Chiricahua National Monument
Visitor Study

Spring 2011

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Visitor Services Project Publications:
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Executive Summary

This visitor study report profiles a systematic random sample of Chiricahua National Monument visitors during March 1–7, 2011. A total of 394 questionnaires was distributed to visitor groups. Of those, 332 questionnaires were returned, resulting in an 84.3% response rate.

Group size and type	Sixty percent of visitor groups consisted of two people and 23% were in groups of four or more. Sixty-two percent of visitor groups consisted of family groups.
State or country of residence	United States visitors were from 42 states and Washington, D.C. and comprised 85% of total visitation during the survey period, with 26% from Arizona and smaller portions from 41 other states and Washington, D.C. International visitors were from 10 countries and comprised 15% of total visitation.
Frequency of visits	Seventy-four percent visited the park once in the past five years. Sixty-nine percent of visitors were visiting the park for the first time in their lifetime.
Age	Eighty-five percent of visitors were ages 51 years or older, and 2% were ages 15 years or younger.
Physical conditions	Fifteen percent of visitor groups had members with physical conditions affecting their ability to access or participate in park activities and services.
Information sources	Most visitors (85%) obtained information about the park prior to their visit through friends/relatives/word of mouth (45%), and most (93%) received the information they needed. Two percent of visitor groups would prefer to receive information in languages other than English. Sixty-nine percent of visitor groups would use the park website to obtain information for a future visit.
Primary reason for visiting the area	Eight percent of visitor groups were residents of the area (within 75 miles of the park). The most common primary reasons for visiting the park area among non-resident visitor groups were to visit the park (63%) and visit other attractions in the area (15%).
Transportation	Ninety-four percent of visitor groups used one vehicle to arrive at the park. Ten percent of visitor groups drove a recreational vehicle and 7% were in a vehicle pulling a trailer or another vehicle.
Overnight stays	Sixty-three percent of visitor groups stayed overnight inside Chiricahua National Monument or in the area within 75 miles of the park. Of those visitor groups that stayed inside the park, 33% stayed two nights. Of those visitors that stayed outside the park in the area within 75 miles, 32% stayed five or more nights.
Accommodations	Of those visitor groups that stayed inside the park, 77% were RV/trailer camping and 23% tent camped in a developed campground. Of those visitor groups that stayed outside the park in the area within 75 miles, 57% stayed in a lodge, hotel, motel, vacation rental, B&B, etc.

Executive Summary (continued)

Park entries and length of stay	Eighty-eight percent of visitor groups entered the park one time during this visit. The average length of stay in the park was 0.5 days and the average length of stay within 75 miles of the park was 5.0 days.
Sites visited	The most commonly visited sites in the park were the visitor center (85%), Massai Point (76%), and Echo Canyon (54%). Seventy-four percent of visitor groups visited the visitor center first.
Activities	The most common activities on this visit were general sightseeing (88%), and visiting the visitor center (79%). On a future visit, 82% of visitor groups would like to walk/day hike and 71% would like to do general sightseeing.
Ranger-led programs/activities	Twelve percent of visitor groups attended ranger-led talks/programs/ activities. Sixty-seven percent of visitor groups did not participate because they did not have time, while 33% did not because they were not aware that ranger-led programs were offered. However, 65% of visitor groups were interested in attending a ranger-led program on a future visit to the park. Of these, 87% preferred ranger-led hikes lasting 1-3 hours.
Information services and facilities	The information services and facilities most commonly used by visitor groups were the park brochure/map (86%), the visitor center exhibits (66%), and the entrance station (66%).
Opinions about safety	Eighty-seven percent of visitor groups felt "very safe" regarding their personal safety from crime and 63% felt "very safe" regarding their personal safety from accidents. Seventy-nine percent of visitor groups felt their personal property was "very safe" from crime.
Expenditures	The average visitor group expenditure (inside and outside the park within 75 miles) was $407. The median group expenditure (50% of groups spent more and 50% of groups spent less) was $152, and the average total expenditure per person (per capita) was $170.
Methods of learning about the park	Eighty-six percent of visitor groups were interested in learning about the park. The most common preferred topics were geology (72%), early inhabitants/prehistoric peoples (70%), and Apache (69%).
Commercial services	Fifty-nine percent of visitor groups were interested in having commercial services on a future visit. Of those, 57% would like to have a café/ restaurant available and 42% would like a convenience store.
Overall quality	Most visitor groups (95%) rated the overall quality of facilities, services, and recreational opportunities at Chiricahua National Monument as "very good" or "good." No groups rated the overall quality as "very poor" or "poor."

For more information about the Visitor Services Project, please contact the Park Studies Unit at the University of Idaho at (208) 885-7863 or the following website http://www.psu.uidaho.edu.

Acknowledgements

About the Authors

Eleonora Papadogiannaki is a research assistant, and Dr. Yen Le is the Assistant Director of the Visitor Services Project. Dr. Steven Hollenhorst is the Director of the Park Studies Unit, Department of Conservation Social Sciences, University of Idaho.

Introduction

This report describes the results of a visitor study at Chiricahua National Monument in Wilcox, AZ, conducted March 1-7, 2011 by the National Park Service (NPS) Visitor Services Project (VSP), part of the Park Studies Unit (PSU) at the University of Idaho.

As described in the National Park Service website for Chiricahua National Monument, "A 'Wonderland of Rocks' is waiting for you to explore at Chiricahua National Monument. The 8-mile paved scenic drive and 17 miles of day-use hiking trails provide opportunities to discover the beauty, natural sounds, and inhabitants of this 11,985 acre site. Visit the Faraway Ranch Historic District to discover more about people who called this area home." (www.nps.gov/chir, retrieved July, 2011).

Organization of the Report

This report is organized into three sections.

Section 1: **Methods**. This section discusses the procedures, limitations, and special conditions that may affect the study results.

Section 2: **Results.** This section provides summaries for each question in the questionnaire and includes visitor comments to open-ended questions. The presentation of the results of this study does not follow the order of questions in the questionnaire.

Section 3: **Appendices**

Appendix 1: *The Questionnaire*. A copy of the questionnaire distributed to visitor groups.

Appendix 2: *Additional Analysis.* A list of sample questions for cross-references and cross comparisons. Comparisons can be analyzed within a park or between parks, Results for additional analyses are not included in this report.

Appendix 3: *Decision rules for checking non-response bias.* An explanation of how the non-response bias was determined.

Presentation of the Results

Results are represented in the form of graphs (see example below), scatter plots, pie charts, tables or text.

SAMPLE

1. The figure title describes the graph's information.

2. Listed above the graph, the "N" shows the number of individuals or visitor groups responding to the question. If "N" is less than 30, "**CAUTION!**" is shown on the graph to indicate the results may be unreliable.

 * appears when the total percentages do not equal 100 due to rounding.
** appears when total percentages do not equal 100 because visitors could select more than one answer choice.

3. Vertical information describes the response categories.

4. Horizontal information shows the number or proportions of responses in each category.

5. In most graphs, percentages provide additional information.
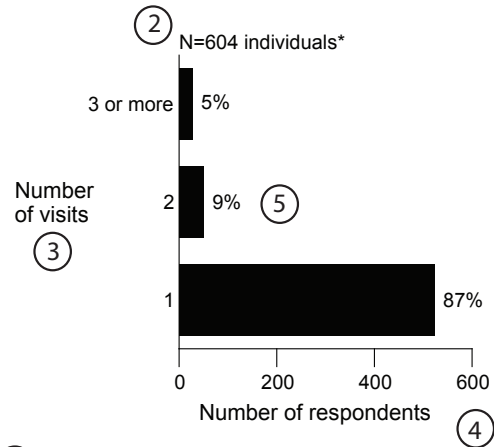
Figure 14. Number of visits to the park in past 12 months

Methods

Survey Design and Procedures

Sample size and sampling plan

All VSP questionnaires follow design principles outlined in Don A. Dillman's book *Mail and Internet Surveys: The Tailored Design Method* (2007). Using this method, the sample size was calculated based on the park visitation statistics of previous years.

Brief interviews were conducted with a systematic, random sample of visitor groups that arrived at the park during March 1-7, 2011. Visitors were surveyed between the hours of 8 a.m. and 5 p.m. Table 1 shows the two locations, number of questionnaires distributed at each location, and the response rate for each location. During this survey, 417 visitor groups were contacted and 394 of these groups (94%) accepted questionnaires. (The average acceptance rate for 228 VSP visitor studies conducted from 1988 through 2010 is 91.5%.) Questionnaires were completed and returned by 332 visitor groups, resulting in a 84.3% response rate for this study. (The average response rate for the 228 VSP visitor studies is 72.6%)

Table 1. Questionnaire distribution, spring 2011

	Distributed		Returned	
Sampling site	N	%	N	%
Entrance station	262	66	224	67
Visitor center	132	34	108	33
Total	394	100	332	100

Questionnaire design

The Chiricahua National Monument questionnaire was developed at a workshop held with park staff to design and prioritize questions. Some of the questions were comparable with VSP studies conducted at other parks while others were customized for Chiricahua National Monument. Many questions asked visitors to choose answers from a list of responses, often with an open-ended option, while others were completely open-ended.

No pilot study was conducted to test the Chiricahua National Monument questionnaire. However, all questions followed Office Management and Budget (OMB) guidelines and/or were used in previous surveys; thus, the clarity and consistency of the survey instrument have been tested and supported.

Survey procedure

Visitor groups were greeted, briefly introduced to the purpose of the study, and asked to participate. If visitors agreed, they were asked which member (at least 16 years old) had the next birthday. The individual with the next birthday was selected to complete the questionnaire for the group. An interview, lasting approximately two minutes, was conducted with that person to determine group size, group type, and the age of the member completing the questionnaire. These individuals were asked their names and addresses, and telephone numbers or email addresses in order to mail a reminder/thank-you postcard and follow-ups. Visitors were asked to complete the survey after their visit, and return the questionnaire by mail.

One half of the questionnaires were pre-addressed and affixed with a U.S. first-class postage stamp, while the remainder were distributed with a postage-paid business reply mail envelope. This was done to determine if response rates would differ between the two mailing systems. There was no difference in response rates.

Two weeks following the survey, a reminder/thank-you postcard was mailed to all participants who provided a valid mailing address (see Table 2). Replacement questionnaires were mailed to participants who had not returned their questionnaires four weeks after the survey. Seven weeks after the survey, a second round of replacement questionnaires was mailed to visitors who had not returned their questionnaires.

Table 2. Follow-up mailing distribution

Mailing	Date	U.S.	International	Total
Postcards	March 27, 2011	335	50	385
1st Replacement	April 5, 2011	114	15	129
2nd Replacement	April 25, 2011	70	0	70

Data Analysis

Returned questionnaires were coded and the visitor responses were processed using custom and standard statistical software applications—Statistical Analysis Software® (SAS), and a custom designed FileMaker Pro® application. Descriptive statistics and cross-tabulations were calculated for the coded data; responses to open-ended questions were categorized and summarized. Double-key data entry validation was performed on numeric and text entry variables and the remaining checkbox (bubble) variables were read by optical mark recognition (OMR) software.

Limitations

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

1. This was a self-administered survey. Respondents completed the questionnaire after their visit, which may have resulted in poor recall. Thus, it is not possible to know whether visitor responses reflected actual behavior.

2. The data reflect visitor use patterns at the selected sites during the study period of March 1-7, 2011. The results present a "snapshot in time" and 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. Whenever the sample size is less than 30, the word **"CAUTION!"** is included in the graph, figure, table, or text.

4. Occasionally there may be inconsistencies in the results. Inconsistencies arise from missing data or incorrect answers (due to misunderstood directions, carelessness, or poor recall of information). Therefore, refer to both the percentage and N (number of individuals or visitor groups) when interpreting the results.

Special conditions

The weather was cool and sunny with occasional clouds during the survey period. On March 5 and March 7, extremely high winds may have affected visitation. No special events occurred in the area, which would have affected the type and amount of visitation to the park.

Checking non-response bias

Three variables were used to check non-response bias: respondents' age, group size, and group type. Participants at higher age ranges were more responsive to the survey. Table 3 shows that the average respondent age was significantly higher than the average non-respondent age. There were no significant differences found in group sizes and group types (see Tables 3 and 4). There may be a potential bias toward visitors at higher age ranges. See Appendix 3 for more details of the non-response bias checking procedures.

Table 3. Comparison of respondents and non-respondents by average age and group size

Variable	Respondents	Non-respondents	p-value (t-test)
Age (years)	61.15 (N=332)	52.97 (N=62)	<0.001
Group size	2.53 (N=328)	2.58 (N=62)	0.751

Table 4. Comparison of respondents and non-respondents by group type

Group type	Respondents	Non-respondents	p-value (chi-square)
Alone	36	6	
Family	204	36	
Friends	59	14	
Family and friends	29	6	
			0.836

Results

Group and Visitor Characteristics

Visitor group size

Question 20b

On this visit, how many people were in your personal group, including yourself?

Results

- 60% of visitor groups consisted of two people (see Figure 1).

- 23% were in groups of four or more.

N=328 visitor groups

Group size

- 5 or more: 4%
- 4: 19%
- 3: 8%
- 2: 60%
- 1: 9%

Number of respondents
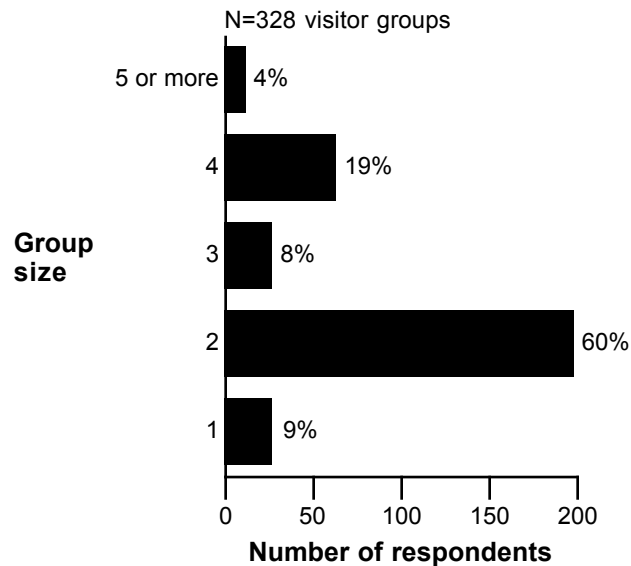
Figure 1. Visitor group size

Visitor group type

Question 20a

On this visit, what kind of personal group (not guided tour/school/other organized group) were you with?

Results

- 62% of visitor groups consisted of family members (see Figure 2).

- 18% were with friends.

N=328 visitor groups

Group type

- Family: 62%
- Friends: 18%
- Alone: 11%
- Family and friends: 9%
- Other: 0%

Number of respondents

Figure 2. Visitor group type

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*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Visitors with organized groups

Question 19a

On this visit, were you and your personal group with a commercial guided tour group?

Results

- 1% of visitor groups were with a commercial guided tour group (see Figure 3).

N=291 visitor groups

With commercial guided tour group?

Yes 1%

No 99%

0   100   200   300

Number of respondents
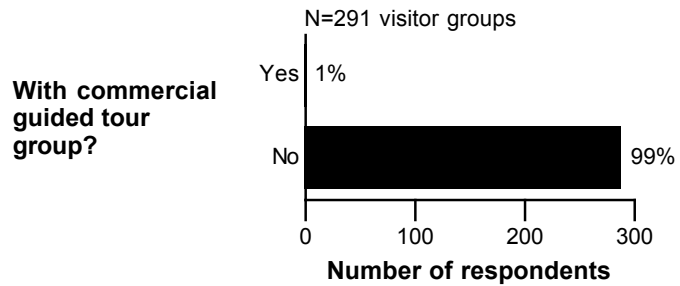
Figure 3. Visitors with a commercial guided tour group

Question 19b

On this visit, were you and your personal group with a school/educational group?

Results

- No visitor groups were with a school/educational group (see Figure 4).

N=288 visitor groups

With school/ educational group?

Yes 0%

No 100%

0   100   200   300

Number of respondents
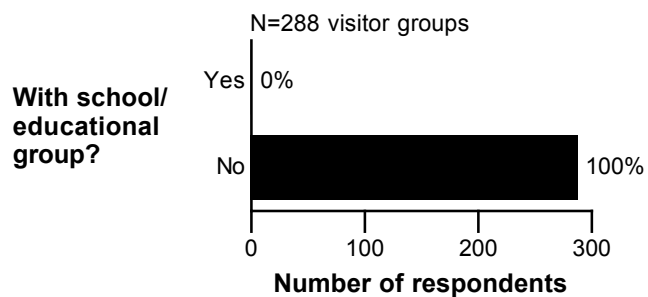
Figure 4. Visitors with a school/educational group

Question 19c

On this visit, were you and your personal group with an "other" organized group (scouts, work, church, etc.)?

Results

- 3% of visitor groups were with an "other" organized group (see Figure 5).

N=291 visitor groups

With other organized group?

Yes 3%

No 97%

0   100   200   300

Number of respondents
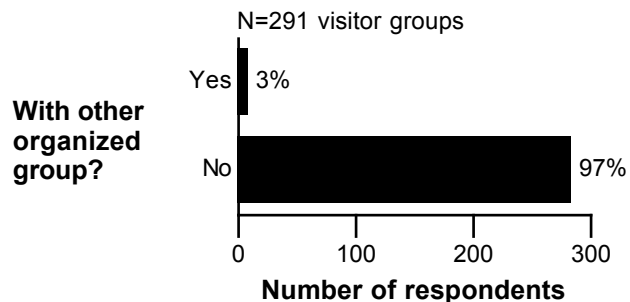
Figure 5. Visitors with an "other" organized group
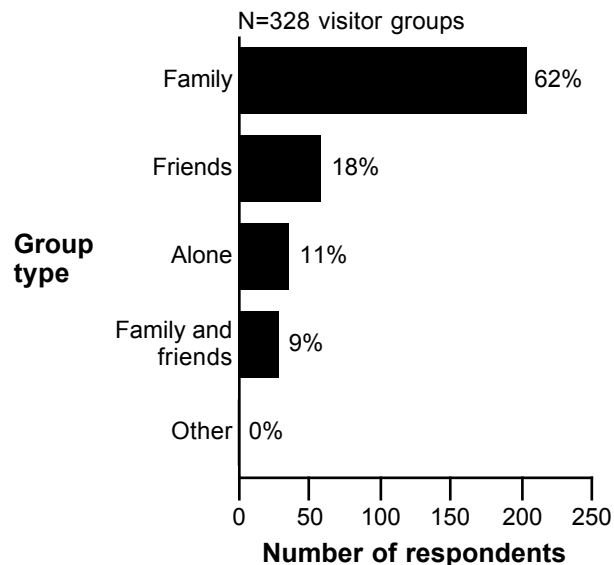
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*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Question 19d

If you were with one of these organized groups, how many people, including yourself, were in this group?

Results – Interpret with **CAUTION!**

- Not enough visitor groups responded to this question to provide reliable results (see Figure 6).

N=9 visitor groups

Number of people

11 or more — 67%

10 or fewer — 33% **CAUTION!**

Number of respondents

Figure 6. Organized group size

United States visitors by state of residence

Question 21b

For you and your personal group on this visit, what is your state of residence?

Note: Response was limited to seven members from each visitor group.

Results

- U.S. visitors were from 42 states and Washington, D.C. and comprised 85% of total visitation to the park during the survey period.

- 26% of U.S. visitors came from Arizona (see Table 5 and Figure 7).

- 6% came from Minnesota and 6% were from Oregon.

- Smaller proportions came from 39 other states and Washington, D.C.

Table 5. United States visitors by state of residence

State	Number of visitors	Percent of U.S. visitors N=632 individuals*	Percent of total visitors N=747 individuals
Arizona	165	26	22
Minnesota	41	6	5
Oregon	36	6	5
California	31	5	4
Colorado	30	5	4
Michigan	30	5	4
Washington	29	5	4
Wisconsin	26	4	3
New York	22	3	3
New Mexico	20	3	3
Illinois	18	3	2
Missouri	15	2	2
Texas	15	2	2
Alaska	14	2	2
Iowa	14	2	2
Pennsylvania	10	2	1
26 other states and Washington, D.C.	116	18	16
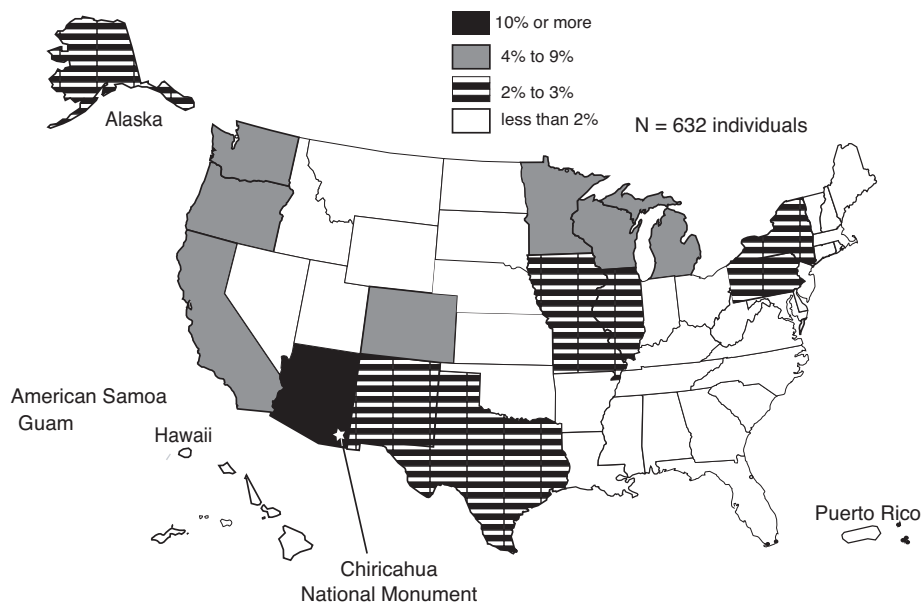
Figure 7. United States visitors by state of residence
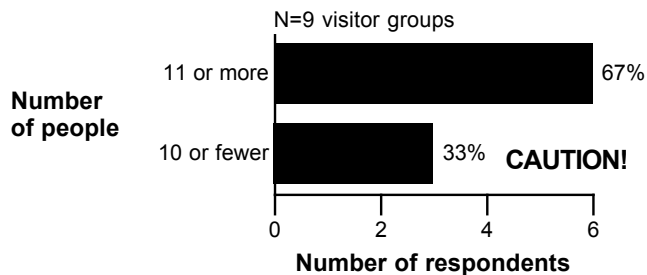
*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Visitors from Arizona and adjacent states by county of residence

Note: Response was limited to seven members from each visitor group.

Results
- Visitors from Arizona and adjacent states were from 50 counties and comprised 39% of the total U.S. visitation to the park during the survey period.

- 21% came from Cochise County, Arizona (see Table 6).

- 17% came from Maricopa County, Arizona.

- 15% came from Pima County, Arizona.

- Smaller proportions of visitors came from 47 other counties in Arizona and adjacent states.

Table 6. Visitors from Arizona and adjacent states by county of residence

County, State	Number of visitors N=249 individuals	Percent*
Cochise, AZ	53	21
Maricopa, AZ	42	17
Pima, AZ	38	15
Graham, AZ	6	2
Pinal, AZ	6	2
San Diego, CA	6	2
Coconino, AZ	5	2
Adams, CO	4	2
Boulder, CO	4	2
Larimer, CO	4	2
Luna, NM	4	2
Yavapai, AZ	4	2
Doña Ana, NM	3	1
Los Angeles, CA	3	1
Navajo, AZ	3	1
Orange, CA	3	1
San Benito, CA	3	1
Santa Cruz, AZ	3	1
32 other counties	55	22

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

International visitors by country of residence

Question 21b

For you and your personal group on this visit, what is your country of residence?

Note: Response was limited to seven members from each visitor group.

Results

• International visitors were from 10 countries and comprised 15% of total visitation to the park during the survey period.

• 77% of international visitors came from Canada (see Table 7).

• 7% came from Germany.

• 5% came from France.

• Smaller proportions of international visitors came from 7 other countries.

Table 7. International visitors by country of residence

Country	Number of visitors	Percent of international visitors N=115 individuals*	Percent of total visitors N=747 individuals
Canada	88	77	12
Germany	8	7	1
France	6	5	1
Netherlands	3	3	<1
Mexico	2	2	<1
Sweden	2	2	<1
Switzerland	2	2	<1
United Kingdom	2	2	<1
Belgium	1	1	<1
Czech Republic	1	1	<1

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Number of visits in past 5 years

Question 21c

For you and your personal group on this visit, how many times have you visited Chiricahua National Monument in the past five years (including this visit)?

Note: Response was limited to seven members from each visitor group.

Results

- 74% of visitors visited the park once in the past five years (see Figure 8).

N=711 individuals*

Number of visits	
5 or more	4%
4	3%
3	5%
2	13%
1	74%

Number of respondents
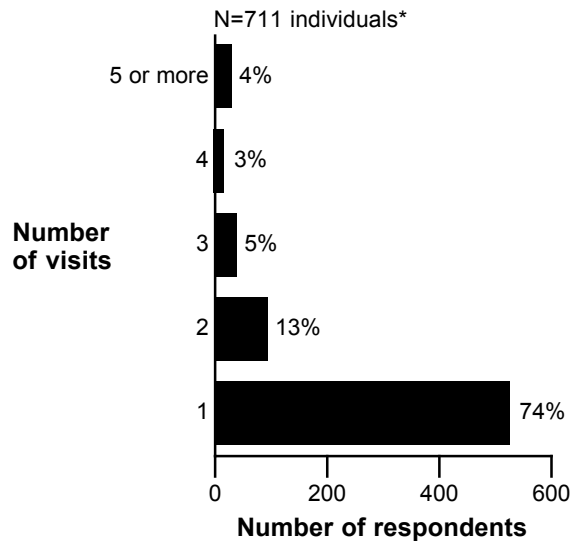
Figure 8. Number of visits to park in past five years

Number of lifetime visits

Question 21d

For you and your personal group on this visit, how many times have you visited Chiricahua National Monument in your lifetime (including this visit)?

Note: Response was limited to seven members from each visitor group.

Results

- 69% of visitors visited the park once in their lifetime (see Figure 9).

N=625 individuals

Number of visits	
5 or more	8%
4	4%
3	6%
2	13%
1	69%

Number of respondents
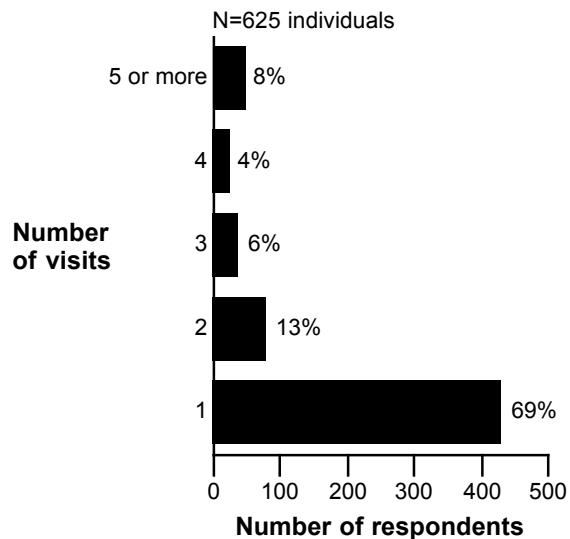
Figure 9. Number of visits to park in lifetime

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Visitor age

Question 21a

For you and your personal group on this visit, what is your current age?

Note: Response was limited to seven members from each visitor group.

Results

- Visitor ages ranged from 1 to 86 years.

- 85% of visitors were 51 years old or older (see Figure 10).

- 2% of visitors were in the 15 years or younger age group.

N=804 individuals
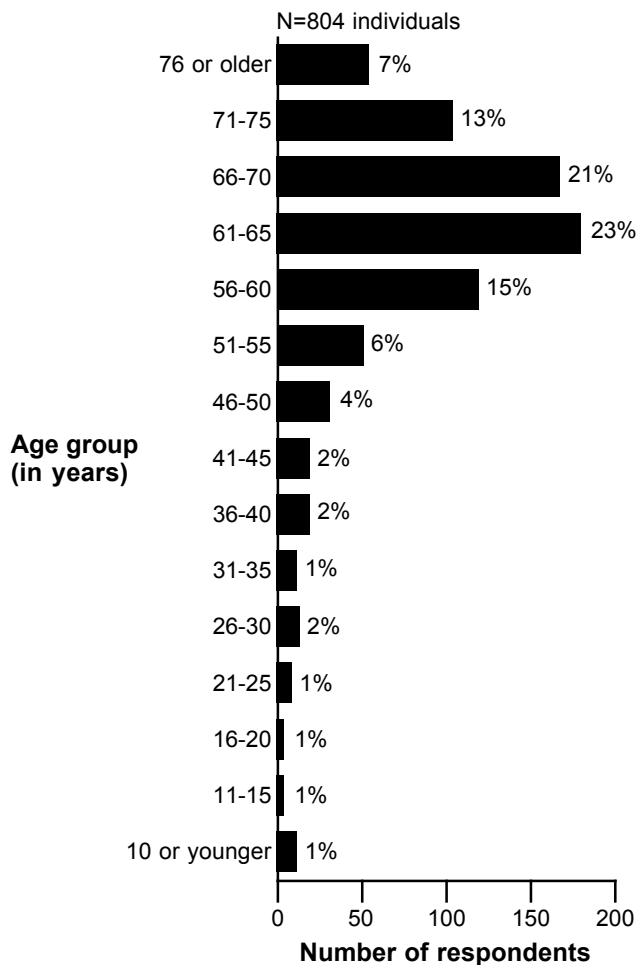
Figure 10. Visitor age

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*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Visitors with physical conditions

Question 15a

Does anyone in your personal group have a physical condition that made it difficult to access or participate in park activities or services?

Results

- 15% of visitor groups had members with physical conditions (see Figure 11).

N=329 visitor groups
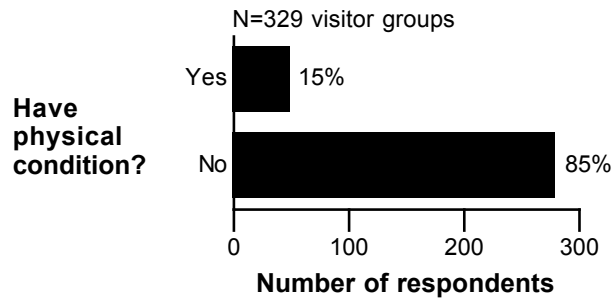
Figure 11. Visitor groups that had members with physical conditions

Question 15b

If YES, what services or activities were difficult to access/participate in? (Open-ended)

Results

- 45 visitor groups listed services or activities that were difficult to access or participate in (see Table 8).

Table 8. Services/activities that were difficult to access/participate in (N=47 comments; some visitor groups made more than one comment)

| Service/activity	Number of times mentioned
Walking/hiking	40
Accessing steps to lookout	2
Climbing	1
House tour	1
Information that needs captions	1
The Ranch was not handicap accessible	1
Visiting visitor center in a wheelchair	1

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Household income

Question 22a
   Which category best represents
   your annual household income?

Results
   • 21% of respondents reported
      a household income of
      $75,000-$99,999 (see
      Figure 12).

   • 20% had an income of
      50,000-$74,999.
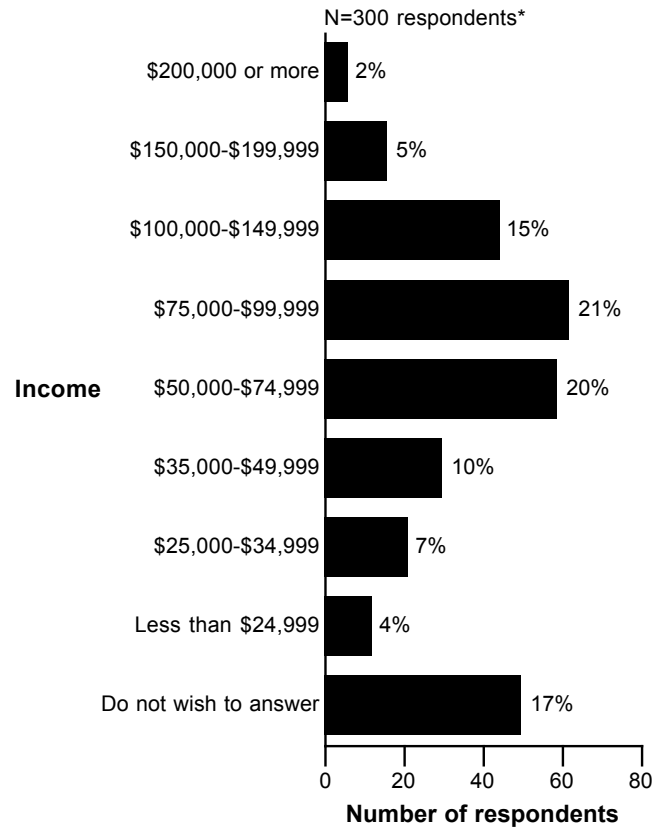
N=300 respondents*

Figure 12. Respondent's level of income

Household size

Question 22b
   How many people are in your
   household?

Results
   • 77% of respondents had two
      people in their household
      (see Figure 13).

   • 11% had one person.

N=306 respondents

Figure 13. Number of people in household

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Trip/Visit Characteristics and Preferences

Information sources prior to visit

Question 1a

Prior to your visit, how did you and your personal group obtain information about Chiricahua National Monument?

Results

•   85% of visitor groups obtained information about Chiricahua National Monument prior to their visit (see Figure 14).

•   As shown in Figure 15, among those visitor groups that obtained information about Chiricahua National Monument prior to their visit, the most common sources were:

    45% Friends/relatives/word of mouth
    37% Maps/brochures
    30% Previous visits

•   "Other" websites (4%) were:

    Arizona state parks
    Google
    GORP
    Sabo.org
    Tripadvisor.com
    Visitaz.com
    Wikipedia

•   "Other" sources (4%) were:

    Books
    History books
    Information at campground
    Kartchner Cavern
    NPS Passport
    Resident of the area

Figure 14. Visitor groups that obtained information prior to visit

Figure 15. Sources of information used by visitor groups prior to visit
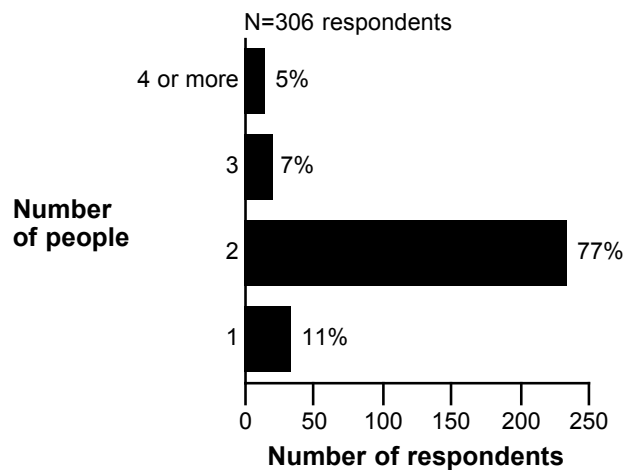
*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

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Question 1c

From the sources you used prior to this visit, did you and your personal group receive the type of information about the park that you needed?

N=274 visitor groups

Received needed information?

Results
- 93% of visitor groups received needed information prior to their visit (see Figure 16).
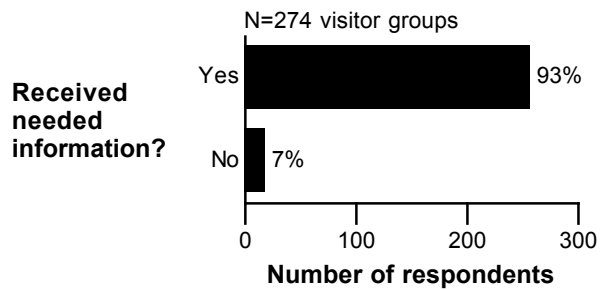
Figure 16. Visitor groups that received needed information prior to their visit

Question 1d

If NO, what type of park information did you and your personal group need that was not available? (Open-ended)

Results – Interpret results with **CAUTION!**
- 15 visitor groups listed information they needed but was not available (see Table 9).

Table 9. Needed information that was not available
(N=18 comments; some visitor groups made more than one comment) **CAUTION!**

Type of information	Number of times mentioned
Hiking/trail information	3
Camping information	2
Things to see/do	2
Access from the park to the national forest	1
Brochure before entering visitor center	1
Cochise County map could be more detailed	1
Eating establishments with RV parking	1
Information on handicap access	1
Map	1
NPS Passport book	1
Specify elevation	1
Temperature	1
What I was going to see	1
Where to park a motorhome	1

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Information sources for future visit

Question 1b

If you were to visit Chiricahua National Monument in the future, how would you and your personal group prefer to obtain information about the park?

Results

- As shown in Figure 17, visitor groups' most preferred sources of information for a future visit were:

  69% Park website
  38% Maps/brochures
  33% Travel guides/tour books

- "Other" websites (4%) were:

  Area websites
  Arizona state parks
  Sabo.org
  Tripadvisor.com
  Visitaz.com
  Wikipedia

- "Other" source of information (1%) was:

  Night skies program

N=238 visitor groups**

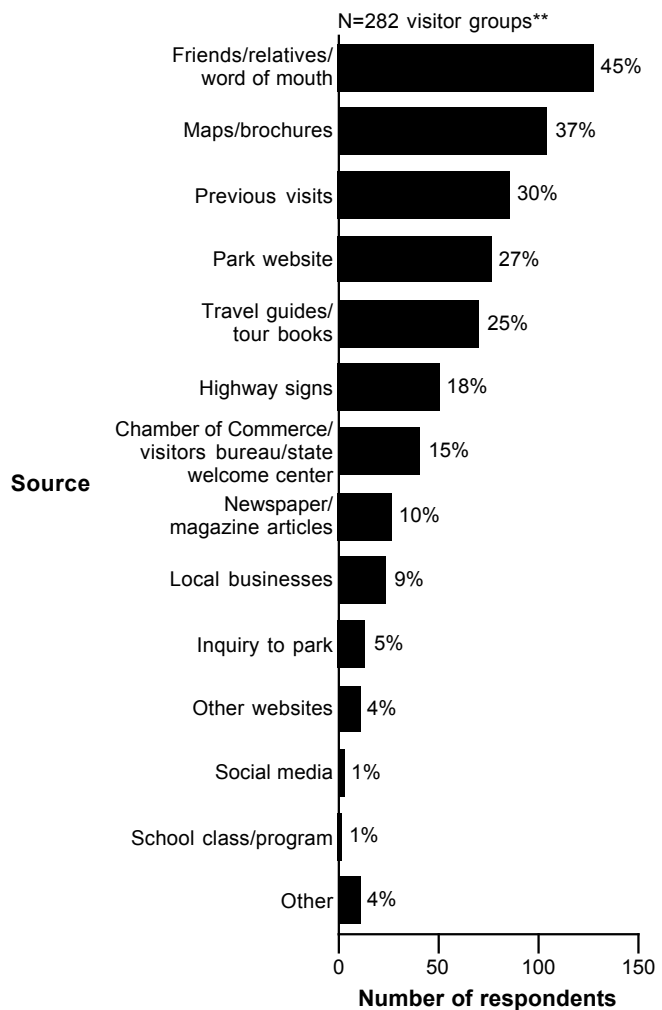| Source	
Park website	69%
Maps/brochures	38%
Travel guides/tour books	33%
Previous visits	26%
Chamber of commerce/visitors bureau/state welcome center	18%
Friends/relatives/word of mouth	18%
Highway signs	16%
Inquiry to park	13%
Newspaper/magazine articles	9%
Local businesses	5%
Other websites	4%
Social media	3%
School class/program	<1%
Other	1%

Number of respondents

Figure 17. Sources of information to use for a future visit

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Information in other languages

Question 2a

Would you or any member of your personal group prefer to receive information about Chiricahua National Monument in languages other than English?

N=322 visitor groups

Figure 18. Visitor groups that would prefer to receive information in other languages
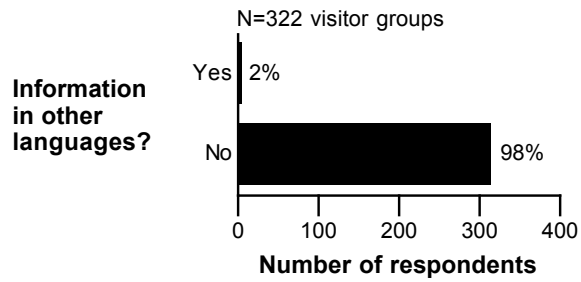
Results

- 2% of visitor groups would prefer to receive information about Chiricahua National Monument in languages other than English (see Figure 18).

Question 2b

If YES, which languages? (Open-ended)

Results – Interpret results with **CAUTION!**

- Table 10 shows the other languages in which visitor groups would prefer to receive information.

Table 10. Languages in which visitor groups would prefer to receive information – **CAUTION!** (N=6 comments)

| Language	Number of times mentioned
French	3
German	2
Korean	1

---

*total percentages do not equal 100 due to rounding

**total percentages do not equal 100 because visitors could select more than one answer

Primary reason for visiting the park area

Question 3
   On this trip, what was the primary reason that you and your personal group came to the Chiricahua National Monument area (within 75 miles of the park)?

Results
   • 8% of visitor groups were residents of the area (see Figure 19).

   • As shown in Figure 20, the primary reason for visiting the area (within 75 miles) of Chiricahua National Monument among non-resident visitor groups was:

      63% Visit the park

   • "Other" primary reasons (3%) were:

      Astronomy
      Birdwatching
      Came with a
         hiking group
      Never visited before
      Obtain senior pass
      Snowbirds

N=282 visitor groups

Resident of area?

Yes — 8%

No — 92%

Number of respondents
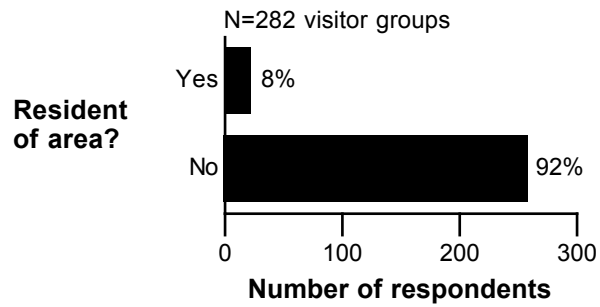
Figure 19. Residents of the area (within 75 miles of Chiricahua National Monument)

N=259 visitor groups

Reason

Visit the park — 63%
Visit other attractions in the area — 15%
Traveling through-unplanned visit — 12%
Visit friends/relatives in the area — 7%
Business — 0%
Other — 3%

Number of respondents

Figure 20. Primary reason for visiting the Chiricahua National Monument area (within 75 miles)

_____
*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Alternative sites

Question 18a

On this trip, if you and your personal group had not chosen to visit Chiricahua National Monument, what other recreation site would you have visited instead? (open-ended)

Results

- 185 visitor groups responded to this question,

- Table 11 shows the sites visitor groups would have visited had they not visited Chiricahua National Monument

Table 11. Sites that visitor groups would have visited had they not chosen to visit Chiricahua National Monument
(N=218 comments; some visitor groups made more than one comment.)

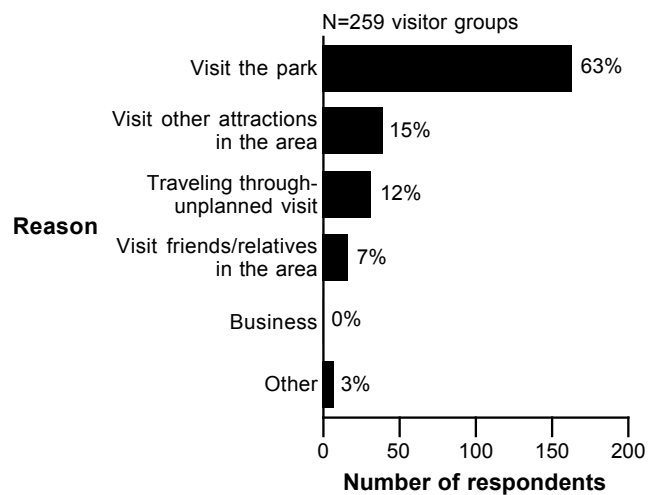| Site	Number of times mentioned
None	24
Cochise Stronghold	17
Bisbee, AZ	14
Don't know	13
Fort Bowie NHS	12
Other (unspecified)	11
Other national or state parks (unspecified)	11
Tombstone, AZ	11
Kartchner Caverns	10
Organ Pipe Cactus NM	6
Lake Patagonia State Park	5
Dragoon Mountains	4
Saguaro NP	4
Coronado National Memorial	3
White Sands NM	3
Amerind Museum	2
Canyon de Chelly NM	2
Cave Creek	2
Coronado	2
Douglas, AZ	2
Fort Huachuca	2
Gila Cliff Dwellings NM	2
Kitt Peak National Observatory	2
Monument Valley	2
Mount Graham	2
Pettrified Forest NP	2
Other sites	48

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Question 18b

How far is this alternative site from your home?

Results

- 58% of visitor groups listed an alternative site that was 1-500 miles from their home (see Figure 21).

- 27% listed a site that was over 1500 miles from home.
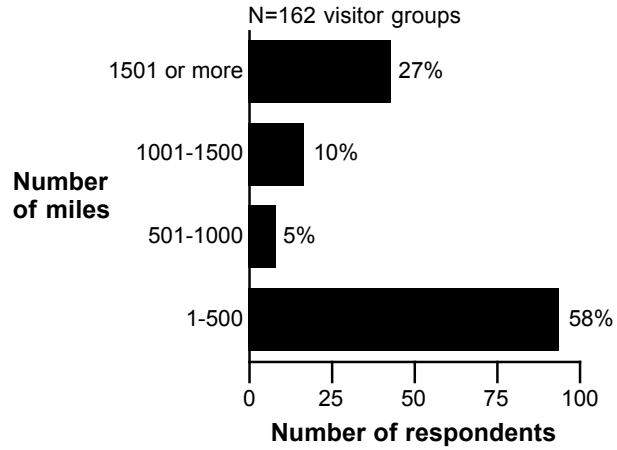
N=162 visitor groups

Figure 21. Distance from home of alternative site

_____

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Number of vehicles

Question 4

On this visit, how many vehicles did you and your personal group use to arrive at the park?

Results

- 94% of visitor groups used one vehicle to arrive at the park (see Figure 22).

N=328 visitor groups

Number of vehicles

3 or more 1%

2 5%

1 94%

0   100   200   300   400

Number of respondents
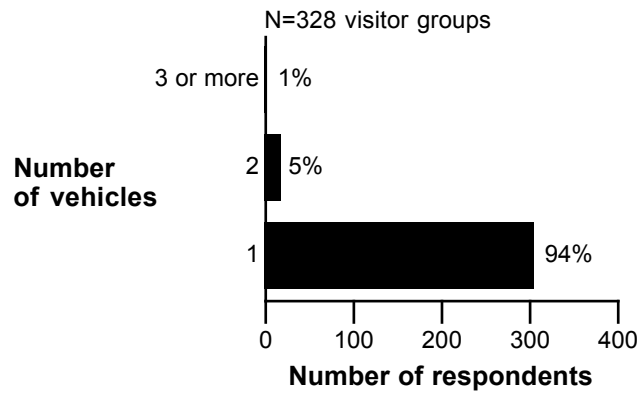
Figure 22. Number of vehicles used to arrive at the park

Use of recreational vehicles

Question 5a

On this visit, did you and your personal group drive a recreational vehicle to Chiricahua National Monument?

Results

- 10% of visitor groups drove a recreational vehicle to Chiricahua National Monument (see Figure 23).

N=332 visitor groups

Drove a recreational vehicle?

Yes 10%

No 90%

0   100   200   300

Number of respondents
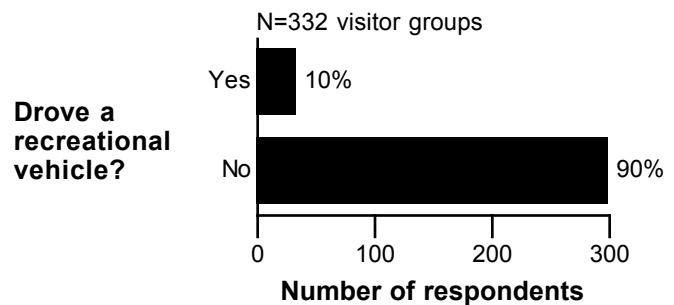
Figure 23. Visitor groups that drove a recreational vehicle

Question 5b

If YES, how long was it?

Results – Interpret results with **CAUTION!**

- Not enough visitor groups responded to this question to provide reliable results (see Figure 24).

N=28 visitor groups*

Vehicle length (in ft)

26 or more 14%   **CAUTION!**

21-25 46%

15-20 39%

0   5   10   15

Number of respondents

Figure 24. Recreational vehicle size

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Question 5c

On this visit, were you and your personal group in a vehicle or recreational vehicle pulling a trailer or another vehicle?

Results

- 7% of visitor groups used a vehicle or a recreational vehicle pulling a trailer or another vehicle (see Figure 25).
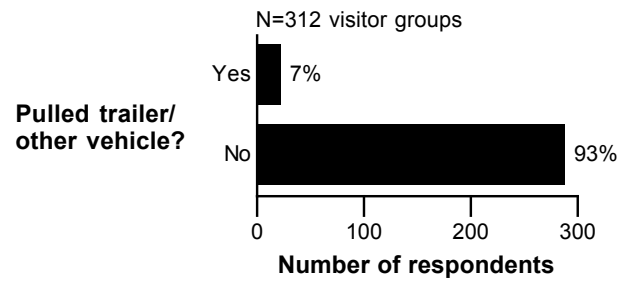
Figure 25. Visitor groups that drove a vehicle or recreational vehicle pulling a trailer or another vehicle

Question 5d

If YES, how long was it?

Results – Interpret with **CAUTION!**

- Not enough visitor groups responded to this question to provide reliable results (see Figure 26).

Figure 26. Vehicle length

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Number of park entries

Question 13c
   On this trip, how many times did you and your personal group enter the park?

Results
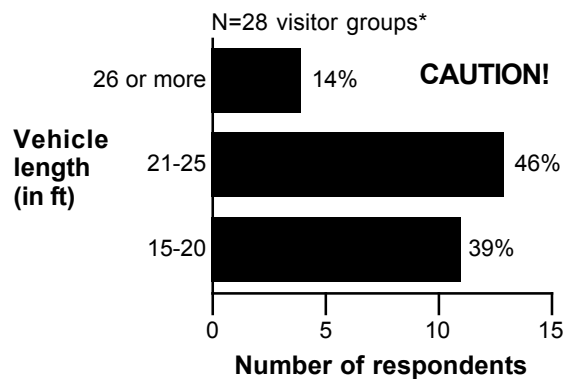   • 88% of visitor groups entered the park one time (see Figure 27).

   • 15% entered four times or more.

N=293 visitor groups*

Number of entries

4 or more	15%
3	3%
2	7%
1	88%

0   100   200   300

Number of respondents

Figure 27. Number of park entries

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

26

Overnight stays

Question 6a

On this trip, did you and your personal group stay overnight away from your permanent residence either inside Chiricahua National Monument or within the nearby area (within 75 miles of the park)?

Results

- 63% of visitor groups stayed overnight away from home, in the park or in the area within 75 miles of the park (see Figure 28).

N=326 visitor groups
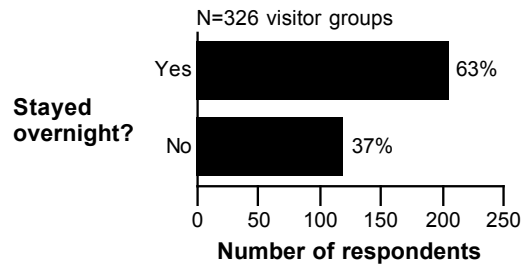
Figure 28. Visitor groups that stayed overnight in the park or outside the park within 75 miles of the park

Question 6b

If YES, please list the number of nights you and your personal group stayed inside Chiricahua National Monument.

Results

- 33% of visitor groups stayed two nights inside Chiricahua National Monument (see Figure 29).

- 28% stayed one night.
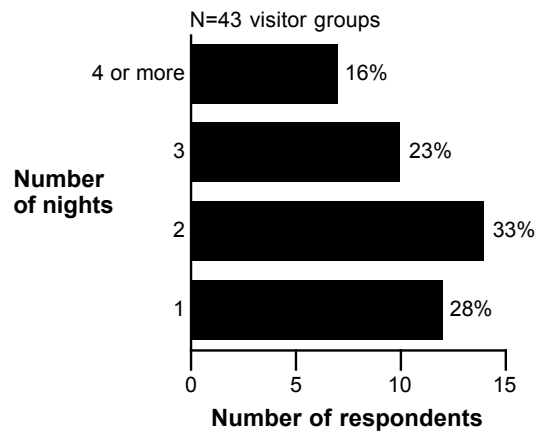
N=43 visitor groups

Figure 29. Number of nights spent inside the park

Question 6b

If YES, please list the number of nights you and your personal group stayed in the area outside Chiricahua National Monument (within 75 miles of the park).

Results

- 32% of visitor groups stayed five or more nights in the area outside the park within 75 miles of the park (see Figure 30).

- 28% stayed one night.

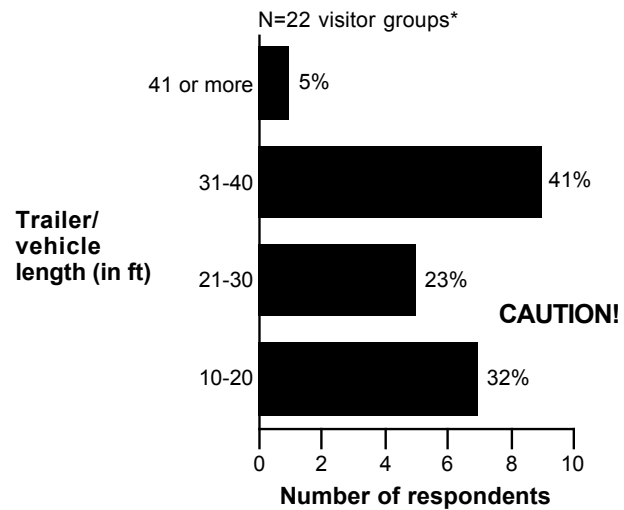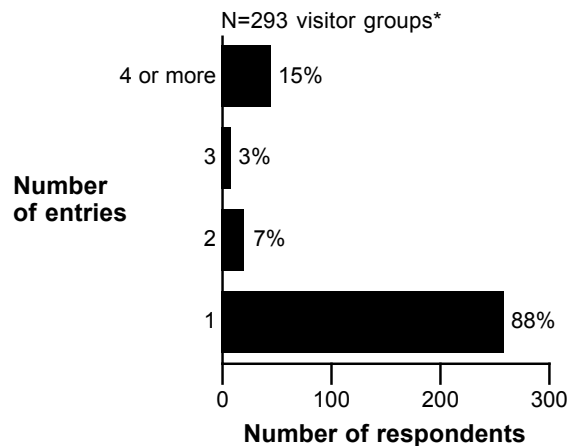N=173 visitor groups

Figure 30. Number of nights spent in the area outside the park

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Accommodations used inside the park

Question 6c

In which types of lodging did you and your personal group spend the night(s) inside Chiricahua National Monument?

Results

- 77% of visitor groups were RV/trailer camping (see Figure 31).

- 23% tent camped in a developed campground.

N=39 visitor groups
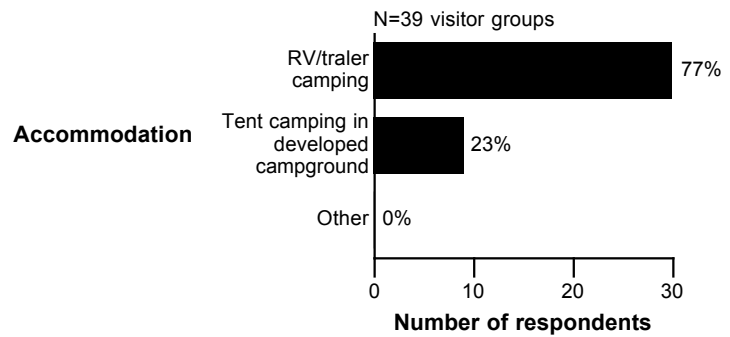
Figure 31. Accommodations used inside the park

Accommodations used outside the park

Question 6d

In which types of accommodations did you and your personal group spend the night(s) in the area outside Chiricahua National Monument (within 75 miles of the park)?

Results

- 57% of visitor groups stayed in a lodge, hotel, motel, vacation rental, B&B, etc. (see Figure 32).

- 36% were RV/trailer camping.

- No "other" types accommodations (1%) were specified.

N=180 visitor groups**
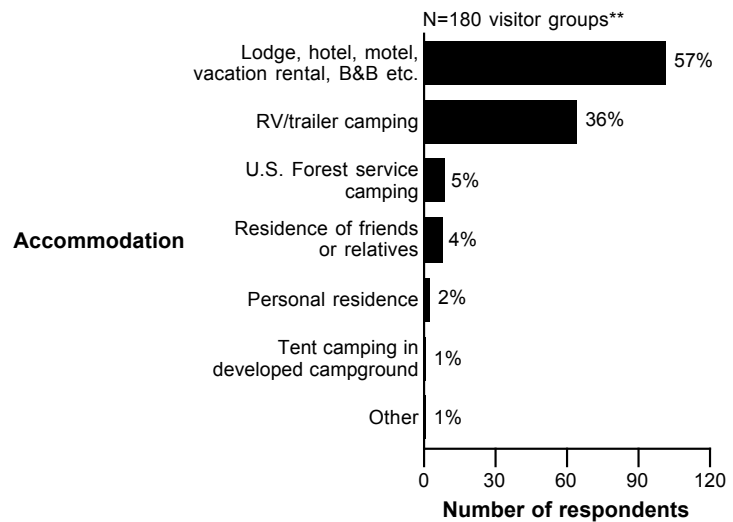
Figure 32. Accommodations used outside the park within 75 miles

---

*total percentages do not equal 100 due to rounding

**total percentages do not equal 100 because visitors could select more than one answer

28

Length of stay in the park

Question 13a
   On this visit, how long did you and your personal group spend visiting Chiricahua National Monument?

Results

Number of hours if less than 24

- 49% of visitor groups spent three to four hours visiting the park (see Figure 33).

- 21% spent up to two hours.

- The average length of stay for visitor groups who spent less than 24 hours was 3.9 hours.

N=281 visitor groups*
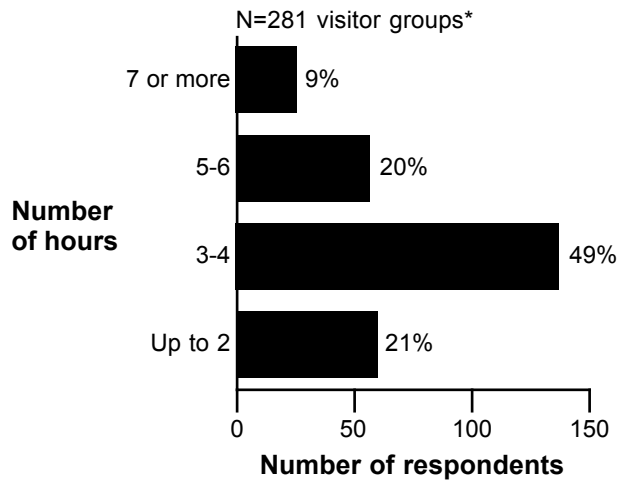
Figure 33. Number of hours spent in the park

Number of days if 24 hours or more

- 40% of visitor groups spent two days (see Figure 34).

- 29% spent three days.

- The average length of stay for visitor groups who spent 24 hours or more was 2.9 days.

Average length of stay

- The average length of stay for all visitor groups was 12.3 hours or 0.5 days.
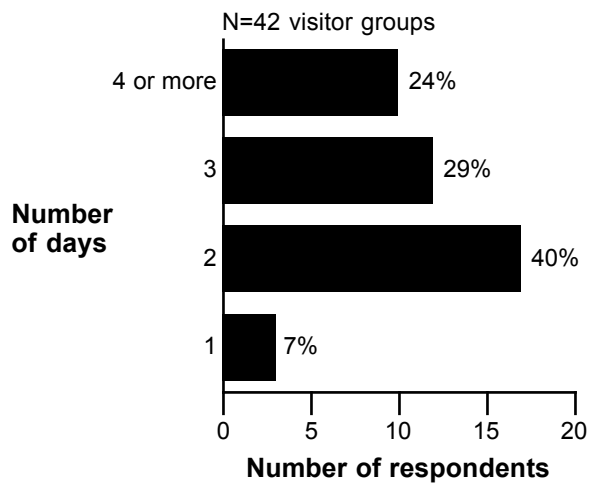
N=42 visitor groups

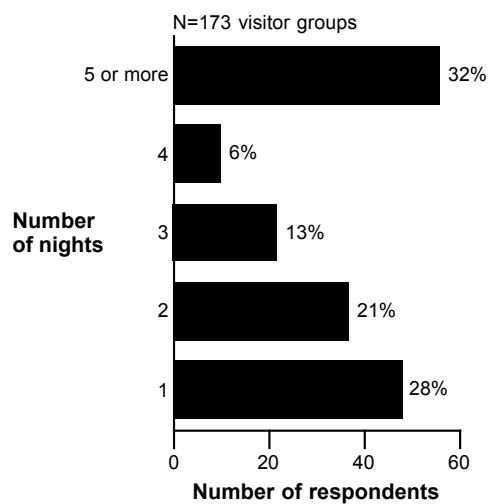**Figure 34.** Number of days spent in the park

_____
*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Length of stay in the park area

Question 13b

How long did you and your personal group stay in the Chiricahua National Monument area (within 75 miles of the park)?

Results

• 9% of visitor groups were residents of the area within a 75-miles radius of the park (see Figure 35).

Number of hours if less than 24

• 30% of visitor groups spent three to four hours in the park area (see Figure 36).

• 23% spent five to six hours.

• The average length of stay for visitor groups who spent less than 24 hours was 6.7 hours.

Number of days if 24 hours or more

• 31% of visitor groups spent two days (see Figure 37).

• 23% spent six or more days.

• The average length of stay for visitor groups who spent 24 hours or more was 7.3 days.

Average length of stay

• The average length of stay for all visitor groups was 120.8 hours or 5.0 days.

Figure 35. Visitor groups that were residents of the area (within 75 miles of the park)

Figure 36. Number of hours spent in the park area
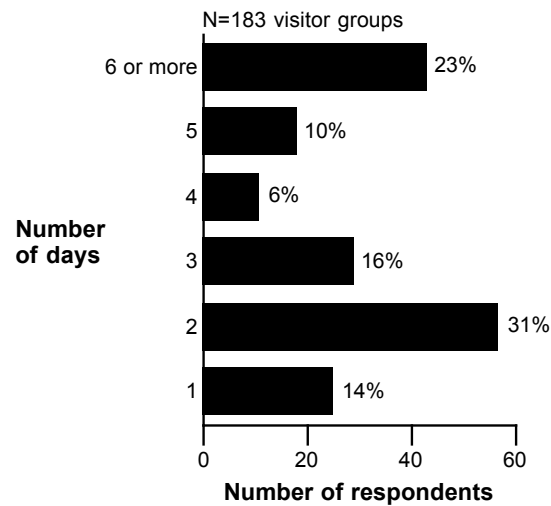
Figure 37. Number of days spent in the park area

_____

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Order of sites visited in the park

Question 8

For this trip, please list the order (#1, 2, 3, etc.) in which you and your personal group visited the following sites at Chiricahua National Monument.

Results

- The order in which the sites were visited is shown in Table 12.

- See Table 13 for a listing of "other" sites visited.

Table 12. Order of sites visited
(N=number of visitor groups that visited each site)

Site	N	Order visited (%)*				
		1st	2nd	3rd	4th	5th and up
Echo Canyon Trail	159	15	29	30	21	5
Silver Spur Meadow Trail – **CAUTION!**	22	23	18	9	32	19
Faraway Ranch	104	21	22	14	18	24
Heart of Rocks Trail	32	13	25	25	16	22
Massai Point Exhibit Building	145	6	29	42	16	7
Massai Point	231	17	45	23	10	4
Natural Bridge Trail – **CAUTION!**	18	6	22	17	17	40
Sugarloaf Mt. Trail	51	6	24	27	25	18
Visitor Center	253	74	11	7	2	5
Other – **CAUTION!**	24	4	29	25	21	20

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Sites visited in the park

- As shown in Figure 38, the most commonly visited sites by visitor groups at Chiricahua National Monument were:

    85% Visitor center
    76% Massai Point
    54% Echo Canyon Trail

- The least visited sites were:

    7% Silver Spur Meadow Trail
    7% Natural Bridge Trail

- "Other" sites (10%) that were visited are shown in Table 13.
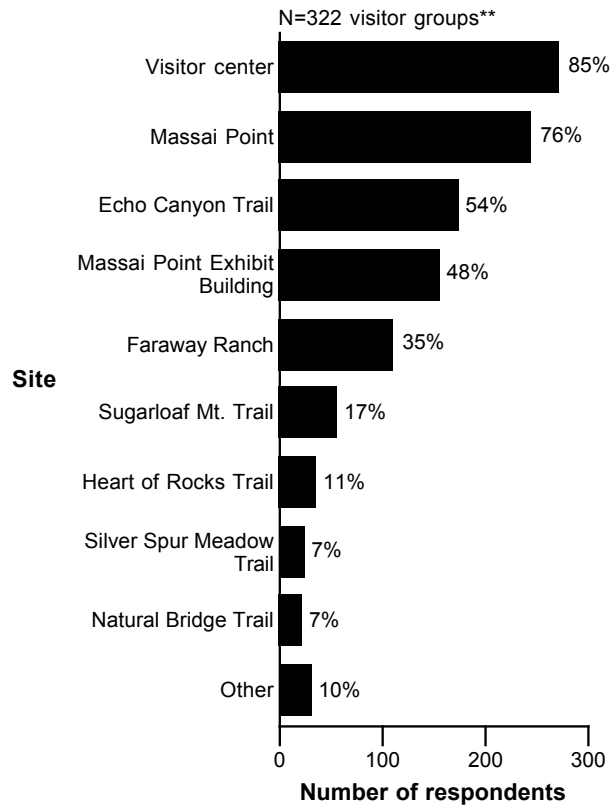
Figure 38. Sites visited in the park

Table 13. "Other" sites visited in the park
(N=38 comments)

Site	Number of times mentioned
Lower Rhyolite Canyon Trail	6
Bonita Canyon Campground	5
Hailstone Trail	5
Ed Riggs Trail	4
Campground	3
Inspiration Point Trail	3
Upper Rhyolite Canyon Trail	3
Big Balanced Rock Trail	2
Bonita Canyon Drive	2
Bonita Creek picnic area	1
Bonita Creek Trail	1
Echo Canyon Grotto	1
Fire lookout	1
Picnic area	1

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

32

Activities on this visit

Question 10a

On this visit, in which activities did you and your personal group participate within Chiricahua National Monument?

Results

- As shown in Figure 44, the most common activities in which visitor groups participated on this visit were:

    88% General sightseeing
    79% Visiting visitor center
    68% Walking/day hiking
    67% Enjoying solitude/quiet

- "Other" activities (5%) were:

    Biking/mountain biking
    Camping
    Enjoying nature
    Enjoying the beauty of the place
    Identifying trees
    Kayaking
    Looking at vegetation
    Meeting people
    Motorcycle riding
    Stargazing
    Studying geology
    Trail running
    Van to top

N=324 visitor groups**

Activity	Percentage
General sightseeing	88%
Visiting visitor center	79%
Walking/day hiking	68%
Enjoying solitude/quiet	67%
Picnicking	35%
Purchasing books/sales items	32%
Wildlife viewing	32%
Birdwatching	27%
Creative arts	23%
Taking Faraway Ranch House tour	16%
Attending ranger-led talks/programs/hikes	11%
Horseback riding	<1%
Other	5%

Number of respondents

Figure 39. Activities on this visit

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Most important activities

Question 10c
What are the three most important activities to you and your personal group?

Results
- Table 14 shows visitor groups' most important activities.

Table 14. Most important activities
(N=number of visitor groups that rated each activity as most important)

Activity	N	Order of importance (%)*		
		1st	**2nd**	**3rd**
Attending ranger-led talks/programs/hikes – **CAUTION!**	20	20	25	55
Birdwatching	33	9	55	36
Creative arts	51	24	45	31
Enjoying solitude/quiet	74	16	38	46
General sightseeing	149	60	25	15
Horseback riding – **CAUTION!**	3	33	0	67
Picnicking	34	6	35	59
Purchasing books/sales items – **CAUTION!**	3	0	33	67
Taking Faraway Ranch House tour – **CAUTION!**	12	17	42	42
Visiting visitor center	38	18	34	47
Walking/day hiking	215	55	33	13
Wildlife viewing (other than birds)	49	2	45	53
Other	98	33	32	36

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Activities on future visits

Question 10b

    If you were to visit the park in the future, in which activities would you and your personal group prefer to participate within the park?

Results

- As shown in Figure 40, the most common activities in which visitor groups would prefer to participate on future visits were:

      82% Walking/day hiking
      71% General sightseeing
      65% Enjoying solitude/ quiet

- "Other" activities (6%) were:

      ATV riding
      Biking/cycling
      Camping
      Dirt road driving
      Geology
      Mom Runs
      RV camping
      Stargazing
      Trail running
      Van to top

N=276 visitor groups**

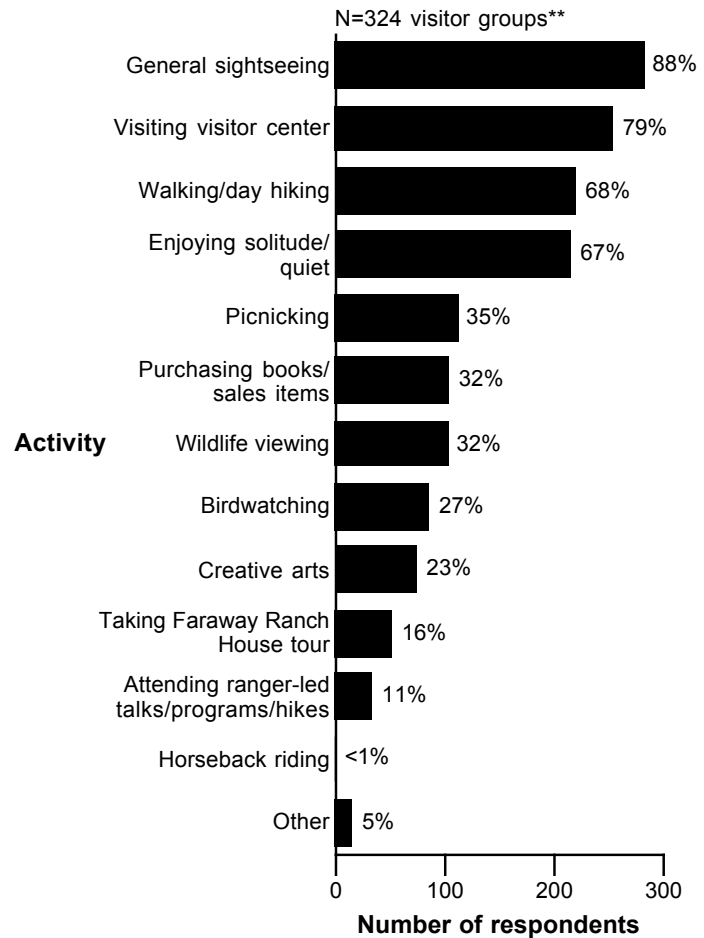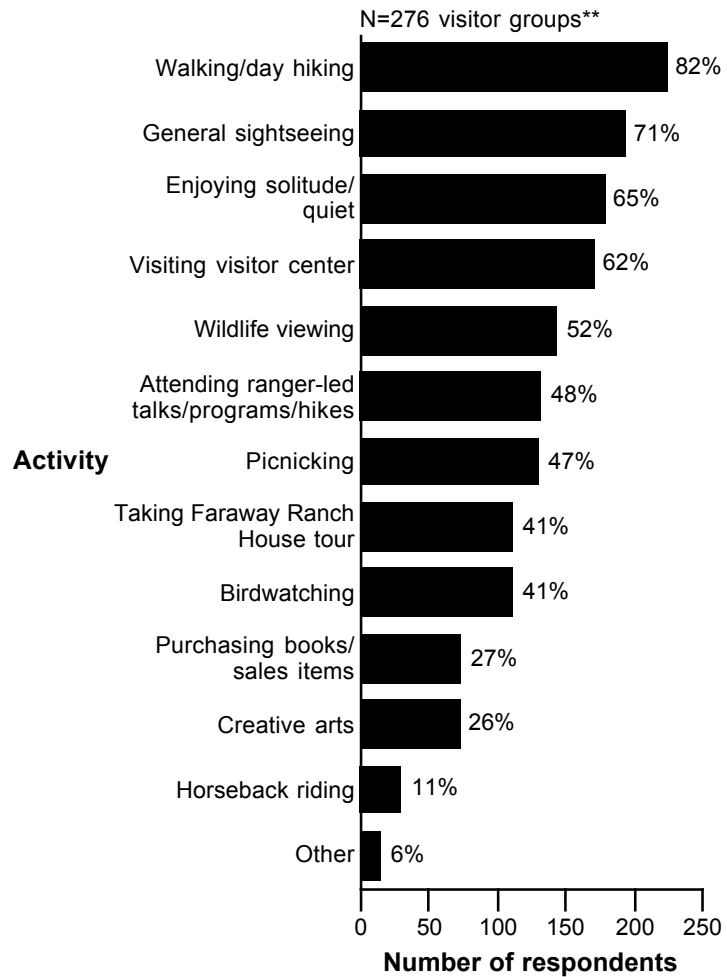| Activity	Percentage
Walking/day hiking	82%
General sightseeing	71%
Enjoying solitude/ quiet	65%
Visiting visitor center	62%
Wildlife viewing	52%
Attending ranger-led talks/programs/hikes	48%
Picnicking	47%
Taking Faraway Ranch House tour	41%
Birdwatching	41%
Purchasing books/ sales items	27%
Creative arts	26%
Horseback riding	11%
Other	6%

Number of respondents

Figure 40. Activities on future visits

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Ranger-led programs/activities

Question 11a

On this visit to Chiricahua National Monument, did you and your personal group attend any ranger-led talks/programs/hikes?

Results

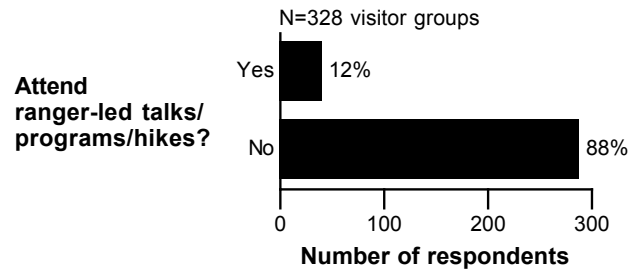- 12% of visitor groups participated in ranger-led talks/programs/hikes (see Figure 41).

N=328 visitor groups

Attend ranger-led talks/ programs/hikes?

Yes 12%

No 88%

Figure 41. Visitor groups that participated in ranger-led talks/programs/hikes

Question 11b

If NO, what prevented you and your personal group from participating in ranger-led talks/programs/hikes?

Results

- As shown in Figure 42, the most common reasons that prevented visitor groups from participating in ranger-led talks/programs/hikes were:

> 67% Did not have time
> 33% were not aware

- Of those visitor groups that were "not interested" (8%) reasons were:

> Explored alone
> Educational level is too general
> No reason
> Not my style
> Preferred being independent
> Preferred hiking on my own

- "Other" reasons for not participating (11%) were:

> Bad weather conditions
> Got sick prior to visit
> Had a pet
> Handicap member in group
> Healing from surgery
> No night program was available
> No rangers present
> Not offered at time of visit
> Problems with translation
> Schedule conflicts
> Times in between were too long

N=291 visitor groups**

Reason

Did not have time 67%

Not aware of ranger-led programs offered at park 33%

Not interested 8%
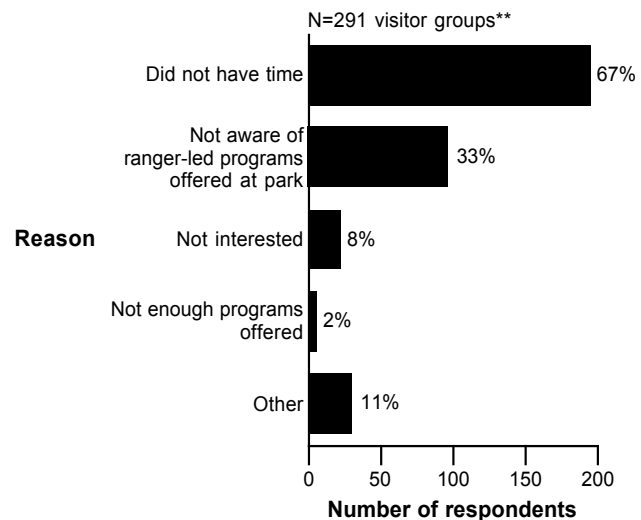
Not enough programs offered 2%

Other 11%

Figure 42. Reasons for not participating in ranger-led talks/programs/hikes

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Question 11c

On a future visit, would you and your personal group be interested in attending ranger-led programs in Chiricahua National Monument?

Results

- 65% of visitor groups were interested in participating in ranger-led programs on a future visit (see Figure 43).

- 24% were not sure.

N=329 visitor groups

Interested in programs?

Yes, likely — 65%
No, unlikely — 11%
Not sure — 24%

Number of respondents
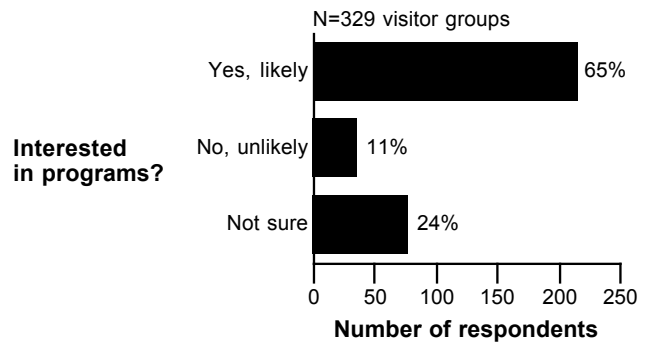
Figure 43. Visitor groups that were interested in participating in ranger-led programs on a future visit

Question 11d

Which of the following programs would you and your personal group like to have available at Chiricahua National Monument?

Results

- As shown in Figure 44, the most common ranger-led programs in which visitor groups would prefer to have available were:

  87% Ranger-led hikes (1-3 hours)
  20% Living history programs with costumes (1 hour)

N=245 visitor groups**

Program

Ranger-led hikes (1-3 hrs) — 87%
Living history programs with costumes (1 hr) — 20%
History/nature day camp with multiple activities (4-5 hrs) — 17%
Junior Ranger activity book (1-2 hrs) — 7%

Number of respondents

Figure 44. Preferred ranger-led programs on a future visit

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*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Ratings of Services, Facilities, Attributes, Resources and Elements

Information services and facilities used

Question 16a

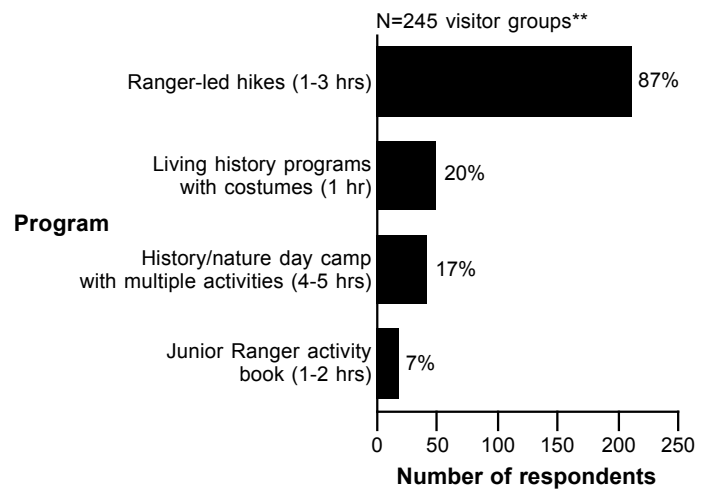Please indicate all the information services and facilities that you or your personal group used at Chiricahua National Monument during this visit.

Results

- As shown in Figure 45, the most common information services and facilities used by visitor groups were:

    86% Park brochure/map
    66% Visitor center exhibits
    66% Entrance station

- The least used services/facilities were:

    <1% Social networks
    <1% Junior Ranger program

N=276 visitor groups**

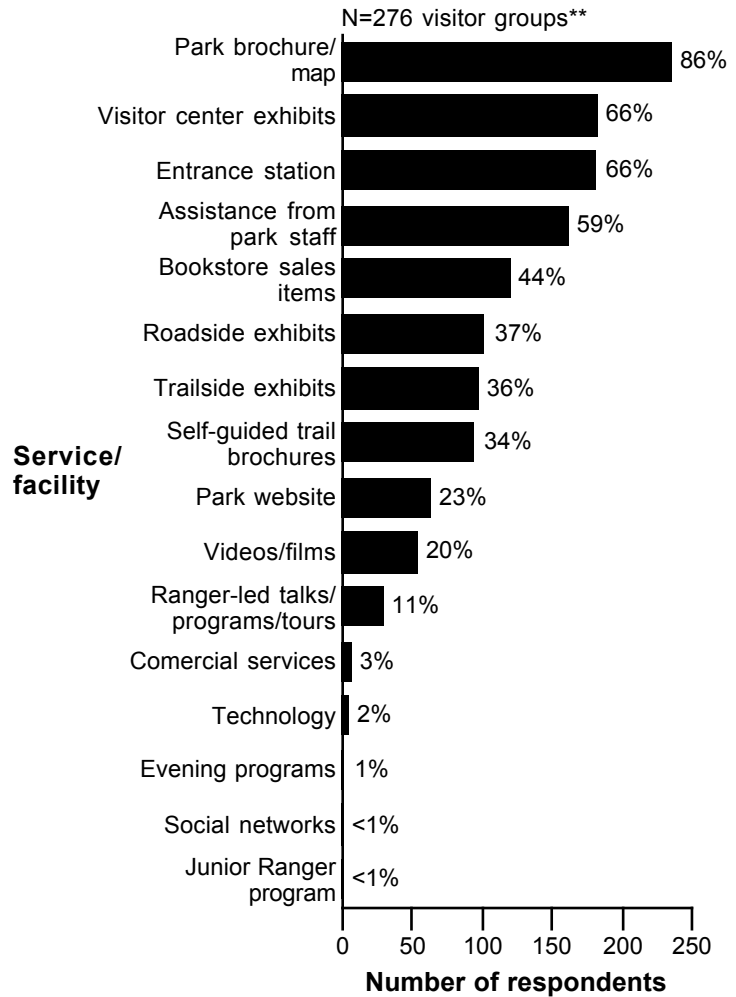| Service/facility	
Park brochure/map	86%
Visitor center exhibits	66%
Entrance station	66%
Assistance from park staff	59%
Bookstore sales items	44%
Roadside exhibits	37%
Trailside exhibits	36%
Self-guided trail brochures	34%
Park website	23%
Videos/films	20%
Ranger-led talks/programs/tours	11%
Comercial services	3%
Technology	2%
Evening programs	1%
Social networks	<1%
Junior Ranger program	<1%

Number of respondents

Figure 45. Information services and facilities used

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Importance ratings of information services and facilities

Question 16b

For only those services and facilities that you or your personal group used, please rate their importance from 1-5.

1=Not important
2=Somewhat important
3=Moderately important
4=Very important
5=Extremely important

Results

- Figure 46 shows the combined proportions of "extremely important" and "very important" ratings of information services and facilities that were rated by 30 or more visitor groups.

- The services and facilities receiving the highest combined proportions of "extremely important" and "very important" ratings were:

  91% Park brochure/map
  90% Self-guided trail
  brochures
  87% Park website

- Table 15 shows the importance ratings of each service and facility.

- The service/facility receiving the highest "not important" rating that was rated by 30 or more visitor groups was:
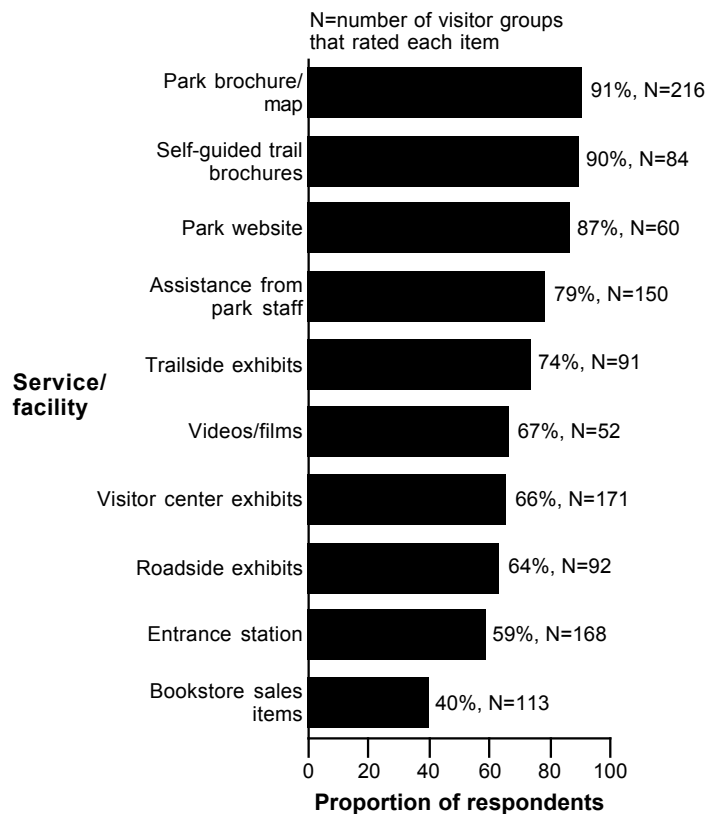
  6% Entrance station

Figure 46. Combined proportions of "extremely important" and "very important" ratings of information services and facilities

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Table 15. Importance ratings of information services and facilities
(N=number of visitor groups that rated each service and facility)

Service/facility	N	Rating (%)*				
		Not important	Somewhat important	Moderately important	Very important	Extremely important
Assistance from park staff	150	1	3	17	40	39
Bookstore sales items (selection, price, etc.)	113	4	19	38	29	11
Commercial services (gas station, store, etc.) – **CAUTION!**	6	0	0	17	33	50
Entrance station	168	6	15	20	32	27
Evening programs – **CAUTION!**	1	0	0	0	100	0
Junior Ranger program – **CAUTION!**	0	0	0	0	0	0
Park brochure/map	216	1	2	6	31	60
Park website: www.nps.gov/chir used before or during visit	60	2	3	8	30	57
Ranger-led talks/ programs/tours – **CAUTION!**	27	4	4	19	26	48
Roadside exhibits	92	0	11	25	37	27
Self-guided trail brochures	84	0	1	10	35	55
Social networks (Twitter, Facebook, etc.) – **CAUTION!**	0	0	0	0	0	0
Technology (e-hikes, audio tours, podcasts/ videocasts, etc.) – **CAUTION!**	4	0	25	25	25	25
Trailside exhibits	91	0	3	23	42	32
Videos/films	52	0	12	21	27	40
Visitor center exhibits	171	2	4	28	36	30

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Quality ratings of information services and facilities

Question 11c

For only those services and facilities that you and your personal group used, please rate their quality from 1-5.

1=Very poor
2=Poor
3=Average
4=Good
5=Very good

Results

- Figure 47 shows the combined proportions of "very good" and "good" ratings of information services and facilities that were rated by 30 or more visitor groups.

- The services and facilities receiving the highest combined proportions of "very good" and "good" ratings were:

    95% Assistance from park staff
    92% Trailside exhibits
    92% Entrance station

- Table 16 shows the quality ratings of each service and facility.

- The service/facility receiving the highest "very poor" rating that was rated by 30 or more visitor groups was:
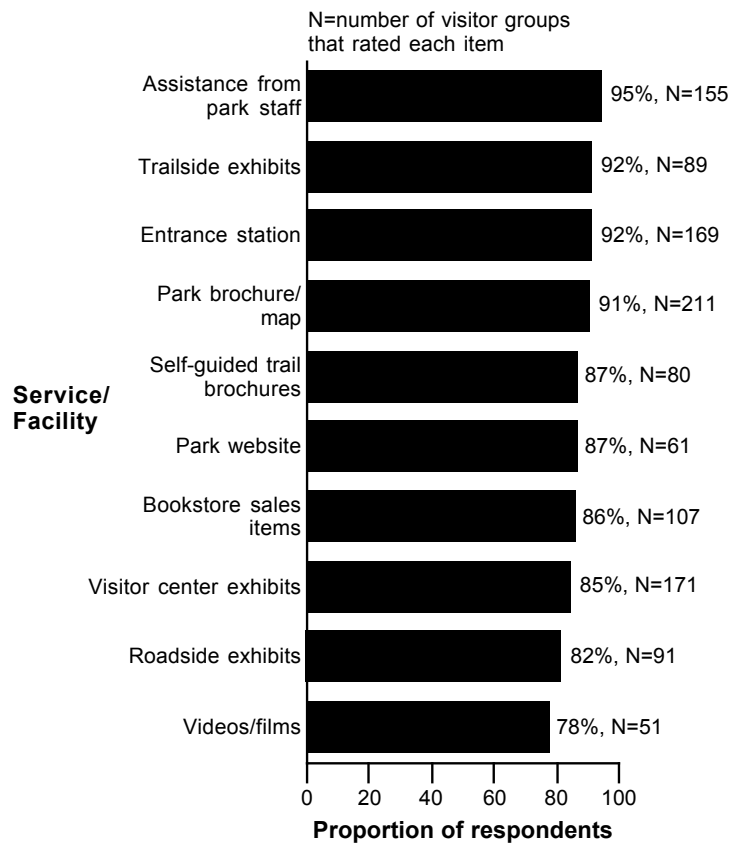
    4% Videos/films

N=number of visitor groups that rated each item

Service/Facility	
Assistance from park staff	95%, N=155
Trailside exhibits	92%, N=89
Entrance station	92%, N=169
Park brochure/map	91%, N=211
Self-guided trail brochures	87%, N=80
Park website	87%, N=61
Bookstore sales items	86%, N=107
Visitor center exhibits	85%, N=171
Roadside exhibits	82%, N=91
Videos/films	78%, N=51

Proportion of respondents

Figure 47. Combined proportions of "very good" and "good" ratings of information services and facilities

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Table 16. Quality ratings of information services and facilities
(N=number of visitor groups that rated each service and facility)

Service/facility	N	Rating (%)*				
		Very poor	Poor	Average	Good	Very good
Assistance from park staff	155	1	1	4	23	72
Bookstore sales items (selection, price, etc.)	107	0	0	14	37	49
Commercial services (gas station, store, etc.) – **CAUTION!**	6	50	17	0	0	33
Entrance station	169	0	0	8	29	63
Evening programs – **CAUTION!**	1	0	0	0	0	100
Junior Ranger program – **CAUTION!**	0	0	0	0	0	0
Park brochure/map	211	0	<1	9	26	65
Park website: www.naps.gov/chir used before or during visit	61	0	0	13	39	48
Ranger-led talks/programs/ tours – **CAUTION!**	27	0	0	4	26	70
Roadside exhibits	91	0	4	13	37	45
Self-guided trail brochure	80	0	5	9	33	54
Social networks (Twitter, Facebook, etc.) – **CAUTION!**	0	0	0	0	0	0
Technology (e-hikes, audio tours, podcasts/videocasts, etc.) – **CAUTION!**	4	0	0	25	50	25
Trailside exhibits	89	0	0	8	43	49
Videos/films	51	4	0	18	27	51
Visitor center exhibits	171	1	2	12	38	47

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Mean scores of importance and quality ratings of information services and facilities

- Figures 48 and 49 show the mean scores of importance and quality ratings of information and facilities that were rated by 30 or more visitor groups.

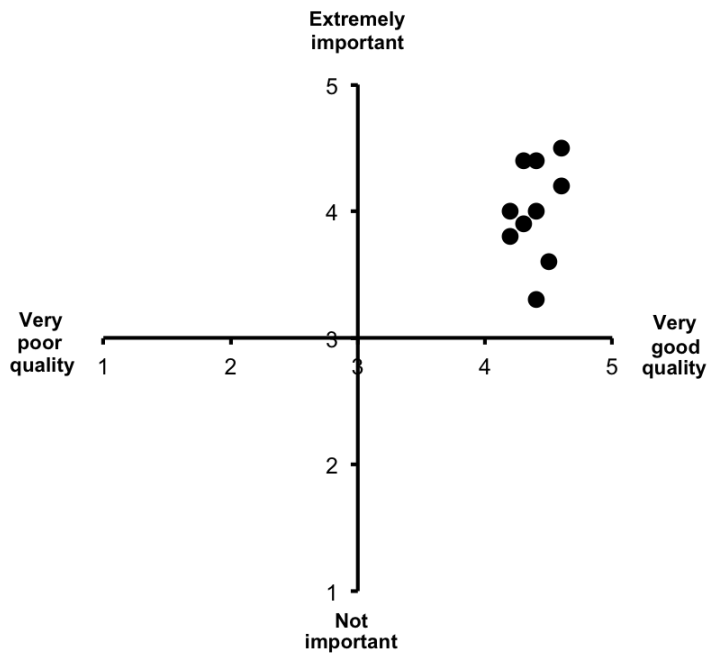- All information services and facilities were rated above average.

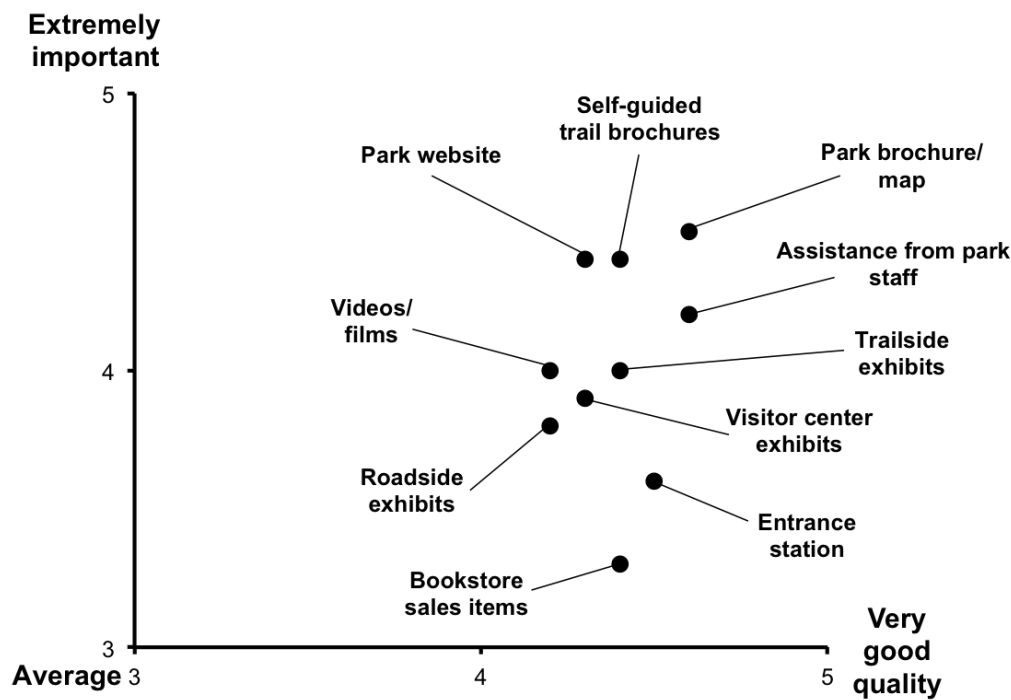**Figure 48.** Mean scores of importance and quality of information services and facilities

Figure 49. Detail of Figure 48

_____
*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Opinions about safety

Question 14a

For the safety issues below, please indicate how safe you and your personal group felt from crime and accidents during this visit to Chiricahua National Monument.

Results

- Table 17 shows visitor groups' ratings of how safe they felt during their visit.

Table 17. Opinions about safety
(N=number of visitor groups that rated each issue)

Safety issue	N	Rating (%)*				
		Very unsafe	**Somewhat unsafe**	**No opinion**	**Somewhat safe**	**Very safe**
Personal safety – from crime	329	2	<1	4	7	87
Personal safety – from accidents	327	2	4	4	28	63
Personal property– from crime	325	2	1	5	14	79

_____

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Question 14b
   If you marked that you felt
   "very unsafe" or "somewhat
   unsafe" for any of the above issues,
   please explain why.

Results – Interpret results with **CAUTION!**
   • 25 visitor groups provided comments
     about safety (see Table 18).

Table 18. Comments about safety
(N=31 comments; some visitor groups made more than one comment)

Category	Comment
Personal property - from crime	Daylight - people around
	Lost a camera while camping at Cave Creek
	Lost a pair of new slip-on shoes at Massai Point
	One must always do things avoid being a victim
	Thieves are always breaking into cars
Personal safety - from accidents	Narrow roads with sharp turns
	Snow on the trails/roads
	Unbalanced walking on rocks
	Daylight - people around
	No handrails on trails
	11-years-old son careless on trails
	Accidents can happen when hiking
	Carrying concealed weapons is allowed
	Drivers look at the scenery and don't pay attention at the road
	Hiking alone has a potential for accidents
	No railings alongside higher parts of road
	People driving way too fast from entrance up to Massai Point
	Possibility of falling rocks
	Rocky roads and parking lots were unsafe for motorcycle riding
	The trail at Massai Point is very unstable for people with disabled ankles
	Was warned about rattle snakes
	Wind was a concern at Massai Point
Personal safety - from crime	Daylight - people around

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Expenditures

Total expenditures inside and outside the park

Question 17

For you and your personal group, please estimate all expenditures for the items listed below for this visit to Chiricahua National Monument and the surrounding area (within 75 miles of the park).

Results

- 38% of visitor groups spent $1-$100 (see Figure 50).

- 30% spent $301 or more.

- The average visitor group expenditure was $407.

- The median group expenditure (50% groups spent more and 50% of groups spent less) was $152.

- The average total expenditure per person (per capita) was $170.

- As shown in Figure 51, the largest proportions of total expenditures inside and outside the park were:

  32% Lodges, hotels, motels, cabins, B&Bs, etc.
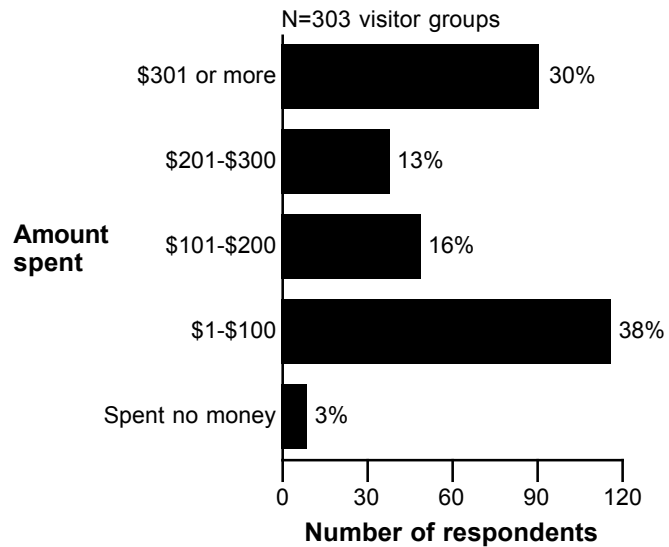 18% Restaurants and bars
  14% Gas and oil

N=303 visitor groups

Figure 50.　Total expenditures inside and outside the park
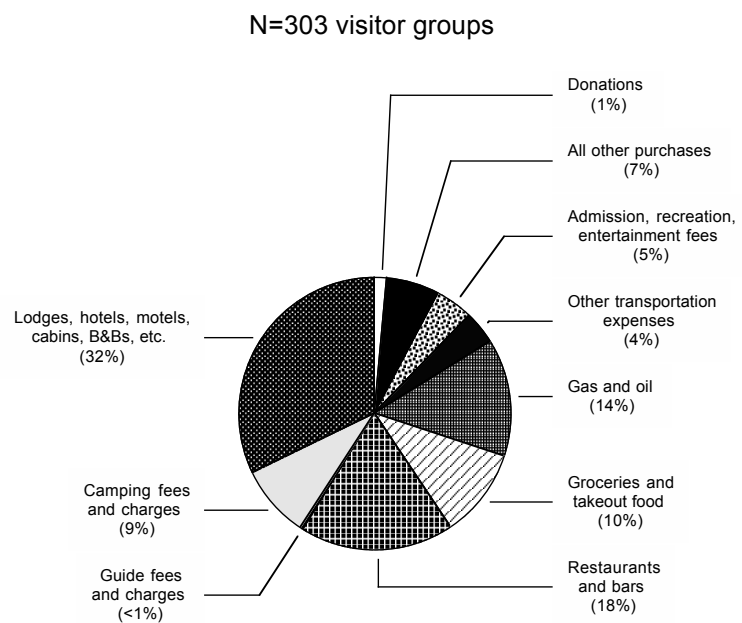

N=303 visitor groups

Figure 51.　Proportions of total expenditures inside and outside the park

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

46

Number of adults covered by expenditures

Question 17c
How many adults (18 years or older) do these expenses cover?

Results
- 66% of visitor groups had two adults covered by expenditures (see Figure 52).
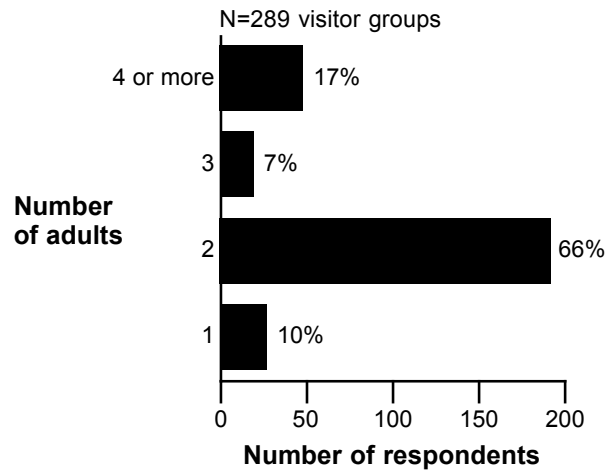
- 17% had four adults or more.

N=289 visitor groups

Number of adults

4 or more	17%
3	7%
2	66%
1	10%

Number of respondents

Figure 52. Number of adults covered by expenditures

Number of children covered by expenditures

Question 17c
How many children (under 18 years) do these expenses cover?

Results
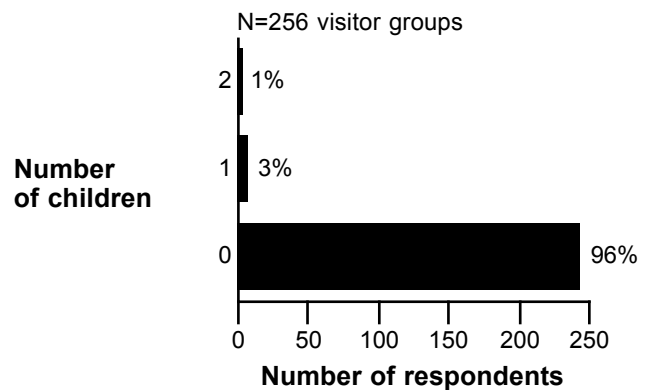- 96% of visitor groups had no children covered by expenditures (see Figure 53).

N=256 visitor groups

Number of children

2	1%
1	3%
0	96%

Number of respondents

Figure 53. Number of children covered by expenditures

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Expenditures inside the park

Question 17a

Please list your group's total expenditures inside Chiricahua National Monument.

Results

• 46% of visitor groups spent $1-$20 (see Figure 54).

• 20% spent $21-$40.

• 20% spent no money.

• The average visitor group expenditure inside the park was $22.

• The median group expenditure (50% groups spent more and 50% of groups spent less) was $12.

• The average total expenditure per person (per capita) was $12.

• As shown in Figure 55, the largest proportions of total expenditures inside the park were:

    59% All other purchases
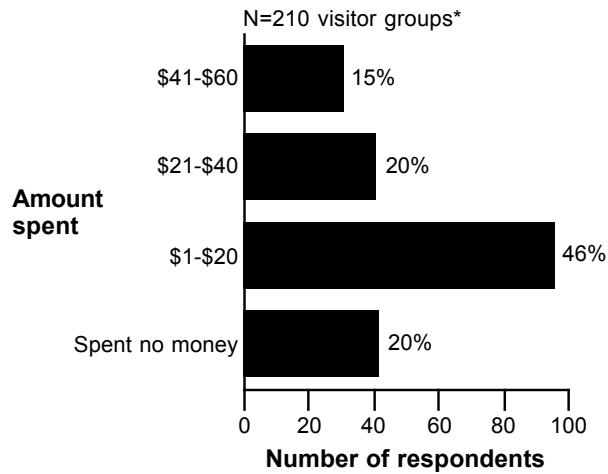   20% Admission, recreation, entertainment fees
    18% Camping fees and charges

N=210 visitor groups*

Figure 54. Total expenditures inside the park

N=210 visitor groups*
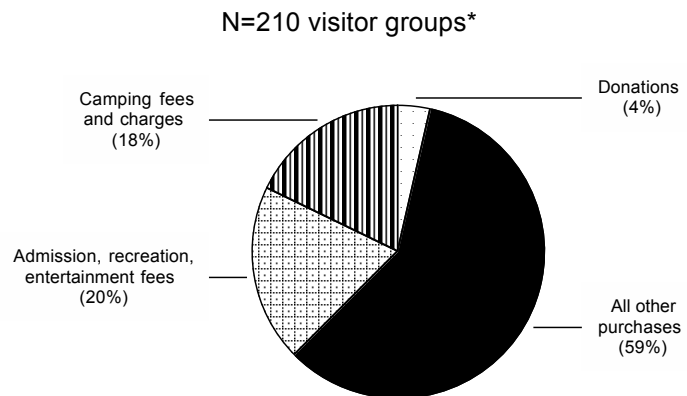
Figure 55. Proportions of total expenditures inside the park

Camping fees and charges

- 66% of visitor groups spent no money on camping fees and charges inside the park (see Figure 56).
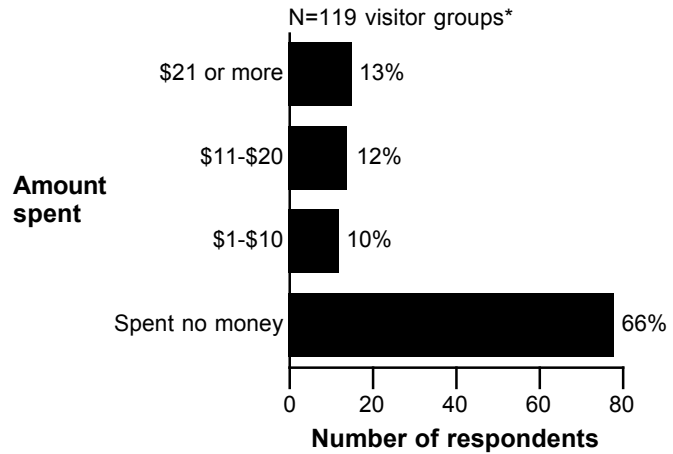
- 13% spent $21 or more.

Figure 56.   Expenditures for camping fees and charges inside the park

Admission, recreation, entertainment fees

- 55% of visitor groups spent no money on admission, recreation, entertainment fees inside the park (see Figure 57).

- 28% spent $1-$10.
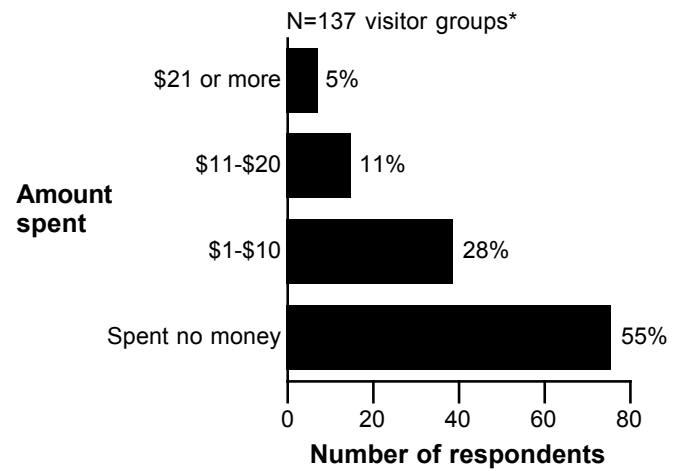

Figure 57.   Expenditures for admission, recreation, entertainment fees inside the park

_____
*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

<u>All other purchases</u> (souvenirs, film, books, sporting goods, clothing, etc.)

- 32% of visitor groups spent no money on all other purchases inside the park (see Figure 58).
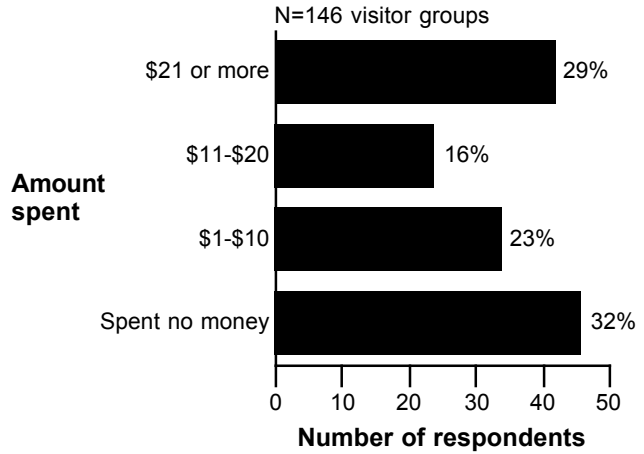
- 29% spent $21 or more.

N=146 visitor groups

Amount spent

$21 or more	29%
$11-$20	16%
$1-$10	23%
Spent no money	32%

Number of respondents (0, 10, 20, 30, 40, 50)

Figure 58. Expenditures for all other purchases inside the park

<u>Donations</u>

- 77% of visitor groups spent no money on donations inside the park (see Figure 59).
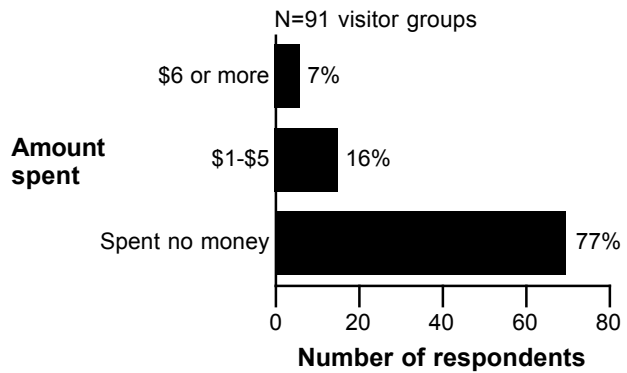
- 16% spent $1-$5.

N=91 visitor groups

Amount spent

$6 or more	7%
$1-$5	16%
Spent no money	77%

Number of respondents (0, 20, 40, 60, 80)

Figure 59. Expenditures for donations inside the park

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Expenditures outside the park

Question 17b

> Please list your group's total expenditures in the surrounding area outside the park (within 75 miles of the park).

Results

- 32% of visitor groups spent $1-$100 (see Figure 60).

- 27% spent $401 or more.

- The average visitor group expenditure outside the park was $441.

- The median group expenditure (50% groups spent more and 50% of groups spent less) was $170.

- The average total expenditure per person (per capita) was $195.

- As shown in Figure 61, the largest proportions of total expenditures outside the park were:

  33% Lodges, hotels, motels, cabins, B&Bs, etc.
  19% Restaurants and bars
  14% Gas and oil
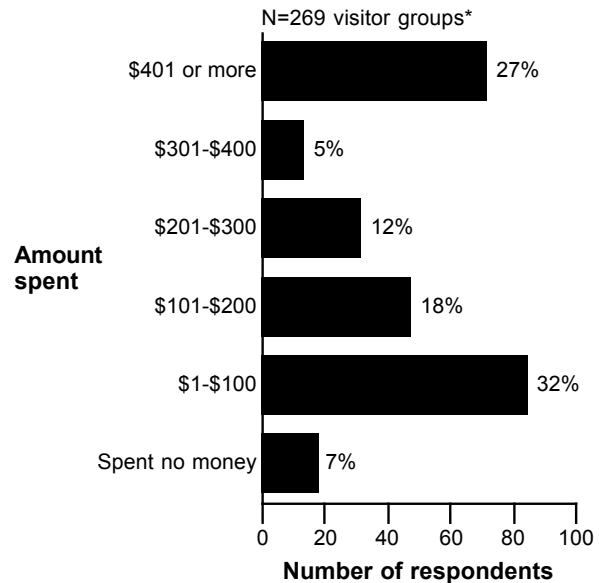
N=269 visitor groups*

Figure 60. Total expenditures outside the park
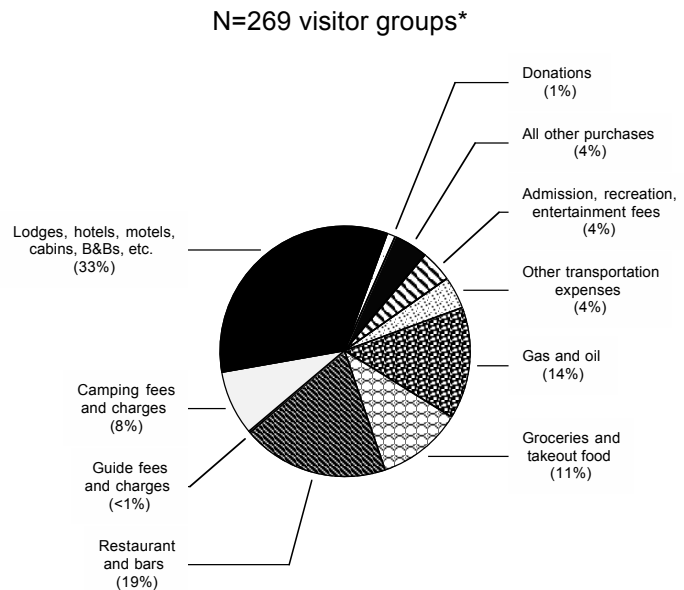
N=269 visitor groups*

Figure 61. Proportions of total expenditures outside the park

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

51

<u>Lodges, hotels, motels, cabins, B&Bs, etc.</u>

- 36% of visitor groups spent no money on lodging outside the park (see Figure 62).

- 24% spent $1-$100.

- $24% spent $201 or more.

N=174 visitor groups*

Amount spent

$201 or more — 24%
$101-$200 — 17%
$1-$100 — 24%
Spent no money — 36%
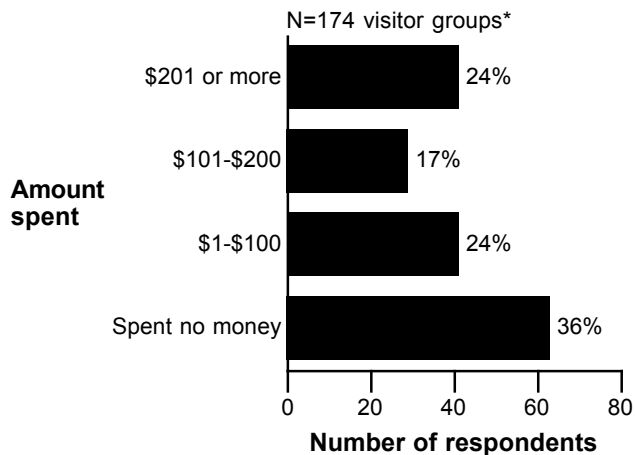
Number of respondents

Figure 62. Expenditures for lodging outside the park

<u>Camping fees and charges</u>

- 53% of visitor groups spent no money on camping fees and charges outside the park (see Figure 63).

- 21% spent $1-$50.

N=126 visitor groups*

Amount spent

$101 or more — 17%
$51-$100 — 8%
$1-$50 — 21%
Spent no money — 53%
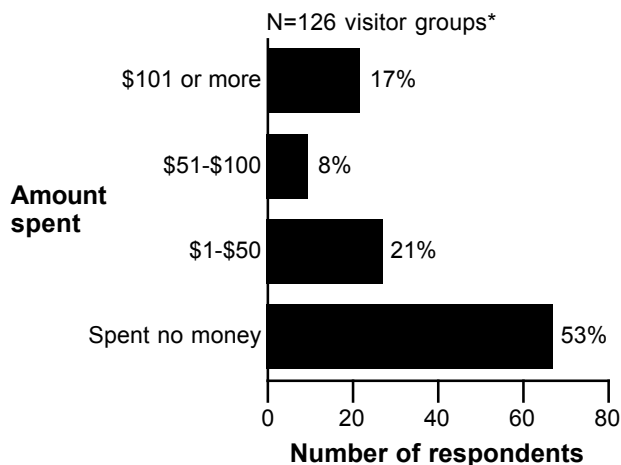
Number of respondents

Figure 63. Expenditures for camping fees and charges outside the park

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Guide fees and charges

- 93% of visitor groups spent no money on guide fees and charges outside the park (see Figure 64).
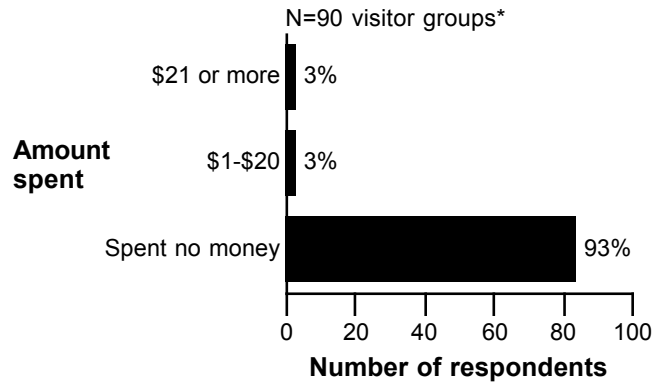
N=90 visitor groups*

Figure 64. Expenditures for guide fees and charges outside the park

Restaurants and bars

- 37% of visitor groups spent $1-$50 on restaurants and bars outside the park (see Figure 65).

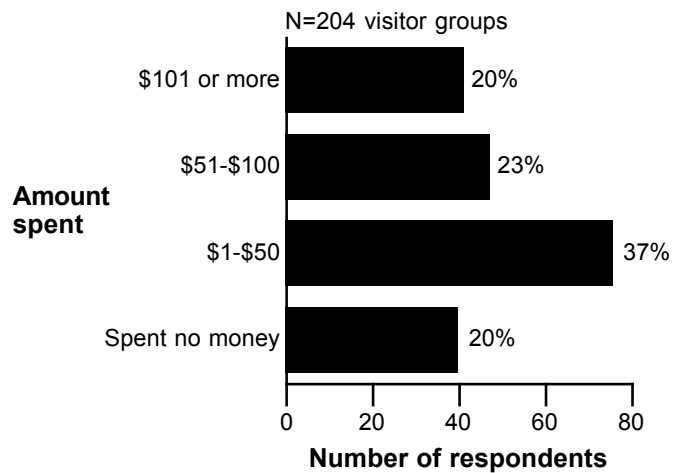- 23% spent $51-$100.

N=204 visitor groups

Figure 65. Expenditures for restaurants and bars outside the park

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Groceries and takeout food

- 34% of visitor groups spent no money on groceries and takeout food outside the park (see Figure 66).

- 22% spent $61 or more

- 21% spent $1-$20

N=170 visitor groups*
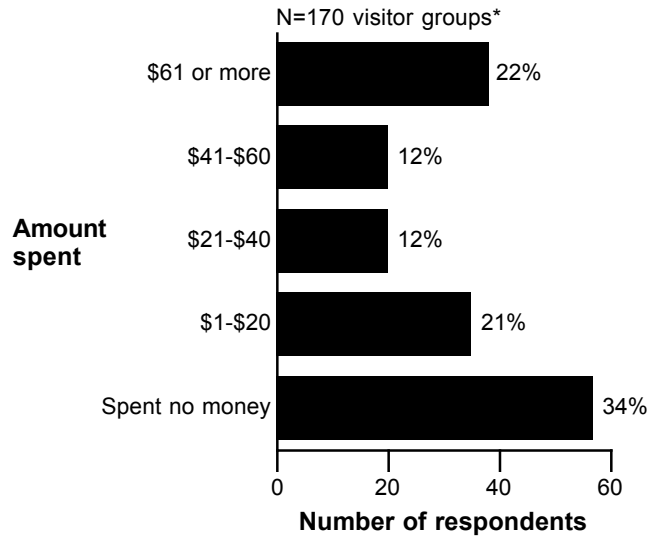
Figure 66. Expenditures for groceries and takeout food outside the park

Gas and oil (auto, RV, boat, etc.)

- 47% of visitor groups spent $1-$50 on gas and oil outside the park (see Figure 67).

- 26% spent $51-$100.

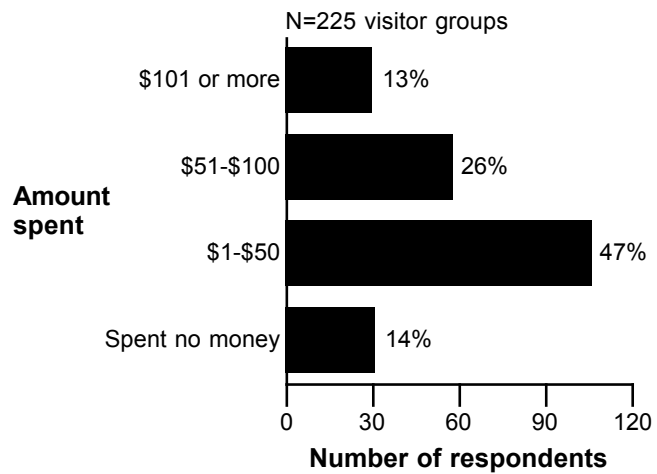N=225 visitor groups

Figure 67. Expenditures for gas and oil outside the park

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*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Other transportation (rental cars, taxis, auto repairs, but not airfare)

- 79% of visitor groups spent no money on other transportation outside the park (see Figure 68).

- 11% spent $101 or more.

N=100 visitor groups
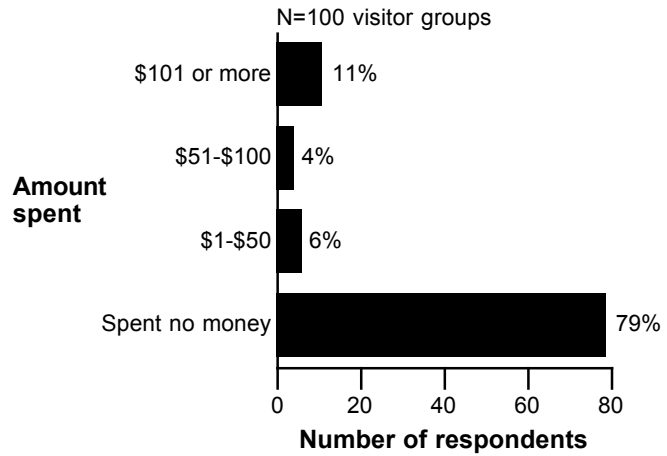
Figure 68. Expenditures for other transportation outside the park

Admission, recreation, entertainment fees

- 49% of visitor groups spent no money on admission, recreation, and entertainment fees outside the park (see Figure 69).

- 19% spent $41 or more.

- 18% spent $1-$20.

N=131 visitor groups
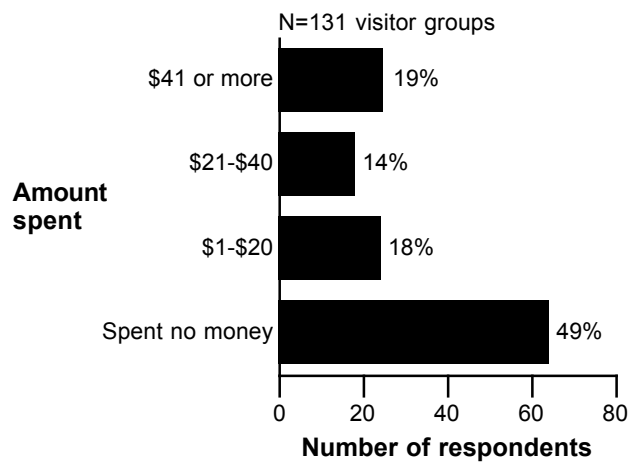
Figure 69. Expenditures for admission, recreation, and entertainment fees outside the park

_____
*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

All other purchases (souvenirs, film, books, sporting goods, clothing, etc.)

- 46% of visitor groups spent no money on all other purchases outside the park (see Figure 70).

- 19% spent $26-$50.

- 19% spent $51 or more.

N=137 visitor groups

Figure 70. Expenditures for all other purchases outside the park

Donations

- 77% of visitor groups spent no money on donations outside the park (see Figure 71).

- 14% spent $1-$10.

N=93 visitor groups

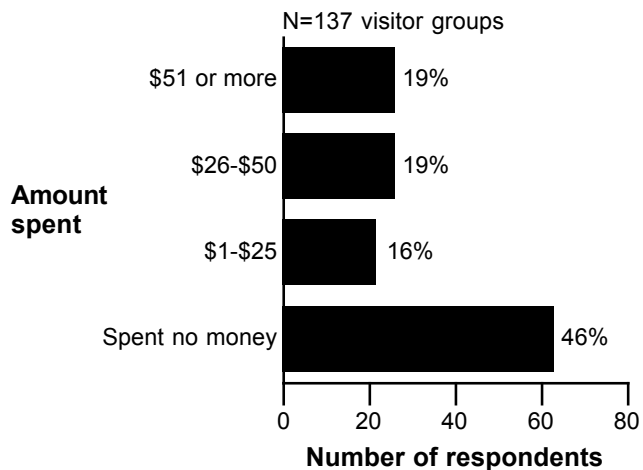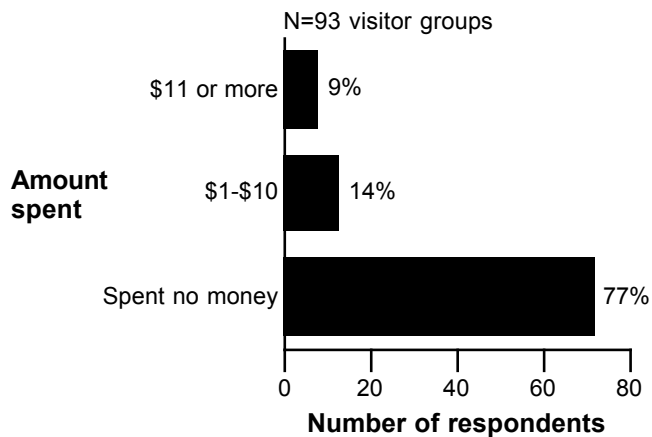**Figure 71.** Expenditures for donations outside the park

---

*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Total cost of trip

Question 17d

What was the total cost of your trip to Chiricahua National Monument from when you left home until you returned?

Results

- For 38% of visitor groups the total cost of the trip to the park was between $1 and $100 (see Figure 72).

- For 34% it was $301 or more.

N=196 visitor groups*

Cost	%
$801 or more	19%
$601-$800	4%
$401-$600	7%
$201-$400	10%
$1-$200	57%
$0	2%

Number of respondents
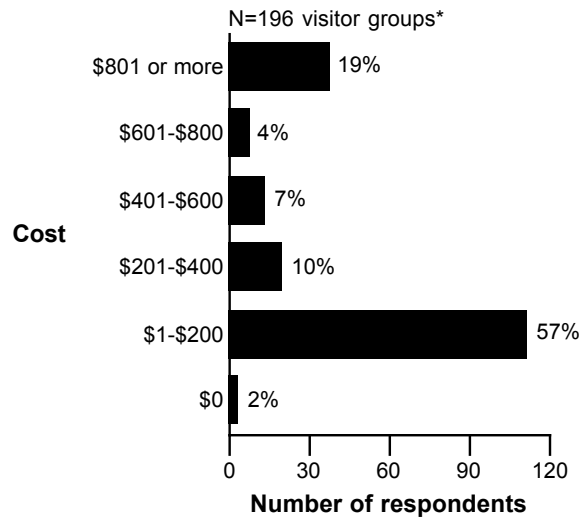
Figure 72. Total cost of trip

Income foregone to make this trip

Question 22d

How much income did your household forego to make this trip?

Results – Interpret results with **CAUTION!**
- Not enough visitors responded to this question to provide reliable results (see Figure 73).

N=20 respondents

Amount of income

	%
$3001 or more	25%
$2001-$3000	15%
$1001-$2000	10%
$1-$1000	50%

CAUTION!

Number of respondents
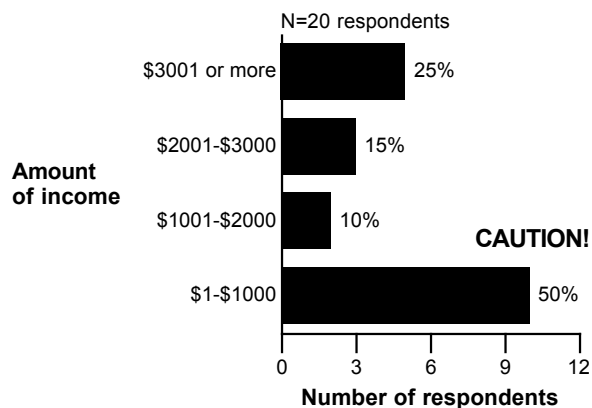
Figure 73. Amount of income foregone to make this trip

Unpaid vacation/time off from work

Question 22c

Did your household take any unpaid vacation or take unpaid time off from work to come on this trip?

Results

- 11% of respondents took unpaid vacation or unpaid time off work to come on this trip to Chiricahua National Monument (see Figure 74).

N=310 respondents

Took unpaid time?

	%
Yes	11%
No	89%

Number of respondents
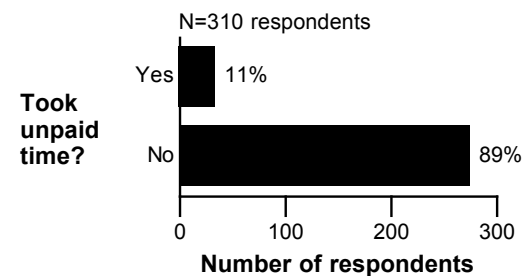
Figure 74. Households that took unpaid vacation or unpaid time off from work

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*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Preferences for Future Visits

Preferred topics to learn on future visit

Question 12

If you were to visit Chiricahua National Monument in the future, which topics would you and your personal group like to learn about in interpretive programs?

Results

- 86% of visitor groups were interested in learning about the park on a future visit (see Figure 75).

- As shown in Figure 76, of those visitor groups that were interested in learning about the park, the most common topics were:

    72% Geology
    70% Early inhabitants/
        prehistoric peoples
    69% Apache

- "Other" topics (5%) were:

    Birding/bird watching
    Early Park Service mission
    Flora and fauna
   History of the park and how it
        was formed
    History of settlers in the area
    Invasive plants
    Mormon Battalion and Mexican
        War
    Water issues
    Wildflowers/plants/trees
    Wildlife

N=325 visitor groups

Interested in learning?

Yes 86%
No 14%

Number of respondents
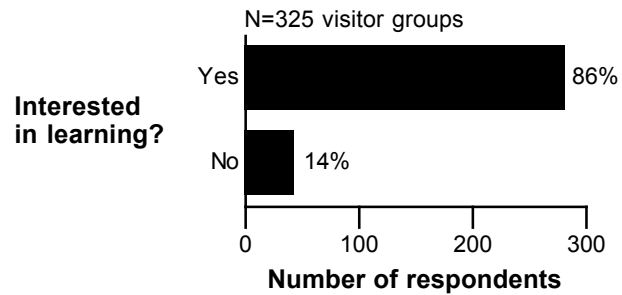
Figure 75. Visitor groups that were interested in learning about the park

N=281 visitor groups**

Geology 72%
Early inhabitants/ prehistoric peoples 70%
Apache 69%
Historic resources/ ruins preservation 55%
Army/Buffalo soldiers 49%
Wilderness 48%
Night sky/ astronomy 39%
Threatened and endangered species 36%
Ranching/European settlement 36%
Civilian Conservation Corp 34%
Climate change 32%
Role of fire 21%
Other 5%

Topic

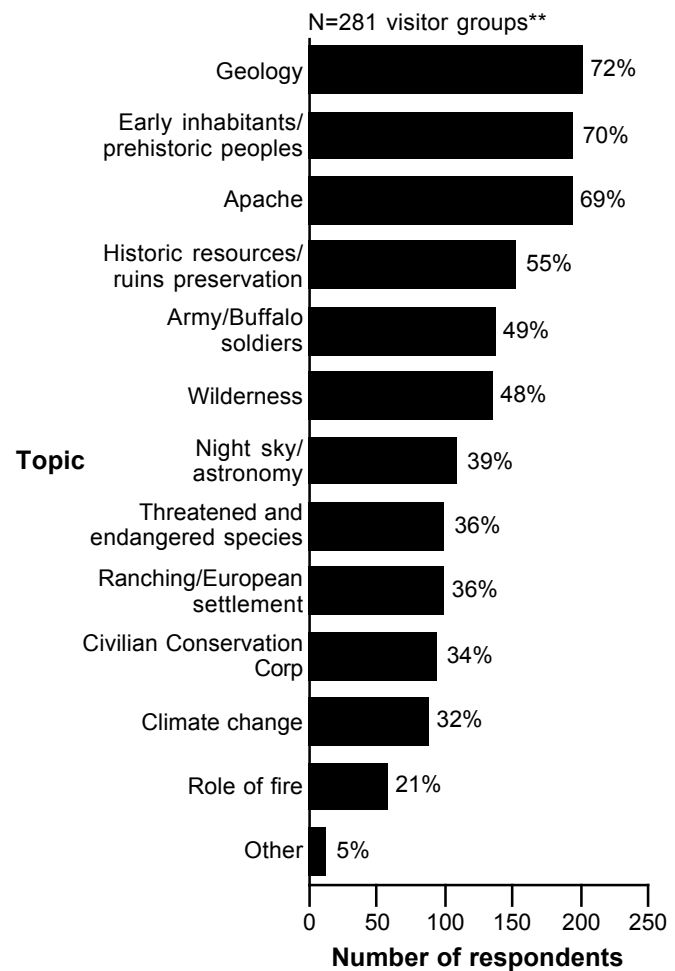**Number of respondents**

Figure 76. Topics to learn on future visit

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*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Commercial services/amenities on future visits

Question 23

If you were to visit Chiricahua National Monument in the future, Which of the following commercial services/amenities would you and your personal group like to have available?

Results

- 59% of visitor groups were interested in having commercial services/ amenities available on a future visit (see Figure 77).

- As shown in Figure 78, among those visitor groups that were interested, the most common preferred commercial services were:

> 57% Café/restaurant
> 42% Convenience store
> 40% RV park/
>   campground

- "Other" services/amenities (4%) were:

> Bathrooms
> Electrical hook-ups
> Facilities for bigger RVs
> Gray and black water dump
>   station
> More campsites
> Showers
> Tent campground

N=314 visitor groups
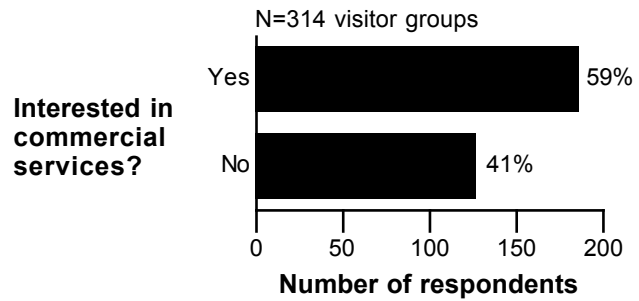
Figure 77. Visitor groups interested in commercial services/amenities
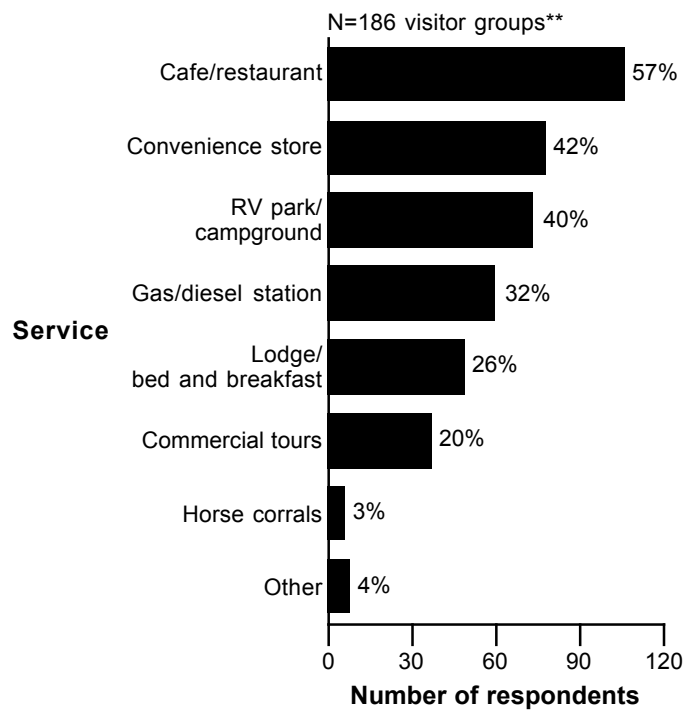
Figure 78. Preferred commercial services/amenities

_____
*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Additional trail

Question 9

In your opinion, would a trail connecting the southern border of Chiricahua National Monument and the rest of the Chiricahua Mountains be a valuable addition to your experience?

Results

- 41% of visitor groups indicated the addition of a trail on the southern boarder of the park would be a valuable addition to their experience (see Figure 79).

N=281 visitor groups
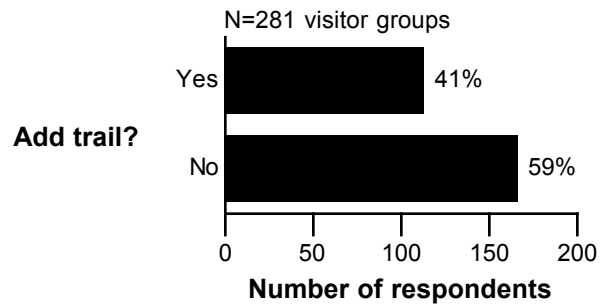
Figure 79. Visitor groups for whom an additional trail would be valuable

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*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Reducing campground congestion

Question 7

Several ways to reduce campground congestion at Chiricahua National Monument are being considered. Which option do you and your personal group prefer?

Results

- 50% of visitor groups were interested in camping inside the park (see Figure 80).

- 52% of visitor groups preferred to use a reservation system as a way to reduce campground congestion (see Figure 81).

- 40% preferred the first-come, first-served method.

- "Other" suggestions (6%) for reducing campground congestion were:

> Add more campgrounds
> Allow primitive camping
> Combination of reservations and first come, first served
> Have dry camping for large rigs
> Improve tent camping
> Increase fees for larger rigs
> Leave some sites available for drop-in visitors
> Make larger campgrounds

N=317 visitor groups
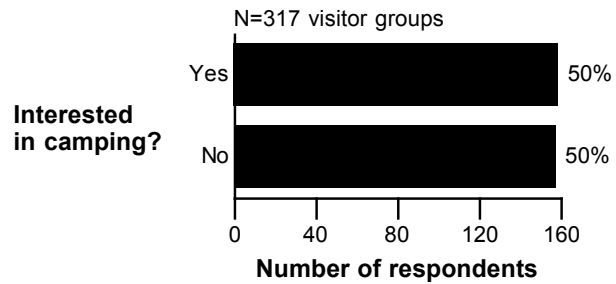
Figure 80. Visitor groups interested in camping inside the park

N=147 visitor groups*
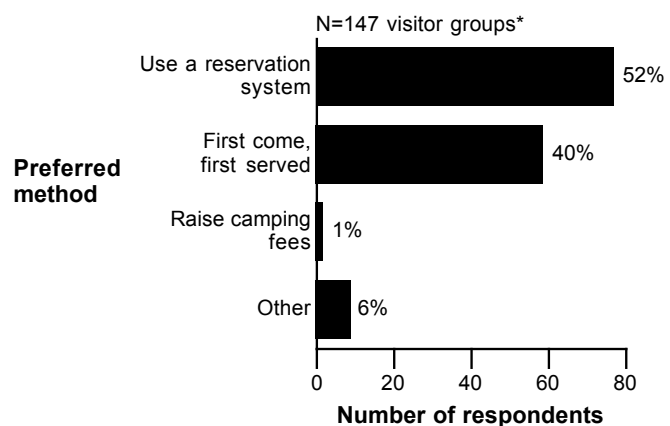
Figure 81. Ways to reduce campground congestion

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*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Overall quality

Question 27

Overall, how would you rate the quality of facilities, services, and recreational opportunities provided to you and your personal group at Chiricahua National Monument during this visit?

Results

- 95% of visitor groups rated the overall quality of facilities, services, and recreational opportunities as "very good" or "good" (see Figure 82).

- No visitor groups rated the overall quality as "very poor" or "poor".

N=328 visitor groups

Rating	
Very good	59%
Good	36%
Average	5%
Poor	0%
Very poor	0%

Number of respondents
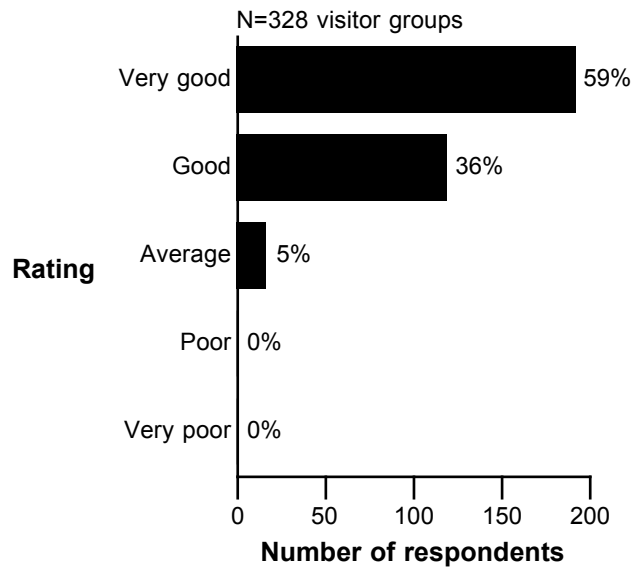
Figure 82. Overall quality rating of facilities, services, and recreational opportunities

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*total percentages do not equal 100 due to rounding
**total percentages do not equal 100 because visitors could select more than one answer

Visitor Comment Summaries

What visitors liked most

Question 24a
What did you and your personal group like most about your visit to Chiricahua National Monument? (Open-ended)

Results

- 92% of visitor groups (N=306) responded to this question.

- Table 19 shows a summary of visitor comments. A copy of hand-written comments can be found in the Visitor Comments section.

Table 19. What visitors liked most
(N=535 comments; some visitor groups made more than one comment.)

Comment	Number of times mentioned
PERSONNEL (2%)	
Friendly staff	5
Helpful staff	2
Park volunteers	2
Other comment	1
INTERPRETIVE SERVICES (4%)	
Exhibits	6
Faraway Ranch	5
Tour of Faraway Ranch	3
CCC history	2
Other comments	5
FACILITIES/MAINTENANCE (10%)	
Trails	30
Campground	5
Overlooks/viewpoints	5
Visitor center	4
Availability of restrooms	2
Good road conditions	2
Other comments	6
POLICIES/MANAGEMENT (4%)	
Uncrowded/uncongested	17
Not commercialized	5
Other comments	2

Table 19. What visitors liked most (continued)

Comment	Number of times mentioned
RESOURCE MANAGEMENT (4%)	
Wildlife	8
Birds	5
Clean/fresh air	3
Trees	3
Other comments	2
GENERAL COMMENTS (24%)	
Peace/quiet	23
History	16
Geology	14
Sightseeing	14
Nature	9
Scenic drive	5
Unique experience/park	5
Weather	4
Remoteness	3
Relaxing	2
Special place	2
Wilderness	2
Other comments	10
GENERAL COMMENTS - Park features (60%)	
Scenery/landscape	102
Natural/scenic beauty	70
Rock formations	39
Views/vistas	23
Echo Canyon trail	7
Grottos	4
Massai Point	4
Remoteness	3
Wilderness	2
Other comments	10
GENERAL COMMENTS - Recreational opportunities (10%)	
Hiking	28
Solitude	11
Taking photos	2
Other comments	2

What visitors liked least

Question 24b

What did you and your personal group like least about your visit to Chiricahua National Monument? (Open-ended)

Results

- 50% of visitor groups (N=168) responded to this question.

- Table 20 shows a summary of visitor comments. A copy of hand-written comments can be found in the Visitor Comments section.

Table 20. What visitors liked least
(N=190 comments; some visitor groups made more than one comment.)

Comment	Number of times mentioned
PERSONNEL (1%)	
Comment	1
INTERPRETIVE SERVICES (7%)	
Improve trail map	3
Improve film	2
Other comments	8
FACILITIES/MAINTENANCE (25%)	
Poorly/inadequately marked trails	6
Not enough trails	5
Lack of showers	4
Lack of space/parking for RV	4
Lack of parking	3
Need more vehicle pullouts	3
Lack of dump station	2
Lack of picnic tables	2
Lack of shorter/accessible trails	2
Rugged/rough trails	2
Other comments	14
POLICIES/MANAGEMENT (15%)	
Dog policy (not able to bring dogs)	4
Noise from generators in campground	4
Lack of cell phone service	3
Entrance fee	2
Lack of potable water	2
This survey	2
Other comments	12
RESOURCE MANAGEMENT (2%)	
No wildlife visible	2
Other comment	1

Table 20. What visitors liked least (continued)

Comment	Number of times mentioned
CONCESSIONS (7%)	
Lack of food services	9
Lack of amenities	2
Other comments	3
GENERAL COMMENTS (45%)	
Nothing to dislike	16
Not enough time	15
Travel distance to park	11
High winds	9
Snow/cold/windy	8
Having to leave	3
Unprepared for cold/snow	3
Difficult/long hike to Heart of Rocks	2
Isolation	2
Other visitors	2
Other comments	12

Planning for the future

Question 25

If you were a manager planning for the future of Chiricahua National Monument, what would you and personal group propose? (Open-ended)

Results

- 52% of visitor groups (N=173) responded to this question.

- Table 21 shows a summary of visitor comments. A copy of hand-written comments can be found in the Visitor Comments section.

Table 21. Planning for the future
(N=268 comments; some visitor groups made more than one comment.)

Comment	Number of times mentioned
PERSONNEL (1%)	
Comments	4
INTERPRETIVE SERVICES (15%)	
Update/improve park video	4
More ranger-led hikes/activities	3
More activities	2
Other comments	31
FACILITIES/MAINTENANCE (29%)	
Expand/improve RV camping	12
More campsites	8
Install showers	7
More trails	7
More pullouts/overlooks	4
Maintain roads	3
Update/expand visitor center	3
Electric hookups at campground	2
Improve/add handicap accessibility	2
Increase parking	2
More picnic tables/areas	2
Trail maintenance needed	2
Other comments	26
POLICIES/MANAGEMENT (26%)	
Keep it natural	9
Do not commercialize	8
Preserve the park	7
Expand hikers shuttle	4
Keep it rustic/natural	3
Advertise the park	2
Expand recycling program	2
Maintain wilderness	2
Minimize development	2
Overnight stays at Faraway Ranch	2
Other comments	29

Table 21. Planning for the future

Comment	Number of times mentioned
RESOURCE MANAGEMENT (1%)	
Comments	2
CONCESSIONS (16%)	
Provide food services	13
Need convenience store	9
Add lodging	6
Gas station	3
Guided horse/mule rides	2
More commercial services	2
Other comments	7
GENERAL COMMENTS (11%)	
Keep it as it is	15
We like it as it is	5
Needed more time	3
Keep up the good work	2
Other comments	5

Additional comments

Question 26

Is there anything else you and your personal group would like to tell us about your visit to Chiricahua National Monument? (Open-ended)

Results

- 40% of visitor groups (N=132) responded to this question.

- Table 22 shows a summary of visitor comments. A copy of hand-written comments can be found in the Visitor Comments section.

Table 22. Additional comments
(N=219 comments; some visitor groups made more than one comment.)

Comment	Number of times mentioned
PERSONNEL (9%)	
Friendly staff	5
Professional staff	4
Helpful staff	3
Courteous staff	2
Enjoyed campground hosts	2
Enjoyed staff	2
More ranger presence	2
INTERPRETIVE SERVICES (4%)	
More plant identification signs/information	2
Other comments	6
FACILITIES/MAINTENANCE (16%)	
Restrooms are clean	9
Park lacks campground for large RVs	6
Park is clean/well maintained	4
Appreciate the restrooms	3
More picnic facilities	3
Improve signage	2
Nice facilities	2
Other comments	7
POLICIES/MANAGEMENT (27%)	
Do not commercialize	3
Do not develop/change	2
Park was uncrowded	2
Other comments	23
CONCESSIONS (<1%)	
Comment	1

Table 22. Additional comments (continued)

Comment	Number of times mentioned
GENERAL COMMENTS (57%)	
Enjoyed visit	31
Love the park	20
Beautiful place/park	17
Will return	12
Spectacular/amazing place	5
Needed more time	4
Great park	3
Great scenery	3
Keep it as it is	3
Keep up the good work	3
Thank you	3
We bring visitors here	3
Favorite place	2
Other comments	15

Visitor Comments

This section contains visitor responses to open-ended questions.

Appendix 1: The Questionnaire

Appendix 2: Additional Analysis

The Visitor Services Project (VSP) offers the opportunity to learn from VSP visitor study data through additional analysis. Two-way and three-way cross tabulations can be made with any questions.

Below are some examples of the types of cross tabulations that be requested. To make a request, please use the contact information below, and include your name, address and phone number in the request.

1. What proportion of family groups with children attend interpretive programs?

2. Is there a correlation between visitors ages and their preferred sources of information about the park?

3. Are highly satisfied visitors more likely to return for a future visit?

4. How many international visitors participate in hiking?

5. What ages of visitors would use the park website as a source of information on a future visit?

6. Is there a correlation between visitor groups' rating of the overall quality of their park experience, and their ratings of individual services and facilities?

7. Do larger visitor groups (e.g. four or more) participate in different activities than smaller groups?

8. Do frequent visitors rate the overall quality of their park experiences differently than less frequent visitors?

The VSP database website (http://vsp.uidaho.edu) allows data searches for comparisons of data from one or more parks.

For more information please contact:

Visitor Services Project, PSU
College of Natural Resources
P.O. Box 441139
University of Idaho
Moscow, ID 83843-1139

Phone: 208-885-7863
Fax: 208-885-4261
Email: littlej@uidho.edu
Website: http://www.psu.uidaho.edu

Appendix 3: Decision Rules for Checking Non-response Bias

There are several methods for checking non-response bias. However, the most common way is to use some demographic indicators to compare between respondents and non-respondents (Dey 1997; Salant and Dillman 1994; Dillman and Carley-Baxter 2000; Dillman, 2007; Stoop 2004). In this study, group type, group size and age of the group member (at least 16 years old) completing the survey were three variables that were used to check for non-response bias.

A Chi-square test was used to detect the difference in the response rates among different group types. The hypothesis was that group types are equally represented. If p-value is greater than 0.05, the difference in group type is judged to be insignificant.

Two independent-sample T-tests were used to test the differences between respondents and non-respondents. The p-values represent the significance levels of these tests. If p-value is greater than 0.05, the two groups are judged to be insignificantly different.

Therefore, the hypotheses for checking non-response bias are:

1. Respondents from different group types are equally represented

2. Average age of respondents – average age of non-respondents = 0

3. Average group size of respondents – average group size of non-respondents = 0

As shown in Table 3, the p-value for respondent/non-respondent group size test is greater than 0.05, indicating insignificant differences between respondents and non-respondents. Table 4 shows no significant difference in group type. Thus, non-response bias for group structure is judged to be insignificant. However, the p-value for respondent/non-respondent age test is less than 0.05 indicating significant age differences between respondents and non-respondents. In regard to age difference, various reviews of survey methodology (Dillman and Carley-Baxter 2000; Goudy 1976, Filion 1976, Mayer and Pratt Jr. 1967) have consistently found that in public opinion surveys, average respondent ages tend to be higher than average non-respondent ages. This difference is often caused by other reasons such as availability of free time rather than problems with survey methodology. In addition, because the unit of analysis for this study is a visitor group, the group member who received the questionnaire may be different than the one who actually completed it after the visit. Sometimes the age of the actual respondent is higher than the age of the group member who accepted the questionnaire at the park.

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Dillman, D. A. (2007). *Mail and Internet Surveys: The Tailored Design Method*, *Updated version with New Internet, Visual, and Mixed-Mode Guide*, 2nd Edition, New York: John Wiley and Sons, Inc.

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Salant, P. and Dillman, D. A. (1994). *How to Conduct Your Own Survey*. U.S.: John Wiley and Sons, Inc.

Stoop, I. A. L. (2004). Surveying Non-respondents. *Field Methods*, 16 (1): 23.

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