



Social Science Program  
National Park Service  
U.S. Department of the Interior

Visitor Services Project



# Mammoth Cave National Park Visitor Study

Summer 2006



University of Idaho

Park Studies Unit  
Visitor Services Project  
Report 177



**Social Science Program  
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**Spring 2006**

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Report 177**

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**Visitor Services Project  
Mammoth Cave National Park  
Report Summary**

- This report describes the results of a visitor study at Mammoth Cave National Park (NP) during July 23-29, 2006. A total of 660 questionnaires were distributed to visitor groups. Of those, 435 questionnaires were returned, resulting in a 65.9% response rate.
- This report profiles a random sample of Mammoth Cave NP visitors. Most results are presented in graphs and frequency tables. Summaries of visitor comments are included in the report and complete comments are included in the Visitor Comments Appendix.
- Thirty-one percent of visitor groups were in groups of five or more, 38% were in groups of three or four, and 28% were groups of two. Seventy-three percent of the visitor groups were family groups. Forty percent of visitors were ages 36-55 years and 31% were ages 15 years or younger.
- United States visitors were from Kentucky (21%), Ohio (14%), Indiana (13%), and 34 other states. International visitors, comprising 3% of the total visitation, were from Canada (26%), the Netherlands (15%), China (11%), Poland (11%), and 9 other countries.
- Ninety-five percent of visitors were visiting Mammoth Cave NP for the first time during the six months prior to the survey. Eighty-five percent of visitors were first time visitors during the past five years. Many groups (63%) spent less than 24 hours at the park; 37% spent more than 24 hours at the park.
- Prior to this visit, visitor groups most often obtained information about Mammoth Cave NP through the NPS park website (57%), previous visits (41%), and friends/relatives/word of mouth (35%). Six percent of visitor groups did not obtain any information about the park before their visit.
- For 51% percent of visitor groups, Mammoth Cave NP was their primary destination. Most visitor groups (76%) cited visiting Mammoth Cave NP as their reason for visiting the Mammoth Cave NP area (within 30 miles of the park).
- Most visitor groups (84%) used services in the “gateway” communities of Cave City, Park City, Brownsville, Horse Cave, Munfordville, and Bowling Green. The most common services used included eating a meal (81%) and buying gasoline (66%). Many visitor groups (63%) stayed overnight away from home in the park or in the area. Most visitor groups stayed one or two nights in the park (74%) or in the area (75%). In the park, 65% of groups stayed in the hotel, while outside the park 79% stayed in lodges, motels, hotels, cabins, etc.
- Prior to their visit, 57% of visitor groups were aware of the cave tour reservation system. Eighty-six percent rated the quality of the cave tour reservation system as “very good” or “good.” Most visitor groups (91%) took a cave tour, with the Frozen Niagara (40%) and Historic Tours (37%) being the most popular. Visitor groups provided much additional information about their cave tour experiences.
- Regarding use, importance, and quality of visitor services and facilities, it is important to note the number of visitor groups that responded to each question. The most used services/facilities by visitor groups included the cave tour (88%), restrooms (82%), and park brochure/map (80%). The services/facilities that received the highest combined proportions of “extremely important” and “very important” ratings included cave tour (94%, N=359), restrooms (93%, N=337), and campground (88%, N=41). The services/facilities that received the highest combined proportions of “very good” and “good” quality ratings included cave tour (94%, N=355), assistance from park staff (93%, N=248), and assistance from visitor center information desk (92%, N=268).
- Most visitor groups (93%) rated the overall quality of facilities, services, and recreational opportunities at Mammoth Cave NP as “very good” or “good.” Less than 2% of visitor 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, phone (208) 885-7863 or at the following website <http://www.psu.uidaho.edu>

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## INTRODUCTION

This report describes the results of a visitor study at Mammoth Cave NP during July 23-29, 2006 by the National Park Service (NPS) Visitor Services Project (VSP), a part of the Park Studies Unit (PSU) at the University of Idaho.

### **Organization of the report**

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The report is organized into three sections.

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

Section 2: **Results**. This section provides summary information for each question in the questionnaire and includes a summary of visitor comments. The presentation of the results of this study does not follow the same order of questions in the questionnaire.

#### Section 3: **Appendices**

Appendix 1: The *Questionnaire* contains a copy of the original questionnaire distributed to groups.

Appendix 2: *Additional Analysis* contains a list of options for cross-references and cross comparisons. These comparisons can be analyzed within park or between parks. Results of additional analyses are not included in this report as they may only be requested after the results of this study have been published.

Appendix 3: Decision rules for checking non-response bias

Appendix 4: *Visitor Services Project Publications* contains a complete list of publications by the PSU. Copies of these reports can be obtained by contacting the PSU office at (208) 885-7863 or visiting the website: <http://www.psu.uidaho.edu/vsp/reports.htm>.

Visitor Comments Appendix: A separate appendix contains visitor responses to open-ended questions. It is bound separately from this report due to its size.

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\*total percentages do not equal 100 due to rounding

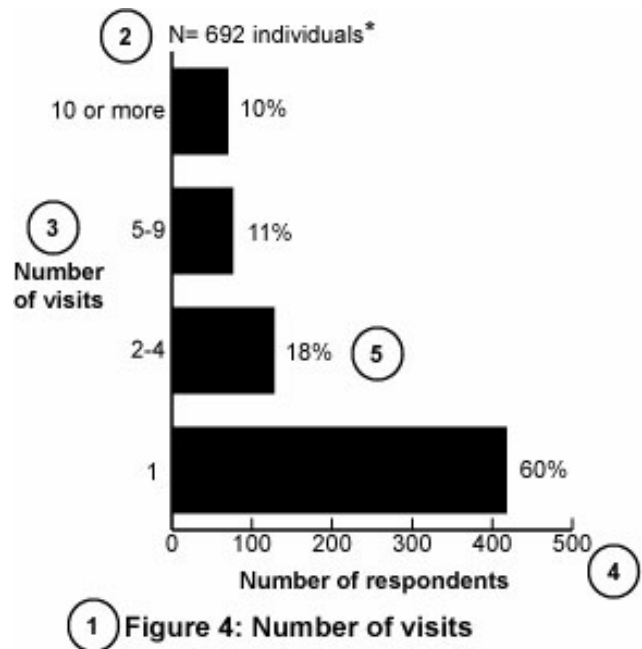
\*\*total percentages do not equal 100 because visitors could select more than one answer

## Presentation of the results

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

### SAMPLE ONLY

- 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 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.



\*total percentages do not equal 100 due to rounding

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

## METHODS

### Survey Design

#### 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* (2000). Based on this methodology, the sample size was calculated based on park visitation statistics of previous years.

Brief interviews were conducted with visitor groups, and 660 questionnaires were distributed to a random sample of visitor groups that arrived at Mammoth Cave NP during the period from July 23-29, 2006. Table 1 presents the locations and numbers of questionnaires distributed at each location. These locations were selected based on park visitation statistics and advice from park staff.

**Table 1: Questionnaire distribution location**

N=number of questionnaires distributed

Sampling site	N	Percent
Visitor center	350	53
Lodge	165	25
Green River Ferry	95	14
Sand Cave parking lot	31	5
Sloans Crossing Pond parking lot	14	2
Campgrounds	5	1
Total	660	100

#### Questionnaire design

The Mammoth Cave NP questionnaire was developed at a workshop held with park staff to design and prioritize the questions. Some of the questions were comparable with VSP studies conducted at other parks, while others were customized for Mammoth Cave NP. 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 Mammoth Cave NP questionnaire. However, all questions followed OMB guidelines and/or were used in previous surveys. Thus, the clarity and consistency of the survey instrument have been tested and supported.

\*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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## Survey procedure

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Visitor groups were greeted, briefly introduced to the purpose of the study, and asked to participate. If visitors agreed, an interview lasting approximately two minutes, with the person with the next birthday, was used to determine group size, group type, and the age of the group member (at least 16 years of age) who would complete the questionnaire. These individuals were asked for their names, addresses, and telephone numbers to mail them a reminder/thank you postcard and follow-ups. Visitor groups were given a questionnaire, asked to complete it after their visit, and then return it by mail. The questionnaires were pre-addressed and affixed with a U.S. first class postage stamp.

Two weeks following the survey, a reminder/thank you postcard was mailed to all participants. Replacement questionnaires were mailed to participants who had not returned their questionnaires four weeks after the survey. Seven weeks after the survey, a second round of replacement questionnaires was mailed to visitors who had not returned their questionnaires. A final replacement questionnaire was mailed to non-respondents 10 weeks after the survey.

<b>Data Analysis</b>
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Returned questionnaires were coded and the information was entered into a computer using custom and standard statistical software applications—Statistical Analysis System (SAS) or Statistical Package for the Social Sciences (SPSS). Descriptive statistics and cross-tabulations were calculated for the coded data and responses to open-ended questions were categorized and summarized.

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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

### 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 to the selected sites during the study period of July 23-29, 2006. 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 ranged from partly cloudy and warm, to sunny and hot with a thunderstorm and rain on one day.

\*total percentages do not equal 100 due to rounding

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

## RESULTS

### Visitor Groups Contacted

At Mammoth Cave NP, 694 visitor groups were contacted and 660 of these groups (95.1%) accepted the questionnaire. Questionnaires were completed and returned by 435 visitor groups, resulting in a 65.9% response rate for this study. The two variables used to check non-response bias were age of the group member who actually completed the questionnaire and group size.

### Checking Non-response Bias

Table 2 shows insignificant differences between respondent and non-respondent ages and group sizes. See Appendix 3 for more details of the non-response bias checking procedure.

**Table 2: Comparison of respondents and non-respondents**

Variable	Respondent		Non-respondent		p-value (t-test)
	N	Average	N	Average	
Age	420	45.9	108	42.0	0.092
Group size	426	4.4	108	4.9	0.133

Two of the interviewers did not gather all of the required information during the initial interviews, affecting the amount of data available for the non-response bias check (see non-respondent N's above).

The results show that there is no significant difference between respondent and non-respondent ages and insignificant differences in group sizes. Therefore, the non-response bias was judged to be insignificant for the data that is available.

\*total percentages do not equal 100 due to rounding

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

## Demographics

### Visitor group size

#### Question 18a

For this visit to Mammoth Cave NP, how many people were in your personal group, including yourself?

#### Results

- 38% were in groups of three or four (see Figure 1).
- 31% of visitors were in groups of five or more.
- 28% were in groups of two.

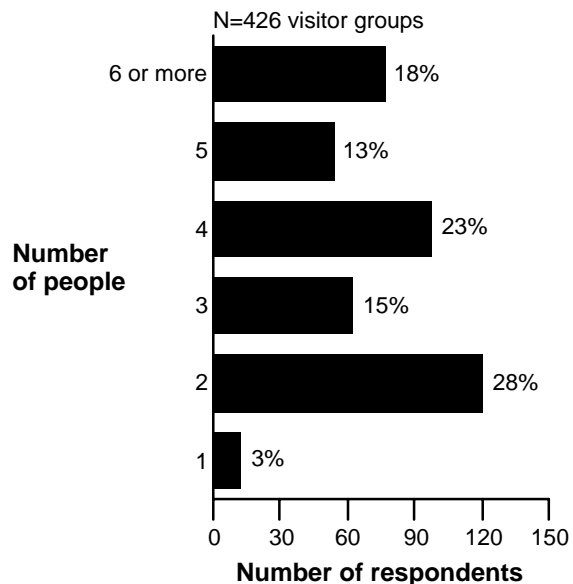


Figure 1: Visitor group size

### Visitor group type

#### Question 19

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

#### Results

- 73% of visitor groups were made up of family members (see Figure 2).
- 9% were with family and friends.
- “Other” groups (4%) included:

Cub scouts  
Girl scouts  
Church

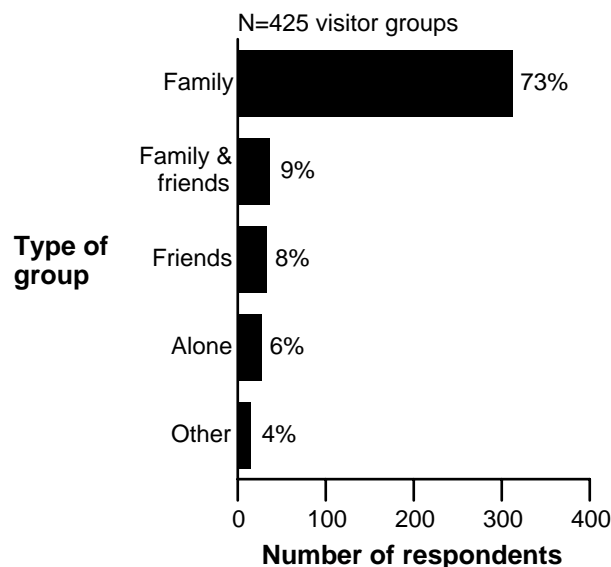


Figure 2: Visitor group type

\*total percentages do not equal 100 due to rounding

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

## United States visitors by state of residence

Question 20b

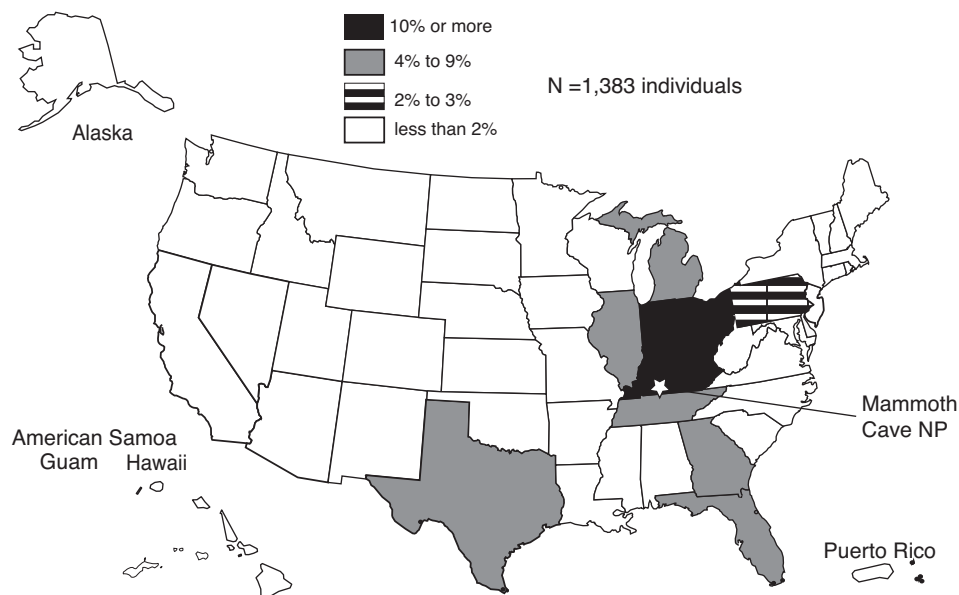
What is your state of residence?

Table 3: United States visitors by state of residence\*

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

	State	Number of visitors	Percent of U.S. visitors N=1383 individuals	Percent of total visitors N=1430 individuals
Results	Kentucky	294	21	21
	Ohio	188	14	13
	Indiana	182	13	13
	Michigan	118	9	1
	Illinois	78	6	1
	Tennessee	78	6	1
	Florida	70	5	1
	Georgia	66	5	1
	Texas	53	4	1
	Pennsylvania	42	3	1
	Alabama	20	1	1
	Missouri	20	1	1
	Washington	4	1	<1
	24 other states and Washington, D.C.	81	6	6

- U.S. visitors comprised 97% of total visitation to the park.
- 21% of visitors came from Kentucky (see Table 3 and Map 1).
- 14% were from Ohio.
- 13% were from Indiana.
- Smaller proportions came from 34 other states and Washington, DC.



Map 1: Proportions of 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

## International visitors by country of residence

Question 20b

What is your country of residence  
(other than U.S.)?

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

### Results

- International visitors comprised 3% of total visitation to the park.
- 26% of visitors came from Canada (see Table 4).
- 15% came from Netherlands.
- 11% came from China.
- 11% came from Poland.
- Smaller proportions came from 9 other countries.

**Table 4: International visitors by country of residence\***

Country	Number of visitors	Percent of international visitors N=47 individuals	Percent of total visitors N=1430 individuals
Canada	12	26	1
Netherlands	7	15	1
China	5	11	1
Poland	5	11	1
Austria	4	9	<1
England	4	9	<1
France	2	4	<1
Norway	2	4	<1
Peru	2	4	<1
Germany	1	2	<1
Romania	1	2	<1
Sweden	1	2	<1
Switzerland	1	2	<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 during last 6 months

### Question 20c

How many times have you visited the park during the last 6 months (including this visit)?

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

### Results

- 95% of visitors were visiting for the first time during the last 6 months (see Figure 3).
- 5% visited two or more times.

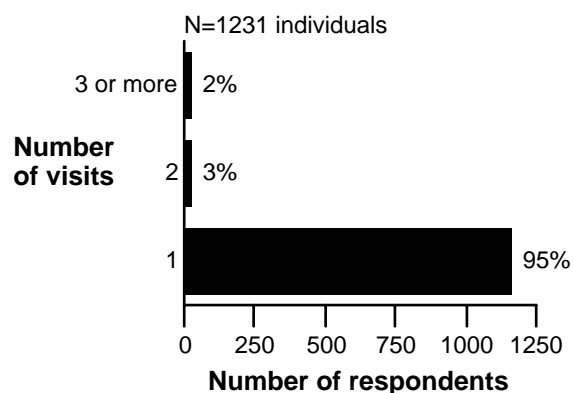


Figure 3: Number of visits to park during past 6 months

## Number of visits during the past 5 years

### Question 20d

How many times have you visited the park during the past 5 years (including this visit)?

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

### Results

- 85% of visitors were visiting the park for the first time during the past 5 years (see Figure 4).
- 11% visited two or three times.

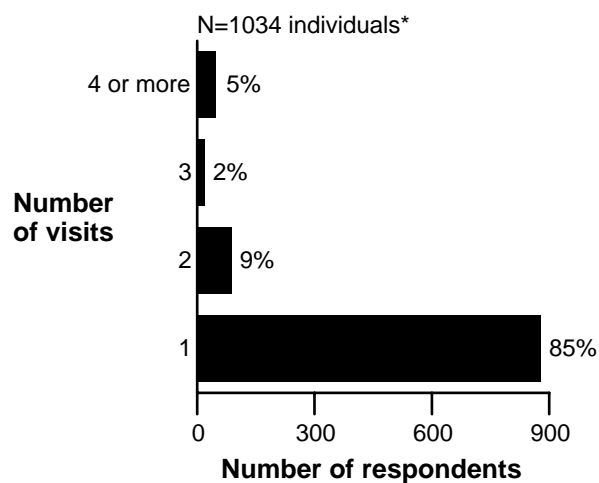


Figure 4: Number of visits to park during the past 5 years

\*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 20a

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

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

### Results

- Visitor ages ranged from 1 to 80 years old.
- 40% of visitors were in the 36-55 years age group (see Figure 5).
- 31% were 15 years or younger.

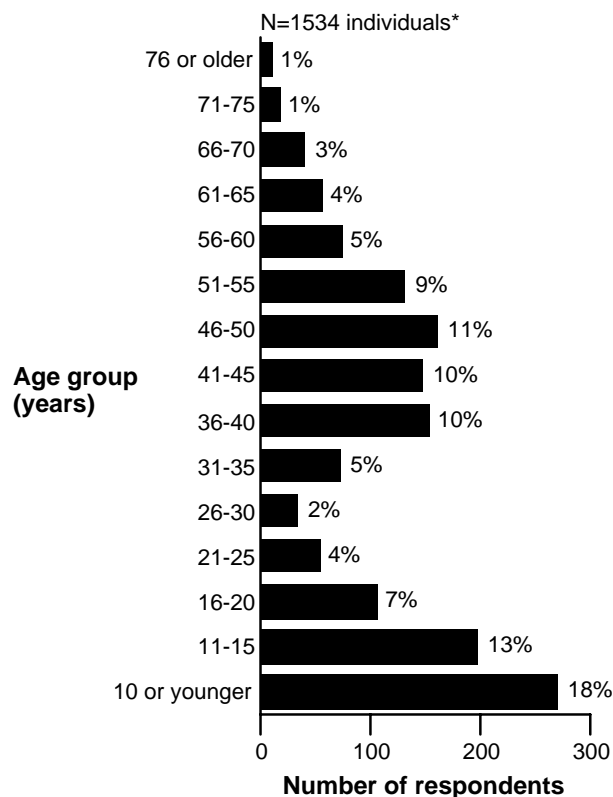


Figure 5: Visitor age

## Visitor education

### Question 22

For you and each group member (age 16 or over) on this visit, please indicate the highest level of education completed.

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

### Results

- 25% of respondents had some college (see Figure 6).
- 24% had a bachelor's degree.
- 23% had a high school diploma/GED.

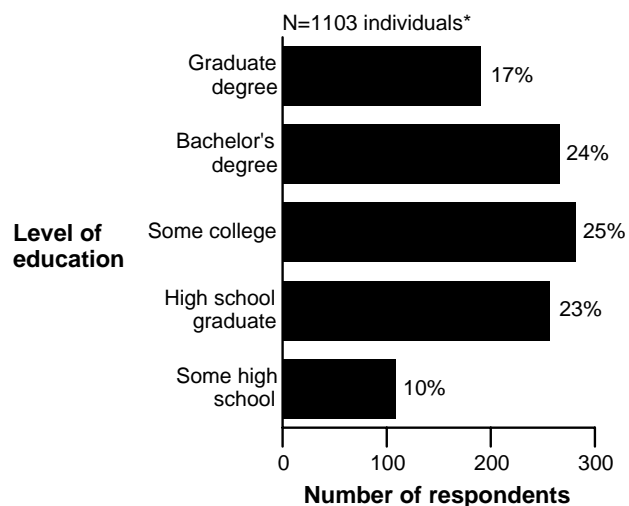


Figure 6: Visitor education

\*total percentages do not equal 100 due to rounding

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

## Respondent ethnicity

### Question 21a

For you only, are you Hispanic or Latino?

### Results

- 3% of respondents were Hispanic or Latino (see Figure 7).

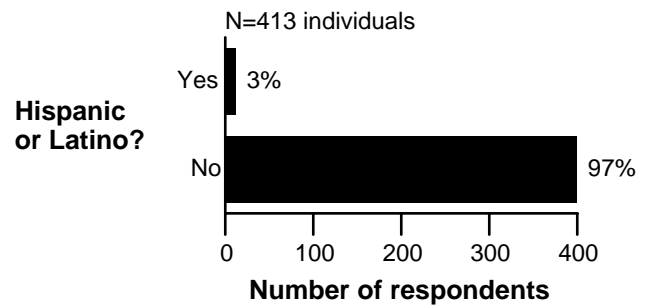


Figure 7: Respondent ethnicity

## Respondent race

### Question 21b

For you only, which of these categories best indicates your race?

### Results

- 92% of respondents were White (see Figure 8).
- 3% were Asian.

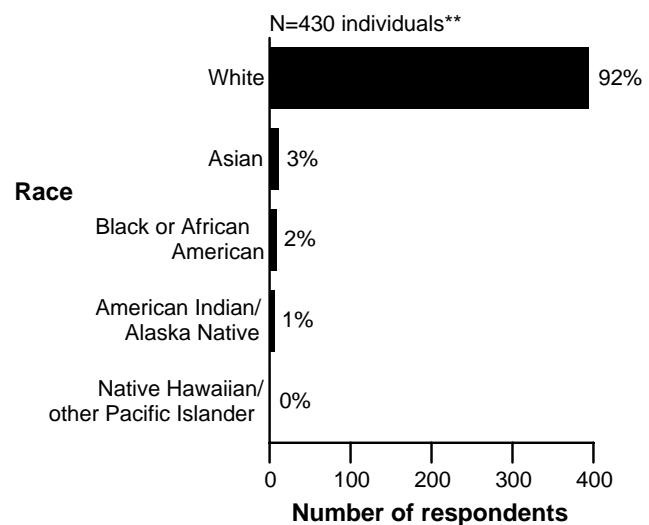


Figure 8: Respondent race

\*total percentages do not equal 100 due to rounding

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

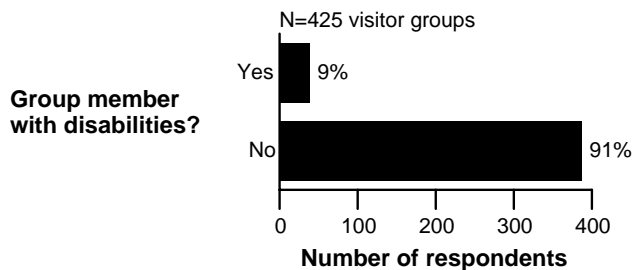
## Visitors with disabilities/impairments

### Question 23a

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

### Results

- 9% of visitor groups had members with a physical condition that made it difficult to access or participate in park activities or services (see Figure 9).



**Figure 9: Visitors with a physical condition that made it difficult to access park activities/services**

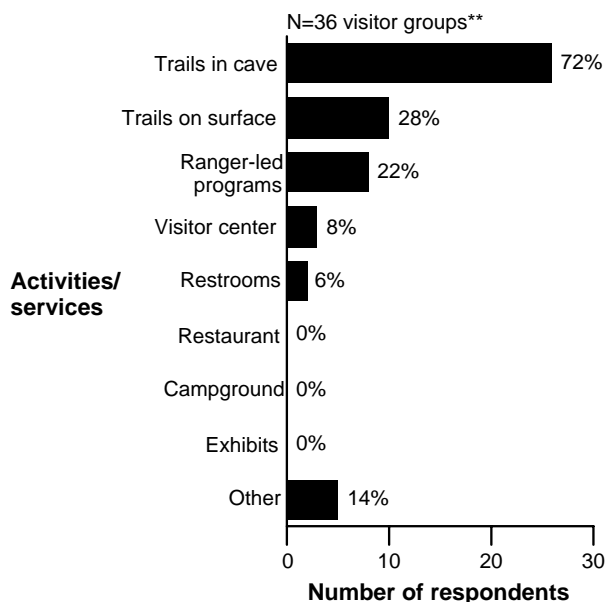
### Question 23b

If YES, what park activities or services did the person(s) have difficulty accessing or participating in?

### Results

- 63% of visitor groups had difficulty accessing trails in the cave (see Figure 10).
- 24% had difficulty accessing trails on the surface.
- 20% had difficulty accessing ranger-led programs.
- “Other” activities/services (14%) included:

Cave  
Steps



**Figure 10: Activities/services that visitors had difficulty accessing**

\*total percentages do not equal 100 due to rounding

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

## Question 23c

Because of the physical condition, what specific problems did the person(s) have?

- Mobility disabilities/impairments (89%) were the most common (see Figure 11).
- “Other” types of disabilities/impairments (14%) included:

Breathing problems  
Diabetes  
Arthritis  
Back problems

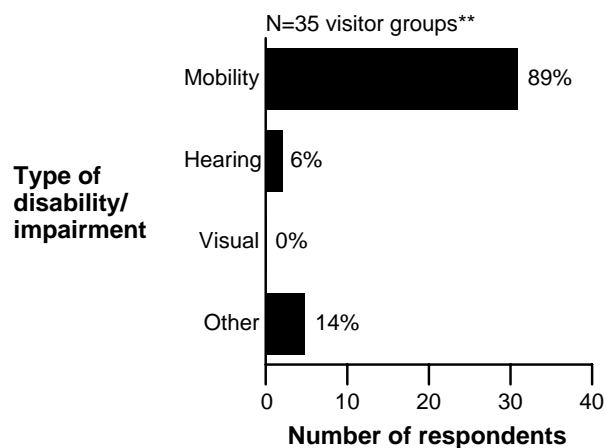


Figure 11: Type of disability/impairment

\*total percentages do not equal 100 due to rounding

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

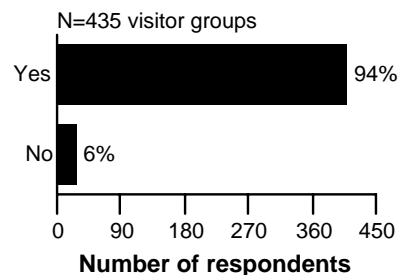
## Trip/Visit Characteristics and Preferences

### Information sources prior to visit

#### Question 1a

Prior to this visit, how did you and your group obtain information about Mammoth Cave National Park?

**Obtain information  
about park  
prior to visit?**



#### Results

- 6% of visitor groups did not obtain any information about the park prior to their visit (see Figure 12).

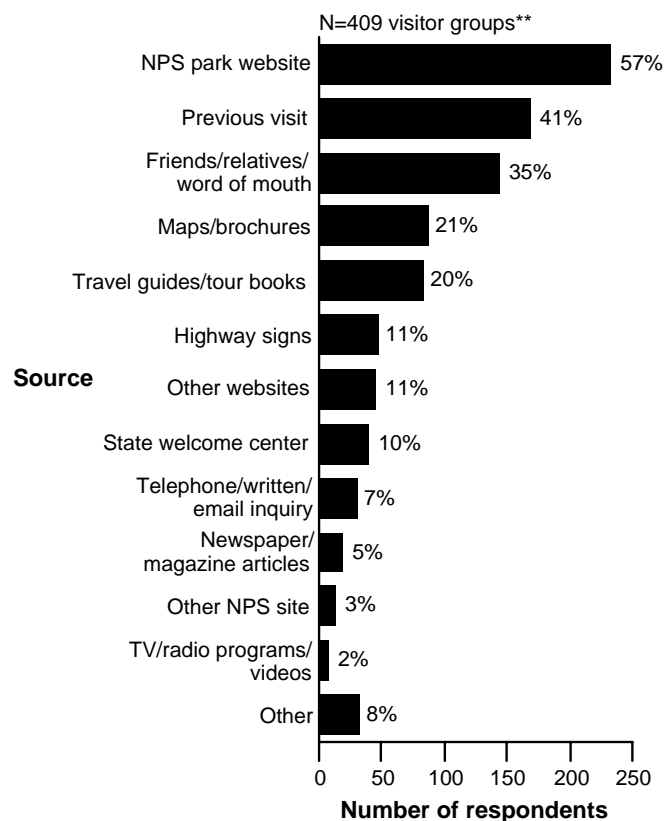
- As shown in Figure 13, of those who obtained information (94%), the most common sources of information included:

57% NPS park website  
41% Previous visit  
35% Friends/relatives/word of mouth

- “Other” sources of information (8%) included:

Grew up in area  
Caving groups  
Business associate  
Encyclopedia  
Reunion

**Figure 12: Visitors who obtained information about park prior to this visit**



**Figure 13: Sources of information used by visitor groups prior to 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

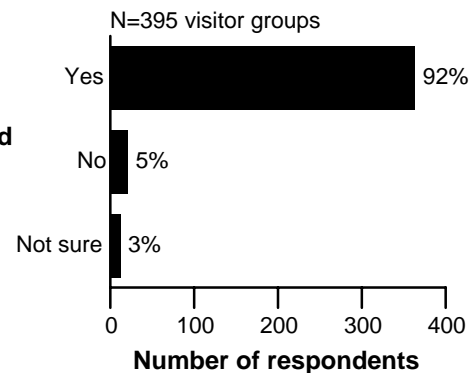
## Question 1b

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

## Results

- 92% of visitor groups obtained the information they needed to prepare for this trip to Mammoth Cave NP (see Figure 14).

## Receive needed information?



**Figure 14: Visitor groups who obtained needed information prior to this visit to Mammoth Cave NP**

## Question 1c

If NO, what was the information did you and your group needed that was not available?

Cave tour information, including reservations, prices, tour options, clothing to wear, lunch, etc.

Park cabins

Hiking trails

Better directions from Cave City

Results - **Interpret with CAUTION!**

- Additional information that visitor groups (N=21) needed but was not available through these sources included:

\*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 Mammoth Cave National Park area

### Question 4

What was your primary reason for visiting the Mammoth Cave NP area (within 30 miles of the park)?

### Results

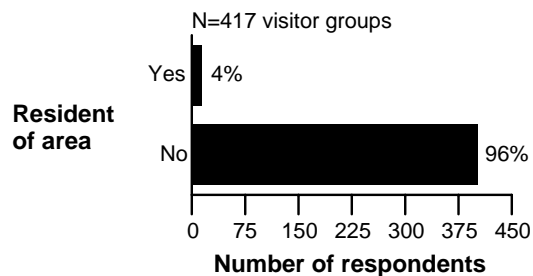
- 4% of visitor groups were residents of the local area (see Figure 15).

- As shown in Figure 16, the most common primary reasons for visiting the Mammoth Cave NP area were:

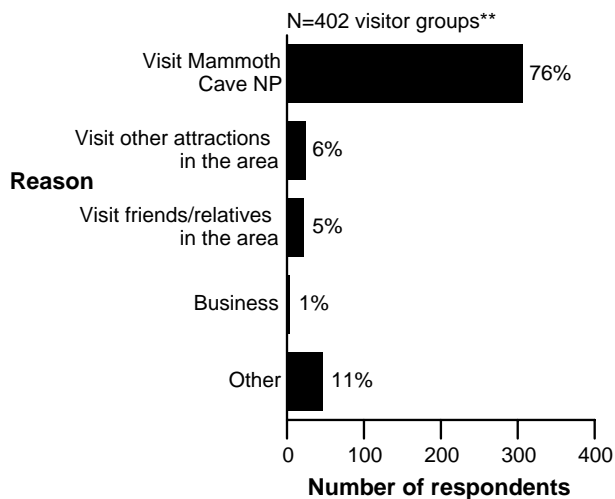
76% Visit Mammoth Cave NP  
6% Visit other area attractions

- Open-ended responses to “other attractions in the area” included:

Dinosaur World  
Corvette Museum  
Alpine Slide  
Other caves  
Lake Barkley  
Lake Cumberland  
Beach Bend Park  
Fort Knox  
Six Flags Kentucky  
Abraham Lincoln Birthplace  
Nashville



**Figure 15: Resident of Mammoth Cave NP area (within 30 miles of the park)**



**Figure 16: Reason for visiting Mammoth Cave NP area (within 30 miles of the park)**

- “Other” primary reasons (11%) for visiting included:

Traveling through to another destination  
Had time to stop  
Family reunion  
Show to friends/family  
Vacation

\*total percentages do not equal 100 due to rounding

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

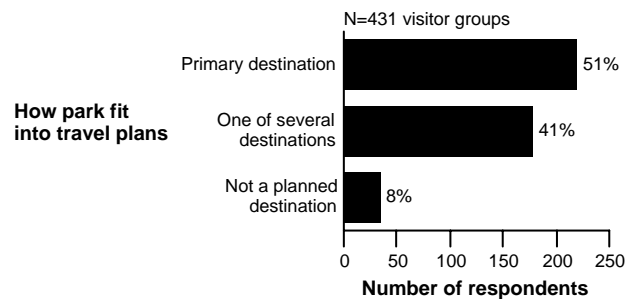
## Travel plans

### Question 3

For this trip, please explain how your visit to Mammoth Cave NP fit into your group's travel plans.

### Results

- 51% of visitor groups said the park was their primary destination (see Figure 17).
- The park was one of several destinations for 41% of visitor groups.



**Figure 17: Park visit as part of travel plans**

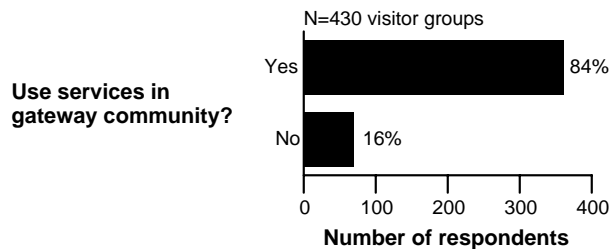
\*total percentages do not equal 100 due to rounding

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

## Services used in “gateway” communities

### Question 5a

What services did you and your group use in the “gateway” communities of Cave City, Park City, Brownsville, Horse Cave, Munfordville, and Bowling Green that were specifically related to this park visit?



### Results

- 84% of visitor groups used services in “gateway” communities (see Figure 18).

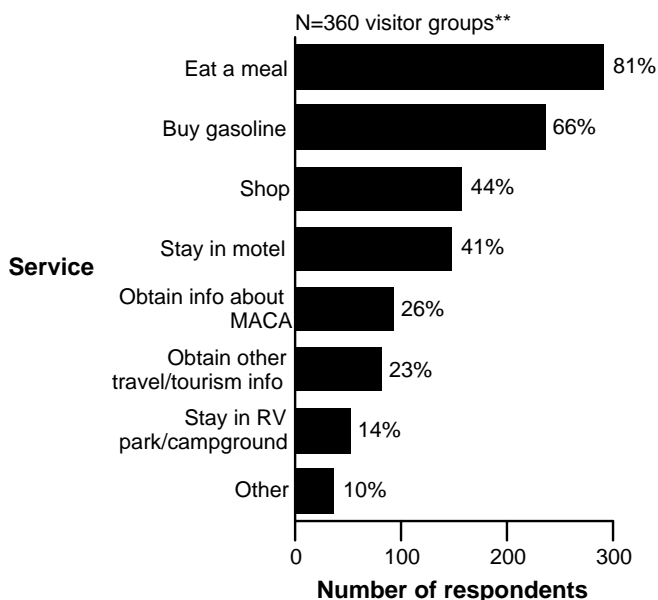
- The most commonly used services (see Figure 19) included:

81% Eating a meal  
66% Buying gasoline  
44% Shopping  
41% Staying in motel

- “Other” services used (10%) included:

Buying groceries  
Visiting other caves  
Shopping for souvenirs/gifts  
Horseback riding  
Playing miniature golf  
Staying in timeshare condo  
Visiting museum  
Buying tires  
Visiting rock shops  
Visiting Alpine Slide  
Driving go carts  
Going to movie  
Going to Farmers Market

**Figure 18: Use service in “gateway” communities?**



**Figure 19: Services used in “gateway” communities**

### Question 5b

Do you have any comments about the above services or services you would like to see provided?

### Results

- See responses in Table 5 on the next page.

\*total percentages do not equal 100 due to rounding

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

**Table 5: Comments about existing or needed “gateway” community services**  
 some visitor groups made more than one comment.

Service	Comment
<b>Food services</b>	
Meals	Need more places to dine-in (no fast food)
Meals	Need better quality and variety
Meals	Excellent
Meals	Cave City/Horse Cave need more than fast foods
Food	Need more restaurants to choose from
Food	Service was limited to fast food - yuck
Food/meals	Area needs more restaurants that serve alcohol
Food	Need more decent restaurants in Cave City
Food	
Food	Wish more choices
Chinese restaurant	No buffets nearby
Coffee house	i.e. Starbucks/Dunkin' Donuts, etc.
Pizza Hut	Good service
Dining	Better quality restaurants (too much fast food)
Dining	Too much fast food, not enough well known non-fast food options (e.g. Cracker Barrel)
Restaurant/café in MCNP	Excellent service- food was good
	Our food service was great
	Better choice of food at park
	Need more restaurants
	Food was quick and good
<b>Lodging/camping</b>	
Motel	Need more places to stay overnight
Motel	Very good
Barron State Park Campground	Pool should be available to campers, not just lodge guests
Lodge	We stayed in cabins - they really need to be updated. Smelled musky. Poor quality.
Motel	Hampton Inn - beds were small. No rollaway available. No mini-fridge.
Motel	Motel room was not kept up to standard for a park!
Hampton Inn	Very nice hotel!!
	We stayed at the Ramada Inn in Bowling Green (Exit 22). Very nice accommodation, full breakfast in attached restaurant, outside pool, reasonable price \$59.
Housing	Need better quality motels
B&B	Attempted to stay at a local B&B, but was disappointed by the lack of upkeep
Camping	Electric hookups
Camping	On our way back south we are returning to camp and cave tour
Cave campground	Needs more campsites with electricity and water hookups

\*total percentages do not equal 100 due to rounding

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

**Table 5: Comments about existing or needed “gateway” community services (continued)**

Service	Comment
<b>Other services</b>	
	The area is somewhat less "commercialized" than some of the other national parks (such as the super-touristy Smoky Mtns area, for example) and this made our experience really nice and relaxed and on-target; low-key and perfect
Glitzy	Tacky
Gas station	Friendly and gave very good specific directions
Car repair	Area needs car service center
	Car repair at Munfordville, excellent and fast
Gift shop inside main door on right	Good selection of gifts, cards and souvenirs at a reasonable price.
Shop	Very satisfied with selection
Store	Store should stay open till 9 p.m.
Cigars, cigarettes	There aren't any available
Information	Very satisfied
	I would like to see more displays such as: local wildlife in natural settings, working beehive, flowers, insect displays, swimming pool
	Better directional maps
Trail maps	
Trail brochure	Hiking trails were clearly marked
Self tour	A little longer view
Post office in park	Closed too early (4 p.m.) no place to buy stamps other than post office
All services	Were excellent, clean, quick, and all personnel were professional and friendly
Elevator	Not working
Big Mikes Rock Shop	Wonderful people were lovely
Friendly folks	Good referrals
	Great
Entertainment	Nothing whatever to do in Cave City, it's a pit
Jellystone	Loved it!
Attractions	Need more attractions like Gatlinburg
Swimming	There is no place to swim
All	Friendly
	All good
	Overall it was a relaxing trip, convenient
	We had a good time.
	Excellent services everywhere thanks!
	Playground area for young children
	More bike trails!!
	Bicycle rental
	Pets allowed in park, but on a leash
	Keep this gorgeous park natural, clean and friendly!
	Would a shuttle be offered to different caves? Or maybe one exists and I'm not aware? Not that we'd use it--just a ?
	Lights at beaver pond for night walkers
	Offers to explore parts of caves no one has ever seen before! I want to see what no one has seen before!

\*total percentages do not equal 100 due to rounding

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

## Adequacy of directional signs

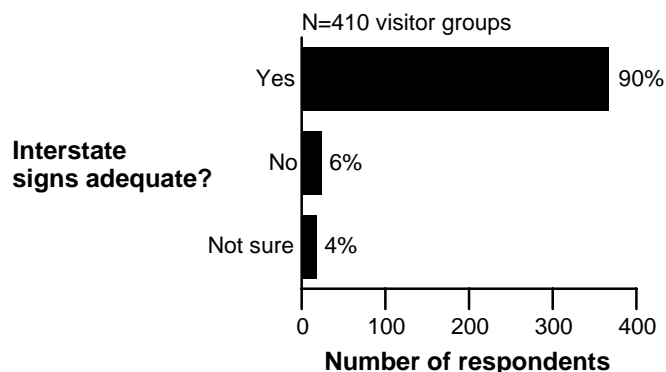
### Question 17a

Were the signs directing you to Mammoth Cave National Park adequate?

#### Signs on interstates

#### Results

- 90% of visitor groups reported directional signs on interstates were adequate (see Figure 20).

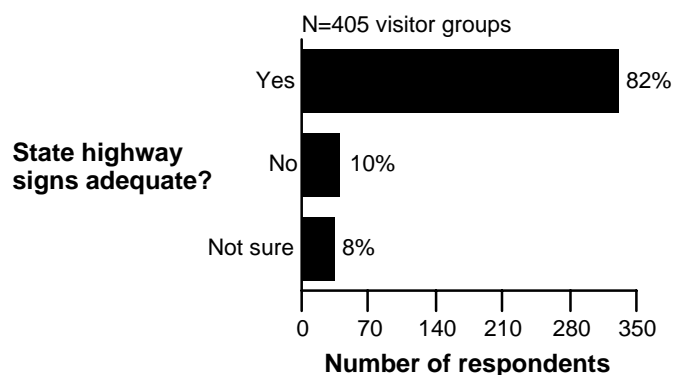


**Figure 20: Adequacy of directional signs on interstates**

#### Signs on state highways

#### Results

- 82% of visitor groups reported that state highway directional signs were adequate (see Figure 21).
- 10% said the signs were not adequate.



**Figure 21: Adequacy of directional signs on state highways**

### Question 17b

If NO, please explain the problem.

#### Results

- Table 6 shows the problems with directional signs.

**Table 6: Problems with directional signs**

N=55 comments;

some visitor groups made more than one comment.

Problem	Number of times mentioned
Signs confusing	33
Lack of signs	15
Wasn't on interstate	3
Wasn't driving/paying attention	2
Signs need to be larger	2

\*total percentages do not equal 100 due to rounding

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

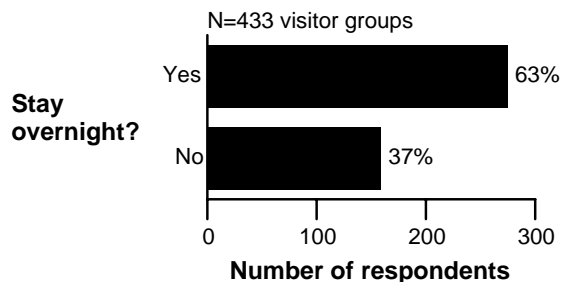
## Overnight accommodations

### Question 7a

On this trip, did you and your group stay overnight away from home in the Mammoth Cave NP area (within 30 miles of the park)?

#### Results

- 63% of visitor groups stayed overnight away from home in the Mammoth Cave NP area (see Figure 22).



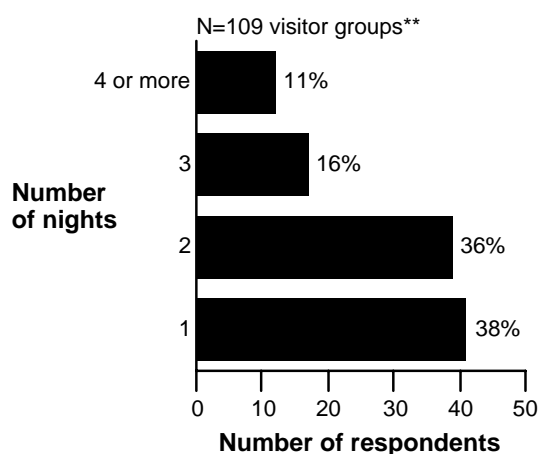
**Figure 22: Overnight stay away from home in the Mammoth Cave NP area**

### Question 7b

Please list the number of nights you and your group stayed in Mammoth Cave NP.

#### Results

- 74% of visitor groups spent one or two nights in the park (see Figure 23).
- 27% spent three or more nights.



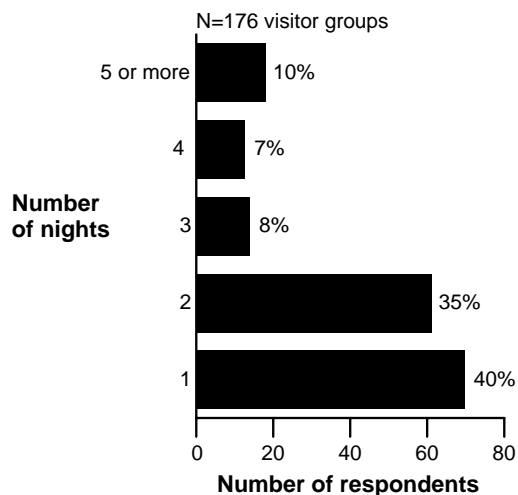
**Figure 23: Number of nights inside the park**

### Question 7b

Please list the number of nights you and your group stayed in the Mammoth Cave NP area (within 30 miles of the park).

#### Results

- 75% of visitor groups spent one or two nights in the Mammoth Cave NP area (see Figure 24).
- 10% spent five or more nights.



**Figure 24: Number of nights in the Mammoth Cave NP area**

\*total percentages do not equal 100 due to rounding

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

## Question 7c

In what type of lodging did you and your group spend the night(s) inside the park?

## Results

- 65% of visitor groups stayed in the hotel inside the park (see Figure 25).
- 33% stayed in a campground/trailer park.
- “Other” types of lodging (27%) included:

RV  
Tent  
Mammoth Cave Research Center

NOTE: Many of the respondents misunderstood the question and listed Mammoth Cave Hotel or cabin in the “other” category.

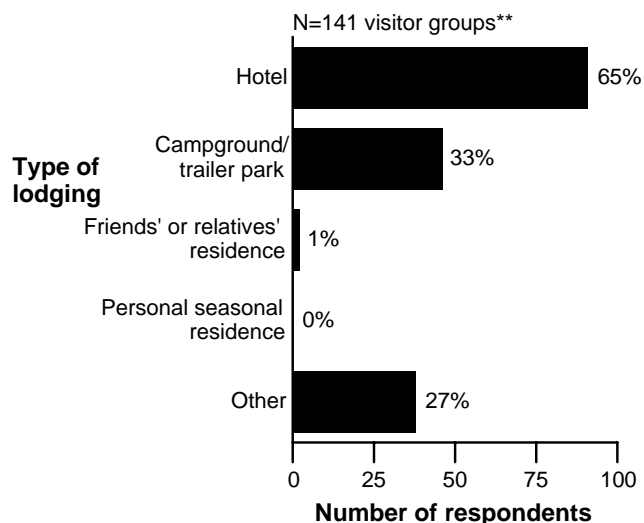


Figure 25: Type of lodging visitor groups used inside the park

## Question 7d

In what type of lodging did you and your group spend the night(s) in the Mammoth Cave NP area (within 30 miles of the park)?

## Results

- 79% of visitor groups stayed in lodges, motels, hotels, cabins, bed & breakfasts, etc. (see Figure 26).
- 14% camped in a campground/trailer park.
- “Other” types of lodging (28%):

Note: all of the respondents misunderstood the question and listed motels, hotels cabins, rented condos, and campgrounds in the “other” category.

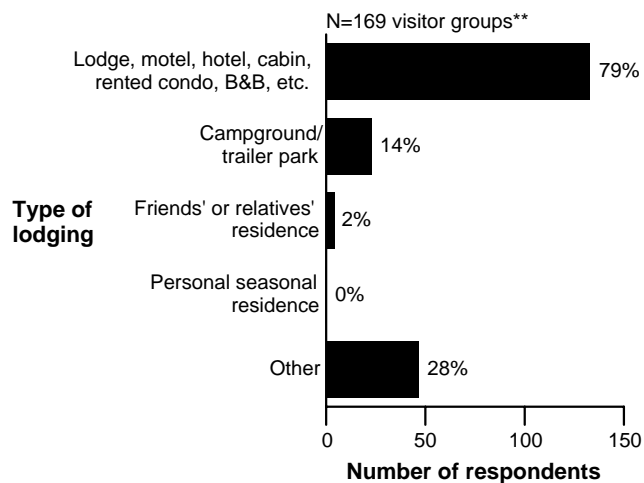


Figure 26: Type of lodging visitor groups used in the Mammoth Cave NP area (within 30 miles of the park)

\*total percentages do not equal 100 due to rounding

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

## Overnight stay locations on night before park visit

### Question 8a

Where did you and your group stay on the night before you arrived at Mammoth Cave NP?

**Table 7: Overnight stay on night before park visit**

N=410 places;

some visitor groups listed more than one location.

### Results

- As shown in Table 7, the most common locations were:

Cave City, KY  
Louisville, KY  
Nashville, TN  
Bowling Green, KY

City/Town and State	Number of times mentioned
Cave City, KY	51
Louisville, KY	47
Nashville, TN	27
Bowling Green, KY	23
Elizabethtown, KY	13
Indianapolis, IN	11
Horse Cave, KY	8
Lexington, KY	8
Cincinnati, OH	5
Bardstown, KY	4
Chicago, IL	4
Clarksville, TN	4
Evansville, IN	4
Glasgow, KY	4
Corydon, KY	2
Dayton, KY	2
Barren River Lake State Resort Park, KY	3
Columbus, OH	3
Danville, KY	3
Florence, KY	2
Franklin, KY	3
French Lick, KY	2
Fort Knox, KY	2
Akron, OH	2
Atlanta, GA	2
Great Smoky Mts. NP, TN	2
Madisonville, KY	2
Mt. Washington, KY	2
Munfordville, KY	2
Murfreesboro, TN	2
Nancy, KY	2
Owensboro, KY	2
Paris, KY	2
Pigeon Forge, TN	2
Scottsville, KY	2
Smyrna, GA	2
Somerset, KY	2
Valparaiso, IN	2

\*total percentages do not equal 100 due to rounding

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

**Table 7: Overnight stay on night before park visit  
(continued)**

City/Town and State	Number of times mentioned
Allen Park, MI	1
Alpharetta, GA	1
Alvada, OH	1
Athens, OH	1
Batavia, OH	1
Batesville, IN	1
Beavercreek, OH	1
Bensenville, IL	1
Berea, KY	1
Between MCNP & Bowling Green, KY	1
Birdseye, IN	1
Blue Licks State Park, KY	1
Bremen, KY	1
Brighton, MI	1
Brookville, IN	1
Browder, KY	1
Brownsville, KY	1
Burdick, KY	1
Burlington, KY	1
Burnside, KY	1
Caledonia, MI	1
Calvert City, KY	1
Carmel, IN	1
Cartersville, GA	1
Celina, TN	1
Charleston, WY	1
Clanton, AL	1
Clarkson, KY	1
Cloudland Canyon State Park, GA	1
Coppell, TX	1
Covington, KY	1
Crawfordsville, IN	1
Crestwood, KY	1
Cumming, GA	1
Cynthiana, KY	1
Daytona Beach, FL	1
Dearborn, MI	1
Decatur, IL	1
Denver, CO	1
Derby, IN	1
Dickson, TN	1
Dillsboro, IN	1

\*total percentages do not equal 100 due to rounding

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

**Table 7: Overnight stay on night before park visit  
(continued)**

City/Town and State	Number of times mentioned
Dry Ridge, KY	1
Dunmore, OH	1
Fayetteville, TN	1
Empire, MI	1
Fairfield, OH	1
Fergus, Ontario, Canada	1
Fishers, IN	1
Fort Meyers, FL	1
Fort Wayne, IN	1
Frankfort, KY	1
Gahanna, OH	1
Gatland, LA	1
Glendale, KY	1
Golden Pond, KY	1
Green County, KY	1
Greensboro, KY	1
Greenwood, IN	1
Gridley, IL	1
Harlan, TN	1
Hartford, KY	1
Hawesville, KY	1
Hermitage, TN	1
Hillview, KY	1
Hodgenville, KY	1
Hot Springs, TX	1
Independence, KY	1
Irving, KY	1
Jefferson, OH	1
Jeffersonville, KY	1
Jellystone Campground, KY	1
Kalamazoo, MI	1
Kevil, KY	1
Kewanee, IL	1
Lake Barkley	1
Lake City, TN	1
Lancaster, KY	1
Lawrenceburg, KY	1
LBL, KY	1
Lebanon Junction, KY	1
Lebanon, TN	1
Leitchfield, KY	1
Leoma, TN	1
Little Rock, AR	1

\*total percentages do not equal 100 due to rounding

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

**Table 7: Overnight stay on night before park visit  
(continued)**

City/Town and State	Number of times mentioned
London, KY	1
Londonderry, OH	1
Madison, TN	1
Marion, IN	1
Marysville, OH	1
Mattoon, IL	1
Maryville, TN	1
McDaniel, KY	1
Memphis, TN	1
Mentone, AL	1
Monrovia, IN	1
Morgantown, WV	1
Mt. Juliet, TN	1
Mt. Vernon, KY	1
M-ville, KY	1
New Hope, KY	1
New Lebanon, OH	1
Newport, KY	1
Nicholasville, KY	1
Nolin Lake, KY	1
Park City, KY	1
Pittsburgh, PA	1
Plainfield, IL	1
Portland, TN	1
Renfro Valley, KY	1
Richmond, KY	1
Rolla, MO	1
Rough Dam State Park, KY	1
Russellville, KY	1
Sacramento, KY	1
Salem, KY	1
Shepherdsville, KY	1
Shreveport, LA	1
Spring City, TN	1
Stearns, KY	1
Terre Haute, IN	1
Tiline, KY	1
Torrent Falls, KY	1
Union, KY	1
Upton, KY	1
Winchester, VA	1
Wytheville, OH	1
Xenia, OH	1

\*total percentages do not equal 100 due to rounding

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

**Table 7: Overnight stay on night before park visit  
(continued)**

City/Town and State	Number of times mentioned
Unknown locations in Ohio	3
Unknown locations in Indiana	2
Unknown location in Kentucky	1
Unknown location in Tennessee	1

**Overnight stay locations on night after park visit**

## Question 8b

Where did you stay on the night after your departure from Mammoth Cave NP?

## Results

- As shown in Table 8, the most common locations were:

Louisville, KY  
Cave City, KY  
Nashville, KY  
Bowling Green, KY

**Table 8: Overnight stay on night after park visit**

N=395 places;

some visitor groups listed more than one location.

City/Town and State	Number of times mentioned
Louisville, KY	45
Cave City, KY	34
Nashville, KY	21
Bowling Green, KY	18
Lexington, KY	9
Cincinnati, OH	7
Indianapolis, IN	7
Bardstown, KY	6
Columbus, OH	5
Horse Cave, KY	5
Atlanta, GA	4
Barren River Lake State Resort Park, KY	4
Elizabethtown, KY	4
Chattanooga, TN	3
Chicago, IL	3
Clarksville, TN	3
Cumberland Falls State Park, KY	3
Evansville, IN	3
Pigeon Forge, TN	3
Dayton, OH	2
Fairfield Glade, TN	2
Franklin, TN	2
French Lick, TN	2
Ft. Knox, KY	2
Glasgow, KY	2
Jackson, MS	2
Madisonville, KY	2

\*total percentages do not equal 100 due to rounding

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

**Table 8: Overnight stay on night after park visit  
(continued)**

City/Town and State	Number of times mentioned
Memphis, TN	2
Mt. Washington, KY	2
Olive Hill, KY	2
Owensboro, KY	2
Paducah, KY	2
Scottsville, KY	2
Somerset, KY	2
Akron, OH	1
Allen Park, MI	1
Anderson, IN	1
Athens, OH	1
Attica, IN	1
Beaver Creek, OH	1
Beaver Dam, KY	1
Bensenville, IL	1
Berea, KY	1
Between MCNP & Bowling Green, KY	1
Bismarck, AR	1
Boonesboro, KY	1
Bourbon, IN	1
Bremen, KY	1
Birmingham, AL	1
Browder, KY	1
Burdick, KY	1
Burlington, MI	1
Burnside, KY	1
Canton, OH	1
Cape Girardeau, MO	1
Carmel, IN	1
Carrollton, KY	1
Celina, TN	1
Charleston, WV	1
Clarkson, KY	1
Columbia, MO	1
Connersville, IN	1
Corbin, KY	1
Crawfordsville, IN	1
Cumming, GA	1
Cynthiana, KY	1
Dale Hollow Lake, TN	1
Dalton, GA	1
Daniel Boone National Forest, KY	1
Danville, KY	1

\*total percentages do not equal 100 due to rounding

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

**Table 8: Overnight stay on night after park visit  
(continued)**

City/Town and State	Number of times mentioned
Dearborn, MI	1
Detroit, MI	1
Dickson, TN	1
Dillsboro, IN	1
Dry Ridge, KY	1
Dunmore, KY	1
Fairfield, OH	1
Fairmont, WV	1
Falls Church, VA	1
Fern Creek, KY	1
Fleming, OH	1
Frankfort, KY	1
Ft. Wayne, IN	1
Gatlinburg, TN	1
Georgetown, KY	1
Gibsonburg, OH	1
Gilbertsville, KY	1
Glendale, KY	1
Golden Pond, KY	1
Grassy Creek, KY	1
Green Castle, PA	1
Green County, KY	1
Green Wood, IN	1
Grove City, OH	1
Harlan, KY	1
Harrodsburg, KY	1
Hartford, KY	1
Hartland, MI	1
Hawesville, KY	1
Hazard, KY	1
Hillview, KY	1
Hodgenville, KY	1
Hopkinsville, KY	1
Hull, GA	1
Jasper, IN	1
Jefferson, IN	1
Jeffersonville, IN	1
Jellystone Campground, KY	1
Kevil, KY	1
Kewanee, IL	1
Kimball, TN	1
Kings Island, OH	1
Knoxville, TN	1
Lake Barclay, KY	1

\*total percentages do not equal 100 due to rounding

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

**Table 8: Overnight stay on night after park visit  
(continued)**

City/Town and State	Number of times mentioned
Lancaster, OH	1
Land Between the Lakes, KY	1
Lebanon Junction, KY	1
Leitchfield, KY	1
Little Rock, AR	1
Londonderry, OH	1
Long Creek, SC	1
Loretto, TN	1
Marietta, GA	1
Marion, OH	1
Maryville, TN	1
Marysville, OH	1
Mattoon, IL	1
Mayfield, KY	1
McDaniel, KY	1
Metropolis, IL	1
Milwaukee, WI	1
Monrovia, IN	1
Montgomery State Park, TN	1
Morehead, KY	1
Morgantown, WV	1
Mt. Sterling, KY	1
Mt. Juliet, TN	1
Mt. Vernon, IL	1
Murfreesboro, TN	1
Munfordville, KY	1
New Albany, IN	1
New Castle, IN	1
New Lebanon, OH	1
Newport, KY	1
Niagara Falls, Canada	1
Nicholasville, KY	1
Oxford, AL	1
Park City, KY	1
Pendleton, IN	1
Peoria, IL	1
Pierceton, IN	1
Portland, TN	1
Pulaski, VA	1
Rosburg, OH	1
Royal Oak, MI	1
Russell Springs, KY	1
Russellville, AL	1

\*total percentages do not equal 100 due to rounding

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

**Table 8: Overnight stay on night after park visit  
(continued)**

City/Town and State	Number of times mentioned
Sacramento, KY	1
Salem, KY	1
Seneca, IL	1
Seymour, IN	1
Shelbyville, TN	1
Shreveport, LA	1
Smyrna, GA	1
South Point, OH	1
Spring City, TN	1
Springfield, IL	1
St. Augustine, FL	1
St. Joe, IN	1
St. Louis, MI	1
St. Louis, MO	1
Staunton, VA	1
Taylorsville, KY	1
Terre Haute, IN	1
Tiline, KY	1
Toledo, OH	1
Toronto, Canada	1
Tunica, MS	1
Union, KY	1
Upton, KY	1
Valparaiso, IN	1
Vevay, IN	1
Vincennes, IN	1
Westchester, OH	1
Wheaton, IL	1
Williamsburg, KY	1
Winchester, KY	1
Wolcottville, IN	1
Woodstock, IL	1
Xenia, OH	1
Youngstown, OH	1
Zirconia, NC	1
Unknown location in Ohio	2
Unknown location in Kentucky	2
Unknown location in Indiana	1
Unknown location in Michigan	1

\*total percentages do not equal 100 due to rounding

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

## Places visited in the Mammoth Cave NP area

### Question 9

On this visit to Mammoth Cave NP area, what other places did you and your group visit?

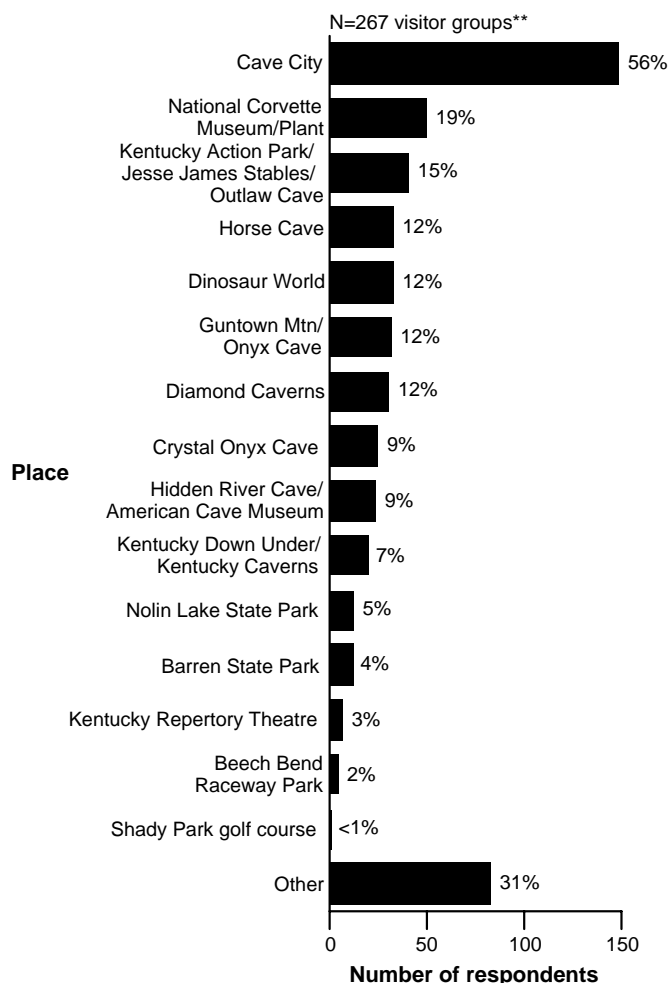
### Results

- As shown in Figure 27, the most commonly visited places included:

56% Cave City  
19% National Corvette Museum/Plant  
15% Kentucky Action Park/Jesse James Stables/Outlaw Cave

- “Other” places visited (31%) included:

Lost River Cave  
Abraham Lincoln Birthplace  
Alpine Slide  
Carter Cave  
Nolan Lake  
Floyd Collins grave  
Cincinnati Zoo  
Grand Ole Opry  
Cub Run Caves  
Louisville Slugger Museum  
Marengo Cave  
Park City  
Bowling Green  
Bourbon distilleries  
Stephen Foster Musical  
Stones River National Battlefield  
Glasgow  
Riding stables  
Outlet mall  
Cumberland National Historical Park  
Munfordville  
Wax Museum  
Various shops  
Various restaurants  
Relatives



**Figure 27: Places visited in the Mammoth Cave NP area**

\*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 18b

On this visit to Mammoth Cave NP, how many times did you and your group enter the park?

### Results

- 57% of visitor groups entered the park once (see Figure 28).
- 20% entered the park twice.

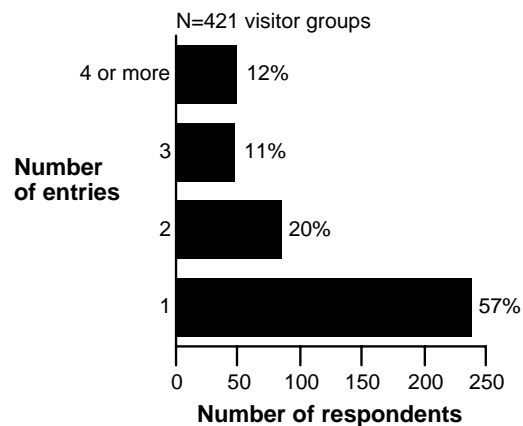


Figure 28: Number of entries into the park

## Visitor center arrival time

### Question 14

What time of day did you and your group arrive at the park visitor center on the first day of your visit?

### Results

- The most common visitor center arrival times were (see Figure 29):

33% Between 10 a.m. and noon  
 22% Between noon and 2 p.m.  
 20% Between 8 and 10 a.m.

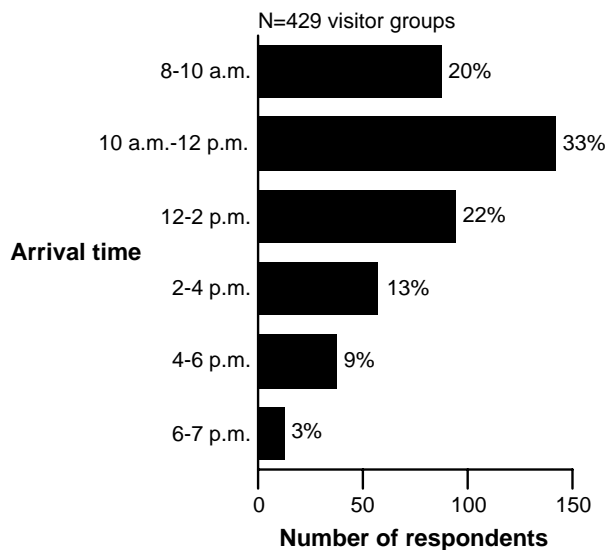


Figure 29: Arrival time at visitor center on first day of visit

\*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 visit

### Question 6

On this visit, how long did you and your group stay at Mammoth Cave NP?

#### Number of hours, if less than 24 hours

#### Results

- 63% of visitor groups (N=257) spent less than 24 hours at Mammoth Cave NP.
- 50% of visitor groups spent five or more hours at the park (see Figure 30).
- 35% spent three or four hours.
- 15% spent up to two hours.

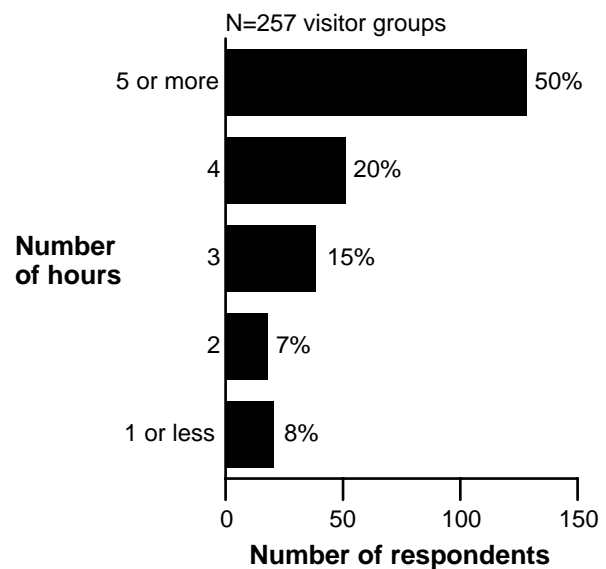


Figure 30: Number of hours visiting the park

#### Number of days, if 24 hours or more

#### Results

- 37% of groups (N=148) spent more than 24 hours at Mammoth Cave NP.
- 70% of visitor groups spent two or three days at the park (see Figure 31).
- 17% spent 4 or more days.

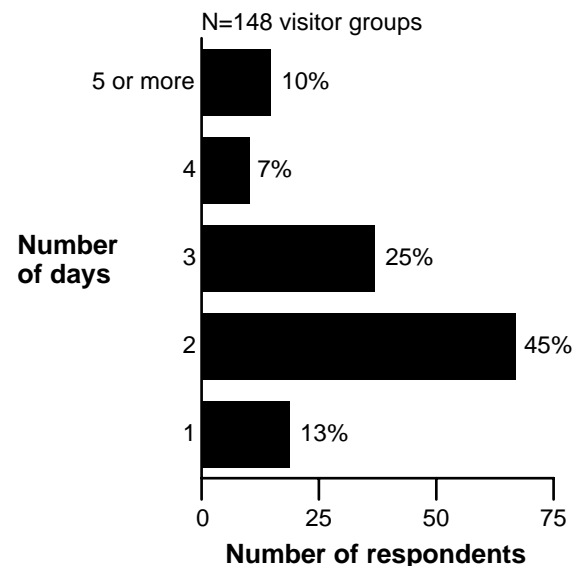


Figure 31: Number of days visiting the park

\*total percentages do not equal 100 due to rounding

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

## Activities in the park

### Question 13

On this visit, what activities did you and your group participate in at Mammoth Cave NP?

### Results

- As shown in Figure 32, the most common activities in the park were:

79% Taking a cave tour  
58% Driving for pleasure/  
sightseeing  
32% Hiking

- “Other” activities (7%) included:

Green River Ferry boat ride  
Talked to rangers  
Stayed in cabin  
Shopped for souvenirs  
Watched movie

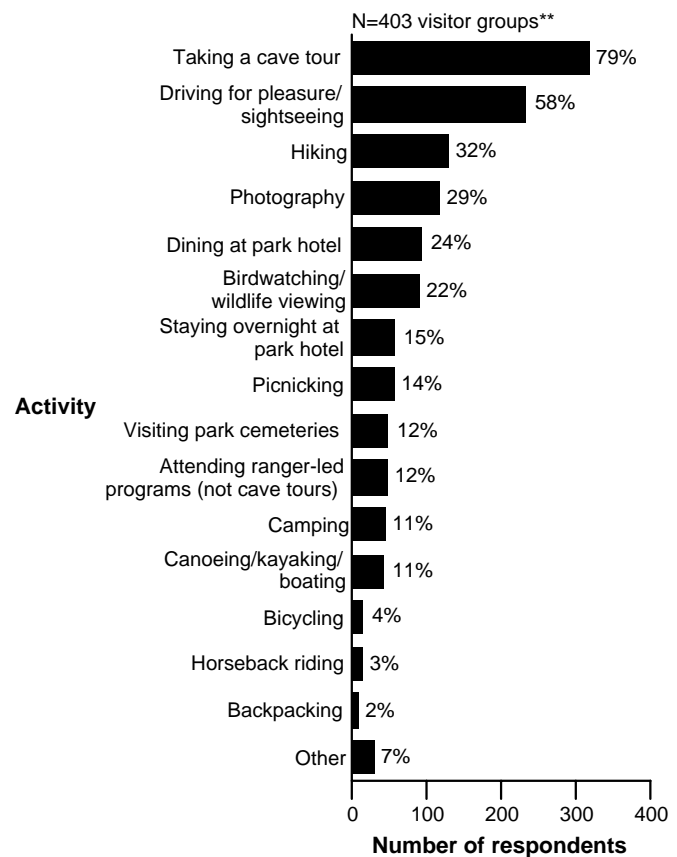


Figure 32: Activities in the park

\*total percentages do not equal 100 due to rounding

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

## Cave tours

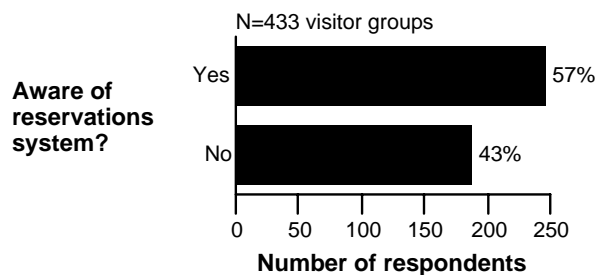
### Cave tour reservations

#### Question 2a

Prior to this visit, were you and your group aware of the cave tour reservations system at Mammoth Cave NP?

#### Results

- 57% of visitor groups were aware of the cave tour reservations system (see Figure 33).



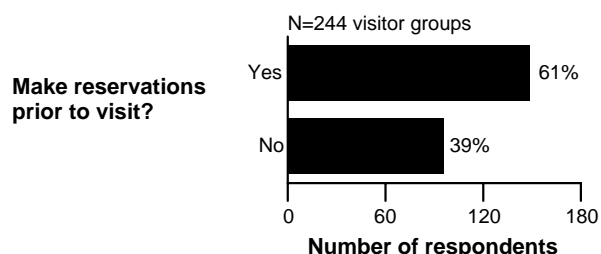
**Figure 33: Awareness of cave tour reservations system prior to visit**

#### Question 2b

Did you and your group make cave tour reservations prior to your visit?

#### Results

- 61% of visitor groups made cave tour reservations prior to their visit (see Figure 34).



**Figure 34: Visitor groups who made cave tour reservations prior to their visit**

#### Question 2c

If NO, how did you and your group learn about the cave tours?

#### Results

- 78% of visitor groups (N=77) responded by listing ways they learned about the cave tours (see Table 9).

**Table 9: Methods of learning about cave tours if not reserved prior to visit**

N=100 comments;

some visitor groups made more than one comment.

Methods	Number of times mentioned
On-site	48
Online	25
Previous visits	12
Tour books/brochures	6
Friends/relatives	5
Did not take cave tour	3
Called	1

\*total percentages do not equal 100 due to rounding

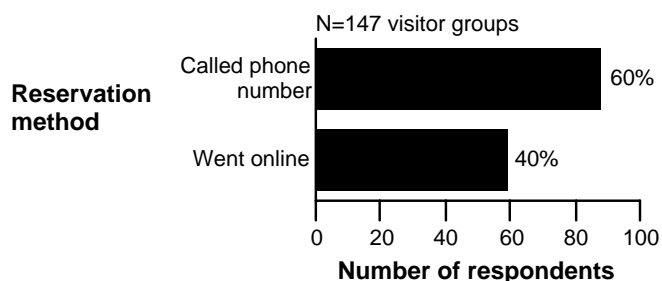
\*\*total percentages do not equal 100 because visitors could select more than one answer

## Question 2d

If YES, did you and your group get the cave tour reservation by calling the toll-free telephone number or by going online to the National Park Service reservation website?

## Results

- 60% of visitor groups called the toll-free telephone number to make cave tour reservations (see Figure 35).
- 40% of groups made their reservations online.



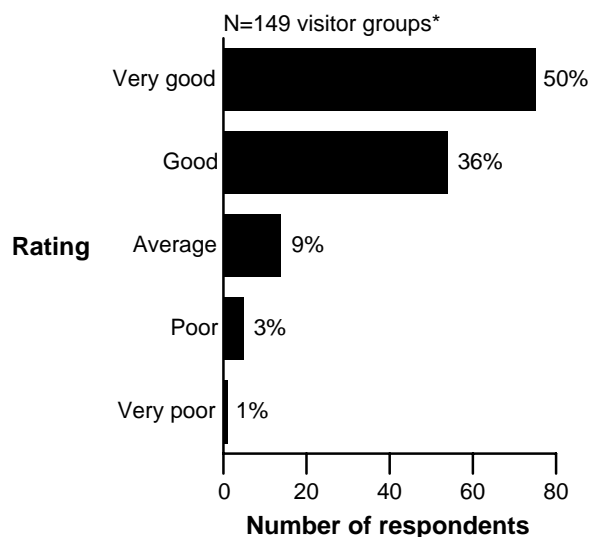
**Figure 35: Visitor groups who called or went online to make cave tour reservations**

## Question 2e

Please rate the quality of your experience using the cave tour reservation system.

## Results

- 86% of visitor groups rated the quality of the cave tour reservation system as “very good” or “good” (see Figure 36).
- 4% rated it as “very poor” or “poor.”



**Figure 36: Quality rating of using the cave tour reservation system**

## Question 2f

If you rated the cave tour reservation-making experience as “very poor” or “poor,” what problems did you encounter?

## Results

- See Table 10.

**Table 10: Problems encountered during cave tour reservation-making experience**

N=28 comments;

some visitor groups made more than one comment.

Problem	Number of times mentioned
Problems making online reservation	10
Calling problems	8
Unknowledgeable phone operator	8
Problems with tour	2

\*total percentages do not equal 100 due to rounding

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

## Cave tours

### Question 10a

On this visit, which of the following cave tour(s) did you and/or your group take?

### Results

- 91% of visitor groups took a cave tour (see Figure 37).

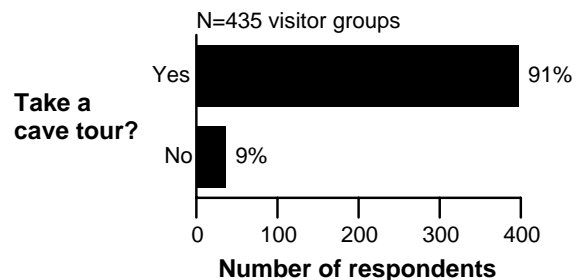


Figure 37: Visitor groups who took cave tours

- As shown in Figure 38, the most commonly taken cave tours included:
- 40% Frozen Niagara Tour
  - 37% Historic Tour
  - 14% Ranger-guided Mammoth Cave Discovery Tour

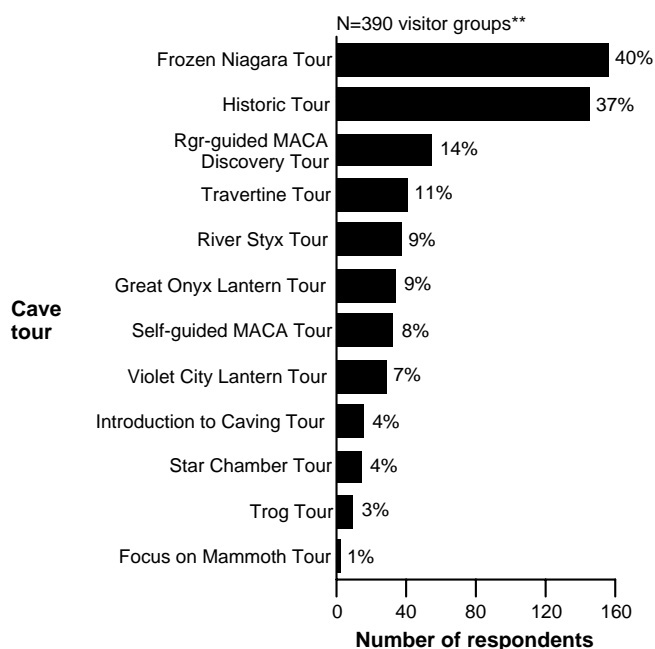


Figure 38: Cave tours taken

### Question 10b, c, d, and e

- Please list the number of people in your personal group who went on each cave tour
- How long did you and/or your group have to wait to take the cave tour(s)?
- Please rate (from 1-3) the length of the cave tour(s) you and your group took.
- Please rate (from 1-5) the value for the fee paid for each cave tour that you and/or your group took.

### Results

- Responses to these questions are shown in Table 11.

\*total percentages do not equal 100 due to rounding

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

Table 11: Visitor opinions about cave tours																		
Cave tour	Number of people in personal group on cave tour				Length of wait (hours)				Length of tour* %				Value for fee paid* % VP=Very poor P=Poor A=Average G=Good VG=Very good					
									Percentages may not equal 100 due to rounding.									
	N	Min	Avg	Max	N	Min	Avg	Max	N	Too short	About right	Too long	N	VP	P	A	G	VG
Frozen Niagara Tour	152	1	5	23	140	0	1	4	151	6	92	2	152	0	1	25	41	33
Historic Tour	141	1	5	39	131	0	1	4	139	5	94	1	142	1	1	19	49	30
Ranger-guided Mammoth Cave Discovery Tour	53	1	3	7	45	0	1	10	51	14	86	0	53	2	0	25	42	32
Travertine Tour	41	1	5	23	36	0	1	7	38	13	82	5	40	0	15	15	33	38
River Styx Tour	37	2	4	13	35	0	1	3	36	6	92	3	36	0	0	17	42	42
Great Oynx Lantern Tour	34	1	4	9	26	0	4	36	31	3	94	3	33	0	3	18	39	39
Self-guided Mammoth Cave Discovery Tour CAUTION!	33	1	4	12	28	0	<1	4	29	34	62	3	29	3	3	24	41	28
Violet City Lantern Tour CAUTION!	29	1	4	12	25	0	2	48	29	10	79	10	29	0	7	17	38	38
Introduction to Caving Tour CAUTION!	16	1	3	5	12	0	1	5	16	19	81	0	16	0	0	31	44	25
Star Chamber Tour CAUTION!	15	1	4	20	12	0	<1	2	13	0	92	8	13	8	0	31	31	31
Trog Tour CAUTION!	10	1	2	3	10	0	10	96	10	0	10	0	10	0	0	10	20	70
Focus on Mammoth Tour CAUTION!	2	1	3	4	2	0	0	0	2	50	50	0	2	0	0	0	100	0

\*total percentages do not equal 100 due to rounding

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

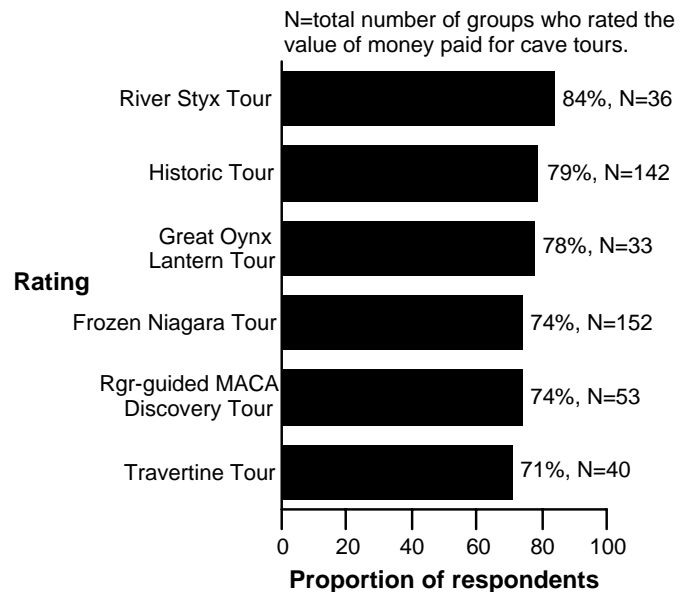
## Question 10e (continued)

Please rate (from 1-5) the value for the fee paid for each cave tour that you and/or your group took.

## Results

- Figure 39 shows the combined proportions of “very good” and “good” ratings of value for money paid for cave tours that were rated by 30 or more visitor groups.
- The highest value for money paid was for the following cave tours:

84% River Styx Tour  
79% Historic Tour  
78% Great Onyx Lantern Tour



**Figure 39: Combined proportions of “very good” and “good” ratings of value for money paid for cave tours**

\*total percentages do not equal 100 due to rounding

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

## Cave tour waits

### Question 10f

What did you and/or your group do while you waited to take a cave tour?

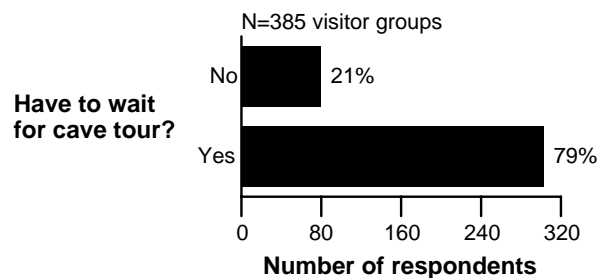
### Results

- 21% of visitor groups did not have to wait for a cave tour (see Figure 40).
- The 79% of visitor groups who had to wait for a cave tour participated in various activities while waiting (see Figure 41), including:

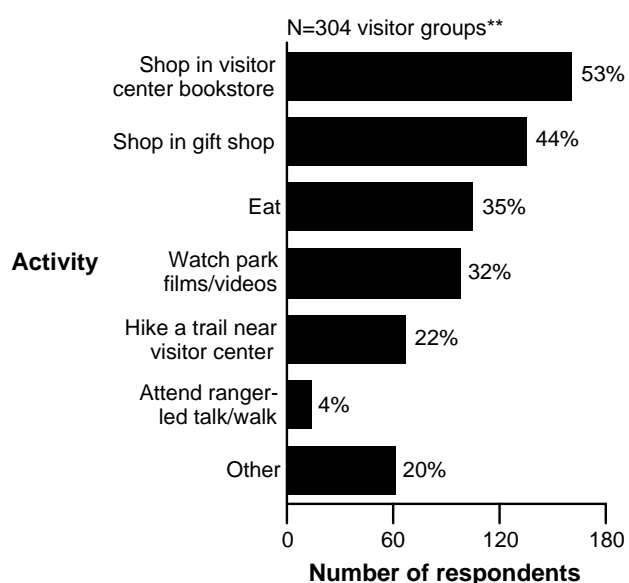
53% Shopping in visitor center bookstore  
 44% Shopping in gift shop  
 35% Eating  
 32% Watching park films/videos

- “Other” activities (20%) while waiting included:

Sat and waited  
 Studied maps  
 Enjoyed family time  
 Shopped in Cave City  
 Went swimming  
 Used restrooms  
 Napped  
 Took boat tour  
 Sat in car  
 Picnicked  
 Talked with other visitors



**Figure 40: Visitor groups who had to wait for cave tour**



**Figure 41: Activities while waiting for cave tour**

## Cave tour size

### Question 11a, b, c, and d

- For the tours that you or your group took, how many people in total would you estimate were on your cave tour?
- Compared to what you expected, how crowded did you feel on the cave tours you and your group took?
- In your opinion, were any of the cave tours that you or your group took too crowded to be enjoyable?
- Would you recommend the cave tours that you or your group took to others?

### Results

Visitor opinions about cave tour crowding are shown in Table 12.

\*total percentages do not equal 100 due to rounding

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

Table 12: Crowding on cave tours

Cave tour	Total number of people on your cave tour %				How crowded? %				Tour too crowded to be enjoyable? %			Recommend to others? %		
					percentages may not equal 100 due to rounding.									
	N	Cave tour size			N	Less than expected	About expected	More than expected	N	Yes	No	N	Yes	No
Frozen Niagara Tour	151	<20	20-60	>60	149	7	66	27	154	18	82	155	94	6
		5	51	44										
Historic Tour	134	<20	20-60	>60	137	7	59	34	144	24	76	143	97	3
		6	46	49										
Ranger-guided Mammoth Cave Discovery Tour	53	<20	20-40	N/A	56	20	68	13	59	8	92	57	93	7
		15	85											
Travertine Tour	40	<20	20-40	N/A	40	18	80	3	42	2	98	40	95	5
		15	85											
River Styx Tour	36	<20	20-60	N/A	36	6	75	19	34	9	91	34	100	0
		0	100											
Great Oynx Lantern Tour	33	<20	20-40	N/A	30	13	80	7	32	0	100	32	97	3
		18	82											
Violet City Lantern Tour <b>CAUTION!</b>	30	<20	20-60	N/A	29	3	86	10	32	6	94	32	88	13
		7	93											
Self-guided Mammoth Cave Discovery Tour <b>CAUTION!</b>	N/A				21	24	76	0	24	4	96	24	96	4
Introduction to Caving Tour <b>CAUTION!</b>	14	<20	10-20	N/A	15	0	100	0	15	7	93	15	93	7
		50	50											
Star Chamber Tour <b>CAUTION!</b>	14	<20	20-40	N/A	14	14	79	7	14	0	100	14	93	7
		21	79											
Trog Tour <b>CAUTION!</b>	11	<10	10-15	N/A	11	9	91	0	11	0	100	10	100	0
		27	73											
Focus on Mammoth Tour <b>CAUTION!</b>	2	<20	20-40	N/A	2	50	50	0	2	0	100	2	100	0
		50	50											

\*total percentages do not equal 100 due to rounding

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

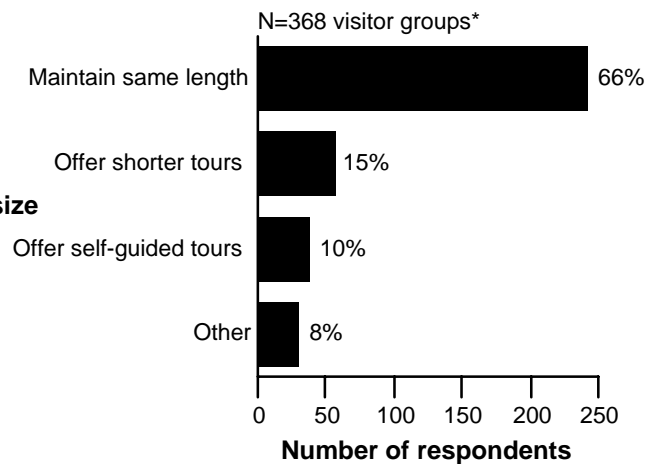
## Future options for cave tours

### Question 11e

If cave tour size has to be reduced to protect cave resources and because the tour capacity has been reached, which of the following options would you prefer?

- Maintain the same length of ranger-guided tours. Visitors would see the same amount of the cave, but less people would be allowed on each tour, so fewer people would see the cave than see it now.
- Offer shorter ranger-guided cave tours more frequently (reduce current 2-hour tour to 1-hour tour). Visitors would see less of the cave, but more people would see the cave than see it now.
- Offer self-guided tours in a smaller section of the cave and a very limited number of ranger-guided tours in the same amount of cave as now. On self-guided tours, visitors would see less of the cave, but more people would be allowed in. On ranger-guided tours, visitors would see the same amount of cave as now, but because of fewer tours, not as many people could take them.
- Other (Please specify.)

### Tour size



**Figure 42: Preferred future option for cave tours**

### Results

- 66% of visitor groups preferred maintaining the same length of ranger-guided tours (see Figure 42).
- 15% of visitors groups would prefer shorter tours
- Other preferences (8%) included:
  - Have longer tour hours during peak season
  - Hire more rangers during peak season
  - Open more of cave to tours
  - Lobby for more funding
  - Increase number of tours, reduce tour size
  - No changes
  - Ban crying children

\*total percentages do not equal 100 due to rounding

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

## Cave tour pricing

Question 12 a, b, and c

Please respond to the following questions about cave tour prices.

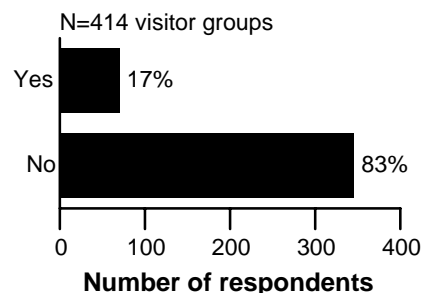
Was price a factor in choosing:

- whether you and your group went on a tour?
- which tours you and your group went on?
- how many tours you and your group went on?

### Results

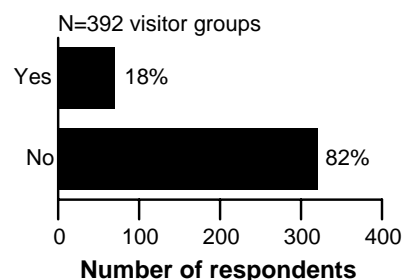
- For 83% of visitor groups price was not a factor in whether or not they went on a cave tour (see Figure 43).
- 82% of visitor groups said price was not a factor in which cave tours visitors went on (see Figure 44).
- 70% of visitor groups said price was not a factor in the number of cave tours they took (see Figure 45).

**Price a factor in taking a cave tour?**



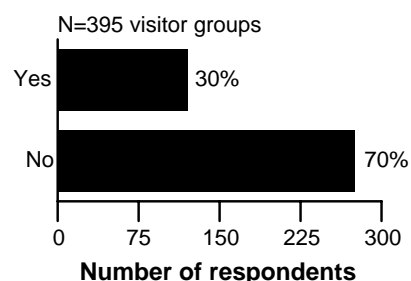
**Figure 43: Price as a factor in whether or not visitor groups went on a cave tour?**

**Price a factor in which cave tours were taken?**



**Figure 44: Price as a factor in which cave tours visitor groups went on?**

**Price a factor in number of tours taken?**



**Figure 45: Price as a factor in how many cave tours visitor groups went on?**

\*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 Visitor Services, Facilities, Elements, Attributes and Resources

### Visitor services and facilities used

#### Question 15a

Please indicate all of the services and facilities that you and your group used during this visit to Mammoth Cave National Park.

#### Results

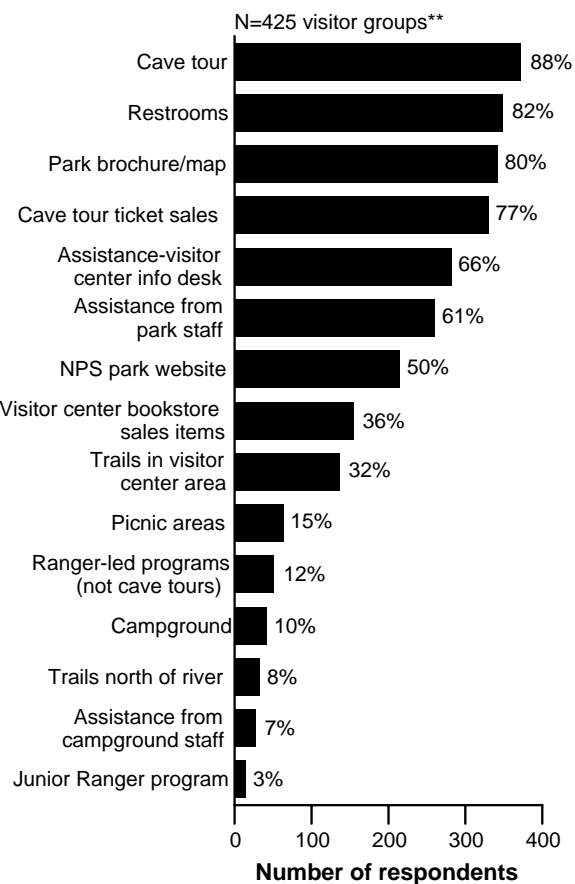
- As shown in Figure 46, the most used services and facilities included:

88% Cave tour  
82% Restrooms  
80% Park brochure/map  
77% Cave tour ticket sales

- The least used service and facility was:

3% Junior Ranger program

**Service/  
facility**



**Figure 46: Visitor 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 for visitor services and facilities

### Question 15b

For only those services that you or your group used, please rate their importance from 1 to 5.

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

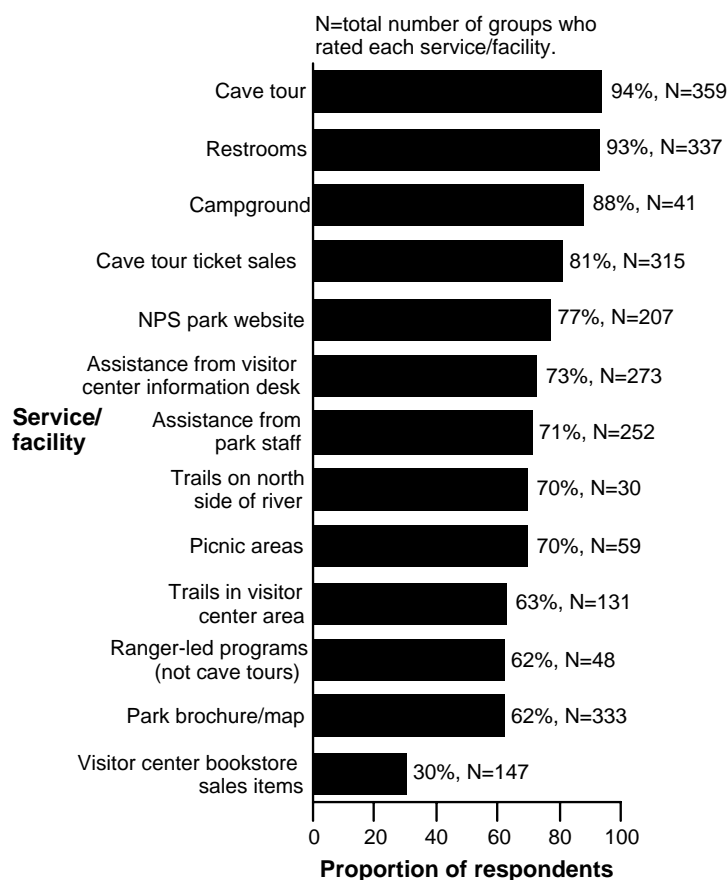
### Results

- Figure 47 shows the combined proportions of “extremely important” and “very important” ratings for services and facilities that were rated by 30 or more visitor groups.
- The services/facilities receiving the highest combined proportions of “extremely important” and “very important” ratings were:

94% Cave tour  
93% Restrooms  
88% Campground  
81% Cave tour ticket sales

- Figures 48 to 62 show the importance ratings for each service/facility.
- The service/facility receiving the highest “not important” rating was:

10% Visitor center bookstore sales items



**Figure 47: Combined proportions of “extremely important” and “very important” ratings for visitor 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

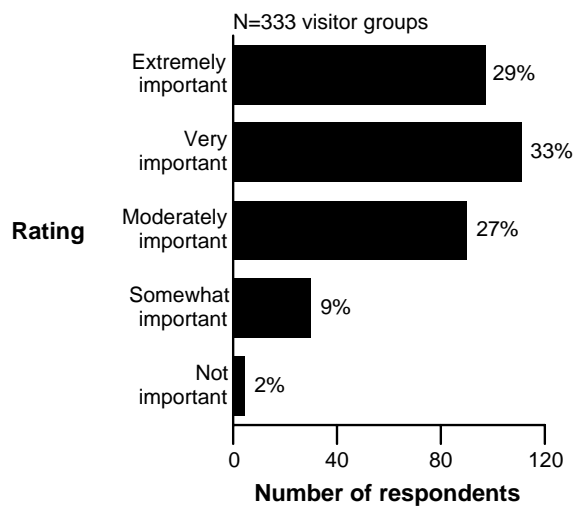


Figure 48: Importance of park brochure/map

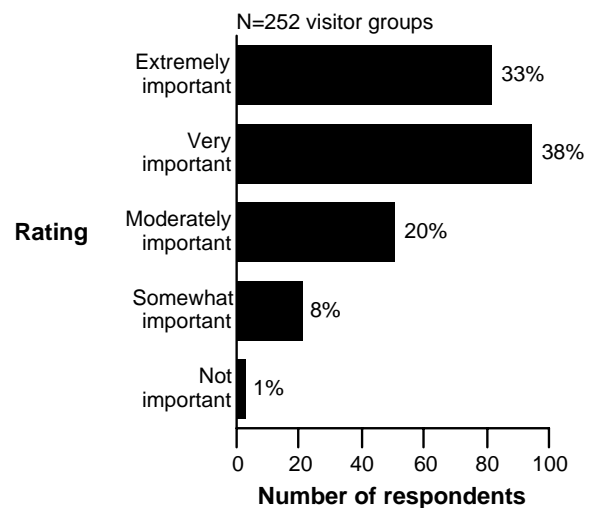


Figure 49: Importance of assistance from park staff

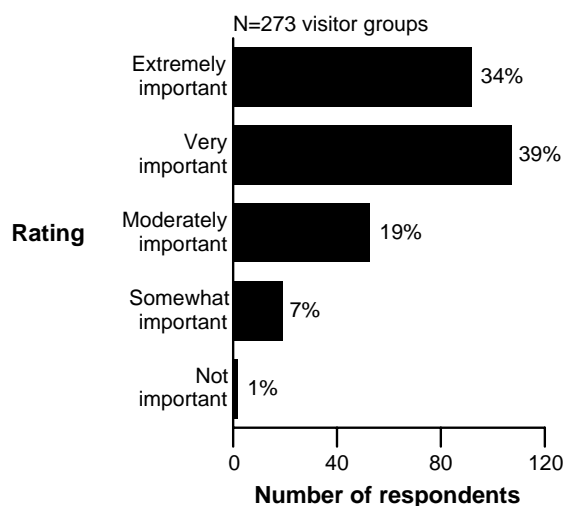


Figure 50: Importance of assistance from visitor center information desk

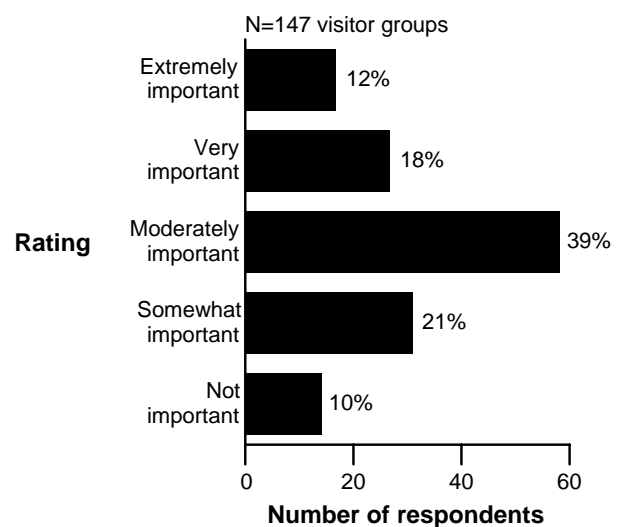


Figure 51: Importance of visitor center bookstore sales items

\*total percentages do not equal 100 due to rounding

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

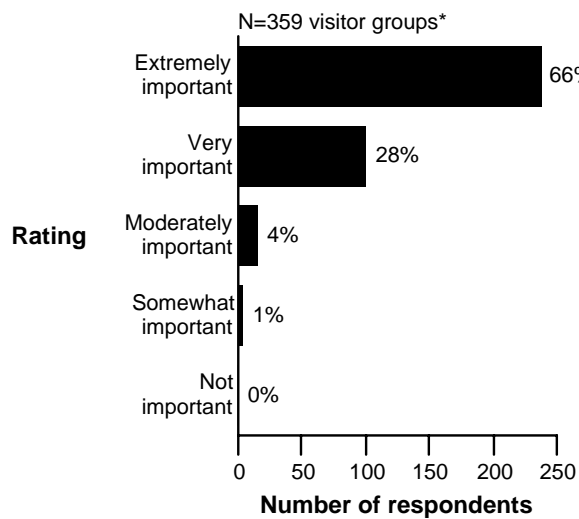


Figure 52: Importance of cave tour

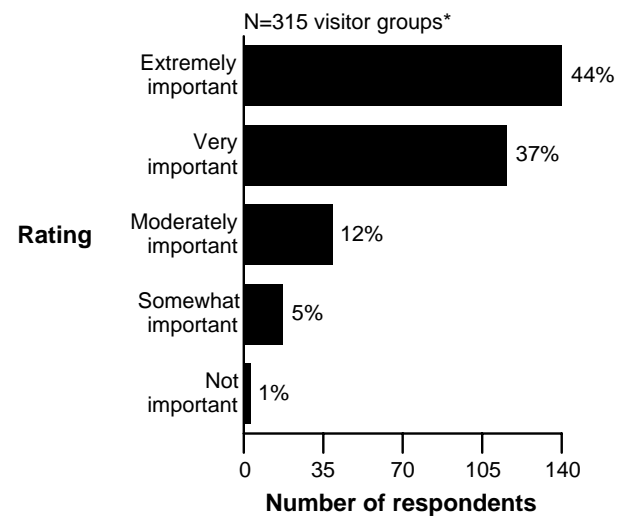


Figure 53: Importance of cave tour ticket sales

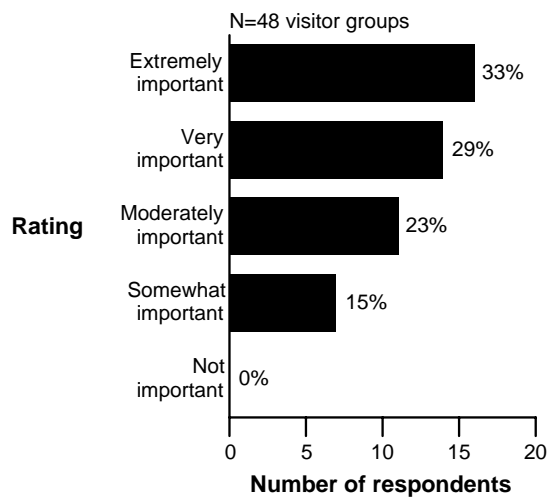


Figure 54: Importance of ranger-led programs (other than cave tours)

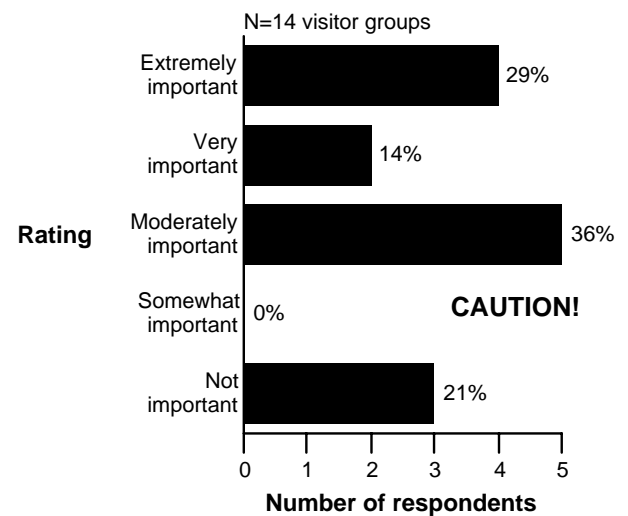


Figure 55: Importance of Junior Ranger program

\*total percentages do not equal 100 due to rounding

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

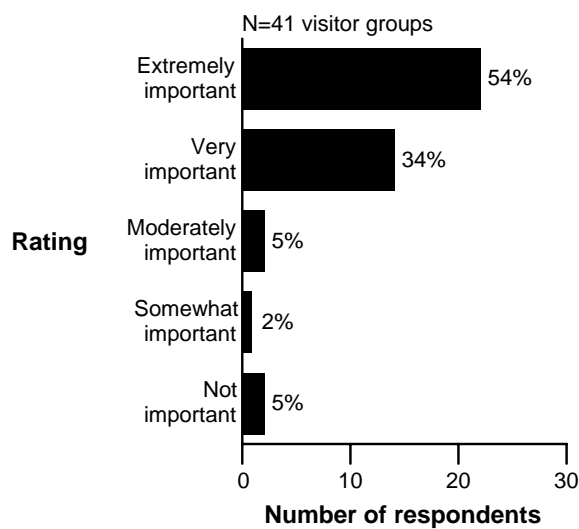


Figure 56: Importance of campground

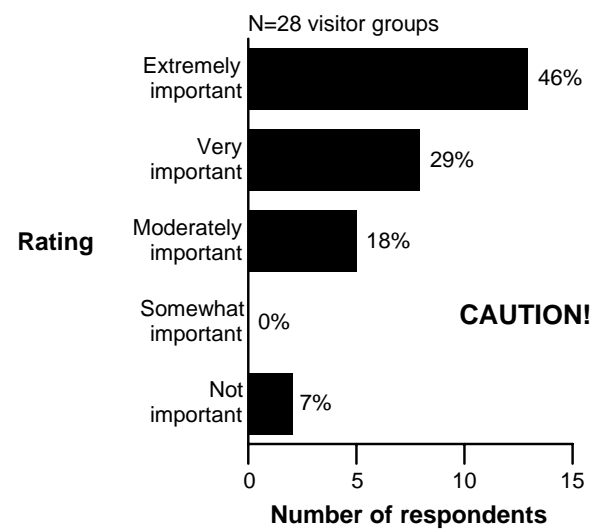


Figure 57: Importance of assistance from campground staff

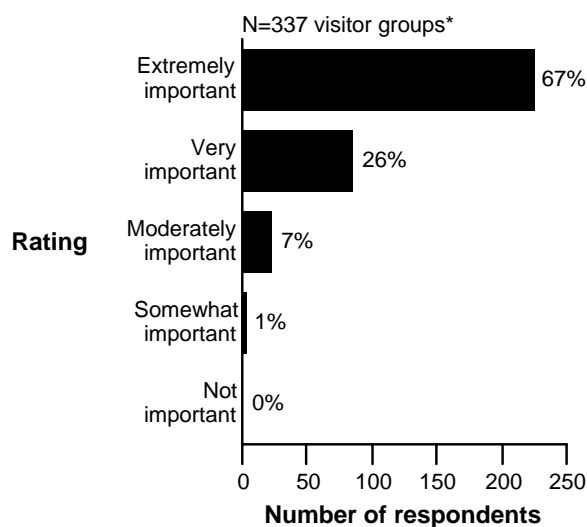


Figure 58: Importance of restrooms

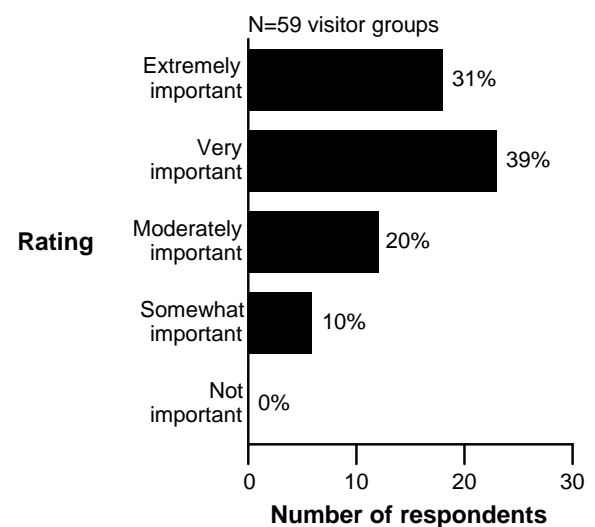


Figure 59: Importance of picnic areas

\*total percentages do not equal 100 due to rounding

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

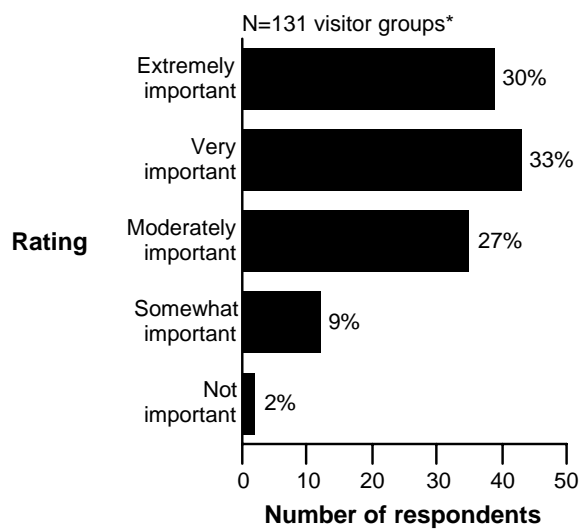


Figure 60: Importance of trails in the visitor center area

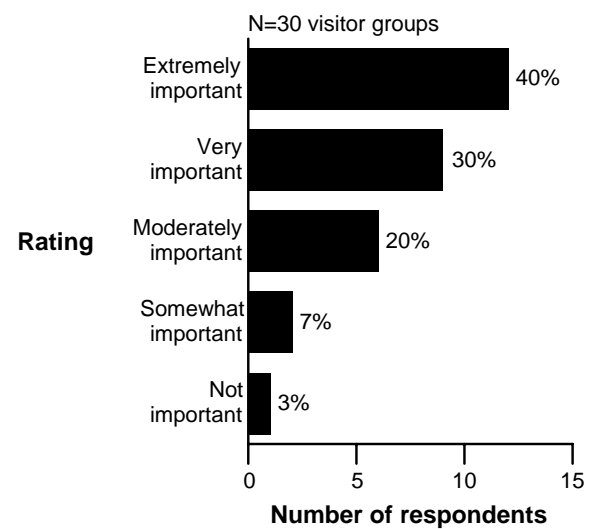


Figure 61: Importance of trails on the north side of the river

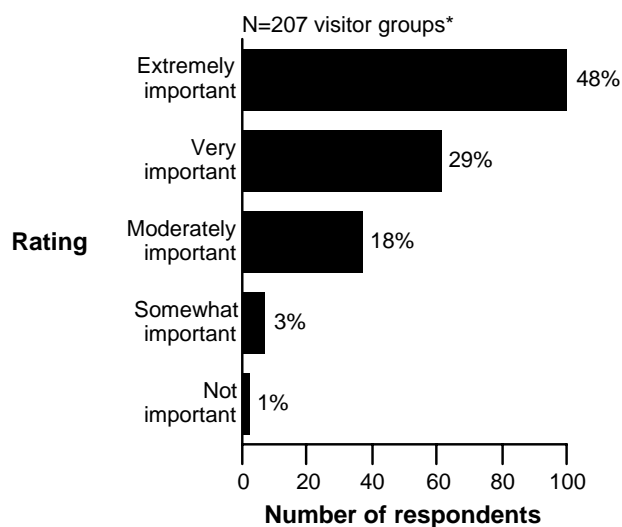


Figure 62: Importance of park website: [www.nps.gov/mac](http://www.nps.gov/mac), used before or during visit

\*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 for visitor services and facilities

### Question 15c

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

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

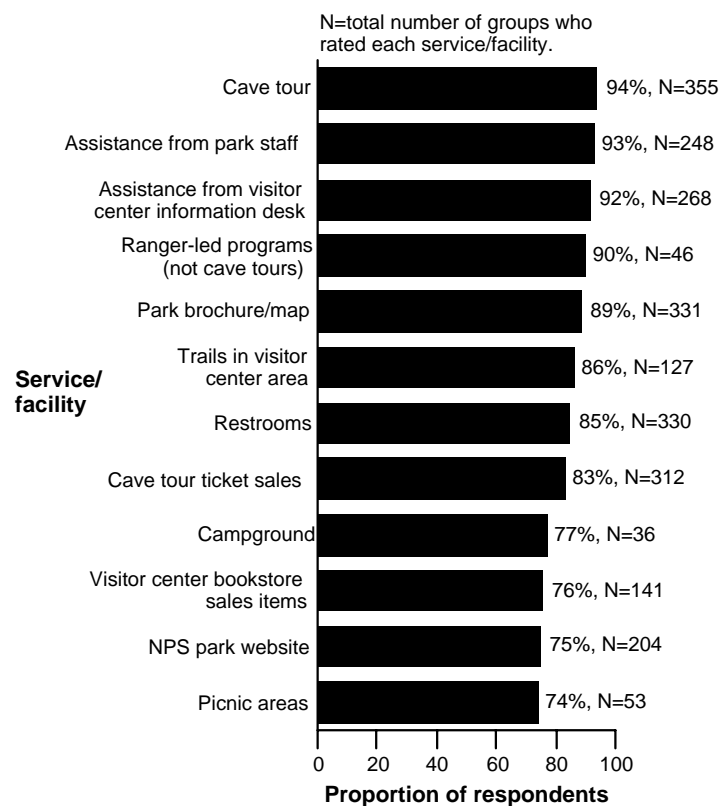
### Results

- Figure 63 shows the combined proportions of “very good” and “good” quality ratings for services and facilities that were rated by 30 or more visitor groups.
- The services/facilities that received the highest combined proportions of “very good” and “good” quality ratings were:

94% Cave tour  
93% Assistance from park staff  
92% Assistance from visitor center information desk

- Figures 64 to 73 show the quality ratings for each service/facility.
- The service/facility receiving the highest “very poor” quality rating was:

4% Picnic areas



**Figure 63: Combined proportions of “very good” and “good” quality ratings for visitor 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

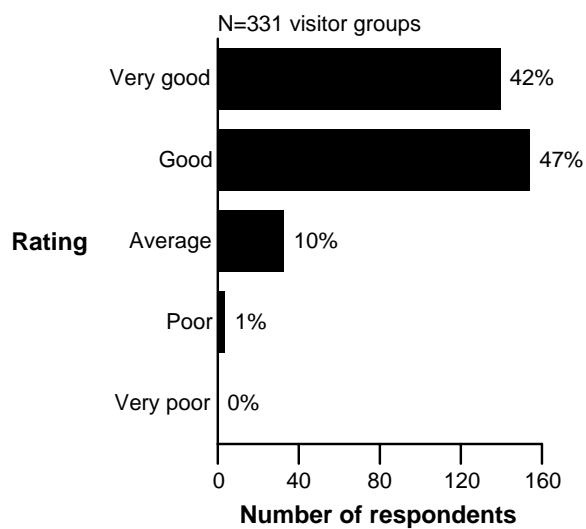


Figure 64: Quality of park brochure/map

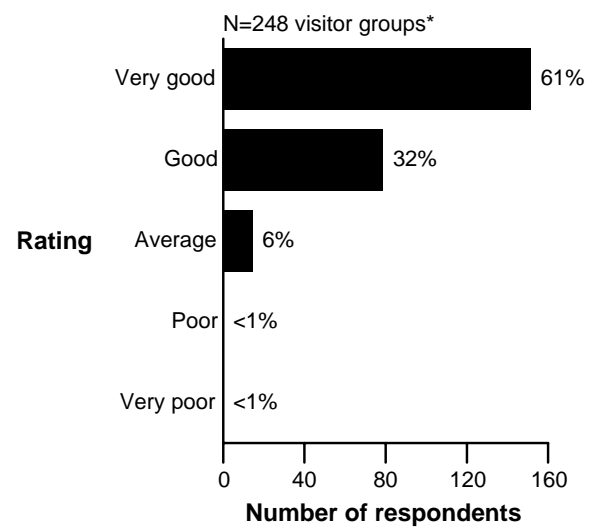


Figure 65: Quality of assistance from park staff

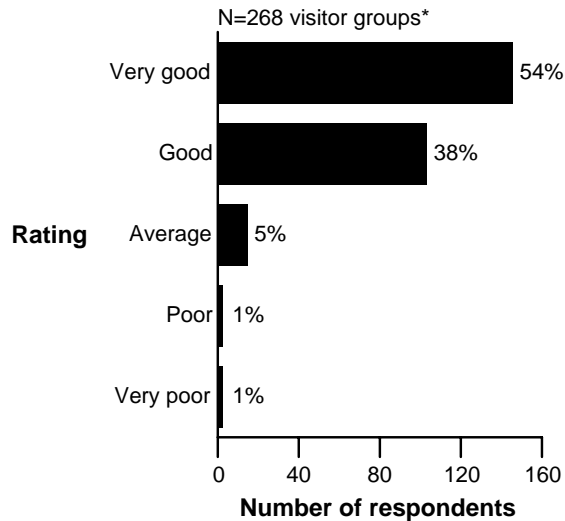


Figure 66: Quality of assistance from visitor center information desk

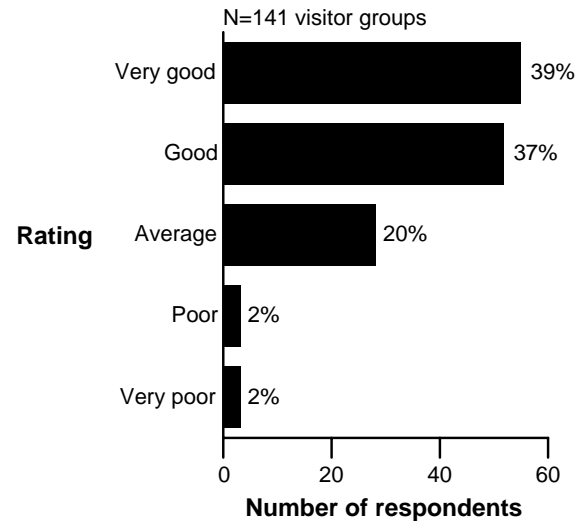


Figure 67: Quality of visitor center bookstore sales items

\*total percentages do not equal 100 due to rounding

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

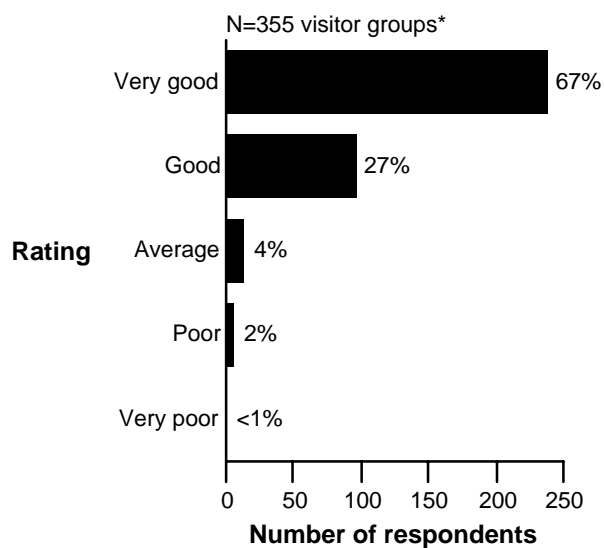


Figure 68: Quality of cave tour

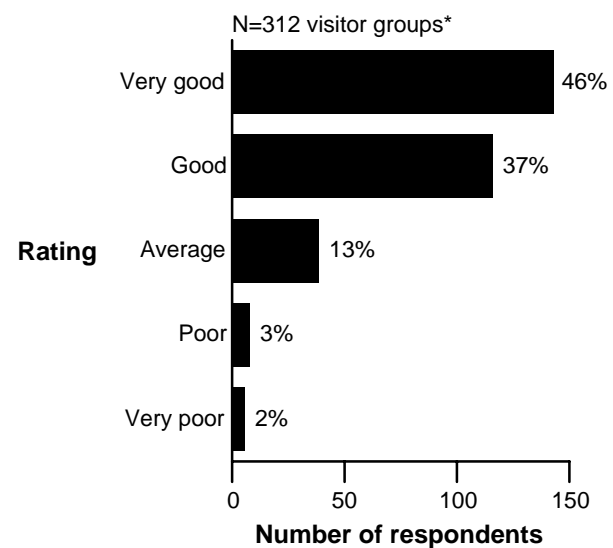


Figure 69: Quality of cave tour ticket sales

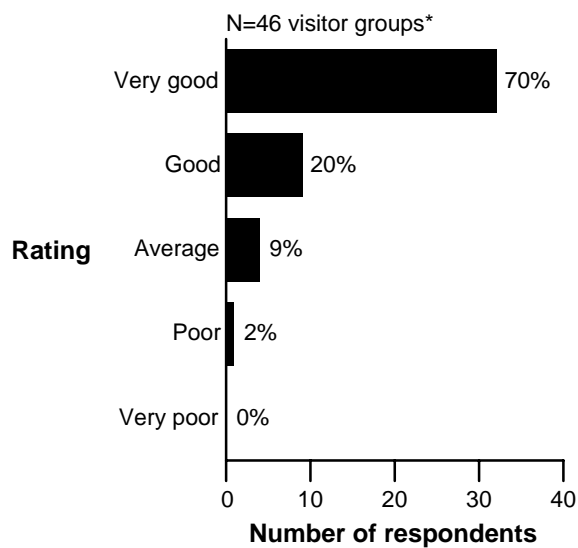
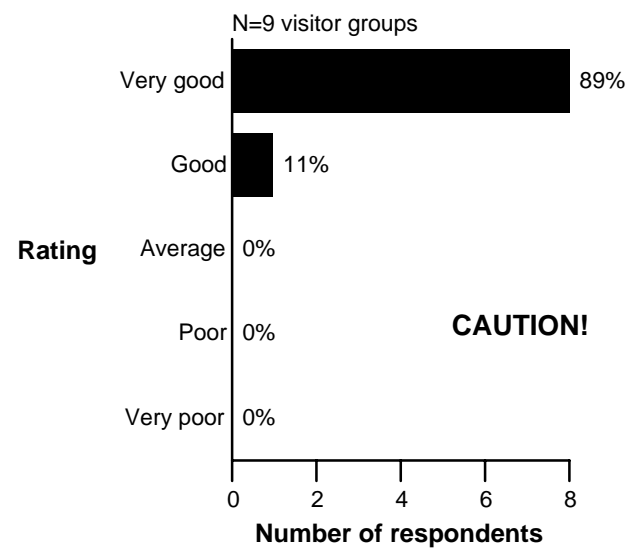


Figure 70: Quality of ranger-led programs (other than cave tours)



Quality of Junior Ranger program

\*total percentages do not equal 100 due to rounding

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

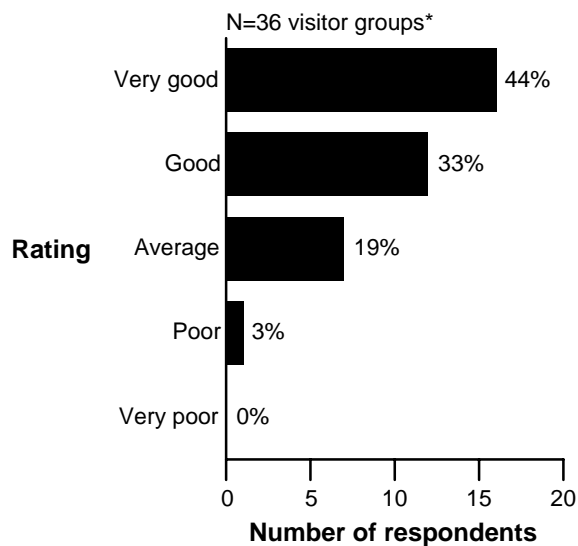


Figure 71: Quality of campground

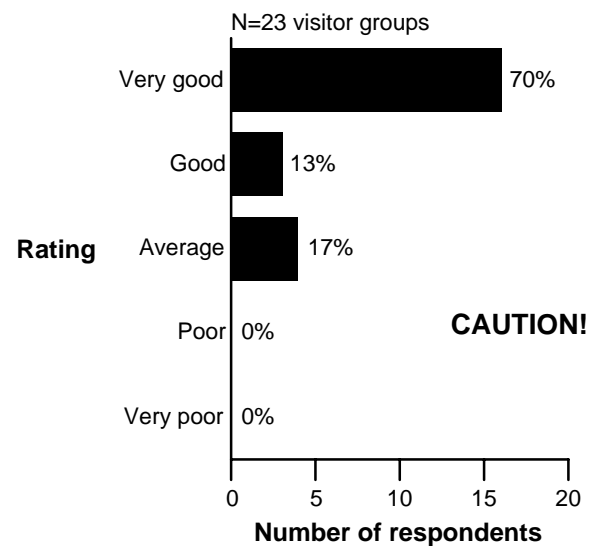


Figure 72: Quality of assistance from campground staff

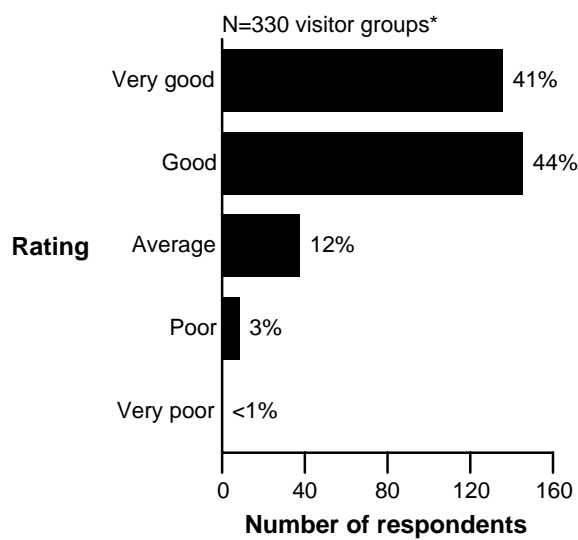


Figure 73: Quality of restrooms

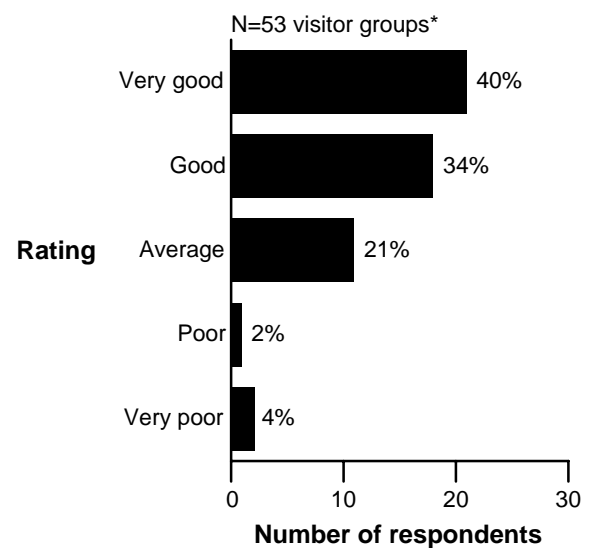


Figure 74: Quality of picnic areas

\*total percentages do not equal 100 due to rounding

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

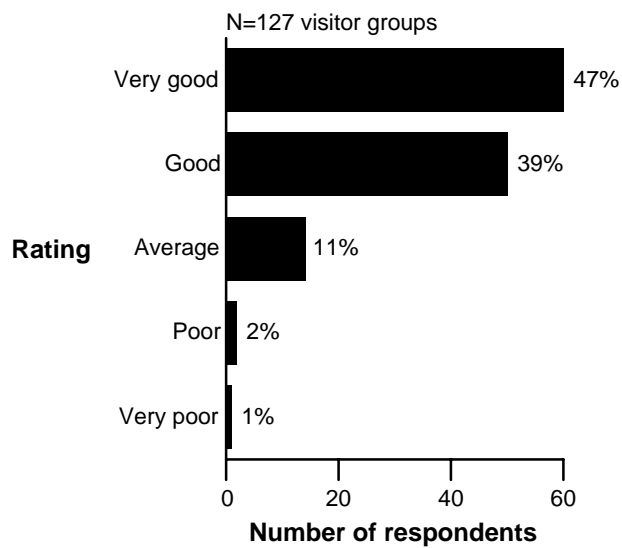


Figure 75: Quality of trails in the visitor center area

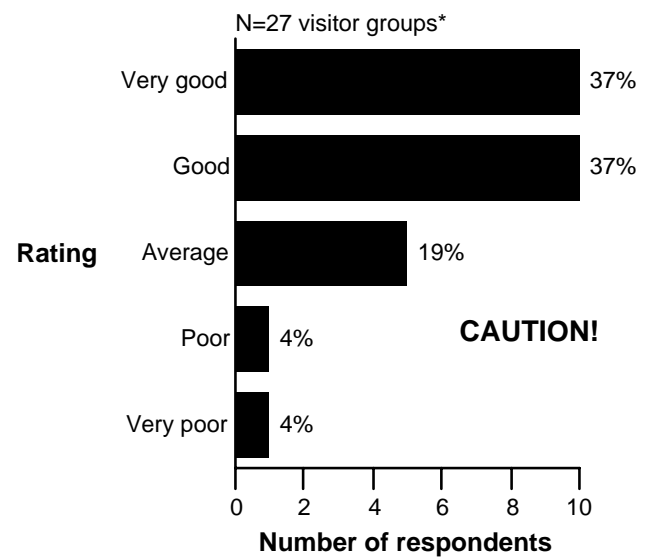


Figure 76: Quality of trails on the north side of the river

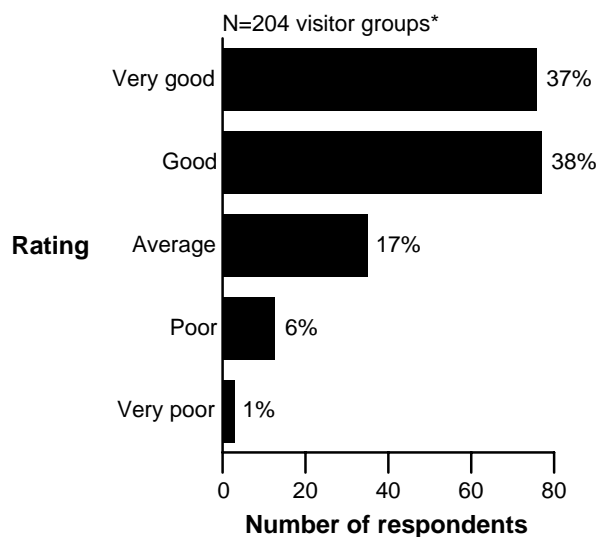


Figure 77: Quality of park website:  
[www.nps.gov/mac](http://www.nps.gov/mac), used before  
 or during visit

\*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 for services and facilities

- Figures 78 and 79 show the mean scores of importance and quality ratings for all services and facilities that were rated by 30 or more visitor groups.
- All services and facilities were rated average or above in importance and quality.

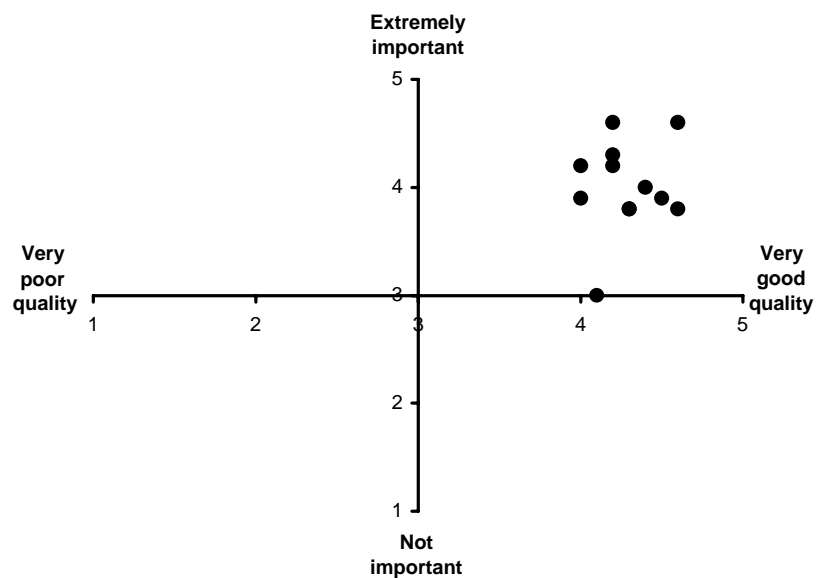


Figure 78: Mean scores of importance and quality ratings for visitor services and facilities

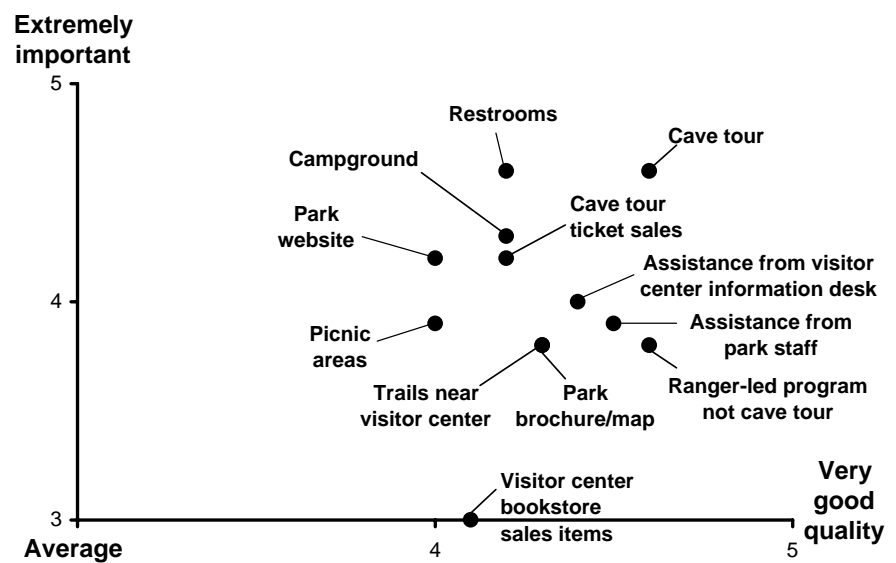


Figure 79: Detail of Figure 78

\*total percentages do not equal 100 due to rounding

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

## Concession services and facilities used

### Question 16a

Please indicate all of the concession services and facilities that you and your group used during this visit to Mammoth Cave National Park.

### Results

- As shown in Figure 80, the most used concession services and facilities included:

73% Mammoth Cave Hotel gift shop  
49% Mammoth Cave Hotel restaurant

- The least used service and facility was:

3% Laundromat

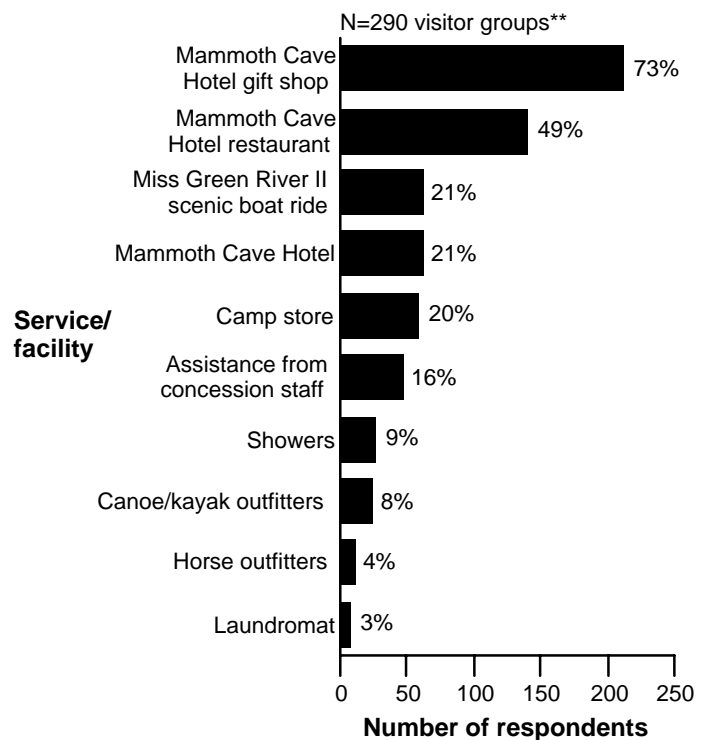


Figure 80: Concession services and facilities used

\*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 concession services and facilities

### Question 16b

For only those services that you or your group used, please rate their importance from 1 to 5.

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

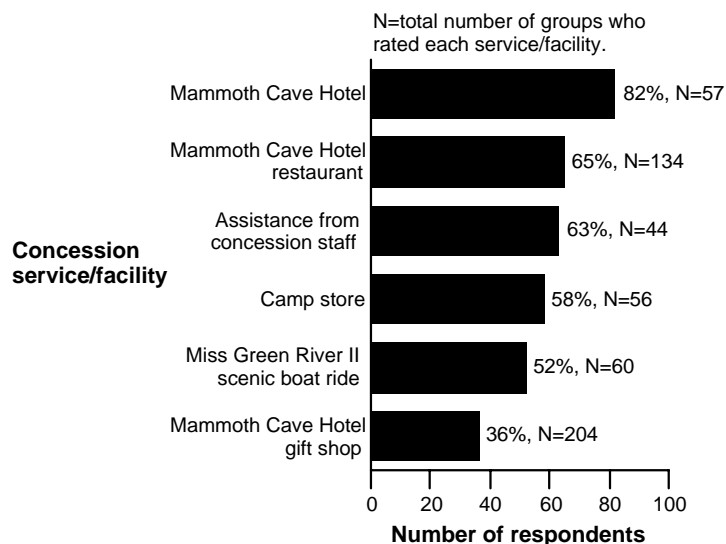
### Results

- Figure 81 shows the combined proportions of “extremely important” and “very important” ratings for concession services and facilities that were rated by 30 or more visitor groups.
- The services/facilities receiving the highest combined proportions of “extremely important” and “very important” ratings were:

82% Mammoth Cave Hotel  
65% Mammoth Cave Hotel restaurant  
63% Assistance from concession staff

- Figures 82 to 91 show the importance ratings for each service/facility.
- The service/facility receiving the highest “not important” rating was:

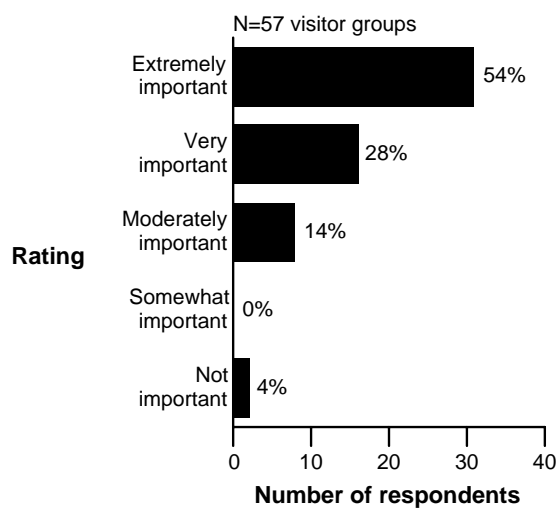
7% *Miss Green River II* scenic boat ride



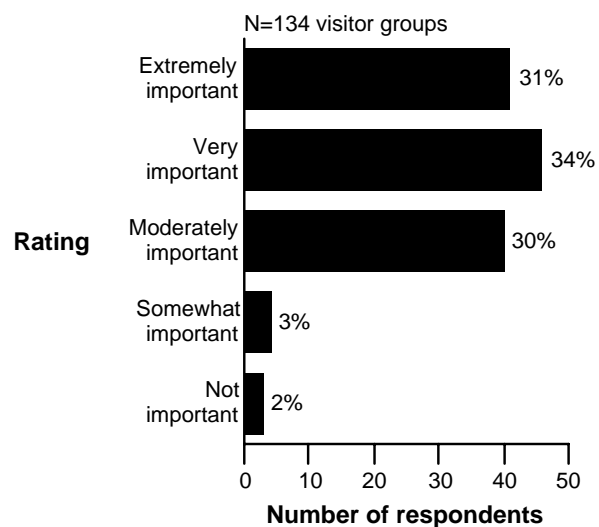
**Figure 81: Combined proportions of “extremely important” and “very important” ratings for concession services and facilities**

\*total percentages do not equal 100 due to rounding

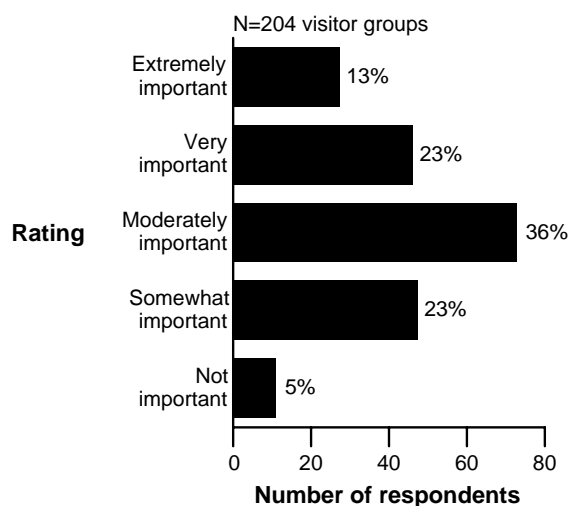
\*\*total percentages do not equal 100 because visitors could select more than one answer



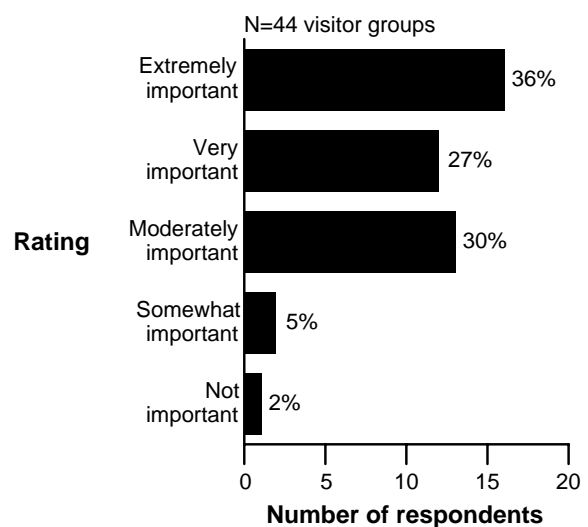
**Figure 82: Importance of Mammoth Cave Hotel**



**Figure 83: Importance of Mammoth Cave Hotel restaurant**



**Figure 84: Importance of Mammoth Cave Hotel gift shop**



**Figure 85: Importance of assistance from concession staff**

\*total percentages do not equal 100 due to rounding

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

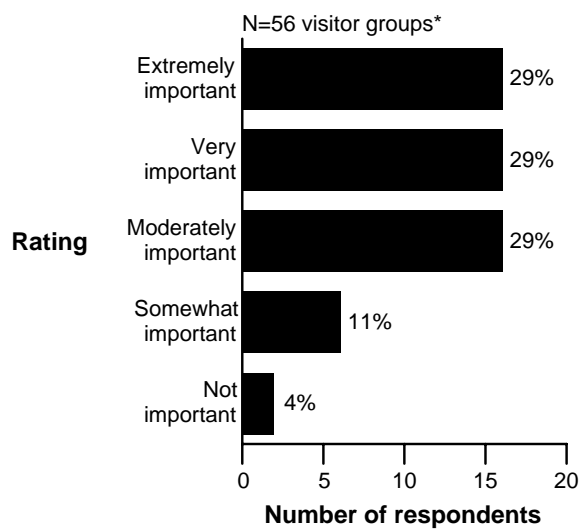


Figure 86: Importance of camp store

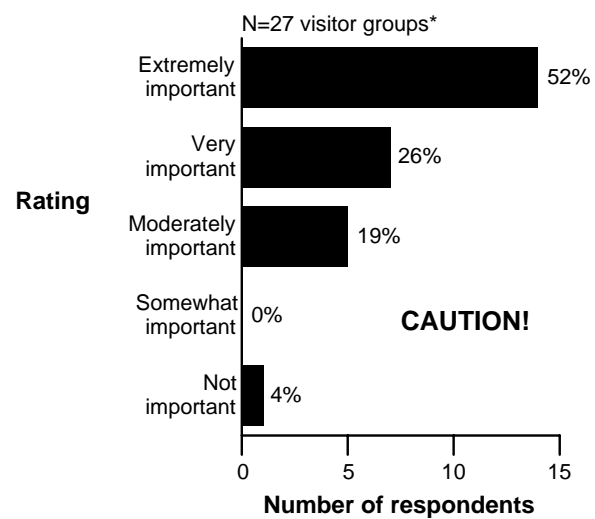


Figure 87: Importance of showers

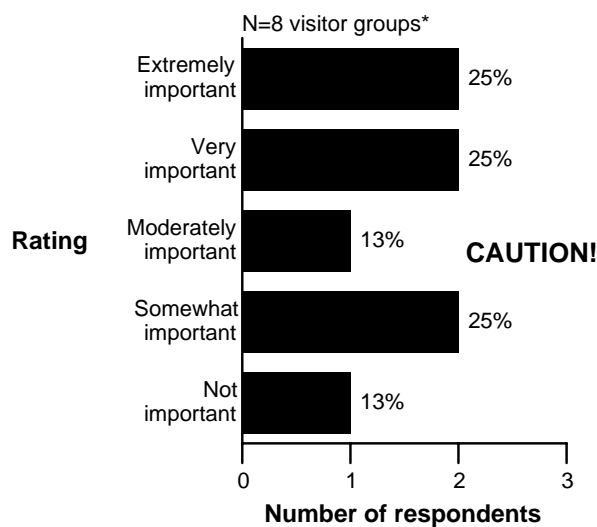


Figure 88: Importance of laundromat

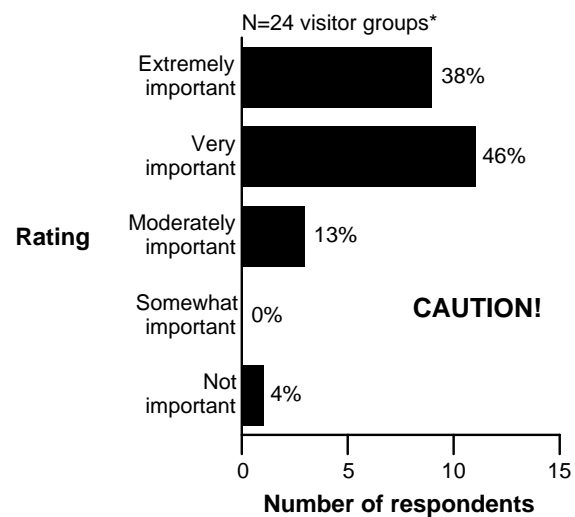


Figure 89: Importance of canoe/kayak outfitters

\*total percentages do not equal 100 due to rounding

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

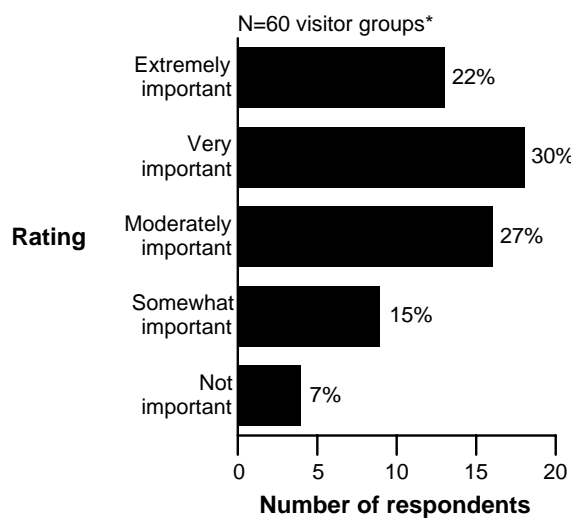


Figure 90: Importance of *Miss Green River II* scenic boat ride

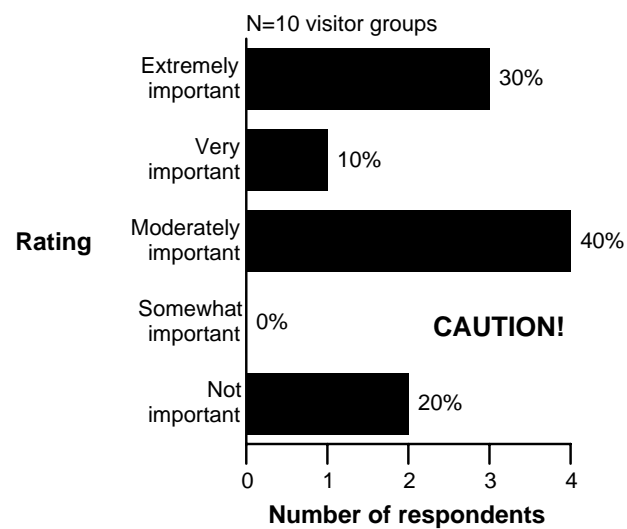


Figure 91: Importance of horse outfitters

\*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 concession services and facilities

### Question 16c

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

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

### Results

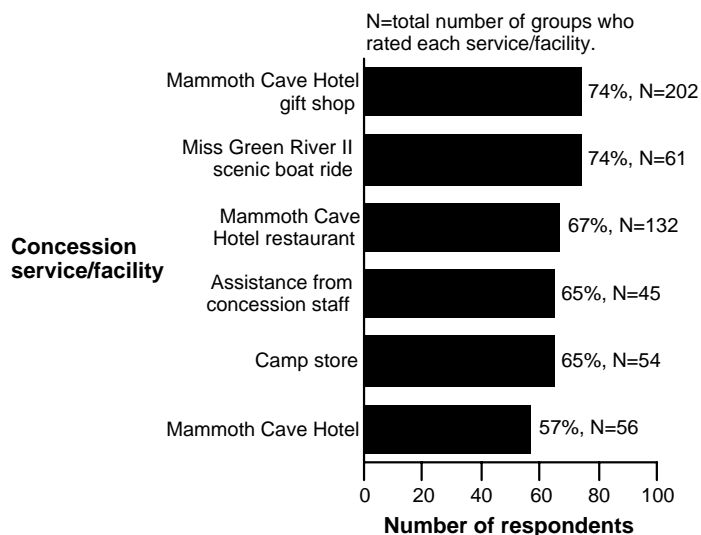
- Figure 92 shows the combined proportions of “very good” and “good” quality ratings for concession services and facilities that were rated by 30 or more visitor groups.

- The services/facilities that received the highest combined proportions of “very good” and “good” quality ratings were:

- 74% Mammoth Cave Hotel gift shop
- 74% Miss Green River II scenic boat ride
- 67% Mammoth Cave Hotel restaurant

- Figures 93 to 102 show the quality ratings for each service/facility.
- The services/facilities receiving the highest “very poor” quality ratings were:

- 5% Mammoth Cave Hotel
- 4% Assistance from concession staff
- 4% Camp store



**Figure 92: Combined proportions of “very good” and “good” quality ratings for concession 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

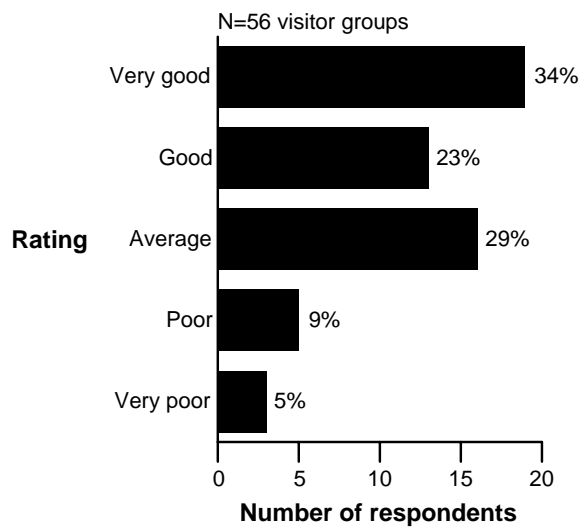


Figure 93: Quality of Mammoth Cave Hotel

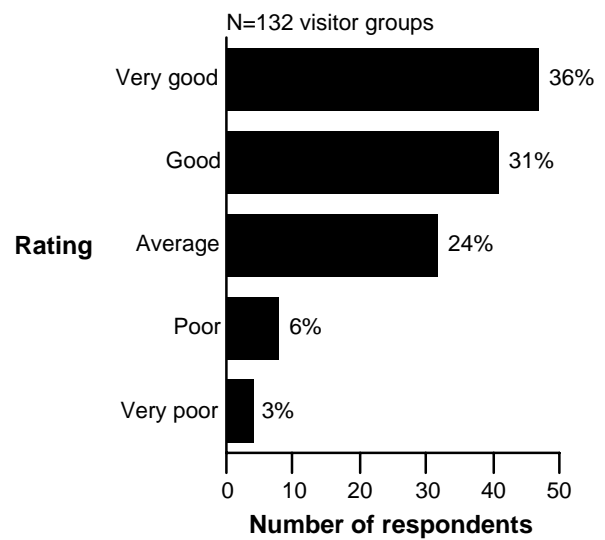


Figure 94: Quality of Mammoth Cave Hotel restaurant

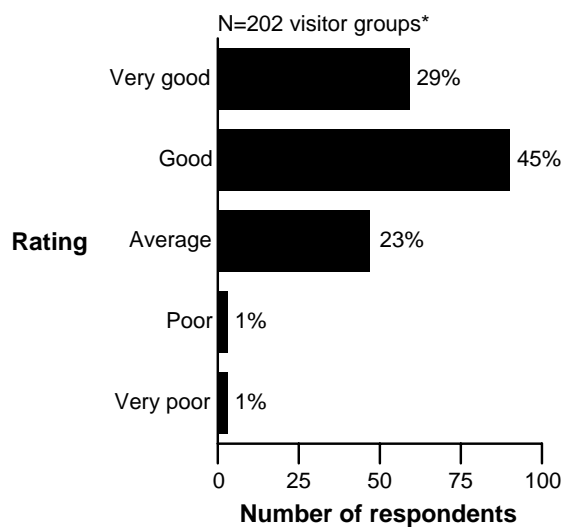


Figure 95: Quality of Mammoth Cave Hotel gift shop

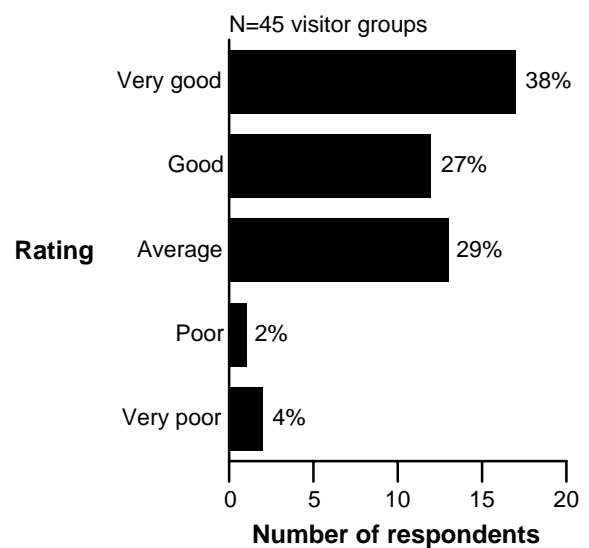


Figure 96: Quality of assistance from concession staff

\*total percentages do not equal 100 due to rounding

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

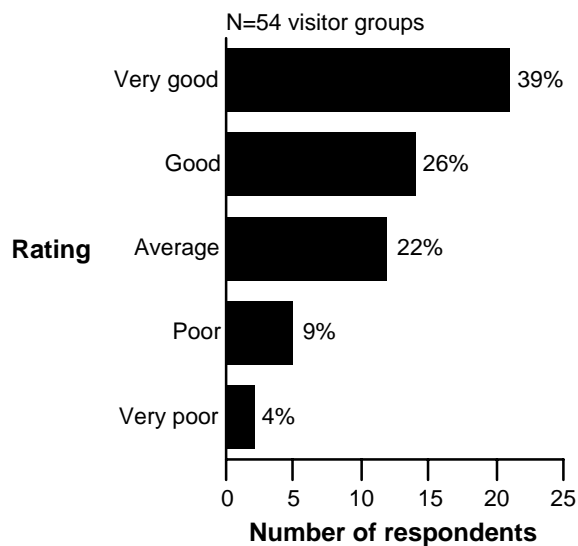


Figure 97: Quality of camp store

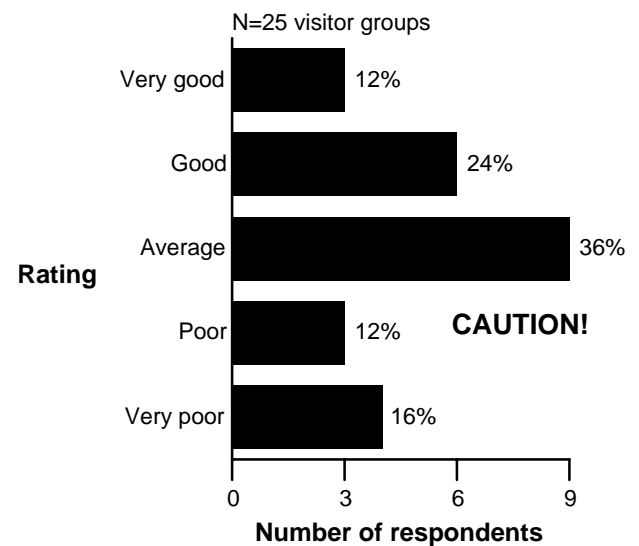


Figure 98: Quality of showers

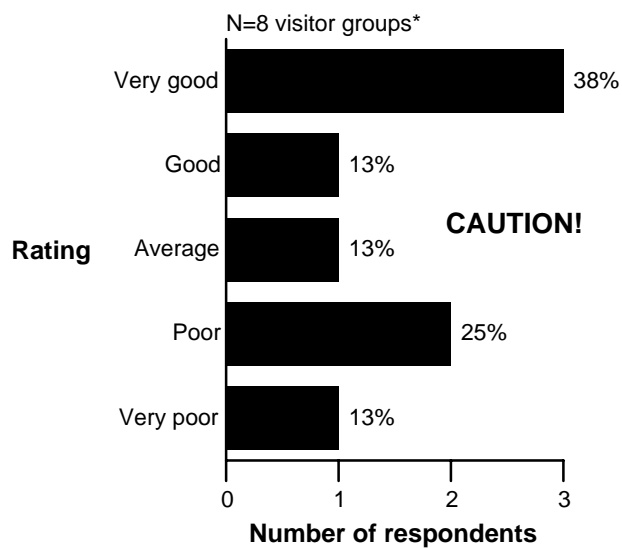


Figure 99: Quality of laundromat

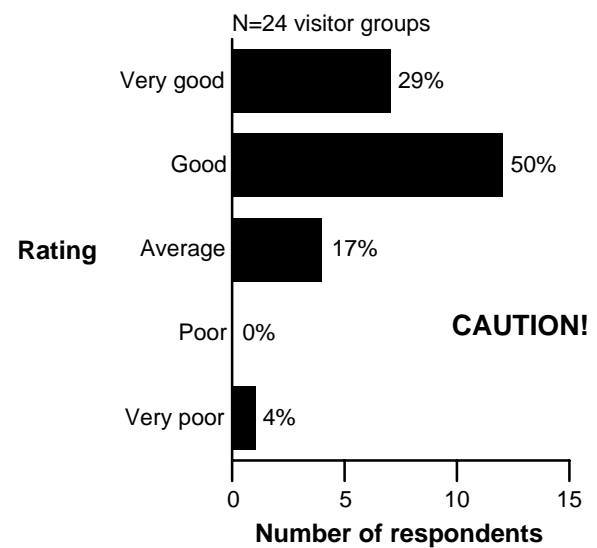


Figure 100: Quality of canoe/kayak outfitters

\*total percentages do not equal 100 due to rounding

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

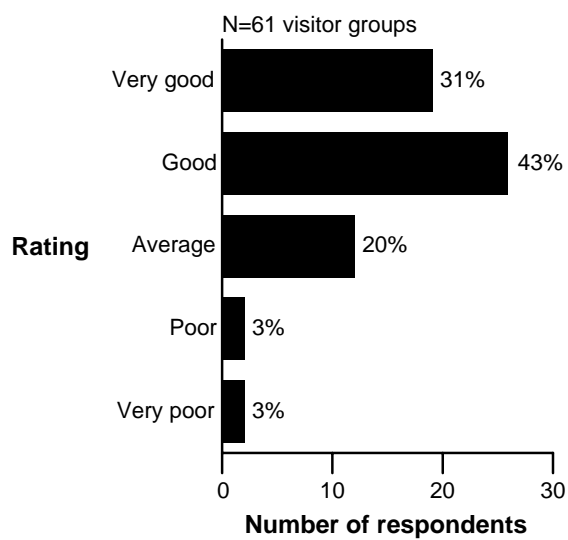


Figure 101: Quality of *Miss Green River II* scenic boat ride

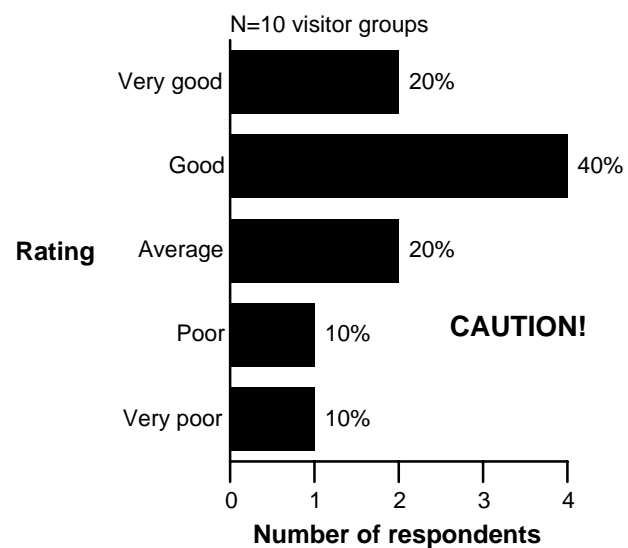


Figure 102: Quality of horse outfitters

\*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

- Figures 103 and 104 show the mean scores of importance and quality ratings for all concession services and facilities that were rated by 30 or more visitor groups.
- All concession services and facilities were rated above average in importance and quality.

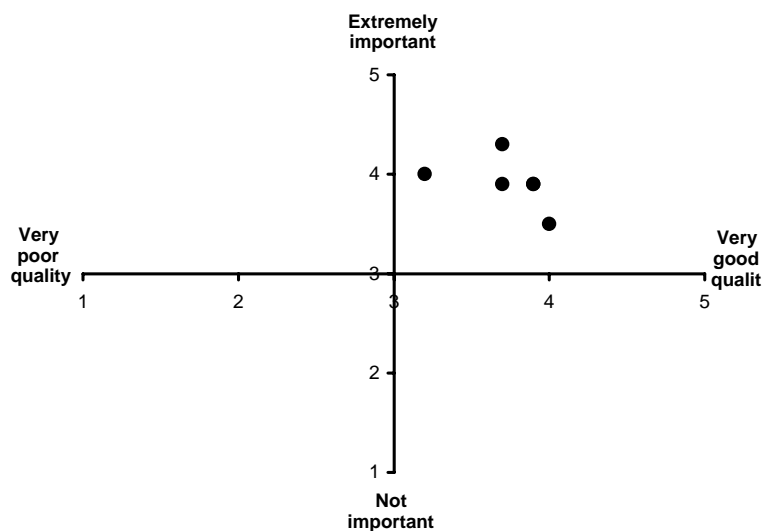


Figure 103: Mean scores of importance and quality ratings for concession services and facilities

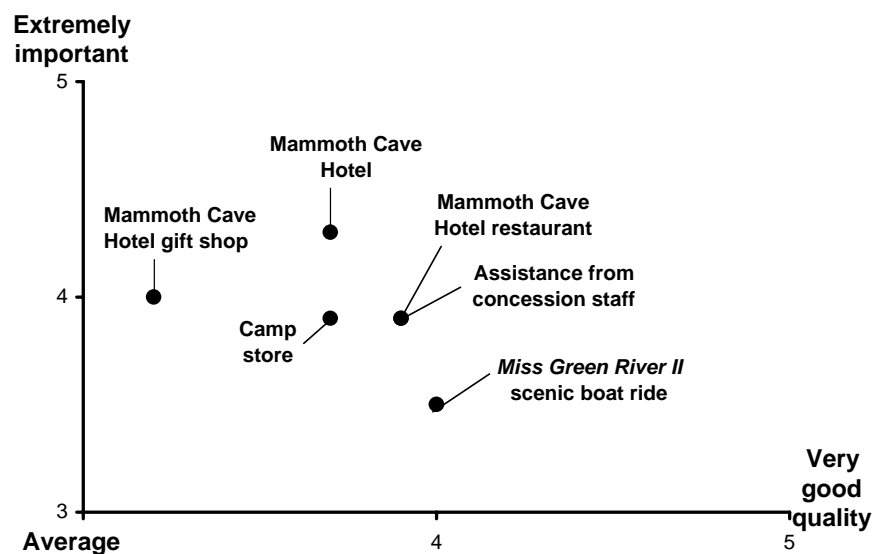


Figure 104: Detail of Figure 103

\*total percentages do not equal 100 due to rounding

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

## Importance of protection of park attributes/resources

### Question 25

It is the National Park Service's responsibility to protect Mammoth Cave NP's natural, scenic, and cultural resources and qualities, while at the same time providing for public enjoyment. Please rate the importance of each of the attributes/resources to you and your group.

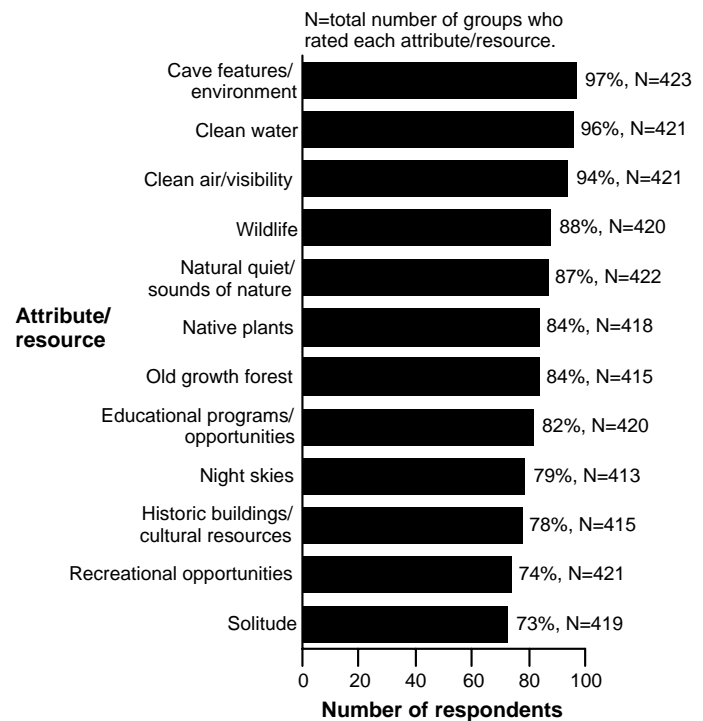
### Results

- As shown in Figure 105, the park attributes and resources that received the highest combined “extremely important” and “very important” ratings included:

97% Cave features/environment  
96% Clean water  
94% Clean air/visibility

- As shown in Table 13, the attributes and resources that received the highest “not important” rating were:

3% Night skies  
3% Historic buildings/cultural resources  
3% Recreational opportunities  
3% Solitude



**Figure 105: Combined proportions of “extremely important” and “very important” ratings for park attributes/resources**

\*total percentages do not equal 100 due to rounding

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

**Table 13: Importance of park attributes/resources**  
 N=number of visitor groups who rated each attribute/resource;  
 percentages may not equal 100 due to rounding.

Attribute/resource	N	Rating (%)				
		Not important	Somewhat important	Moderately important	Very important	Extremely important
Cave features/environment	423	<1	<1	3	20	77
Native plants	418	1	3	12	34	50
Old growth forest	415	1	3	12	30	54
Wildlife	420	<1	1	10	27	61
Clean water	421	<1	0	3	22	74
Clean air/visibility	421	<1	<1	5	22	72
Night skies	413	3	3	15	30	49
Historic buildings/cultural resources	415	3	4	15	37	41
Recreational opportunities (hiking, camping, etc.)	421	3	4	19	37	37
Educational/programs opportunities	420	2	3	14	39	43
Natural quiet/sounds of nature	422	1	2	10	33	54
Solitude	419	3	6	18	31	42

\*total percentages do not equal 100 due to rounding

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

## National significance of Mammoth Cave NP

### Question 24

Mammoth Cave NP was established because of its significance to the nation. In your opinion, what is the national significance of this park?

### Results

- 79% of visitor groups (N=342) responded to this question.
- The most common responses (see Table 14) included:

Historical significance  
Important to preserve for future generations  
Cave size  
Natural beauty

**Table 14: National significance of Mammoth Cave NP**

N=468 comments;  
some visitor groups made more than one comment.

Comment	Number of times mentioned
Historical significance	81
Important to preserve for future generations	60
Cave size	57
Natural beauty	34
Geological/scientific significance	33
It is a natural wonder	33
Important for the public to experience	22
Cultural/local/national significance	22
Uniqueness of the cave	20
Educational significance	20
The caves	18
Mineral extraction/resource utility	14
Ecological/environmental significance	11
Is generally important	9
Important because it is natural	8
Important for Park Service	5
Important to wildlife	5
Recreational significance	4
Economical significance	3
Unsure of significance	3
No national significance	2
Escape for the public	2
Important to water table	2

\*total percentages do not equal 100 due to rounding

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

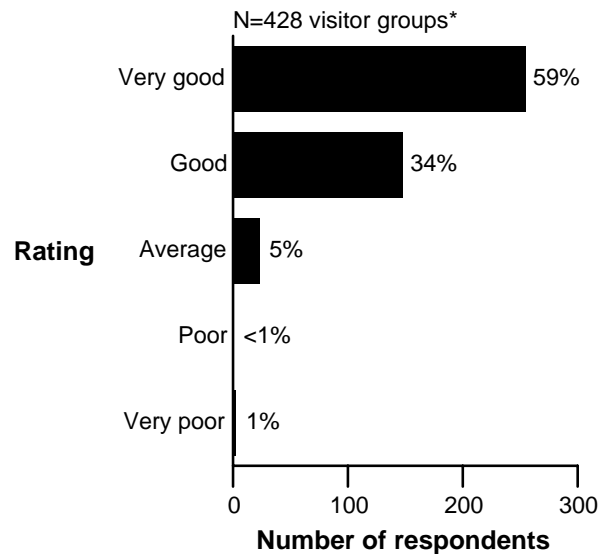
## Overall Quality

### Question 27

Overall, how would you and your group rate the quality of facilities, services, and recreational opportunities at Mammoth Cave NP during this trip?

### Results

- 93% of visitor groups rated the overall quality as “very good” or “good” (see Figure 106).
- Less than 2% rated the overall quality as “very poor” or “poor.”



**Figure 106: Overall quality of visitor facilities, services, and recreational opportunities**

\*total percentages do not equal 100 due to rounding

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

## Additional comments

### Question 26

Is there anything else you and your group would like to tell us about your visit to Mammoth Cave NP?

### Results

- 57% of visitor groups (N=250 visitor groups) responded to this question.
- Table 15 shows a summary of visitor comments. A complete copy of hand-written comments is included in the Visitor Comments Appendix.

**Table 15: Additional comments**  
N=372 comments;  
some visitor groups made more than one comment.

Comment	Number of times mentioned
<b>PERSONNEL</b>	
Guides/staff were great	28
Guides/staff were knowledgeable/informative	14
Guides/staff were friendly	11
Guides/staff were helpful	5
Guides were not good	4
Guides were interesting	3
Staff was efficient	2
Guides/staff not friendly	2
Guides spoke too softly	2
Other comments	6
<b>INTERPRETIVE SERVICES</b>	
Enjoyed tour	8
Tour was very educational	8
Inform visitors of lunch/water availability on tours	7
Good variety of tours	3
Would like more information on caves/history	3
Need maps of the park	2
Visitor center needs to be better coordinated	2
Website needs improvement	2
Other comments	11
<b>FACILITIES/MAINTENANCE</b>	
Lodge/hotel need to be improved	9
Campgrounds need improvement	6
Park is clean	5
Caves need more/better lighting	4
Need more/better signage	4
More restrooms needed	3
Set traps for yellow jackets	2
Other comments	14

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**Table 15: Additional comments  
(continued)**

Comment	Number of times mentioned
<b>POLICIES/MANAGEMENT</b>	
Need more information on tour reservations before visit	8
Concerned with number of small children/babies	4
Need extended hours/days of operation	4
Price is too high	4
Would like handicap accessibility information	3
Showers should be free to paid campers	3
Disappointed with long wait	3
Park access was good	2
Liked policies on dog allowance	2
Park should look into alternative energy sources	2
Suggest tour packages to make more affordable	2
Other comments	12
<b>RESOURCE MANAGEMENT</b>	
Need more/improved hiking trails	2
Hiking trails were great	2
Other comments	3
<b>GENERAL COMMENTS</b>	
Enjoyed visit	38
Will plan return visit	36
Had a good experience	11
Sights were awesome/wonderful	5
Park was beautiful	5
Survey too long and redundant	5
Lack of evening entertainment	4
Keep up the good work	4
Thanks	4
Felt crowded	4
Dissatisfied with food quality	3
Wished had more time to spend	3
Enjoyed ferry	2
Food was good	2
Did not like park	2
Trip was educational	2
Other comments	16

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## **APPENDICES**

<b>Appendix 1: The Questionnaire</b>
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## Appendix 2: Additional Analysis

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

- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>• Sources of information used prior to visit</li> <li>• Received needed information?</li> <li>• Awareness of cave tour reservation system prior to visit?</li> <li>• Make cave tour reservations prior to visit?</li> <li>• Cave tour reservation made by phone or online?</li> <li>• Quality of cave tour reservation experience</li> <li>• Mammoth Cave visit as part of travel plans</li> <li>• Primary reason for visit to park area (within 30-mile drive)</li> <li>• Services used in "gateway" communities</li> <li>• Length of stay (hours/days)</li> <li>• Overnight stay away from home in park area</li> <li>• Number of nights stayed inside park</li> <li>• Number of nights stayed in park area</li> <li>• Type of lodging in park</li> <li>• Type of lodging in park area</li> <li>• Other places visited in area</li> <li>• Take cave tour?</li> <li>• Cave tours taken</li> </ul> | <ul style="list-style-type: none"> <li>• Number of people in personal group on cave tour</li> <li>• Length of wait for cave tour</li> <li>• Length of cave tour</li> <li>• Value for fee paid</li> <li>• Activities while waiting for cave tour</li> <li>• Number of people on cave tour</li> <li>• How crowded was cave tour?</li> <li>• Tour too crowded to be enjoyable?</li> <li>• Recommend to others?</li> <li>• Preferred option to protect cave resources</li> <li>• Effect of price on whether to take a tour</li> <li>• Effect of price on which tours were taken</li> <li>• Effect of price on how many tours were taken</li> <li>• Activities</li> <li>• Time of first arrival at visitor center</li> <li>• Visitor services and facilities used</li> <li>• Importance of visitor services and facilities</li> <li>• Quality of visitor services and facilities</li> <li>• Concession services and facilities used</li> </ul> | <ul style="list-style-type: none"> <li>• Importance of concession services and facilities</li> <li>• Quality of concession services and facilities</li> <li>• Adequacy of directional signs</li> <li>• Group size</li> <li>• Number of entries into park</li> <li>• Group type</li> <li>• Visitor age</li> <li>• Zip code/state of residence</li> <li>• Country of residence</li> <li>• Number park visits in last 6 months</li> <li>• Number of visits in last 5 years</li> <li>• Respondent ethnicity and race</li> <li>• Highest level of education</li> <li>• Any members have difficulty accessing activities/services?</li> <li>• Activities/services that had difficult access</li> <li>• What physical conditions did the person have?</li> <li>• Importance of attributes/resources</li> <li>• Overall quality of visitor facilities, services, and recreational opportunities</li> </ul> |
|---|---|--|

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### 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 2000; Stoop 2004). In this study, group size and age of the group member (at least 16 years old) completing the survey were two variables that were used to check for non-response bias.

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.

The hypotheses for checking non-response bias are:

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

As shown in Table 2, the p-value for respondent/non-respondent group size and age tests are greater than 0.05, indicating insignificant differences between respondents and non-respondents. Thus, non-response bias is judged to be insignificant.

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### Appendix 4: Visitor Services Project Publications

Reports 1-6 (pilot studies) are available from the University of Idaho Park Studies Unit. All other VSP reports listed are available from the parks where the studies were conducted or from the UI PSU. All studies were conducted in summer unless otherwise noted.

#### 1982

1. Mapping interpretive services: A pilot study at Grand Teton National Park.

#### 1983

2. Mapping interpretive services: Identifying barriers to adoption and diffusion of the method.
3. Mapping interpretive services: A follow-up study at Yellowstone National Park and Mt Rushmore National Memorial.
4. Mapping visitor populations: A pilot study at Yellowstone National Park.

#### 1985

5. North Cascades National Park Service Complex
6. Crater Lake National Park

#### 1986

7. Gettysburg National Military Park
8. Independence National Historical Park
9. Valley Forge National Historical Park

#### 1987

10. Colonial National Historical Park (summer & fall)
11. Grand Teton National Park
12. Harpers Ferry National Historical Park
13. Mesa Verde National Park
14. Shenandoah National Park (summer & fall)
15. Yellowstone National Park
16. Independence National Historical Park: Four Seasons Study

#### 1988

17. Glen Canyon National Recreational Area
18. Denali National Park and Preserve
19. Bryce Canyon National Park
20. Craters of the Moon National Monument

#### 1989

21. Everglades National Park (winter)
22. Statue of Liberty National Monument

23. The White House Tours, President's Park

#### 1989 (continued)

24. Lincoln Home National Historic Site
25. Yellowstone National Park
26. Delaware Water Gap National Recreation Area
27. Muir Woods National Monument

#### 1990

28. Canyonlands National Park (spring)
29. White Sands National Monument
30. National Monuments & Memorials, Washington, D.C.
31. Kenai Fjords National Park
32. Gateway National Recreation Area
33. Petersburg National Battlefield
34. Death Valley National Monument
35. Glacier National Park
36. Scott's Bluff National Monument
37. John Day Fossil Beds National Monument

#### 1991

38. Jean Lafitte National Historical Park (spring)
39. Joshua Tree National Monument (spring)
40. The White House Tours, President's Park (spring)
41. Natchez Trace Parkway (spring)
42. Stehekin-North Cascades NP/ Lake Chelan NRA
43. City of Rocks National Reserve
44. The White House Tours, President's Park (fall)

#### 1992

45. Big Bend National Park (spring)
46. Frederick Douglass National Historic Site (spring)
47. Glen Echo Park (spring)
48. Bent's Old Fort National Historic Site
49. Jefferson National Expansion Memorial
50. Zion National Park
51. New River Gorge National River
52. Klondike Gold Rush National Historical Park, AK
53. Arlington House-The Robert E. Lee Memorial

**Visitor Services Project Publications (continued)****1993**

- 54. Belle Haven Park/Dyke Marsh Wildlife Preserve (spring)
- 55. Santa Monica Mountains National Recreation Area (spring)
- 56. Whitman Mission National Historic Site
- 57. Sitka National Historical Park
- 58. Indiana Dunes National Lakeshore
- 59. Redwood National Park
- 60. Channel Islands National Park
- 61. Pecos National Historical Park
- 62. Canyon de Chelly National Monument
- 63. Bryce Canyon National Park (fall)

**1994**

- 64. Death Valley National Monument Backcountry (winter)
- 65. San Antonio Missions National Historical Park (spring)
- 66. Anchorage Alaska Public Lands Information Center
- 67. Wolf Trap Farm Park for the Performing Arts
- 68. Nez Perce National Historical Park
- 69. Edison National Historic Site
- 70. San Juan Island National Historical Park
- 71. Canaveral National Seashore
- 72. Indiana Dunes National Lakeshore (fall)
- 73. Gettysburg National Military Park (fall)

**1995**

- 74. Grand Teton National Park (winter)
- 75. Yellowstone National Park (winter)
- 76. Bandelier National Monument
- 77. Wrangell-St. Elias National Park & Preserve
- 78. Adams National Historic Site
- 79. Devils Tower National Monument
- 80. Manassas National Battlefield Park
- 81. Booker T. Washington National Monument
- 82. San Francisco Maritime National Historical Park
- 83. Dry Tortugas National Park

**1996**

- 84. Everglades National Park (spring)
- 85. Chiricahua National Monument (spring)
- 86. Fort Bowie National Historic Site (spring)
- 87. Great Falls Park, Virginia (spring)
- 88. Great Smoky Mountains National Park
- 89. Chamizal National Memorial
- 90. Death Valley National Park (fall)
- 91. Prince William Forest Park (fall)
- 92. Great Smoky Mountains National Park (summer & fall)

**1997**

- 93. Virgin Islands National Park (winter)
- 94. Mojave National Preserve (spring)
- 95. Martin Luther King, Jr., National Historic Site (spring)
- 96. Lincoln Boyhood National Memorial
- 97. Grand Teton National Park
- 98. Bryce Canyon National Park
- 99. Voyageurs National Park
- 100. Lowell National Historical Park

**1998**

- 101. Jean Lafitte National Historical Park & Preserve (spring)
- 102. Chattahoochee River National Recreation Area (spring)
- 103. Cumberland Island National Seashore (spring)
- 104. Iwo Jima/Netherlands Carillon Memorials
- 105. National Monuments & Memorials, Washington, D.C.
- 106. Klondike Gold Rush National Historical Park, AK
- 107. Whiskeytown National Recreation Area
- 108. Acadia National Park

**1999**

- 109. Big Cypress National Preserve (winter)
- 110. San Juan National Historic Site, Puerto Rico (winter)
- 111. St. Croix National Scenic Riverway
- 112. Rock Creek Park
- 113. New Bedford Whaling National Historical Park
- 114. Glacier Bay National Park & Preserve
- 115. Kenai Fjords National Park
- 116. Lassen Volcanic National Park
- 117. Cumberland Gap National Historical Park (fall)

**Visitor Services Project Publications (continued)****2000**

- 118. Haleakala National Park (spring)
- 119. White House Tour and White House Visitor Center (spring)
- 120. USS Arizona Memorial
- 121. Olympic National Park
- 122. Eisenhower National Historic Site
- 123. Badlands National Park
- 124. Mount Rainier National Park

**2001**

- 125. Biscayne National Park (spring)
- 126. Colonial National Historical Park (Jamestown)
- 127. Shenandoah National Park
- 128. Pictured Rocks National Lakeshore
- 129. Crater Lake National Park
- 130. Valley Forge National Historical Park

**2002**

- 131. Everglades National Park
- 132. Dry Tortugas National Park
- 133. Pinnacles National Monument
- 134. Great Sand Dunes National Monument & Preserve
- 135. Pipestone National Monument
- 136. Outer Banks Group (Cape Hatteras National Seashore, Ft. Raleigh National Historic Site, and Wright Brothers National Memorial)
- 137. Sequoia & Kings Canyon National Parks and Sequoia National Forest
- 138. Catoctin Mountain Park
- 139. Hopewell Furnace National Historic Site
- 140. Stones River National Battlefield

**2003**

- 141. Gateway National Recreation Area: Floyd Bennett Field (spring)
- 142. Cowpens National Battlefield (spring)
- 143. Grand Canyon National Park – North Rim
- 144. Grand Canyon National Park – South Rim
- 145. C&O Canal National Historical Park

**2003 (continued)**

- 146. Capulin Volcano National Monument
- 147. Oregon Caves National Monument
- 148. Knife River Indian Villages National Historic Site
- 149. Fort Stanwix National Monument
- 150. Arches National Park
- 151. Mojave National Preserve (fall)

**2004**

- 152. Joshua Tree National Park (spring)
- 153. New River Gorge National River
- 154. George Washington Birthplace National Monument
- 155. Craters of the Moon National Monument & Preserve
- 156. Dayton Aviation Heritage National Historical Park
- 157. Apostle Islands National Lakeshore
- 158. Keweenaw National Historical Park
- 159. Effigy Mounds National Monument
- 160. Saint-Gaudens National Historic Site
- 161. Manzanar National Historic Site
- 162. John Day Fossil Beds National Monument

**2005**

- 163. Congaree National Park
- 164. San Francisco Maritime National Historical Park
- 165. Lincoln Home National Historic Site
- 166. Chickasaw National Recreation Area
- 167. Timpanogos Cave National Monument
- 168. Yosemite National Park
- 169. Fort Sumter National Monument
- 170. Harpers Ferry National Historical Park
- 171. Cuyahoga Valley National Park
- 172. Johnstown Flood National Memorial
- 173. Nicodemus National Historic Site

**2006**

- 174. Kings Mountain National Military Park
- 175. John F. Kennedy National Historic Site
- 176. Devils Postpile National Monument
- 177. Mammoth Cave National Park

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

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