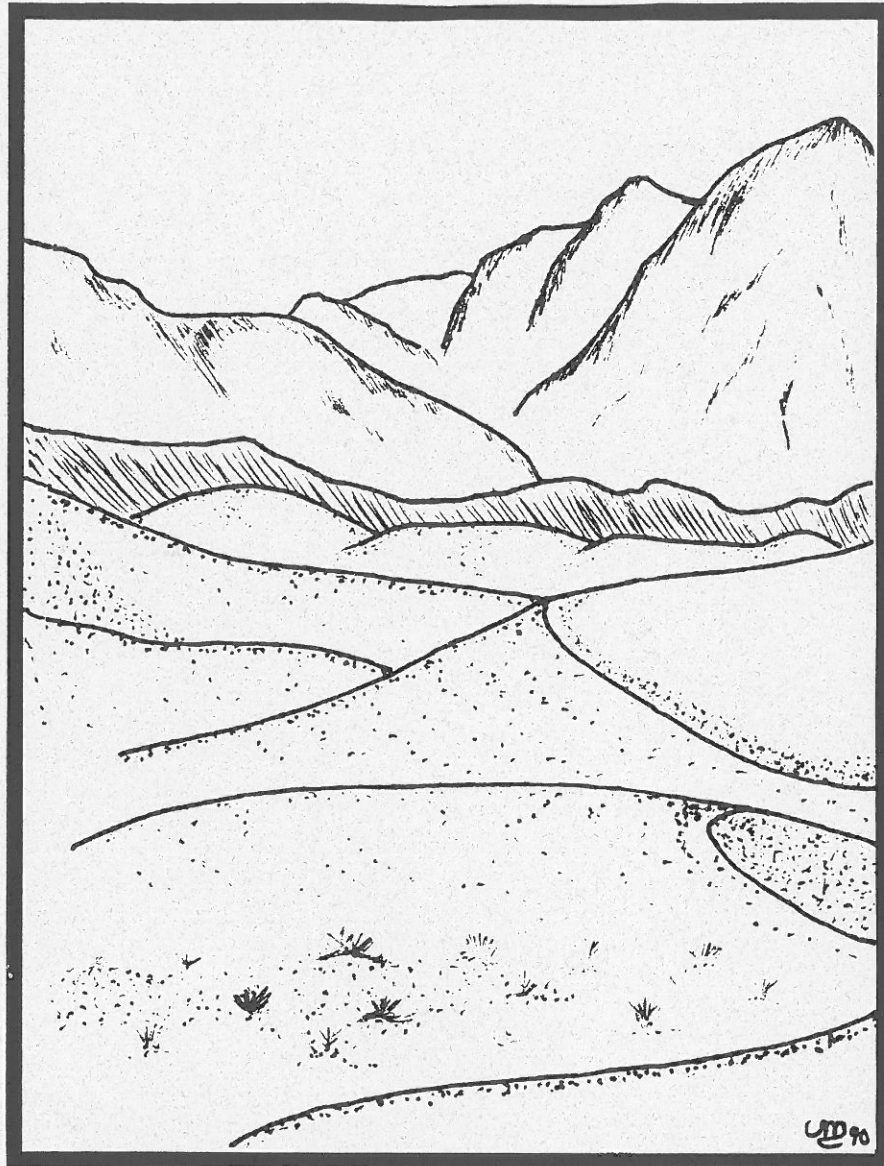


Visitor Services Project
**White Sands
National Monument**



Visitor Services Project Report 29
Cooperative Park Studies Unit



Visitor Services Project

White Sands

National Monument

Dwight L. Madison

Report 29

January 1991

Dwight Madison is the VSP Eastern Coordinator with the Cooperative Park Studies Unit, National Park Service, University of Idaho. I thank Margaret Littlejohn, VSP Western Coordinator, and the staff at White Sands National Monument 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.

Visitor Services Project
White Sands
National Monument
Report Summary

- This report describes the results of a study of visitors to White Sands National Monument during May 26 to June 1, 1990. Five hundred nineteen questionnaires were distributed and 431 returned, an 83% response rate.
- The report profiles White Sands visitors. A separate appendix has their comments about the park and their visits. A summary of these comments is included in both this report and the appendix.
- Fifty-nine percent of visitors were in family groups. Forty-five percent of visitors were 21 to 45 years old. Fifty-four percent of visitors were on their first visit to White Sands National Monument.
- Visitors from foreign countries comprised 8% of the visitation to White Sands National Monument. Fifty-seven percent of American visitors came from New Mexico and Texas.
- Seventy percent of visitors who were visiting for the day stayed four hours or less in the Alamogordo area, and 78% of visitors who were visiting for more than one day stayed 3 days or less. Playing in the sand (77%) and photography (72%) were the most common activities of visitors.
- Sixty-one percent of visitor groups visited the visitor center, 59% drove the Heart of Sands Loop Drive and 53% visited the picnic area.
- Forty-six percent of visitors obtained information about the park from friends and/or relatives, 44% from previous visits, and 37% from maps or guide books.
- Solitude/quiet (68%), plant life (66%), and the visitor center (64%) were rated extremely to very important to the visitors during their visit to White Sands National Monument.
- Seventy-six percent of the visitors reported that tourism was the primary purpose of their visit to the Alamogordo area.
- Forty-two percent of visitors visited the Sacramento Mountains (Cloudcroft/Ruidoso areas), 30% visited the International Space Hall of Fame, and 23% visited White Sands Missile Park.
- During their visit to the Alamogordo area, the average visitor group spent about \$124.00; the average per capita expenditure was about \$41.00. Seventy-three percent of visitors spent from \$1-100.00. Visitors spent the greater proportion of their money for food (30%) and lodging (27%).
- Visitors made many more general comments about their visit to the monument.

For more information about the Visitor Services Project, please contact Dr. Gary E. Machlis, Sociology Project Leader, University of Idaho Cooperative Park Studies Unit, College of Forestry, Wildlife and Range Sciences, Moscow, Idaho 83843 or call (208)885-7129.

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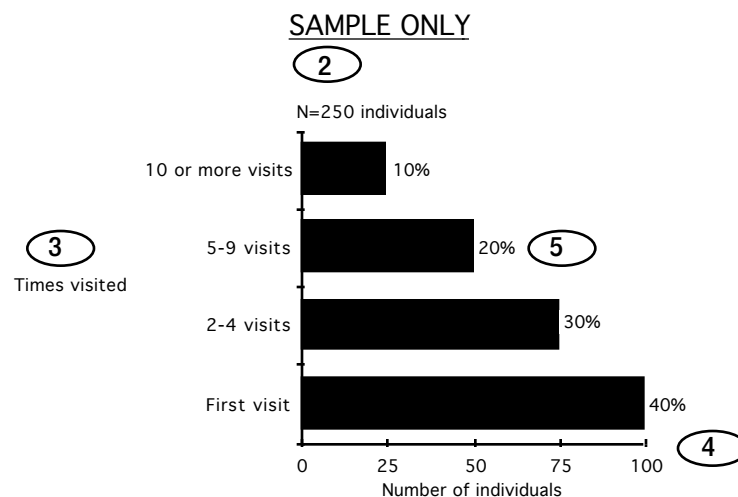
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INTRODUCTION

This report describes the results of a Visitor Services Project (VSP) study undertaken at White Sands National Monument (referred to as "White Sands"). The study was conducted the week of May 26 to June 1, 1990, by the Cooperative Park Studies Unit of the University of Idaho. A list of VSP publications is on the inside back cover of this report.

A Methods section discusses the procedures and limitations of the study. The Results section follows, including a summary of visitor comments. Next, a Menu for Further Analysis helps managers request additional analyses. The final section has a copy of the Questionnaire. A separate Appendix includes a comment summary and the 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 is a general description of the information contained in the graph.
- 2: A note above gives the 'N', or number of cases in the sample, and a specific description of the information in the chart. Use **CAUTION** when interpreting any data where the sample size is less than 30 as the results may be unreliable.
- 3: The vertical information describes categories.
- 4: The horizontal information shows the number of items that fall into each category. In some graphs, proportions are shown.
- 5: In most graphs, percentages are included to provide additional explanation.

METHODS

General strategy

Interviews were administered and questionnaires distributed to a sample of selected visitors entering White Sands during May 26 to June 1, 1990. Visitors completed the questionnaire during or after their trip and then returned it by mail.

Questionnaire design

The questionnaire design followed the standard format of previous Visitor Services Project studies. See the end of the report for a copy of the questionnaire.

Sampling

Visitors were contacted at the entrance station of the national monument. Visitors entering the park were sampled by using selected intervals to contact entering vehicles.

Questionnaire administration

Visitor groups were greeted, briefly introduced to the purpose of the study and asked to participate. If visitors agreed, the interview took about two minutes. These interviews included determining group size and the age of the adult who would complete the questionnaire. This person was then requested to supply their name, address, and telephone number so that a reminder-thank you postcard could later be mailed.

Data analysis

Two weeks after the survey, a reminder-thank you postcard was mailed to all participants. Four weeks after the survey, a special letter and a replacement questionnaire was mailed to those participants whose questionnaires had not yet been received. Questionnaires arriving within a ten week period were coded and entered into a computer. Frequency distributions and cross-tabulations were calculated using a standard statistical software package. Respondents' comments were summarized.

Sample size, missing data and reporting errors

This study collected information on both visitor groups and on individual group members. Thus, the sample size ('N'), varies from figure to figure. For example, while information is shown in Figure 1 for 429 groups, Figure 3 has data for 1464 individuals. A note above each figure's graph specifies the information illustrated.

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 431 questionnaires were returned by visitors, Figure 1 shows data for only 429 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.

Limitations

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

1. It is not possible to know whether visitor responses reflect actual behavior. This disadvantage is applicable to all such studies and is reduced by having visitors fill out the questionnaire as they visit the park.

2. The data reflect visitor use patterns during the study period of May 26 to June 1, 1990. The results do not necessarily apply to visitors using the national monument area during other times of the year.

3. Caution is advised when interpreting any data where the sample size is less than 30, as the results may be unreliable. Whenever data presented for a sample is smaller than 30, the word "**CAUTION**" is included in the figure or table.

Special Conditions

White Sands National Monument is unique because it is in the middle of an Army missile range. When the Army is test firing missiles the monument is closed to visitors. Test firings took place on the last day of the survey, Friday June 1. That day, the monument was closed from 8:00 a.m. to 9:00 a.m., and 10:45 a.m. to 12:00 p.m.

RESULTS

A. Visitors contacted

A total of five hundred thirty-six visitor groups were contacted; 519 agreed to participate. Thus, the acceptance rate was 97%. Four hundred thirty-one visitor groups completed and returned their questionnaires, an 83% response rate.

Table 1 shows a comparison of information collected from both the total sample of visitors contacted and the final sample of visitors who returned their questionnaires. Non-response bias is insignificant.

Table 1: Comparison of total sample and actual respondents

Variable	Total sample		Actual respondents	
	N	Avg.	N	Avg.
Age of respondent	519	39.9	429	40.8
Group size	519	4.2	429	5.6

B. Characteristics

Figure 1 shows group sizes, which varied from one person to 200 people. Thirty-eight percent of White Sands visitors came in groups of two people, 17% came in groups of four. Fifty-nine percent of visitors came in family groups, as shown in Figure 2; 31% came in groups of friends, or family and friends.

Figure 3 shows a wide range of age groups; the most common being adults aged 21-45 (45%). Fifty-four percent of visitors were at White Sands for the first time, 30% percent had visited 2-4 times, and 9% had visited 10 or more times as seen in Figure 4.

Foreign visitors comprised 8% of all visitation. Map 1 and Table 3 show that most of these foreign visitors came from Germany and Switzerland. Map 2 and Table 4 show that most American visitors came from New Mexico (32%) and Texas (25%).

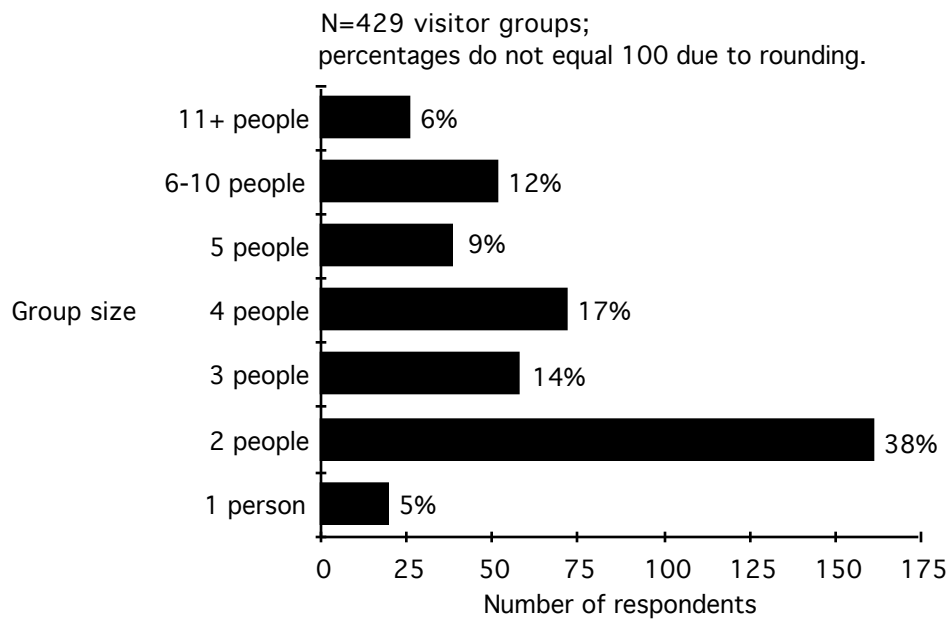


Figure 1: Visitor group sizes

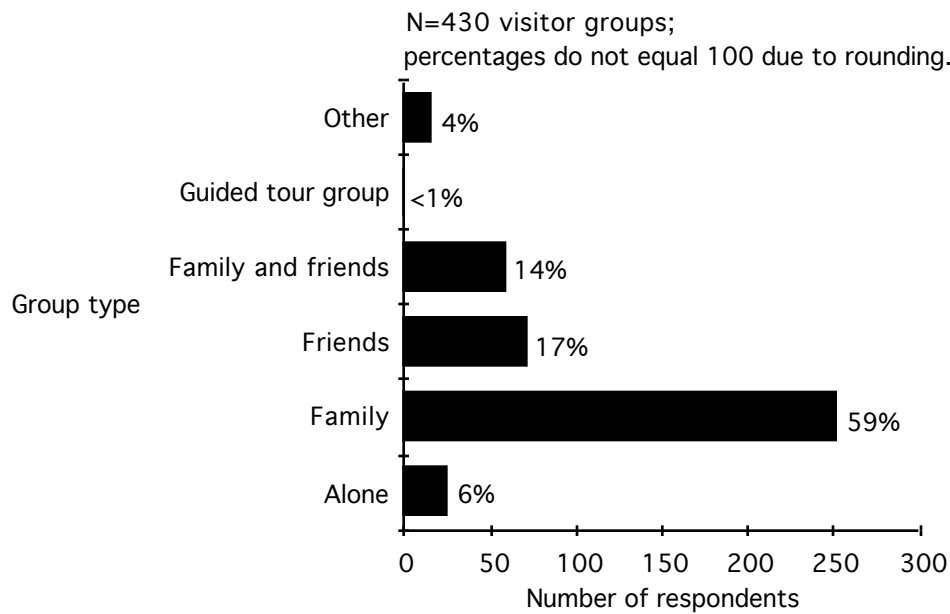


Figure 2: Visitor group types

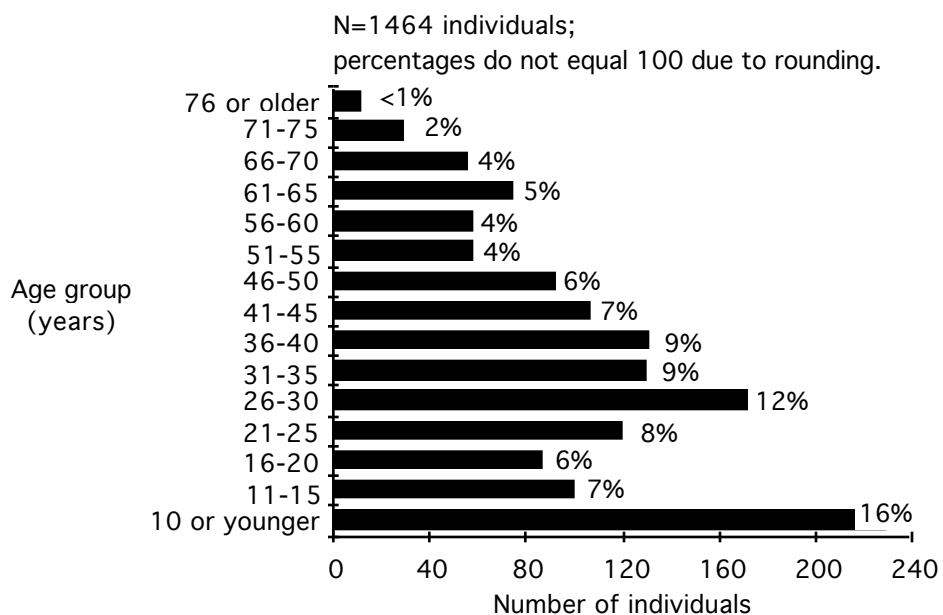


Figure 3: Visitor ages

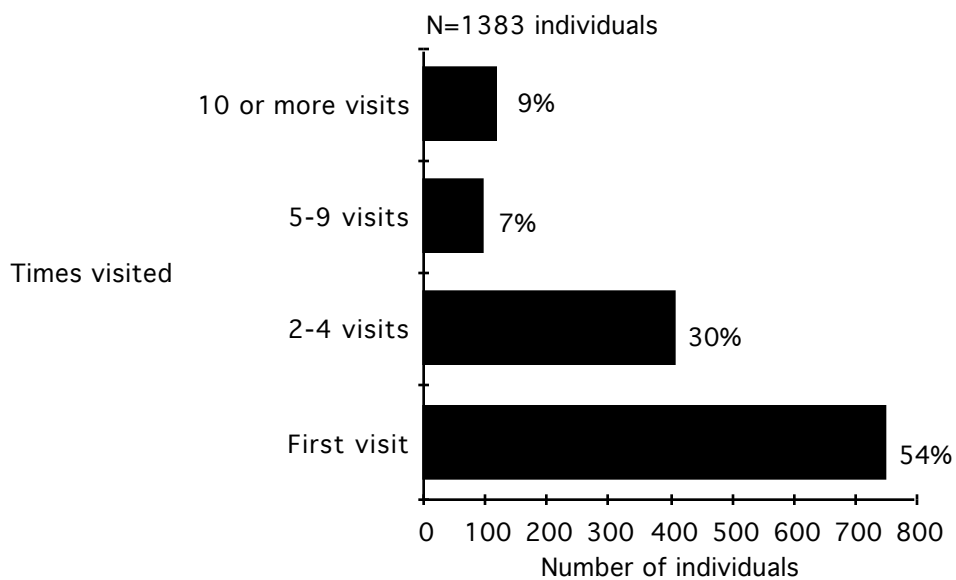
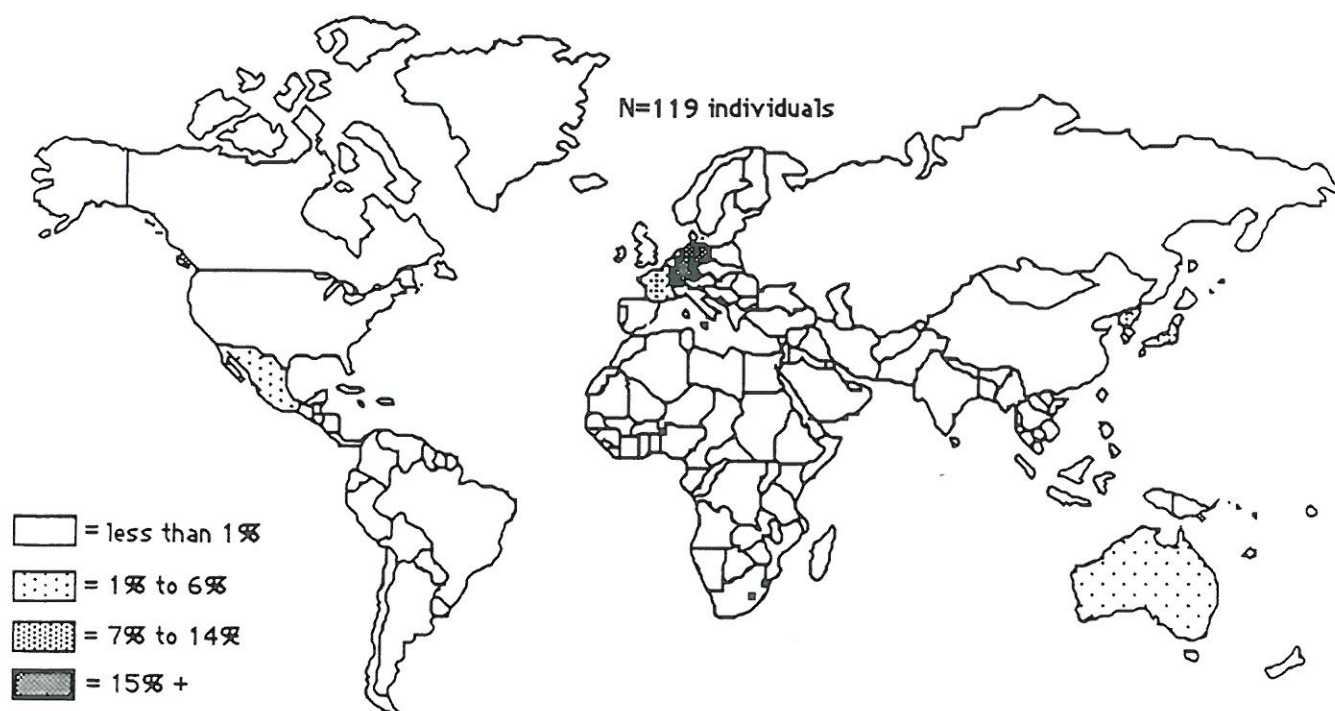


Figure 4: Number of visits

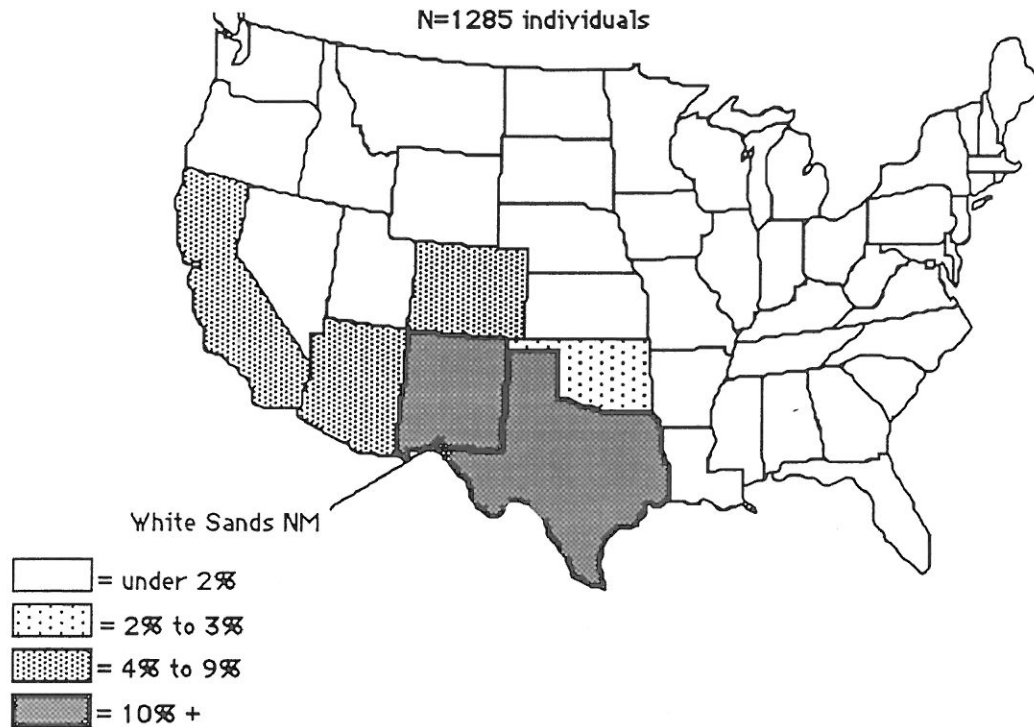


Map 1: Proportion of foreign visitors by country

Table 2: Proportion of visitors from foreign countries

N=119 individuals from foreign countries;
individual country percentages do not equal 100 due to rounding.

Country	Number of individuals	% of foreign visitors
Germany	65	55
Switzerland	18	15
Korea	6	5
Ireland	5	4
Australia	4	3
Japan	4	3
Mexico	4	3
Austria	3	3
France	2	2
Holland	2	2
Canada	1	1
Denmark	1	1
England	1	1
Spain	1	1
Taiwan	1	1
Venezuela	1	1



Map 2: Proportion of visitors from each state

Table 3: Proportion of visitors from each state

N=1285 individuals;
individual state percentages do not equal 100 due to rounding.

State	Number of individuals	% of visitors
New Mexico	406	32
Texas	327	25
Arizona	91	7
California	75	6
Colorado	51	4
Oklahoma	41	3
Others (44 states < 2% each)	294	23

C. Length of stay

Figure 5 shows that 70% of visitor groups who were visiting the Alamogordo area for the day visited for four hours or less. Figure 6 shows that 78% of visitors who were visiting for more than one day stayed three days or less.

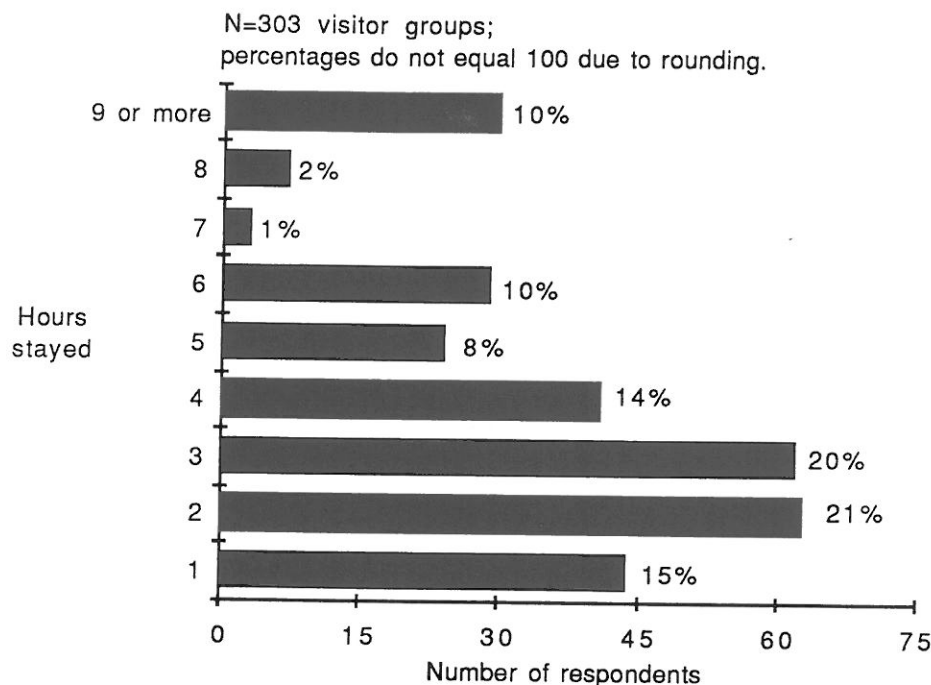


Figure 5: Number of hours visitors spent in the Alamogordo area

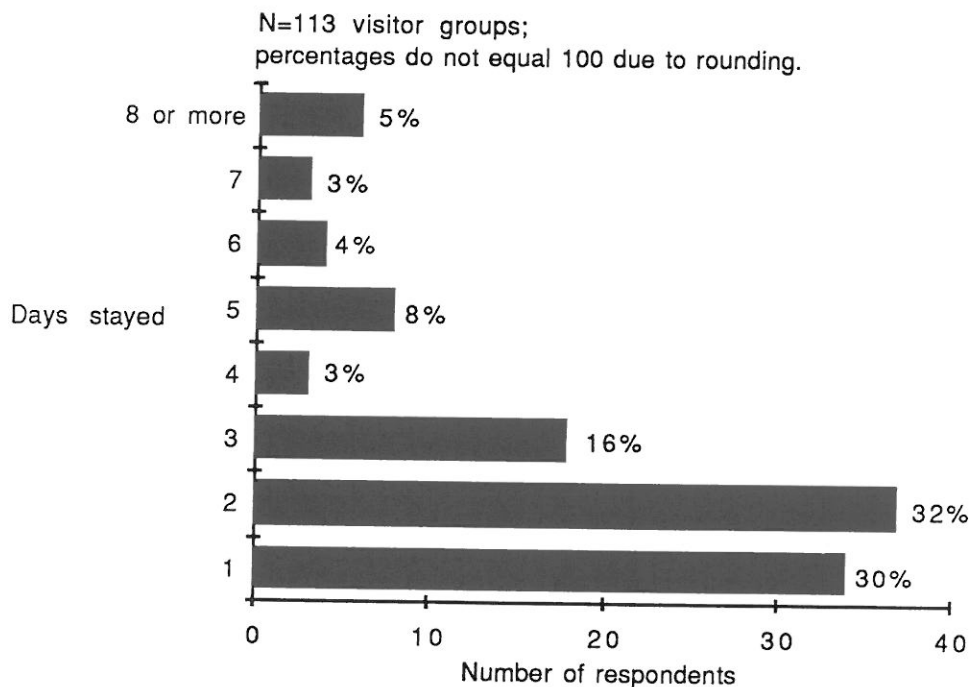


Figure 6: Number of days visitors spent in the Alamogordo area

D. Activities

Figure 7 shows the proportion of visitor groups who participated in each activity during their visit. Common activities were playing in the sand (77%), photography (72%), and stopping at numbered pullouts. Some "other" activities were identified as sand surfing, volleyball, and camping.

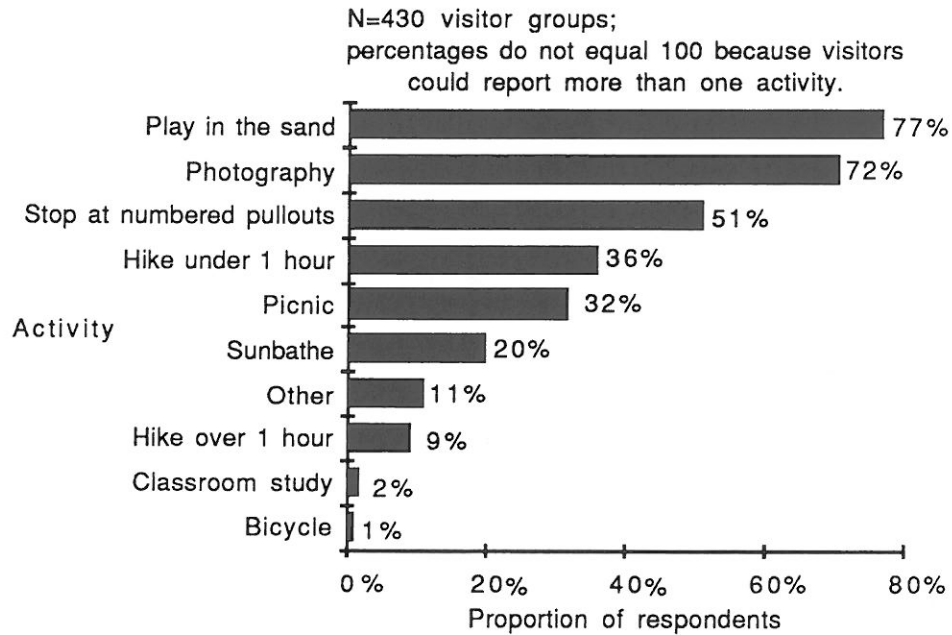


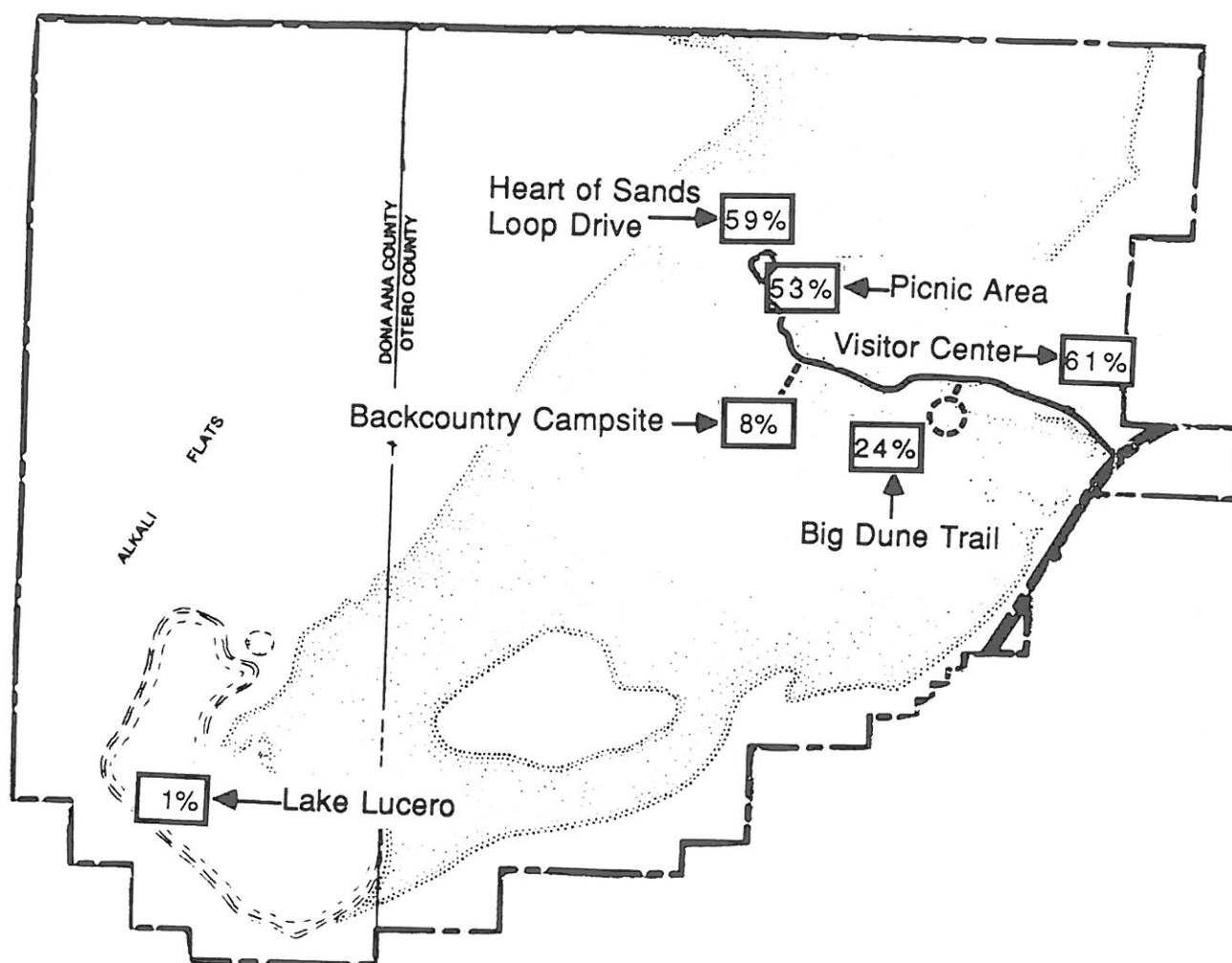
Figure 7: Proportion of visitor groups participating in each activity

E. Locations

Map 3 shows the proportion of visitor groups that visited selected sites at White Sands National Monument. Most visitors visited the visitor center (61%), drove the Heart of Sands Loop Drive (59%), and visited the picnic area (53%).

N=430 visitor groups;
percentages do not equal 100 because
visitors could visit more than one site.

White Sands National Monument



NORTH

Map 3: Proportion of visitor groups that visited each site

F. Purpose of visit

Visitors were asked what was the main purpose of their visit to the Alamogordo area. Figure 8 shows that seventy-six percent cited tourism. Some "other" purposes were visiting friends and relatives, or just passing through on their way to another destination.

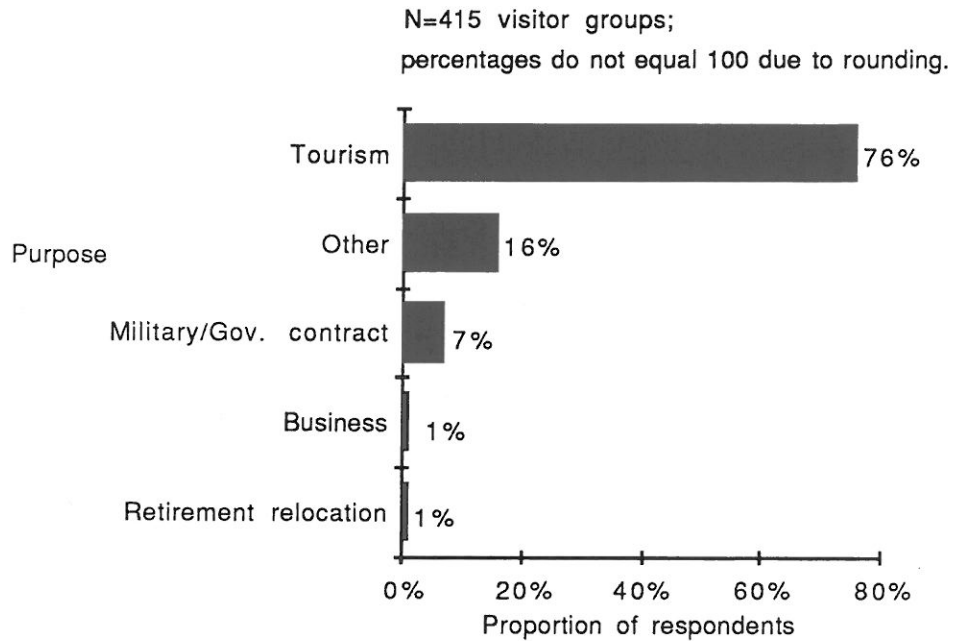


Figure 8: Main purpose of visit to Alamogordo area

G. Local attractions visited

Visitors were asked during their visit to the Alamogordo area about the other attractions they and their group visited. Figure 9 shows the Sacramento Mountains (42%), International Space Hall of Fame (30%), and White Sands Missile Park (23%) were most often mentioned. Some "other sites" mentioned included the air show at Holloman Air Force Base, Carlsbad Caverns, and Lincoln National Forest.

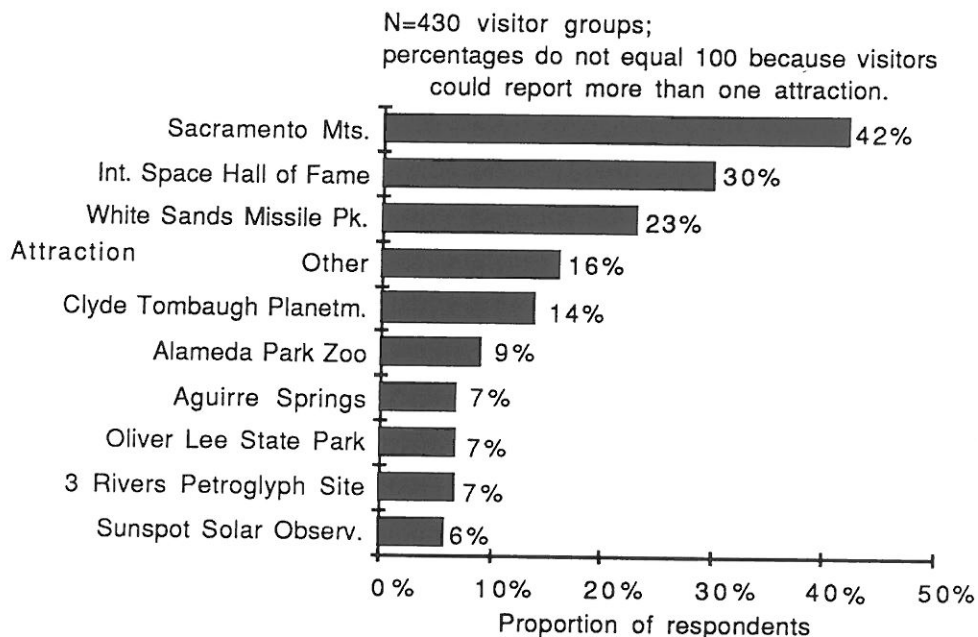


Figure 9: Other attractions visited in the Alamogordo area

H. Expenditures

Visitors were asked how much they and their group spent for lodging, travel, food and other items during their visit to the Alamogordo area. Figure 10 shows that 42% of visitor groups spent between one and fifty dollars. Figure 11 shows the largest proportions of money were spent for food (30%) and for lodging (27%).

The average visitor group expenditure for their visit was \$124.00; the average per capita expenditure was \$41.00.

Of the visitor groups, 57% reported spending no money on lodging; while 16% reported spending \$26-50 (see Figure 12).

Figures 13 and 14 show that visitor groups commonly spent twenty-five dollars or less for travel (60%), food (42%), and "other" items (44%) in the Alamogordo area during their visit.

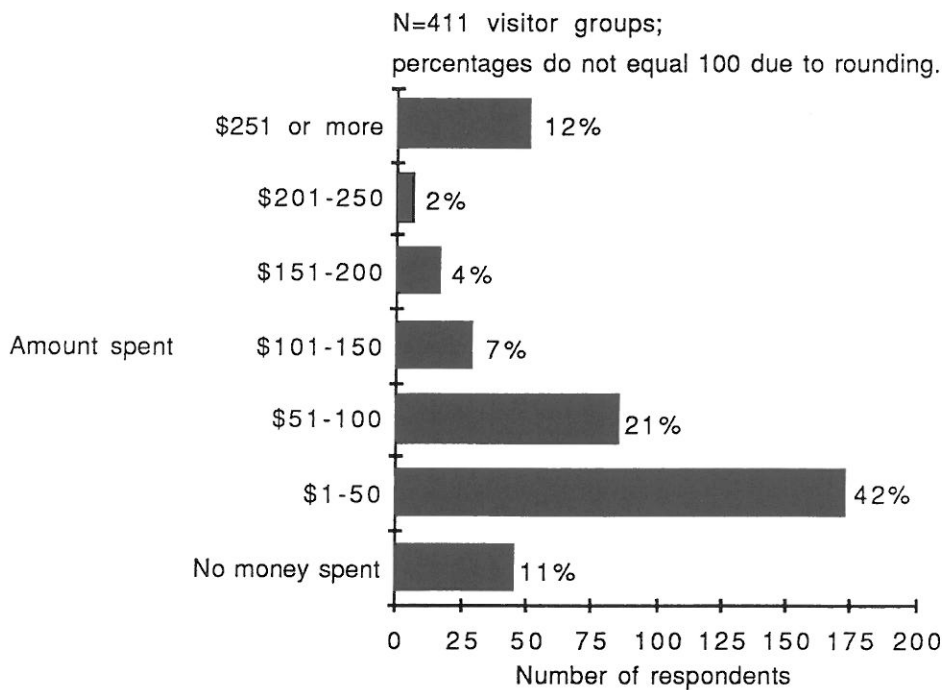


Figure 10: Total visitor expenditures

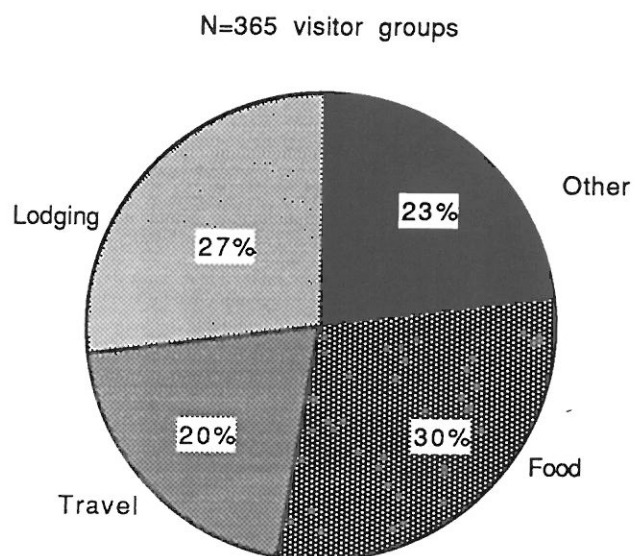


Figure 11: Proportion of visitor expenditures by category

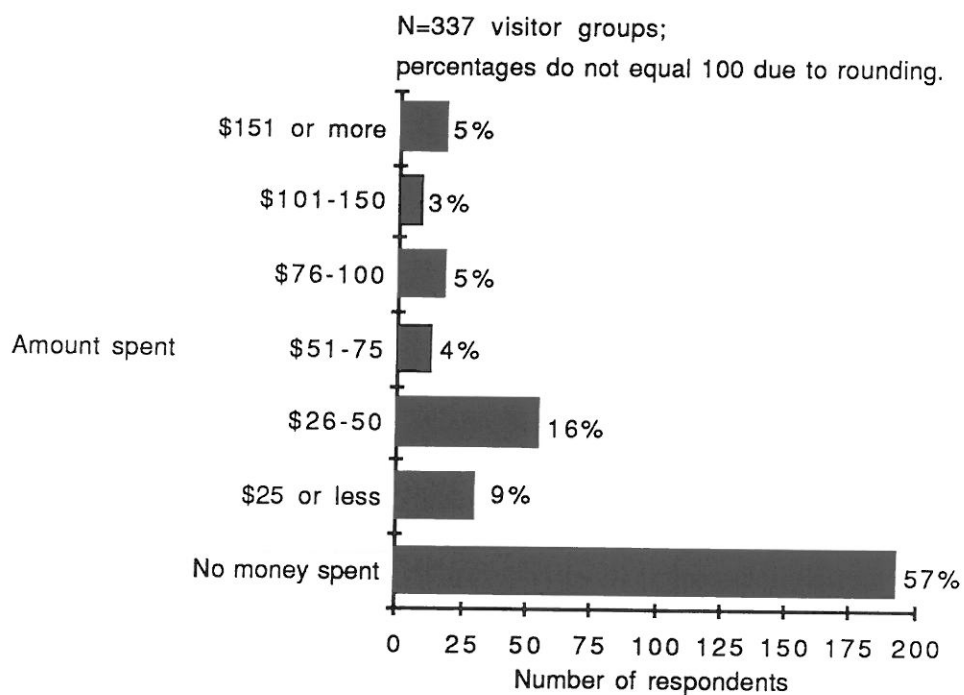


Figure 12: Total visitor expenditures for lodging

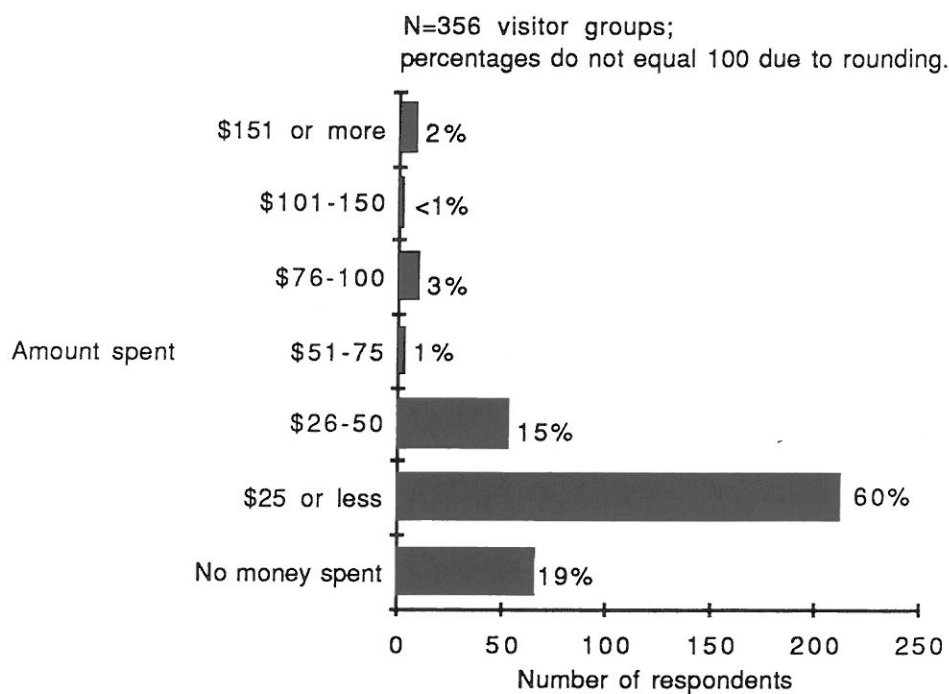


Figure 13: Total visitor expenses for travel

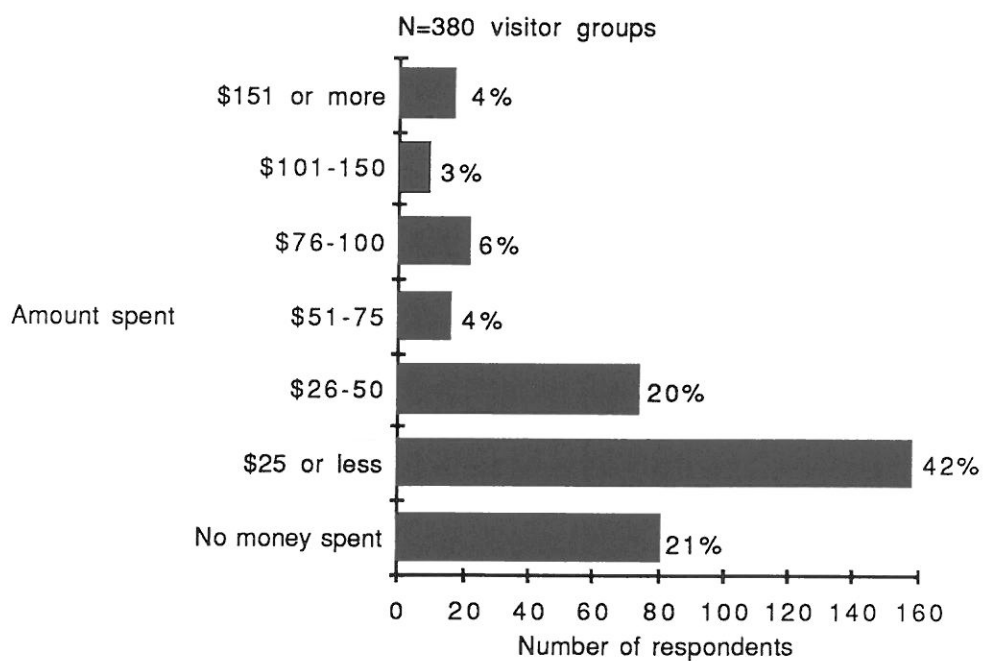


Figure 14: Total visitor expenses for food

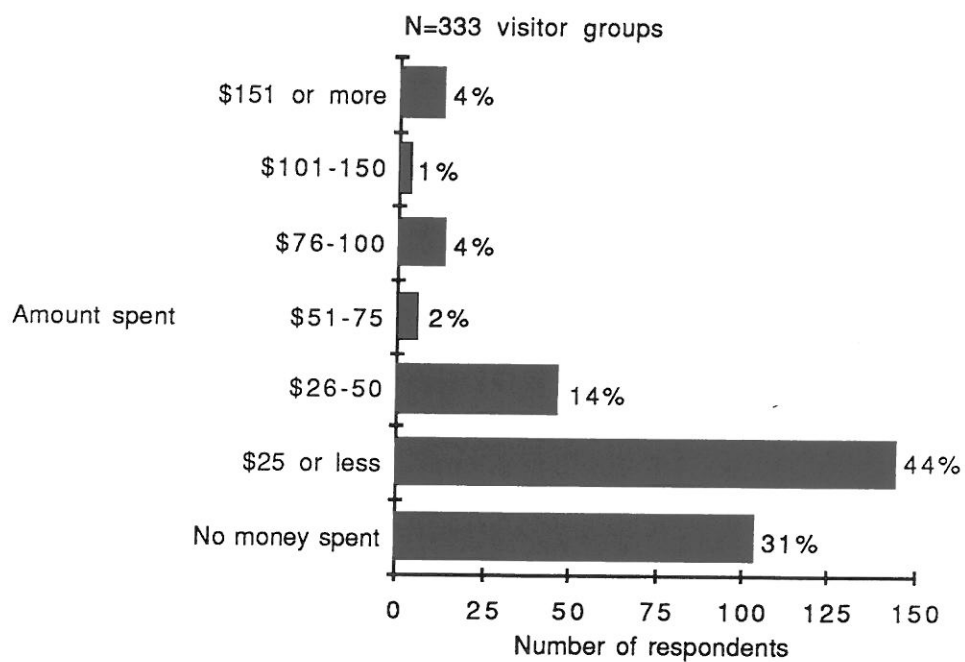


Figure 15: Total visitor expenses for "other" items

I. Information sources prior to visit

The survey asked visitors how they obtained information about White Sands prior to their visit. Figure 16 shows that forty-six percent of the visitor groups received information from friends/relatives, while 44% obtained their information from previous visit(s). Other commonly used sources were maps (37%) and guide books (37%).

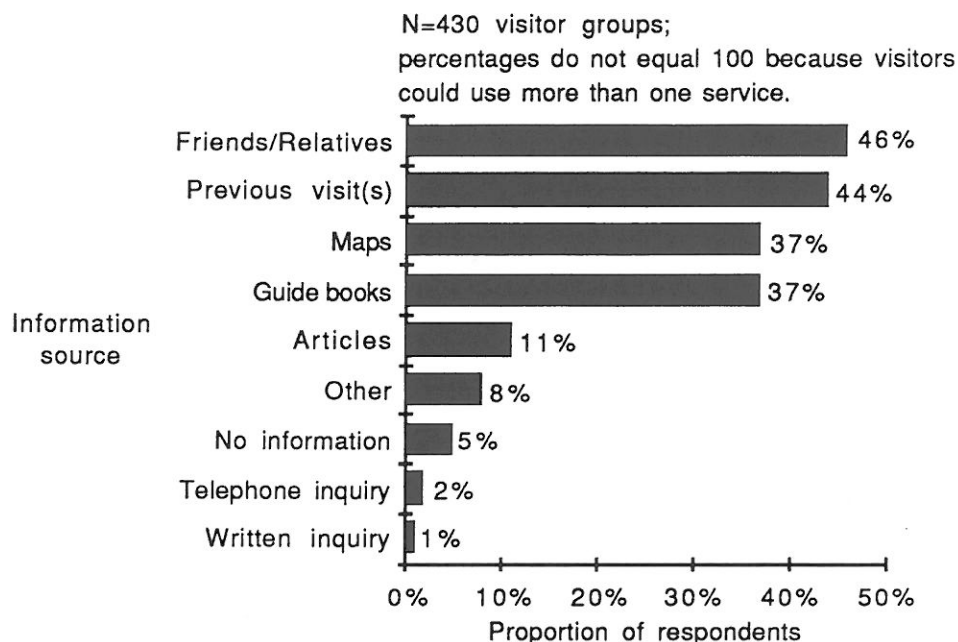


Figure 16: Information sources prior to visit

J. Interpretive or visitor service importance and quality evaluations

Visitors rated the importance of twelve interpretive or visitor services and the quality of the services they used. Figure 17 shows the average importance and quality rating for each service. Services varied in importance, but all were rated above average in quality. Restrooms, park folder/map, visitor center exhibits, roadside exhibits and numbered turnouts, and picnic facilities were the most important services. They also rated the highest in quality. On the average, evening campfire programs and sales publications were considered less important.

Visitors rated the services on a five point scale: 1=extremely important, 2=very important, 3=moderately important, 4=somewhat important, and 5=not important. Figures 18-29 show that several services were considered "very" to "extremely important:" restroom facilities (83%), park folder/map (71%), roadside exhibits and

numbered turnouts (68%), picnic facilities (67%) and visitor center exhibits (66%). Services receiving the highest "somewhat" to "not important" ratings were evening campfire programs (47%) and sales publications (43%).

Visitors also used a five point scale to rate the quality of the services they used: 1=very good, 2=good, 3=average, 4=poor, 5=very poor. Figures 30-41 show that several services were given high "good" to "very good" ratings: park folder/map (78%), roadside exhibits and numbered turnouts (78%), Big Dune Nature Trail (75%), visitor center exhibits (76%), and picnic facilities (71%). Services receiving the worst quality ratings, ("poor" to "very poor"), were ranger-led talks/walks (16%) and evening campfire programs (16%).

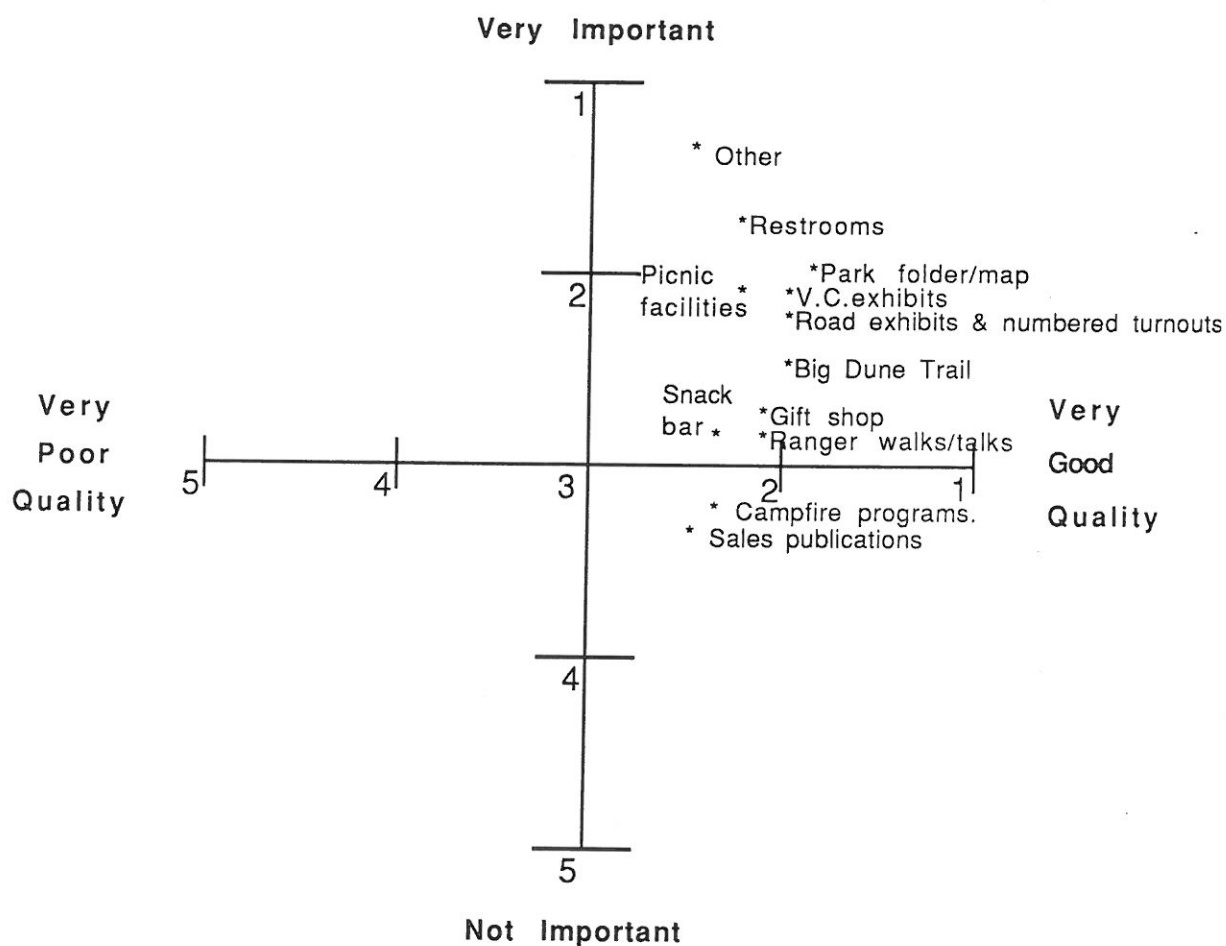


Figure 17: Visitor ratings of service importance and quality

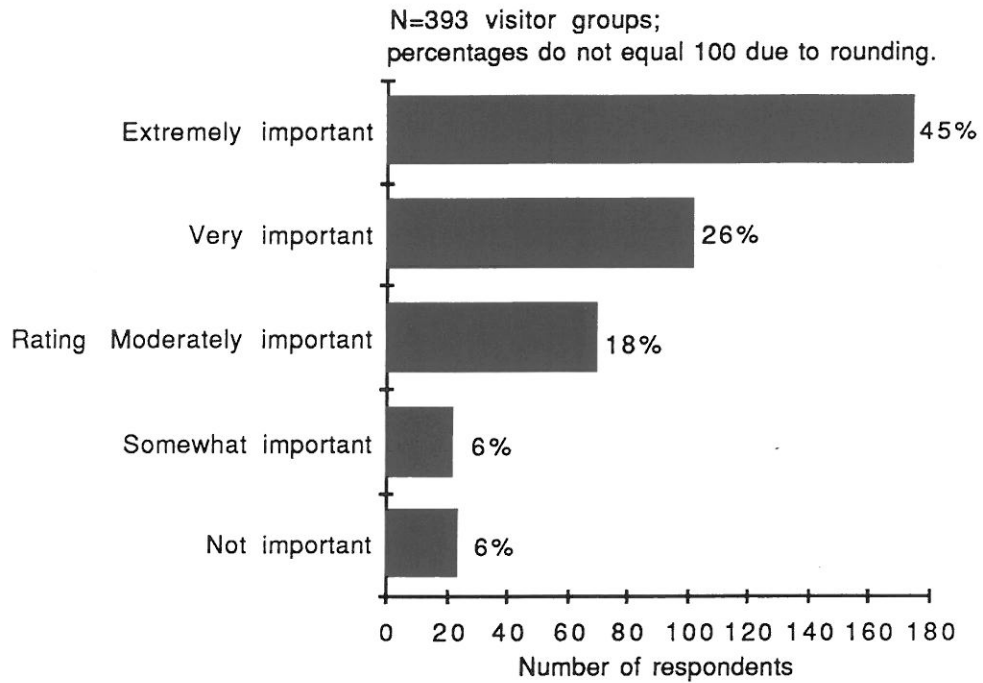


Figure 18: Importance ratings of park folder/map

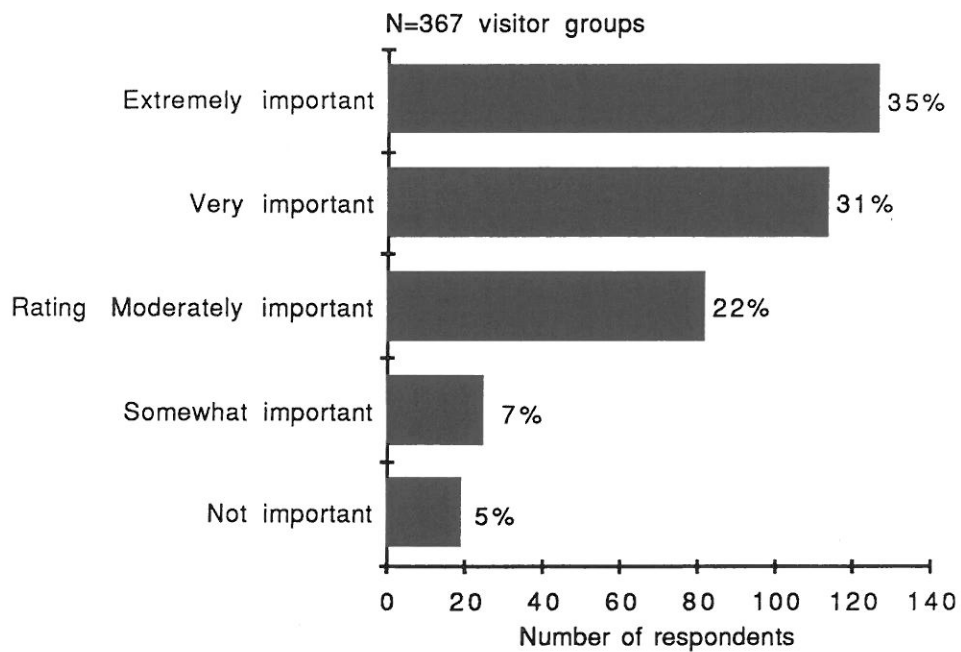


Figure 19: Importance ratings of visitor center exhibits

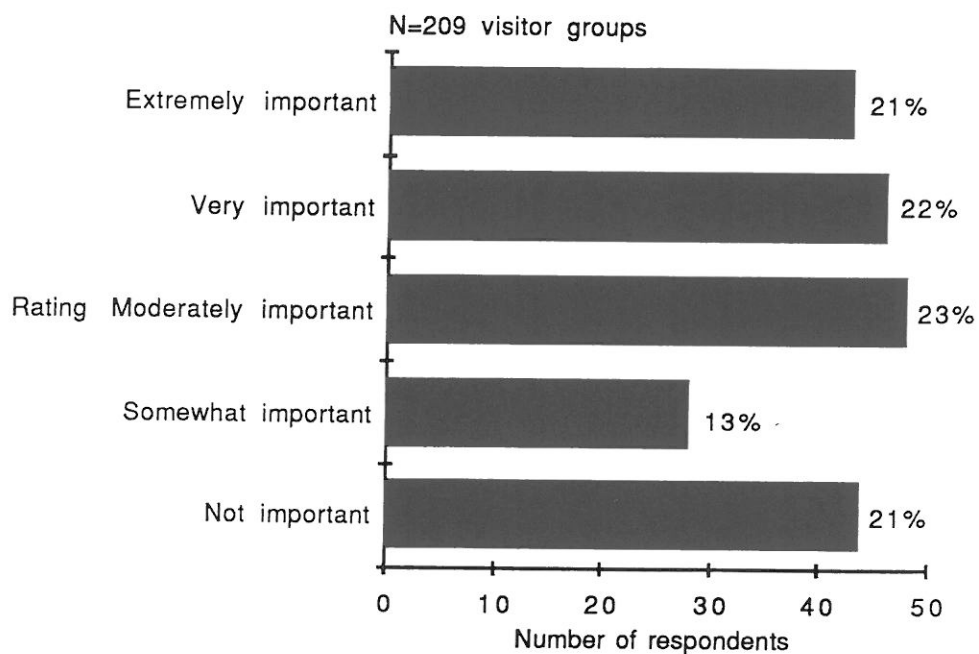


Figure 20: Importance ratings of ranger-led talks/walks

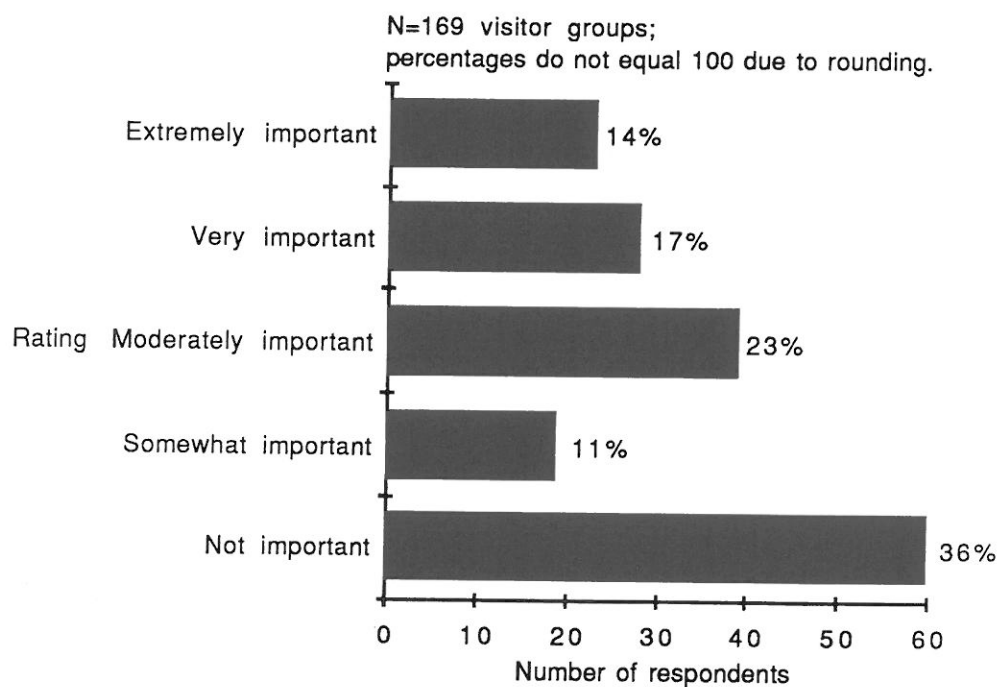


Figure 21: Importance ratings of evening campfire programs

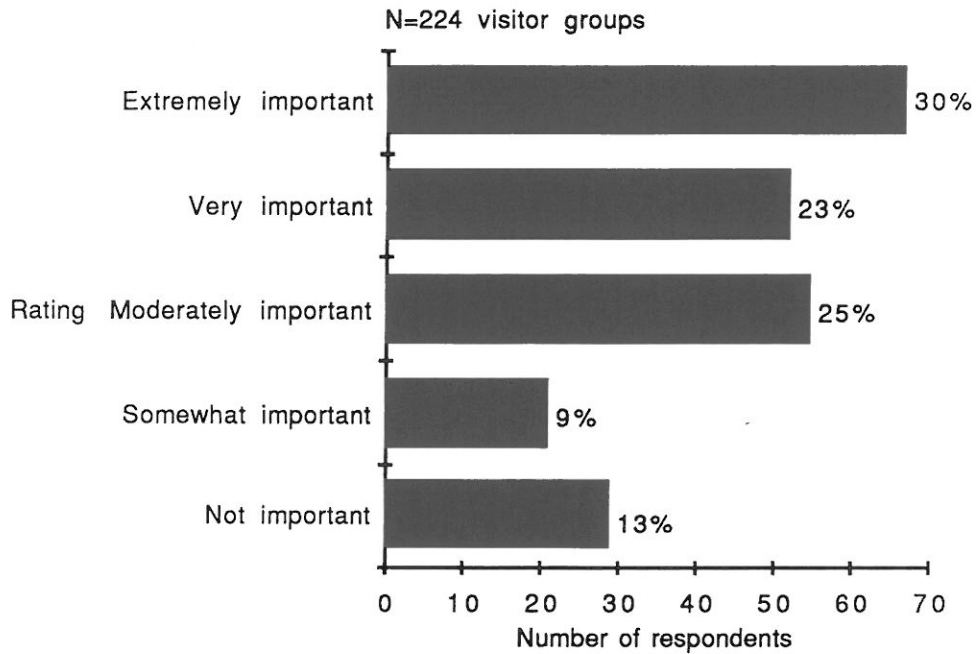


Figure 22: Importance ratings of Big Dune Nature Trail

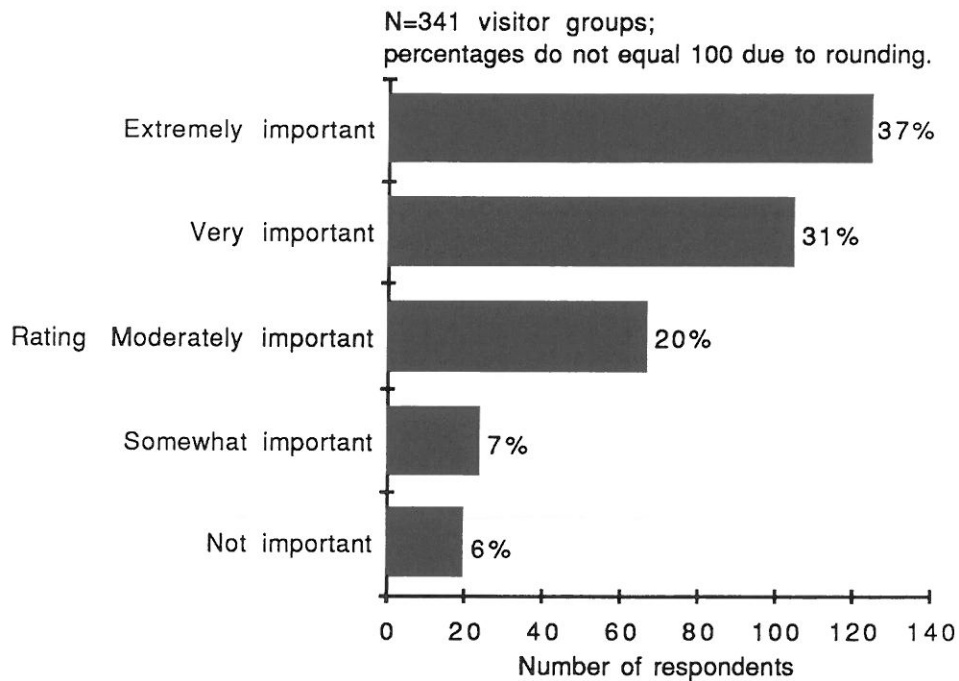


Figure 23: Importance ratings of roadside exhibits and numbered turnouts

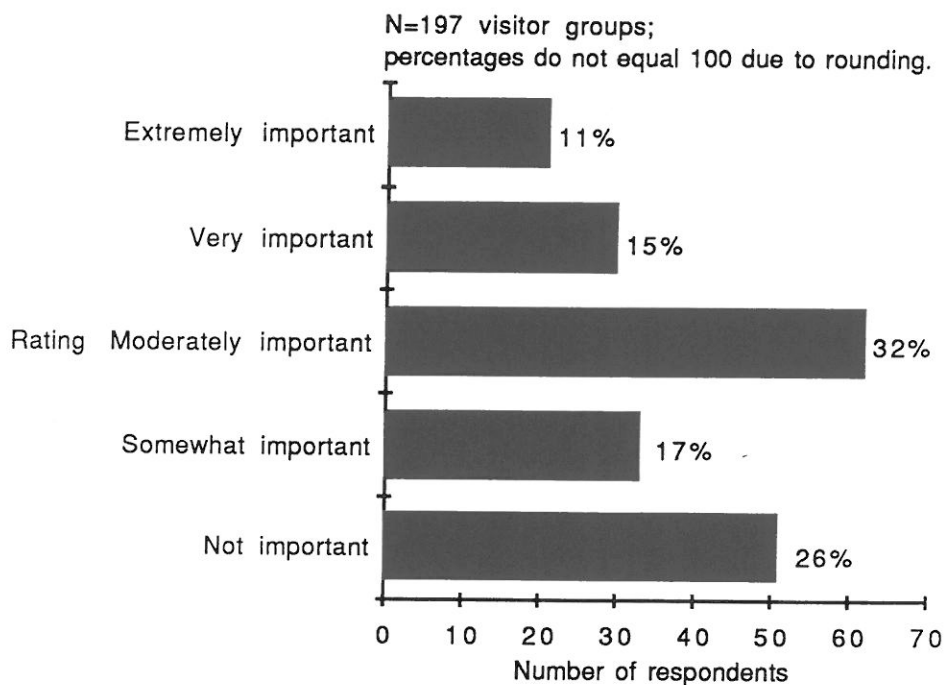


Figure 24: Importance ratings of sales publications

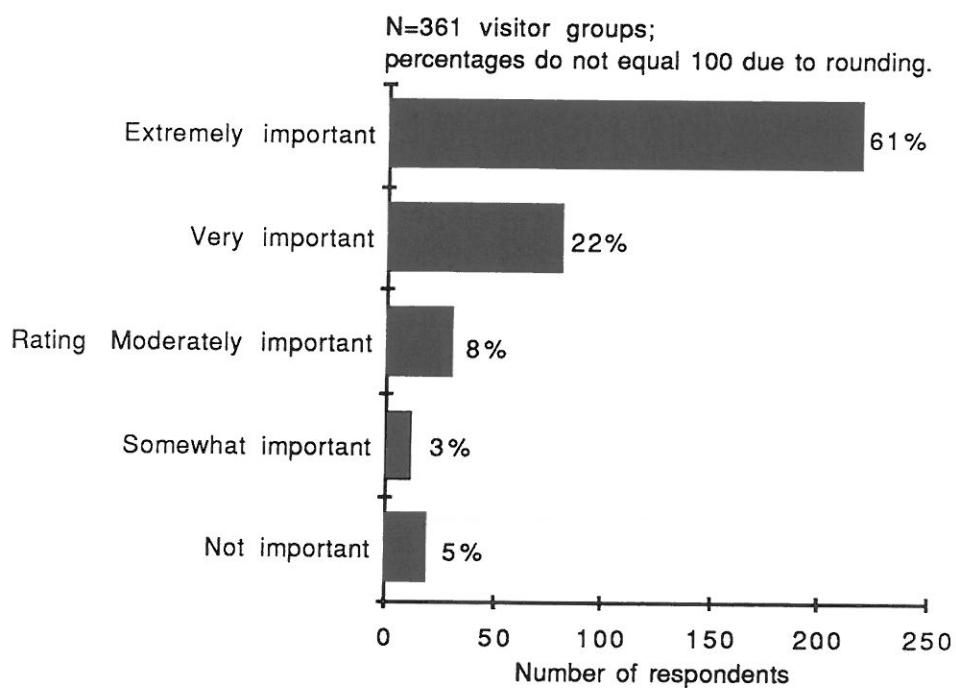


Figure 25: Importance ratings of restroom facilities

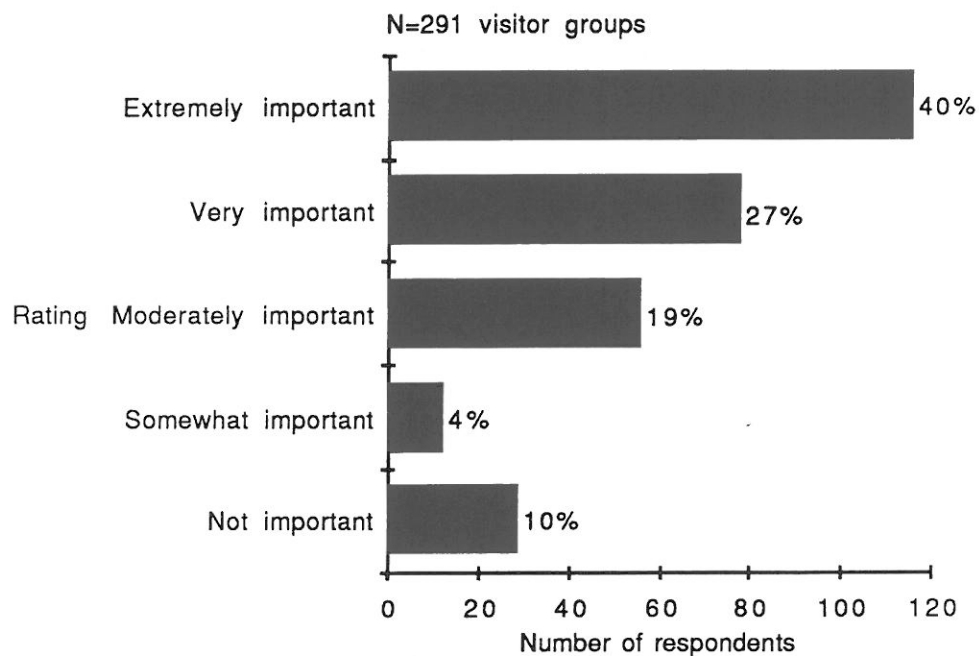


Figure: 26 Importance ratings of picnic facilities

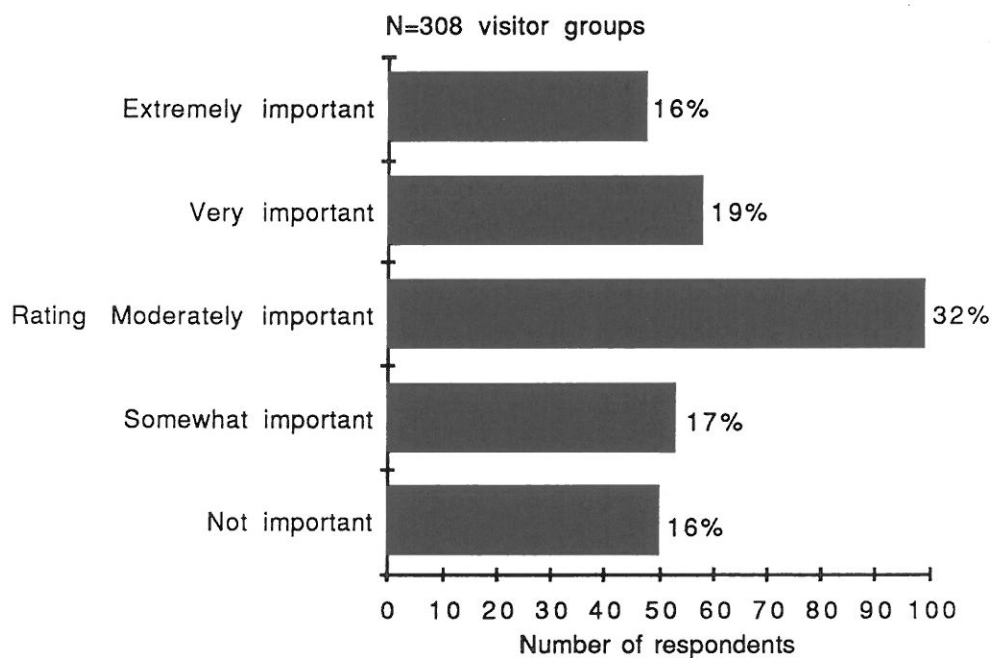


Figure 27: Importance ratings of gift shop

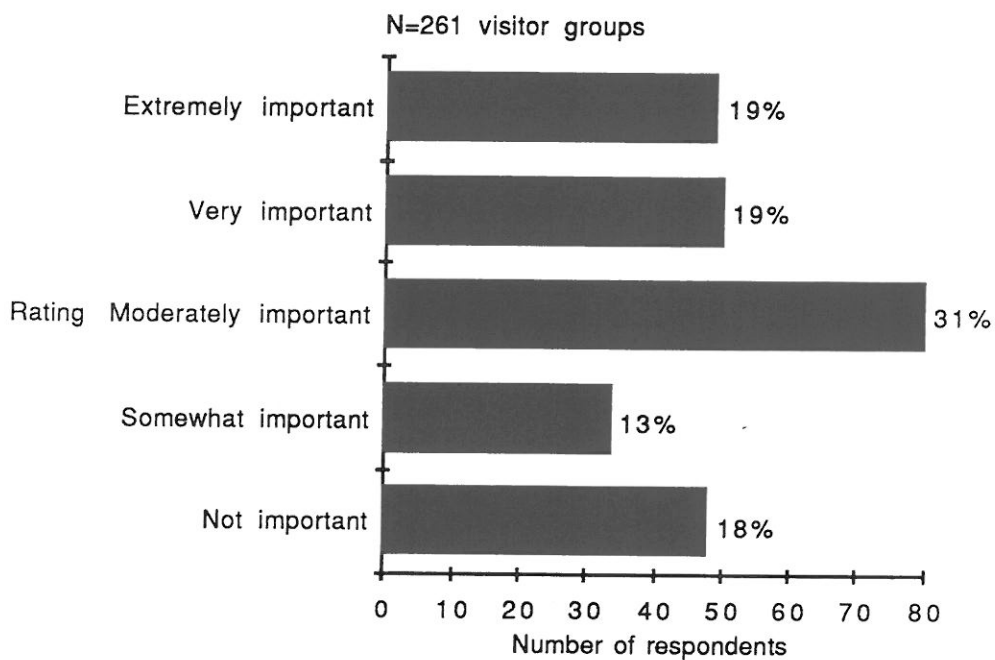


Figure 28: Importance ratings of snack bar

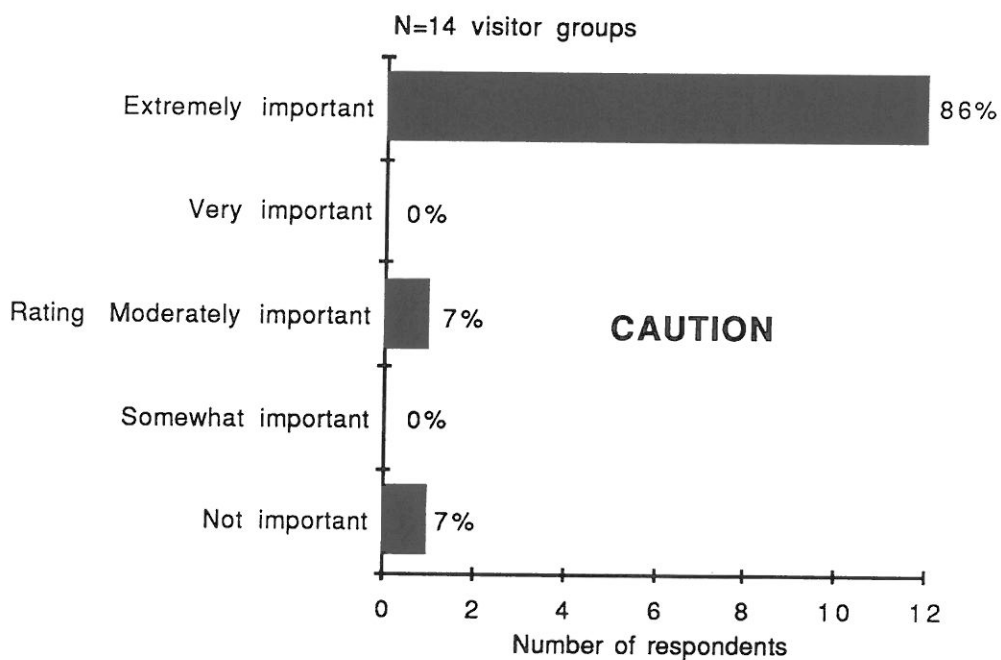


Figure 29: Importance ratings of "other" interpretive and visitor services

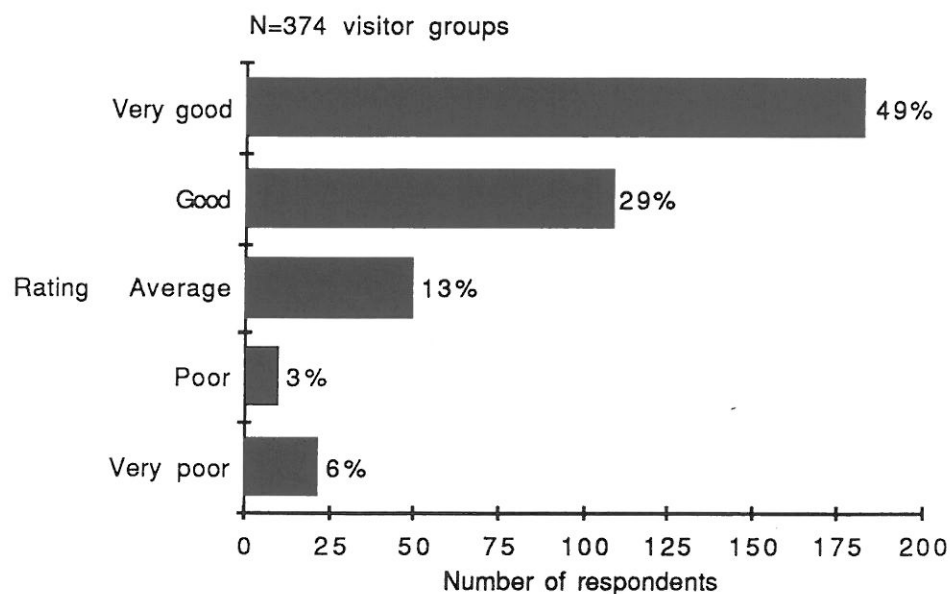


Figure 30: Quality ratings of park folder/map

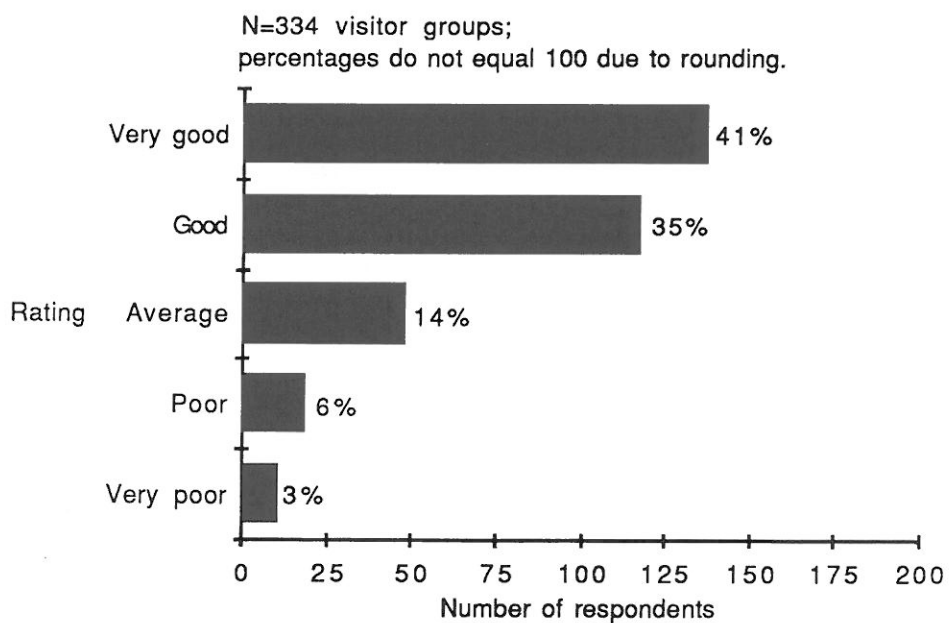


Figure 31: Quality ratings of visitor center exhibits

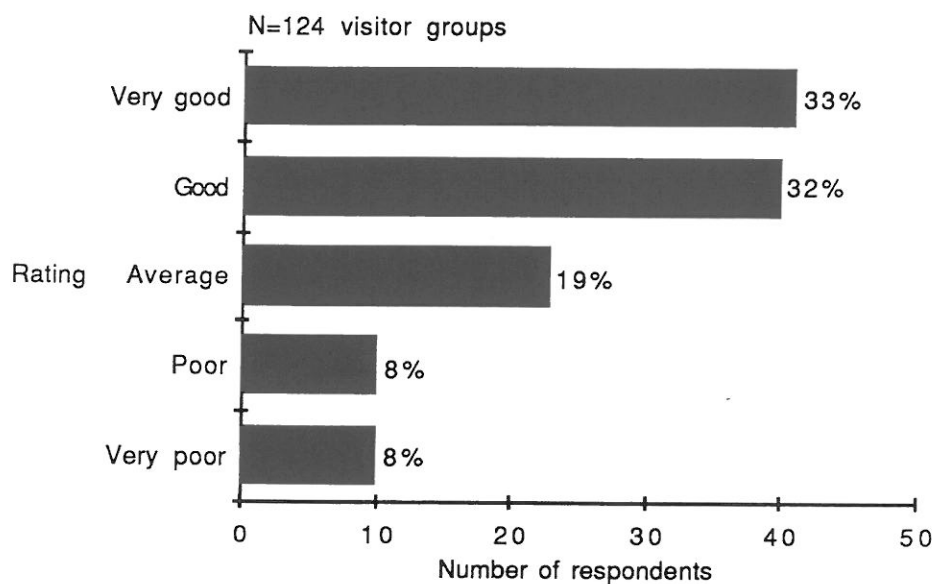


Figure 32: Quality ratings of ranger-led talks/walks

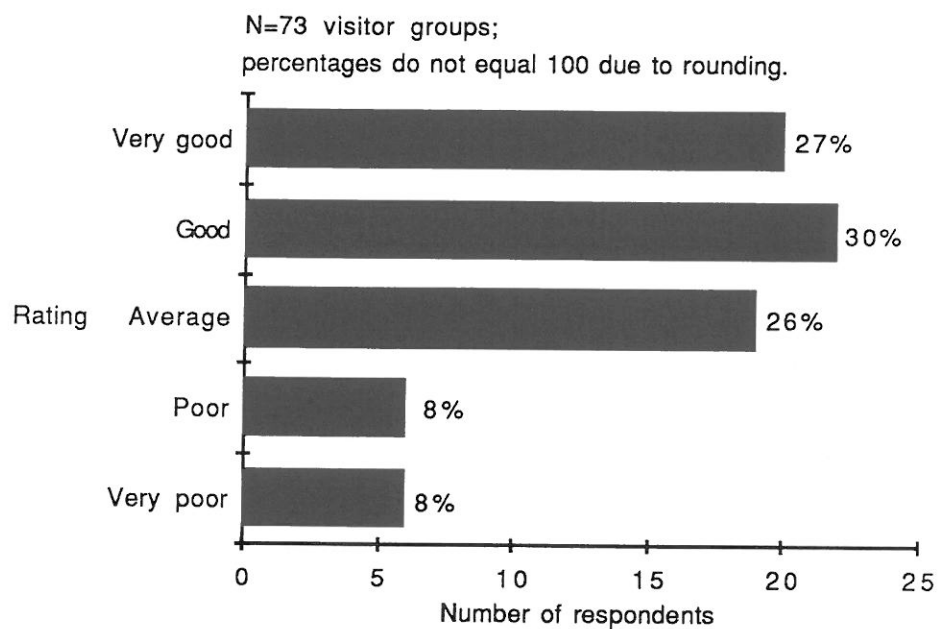


Figure 33: Quality ratings of evening campfire programs

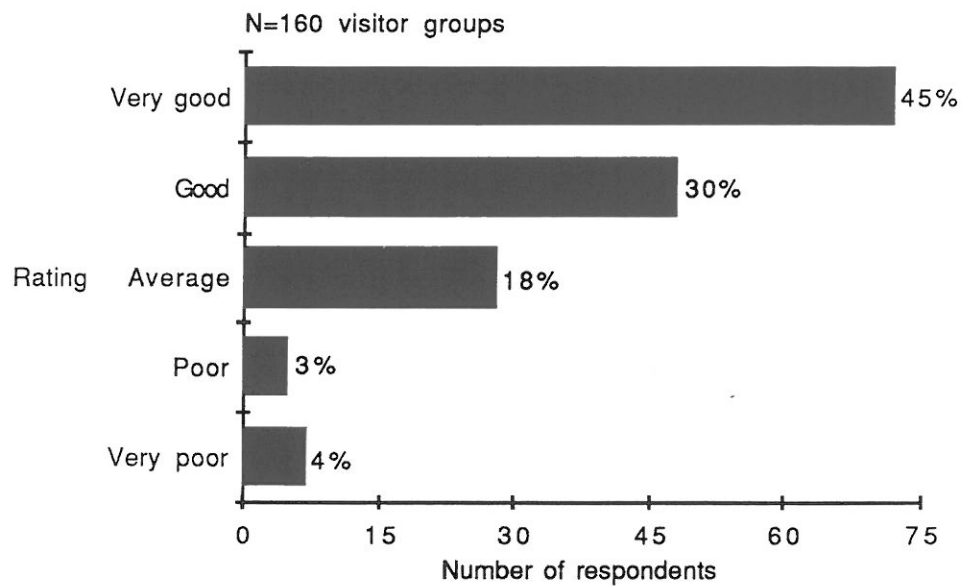


Figure 34: Quality ratings of Big Dune Nature Trail

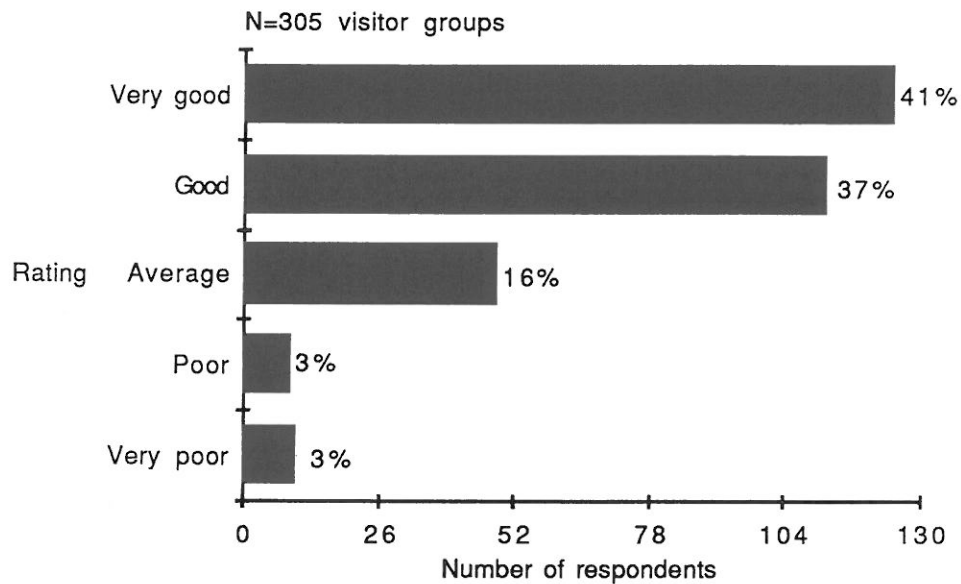


Figure 35: Quality ratings of roadside exhibits & turnouts

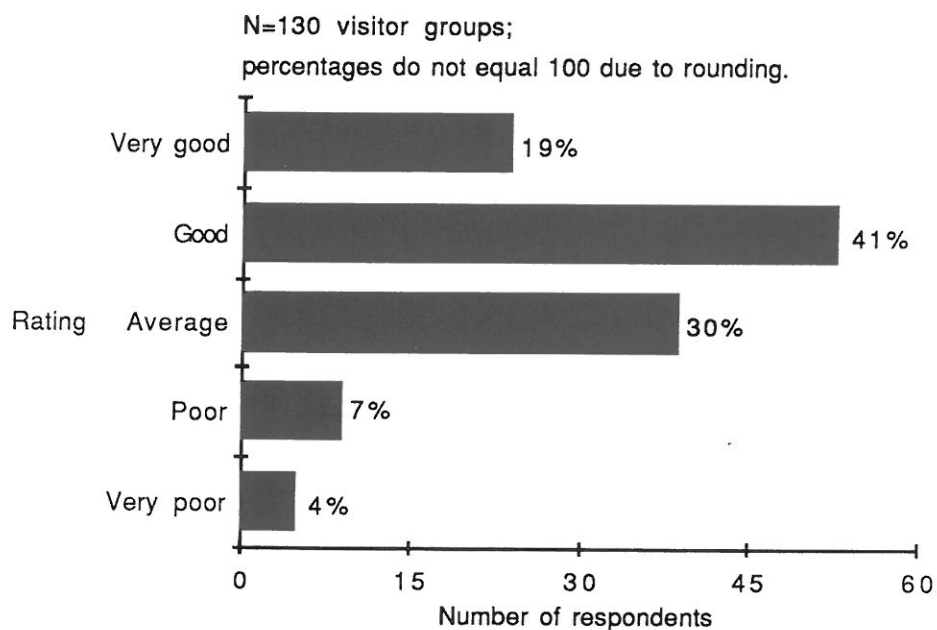


Figure 36: Quality ratings of sales publications

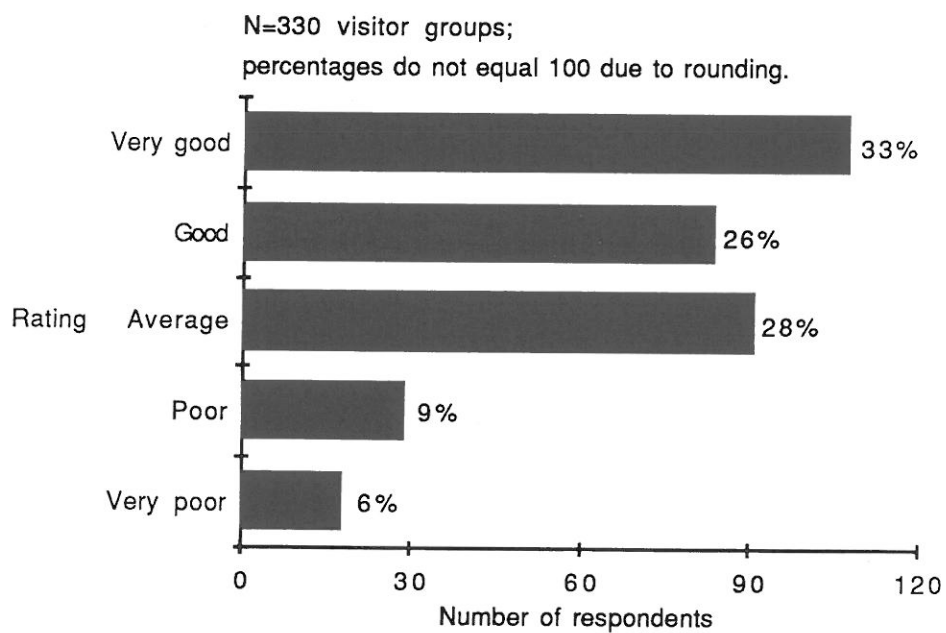


Figure 37: Quality ratings of restroom facilities

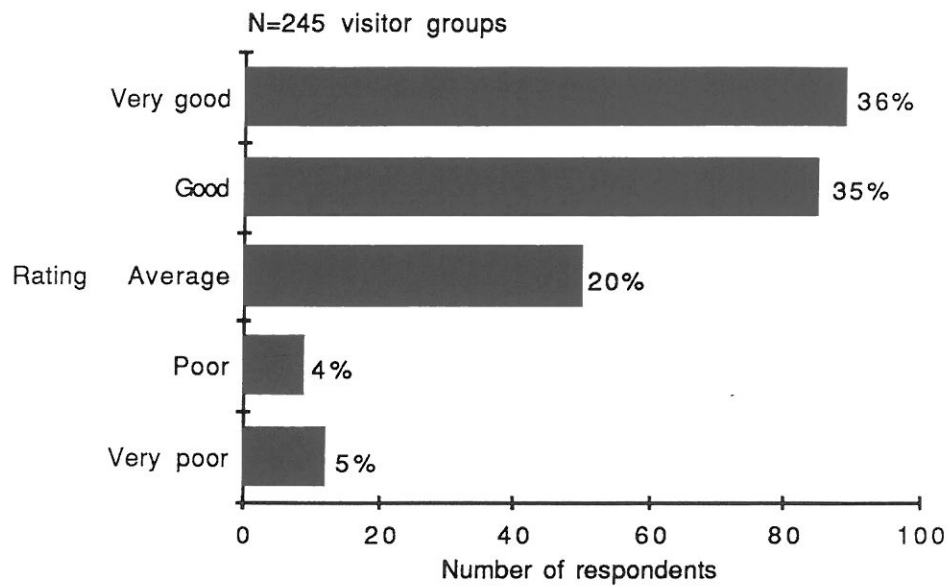


Figure 38: Quality ratings of picnic facilities

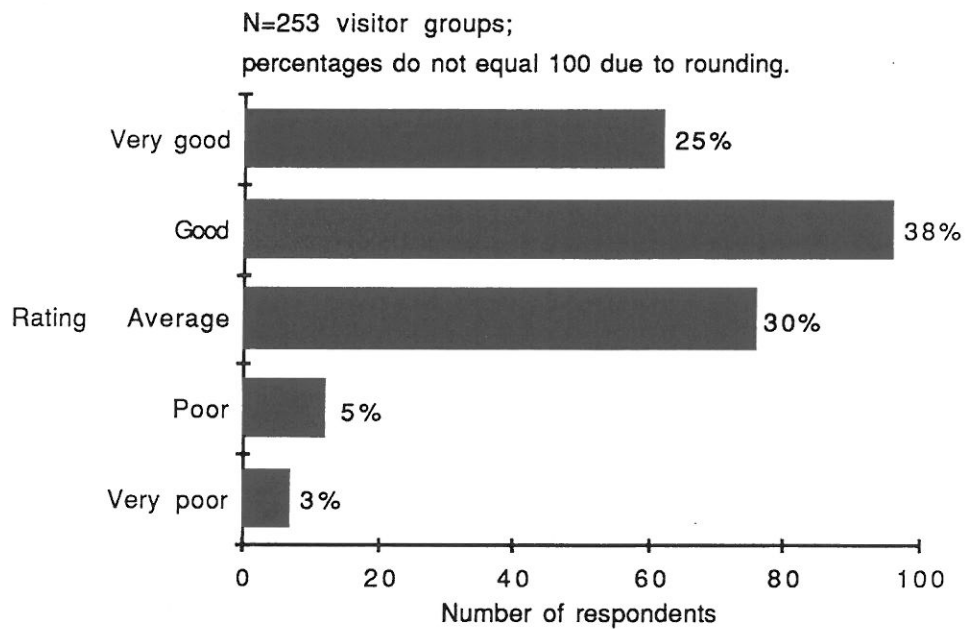


Figure 39: Quality ratings of gift shop

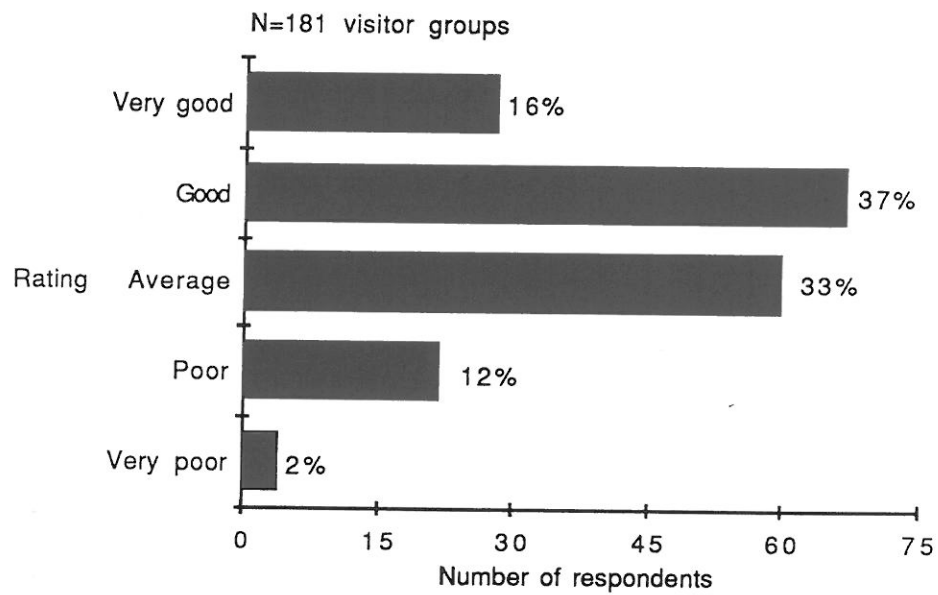


Figure 40: Quality ratings of snack bar

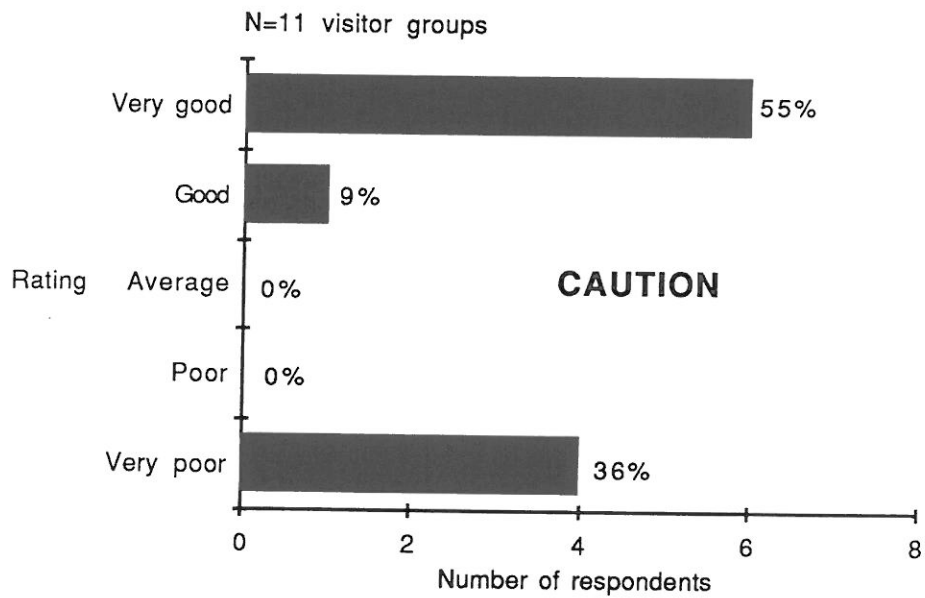


Figure 41: Quality ratings of "other" interpretive and visitor services

K. Importance ratings of park features

Visitors were asked how important selected park features were to their visit: scenic views/drive, wildlife, plant life, solitude/quiet, visitor center, scientific study, ranger-led programs. A five point scale was provided: 1=extremely important, 2=very important, 3=important, 4=somewhat important, 5=not important.

Figures 42-48 show that visitors rated several features from very to extremely important: scenic views/drive (88%), solitude/quiet (68%), plant life (66%), the visitor center (64%) and wildlife (60%). The visitors also rated several features from somewhat to not important: ranger-led programs (41%) and scientific study (35%).

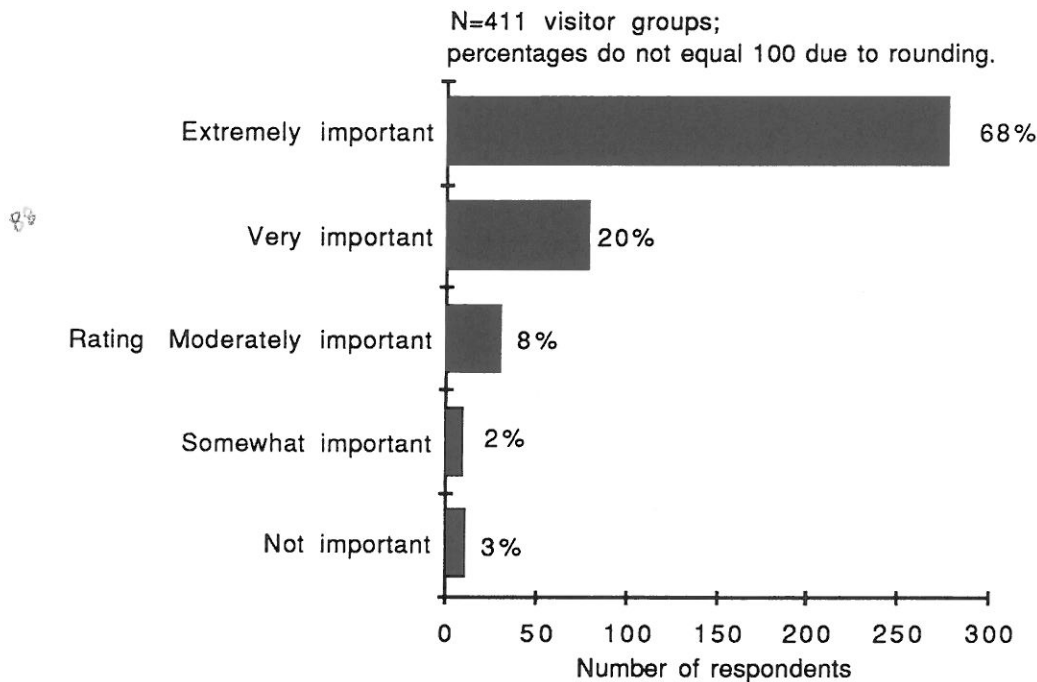


Figure 42: Importance ratings of scenic views/drive

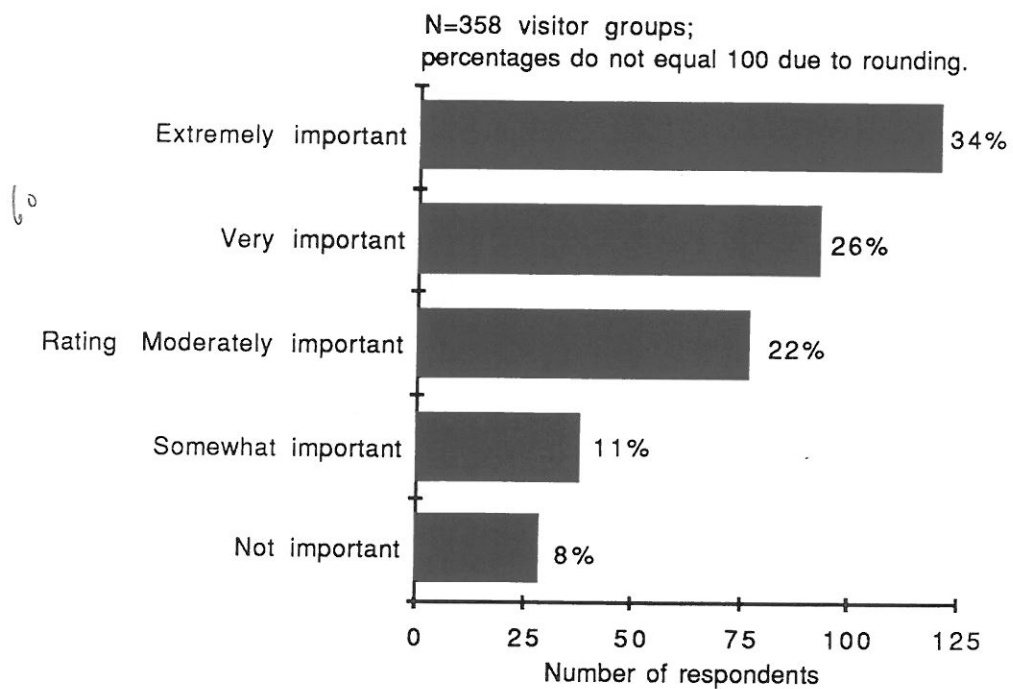


Figure 43: Importance ratings of wildlife

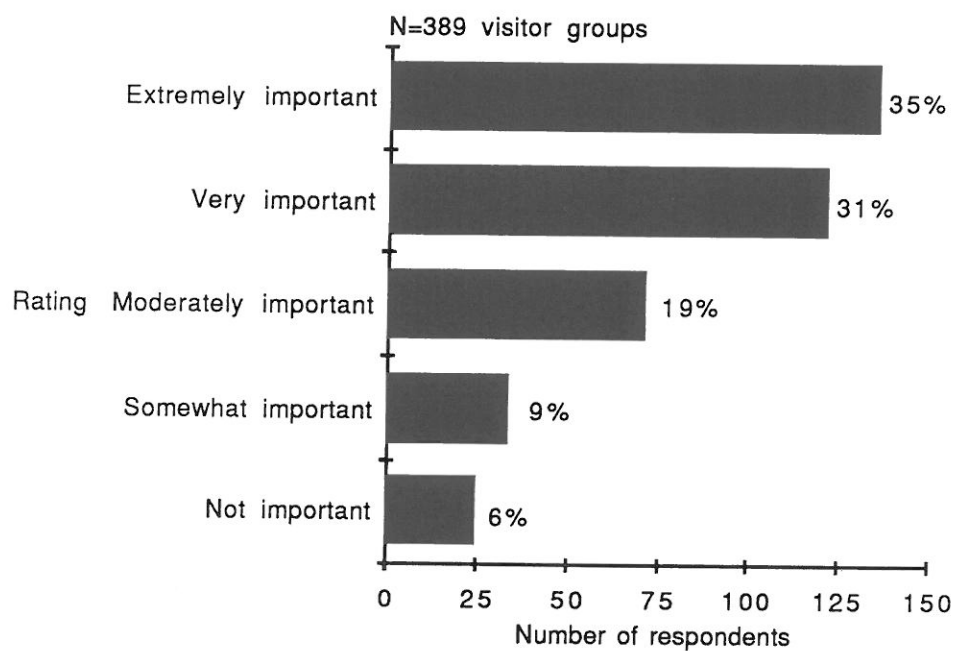


Figure 44: Importance ratings of plant life

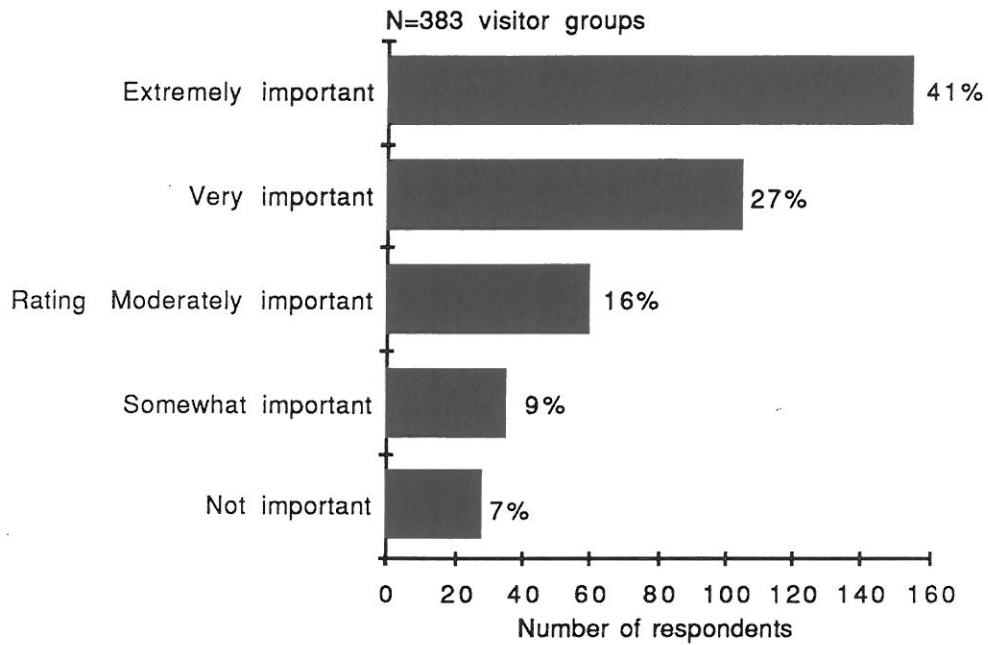


Figure 45: Importance ratings of solitude/quiet

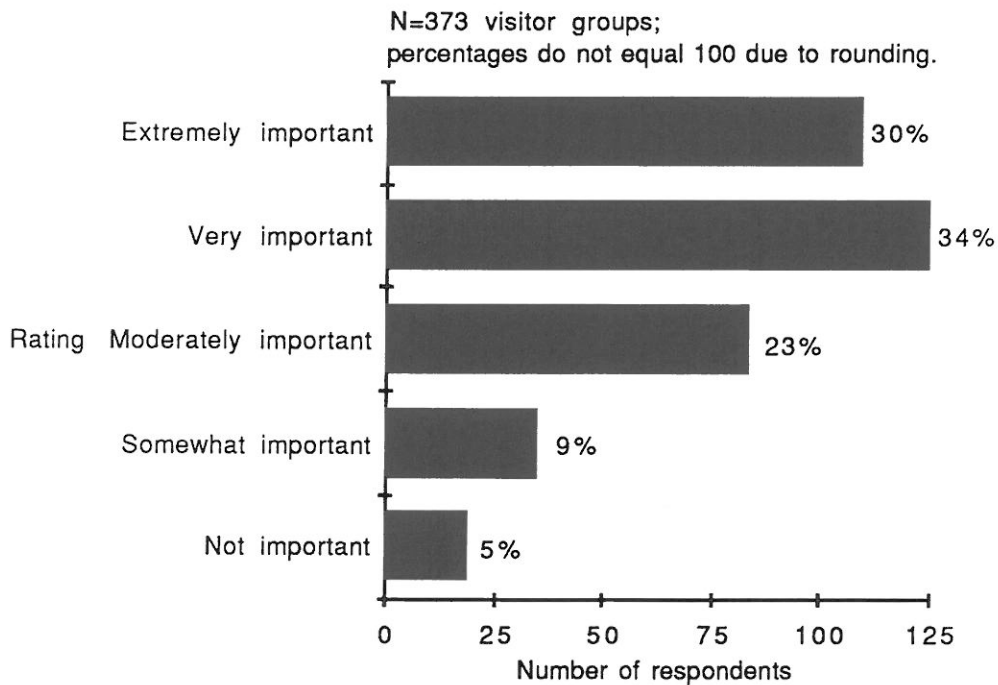


Figure 46: Importance ratings of the visitor center

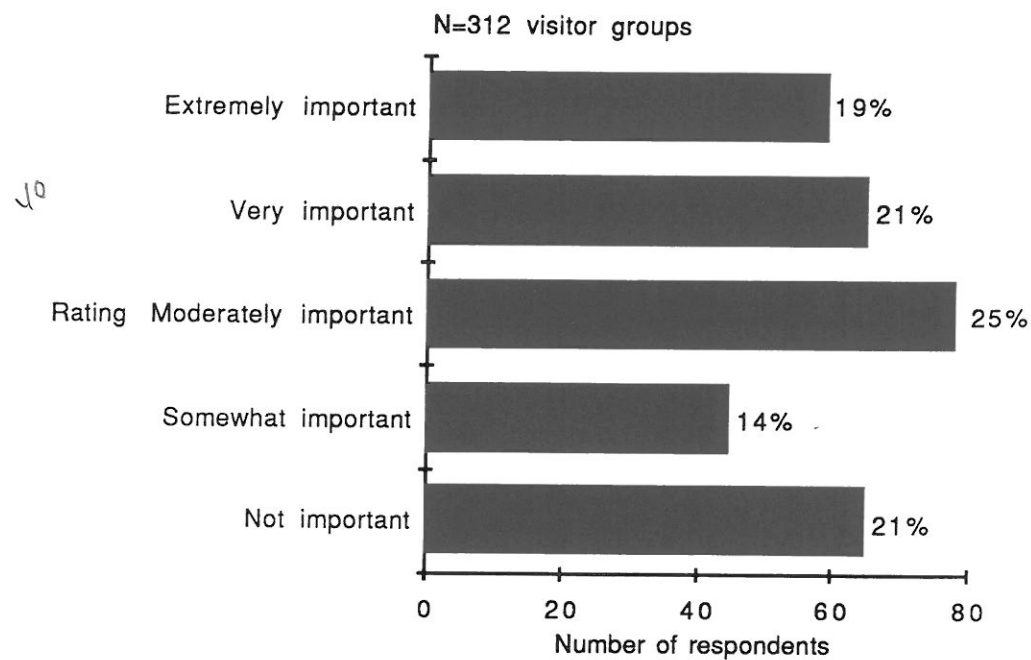


Figure 47: Importance ratings of scientific study

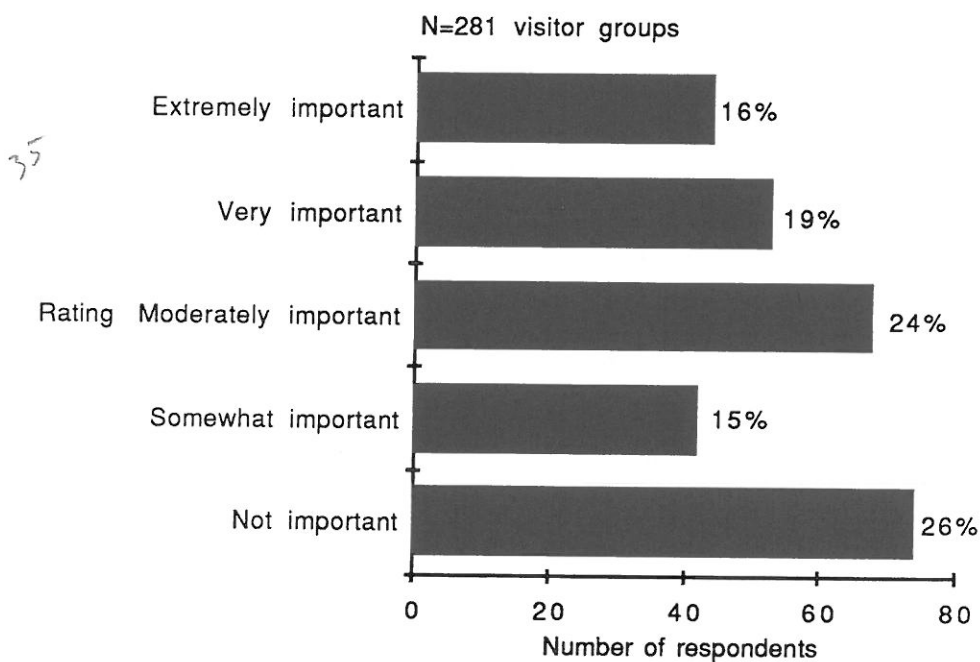


Figure 48: Importance ratings of ranger-led programs

L. Proposals for future planning

Visitors were asked, "If you were planning for the future of White Sands National Monument what would you propose?" A summary of their comments appears below and in the Appendix.

Table 4: Visitor proposals for future planning

N=421 comments;
many visitors made more than one comment.

Comment	Number of times mentioned
PERSONNEL	
National Park Service	
Employ local college students	1
INTERPRETIVE SERVICES	
Nonpersonal	
Need more plant & animal guides	5
Monument needs to be advertised more	4
Provide more information about other area sites	3
Provide wild life exhibit with fresh models	2
Need easier access to park brochure	2
Produce an exhibit about the missile range	2
Geographic/geological study of area needed	2
Produce a light display at night on the dunes	1
Provide information about monument at fee booth	1
Promote monument nationally	1
Produce a more detailed map/brochure	1
Provide information about the missile range	1
Expand brochure to include more scientific information	1
Provide more information about how the area was formed	1
Produce a slide show about the monument	1
Put more interpretive plant signs on the tour road	1
Improve present plant exhibit	1
Provide visitor center with more factual exhibits	1
Produce a more pictorial map for hiking	1
Place billboards on highways listing monument activities	1
Map should have most photographic sites marked	1
Map/brochure should be like other national parks	1
Produce a solar energy exhibit	1
Develop a working model of a sand dune	1
Distribute more brochures in the vicinity	1
Produce an exhibition why this is a national monument	1
Do exhibit on scientific studies in the monument area	1
Rent tape tours of park drive	1
Build interactive displays for kids	1
Produce larger marker posts at roadside exhibits	1

Do not advertise monument to lessen visitor impact	1
Continue research programs	1
Provide more specifications about dunes	1
Advertise services better	1

Personal

Update visitor center	6
Inform people to bring water	4
More ranger-led tours every hour	3
Provide more information about tours	3
Put a visitor center in picnic area	2
Continue ranger-led programs	2
Provide more entertainment & things to do	2
Provide more ranger-led programs in the morning	2
Offer guided vehicle tours	1
Keep visitor center open later in the summer	1
Inform people of heat conditions in park	1
Provide tram tours	1
Make evening programs about the monument	1
Station ranger in exhibit area to answer questions	1
Place employee at the entrance station to answer questions	1
Provide flying tours of monument area	1

FACILITIES AND MAINTENANCE

General

Maintain as is	57
Provide more water stations	16
Better restrooms	13
More restrooms	12
More shaded areas	9
More trash receptacles	6
Build a shower area	6
Build an observation tower over dune area	4
Build a man-made lake for swimming	4
Build a pool	4
Provide volleyball courts	3
Keep up park cleanliness	2
Build a water slide	2
Better litter control	2
Keep restrooms open longer	1
Mark water stations better	1
Add drinking water to restrooms	1
Build a play area in dunes for kids	1
Chop weeds	1
Paint all structures white	1
Cleaner pit toilets	1
Build restrooms at campsite	1
Put soap dispensers in restrooms	1

Roads and Trails

Build a road to Lake Lucero	4
More hiking trails	3
Road signs hard to read in blowing sand	2
Build bike trails	1
Make loop drive one way	1
More dune roads	1
Build a road around monument area	1
More mileage signs on the loop drive	1
Build a longer nature trail	1
Build a mono rail over the dune area	1
Provide parking places for recreation vehicles	1
Extended road out to dunes to help handicapped	1
Extended pavement through dune area	1
Designate an area for off road vehicles	1
Install lights on loop drive for night driving	1
Less parking spaces	1
Need better directional signs on I-10	1
Need better directional signs in Las Cruces	1

Campgrounds and Picnic Areas

Provide more shaded picnic areas	10
Provide more picnic areas	8
More camping sites	7
Build an RV campground	5
Overnight campground needed	4
Better picnic facilities	3
Get rid of picnic area	3
Provide more cook out areas	3
Add covered grills	3
Provide less picnic areas	2
Cleaner picnic tables	2
Build a pavilion for large gatherings	2
Designate an area for large groups	1
Put larger shades in picnic area	1
Put electrical outlets in picnic area	1
No campgrounds ever	1
Add another primitive campsite	1
Build three-sided picnic shelters to block wind	1
Build screened picnic shelters to block wind	1

POLICIES

Expand evening operating hours	7
Stronger anti-litter campaign needed	5
Provide better notice about park closing due to missiles	4
Stricter litter laws needed	4
Ban loud radios	3
More signs needed posting park rules	2
Restrict visitation to insure quiet and solitude	2
Force all visitors to orientation prior to entering	2

Ban all radios	2
Provide for 48-hour camping	2
Do not close during missile testing	2
Lift the ban on alcohol	1
Ban glass containers	1
Tularosa Malpais should be included in monument	1
Keep strict camping rules	1
Post no dog droppings signs in dunes	1
Stricter fines & punishments for law breakers in park	1
Keep dogs out	1
Monitor Big Dunes Trail to keep people off	1
Post sign: Clean up litter to control bugs	1
Search cars for sand and plant life	1
Protect land from development	1
Do not allow any domestic animals	1
Would like to see more rangers on patrol	1
Under-age drinkers a problem	1
Press for more appropriation	1
Make area less available to drivers	1
Ban test bombing in the area	1
No off-road vehicles allowed ever	1

GENERAL IMPRESSIONS

Clean up glass & other dangerous items in the sand	3
Do not over develop area	3
Put up sign: "Do not take sand"	2
Encourage people not to bring glass	2
Provide environmental programs for children	2
Build an oasis in picnic area with palm trees	1
Provide an area for quiet (no kids)	1
Restrict driving	1
Restrict visitor use to dunes	1
Preserve area for recreational use	1
Start a recycling program in the park	1
Expand the protected area	1
Provide access to white sands proving grounds	1
Support further research in biology & ecology	1

CONCESSIONS

Rent sand boards	10
Put snack bar in picnic area	8
Rent or sell sand toys for kids	2
Sell picnic supplies	2
Build a convenience store	1
Ice machines needed	1
Increase variety of food sold	1
Sell jug water	1
Separate gift shop from snack bar	1
Enlarge gift shop	1
Enlarge snack bar area	1

GENERAL IMPRESSIONS

Advertise there is no restaurant	1
Thank you for allowing dune climbing & hiking	1
Promote area as a movie location	1
Need sand castle building contests	1

M. Comment summary - Introduction

The Appendix of this report contains unedited comments made by visitors. A summary of these comments appears below, and in the Appendix. Some comments offer specific suggestions regarding what visitors feel is necessary for the park's survival; others reflect perceived needs for policies, programs, services, and facilities toward the improvement of visitor experiences. A wide variety of topics are mentioned, including natural features, personnel, maintenance, and regulations.

Visitor comment summary

N=386 comments;
many visitors made more than one comment.

Comment	Number of times mentioned
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PERSONNEL

National Park Service

Staff friendly, courteous/helpful	11
Rangers helpful/professional	10
Rangers friendly	7
Rangers informative	2
Staff well groomed	1
Staff upholds fine tradition of NPS	1
Did not see any rangers	1
Rangers did a good job	1
Would like information on how to be a ranger	1
Rangers an asset to park	1
Ranger did not show for advertised walk	1

INTERPRETIVE SERVICES

Nonpersonal

Exhibits good	2
Expand brochure to include more natural history	1
Exhibits on dune formation interesting	1
Map confusing in relation to numbered turn-outs	1
Signs & markers should have a low profile	1
Plant identification helpful	1
Plant exhibit needs improvement	1
Need exhibit on other white sands locations	1
Enjoyed inside plant exhibit	1
Enjoyed outside plant exhibit	1
Map confusing in relation to to numbered posts on trail	1
Did not see any exhibits in visitor center	1
Visitor center needs to be improved	1

Exhibits need to be improved	1
Road signs should state creationist theory not evolutionists	1
Need sign to tell distance from ranger station to picnic area	1
Liked park brochure	1

Personal

Ranger-led walks were great	2
Visitor center well run	1
Enjoyed Big Dune walk	1
More interpretive programs need to be offered	1

FACILITIES AND MAINTENANCE

General

Park well cared for	17
Restrooms clean	4
Recreational vehicle camping area needed	3
Bathrooms to far away	1
Park lacks shade	1
Park lacks water	1
Picnic facilities well done	1
Entrance station too low for recreational vehicles	1
Litter needs to be picked up	1
Movable picnic tables creative	1
Put in an airstrip	1
Liked gypsum-packed road	1
Road from Alamogordo needs more directional signs	1
More campgrounds needed	1

POLICIES

Entrance fee reasonable	2
Advertise people should bring lip balm and sun screen	1
Was not told gate receipt good for seven days	1
Appreciate seeing rangers on patrol	1
Make hikers carry out what they carry in	1

RESOURCE MANAGEMENT

Fleas in afternoon were a problem	1
Expand monument area	1
Lots of bugs	1
Liked idea of ranger handing out trash bags	1

CONCESSIONS

Not enough gas stations in monument area	1
Rent umbrellas for shade	1
Include sitting area in snack bar	1
Rent sand boards	1
Gift shop & snack bar more than adequate	1
Gift shop prices reasonable	1

NATIONAL PARK SERVICE

We love our national parks	2
Enjoy visiting national parks	2
National parks are worth our taxes	1
Appreciate area being preserved by NPS	1
NPS outstanding example of applied democracy	1
Government needs to preserve Three Rivers Petroglyph Site	1

VISITOR SERVICES PROJECT

Thanks for asking opinions	1
Expand questionnaire to include Las Cruces & El Paso areas	1
It is an honor to participate in survey	1

GENERAL IMPRESSIONS

Enjoyed visit	73
Park beautiful	34
Will visit again	24
Not enough time	21
Have visited monument numerous times	17
Park unique	17
Liked natural unspoiled area	15
Enjoyed playing in sand	10
Interesting place	10
Loved solitude	9
Wind caused us to shorten visit	6
Keep up the good work	6
Advertise park more	5
Too hot to stay longer	4
Favorite national park to visit	2
Worth detour	2
Visited other sites in area	2
Did not like waiting due to testing	2
Want copy of geographic status book	1
I wish I could have seen park	1
Nice to visit park that was not overly restricted	1
Not much improvement in twenty years	1
Park should be open to more commercials	1

MENU FOR FURTHER ANALYSIS

Park personnel who wish to see other tables, graphs, and maps in order to learn more about their visitors may request such information from the VSP. Two kinds of analyses are available:

1) Two-way comparisons compare two characteristics at a time. For example, to learn about the activities of a particular age group, request a comparison of activity by age group; to learn how total expenditures varied among group types, request a comparison of total expenses by group type.

2) Three-way comparisons compare a two-way comparison to a third characteristic. For example, to learn about the site activities of visitor group types, request a comparison of (activity by site visited) by group type; to learn about age participation in a site activity, request a comparison of (age group by activity by site visited).

Consult the complete list of the characteristics from White Sands visitors; then write those desired in the appropriate blanks on the order form. Two order forms follow the example below.

SAMPLE

Analysis Order Form
Visitor Services Project
Report 29 (White Sands)

Date of request: _____

Person requesting analysis: _____

Phone number (commercial): _____

The following list specifies all of the variables available for comparison from the visitor survey conducted in your park. Consult this list for naming the characteristics of interest when requesting additional two-way and three-way comparisons.

• Group size	• Number of visits	• Lodging expenses
• Group type	• Purpose of visit	• Travel expenses
• Age	• Activity	• Other expenses
• State residence	• Site visited	• Features importance
• Length of stay (days)	• Attractions visited	• Service/facility importance
• Length of stay (hours)	• Total expenses	• Service/facility quality
• Source of information	• Food expenses	

Two-way comparisons (please write in the appropriate variables from the above list)

group size by number of visits

Three-way comparisons (please write in the appropriate variables from the above list)

group type by number of visits by activity

Special instructions

(Tell us the format you need, the purpose of the information and so forth)

Mail to:
 Cooperative Park Studies Unit
 College of Forestry, Wildlife, and Range Sciences
 University of Idaho
 Moscow, Idaho 83843

**Analysis Order Form
Visitor Services Project
Report 29 (White Sands)**

Date of request: ____/____/____

Person requesting analysis: _____

Phone number (commercial): _____

The following list specifies all of the variables available for comparison from the visitor survey conducted in your park. Consult this list for naming the characteristics of interest when requesting additional two-way and three-way comparisons.

- | | | |
|--------------------------|-----------------------|-------------------------------|
| • Group size | • Number of visits | • Lodging expenses |
| • Group type | • Purpose of visit | • Travel expenses |
| • Age | • Activity | • Other expenses |
| • State residence | • Site visited | • Features importance |
| • Length of stay (days) | • Attractions visited | • Service/facility importance |
| • Length of stay (hours) | • Total expenses | • Service/facility quality |
| • Source of information | • Food expenses | |

Two-way comparisons (please write in the appropriate variables from the above list)

_____ by _____

_____ by _____

_____ by _____

Three-way comparisons (please write in the appropriate variables from the above list)

_____ by _____ by _____

_____ by _____ by _____

_____ by _____ by _____

Special instructions

Mail to:
Cooperative Park Studies Unit
College of Forestry, Wildlife, and Range Sciences
University of Idaho
Moscow, Idaho 83843

Questionnaire

Publications of the Visitor Services Project

A number of publications have been prepared as part of the Visitor Services Project. Reports 1-4 are available at cost from the University of Idaho Cooperative Park Studies Unit upon request. All other reports are available from the respective parks in which the studies were conducted.

- | | |
|--|--|
| 1. Mapping interpretive services: A pilot study at Grand Teton National Park, 1983. | 20. Craters of the Moon National Monument, 1989. |
| 2. Mapping interpretive services: Identifying barriers to adoption and diffusion of the method, 1984. | 21. Everglades National Park, 1989. |
| 3. Mapping interpretive services: A follow-up study at Yellowstone National Park and Mt. Rushmore National Memorial, 1984. | 22. Statue of Liberty National Monument, 1990. |
| 4. Mapping visitor populations: A pilot study at Yellowstone National Park, 1984. | 23. The White House Tours, President's Park, 1990. |
| 5. North Cascades National Park Service Complex, 1985. | 24. Lincoln Home National Historic Site, 1990. |
| 6. Crater Lake National Park, 1986. | 25. Yellowstone National Park, 1990. |
| 7. Gettysburg National Military Park, 1987. | 26. Delaware Water Gap National Recreation Area, 1990. |
| 8. Independence National Historical Park, 1987. | 27. Muir Woods National Monument, 1990. |
| 9. Valley Forge National Historical Park, 1987. | 28. Canyonlands National Park, 1991. |
| 10. Colonial National Historical Park, 1988. | 29. White Sands National Monument, 1991 |
| 11. Grand Teton National Park, 1988. | |
| 12. Harpers Ferry National Historical Park, 1988. | |
| 13. Mesa Verde National Park, 1988. | |
| 14. Shenandoah National Park, 1988. | |
| 15. Yellowstone National Park, 1988. | |
| 16. Independence National Historical Park: Four Seasons Study, 1988. | |
| 17. Glen Canyon National Recreation Area, 1989. | |
| 18. Denali National Park and Preserve, 1989. | |
| 19. Bryce Canyon National Park, 1989. | |

For more information about the Visitor Services Project, please contact Dr. Gary E. Machlis, University of Idaho Cooperative Park Studies Unit, College of Forestry, Wildlife and Range Sciences, Moscow, Idaho 83843 or call (208) 885-7129.