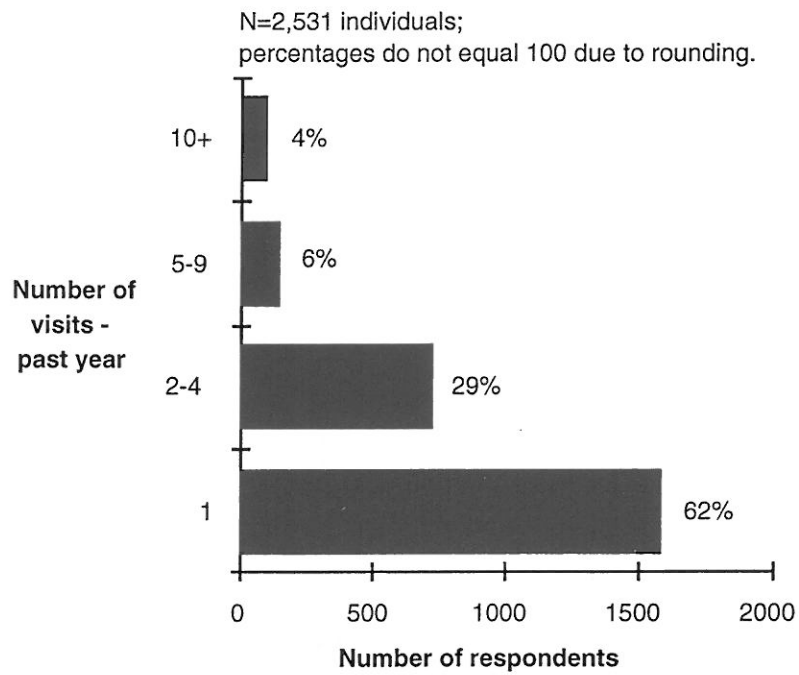


**Figure 3: Traveling with guided tour?**

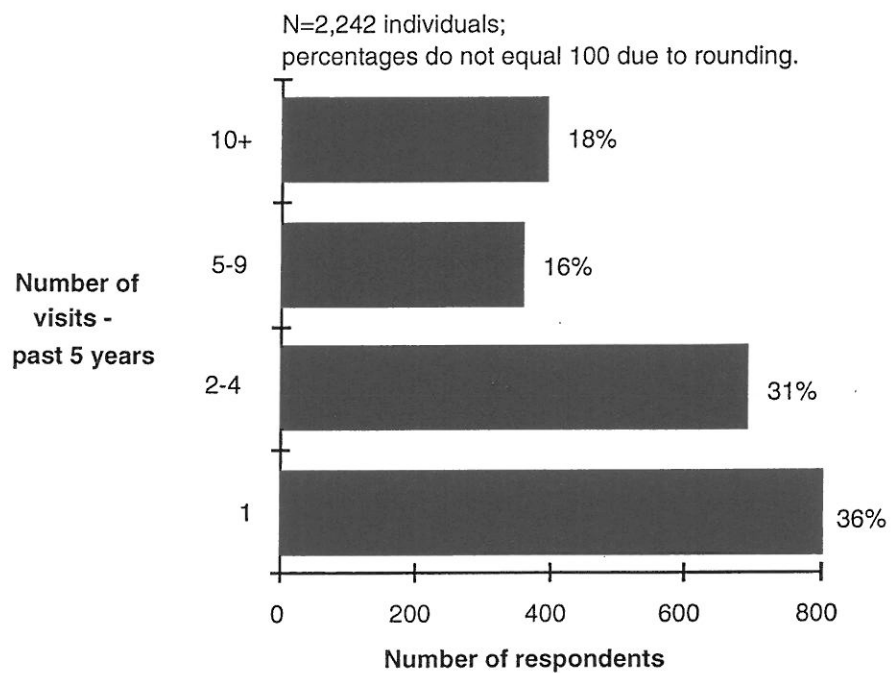


**Figure 4: On a school/college trip?**

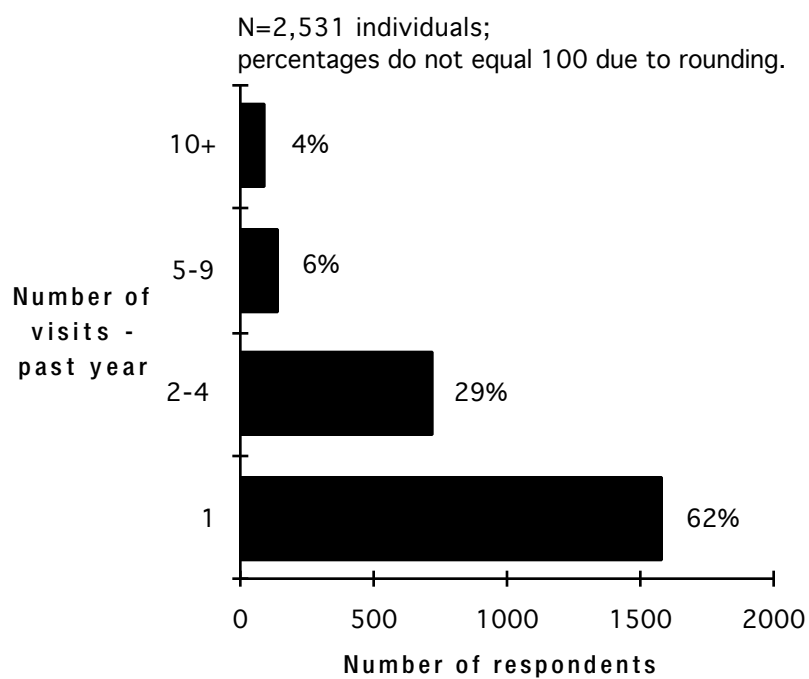
**Figure 5: Visitor ages**



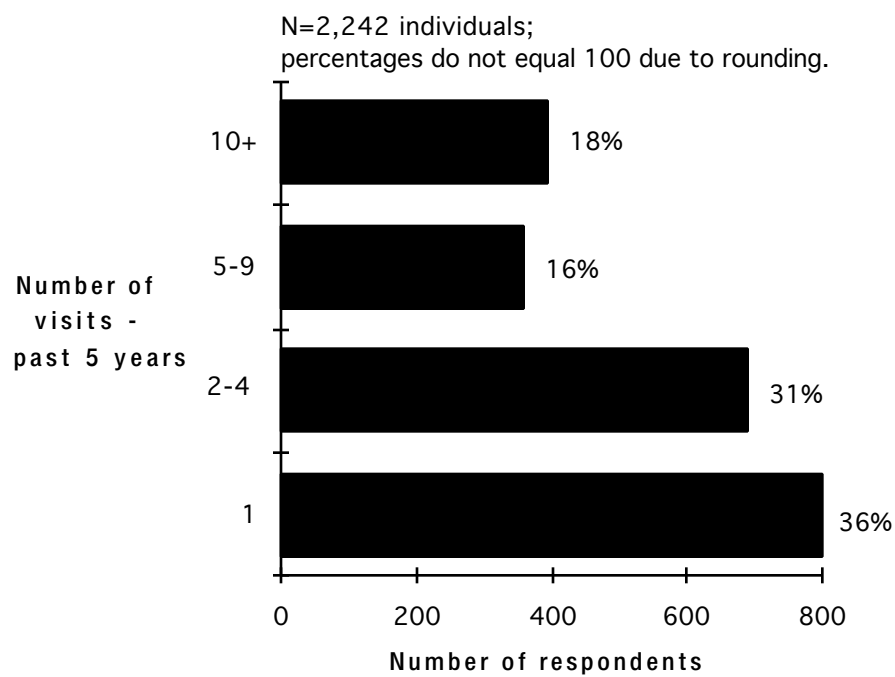
**Figure 6: Number of visits to Great Smoky Mountains during the past year**



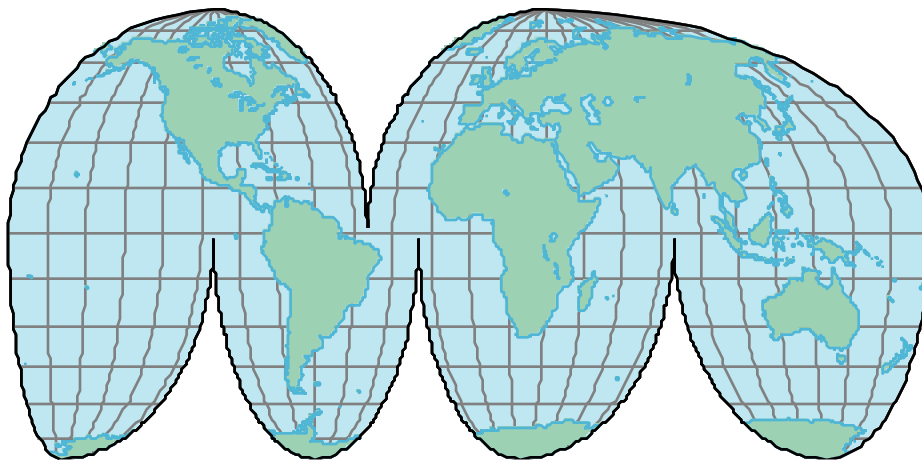
**Figure 7: Number of visits to Great Smoky Mountains during the past five years**



**Figure 6: Number of visits to Great Smoky Mountains during the past year**



**Figure 7: Number of visits to Great Smoky Mountains during the past five years**

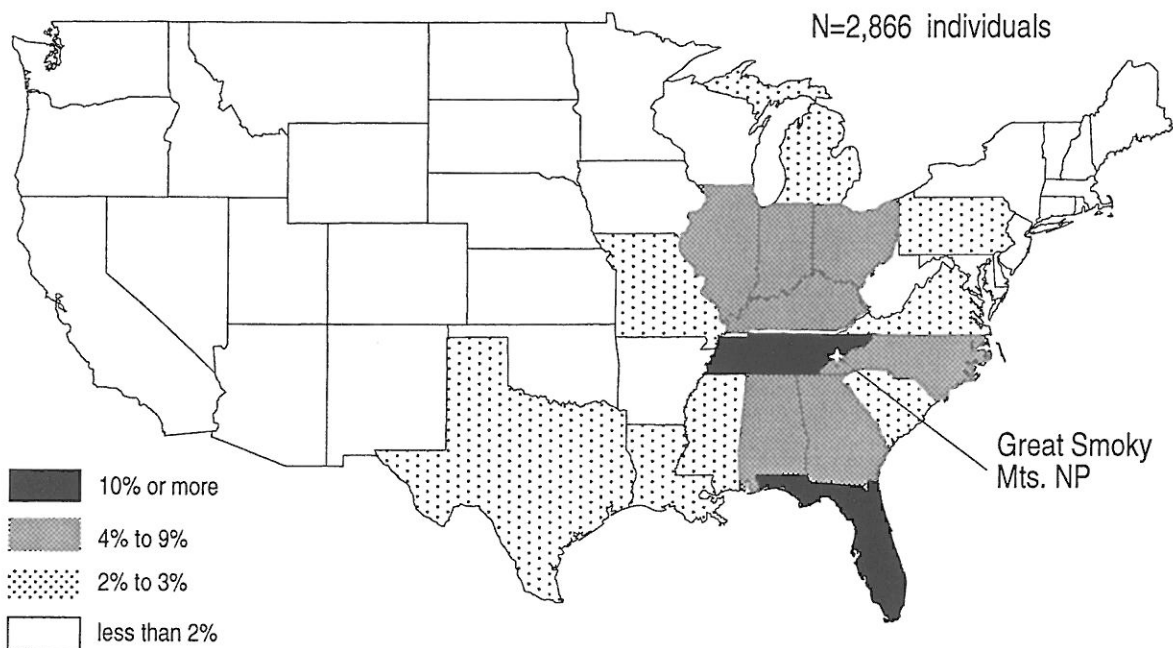


The world

**Table 3: Proportion of visitors from each foreign country**

N=47 individuals;  
percentages do not equal 100 due to rounding.

Country	Number of individuals	% of international visitors	% of total visitors
England	11	23	<1
Canada	8	17	[
Germany	5	11	
Holland	5	11	
Australia	4	9	
Switzerland	4	9	
Brazil	3	6	
Belgium	2	4	
France	2	4	
Argentina	1	2	
Jamaica	1	2	
Venezuela	1	2	



**Map 1: Proportion of United States visitors from each state**

**Table 4: Proportion of United States visitors from each state**

N=2,866 individuals;  
percentages do not equal 100 due to rounding.

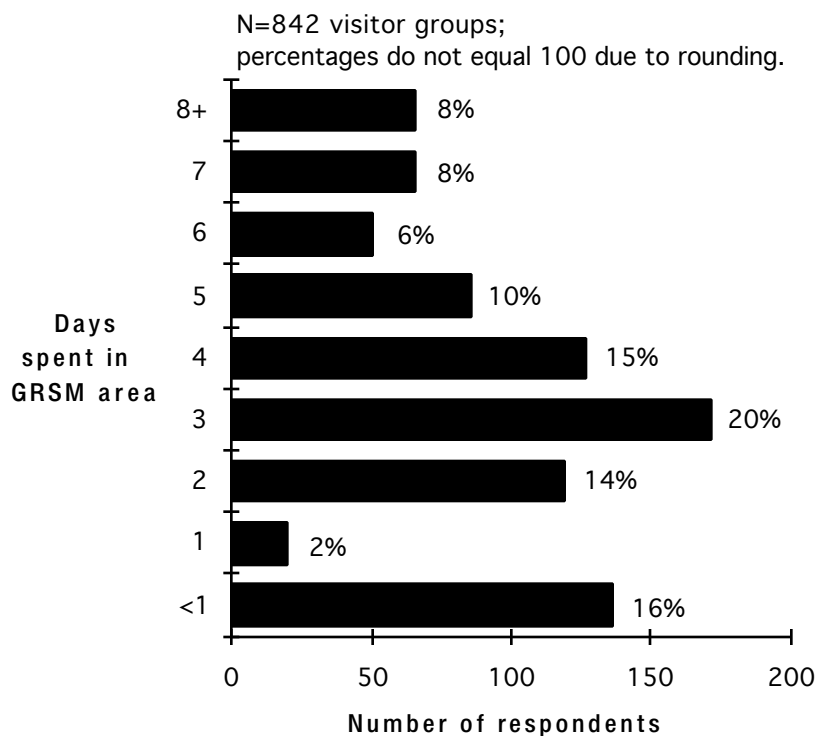
State	Number of individuals	% of U.S. visitors	% of total visitors
Tennessee	497	17	17
Florida	309	11	11
North Carolina	239	8	8
Ohio	237	8	8
Alabama	216	8	7
Georgia	174	6	6
Kentucky	166	6	6
Indiana	165	6	6
Illinois	105	4	4
South Carolina	96	3	3
Texas	96	3	3
Michigan	74	3	3
Mississippi	65	2	2
Virginia	62	2	2
Pennsylvania	46	2	2
Louisiana	45	2	2
Missouri	43	2	2
New York	36	1	all others 1% or less ↓
Wisconsin	27	1	
Oklahoma	20	1	
Maryland	18	1	
West Virginia	17	1	
California	15	1	
Other states (13) + Washington D.C.	98	3	

Visitors were asked how long they stayed in the Great Smoky Mountains area and in the national park.

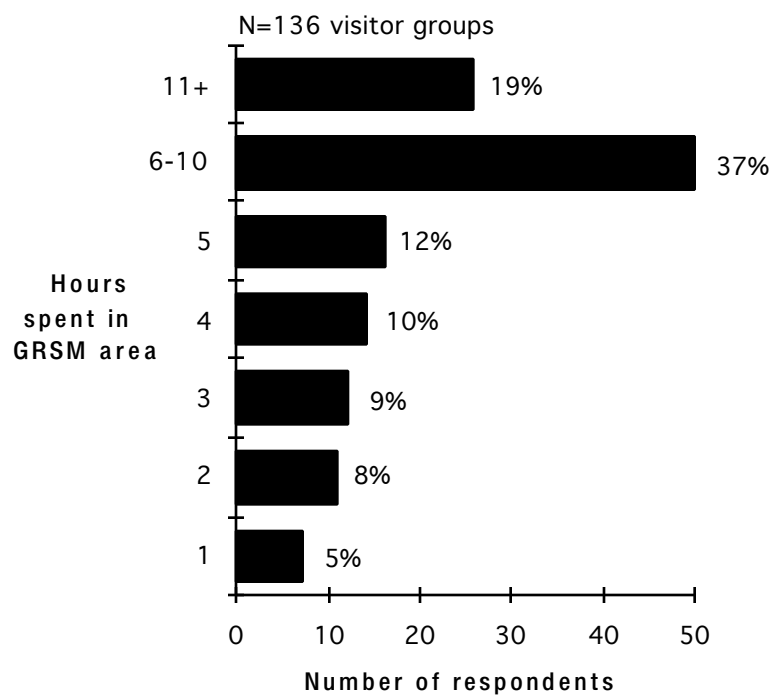
In the Great Smoky Mountains area, almost half of the visitors (49%) stayed two to four days (see Figure 8). Sixteen percent of visitors stayed less than one day. Of those visitors groups who spent less than a day in the area, over half of the visitor groups (56%) spent six hours or more (see Figure 9).

In the national park, about two-thirds of the visitors (66%) spent less than one day (see Figure 10). Of the visitors staying less than one day, 50% stayed six hours or more (see Figure 11). Another 38% of visitors spent two to four hours.

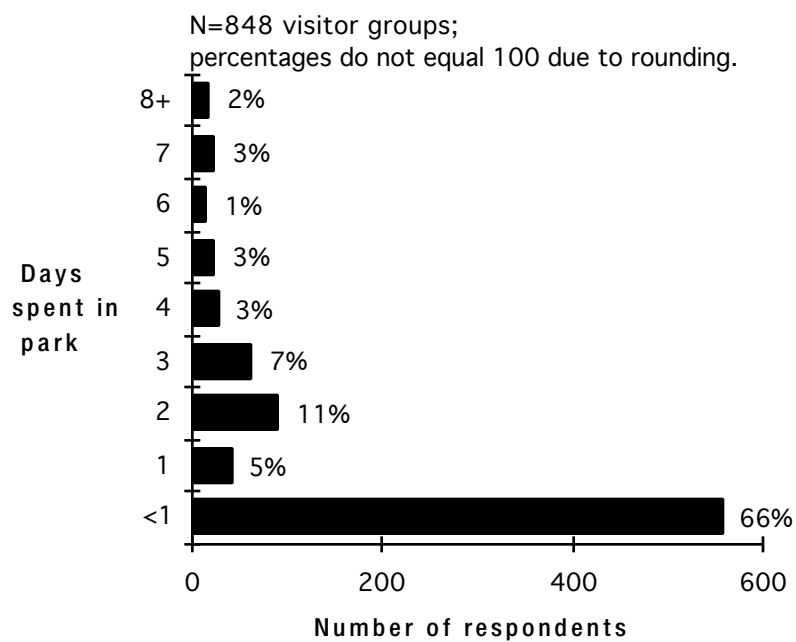
### Length of stay in area and in park



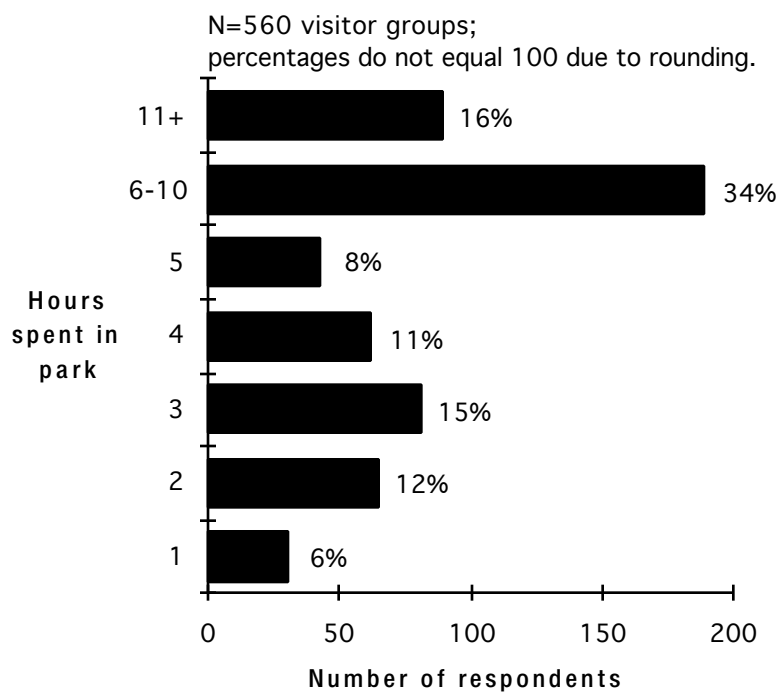
**Figure 8: Days spent in the Great Smokies area**



**Figure 9: Hours spent in the Great Smokies area**



**Figure 10: Days spent in the park**

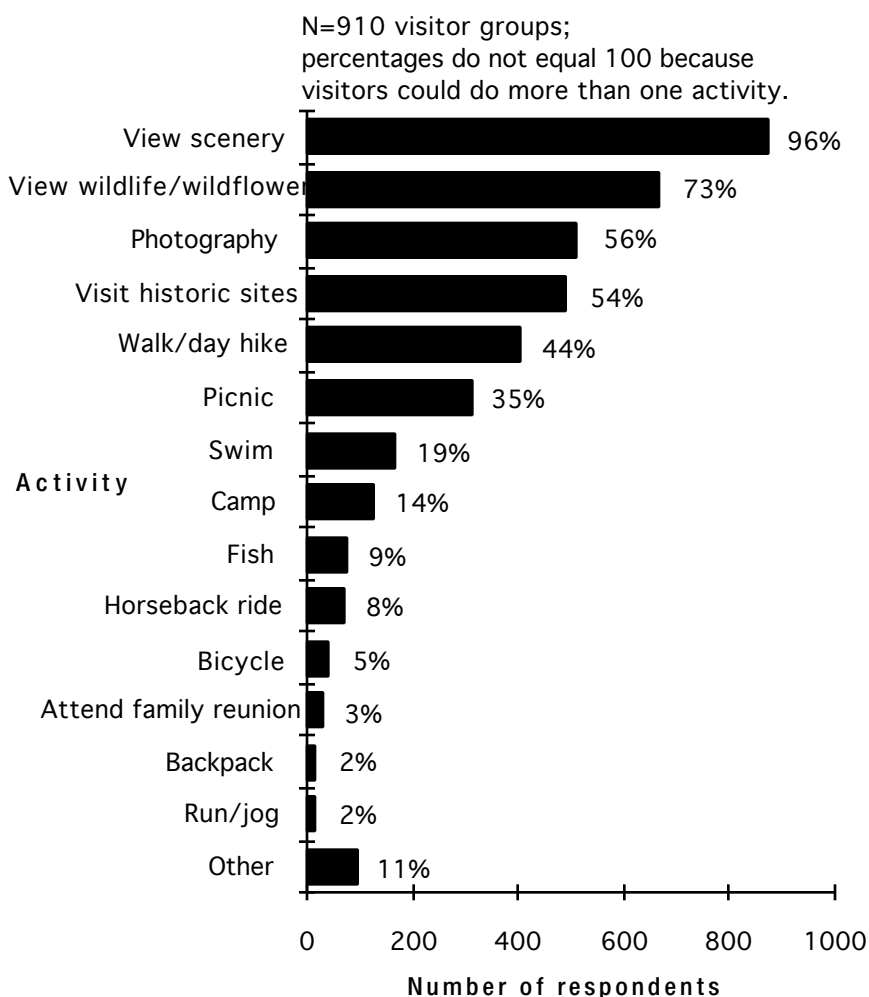


**Figure 11: Hours spent in the park**

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**Activities**

Common visitor activities included viewing scenery (96%), viewing wildlife/wildflowers (73%), photography (56%), and visiting historic sites (54%), as shown in Figure 12. The least common activities were backpacking (2%) and running/jogging (2%). On this visit, visitors identified "other" activities they did including relaxing, white water rafting, visiting Cherokee, shopping, eating at restaurants, visiting family and friends, playing in the water, driving through, attending a wedding, getting married and honeymooning.

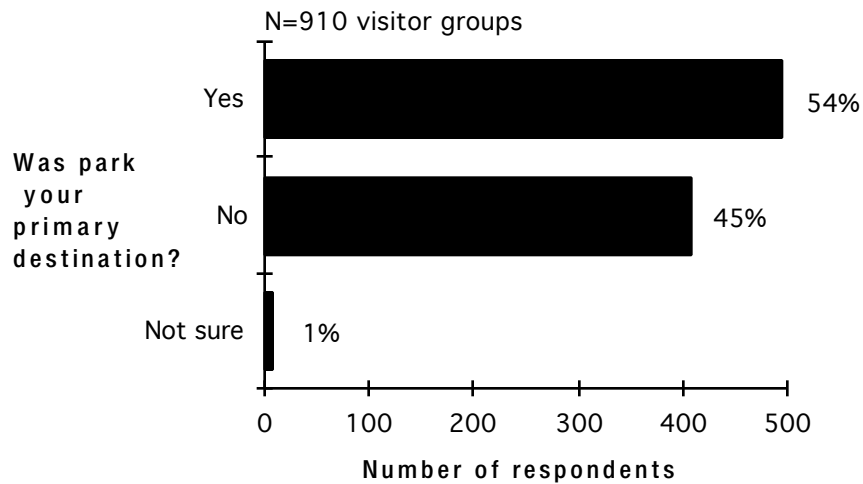


**Figure 12: Visitor activities**

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Over half of the visitor groups (54%) said Great Smoky Mountains National Park was their primary destination (see Figure 13). Forty-five percent of the visitors said the national park was not their primary destination.

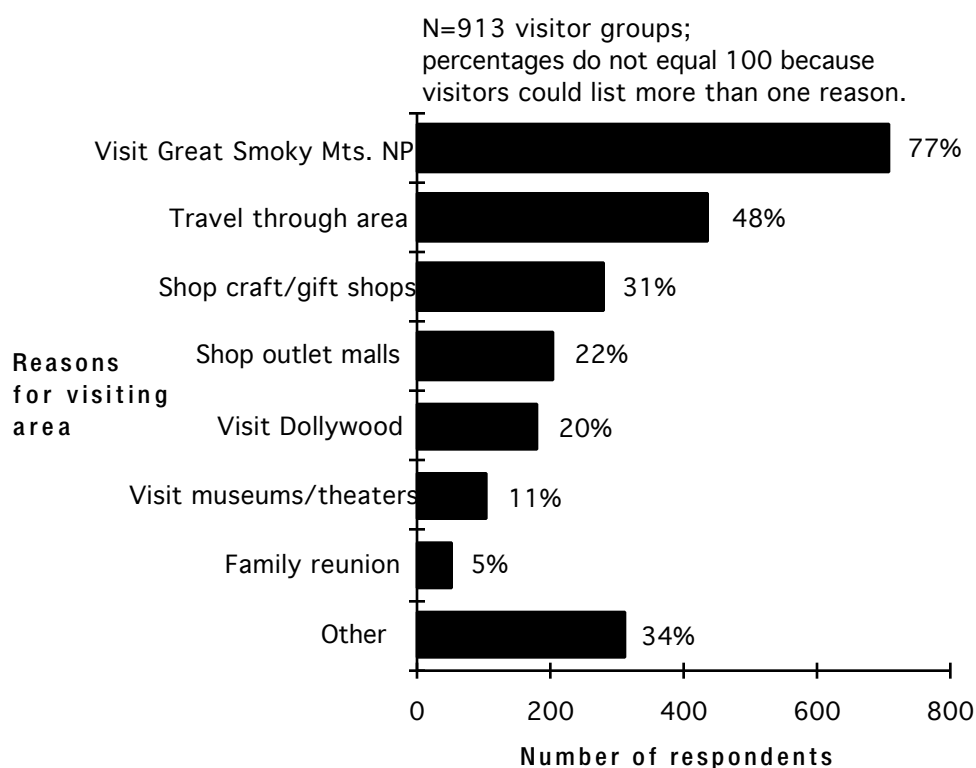
**Was park  
primary  
destination?**



**Figure 13: Was park primary destination?**

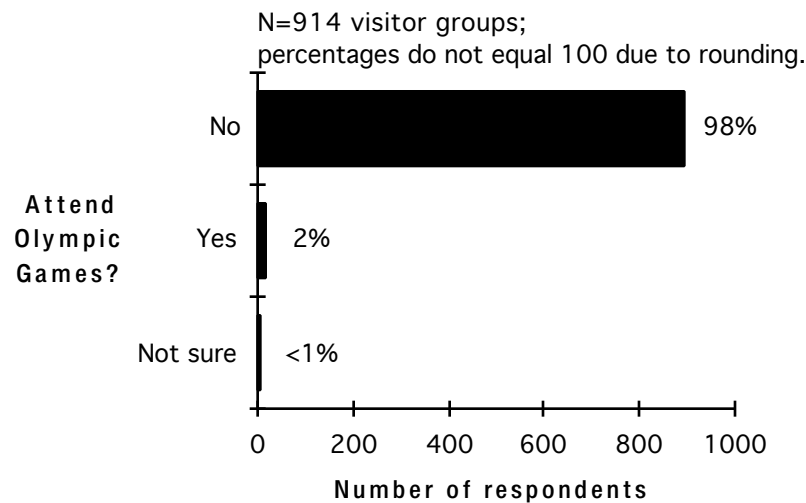
**Reasons for visiting area**

Over three-fourths of the visitors (77%) said at least one of their reasons for visiting the area was to visit Great Smoky Mountains National Park (see Figure 14). Almost half of the visitors (48%) said they were traveling through the area. Another 31% of visitors came to shop in craft or gift shops. "Other" reasons which brought visitors to the Great Smoky Mountains area were camping, visiting Cherokee, visiting family or friends, visiting Cades Cove, visiting Gatlinburg, vacationing, relaxing, hiking, backpacking, working on a business trip, getting married and honeymooning.

**Figure 14: Reasons for visiting area**

Visitors were asked, "On this trip, do you or someone in your group plan to attend any events related to the Olympic Games in Atlanta?" Most visitors (98%) did not plan to attend the Olympics during their trip (see Figure 15). Two percent of visitors were planning to attend events related to the Olympics.

### Attend Olympic Games?

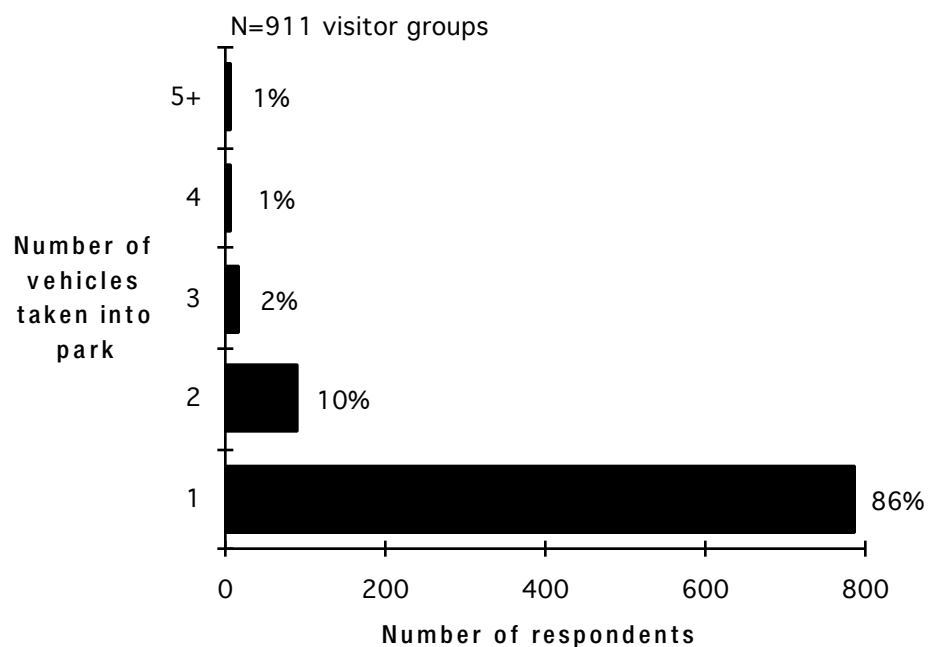


**Figure 15: Attend Olympic Games?**

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**Number of vehicles**

Visitors were asked to list the number of vehicles they took into the park. Most visitors (86%) took one vehicle into the park; 10% took two vehicles (see Figure 16). One percent of the visitors took between five and fifteen vehicles into the park.

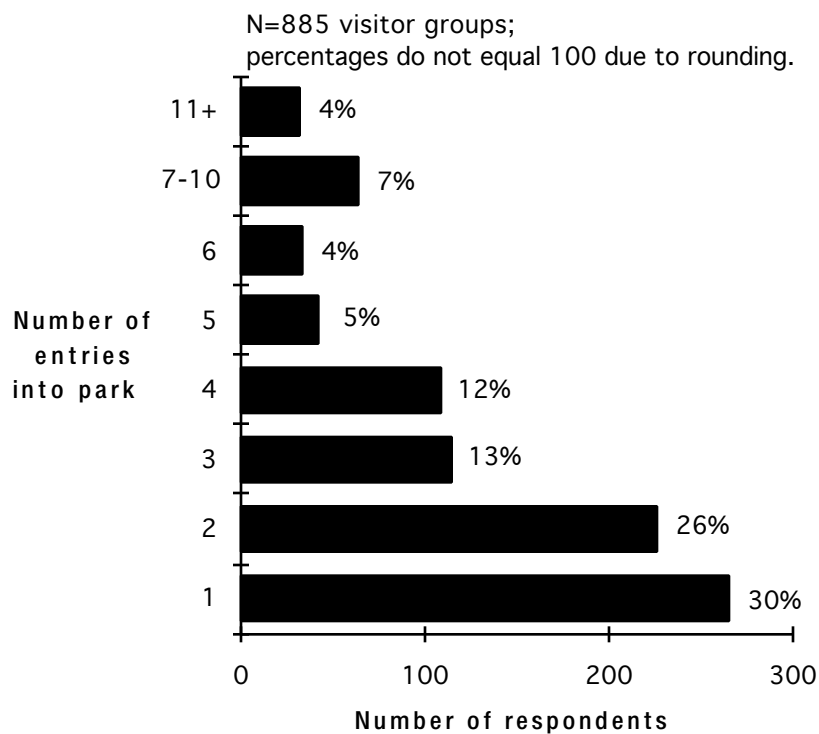


**Figure 16: Number of vehicles taken into park**

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Visitors were asked, "On this trip to the Great Smoky Mountains National Park area, how many times did you and your group enter the park?" Less than one-third (30%) of the visitors entered once (see Figure 17). Fifty-one percent of the visitors entered two to four times on this trip. Eleven percent of the visitors entered seven or more times.

### Number of entries into park



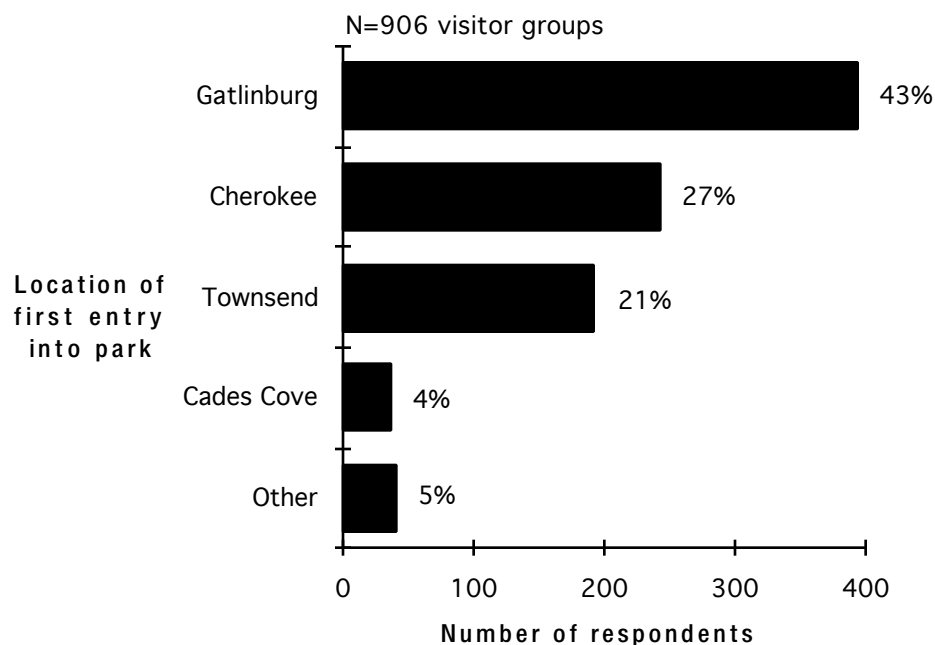
**Figure 17: Number of entries into Great Smoky Mountains National Park on this trip**

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**Park  
entrances/  
exits used**

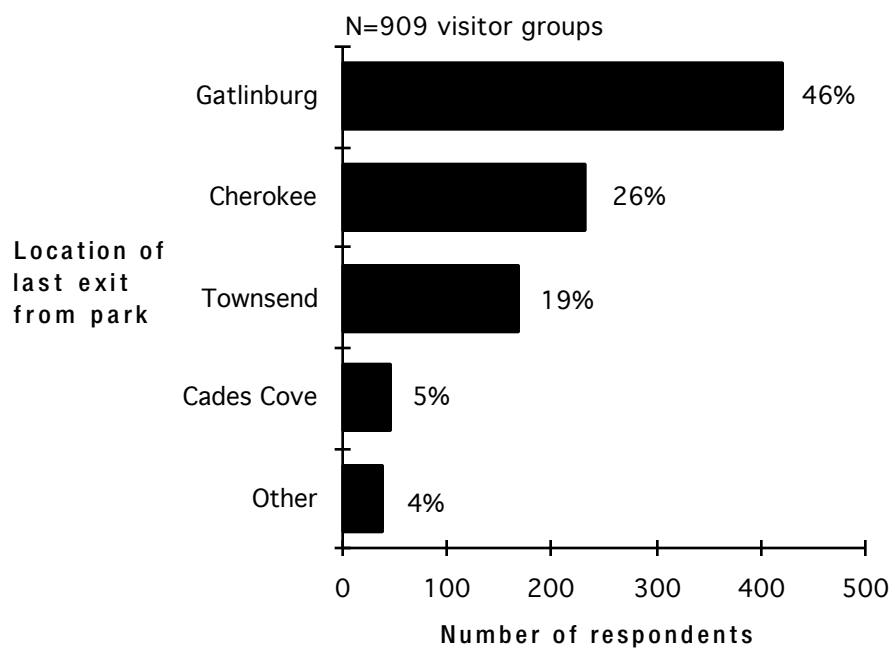
When asked where they first entered Great Smoky Mountains National Park on this trip, 43% of the visitors said Gatlinburg (see Figure 18). Twenty-seven percent used the Cherokee entrance and 21% used the Townsend entrance. "Other" entrances which visitors used included Bryson City, Greenbriar and Deep Creek.

When asked where they last exited the park on this trip, Gatlinburg was the most often listed exit (46%), as shown in Figure 19. Twenty-six percent of the visitors exited at Cherokee and 19% exited at Townsend. "Other" exits included Bryson City, Pigeon Forge, Greenbriar, Deep Creek and Foothills Parkway East.



**Figure 18: Location of first entry into park**

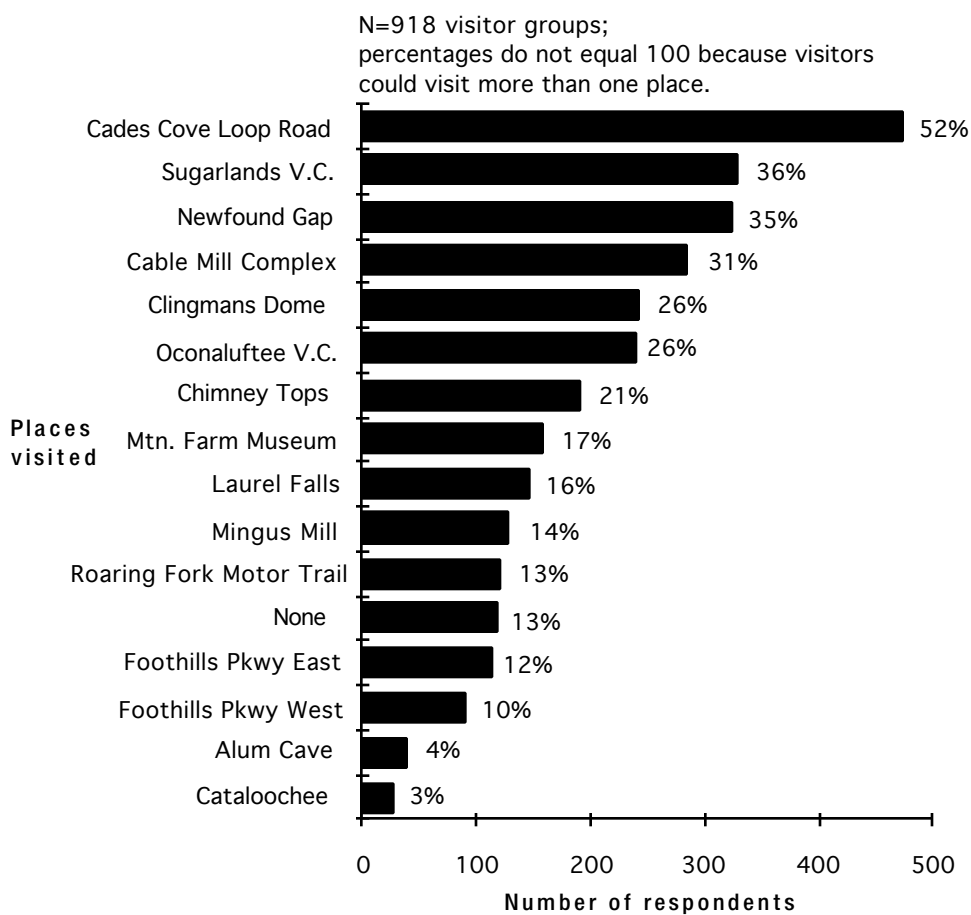
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**Figure 19: Location of last exit from park**

## Places visited

Visitors were asked to list the places they visited in Great Smoky Mountains National Park on this trip. The most visited place was Cades Cove Loop (52%), as shown in Figure 20. Over one-third of the visitors went to Sugarlands Visitor Center (36%) and to Newfound Gap (35%). Cataloochee was the least visited place (3%). Thirteen percent of the visitors did not visit any of the selected places included on the questionnaire's map.

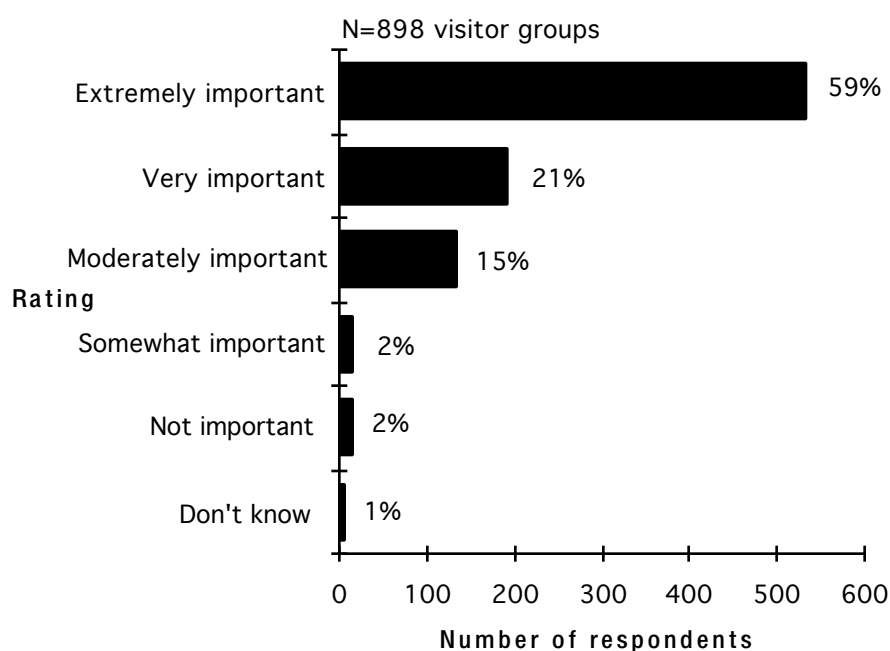


**Figure 20: Places visited**

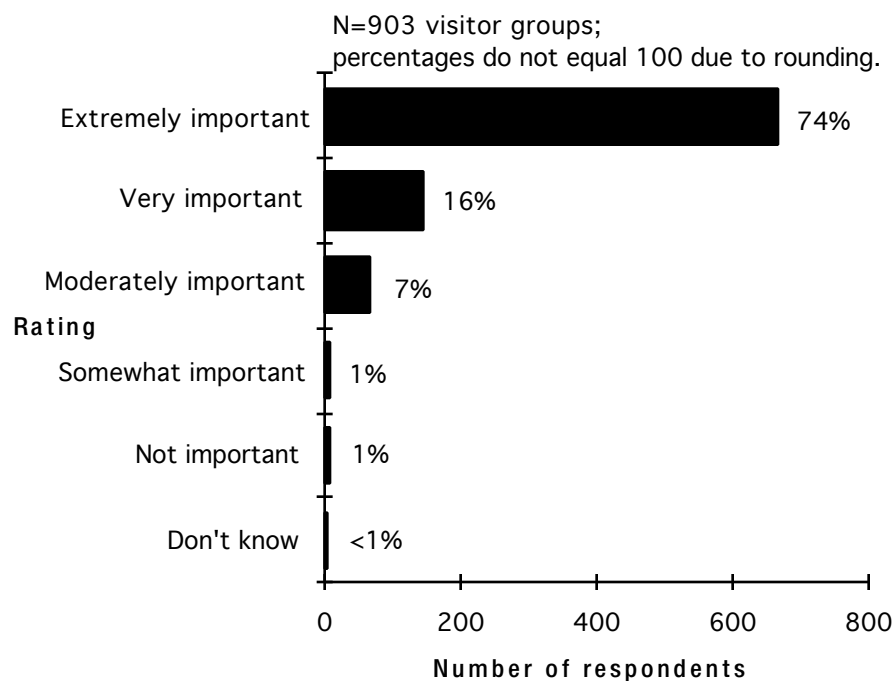
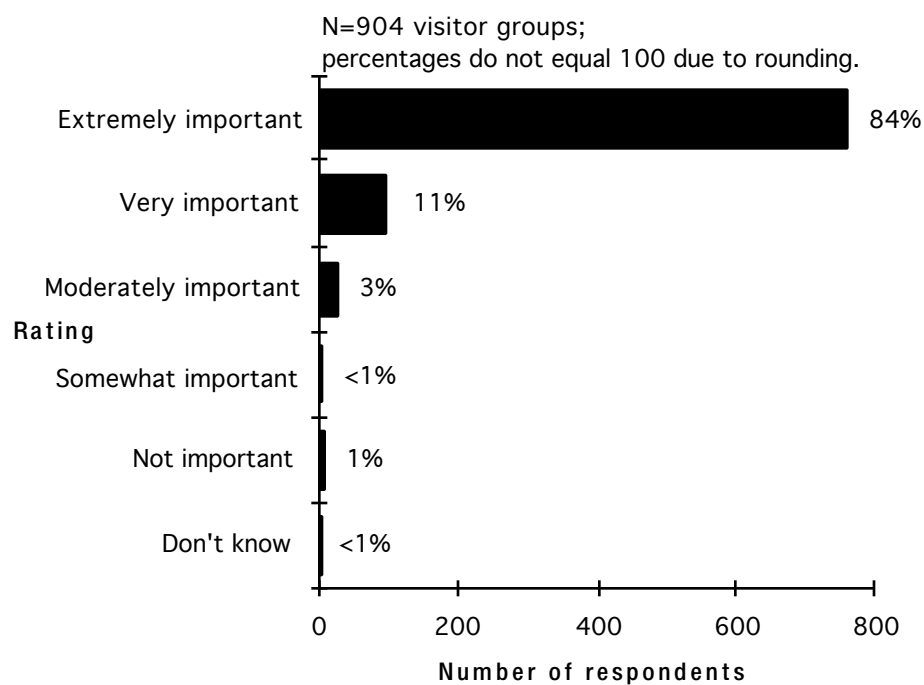
Visitors were asked to rate the importance of certain features or qualities to this trip to Great Smoky Mountains National Park. The features or qualities they rated were native plants and animals, clean air, scenic views, recreational activities (hiking, camping, fishing, etc.), solitude, quiet, and historic buildings (see Figures 21 to 27).

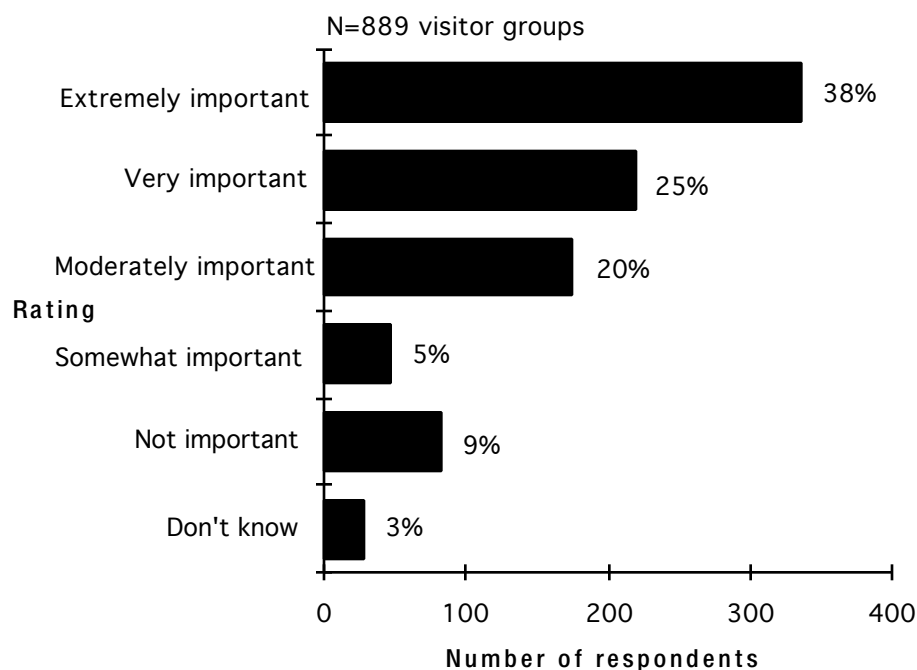
**Feature/  
quality  
importance**

The highest "very important" to "extremely important" ratings were for scenic views (95%), clean air (90%) and native plants and animals (80%). The highest "not important" ratings were for recreational activities and historic buildings (each 9%).

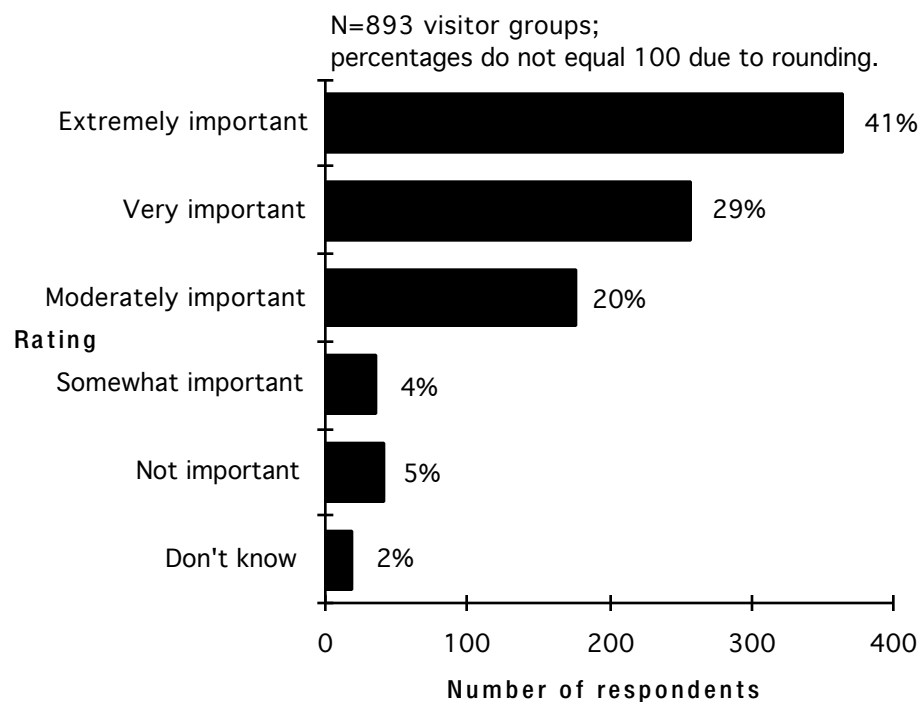


**Figure 21: Importance of native plants and animals**

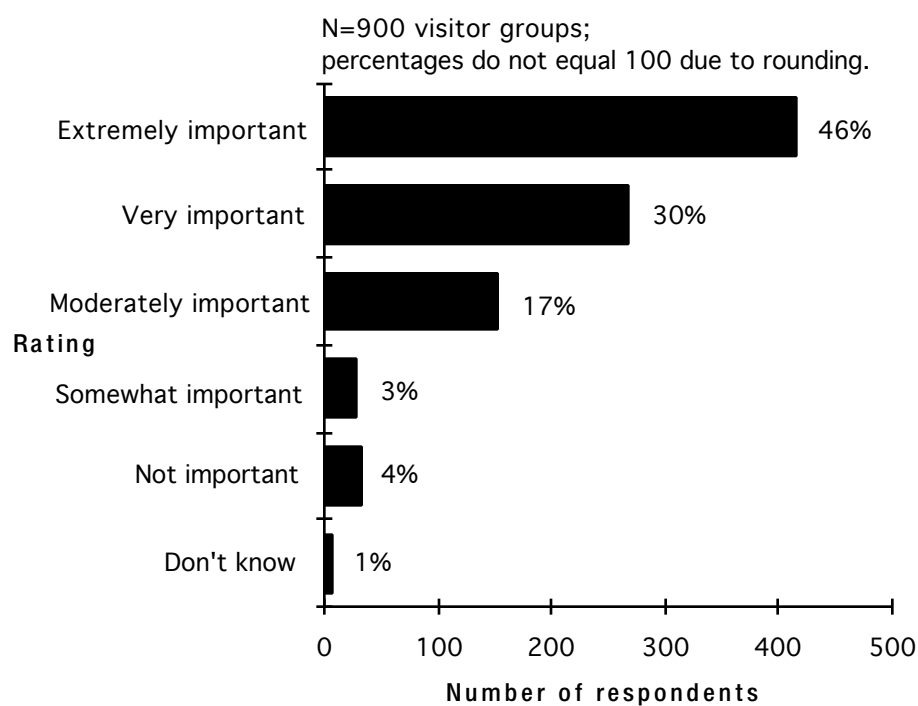
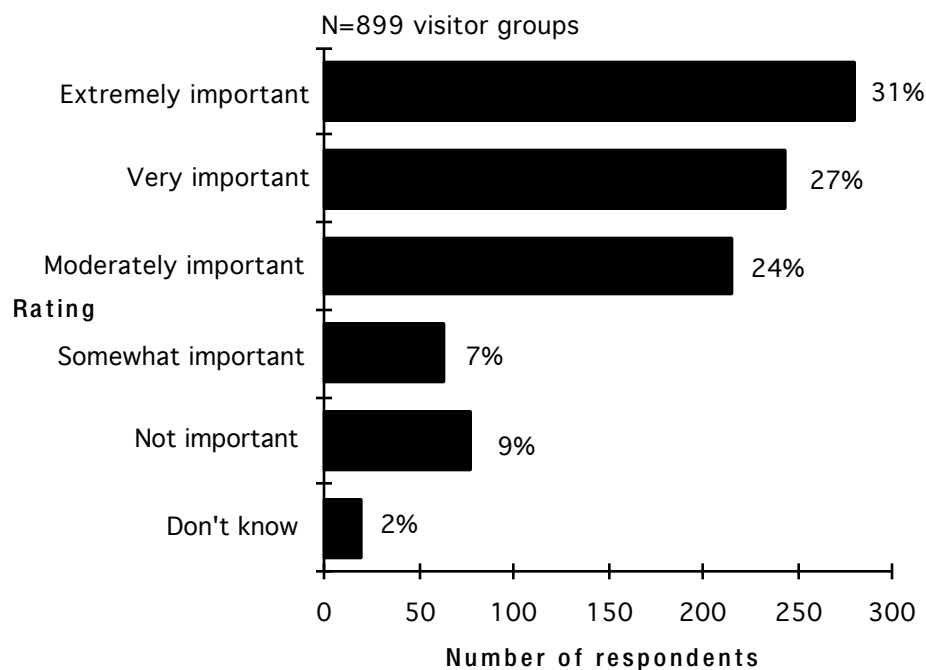
**Figure 22: Importance of clean air****Figure 23: Importance of scenic views**



**Figure 24: Importance of recreational activities**

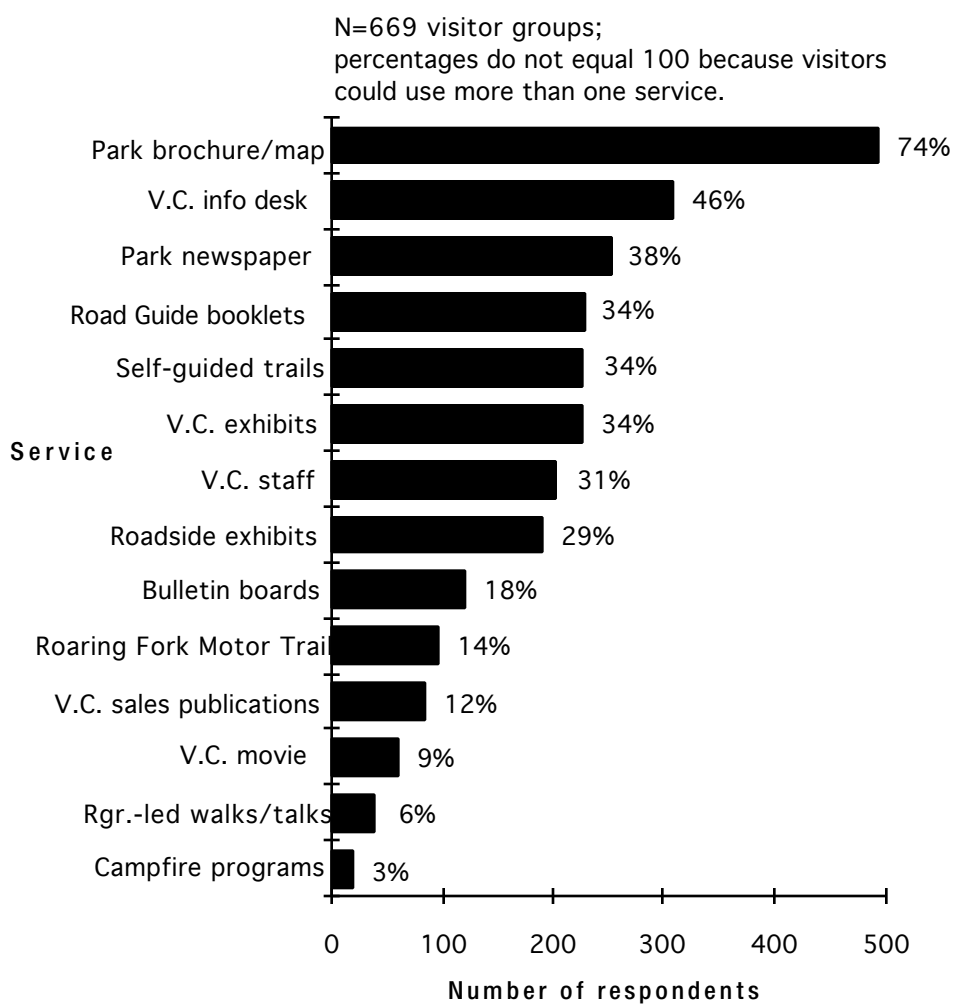


**Figure 25: Importance of solitude**

**Figure 26: Importance of quiet****Figure 27: Importance of historic buildings**

The most commonly used information services at Great Smoky Mountains were the park brochure/map (74%), visitor center information desk (46%), and the park newspaper - *Smokies Guide* (38%), as shown in Figure 28. The least used services were the evening campfire programs (3%) and ranger-led walks and talks (6%).

**Information  
services:  
use,  
importance  
and quality**



**Figure 28: Use of information services**

Visitors rated the importance and quality of each of the information services they used. They used a five point scale (see boxes below).

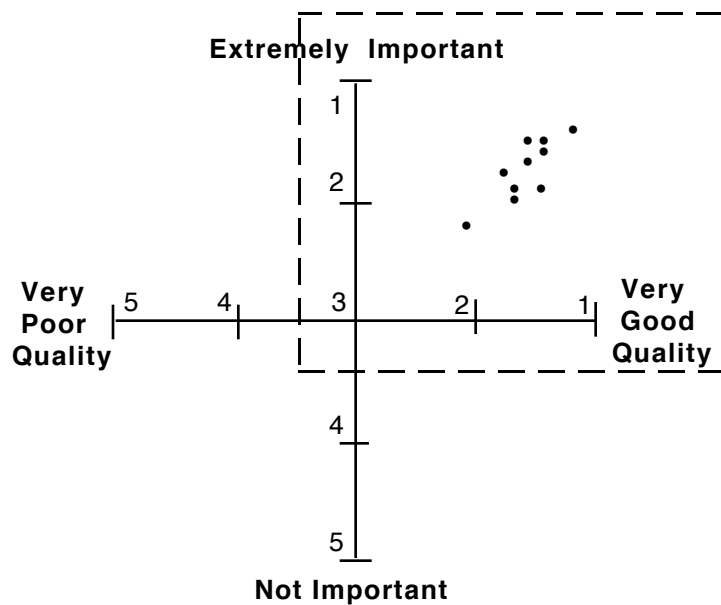
IMPORTANCE	QUALITY
1=extremely important	1=very good
2=very important	2=good
3=moderately important	3=average
4=somewhat important	4=poor
5=not important	5=very poor

Figure 29 shows the average importance and quality ratings for each service. An average score was determined for each service based on ratings by visitors who used that service. This was done for both importance and quality. The results were plotted on the grid shown in Figure 29. All services were rated above average in importance and quality. NOTE: Campfire programs were not rated by enough visitors to provide reliable information.

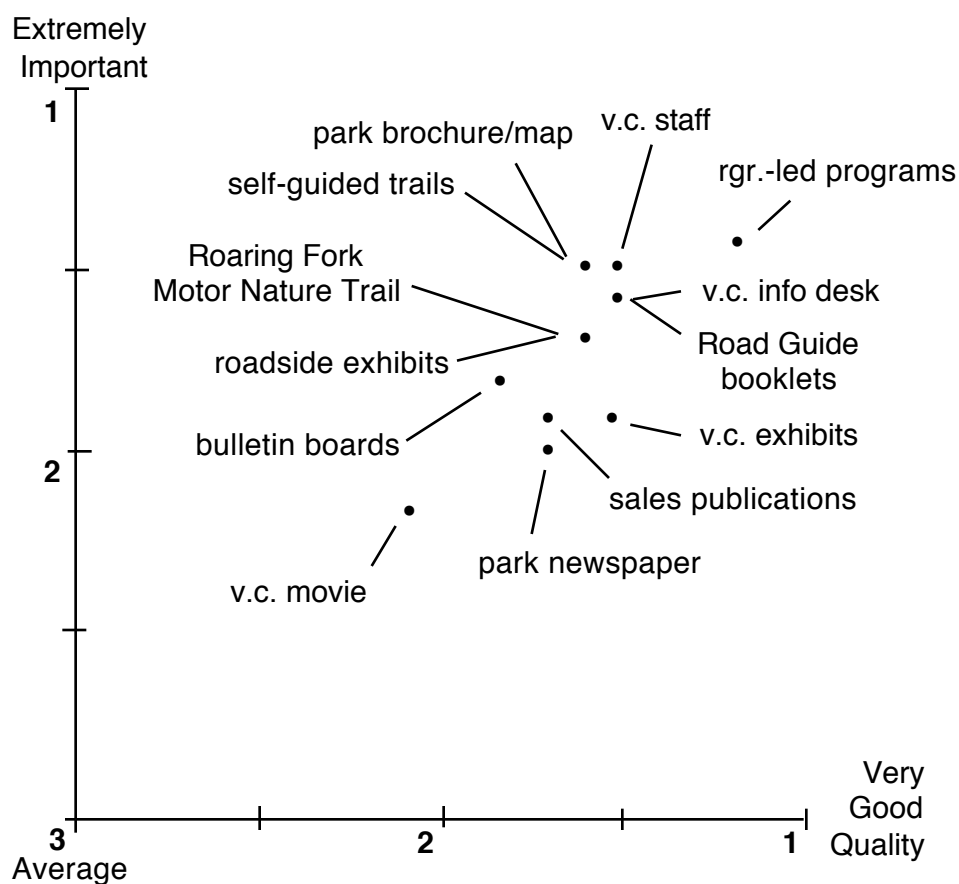
Figures 30-43 show that several services received the highest "very important" to "extremely important" ratings: ranger-led walks/talks (94%), self-guided trails (91%), park brochure/map (88%) and visitor center staff (88%). The highest "not important" ratings were for the visitor center movie and visitor center sales publications (each 3%).

Figures 44-57 show that several services were given high "good" to "very good" quality ratings: ranger-led walks/talks (97%), visitor center staff (92%), and visitor center exhibits (91%), visitor center information desk (91%) and Road Guide booklets (91%). The service which received the highest "very poor" quality ratings was the visitor center movie (4%).

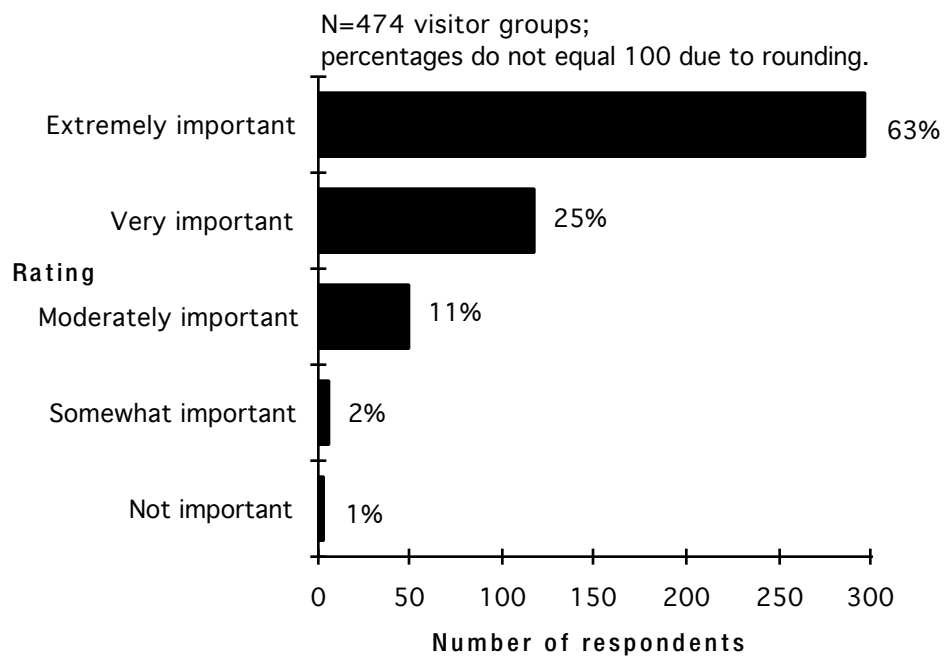
Figure 58 combines the "very good" and "good" quality ratings and compares those ratings for all of the services.



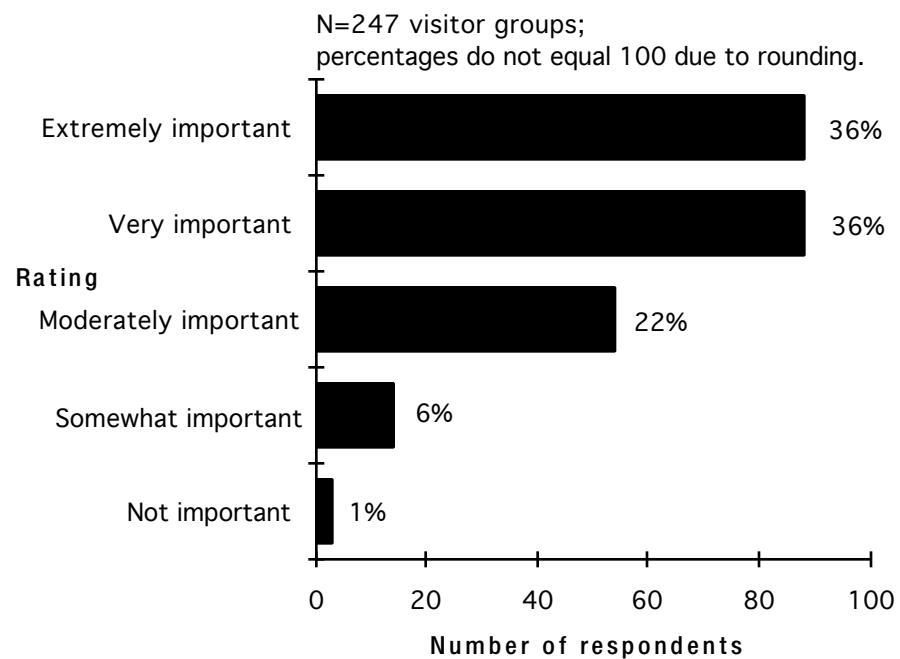
**Figure 29: Average ratings of information service importance and quality**



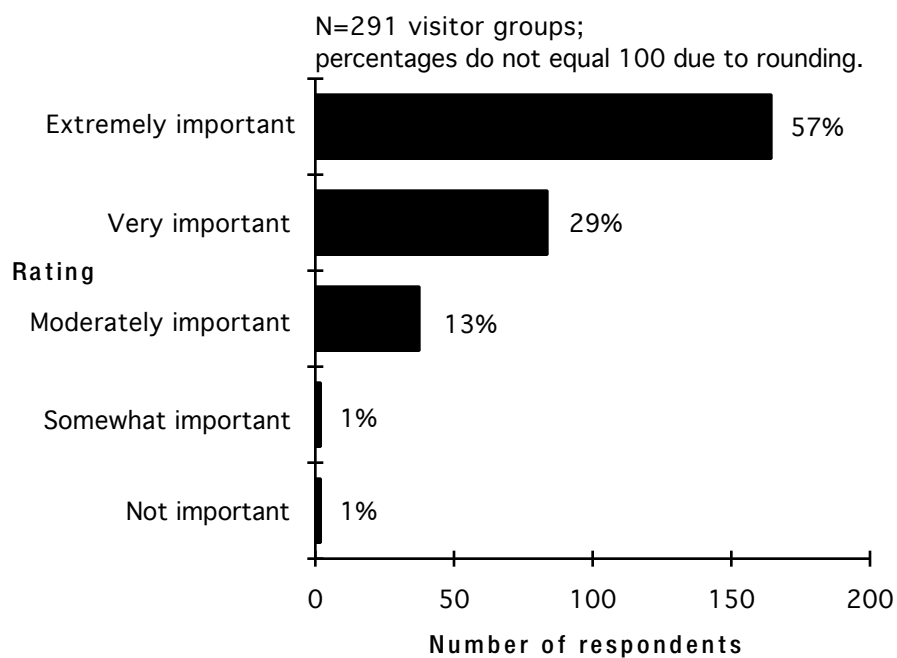
**Figure 29: Detail**



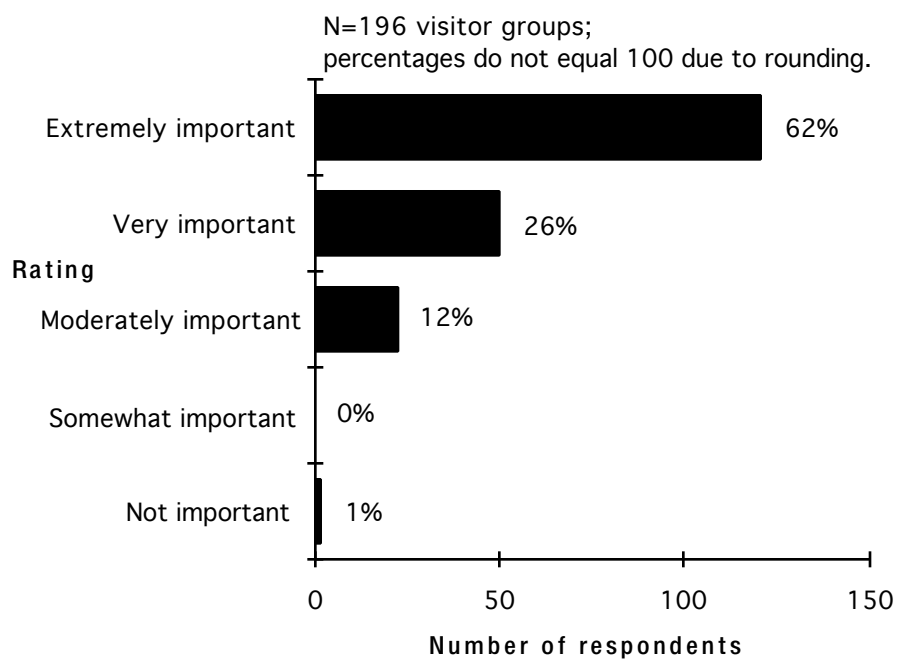
**Figure 30: Importance of park brochure/map**



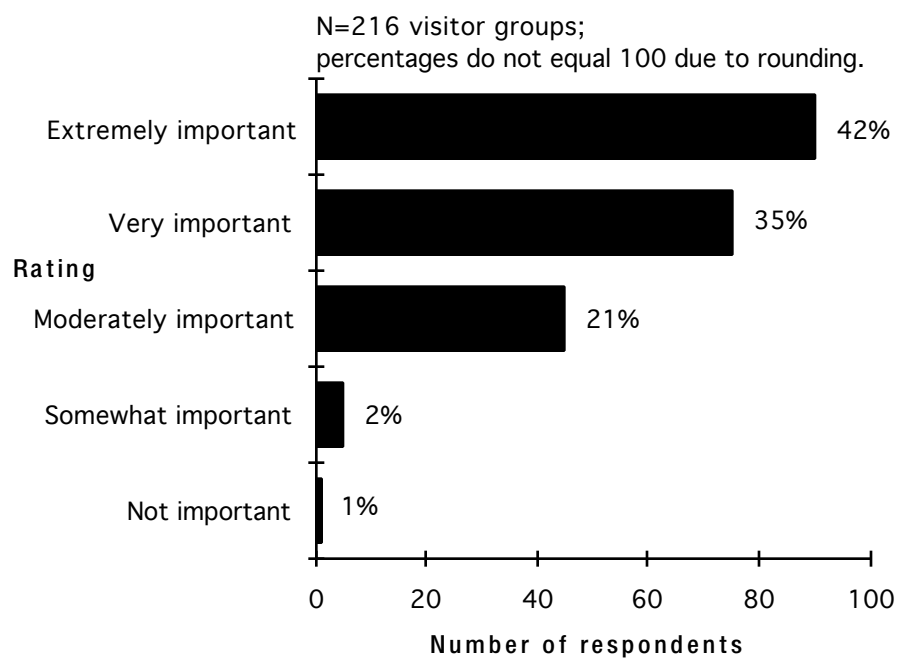
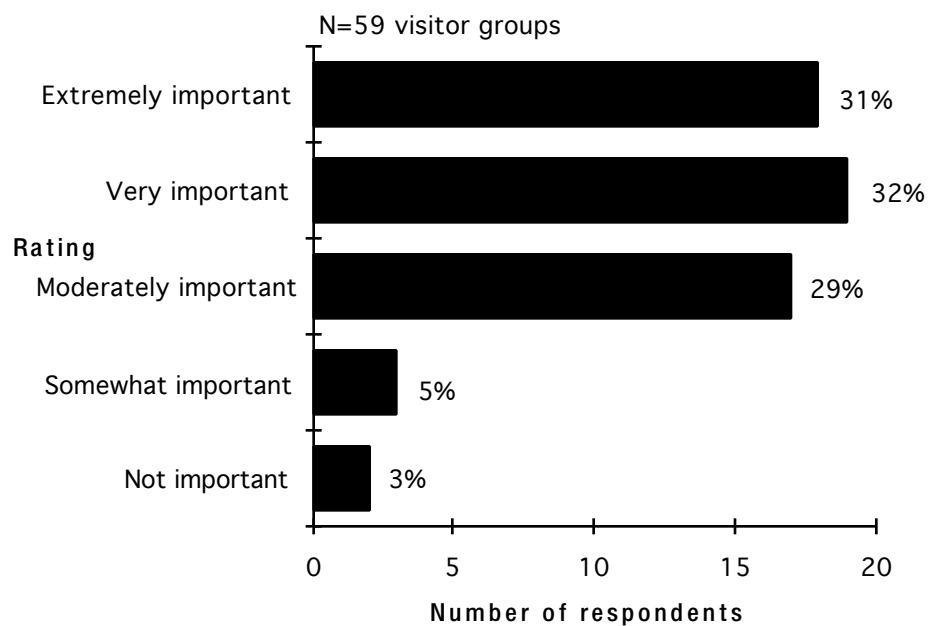
**Figure 31: Importance of park newspaper (*Smokies Guide*)**

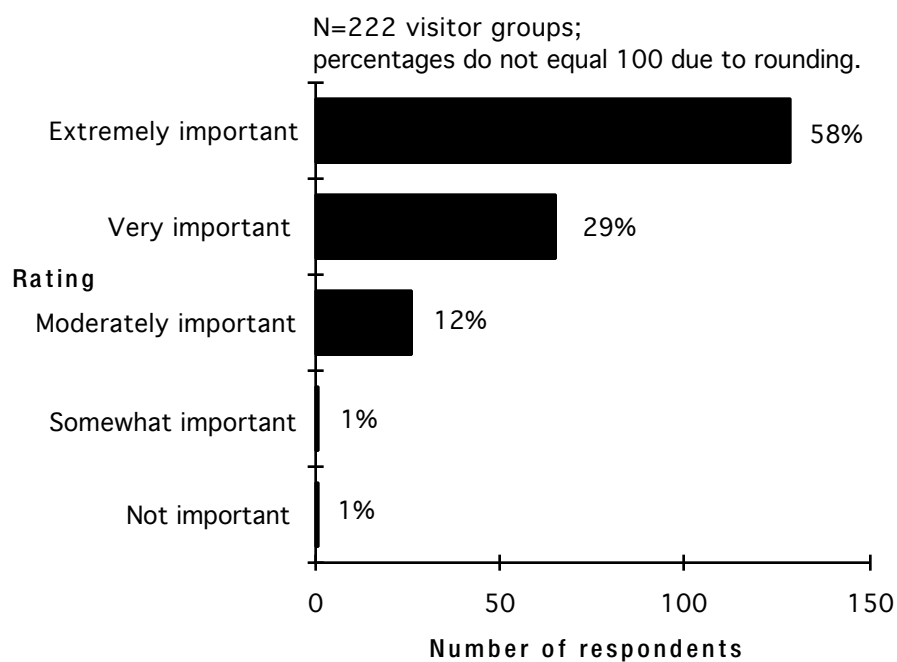


**Figure 32: Importance of visitor center information desk**

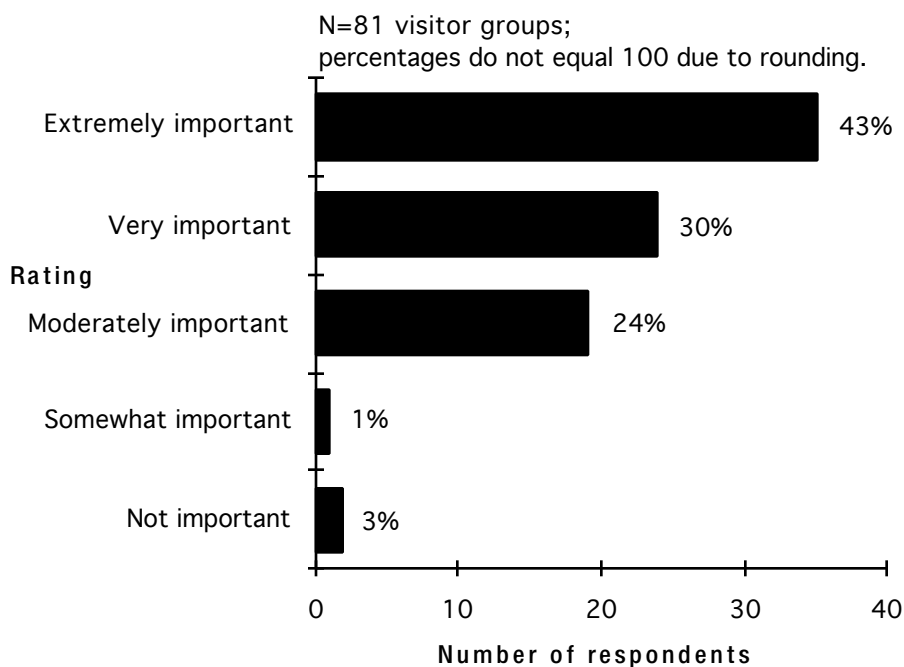


**Figure 33: Importance of visitor center staff**

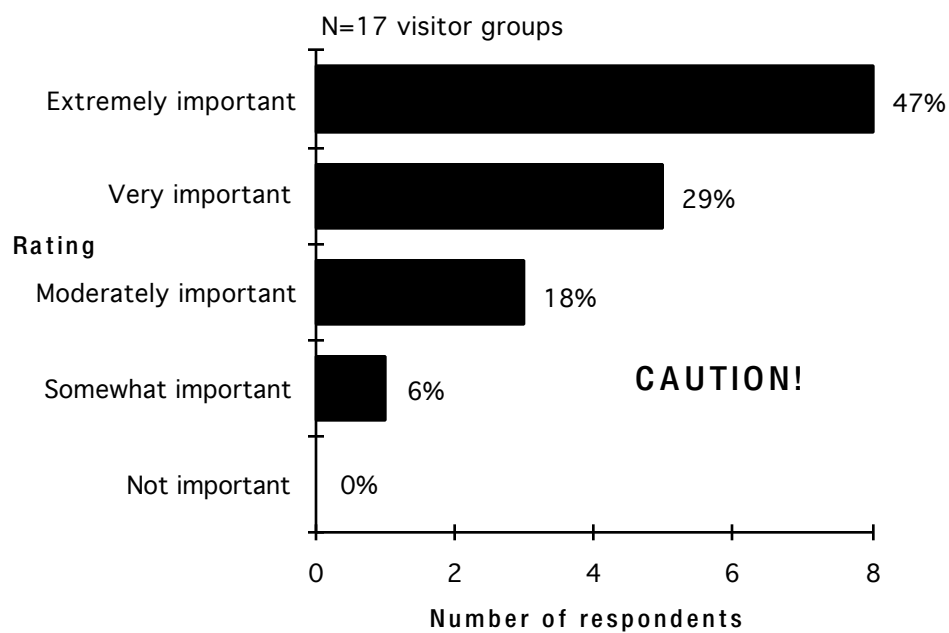
**Figure 34: Importance of visitor center exhibits****Figure 35: Importance of visitor center movie**



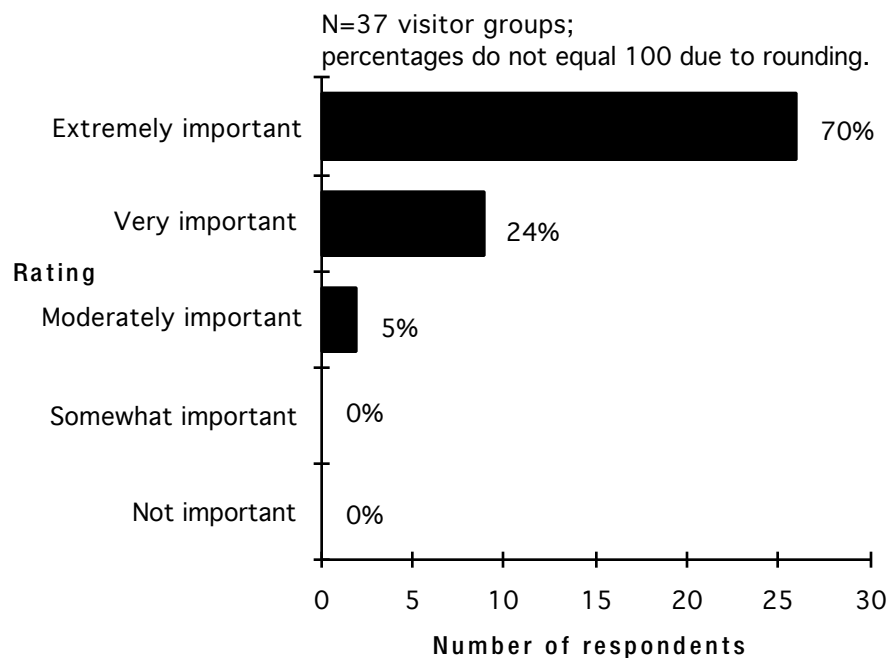
**Figure 36: Importance of Road Guide booklets**



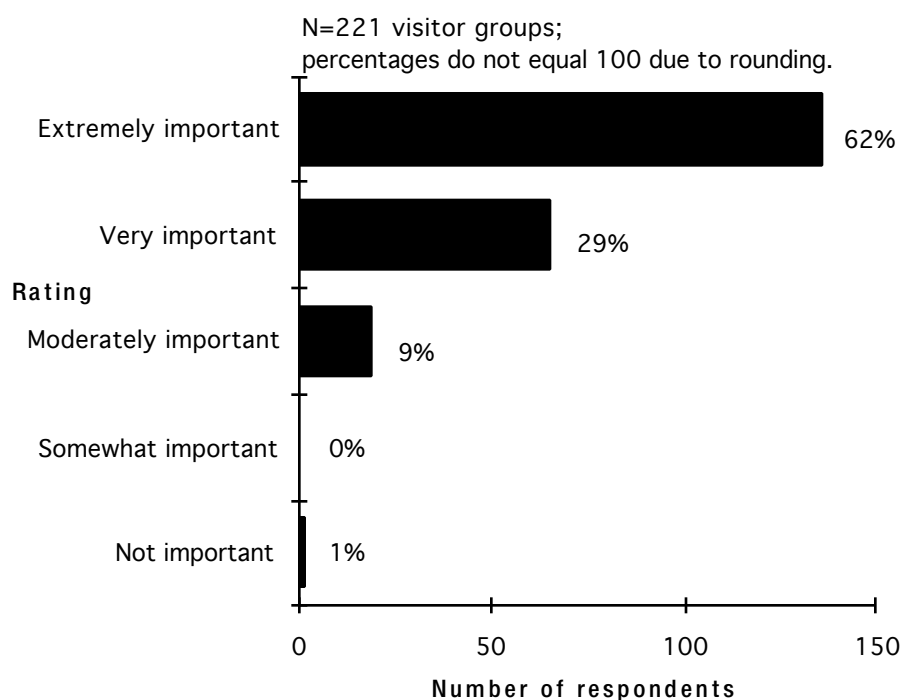
**Figure 37: Importance of visitor center sales publications  
(other than Road Guide booklets)**



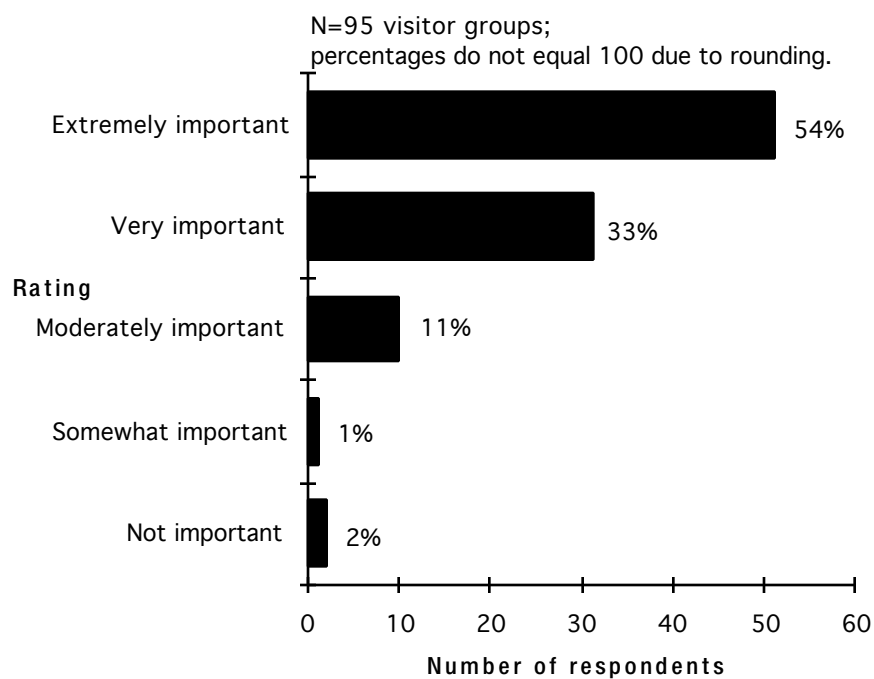
**Figure 38: Importance of campfire programs**



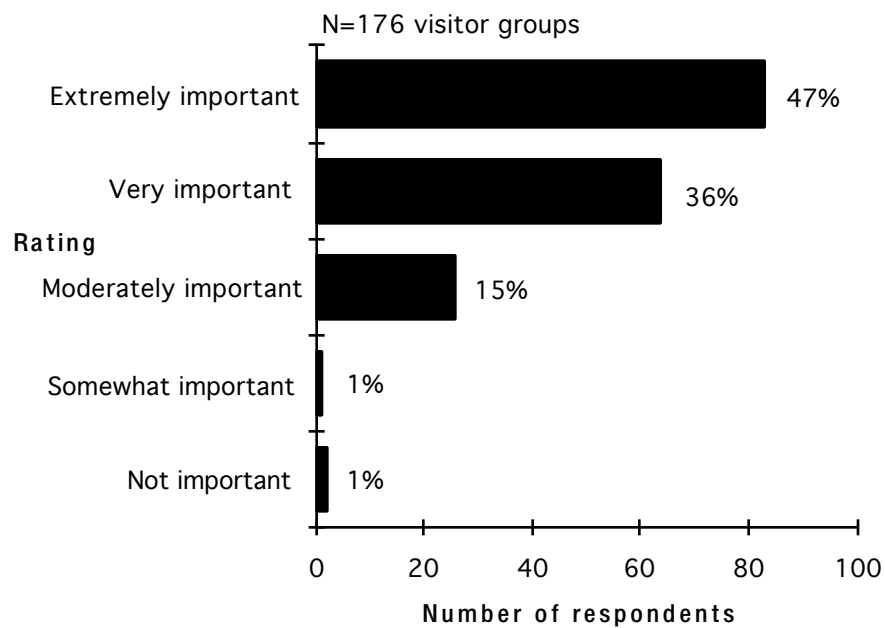
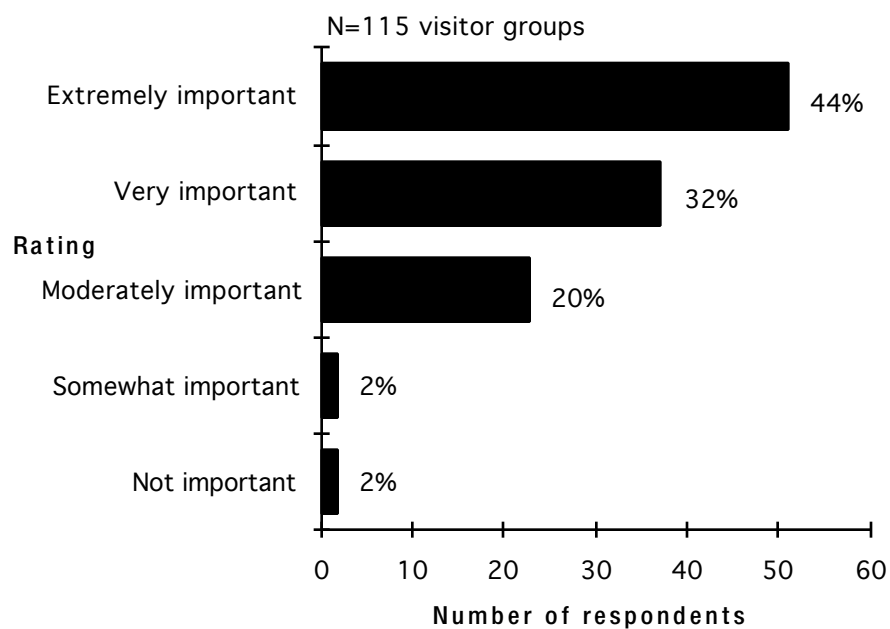
**Figure 39: Importance of ranger-led walks/talks**

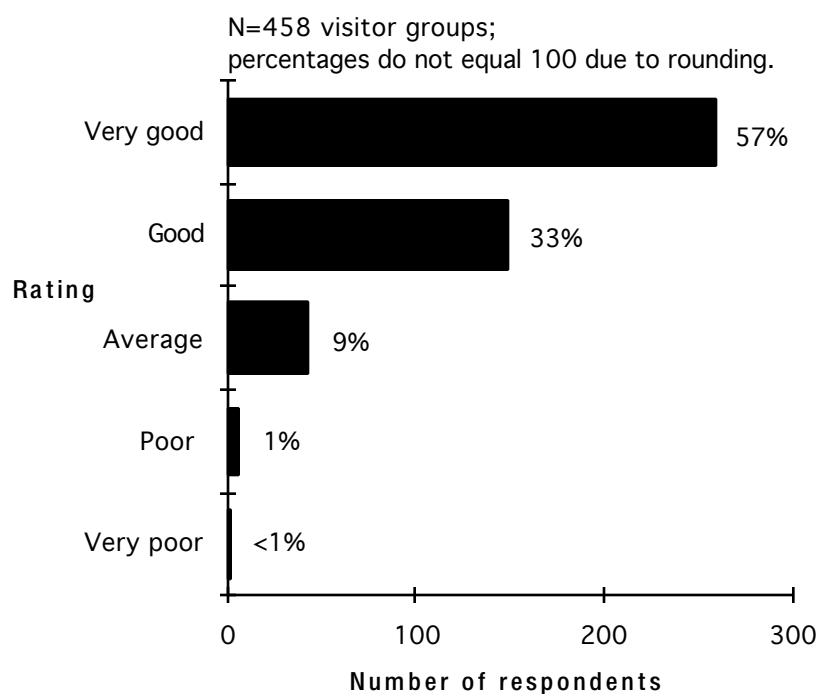


**Figure 40: Importance of self-guided trails**

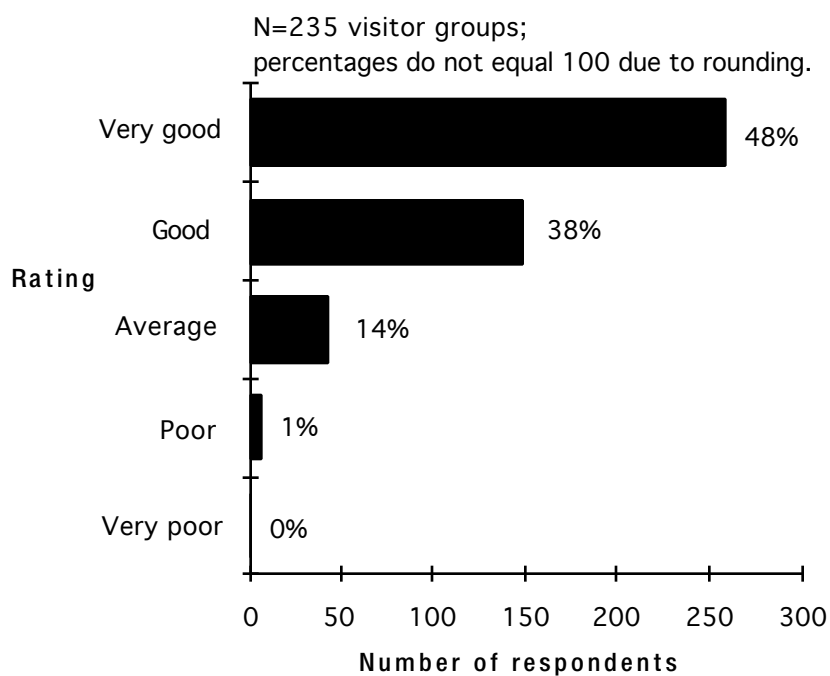


**Figure 41: Importance of Roaring Fork Motor Nature Trail**

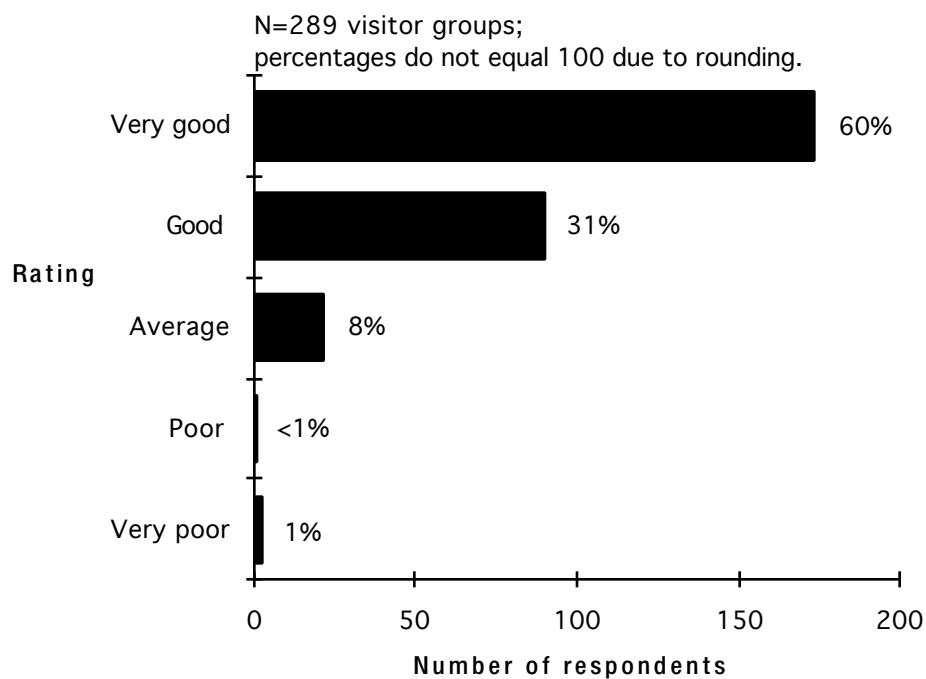
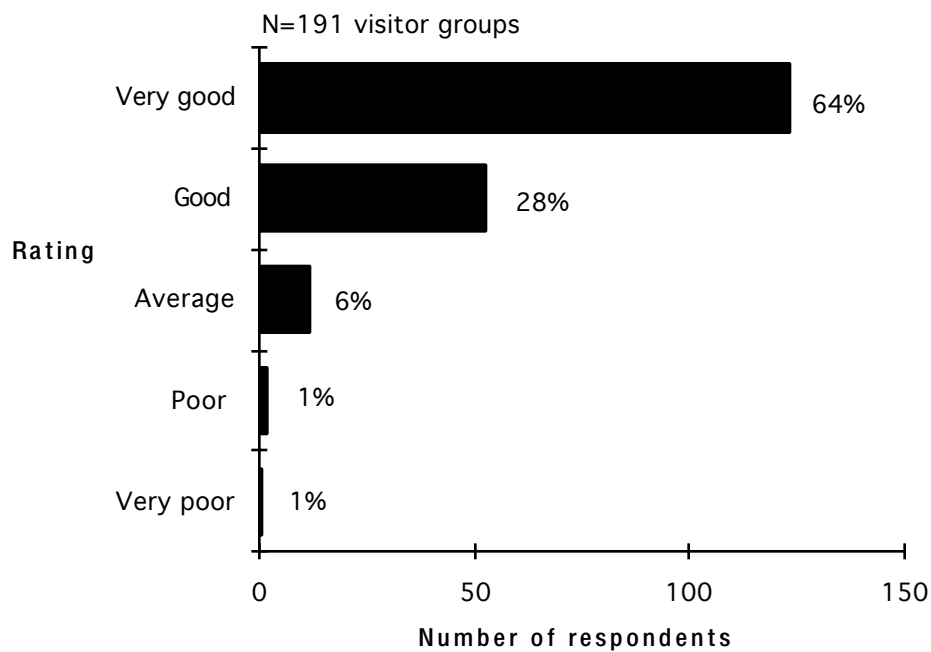
**Figure 42: Importance of roadside exhibits****Figure 43: Importance of bulletin boards**

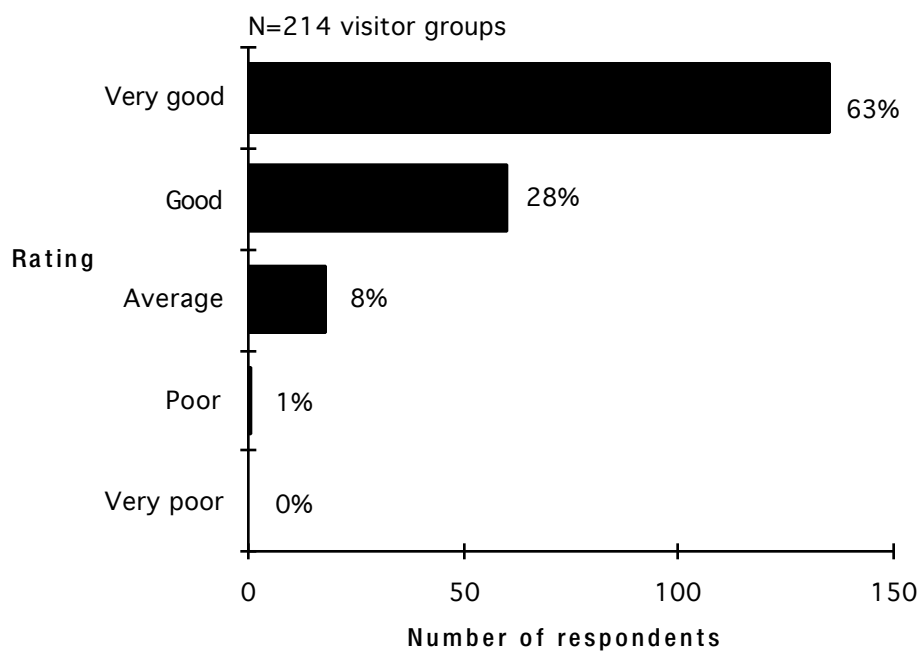
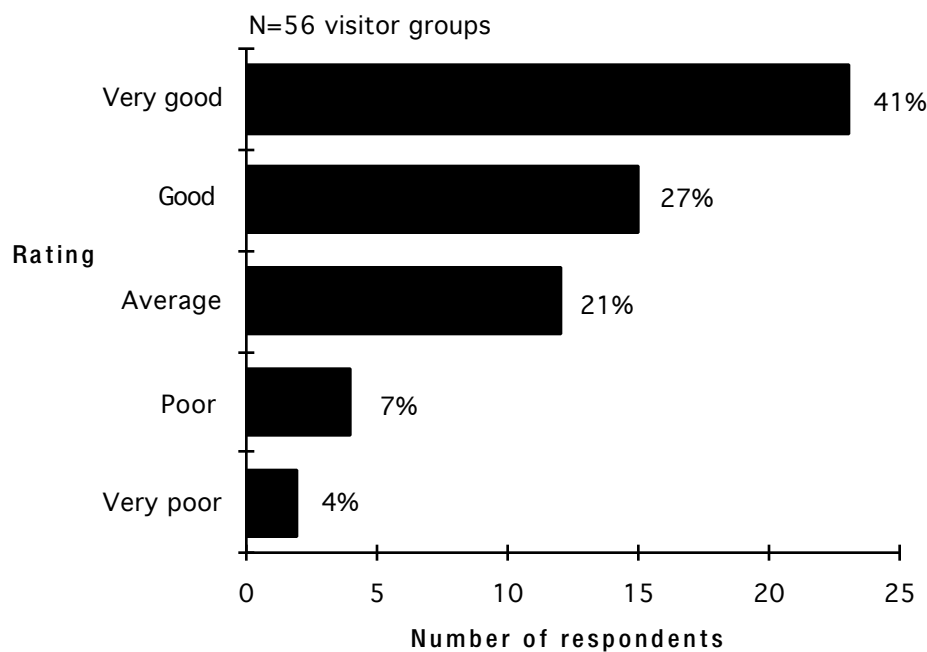


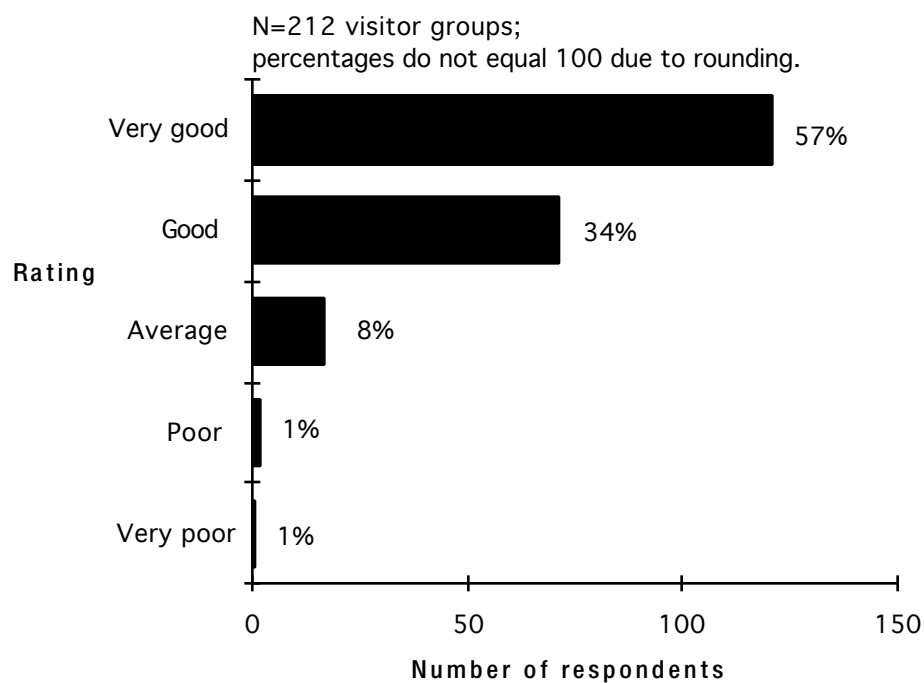
**Figure 44: Quality of park brochure/map**



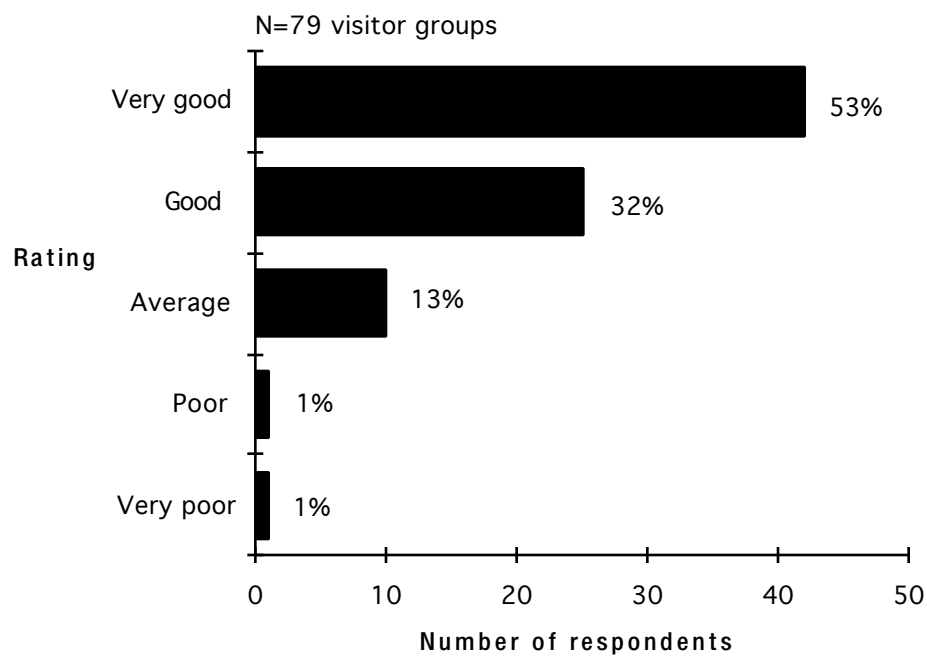
**Figure 45: Quality of park newspaper (*Smokies Guide*)**

**Figure 46: Quality of visitor center information desk****Figure 47: Quality of visitor center staff**

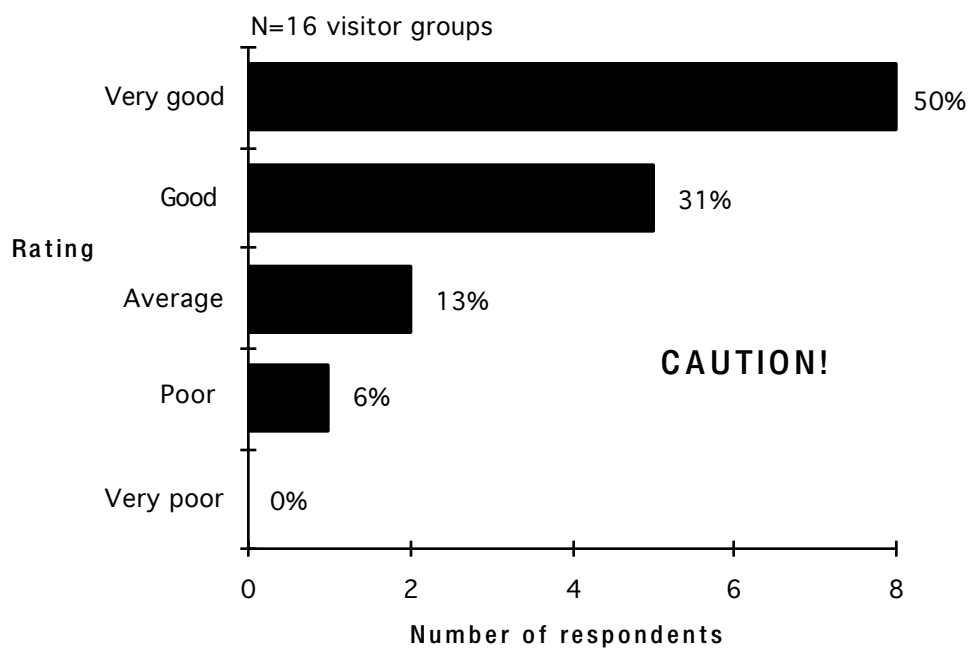
**Figure 48: Quality of visitor center exhibits****Figure 49: Quality of visitor center movie**



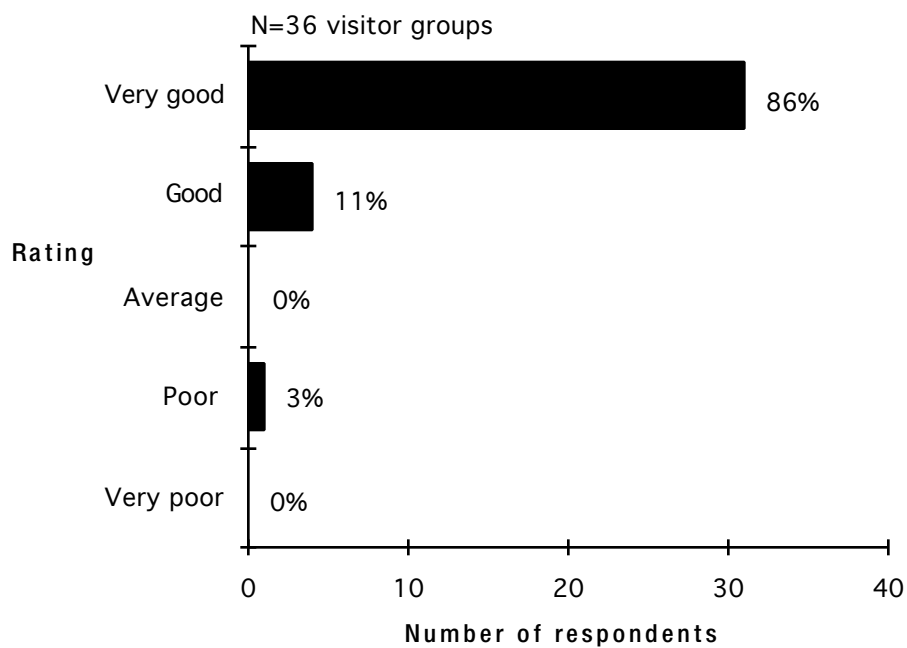
**Figure 50: Quality of Road Guide booklets**



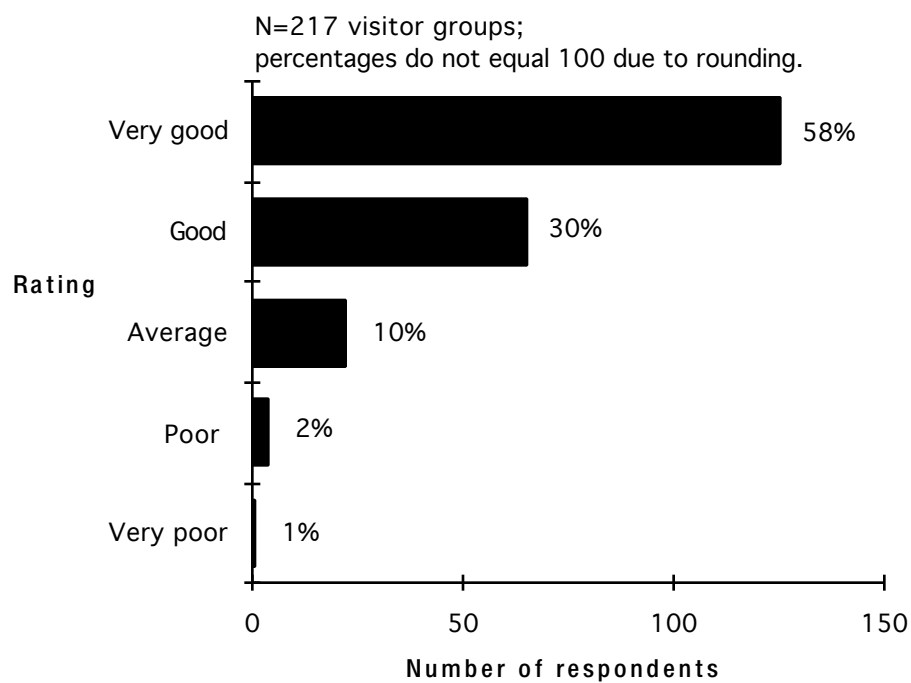
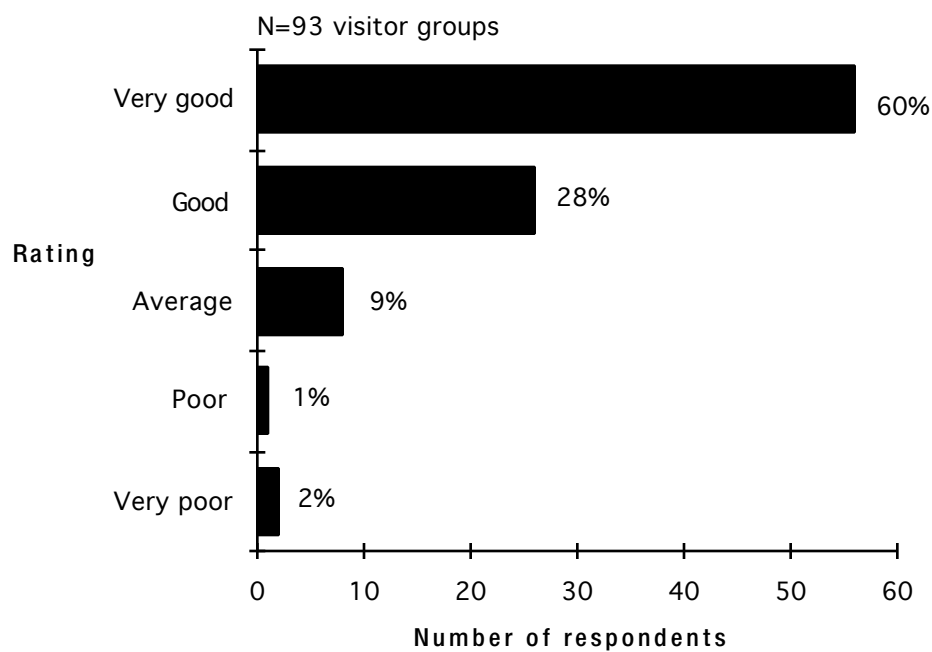
**Figure 51: Quality of visitor center sales publications  
(other than Road Guide booklets)**

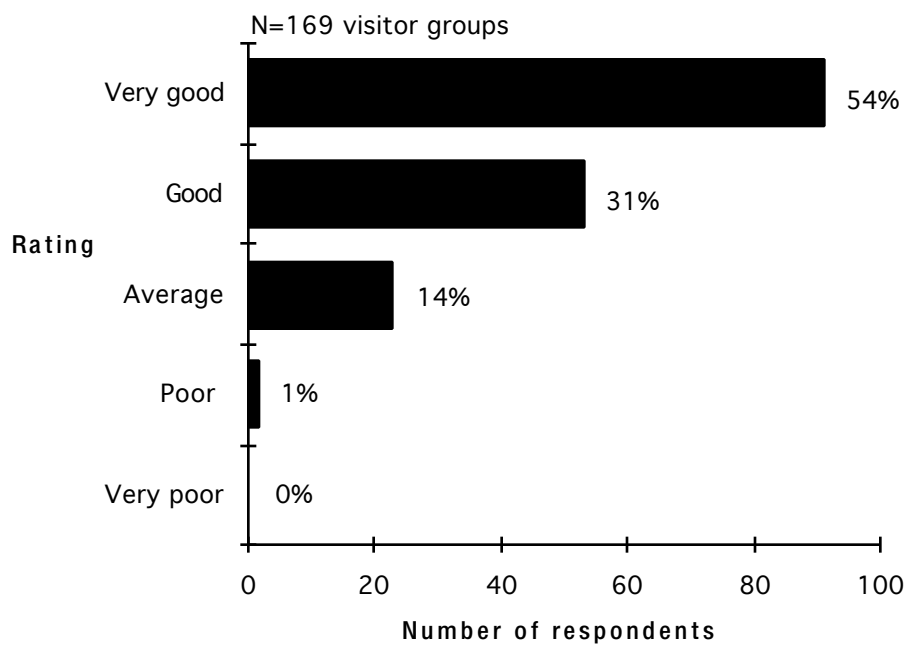
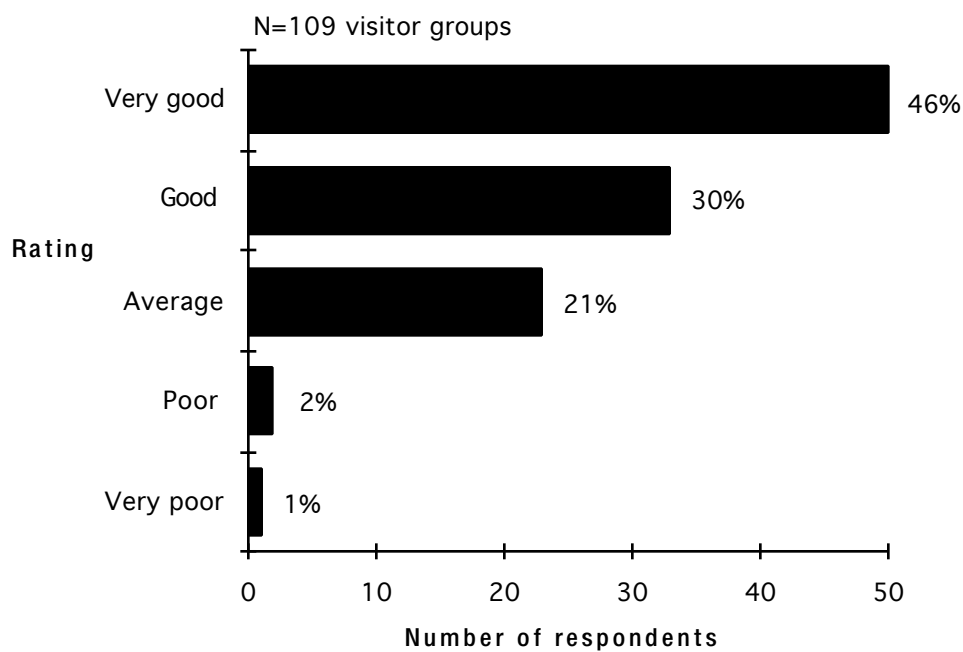


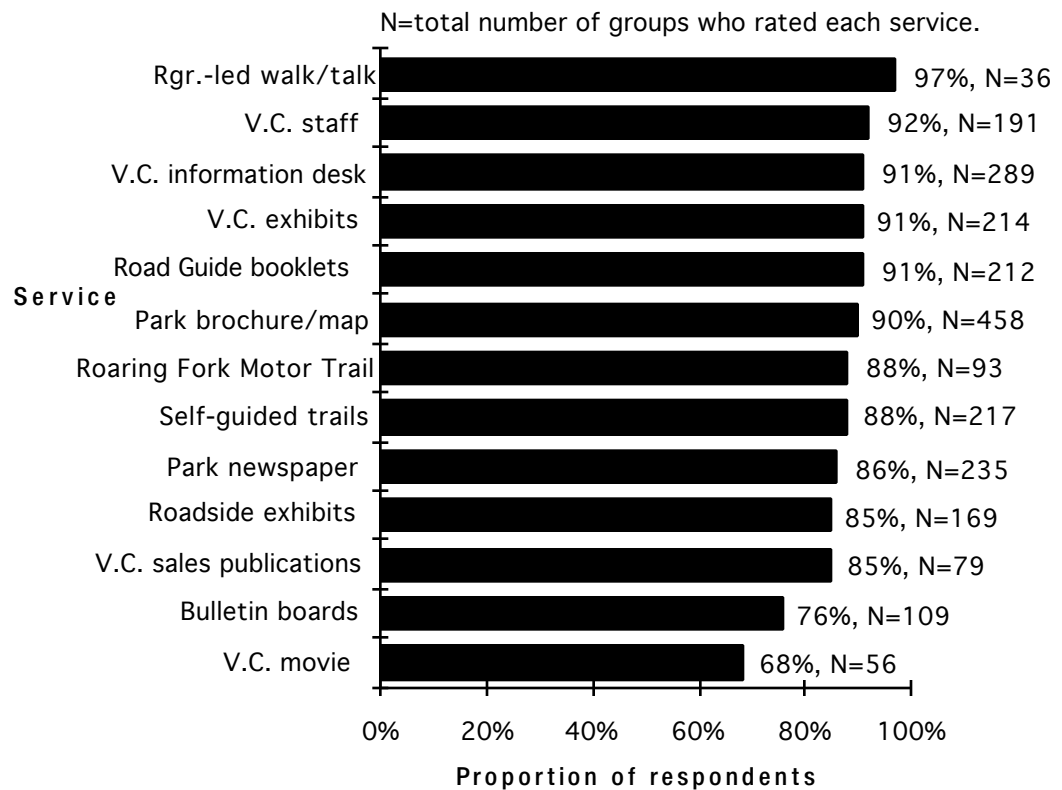
**Figure 52: Quality of campfire programs**



**Figure 53: Quality of ranger-led walks/talks**

**Figure 54: Quality of self-guided trails****Figure 55: Quality of Roaring Fork Motor Nature Trail**

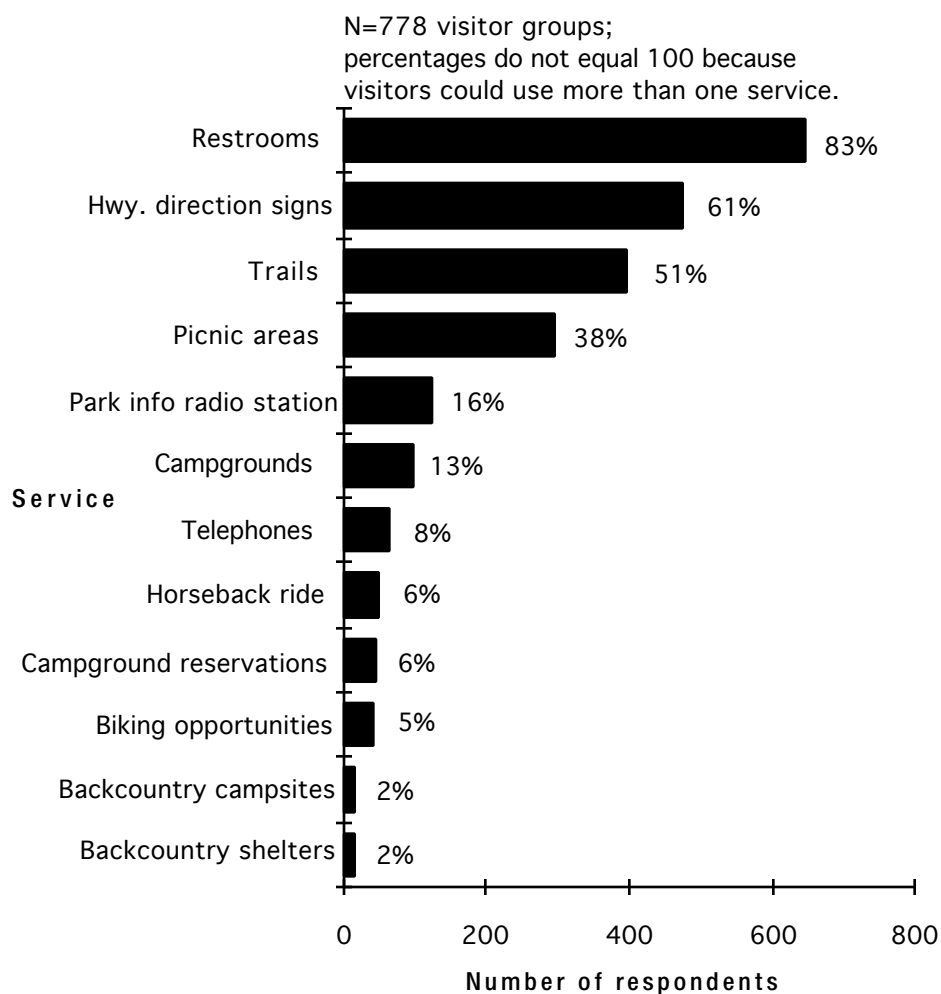
**Figure 56: Quality of roadside exhibits****Figure 57: Quality of bulletin boards**



**Figure 58: Combined proportions of "very good" and "good" quality ratings for information services used by visitors**

The most commonly used visitor facilities or services within Great Smoky Mountains were the restrooms (83%), highway directional signs (61%) and trails (51%), as shown in Figure 59. The least used services were backcountry shelters and campsites (each 2%).

**Visitor  
facilities/  
services:  
use,  
importance  
and quality**



**Figure 59: Use of visitor facilities or services**

Visitors rated the importance and quality of each of the visitor facilities and services they used. They used a five point scale (see boxes below).

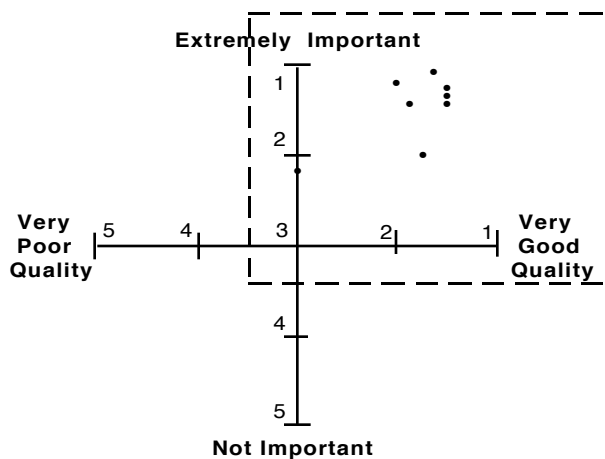
IMPORTANCE	QUALITY
1=extremely important	1=very good
2=very important	2=good
3=moderately important	3=average
4=somewhat important	4=poor
5=not important	5=very poor

Figure 60 shows the average importance and quality ratings for each facility and service. An average score was determined for each service based on ratings by visitors who used that service. This was done for both importance and quality. The results were plotted on the grid shown in Figure 60. All services were rated above average in importance and quality. NOTE: Backcountry trail shelters and backcountry campsites were not rated by enough visitor groups to provide reliable information and are not included in Figure 60.

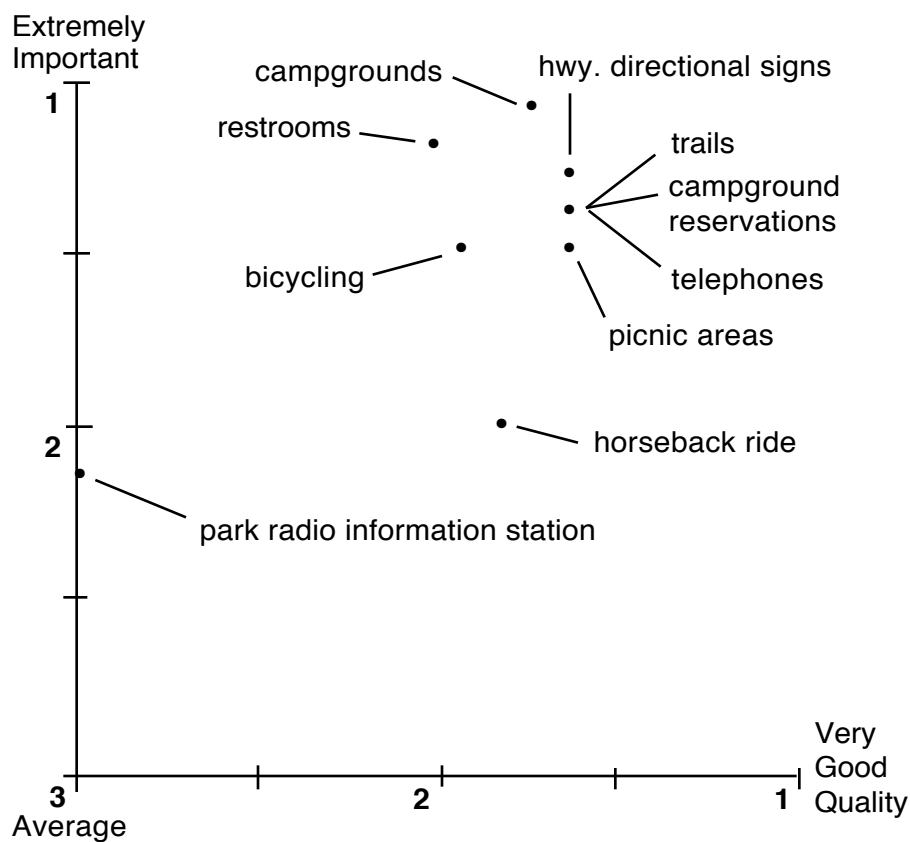
Figures 61-72 show that several services received the highest "very important" to "extremely important" ratings: campgrounds (98%), restrooms (96%), highway directional signs (93%) and campground reservations (93%). The highest "not important" rating was for horseback rides (4%).

Figures 73-84 show that several services were given high "good" to "very good" quality ratings: telephones (86%), highway directional signs (86%) and picnic areas (86%). The service which received the highest "very poor" quality rating was the park information ratio station (22%).

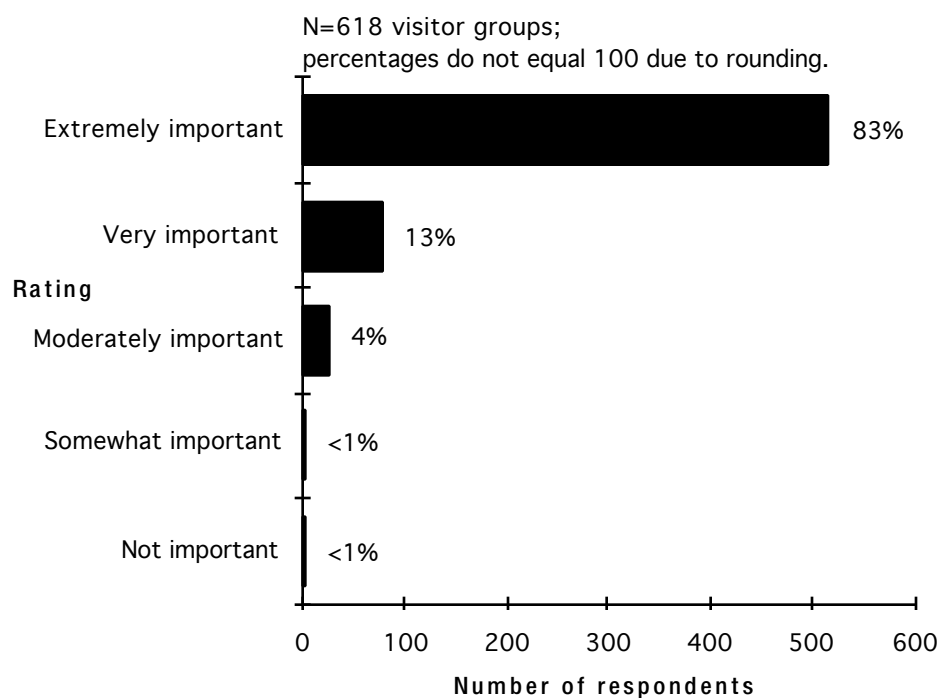
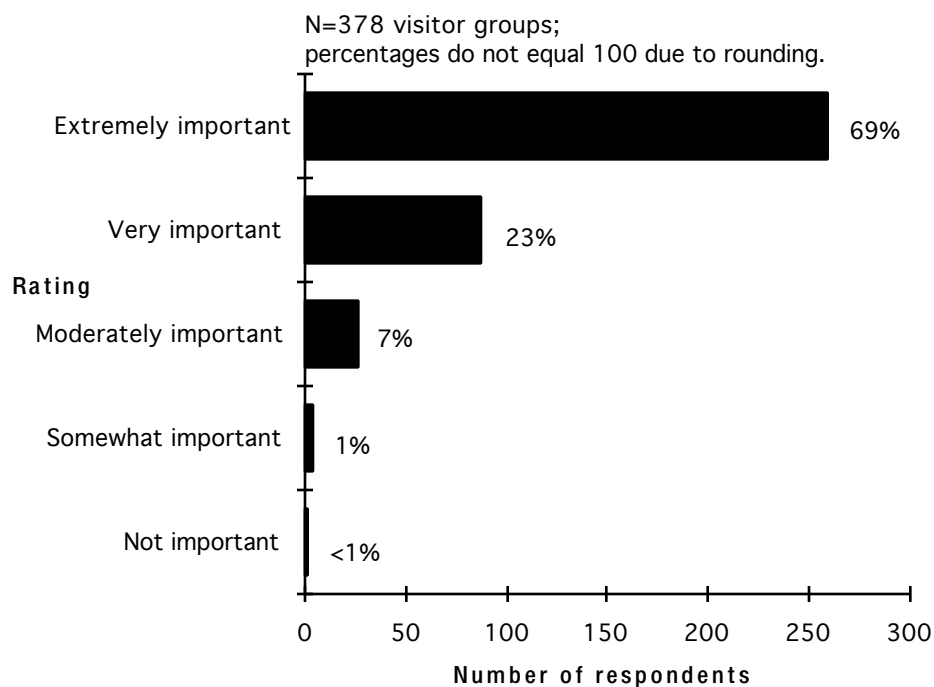
Figure 85 combines the "very good" and "good" quality ratings and compares those ratings for all of the services.

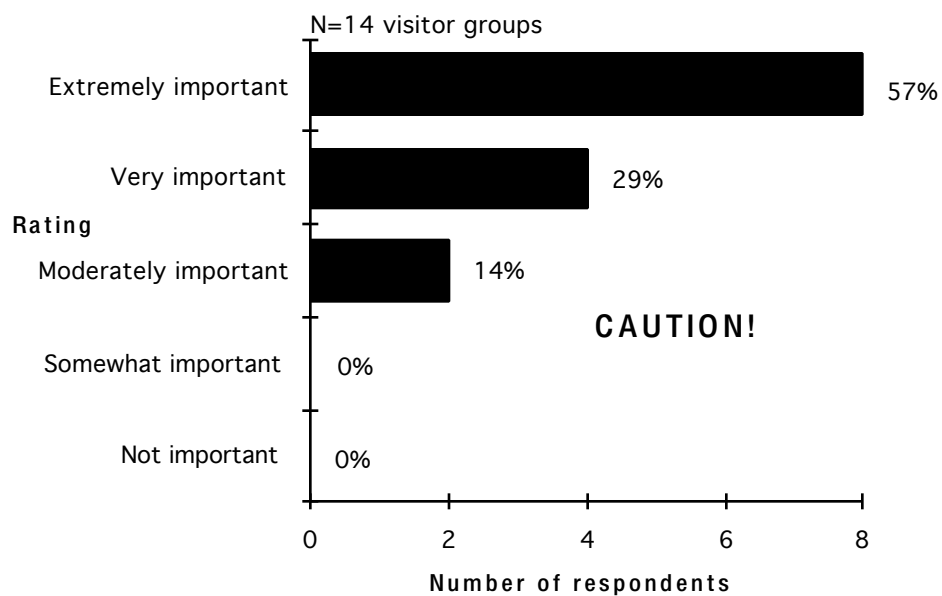


**Figure 60: Average ratings of visitor facility and service importance and quality**

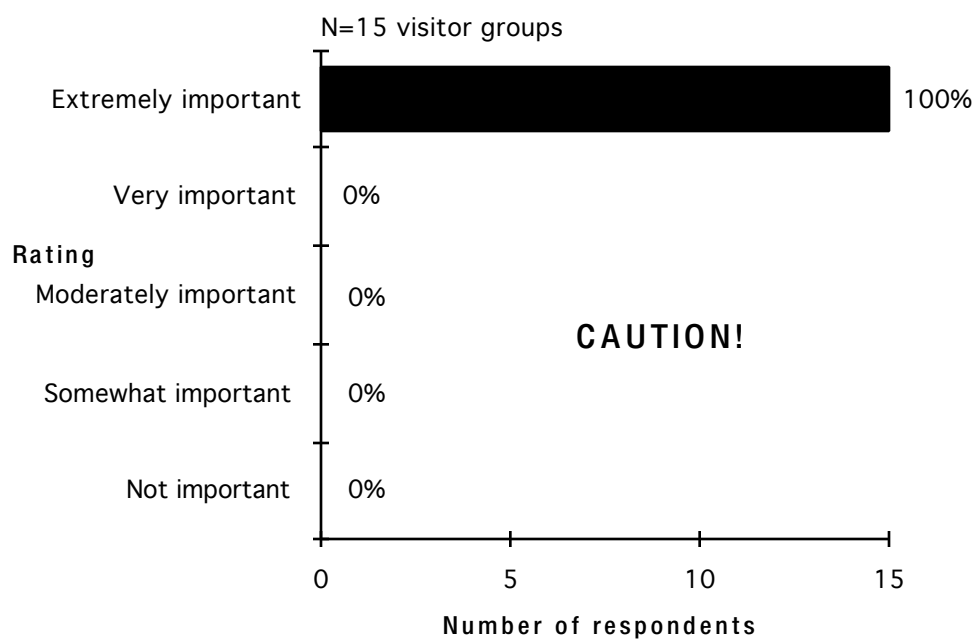


**Figure 60: Detail**

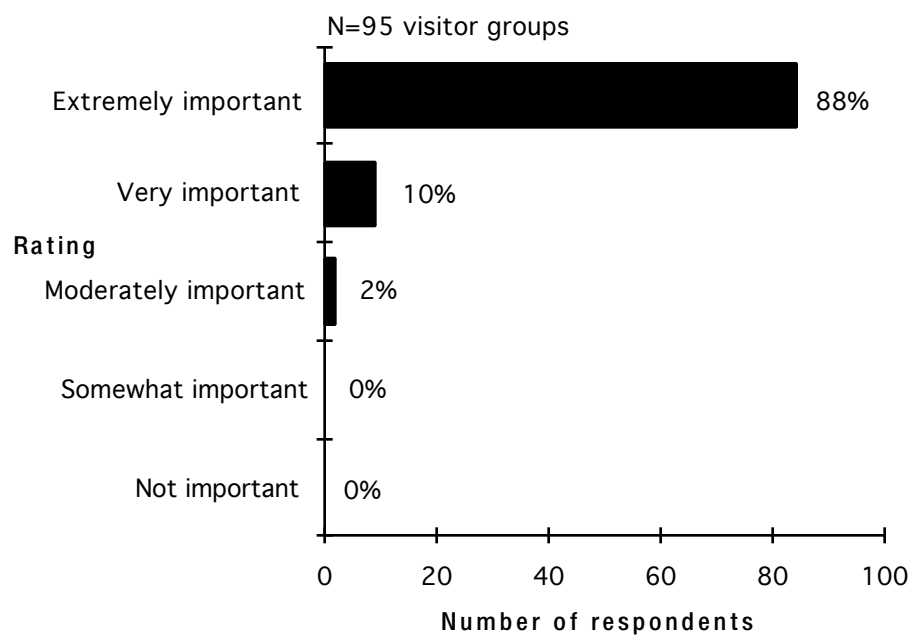
**Figure 61: Importance of restrooms****Figure 62: Importance of trails**



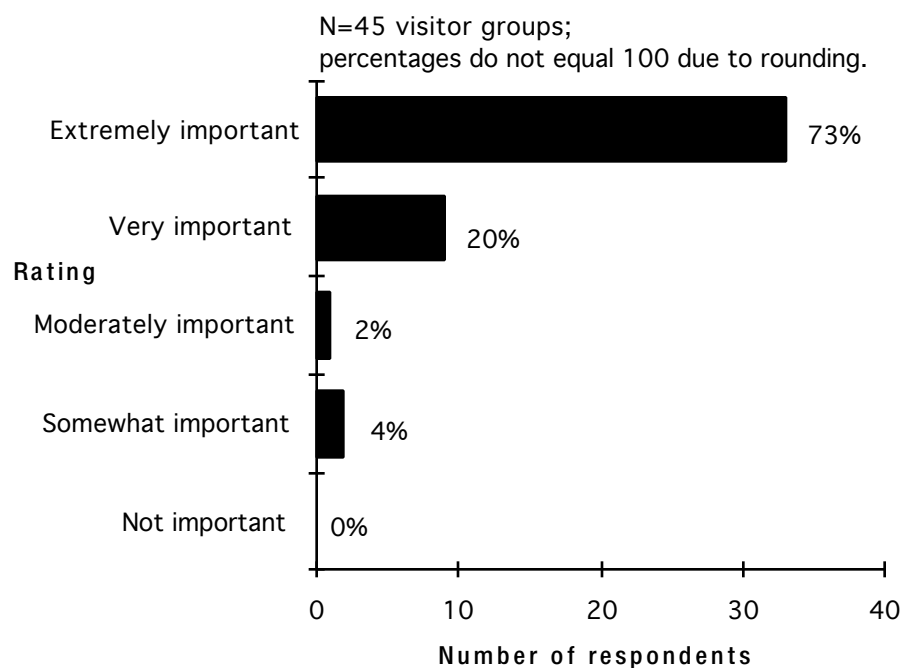
**Figure 63: Importance of backcountry trail shelters**



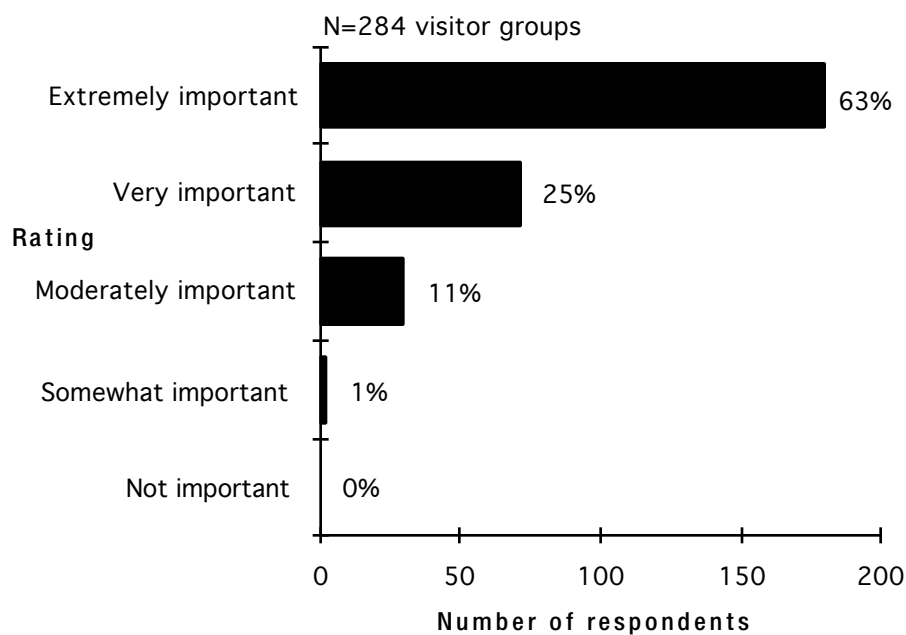
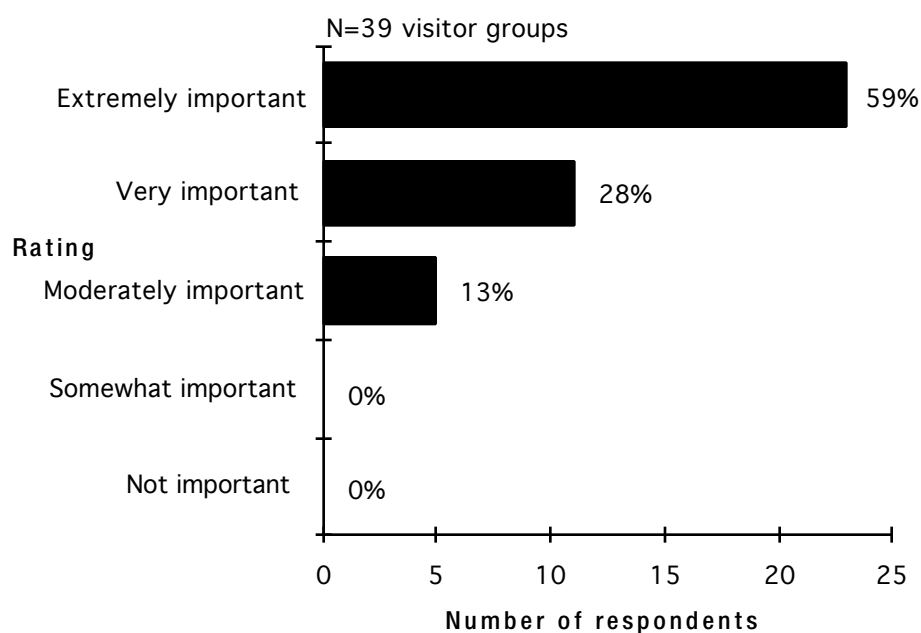
**Figure 64: Importance of backcountry campsites**

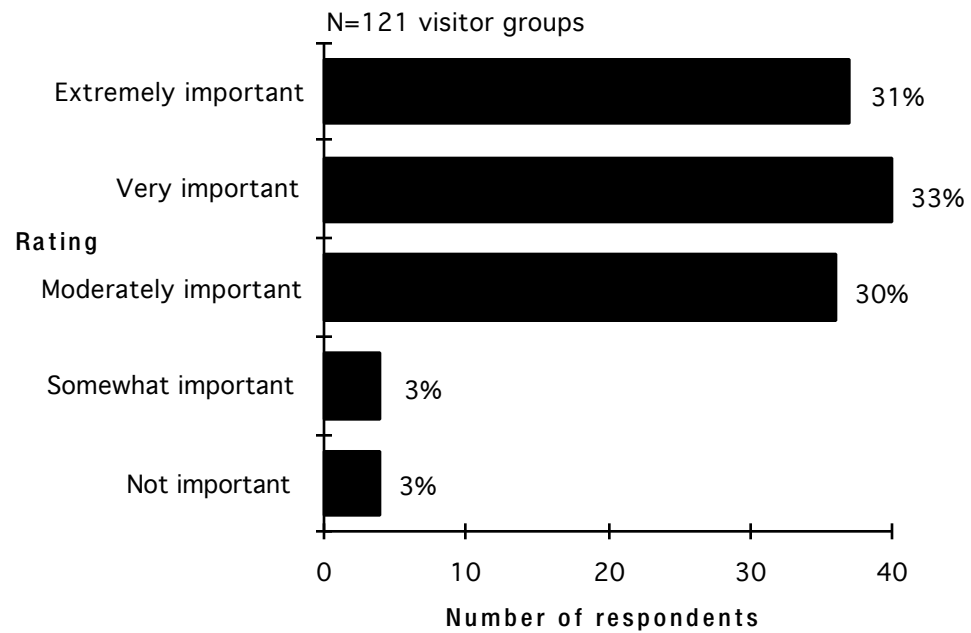


**Figure 65: Importance of campgrounds  
(other than backcountry)**

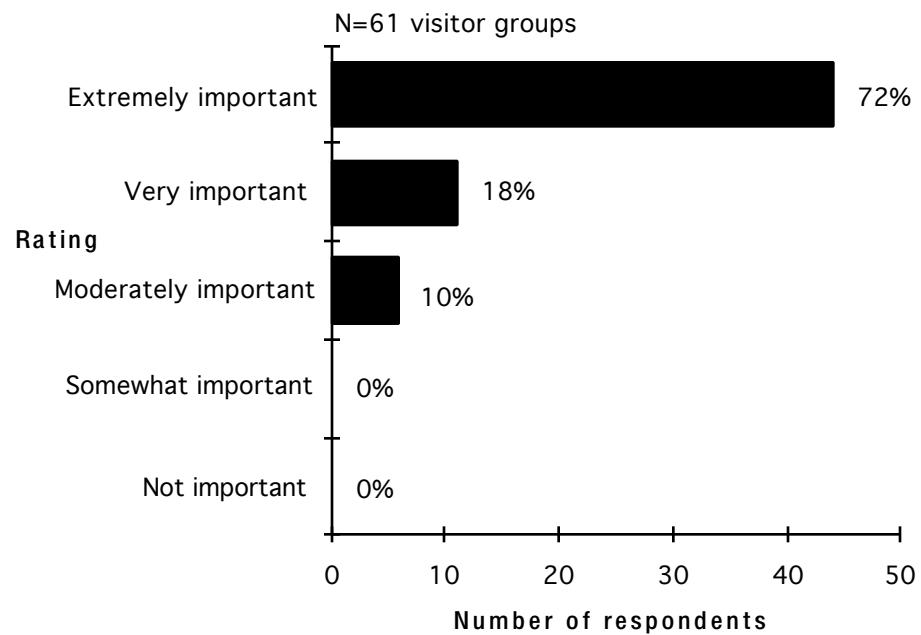


**Figure 66: Importance of campground reservations**

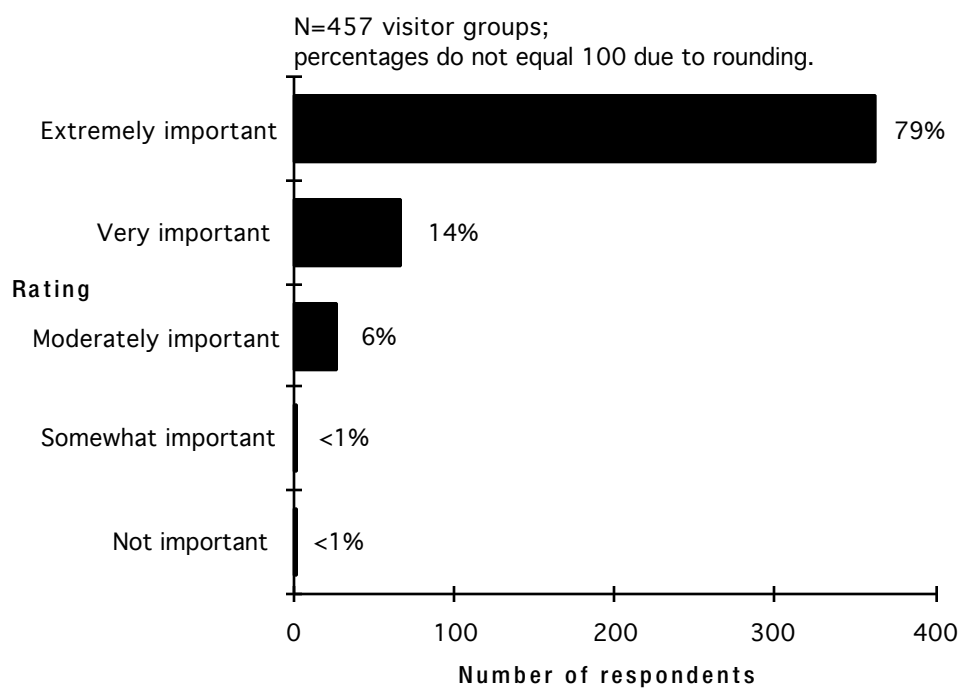
**Figure 67: Importance of picnic areas****Figure 68: Importance of bicycling opportunities**



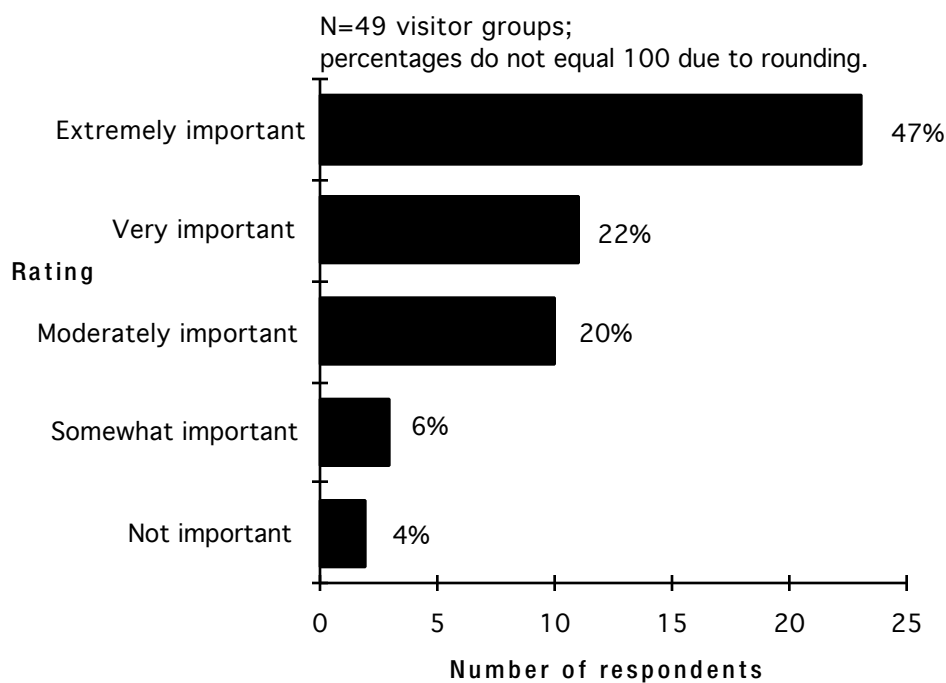
**Figure 69: Importance of park information radio station**



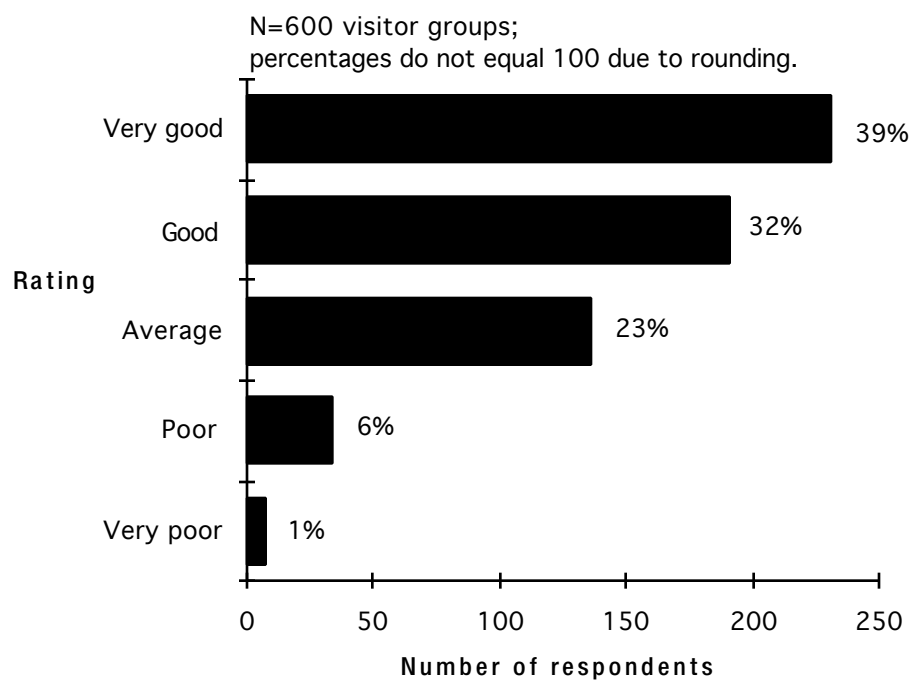
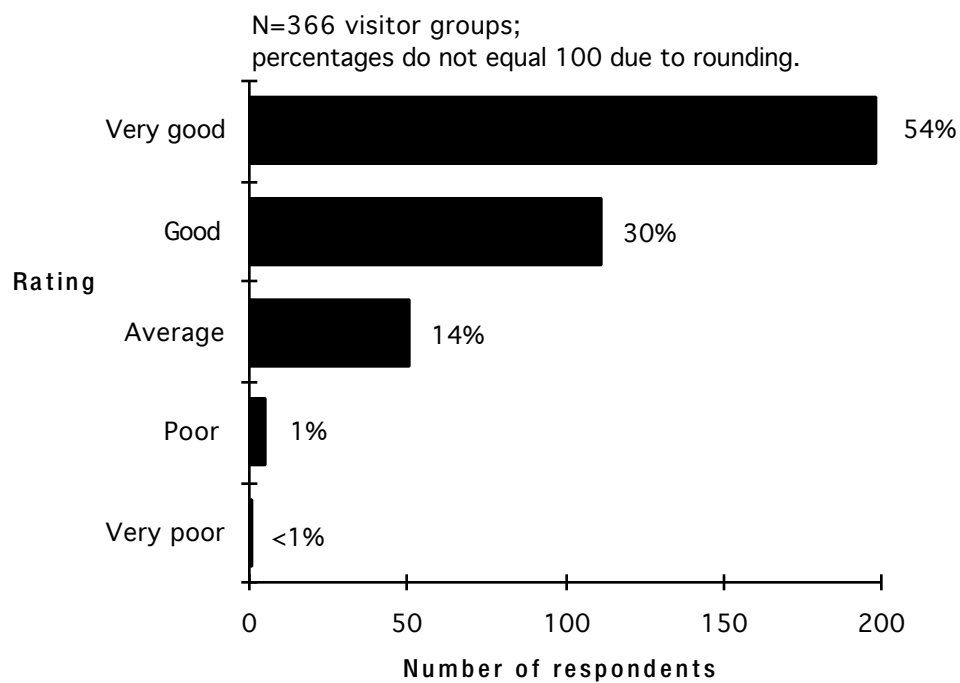
**Figure 70: Importance of telephones**

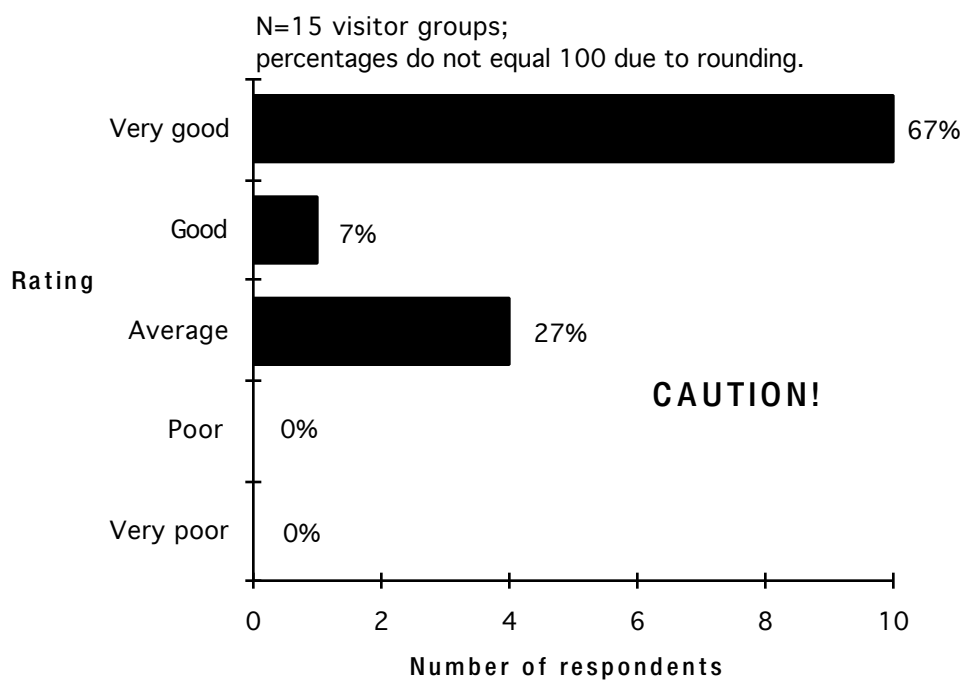


**Figure 71: Importance of highway directional signs**

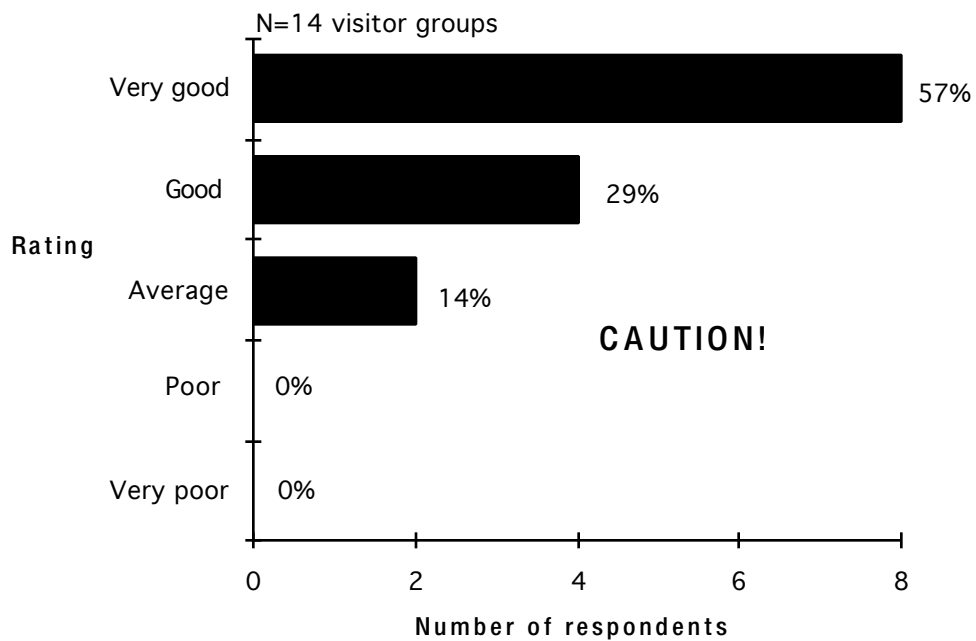


**Figure 72: Importance of concession horseback ride**

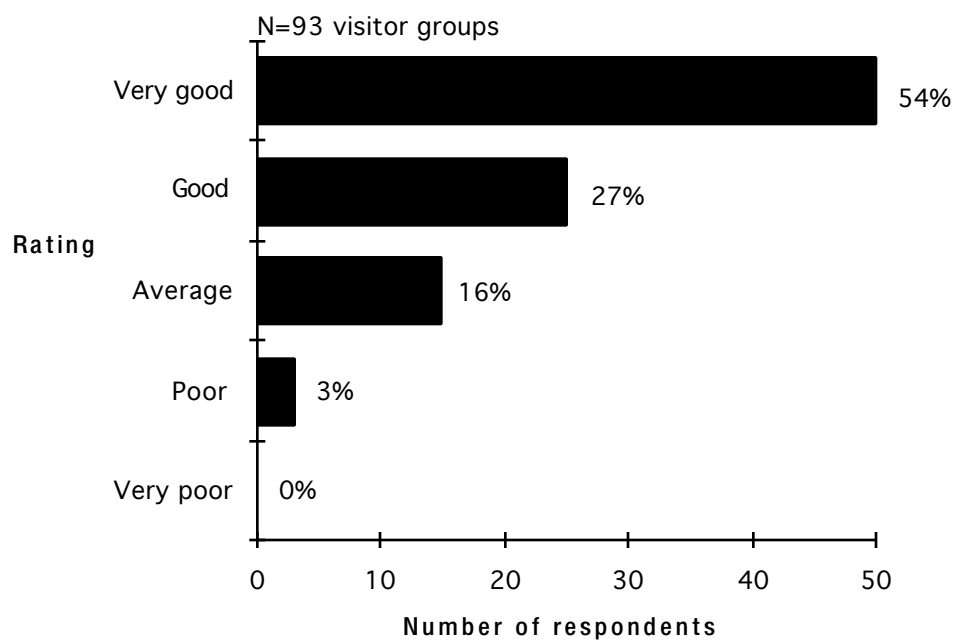
**Figure 73: Quality of restrooms****Figure 74: Quality of trails**



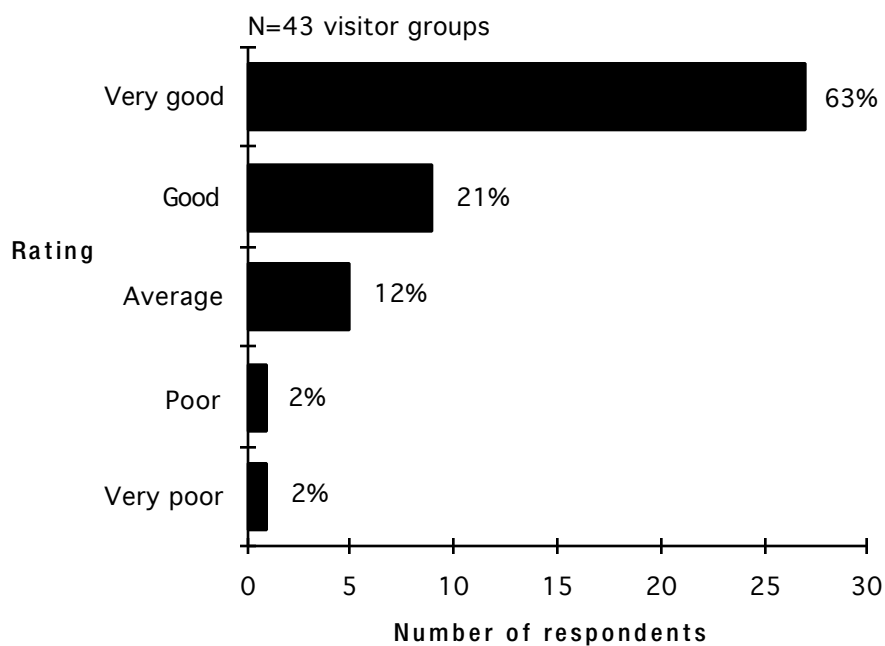
**Figure 75: Quality of backcountry trail shelters**



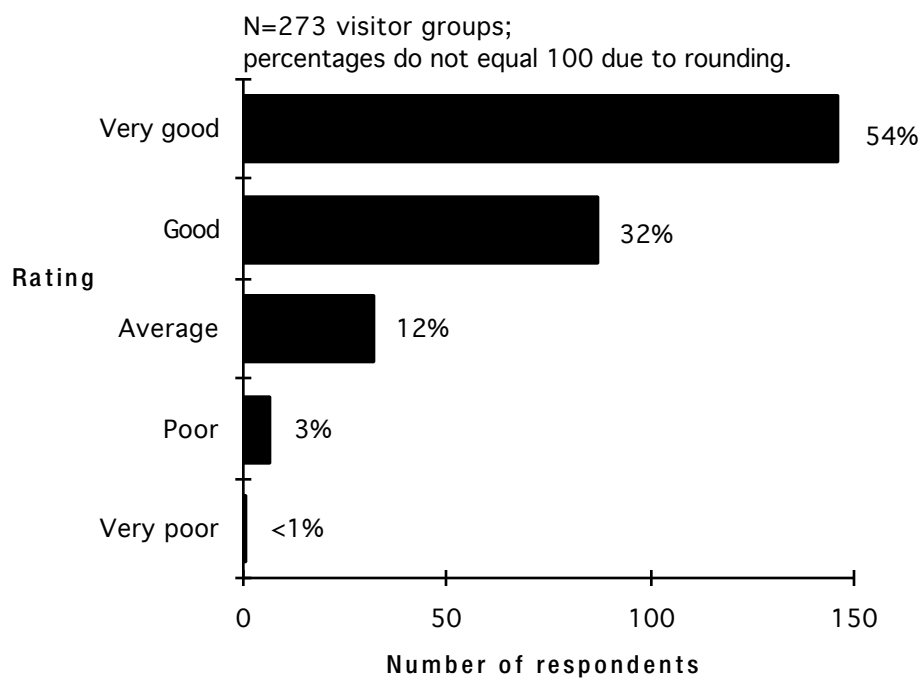
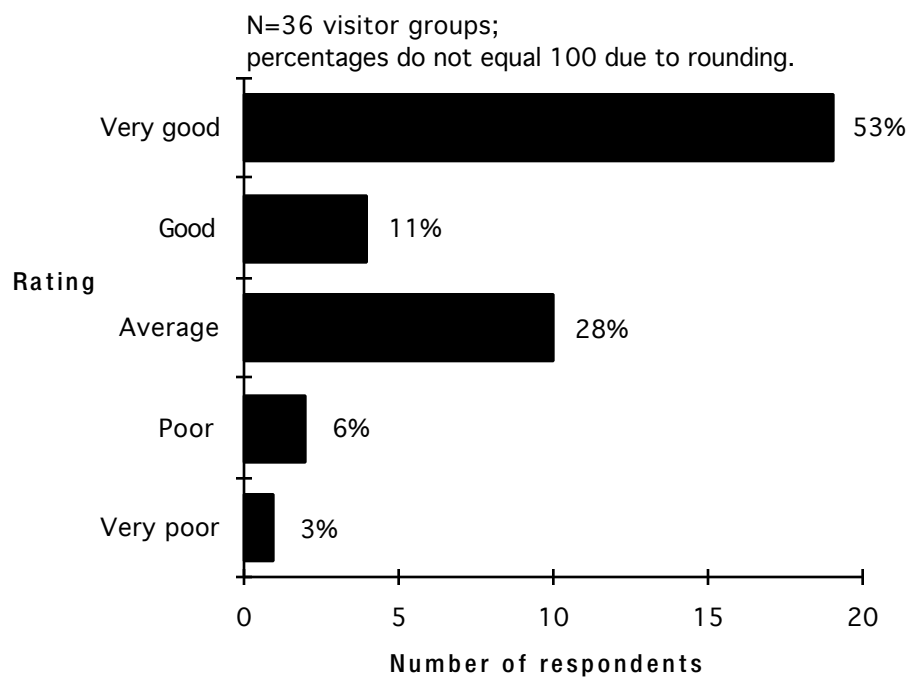
**Figure 76: Quality of backcountry campsites**

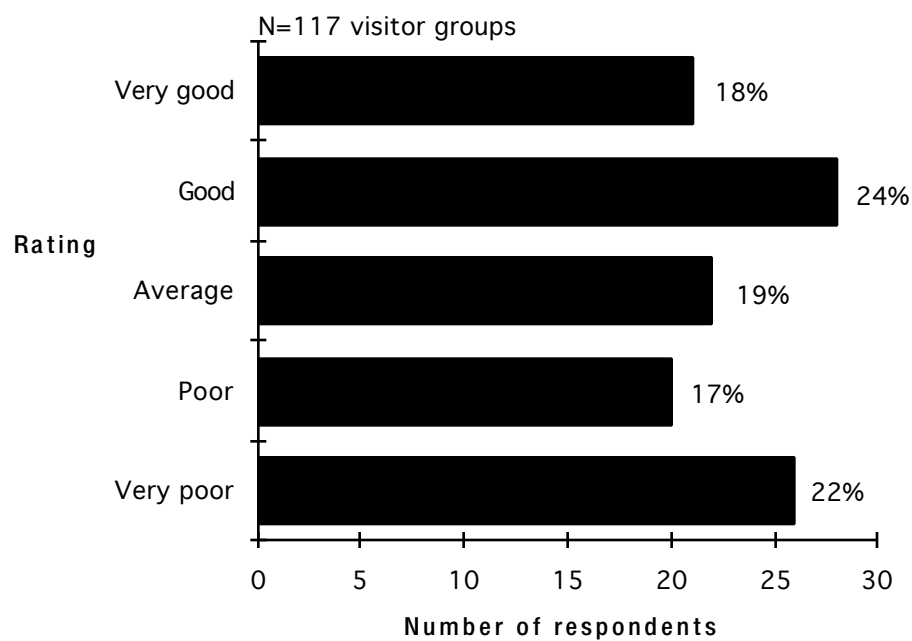
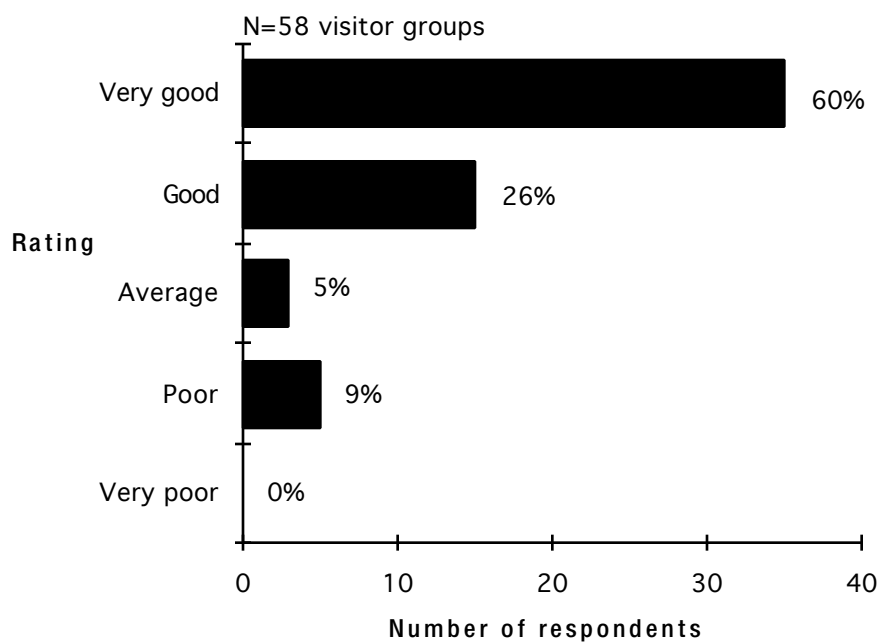


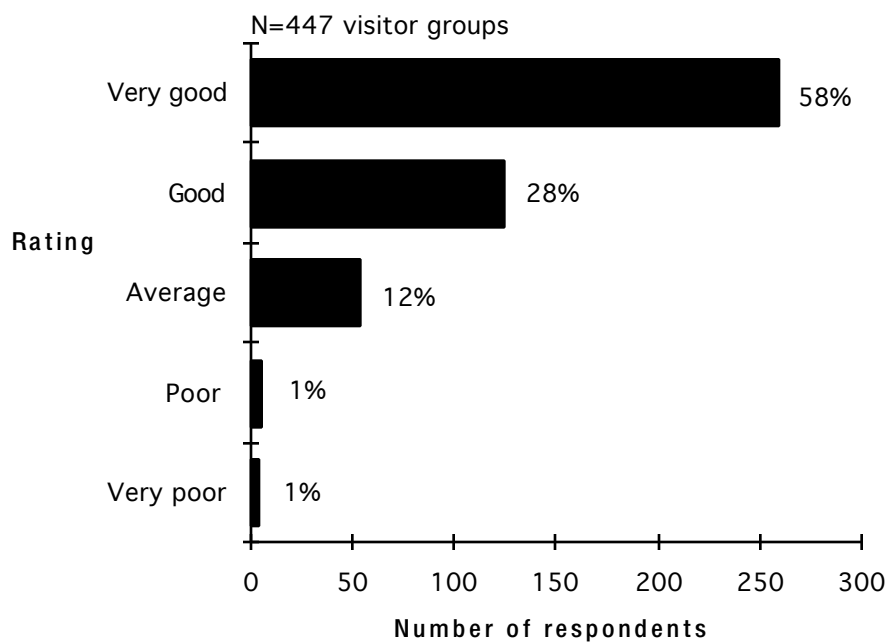
**Figure 77: Quality of campgrounds  
(other than backcountry)**



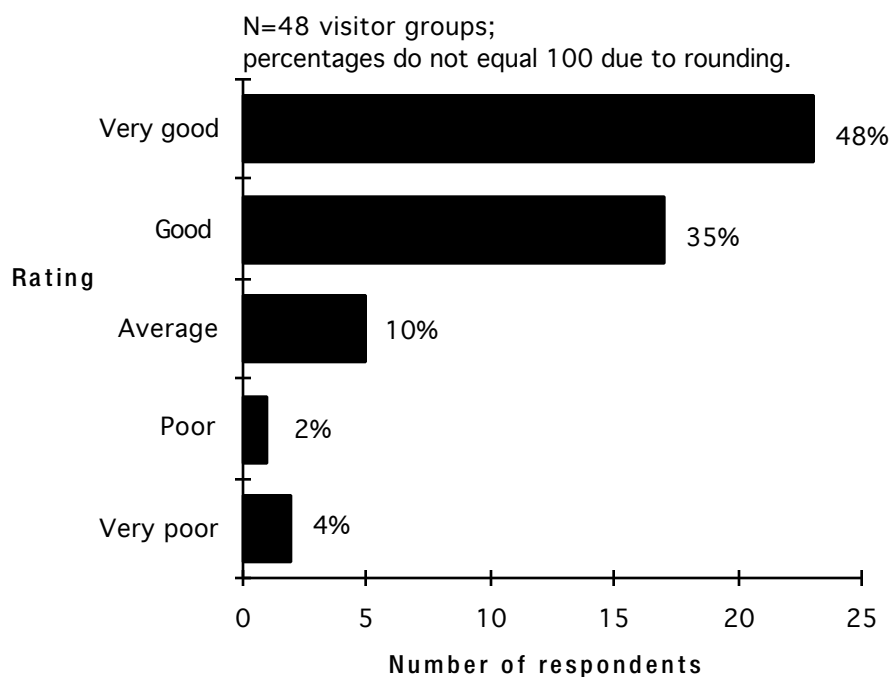
**Figure 78: Quality of campground reservations**

**Figure 79: Quality of picnic areas****Figure 80: Quality of bicycling opportunities**

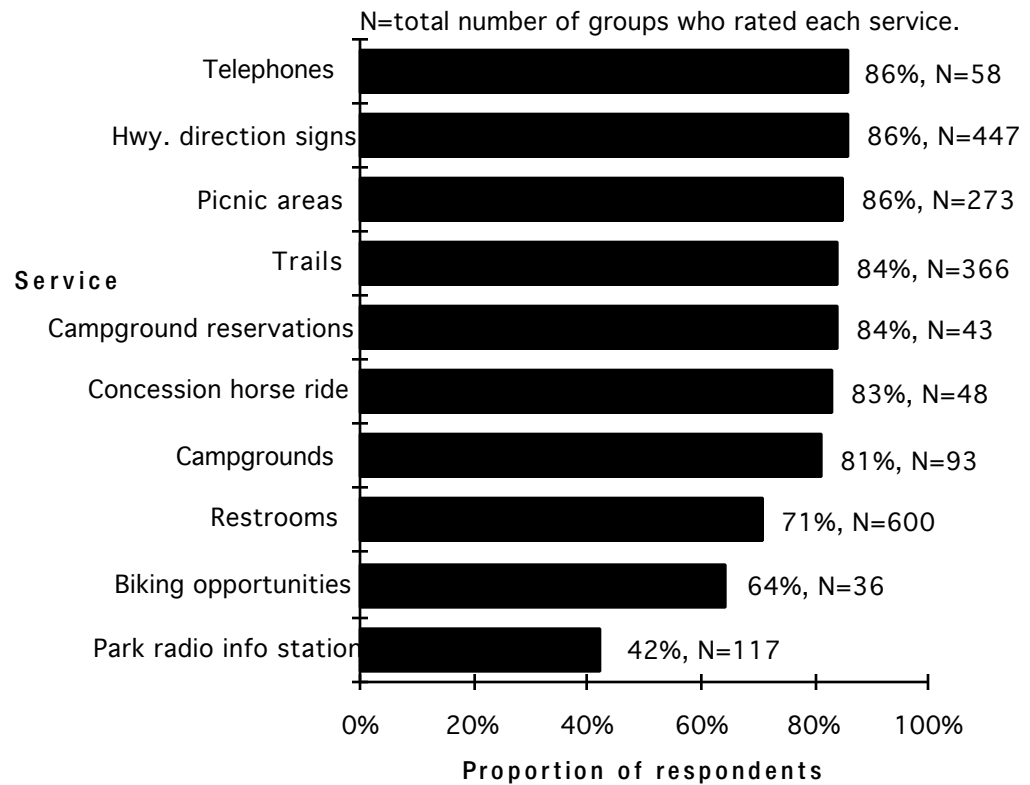
**Figure 81: Quality of park information radio station****Figure 82: Quality of telephones**



**Figure 83: Quality of highway directional signs**



**Figure 84: Quality of concession horseback ride**



**Figure 85: Combined proportions of "very good" and "good" quality ratings for visitor services used by visitors**

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## Expenditures

Visitors were asked to list their expenditures in the park and in the area (within 50 miles of the park including Knoxville, Asheville and other towns) during their trip. They were asked how much money they spent for lodging (motel, camping, etc.), travel (gas, bus fare, etc.), food (restaurant, groceries, etc.), and "other" items (film, gifts, etc.).

During data analysis, it became apparent that some visitors were confused by the expenditure categories provided in the questionnaire. Because of this confusion, each graph in this section shows the combined in-park and out-of-park expenditures for visitors to Great Smoky Mountains National Park.

**Total expenditures:** Over one-third of the summer visitor groups (35%) spent up to \$300 in total expenditures during this trip (see Figure 86). Fifteen percent of the groups spent a total of \$1,001 or more during their visit. The average visitor group expenditure during this visit was \$564. The median visitor group expenditure (50% of groups spent more; 50% spent less) was \$440.

Lodging accounted for the greatest proportion of total expenditures (41%), as shown in Figure 87.

**Lodging:** Of visitors reporting total expenditures for lodging, 62% spent up to \$300 (see Figure 88).

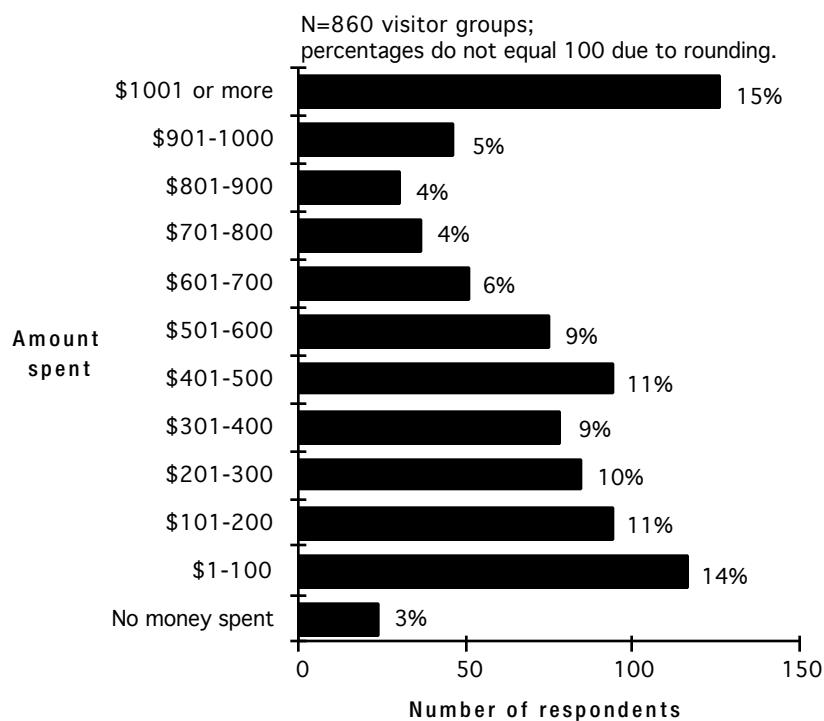
**Travel:** For travel, 66% of summer visitor groups spent up to \$50 (see Figure 89).

**Food:** For food, 32% groups spent \$151 or more (see Figure 90).

**"Other" items:** Thirty-eight percent of the summer groups spent \$151 or more for "other" items (see Figure 91).

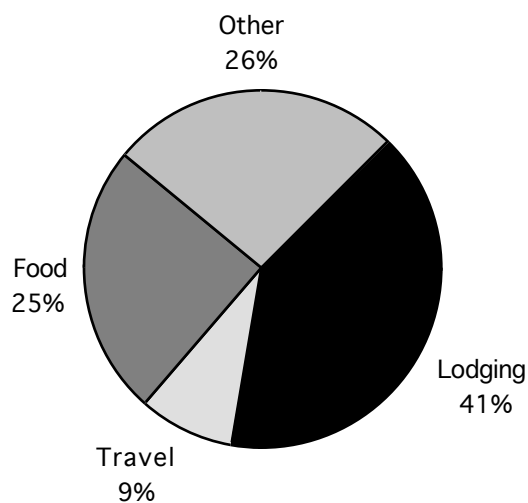
**Total per capita expenditures:** The average per capita expenditure was \$168.

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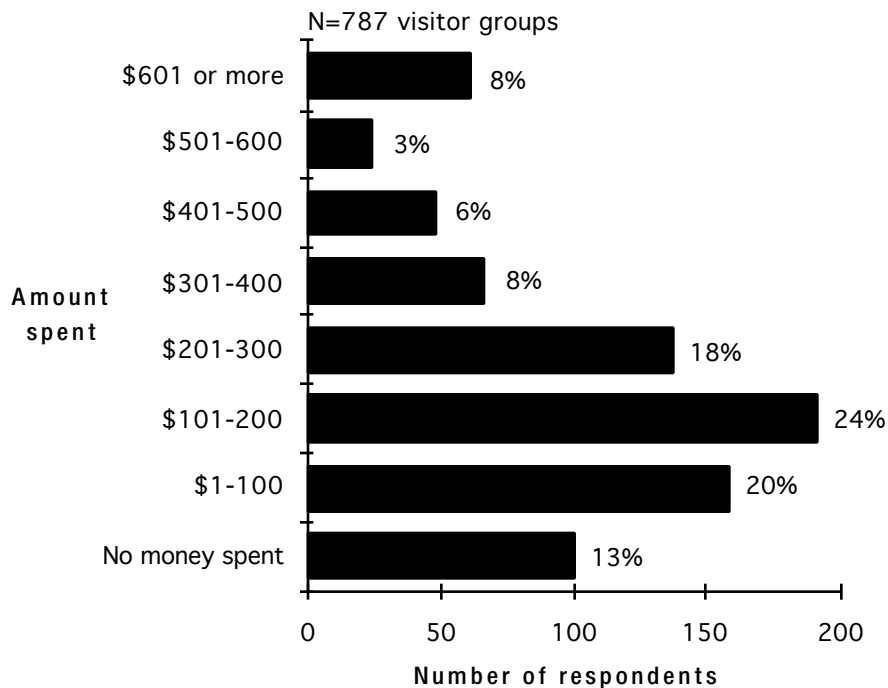


**Figure 86: Total expenditures in and outside the park**

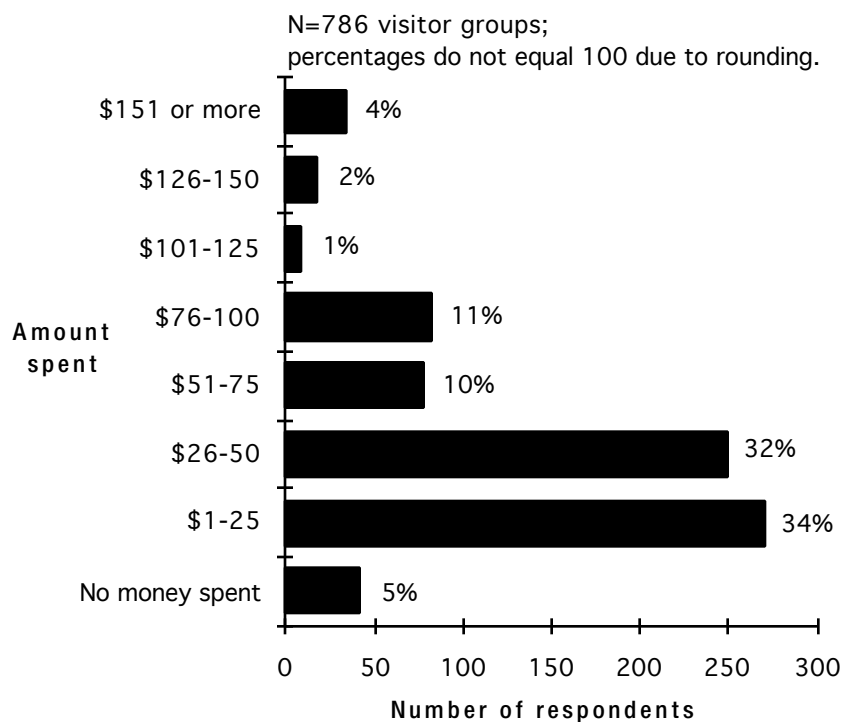
N=860 visitor groups;  
percentages do not equal 100 due to rounding.



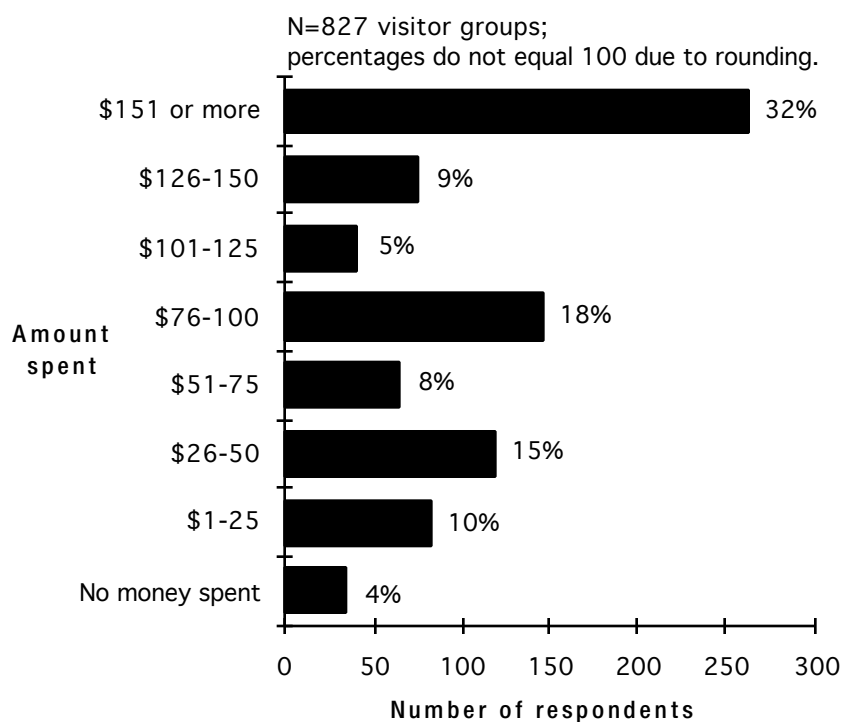
**Figure 87: Proportions of expenditures in and outside the park**



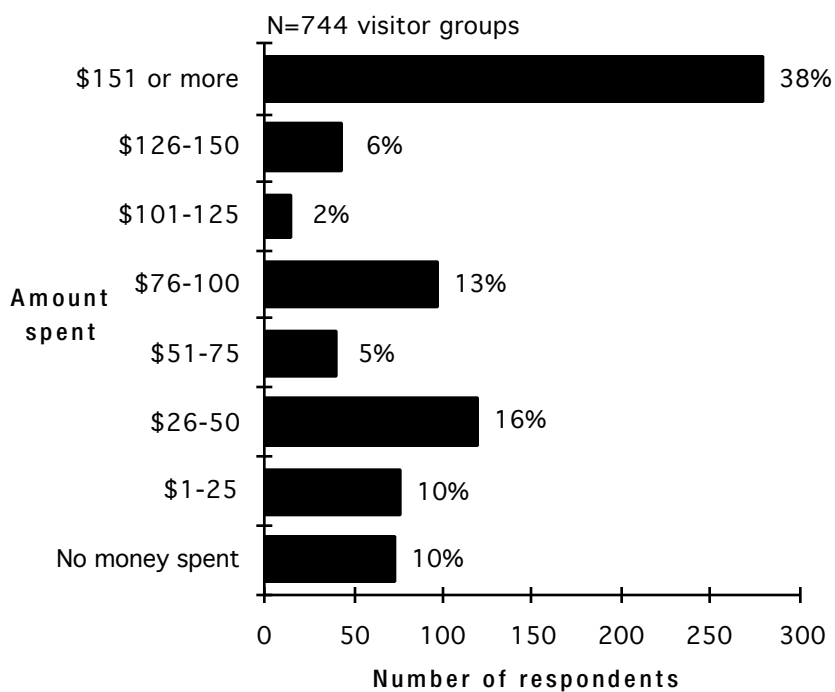
**Figure 88: Expenditures for lodging in and outside the park**



**Figure 89: Expenditures for travel in and outside the park**



**Figure 90: Expenditures for food in and outside the park**



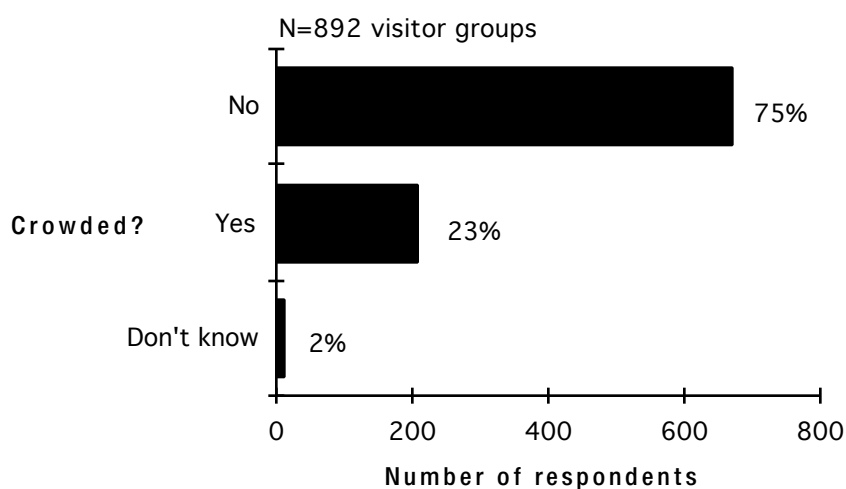
**Figure 91: Expenditures for "other" items in and outside the park**

Visitors were asked if they felt crowded during this trip to Great Smoky Mountains National Park. Three-fourths of the visitor groups (75%) said they did not feel crowded during this trip (see Figure 92). Twenty-three percent of the groups felt crowded.

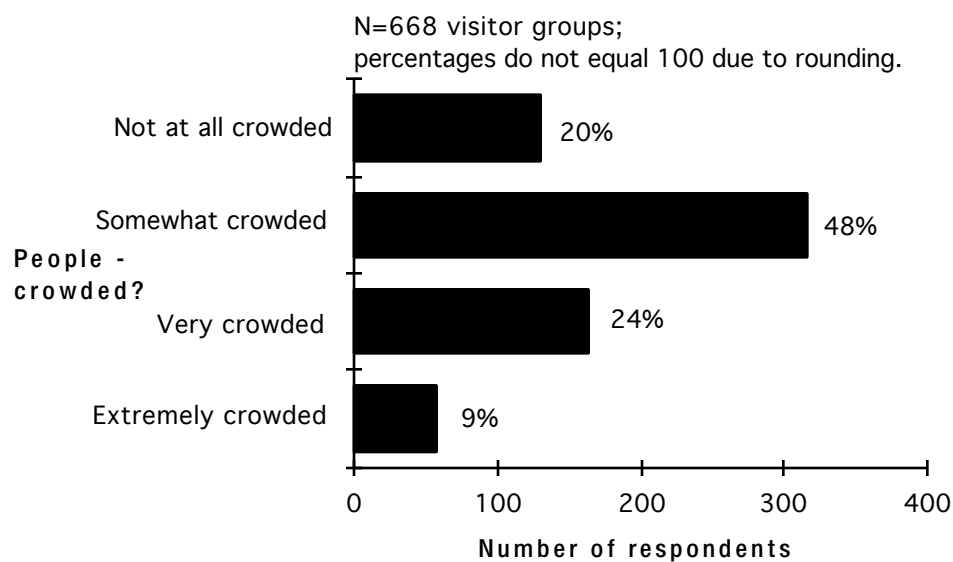
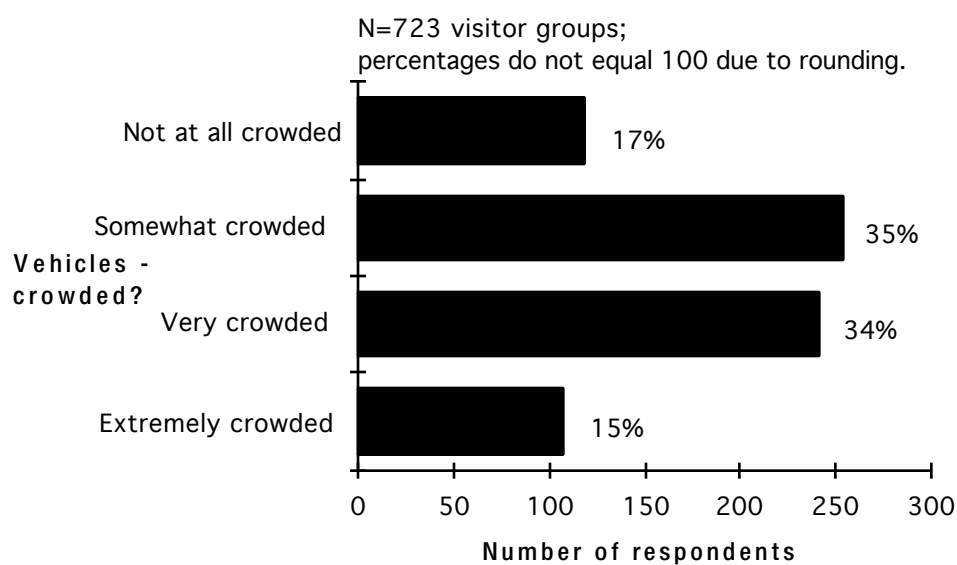
## Perceptions of crowding

In Figure 93, visitors rated whether they felt crowded in the number of people in the park. Twenty percent said they did not feel crowded in the number of people present. Almost half of the visitor groups (48%) said they felt "somewhat crowded" by people in the park. Almost one-fourth of the visitors (24%) said they felt "very crowded" by people in the park.

Visitors also rated whether they felt crowded by the number of vehicles in the park. Just over one-third (35%) felt "somewhat crowded" in the number of vehicles in the park (see Figure 94). Thirty-four percent of the visitors felt "very crowded." Fifteen percent of the visitors felt "extremely crowded" and 17% felt "not at all crowded" in the number of vehicles present.

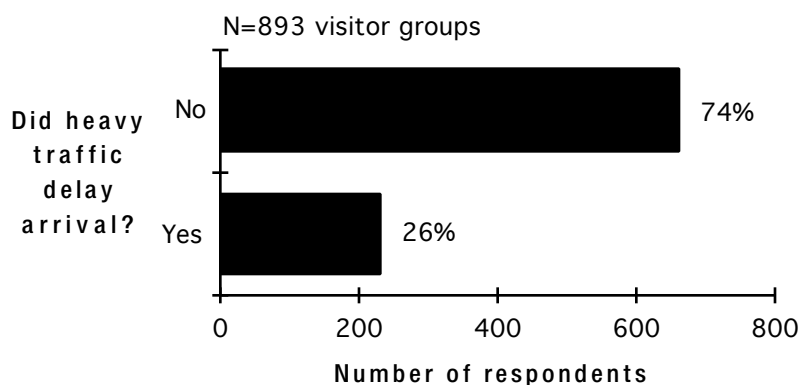


**Figure 92: Perceptions of crowding**

**Figure 93: Perceptions of crowding - people****Figure 94: Perceptions of crowding - vehicles**

Visitors were asked, "During this trip, did heavy traffic within 30 miles of the park significantly delay your arrival at Great Smoky Mountains National Park. Many visitors (74%) did not experience heavy traffic which delayed their arrival, but 26% of visitors did experience delays (see Figure 95). The 232 visitor groups who answered "yes" were asked where the traffic congestion was worst. Their responses are listed in Table 5, with Gatlinburg and Pigeon Forge heading the list.

### Traffic congestion encountered



**Figure 95: Experience traffic congestion in reaching the park**

**Table 5: Places where visitors experienced traffic delays**

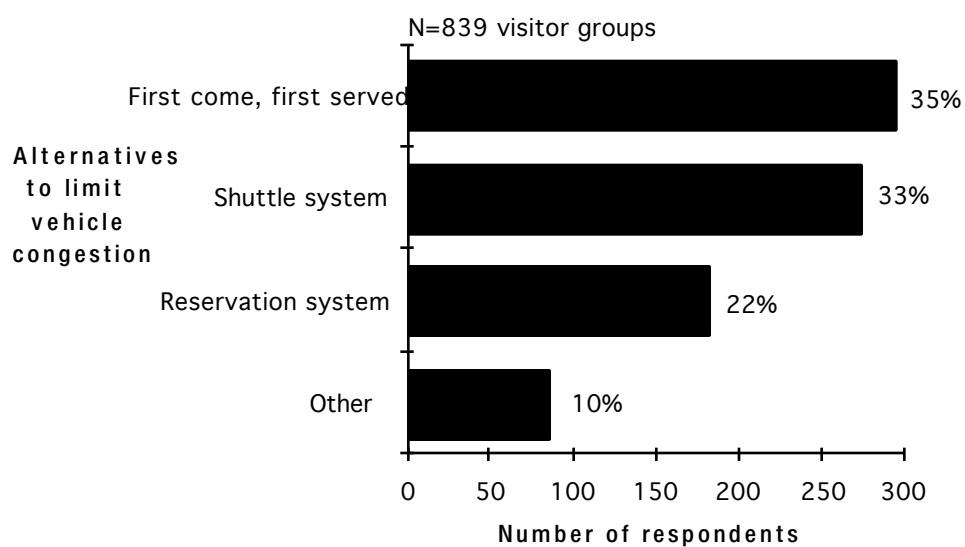
N=280 responses

Place	Number of times mentioned
Gatlinburg	95
Pigeon Forge	83
Cherokee	27
Interstate 40	12
Cades Cove	9
North of and through Sevierville	8
Highway 441	7
Between Pigeon Forge and Gatlinburg	6
Townsend	4
Between Sevierville and Pigeon Forge	3
Park entrance	2
Newfound Gap or Clingmans Dome	2
Blue Ridge Parkway	2
Knoxville area	2
Interstate 40 to Gatlinburg	2
Throughout park	2
On way to Sugarlands Visitor Center	2
Other places	12

**Preferred ways to limit vehicle congestion**

Visitors were asked, "If vehicle congestion at Great Smoky Mountains National Park reaches a point when the number of passenger vehicles must be limited, which of the following alternatives for entering the park would you find most acceptable?" Some groups (35%) preferred first come, first served until a daily limit is reached, while others (33%) preferred a shuttle system (see Figure 96). Twenty-two percent favored a reservation system.

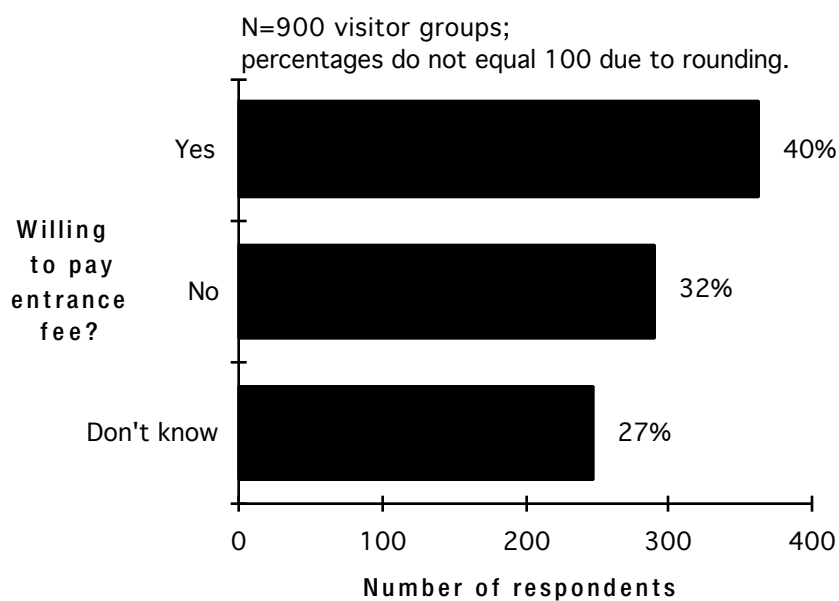
"Other" suggestions included charging an entrance fee, leaving the current system, building additional roads, bicycling, hiking, combining reservations and first come, first served methods, a combination of the listed methods, and continuing to use own vehicle.



**Figure 96: Preferred ways to limit vehicle congestion**

Visitors were asked "If it would increase funds to operate Great Smoky Mountains National Park, would you be willing to pay an entrance fee (\$5 to \$10/vehicle) on a future visit?" Forty percent of the visitor groups said they would be willing to pay an entrance fee; 32% said they would not be willing to pay an entrance fee (see Figure 97). Twenty-seven percent said they were not sure.

**Willingness  
to pay  
entrance fee**



**Figure 97: Willingness to pay entrance fee**

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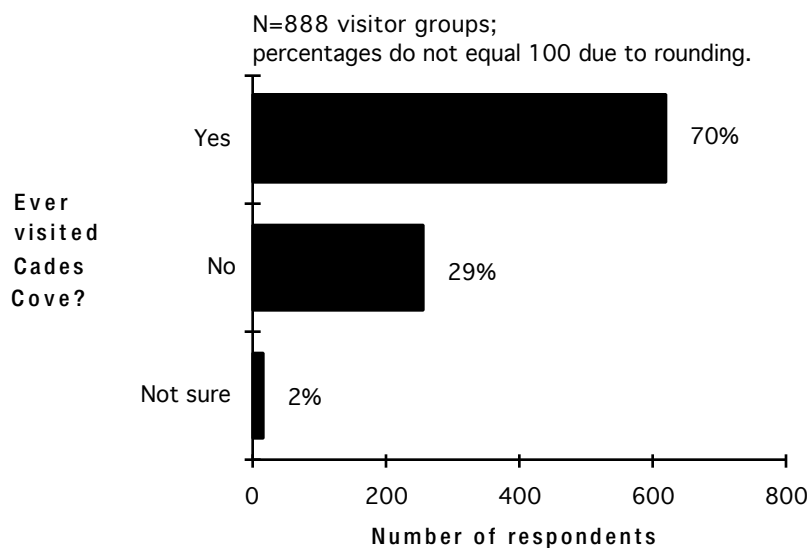
**Willingness  
to use future  
Cades Cove  
shuttle**

Many visitors (70%) said they had visited Cades Cove on this trip or in the past (see Figure 98).

When asked about their willingness to park outside the park and ride a shuttle to Cades Cove, 46% of the visitors said they would likely be willing to do that (see Figure 99). Thirty-nine percent said they would be unlikely to ride a shuttle to Cades Cove and 14% were not sure.

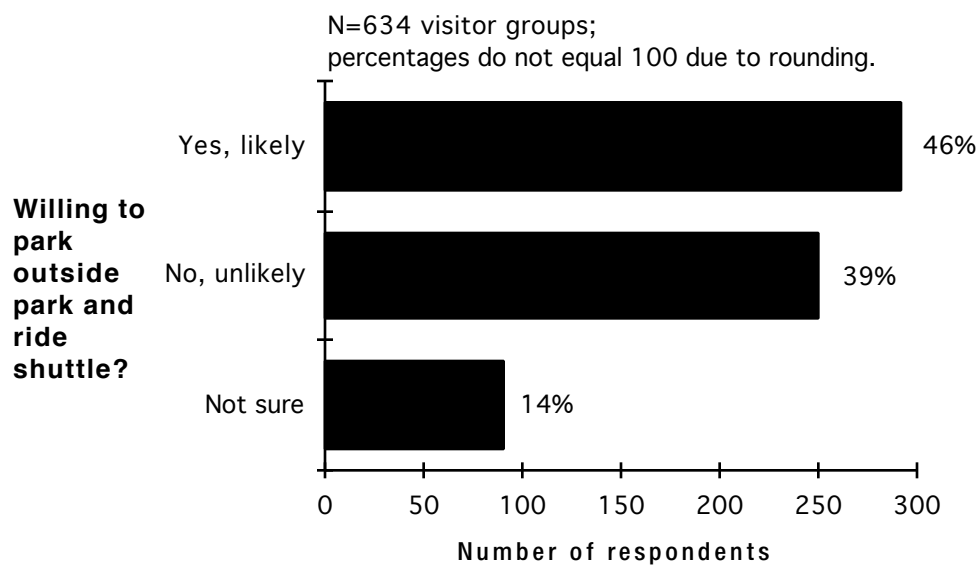
Of those visitors who would be willing to ride a shuttle to Cades Cove, 60% said they would be willing to pay a fee to ride the shuttle (see Figure 100). Twenty-eight percent said it was unlikely that they would be willing to pay to ride a shuttle and 13% were not sure.

Of those visitor groups willing to pay a fee to ride the shuttle, 51% said they would be willing to pay less than \$2 (see Figure 101). Almost half (47%) said they would be willing to pay \$2 to \$3. Two percent of the groups would pay \$4 to \$5 to ride the shuttle.

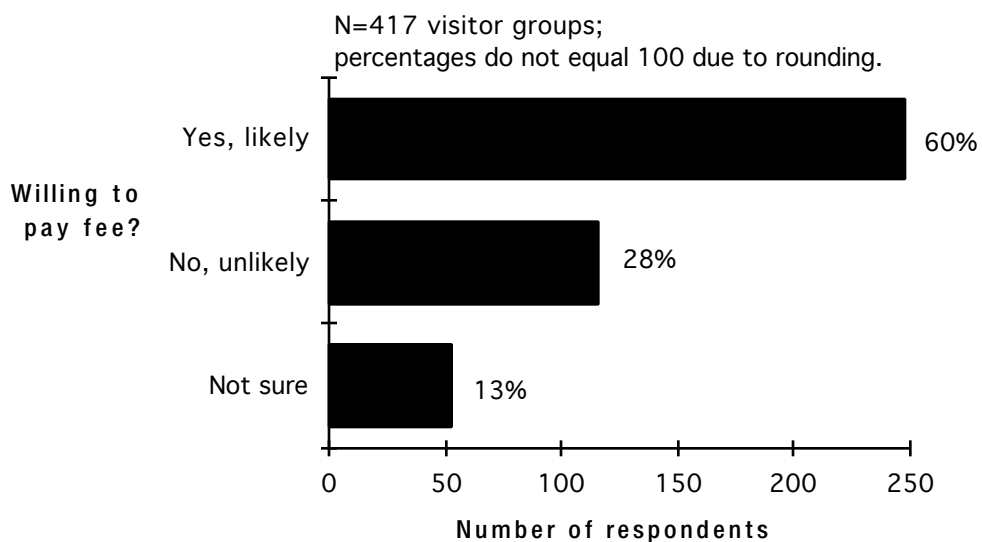


**Figure 98: Visits to Cades Cove**

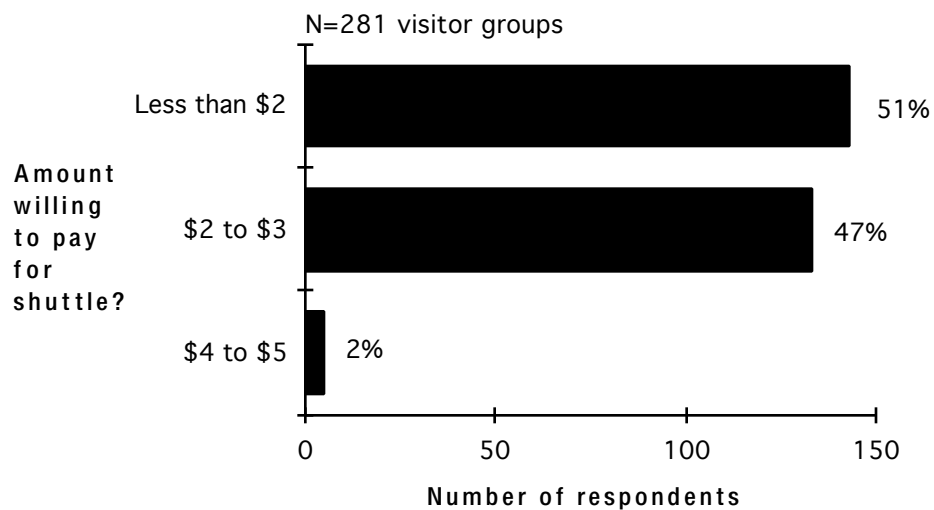
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**Figure 99: Willingness to park outside park and ride shuttle**



**Figure 100: Willingness to pay fee to ride shuttle**

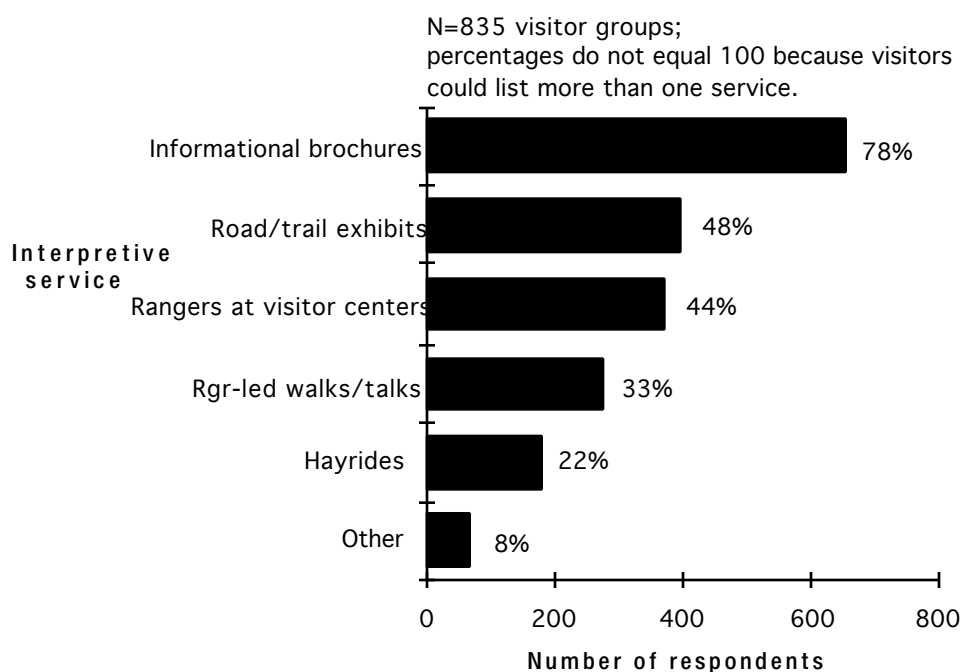


**Figure 101: Acceptable fee amount for shuttle**

Visitors were asked what types of interpretive services they would most like to have available on a future visit. Over three-fourths of the visitors (78%) said informational brochures were the interpretive service they most preferred (see Figure 102). The next most listed services were road or trailside exhibits (48%) and rangers at visitor centers (44%). Ranger-led walks were preferred by 33% of visitors.

### **Future interpretive services preferred**

"Other" services which visitors requested included audio tape tours, improved maps, ranger-led walks/talks, trail maps, children's activities, fishing information, plant labels, and videos.



**Figure 102: Future interpretive services preferred**

**Future  
interpretive  
subjects  
preferred**

Visitors were asked what subjects they would most like to learn about on a future visit to Great Smoky Mountains National Park. The comments from the 918 visitor groups who responded are listed in Table 6.

**Table 6: Future interpretive subjects preferred**

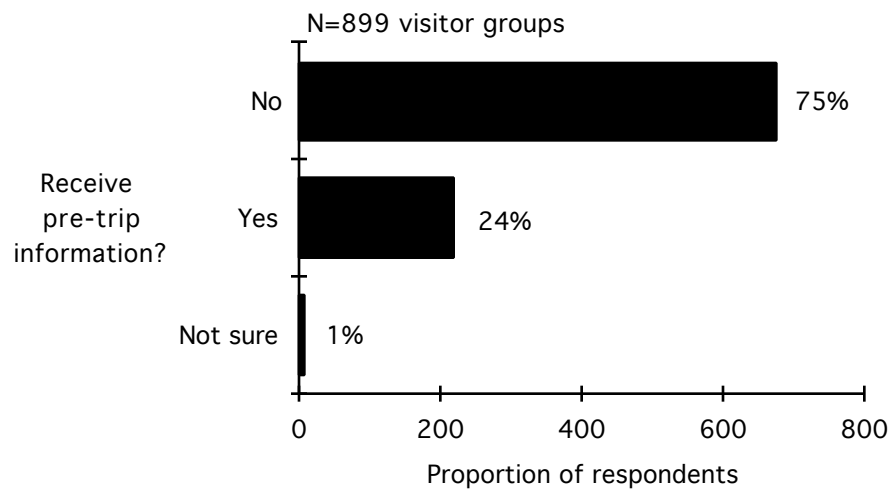
N=1,397 comments;  
many visitors made more than one comment.

Subject	Number of times mentioned
Wildlife/animals	358
History	346
Plants/wildflowers	233
Environmental issues	141
Ecology	117
History of park and area	28
Early settlers	24
Geology	19
American Indian history/culture	14
Bears and bear safety	11
Biological diversity/loss of native species/endangered species	9
Trail information/hiking/backpacking	9
Conservation and preservation	8
Pollution/human impacts	7
Rivers/water/waterfalls	5
Unique Smokies flora and fauna	4
Wolves	4
How people used land for food, etc.	3
Scenery	3
Medicinal plants	3
Future of park	3
Reason for dead or down trees	3
Folklore of area	2
Recycling	2
Leave no trace education	2
Caves	2
Arts and crafts	2
Safety information	2
Birds	2
Info on how people can help	2
Snake identification	2
Civil War history of area	2
Anything	2
Geography	2
Other comments	21

Visitors were asked "Prior to your visit, did you and your group receive any written information to help you plan your visit to Great Smoky Mountains National Park?"

### Receipt of pre-trip information

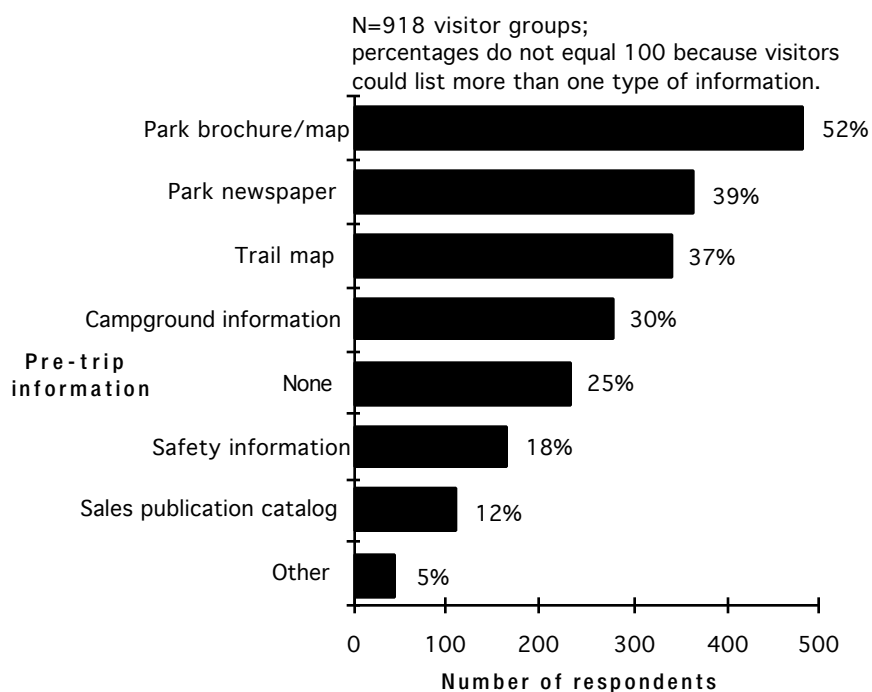
About three-fourths of the visitors (75%) said they did not receive written pre-trip information to help them plan their visit to the park (see Figure 103). About one-fourth of the visitors (24%) did receive pre-trip information.



**Figure 103: Receipt of pre-trip information**

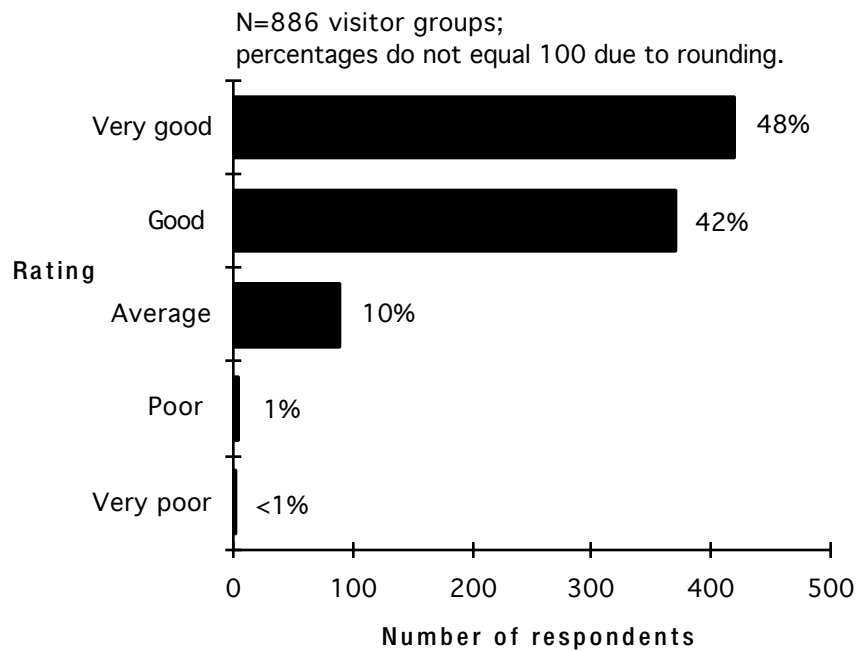
**Pre-trip  
information  
preferred in  
future**

Visitors were asked "Prior to a future visit, what pre-trip information would you and your group like to receive from the park?" Over half of the visitors (52%) said they would like to get the park brochure/map as pre-trip information (see Figure 104). Items requested by about a third of the visitors were the park newspaper (39%), trail map (37%) and campground information (30%). One-fourth of the visitors (25%) did not want to receive any pre-trip information. "Other" items visitors said they would like to receive included information on events/activities, lodging, facility closures, scenic areas, and trail maps.

**Figure 104: Pre-trip information desired**

Visitors were asked to rate the overall quality of the visitor services provided at Great Smoky Mountains during this visit. Most visitors (90%) rated the services as "good" or "very good," (see Figure 105). Less than one percent of the visitors said the overall quality of services was "very poor."

### Overall rating of service quality



**Figure 105: Overall quality rating of services**

## Planning for the future

Visitors were asked "If you were planning for the future of Great Smoky Mountains National Park, what would you propose? Please be specific." The summary of the comments from the 532 groups who responded is listed below (see Table 7) and in the appendix.

**Table 7: Planning for the future**

N=735 comments;  
many visitors made more than one comment.

Comment	Number of times mentioned
<b>PERSONNEL</b>	
Have more rangers/staff available	22
Use volunteers to teach/clean park	7
Hire pleasant people	2
Other comment	1
<b>INTERPRETIVE SERVICES</b>	
Provide more activities/interpretive services	36
Educate the public on proper behavior in park	26
Provide more information sights/activities	7
Improve maps	6
Need comprehensive summary of hikes	5
Promote activities to get visitors out of cars	5
Increase advertising	5
Provide alternative transport at Cades Cove	4
Continue ranger-led programs	3
Other comments	2
<b>FACILITIES AND MAINTENANCE</b>	
Widen roads/improve signs	38
Provide more restrooms	30
Monitor littering/enforce penalties	25
Provide more parking	17
Provide more showers	15
Provide more campsites	11
Provide more picnic areas	10
Improve buildings/restrooms maintenance	9
Vegetation blocking views	9
Provide separate trails for mt. bikes	8
Provide additional services such as electric hookups	6
Add bicycle lane on roads	6
Provide trails for disabled/children	5
Provide emergency phones/first aid	5
Provide more turnouts for slow vehicles	4
Provide better park access	4
Provide separate trails for dogs	3
Provide recycling bins	3
Provide separate trails for hikers	2
Provide separate trails for horses	2
Provide phone number for road information	2

Mark trails better	2
Provide more swimming areas	2
Provide more hiking trails	2
Other comments	4

**POLICIES**

Limit vehicular access to busy areas	50
Favor entrance fees	46
Favor shuttle service	45
Increase park funding	16
Oppose fees	16
Develop donation/trust fund	10
Provide park bypass	8
Implement reservation system	8
Re-open Parson's Branch Road	7
Sell annual (multiple entrance) passes	6
Restrict horses on trails	3
Restrict inner tubing/swimming	3
Other comments	12

**RESOURCE MANAGEMENT**

Maintain/preserve as it is	53
Limit development/commercialization	16
Improve air quality	8
Protect trees from insect infestation	2
Other comments	2

**CONCESSIONS**

Provide more concessions/services	11
Park services too expensive	10
Add restaurant services	7
Provide more mountain cabins in park	2
Other comment	1

**GENERAL IMPRESSIONS**

Reduce heavy traffic/congestion	17
Develop/improve park friends group	6
Too many vehicles block roads/ reduce wildlife observation	5
Shuttle system restricts freedom of choice	4
Would like to see more wildlife	3
Prefer driving	2

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**Comment  
summary**

Many visitor groups (516) wrote additional comments, which are summarized below (see Table 8) and included in the separate appendix of this report. Some comments offer specific suggestions on how to improve the park; others describe what visitors enjoyed or did not enjoy about their visit.

**Table 8: Visitor comment summary**

N=882 comments;  
many visitors made more than one comment.

Comment	Number of times mentioned
<b>PERSONNEL</b>	
Staff helpful	9
Need more rangers	9
Ranger unhelpful/rude	4
Other comments	2
<b>INTERPRETIVE SERVICES</b>	
Would like more information on park/history	12
Enjoyed activities available	8
Educational	7
Offer more ranger-led activities	4
Offer more activities	2
Other comments	2
<b>FACILITIES AND MAINTENANCE</b>	
Clean, well maintained	36
Improve road and trail signs	10
Park roads well maintained	4
Add emergency phones	4
Trees/shrubs block views	4
Restrooms need to be cleaner	4
Improve accessibility to remote areas	4
River banks littered	3
Park radio station does not work	3
Add showers	3
Adequate number of pullouts	3
Campsites littered	2
Add water fountains	2
Other comments	5
<b>POLICIES</b>	
If fees implemented, sell passes	17
Oppose use restrictions (shuttle/reservations)	11
Oppose implementing fees	10
Increase funding	9
Fees will make visitors go elsewhere	7
Upset by road/trail/campground closures	6

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Keep park open year round	6
Enforce speed limits	5
Improve litter enforcement	5
People drive too slowly	2
Other comments	4

**RESOURCE MANAGEMENT**

Preserve for the future	36
Maintain as is	10
Limit development/commercialism	10
Saw wildlife	10
Park crowded	9
Too commercial	5
Wanted to see more wildlife	5
Saw no wildlife	4
Develop mass transit	3
Use shuttle system during peak times	3
Concerned about exhaust pollution	3

**CONCESSIONS**

Add more park lodging	4
Need more concession stands	3

**GENERAL IMPRESSIONS**

Enjoyed park	184
Appreciate natural beauty	104
Visit often	66
Will return	65
Wonderful place to visit	42
Great job	31
Good place to bring family/friends	17
Enjoyed peace/quiet	15
Wanted to stay longer	6
Prefer driving	5
Survey too long	3
Prefer Tennessee side to North Carolina side	3
Disappointed in park	3
Plant wildflowers	2
Survey is waste of money	2
Other comments	1

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## Great Smoky Mountains National Park Additional Analysis

The Visitor Services Project (VSP) staff offer the opportunity to learn more from VSP visitor study data.

### Additional Analysis:

Additional analysis can be done using the park's VSP visitor study data that was collected and entered into the computer. Two-way and three-way cross tabulations can be made of any of the characteristics listed below. Be as specific as possible--you may select a single program/service/ facility instead of all that were listed in the questionnaire. Include your name, address and phone number in the request.

- |                               |                                  |                                      |
|-------------------------------|----------------------------------|--------------------------------------|
| • Receive written information | • Country of residence           | • Other expenditures                 |
| • Reason for visit            | • Importance of feature/quality  | • Willingness to pay entrance fee    |
| • Primary destination         | • First park entry               | • Crowded?                           |
| • Attend Olympic Games        | • Last park exit                 | • Number of people crowded?          |
| • Number of park entries      | • Place visited                  | • Number of vehicles crowded?        |
| • Length of stay in area      | • Information service use        | • Ever visit Cades Cove?             |
| * Length of stay in park      | • Information service importance | • Ride shuttle to Cades Cove?        |
| • Activity                    | • Information service quality    | • Pay to ride Cades Cove shuttle?    |
| • Group size                  | • Service/facility use           | • Amount willing to pay for shuttle? |
| • Number of vehicles          | • Service/facility importance    | • Encounter heavy traffic?           |
| • Guided tour group           | • Service/facility quality       | • Preference to limit visitor use    |
| • School group                | • Total expenditures             | • Future interpretive services       |
| • Group type                  | • Lodging expenditures           | • Pre-trip information preferred     |
| • Age                         | • Travel expenditures            | • Overall service quality rating     |
| • Zip code                    | • Food expenditures              |                                      |

### Database

A database, which became operational in April 1996, contains all the VSP visitor studies results from 1988 through the present. To use the database it is necessary to have a database catalog, which lists the information contained in the database. Queries to the database will be accepted by phone, mail, cc:Mail, e:mail or fax and the same forms of media can be used to return the answer to you. Through the database, you can learn how the results of this VSP visitor study compare with those across the nation, or within a specific region, with other natural areas, or sorted in many other ways.

Phone/send requests to:

**Visitor Services Project, CPSU**  
**College of Forestry, Wildlife and Range**  
**Sciences**  
**University of Idaho**  
**Moscow, Idaho 83844-1133**

**Phone: 208-885-2819**  
**FAX: 208-885-4261**  
**cc:Mail: VSP Database**  
**e:mail: vspdatabase@uidaho.edu**

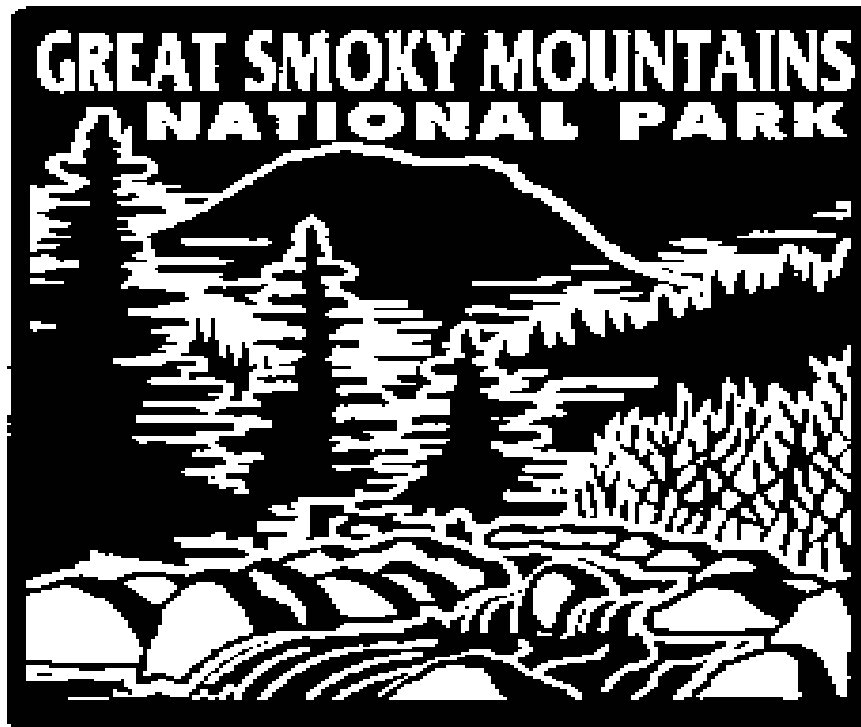
## QUESTIONNAIRE

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# Great Smoky Mountains National Park Visitor Study

Summer 1996

## Appendix



Visitor Services Project Report 88  
Cooperative Park Studies Unit



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# Great Smoky Mountains National Park Visitor Study

## Appendix

Margaret Littlejohn

**Report 88**

April 1997

This volume contains summaries of visitors' comments for Questions 27 and 28. The summaries are followed by visitors' unedited comments.

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Margaret Littlejohn is VSP Coordinator, National Park Service, based at the Cooperative Park Studies Unit, University of Idaho. I thank Chris Wall, Kristin FitzGerald, Tanya Tarar and the staff and volunteers of Great Smoky Mountains National Park for their assistance with this study. The VSP acknowledges the Public Opinion Lab of the Social and Economic Sciences Research Center, Washington State University, for its technical assistance.

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## Planning for the future

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many visitors made more than one comment.

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Have more rangers/staff available	22
Use volunteers to teach/clean park	7
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Other comment	1
<b>INTERPRETIVE SERVICES</b>	
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Improve maps	6
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Promote activities to get visitors out of cars	5
Increase advertising	5
Provide alternative transport at Cades Cove	4
Continue ranger-led programs	3
Other comments	2
<b>FACILITIES AND MAINTENANCE</b>	
Widen roads/improve signs	38
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Monitor littering/enforce penalties	25
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Provide more showers	15
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Provide more picnic areas	10
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Provide separate trails for dogs	3
Provide recycling bins	3
Provide separate trails for hikers	2
Provide separate trails for horses	2
Provide phone number for road information	2
Mark trails better	2
Provide more swimming areas	2
Provide more hiking trails	2
Other comments	4

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**RESOURCE MANAGEMENT**

Maintain/preserve as it is	53
Limit development/commercialization	16
Improve air quality	8
Protect trees from insect infestation	2
Other comments	2

**CONCESSIONS**

Provide more concessions/services	11
Park services too expensive	10
Add restaurant services	7
Provide more mountain cabins in park	2
Other comment	1

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Reduce heavy traffic/congestion	17
Develop/improve park friends group	6
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Other comments	2
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Would like more information on park/history	12
Enjoyed activities available	8
Educational	7
Offer more ranger-led activities	4
Offer more activities	2
Other comments	2
<b>FACILITIES AND MAINTENANCE</b>	
Clean, well maintained	36
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Park radio station does not work	3
Add showers	3
Adequate number of pullouts	3
Campsites littered	2
Add water fountains	2
Other comments	5
<b>POLICIES</b>	
If fees implemented, sell passes	17
Oppose use restrictions (shuttle/reservations)	11
Oppose implementing fees	10
Increase funding	9
Fees will make visitors go elsewhere	7
Upset by road/trail/campground closures	6
Keep park open year round	6
Enforce speed limits	5
Improve litter enforcement	5
People drive too slowly	2
Other comments	4

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**RESOURCE MANAGEMENT**

Preserve for the future	36
Maintain as is	10
Limit development/commercialism	10
Saw wildlife	10
Park crowded	9
Too commercial	5
Wanted to see more wildlife	5
Saw no wildlife	4
Develop mass transit	3
Use shuttle system during peak times	3
Concerned about exhaust pollution	3

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Add more park lodging	4
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