



# Grand Canyon National Park Socioeconomic Monitoring Pilot Implementation

*Summer 2016*

Natural Resource Report NPS/GRCA/NRR—2017/1488



**ON THE COVER**

Photograph of North Rim from the air

Photograph courtesy of the National Park Service

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## Executive Summary

- This report describes the results of a visitor study at Grand Canyon National Park (NP) conducted from July 15 through July 24, 2016. During the sampling period, 1,351 visitor groups were contacted to participate in the survey. Of those groups, 974 agreed to participate in the study by accepting a mail-back survey packet. Questionnaires were completed and returned by 533 visitor groups, resulting in a completion rate of 55% among those visitor groups that agreed to participate in the study and an overall response rate of 40% for the study.
- This report profiles a systematic random sample of Grand Canyon NP visitors. Most of the results are presented in graphs and frequency tables. Summaries of visitor comments are included in the body of the report. Verbatim comments are included in the Visitor Comment Appendix (bound separately).
- Thirty-seven percent of visitor groups were groups of two, and 24% of visitor groups were groups of four. The majority of visitor groups (76%) identified as groups of family.
- Twelve percent of visitors were 65 years old or older, 13% of visitors were 55 to 64 years old, 32% of visitor were 35 to 54 years old, 23% of visitors were 18 to 34 years old, and 20% of visitors were under 18 years old.
- Hispanic or Latino visitors comprised 7% of visitation during the survey period. Most visitors (90%) were white. Few visitors were Asian (6%), Black or African American (2%), American Indian or Alaska Native (1%), or Native Hawaiian or other Pacific Islander (<1%).
- Nearly all visitor groups preferred to speak (96%) and read (96%) English when visiting an area such as Grand Canyon NP.
- Individuals from the United States comprised 69% of total visitation during the survey period. At the state level, 13% of visitors were from California, 13% of visitors were from Arizona, and smaller proportions of visitors were from 40 other states. International visitors comprised 31% of total visitation with 15% of international visitors from The Netherlands, 13% from the France, 13% from Germany, and smaller proportions of visitors from 25 other countries.
- Ninety-four percent of visitors indicated having visited the park only once during the last 12 months, while 6% had visited more than two times during the past year. Twenty-four percent of visitors indicated that they had not visited another National Park Service (NPS) site within the past 12 months. Twenty-four percent of visitors indicated that they had visited another NPS site 5 times or more in the past 12 months.

- Ninety-three percent of visitor groups obtained information about Grand Canyon NP prior to this trip. The most commonly reported information sources used were the park website (56%), friends/relatives/word of mouth (42%), previous visits (34%), and maps/brochures (32%). The vast majority (93%) of visitor groups had the information they needed about Grand Canyon NP for their trip.
- Ninety-one percent of visitor groups used a car, truck, or SUV to get from their home to the park. Twenty-nine percent of visitor groups spent up to 7 to 12 hours traveling from their home to the park. Twenty-five percent of visitor groups traveled up to 500 miles one-way from their home to get to Grand Canyon NP while 24% traveled 2,501 or more miles one-way to get to the park.
- Seventy-seven percent of visitor groups indicated that visiting Grand Canyon NP was one of several equally important destinations on their trip away from home. Twenty percent of visitor groups indicated that visiting Grand Canyon NP was the primary or sole purpose of their trip away from home.
- The most important reasons for visitors to visit Grand Canyon NP included to view wildlife or natural scenery (56% of visitor groups), to spend time with friends/family (21% of visitor groups), and to visit an NPS site (10% of visitor groups). Forty-four percent of visitor groups reported that viewing wildlife, natural features, scenery, wildflowers, or other aspects of natural scenery was their primary activity. Seventeen percent reported that day hiking (> 1 hour) was their primary activity. Twenty percent of visitor groups reported having no primary activity.
- Seventy-seven percent of visitors stayed overnight inside the park or in the nearby area. The majority (46%) of those visitors who stayed overnight stayed in lodging outside Grand Canyon NP. More than half (67%) of visitor groups visited another NPS site on their trip away from home. The most commonly reported NPS sites visited other than Grand Canyon NP were Zion National Park and Bryce Canyon National Park.
- The vast majority of visitor groups (89%) indicated that no one in their group had a physical condition that made it difficult to access or participate in activities or services during their visit. Of those visitor groups that did have a group member with a physical condition, the mostly commonly reported physical condition was a mobility-related condition (91%). Moreover, 55% of visitor groups disagreed (45%) or strongly disagreed (10%) that Grand Canyon NP is not accessible to persons with physical disabilities.
- The majority of visitor groups went to the visitor center (83%), viewed outdoor exhibits (67%), and/or read the park brochure or newspaper (66%). Fifty-five percent of visitor groups reported that they learned something from park staff, programs, and/or exhibits about American history, nature, and/or culture.

- Ten percent of visitor groups reported that someone within their group purchased a package tour that included meals, lodging, and/or transportation while on their trip to Grand Canyon National Park (NP).
- Forty-eight percent of visitor groups spent up to \$500 on expenditures inside the park and nearby area, excluding package tour expenses, and 26% spent \$501 to \$1,000. The expenditure sectors where visitor groups spent the largest proportions of money (excluding package tour expenses) included restaurants/bars (32% of expenditures), rental cars (19% of expenditures), and park entrance fees (16% of expenditures).
- The vast majority of visitor groups (91%) reported that their visit to Grand Canyon NP met their expectations.
- The vast majority (90%) of visitor groups agreed that Grand Canyon NP is a safe place to visit. Seventy-three percent agreed that vandalism and crime are not a problem in Grand Canyon NP.
- Seventy-eight percent of visitor groups agreed that natural resources in Grand Canyon NP are in pristine condition. Eighty-nine percent of visitor groups agreed that historical and cultural features in Grand Canyon NP are well maintained/preserved. Fourteen percent of visitor groups agreed that development of adjacent areas detracts from visitors' experiences at Grand Canyon NP. Twenty-nine percent of visitor groups disagreed that Grand Canyon NP is too crowded.
- Only 12% of visitor groups agreed that the entrance fee to Grand Canyon NP is too high.
- Overall, visitor groups rated the quality of facilities, services, and recreation opportunities in Grand Canyon National Park (NP) highly. Sixty-four percent of visitor groups rated the overall quality as good or very good.

## Acknowledgments

We thank the staff of Grand Canyon National Park and the National Park Service's Social Science Program for their assistance and support with this visitor use study

## List of Terms

NP	National Park
NPS	National Park Service
RSG	Resource Systems Group, Inc.
SEM	Socioeconomic Monitoring
SSP	Social Science Program
VSP	Visitor Services Project

# Introduction

During 2015 through 2016, the National Park Service (NPS) Social Science Program (SSP) conducted pilot implementation of an in-park Socioeconomic Monitoring (SEM) visitor survey in several units of the National Park System. This report describes the results of pilot implementation of the SEM visitor survey at Grand Canyon National Park (NP) from July 15 through July 24, 2016. The study was conducted by RSG, under a contract with the NPS SSP.

## Organization of Report

This report is organized into three sections

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

**Section 2: Results** This section provides summary information for each question in the questionnaire and includes a summary of visitor comments. The results are organized by topic areas, starting with visitor and visitor group characteristics, followed by results of questions related to pre-arrival, onsite, and post-trip stages of park visits.

## **Section 3: Appendices**

Appendix 1. *Descriptive Statistics*. Descriptive statistics for those variables for which measures of central tendency can be computed.

Appendix 2. *The Questionnaire*. A copy of the questionnaire distributed to visitor groups.

Appendix 3. *The Thank You/Reminder Postcard*. A copy of the thank you/reminder postcard mailed to visitor groups.

Appendix 4. *The Replacement Mailing Cover Letter*. A copy of the replacement mailing cover letter mailed to visitor groups.

Appendix 5. *Detailed Sampling Procedures*. A detailed description of sampling locations and procedures.

Appendix 6. *Non-response Bias Analysis - Effects on Survey Responses due to Initial Contact Gender, Number of Adults in Group, and Visit Length*. Results of statistical tests of effects of initial contact gender, number of adults in group, and visit length on key questions in the SEM survey instrument.

*Visitor Comments Appendix* (separate document). Visitor responses to open-ended questions. Bound separately due to appendix length.

## Presentation of the Results

Results are represented in the form of graphs (see Figure 1 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. The phrase **"CAUTION: Number of respondents less than 30 visitor groups"** is shown on the graph to indicate the results are unreliable due to low sample size.

\* 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 (y-axis) describes the response categories.
4. Horizontal information (x-axis) shows the number or proportion of responses in each category.
5. The proportion of visitor groups/visitors who responded to each category.

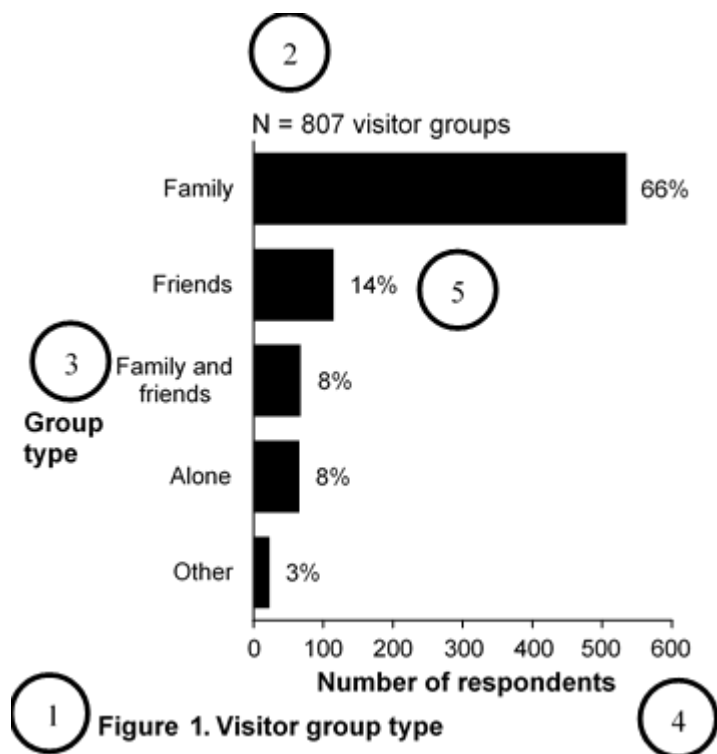


Figure 1. Example figure

# Methods

## Survey Method

The SEM visitor survey was administered at Grand Canyon NP as a personally delivered self-administered mail-back survey, following the principles outlined in Don A. Dillman's book *Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method* (2014). The survey method included three phases: 1) onsite distribution of a booklet-sized questionnaire, 2) a color-picture reminder postcard mailing, and 3) one replacement mailing of a booklet-sized questionnaire for those participants that had not yet returned a completed questionnaire. The study population included visitor groups with at least one group member 18 years of age or older in Grand Canyon NP during the study period. The target margin of error for summary statistics of no greater than  $\pm 5\%$  (Fowler 1993) was used to establish the target sample size at 400 completed questionnaires.

## Sampling Effort

The SEM visitor survey was administered at Grand Canyon NP from July 15 through 24, 2016. The survey administration dates were selected to target peak use at the park. The peak use month was identified using the five-year average of monthly visitation data for Grand Canyon NP available from the NPS Public Use Statistics Office. Within the peak use month, the survey administration dates were selected to include both weekdays and weekend days.

The list of sampling locations was selected through an iterative, data-driven process. A list of potential sampling locations was compiled using three primary information sources. First, previously conducted visitor use studies and/or survey research were consulted for locations that had been sampled previously. Second, the sampling locations for collection of NPS Public Use Statistics Office visitation data were consulted for potential additional sampling locations. Third, the park's website and other popular trip planning resources for Grand Canyon NP were consulted to ensure that popular visitor locations were not inadvertently excluded from the list of potential sampling locations. The list of potential sampling locations was reduced through consideration of feasibility for survey administration and coverage of the range of user types at Grand Canyon NP. The refined list of sampling locations was finalized through consultation with the NPS SSP and Grand Canyon NP staff. The SEM visitor survey was administered at four locations in the park: South Rim Visitor Center (VC), Desert View VC, North Rim VC, and North Rim Campground (CG).

The SEM visitor survey was administered for a select range of hours on each sampling day. The hours of survey administration at the South Rim VC, Desert View VC, and North Rim VC coincided with the hours of operation for each visitor center location. The hours of survey administration at the North Rim CG were selected to maximize sampling efficiency through targeting a sampling hour during which most campground visitors were expected to be at their campsites. The sampling effort is presented in Table 1.

**Table 1.** Sampling effort

<b>Date</b>	<b>South Rim Visitor Center</b>	<b>Desert View Visitor Center</b>	<b>North Rim Visitor Center</b>	<b>North Rim Campground</b>
Friday, July 15	9:00AM-5:00PM	8:00AM-4:00PM	10:00AM-6:00PM	-
Saturday, July 16	8:00AM-4:00PM	11:00AM-7:00PM	8:00AM-4:00PM	-
Sunday, July 17	9:00AM-5:00PM	11:00AM-7:00PM	10:00AM-6:00PM	6:15PM-7:15PM
Monday, July 18	8:00AM-4:00PM	11:00AM-7:00PM	8:00AM-4:00PM	-
Tuesday, July 19	-	-	-	-
Wednesday, July 20	8:00AM-4:00PM	11:00AM-7:00PM	8:00AM-4:00PM	6:15PM-7:00PM
Thursday, July 21	9:00AM-5:00PM	8:00AM-4:00PM	10:00AM-6:00PM	6:15PM-7:00PM
Friday, July 22	8:00AM-4:00PM	11:00AM-7:00PM	8:00AM-4:00PM	-
Saturday, July 23	9:00AM-5:00PM	8:00AM-4:00PM	10:00AM-6:00PM	6:15PM-7:00PM
Sunday, July 24	8:00AM-4:00PM	8:00AM-4:00PM	8:00AM-4:00PM	-

### Questionnaire Design

The SEM questionnaire is a standardized survey instrument designed to gather system-wide information at NPS units about visitor and trip characteristics, visitor spending in gateway communities, visitor perceptions of park experiences, visitor attitudes toward park management, and visitor satisfaction with park services and facilities. The questionnaire was developed through a collaborative process between the NPS SSP and RSG. All of the questions included in the SEM questionnaire were selected from the NPS Programmatic Information Collection Review Pool of Known Questions. The majority of the questions included in the SEM survey instrument ask visitors to choose answers from a list of response options, providing an open-ended option, where appropriate, to ensure that question prompts allowed for inclusive answers. A few questions were completely open-ended to collect unprompted responses from visitors in their own words. The questionnaire was reviewed and approved by the Office of Management and Budget (OMB), and correspondingly conforms to OMB standards and guidelines for questionnaire design. Grand Canyon NP staff were asked to review the SEM questionnaire to provide guidance on park-specific tailoring of question prompts to ensure consistency of the survey instrument with park policies, programs, services, and activities. The questionnaire was administered to visitors in English (Appendix 2).

### Sampling Procedures

Mail-back survey packets were administered to visitor groups in Grand Canyon NP using onsite intercept methods (see Appendix 5 for detailed descriptions of how visitors were selected at each sample location). Each contacted visitor group was greeted, introduced to the purpose of the study, and asked to participate. If a visitor group agreed to participate, they were asked which member of the group (at least 18 years old) had the next birthday; the individual with the next birthday was asked to complete the questionnaire for the group. This was done in order to randomize selection of the individual within the group to complete the questionnaire.

Individuals who agreed to complete the questionnaire were asked to provide their name and mailing address. This information was used to send follow-up mailings according to Dillman's (2014) mail-



back survey methods. Participating visitors were then administered a mail-back survey packet, which included a booklet-sized questionnaire placed inside of a pre-addressed envelope affixed with a U.S. first class postage stamp. Visitors were asked to complete the questionnaire after completing their trip to the park and to return the questionnaire by mail using the self-addressed postage-paid envelope provided. International visitors were asked to mail their completed questionnaires before leaving the country due to the U.S. first class postage affixed to the return envelope. Table 2 summarizes the survey effort by sampling location.

**Table 2.** Number of questionnaires distributed, by sampling location

Sampling site	Sampling date										Total questionnaires distributed	
	7/15	7/16	7/17	7/18	7/19	7/20	7/21	7/22	7/23	7/24	N	%
South Rim VC	60	44	45	42	-	43	39	45	43	55	416	43%
Desert View VC	35	36	36	34	-	36	36	34	36	43	326	33%
North Rim VC	24	24	18	18	-	18	18	24	34	24	192	20%
North Rim CG	-	-	10	-	-	10	10	-	10	-	40	4%
<b>All sites</b>	<b>119</b>	<b>104</b>	<b>109</b>	<b>94</b>	<b>-</b>	<b>107</b>	<b>103</b>	<b>103</b>	<b>113</b>	<b>122</b>	<b>974</b>	<b>100%</b>

Two weeks after field survey administration concluded, all survey participants were sent a color-picture postcard (Appendix 3) thanking them for participating in the study and/or reminding them to complete and return the questionnaire (Table 3). Approximately two weeks after mailing the postcards, a replacement mail-back survey packet was sent to individuals who agreed to participate in the study but had not yet returned their questionnaire (Appendix 4). Two distinct replacement mail-back survey packets were sent, depending on whether the provided address was a U.S. address or an international address. U.S. addresses were sent a packet that included a pre-addressed return envelope affixed with a U.S. first class postage stamp. International addresses were sent a packet that included a pre-addressed return envelope printed with international business reply mail postage.

**Table 3.** Follow-up mailing distribution

Mailing	Date	U.S.	International	Total
Postcard	August 8, 2017	702	272	974
Replacement Mailing	August 22, 2017	476	156	632

## Sampling Results<sup>1</sup>

During the sampling period, 1,351 visitor groups were contacted to participate in the survey. Of these groups, 974 agreed to participate in the study by accepting a mail-back survey packet (70% cooperation rate, Table 2). Questionnaires were completed and returned by 533 visitor groups (Table 4), resulting in a completion rate of 55% among those visitor groups that agreed to participate in the study and an overall response rate of 40% for the study.

**Table 4.** Number of completed questionnaires, by sampling location

Sampling site	N	Percent
South Rim VC	223	42%
Desert View VC	181	34%
North Rim VC	100	19%
North Rim CG	29	5%
<b>Total</b>	<b>533</b>	<b>100%</b>

## Data Entry and Cleaning

Data from returned questionnaires were entered into a database using Teleform, an optical recognition data coding software application. Each questionnaire was scanned and loaded into Teleform, which automatically coded responses and highlighted potential coding errors. Potential coding errors were reviewed and corrected by research staff. Corrected data were subjected to additional cleaning and proofing using Microsoft Excel and SPSS statistical software. Data cleaning and proofing included identification and correction of invalid values, and complete manual verification of data entry for a randomly selected subset (n=56) of the completed questionnaires for quality assurance.

## Non-Response Bias

Non-response bias is the bias that results when respondents differ in meaningful ways from non-respondents. Non-response bias affects the ability to generalize survey results, to some degree and in some ways, from the sample to the study's target population (Salant and Dillman, 1994; Dillman, 2014; Stoop, 2004; Filion, 1976; Dey, 1997). If non-respondents are found to differ from respondents in meaningful ways, care should be taken when interpreting survey responses, as they may over-represent some segments of the target population to some degree, and may under-represent other segments of the population to some degree.

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<sup>1</sup> Sampling results are reported using three metrics: cooperation rate, completion rate, and overall response rate. Cooperation rate is the proportion of onsite acceptances to total onsite contacts. Response rate is the proportion of completed survey questionnaires to total onsite contacts. Calculation of cooperation rate and response rate follow American Association for Public Opinion Research definitions. Completion rate is the proportion of completed survey questionnaires to onsite acceptances — completion rate is the metric in this study that is directly comparable to response rates reported in the Visitor Services Project (VSP) and is therefore included for reference. See Rookey et al. (2012) for a complete description of VSP response rate calculation.

To check for non-response bias and help inform the interpretation of results that may be affected by non-response bias, this study used answers to five, pre-selected non-response bias questions and one observable characteristic of the contacted visitor to compare respondents with non-respondents. After being contacted to participate in the survey, an interview, lasting approximately two minutes, was conducted with all contacted visitor groups regardless of whether or not they agreed to participate in the study. The interview included the following five questions used for evaluation of non-response bias:

1. How many adults, 18 years and older, are in your group?
2. How many children (under 18 years) are in your group?
3. What type of group are you with? Friends, family, friends and family, or some other type of group?
4. How long is this trip to Grand Canyon NP in total, from beginning to end?
5. What is your state of residence (if you live in the U.S.) or country of residence (if do not live in the U.S.)?

In addition to the five, pre-selected non-response bias questions, the gender of the person in the group who was first contacted by the survey administrator was observed and recorded.

An effort was made to obtain answers to the non-response bias questions from all visitor groups contacted, including those that declined to participate in the survey. Responses were obtained from most of the participating visitor groups and from many, but not all, of those that declined to participate in the study. When the survey administrator was unable to obtain responses to the non-response bias questions, it was because the approached contact refused all further contact from the administrator after the initial refusal, usually with no reason provided. These instances were defined as “hard refusals”.

Ideally, responses or observed estimates for non-response bias variables should be collected from all respondents and non-respondents. The collection of information from all contacted individuals provides the best comparison of characteristics between the respondent and non-respondent populations. More practically, a majority of responses or observed estimates must be present to adequately characterize both the respondent and non-respondent populations. In this study, 70% was identified as the minimum percentage of valid values for non-response variables needed for both respondent and non-respondent populations in order to adequately characterize the populations on a given non-response variable.<sup>2</sup> All non-response variables met the minimum for 70% valid values

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<sup>2</sup>The Office of Management and Budget Standards and Guidelines for Statistics Surveys (2006) suggest that any survey item with at least 70% non-missing data can be presumed to reflect the entire data set (i.e., for such items, any differences between the subjects with data and those without data are negligible).

among respondents and/or non-respondents (Table 5). Correspondingly, all variables were used for non-response bias analysis.

**Table 5.** Number and percentage of respondents and non-respondents with valid values for non-response variables

Variable	Respondents (n=533)		Non-Respondents (n=804)	
	Valid N	Valid Percent	Valid N	Valid Percent
Initial Contact Gender	533	100%	804	100%
Number of Adults	533	100%	738	92%
Number of Children	533	100%	738	92%
Group Type	533	100%	804	100%
Visit Length	531	100%	736	92%
State or Country Residence	533	100%	738	92%

Chi-square tests of independence were used to test for differences between respondents and non-respondents. Values for the number of adults in the visitor group were collapsed into the following four categories: groups with 1 adult, groups with 2 adults, groups with 3 or 4 adults, and groups with 5 or more adults. Values for the number of children in the visitor group were collapsed into three categories: no children, 1 child, and 2 or more children. Values for visit length were collapsed into four categories: 1 to 6 hours, 7 to 16 hours, and 24 hours or more. Responses for state or country of residence were collapsed into three categories: in state visitor, out of state visitor, and international visitor.

A Bonferroni correction was applied to account for the fact that six simultaneous statistical tests were conducted with the same data set. The Bonferroni correction minimizes the likelihood of concluding from the results of the statistical tests that there are differences between respondents and non-respondents, when there actually are no differences (i.e., minimizes the probability of making a Type I error). With the Bonferroni correction applied in this analysis, statistical test results with p-values of less than 0.008 are assumed to be statistically significant.

Results of the chi-square tests in Table 6 through Table 8 suggest that respondents and non-respondents did not differ significantly, with respect to number of children in their group ( $p = 0.316$ ), group type ( $p = 0.035$ ), and state or country of residence ( $p = 0.461$ ). These results provide no compelling evidence of non-response bias related to the number of children in visitor groups, the visitor group type, or the state or country of residence of visitor group members.

**Table 6.** Number of children comparison between respondents and non-respondents

Response	Respondents (n=533)		Non-Respondents (n=738)	
	N	%	N	%
No Children	269	50%	341	46%
1 Child	74	14%	108	15%
2 or more children	190	36%	289	39%
p-value (Chi-square) <sup>1</sup>	0.316			

<sup>1</sup>  $\alpha = 0.05$ ,  $p \leq 0.008$  indicates significant result following Bonferroni correction to account for multiple non-response bias statistical tests.

**Table 7.** Group type comparison between respondents and non-respondents

Response	Respondents (n=533)		Non-Respondents (n=804)	
	N	%	N	%
Alone	12	2%	23	3%
Family	433	84%	539	77%
Friends	44	8%	61	9%
Family and friends	29	6%	61	9%
p-value (Chi-square) <sup>1</sup>	0.035			

<sup>1</sup>  $\alpha = 0.05$ ,  $p \leq 0.008$  indicates significant result following Bonferroni correction to account for multiple non-response bias statistical tests.

**Table 8.** State or country of residence comparison between respondents and non-respondents

Response	Respondents (n=533)		Non-Respondents (n=738)	
	N	%	N	%
In State Visitor	54	10%	87	12%
Out of State Visitor	317	59%	446	60%
International Visitor	162	30%	205	28%
p-value (Chi-square) <sup>1</sup>	0.461			

<sup>1</sup>  $\alpha = 0.05$ ,  $p \leq 0.008$  indicates significant result following Bonferroni correction to account for multiple non-response bias statistical tests.

The results of the chi-square tests in Table 9 through Table 11 suggest respondents and non-respondents differed significantly with respect to initial contact gender ( $p = 0.001$ ), number of adults in the visitor group ( $p < 0.001$ ), and visit length ( $p < 0.001$ ); thus, there is evidence of potential non-response bias related to the initial contact gender, number of adults in the visitor group, and visit length within the survey's sample. Specifically, females were more likely to respond to the survey than males, groups with two adults were more likely to respond to the survey than groups with one or three or more adults, and visitor groups with visit lengths of 48 hours or greater were more likely to respond to the survey than visitor groups with visit lengths of 1-4 hours.

The potential impact of non-response bias, with respect to initial contact gender, number of adults in the visitor group, and visit length on the results of the survey were further explored (Appendix 6). In particular, statistical tests of initial contact gender, number of adults in the visitor group, and visit length effects on key questions in the SEM survey instrument were performed. No statistically significant effects of initial contact gender on survey responses were observed for the 68 questions that were assessed ( $\alpha = 0.05$ ,  $p \leq 0.0007$  indicates significant result following Bonferroni adjustment). Statistically significant effects of number of adults in the visitor group were observed for three of the 68 questions that were assessed ( $\alpha = 0.05$ ,  $p \leq 0.0007$  indicates significant result following Bonferroni adjustment). Statistically significant effects of visit length were observed for six of the 68 questions assessed ( $\alpha = 0.05$ ,  $p \leq 0.0007$  indicates significant result following Bonferroni adjustment). Where statistical differences were found between respondent subgroups, results by subgroup are reported in Appendix 6.

**Table 9.** Initial contact gender comparison between respondents and non-respondents

Response	Respondents (n=533)		Non-Respondents (n=804)	
	N	Percent	N	Percent
Male	241	45%	432	55%
Female	291	55%	357	45%
p-value (Chi-square) <sup>1</sup>			0.001	

<sup>1</sup>  $\alpha = 0.05$ ,  $p \leq 0.008$  indicates significant result following Bonferroni correction to account for multiple non-response bias statistical tests.

**Table 10.** Number of adult group members comparison between respondents and non-respondents

Response	Respondents (n=533)		Non-Respondents (n=738)	
	N	%	N	%
1 Adult	31	6%	60	8%
2 Adults	347	65%	388	53%
3 or 4 Adults	117	22%	191	26%
5 or more Adults	38	7%	99	13%
p-value (Chi-square) <sup>1</sup>			< 0.001	

<sup>1</sup>  $\alpha = 0.05$ ,  $p \leq 0.008$  indicates significant result following Bonferroni correction to account for multiple non-response bias statistical tests.

**Table 11.** Visit length comparison between respondents and non-respondents

Response	Respondents (n=531)		Non-Respondents (n=736)	
	N	%	N	%
1 to 4 hours	90	17%	225	31%
5 to 24 hours	155	29%	217	29%
48 to 72 hours	241	45%	253	34%
96 hours or more	45	8%	41	6%
p-value (Chi-square) <sup>1</sup>	< 0.001			

<sup>1</sup>  $\alpha = 0.05$ ,  $p \leq 0.008$  indicates significant result following Bonferroni correction to account for multiple non-response bias statistical tests.

In summary, no significant differences were found between respondents and non-respondents, with respect to number of children in the visitor group, group type, or state or country of residence. Non-response bias analysis results suggest that, for a small number of questions in the survey, the survey results may over-represent opinions, evaluations, and behaviors from female respondents, visitor groups with two adults, and visitor groups with visit lengths of greater than 48 hours. Effects of initial contact gender, number adults in the visitor group, and visit length on results for key questions in the SEM survey instrument were analyzed further, and the results of this analysis are reported in Appendix 6.

### Data Analysis

SPSS statistical software was used for data analysis. For all questions where pre-defined response options were provided, frequencies are reported. For all questions with open-ended response options, verbatim visitor comments are reported in the stand-alone *Visitor Comments Appendix*. For the majority of questions with open-ended response options, thematic codes were applied to the responses to categorize the data. The categorized data are reported in tabular format providing the frequency of occurrence for each theme. In cases where the number of open-ended responses is low, the data are reported in summary bullets rather than in tabular format of categorical results. Descriptive statistics for those variables for which measures of central tendency can be computed are presented in Appendix 1.

### Limitations

This study has limitations that should be considered when interpreting the results.

1. The survey was self-administered. Respondents completed the questionnaire after an unknown amount of time after the visit, which may have affected recall to some degree. To the extent respondents' recall was affected, it is possible some of their responses may not fully reflect actual behavior.
2. The data reflect visitor use patterns as collected during the study period of July 15 through 24, 2016. The results present a 'snapshot-in-time' and do not necessarily apply to visitor groups 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 phrase **“CAUTION: Number of respondents less than 30 visitor groups”** is included in the graph, figure, table, or text.
4. Sample size may vary for some questions, due to item non-response (i.e., one or more question left blank by a respondent). Therefore, refer to both the percentage and sample values when interpreting the results.
5. Results of statistical tests comparing respondents to non-respondents (i.e., non-response bias analysis) suggest that, for some questions, the survey results may over-represent opinions, evaluations, or behaviors from female respondents, visitor groups with two adults, and visitor groups with visit lengths of greater than 48 hours. Effects of initial contact gender, number of adults in the visitor group, and visit length on a select set of key questions from the survey were analyzed, and the results of this analysis are reported in Appendix 6.

### **Special Conditions**

The weather during the survey period was generally hot, dry, and sunny with some periods of overcast skies, rain, and storms at the North Rim and Desert View sampling locations on July 18, 20, and 22, 2017. Temperatures were consistently in the high-80s to mid-90s.

There was an active wildfire on the North Rim of the canyon throughout the sampling period, but fire activity did not impact survey administration at the North Rim Visitor Center.



# Results

## Group and Visitor Characteristics

### Visitor group size

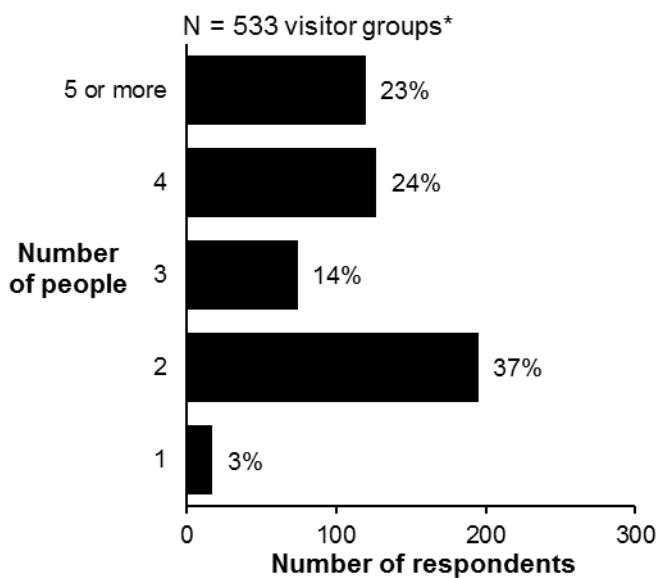
#### Question 1

Including yourself, how many people were in your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey?

Results (Figure 2)

- 37% of visitor groups consisted of two members.
- 24% of visitor groups consisted of four members.
- 23% of visitor groups consisted of five or more members.

See Appendix 1 for more details.



**Figure 2.** Visitor group size

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Number of adults within group***

#### **Question 1**

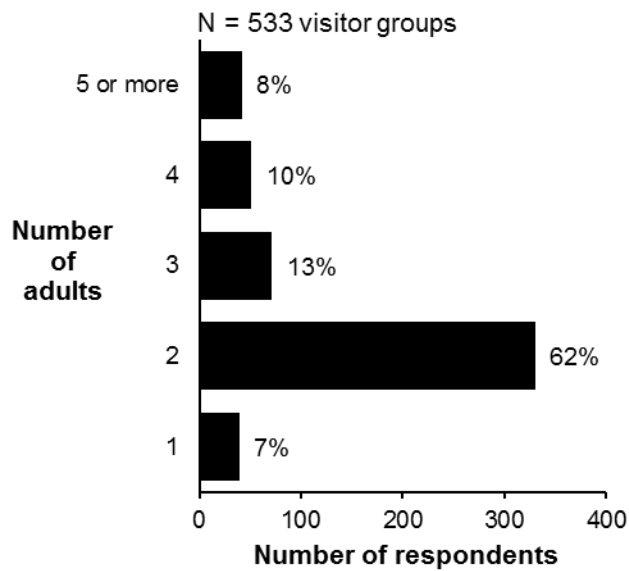
Including yourself, how many people were in your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey?

Number of adults (18 years and older).

Results (Figure 3)

- 62% of visitor groups contained two adults.
- 31% of visitor groups contained three or more adults.

See Appendix 1 for more details.



**Figure 3.** Number of adults within group

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Number of children within group***

#### **Question 1**

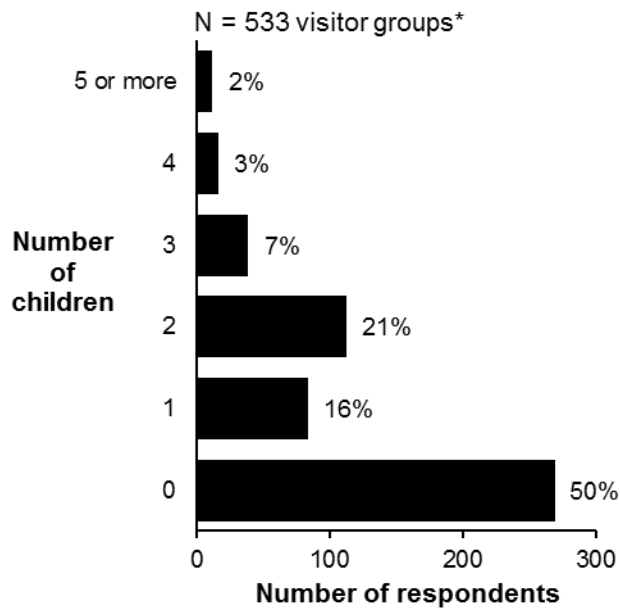
Including yourself, how many people were in your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey?

Number of children (under 18 years).

Results (Figure 4)

- 50% of visitor groups did not have children.
- Of those visitor groups that had children, 16% of visitor groups consisted of only one child.
- 21% of groups with children contained two children.

See Appendix 1 for more details.



**Figure 4.** Number of children within group

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## Visitor group type

### Question 2

What type of group were you with during your visit to Grand Canyon NP on the day you were contacted for this survey?

Results (Figure 5)

- 76% of visitor groups were made up of family.
- Of those groups who responded with “Other” (5%), group types included:
  - “Couple”
  - “Youth group”

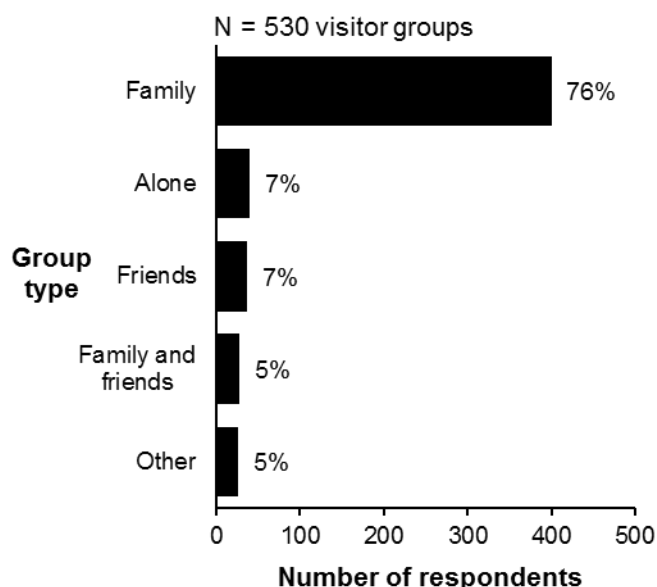


Figure 5. Visitor group type

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Visitor age**

#### Question 34

For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide your current age.

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

#### Results (Figure 6)

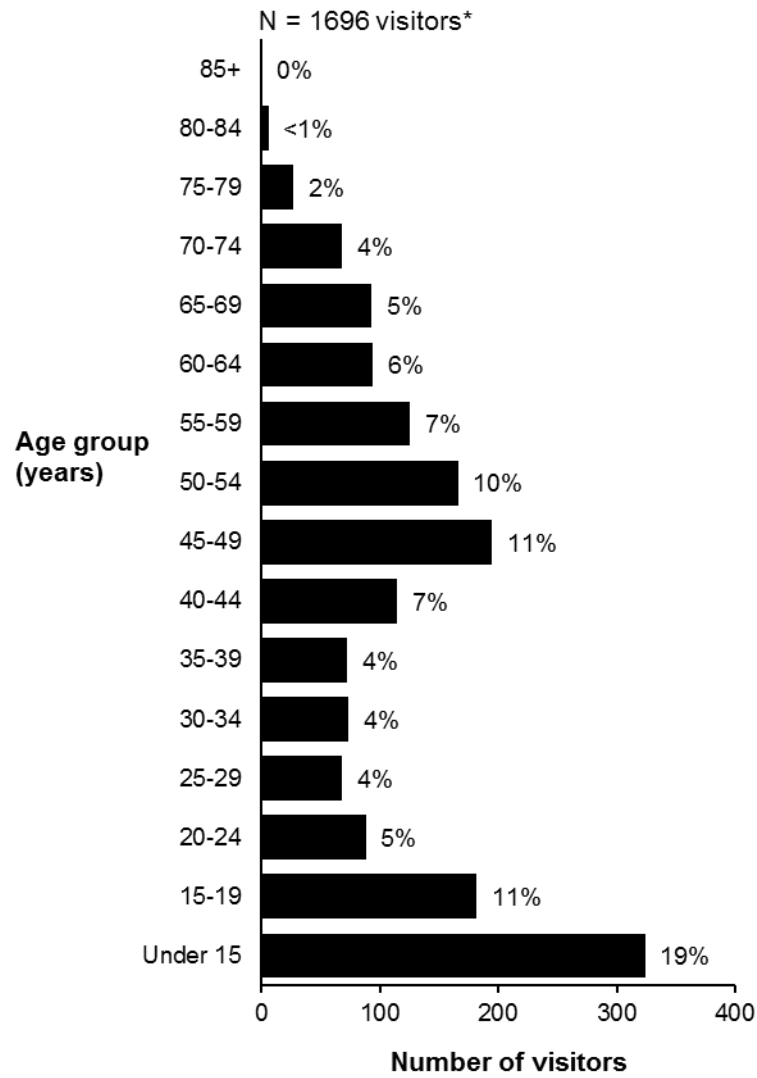
- Visitor ages range from less than 1 year old to 83 years old.
- Less than 12% of visitors were 65 years or older.
- 13% of visitors were 55 to 64 years old.
- 32% of visitors were 35 to 54 years old.
- 23% of visitors were 18 to 34 years old.
- 20% of visitors were under 18 years old.

See Appendix 1 for more details.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

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**Figure 6.** Visitor age

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Visitor gender**

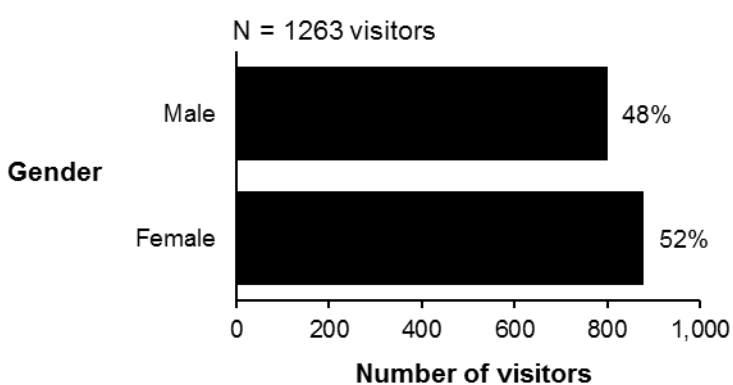
#### **Question 35**

For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide your gender.

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

Results (Figure 7)

- 52% of visitors were female.
- 48% of visitors were male.



**Figure 7.** Visitor gender

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Visitor ethnicity**

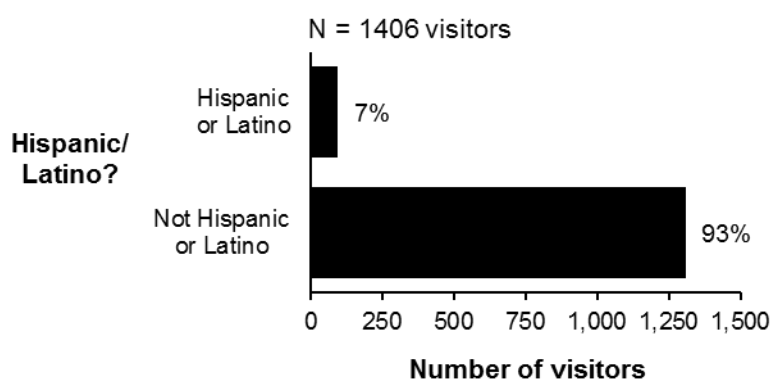
#### **Question 35**

For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide your ethnicity.

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

Results (Figure 8)

- 7% of visitor groups were Hispanic or Latino.



**Figure 8.** Visitor ethnicity

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



### Visitor race

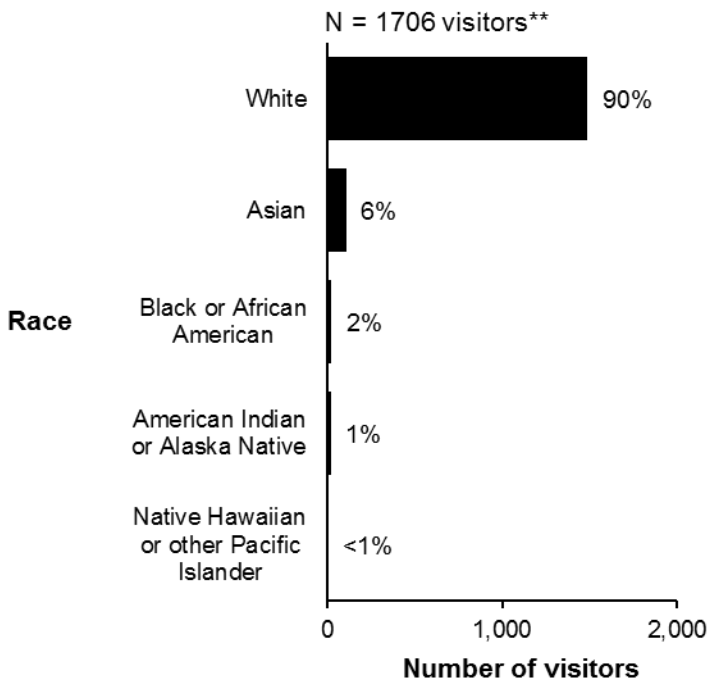
#### Question 36

For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide your race.

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

Results (Figure 9)

- 90% of visitors were white.
- 6% of visitors were Asian.
- Very few visitors were Black or African American (2%), American Indian or Alaska Native (1%), or Native Hawaiian or other Pacific Islander (<1%).



**Figure 9.** Visitor race

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

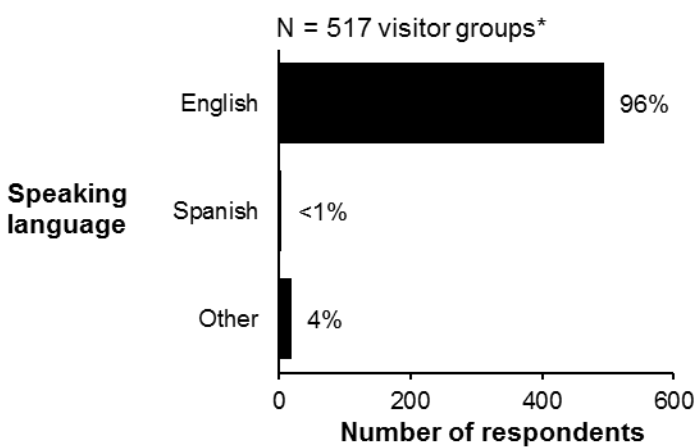
### **Visitor speaking language**

#### **Question 40**

When visiting an area such as Grand Canyon NP, what language do you personally prefer to use for speaking?

Results (Figure 10)

- 96% of visitor groups reported English as their preferred language for speaking.
- Of those who responded “Other” (4%), languages specified included:
  - German
  - French
  - Dutch



**Figure 10.** Preferred speaking language

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

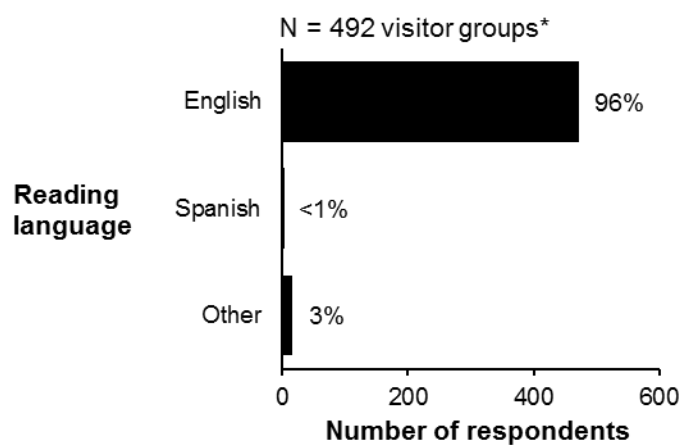
### **Visitor reading language**

#### **Question 40**

When visiting an area such as Grand Canyon NP, what language do you personally prefer to use for reading?

Results (Figure 11)

- 96% of visitor groups reported English as their preferred language for reading.
- Of those who responded “Other” (3%), languages specified included:
  - German
  - French
  - Dutch



**Figure 11.** Preferred reading language

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***U.S. visitors' state of residence***

#### Question 34

For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide your U.S. ZIP code.

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

Results (Table 12 and Figure 12)

- 13% of visitors came from California.
- 13% of visitors came from Arizona.
- 10% of visitors came from Texas.

**Table 12.** United States visitors by state of residence

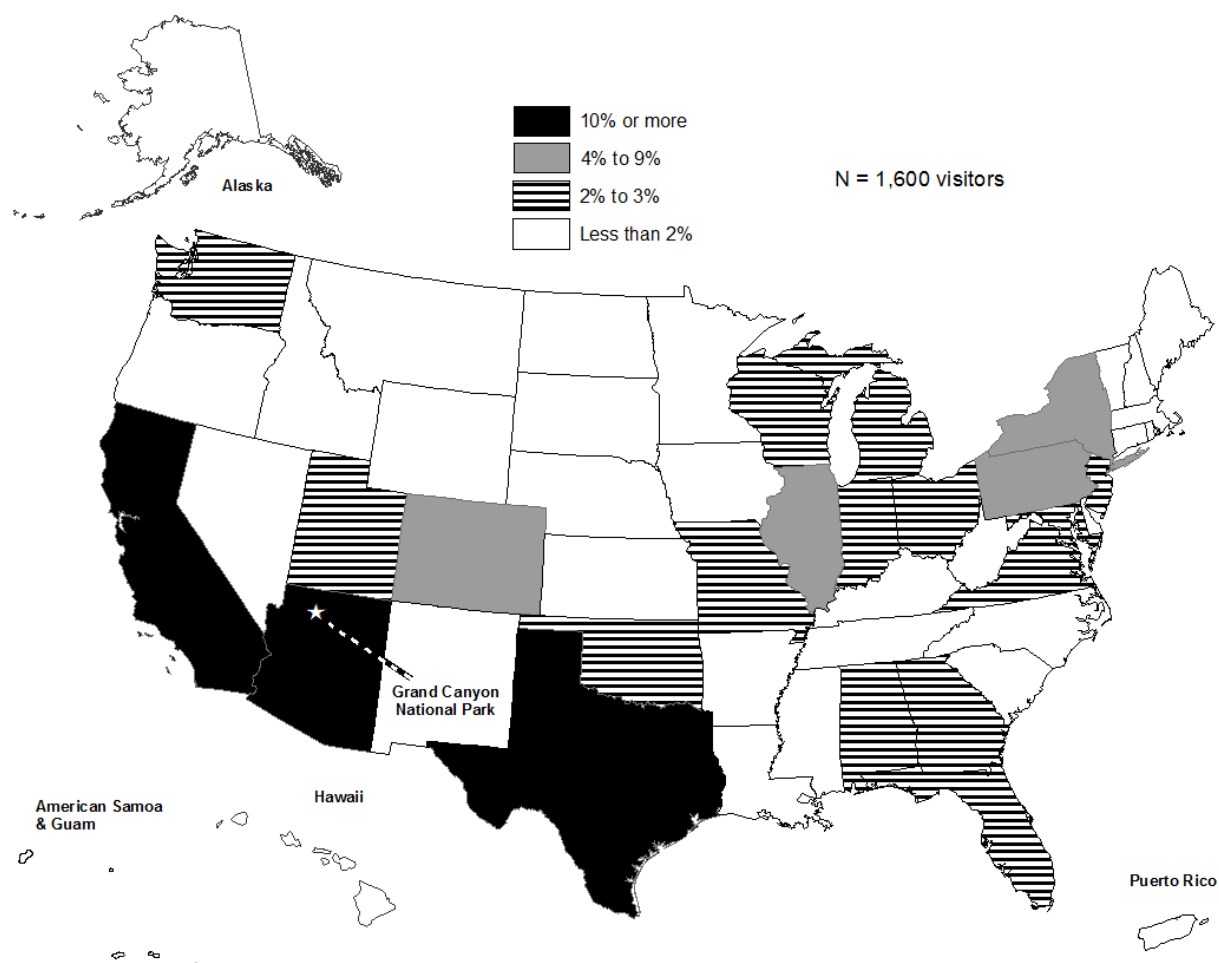
State	Number of visitors	Percent of U.S. visitors N = 1,109 visitors*	Percent of all visitors N = 1,600 visitors
California	149	13%	9%
Arizona	141	13%	9%
Texas	110	10%	7%
New York	59	5%	4%
Illinois	58	5%	4%
Colorado	45	4%	3%
Pennsylvania	40	4%	3%
Ohio	38	3%	2%
Washington	31	3%	2%
Florida	29	3%	2%
New Jersey	29	3%	2%
Maryland	28	3%	2%
Utah	25	2%	2%
Georgia	22	2%	1%
Missouri	21	2%	1%
Indiana	20	2%	1%
Michigan	20	2%	1%
Alabama	19	2%	1%
Oklahoma	19	2%	1%
Wisconsin	19	2%	1%
Virginia	18	2%	1%
Louisiana	16	1%	1%
Arkansas	15	1%	<1%
Nevada	15	1%	<1%
Kentucky	13	1%	<1%

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

**Table 12 (continued).** United States visitors by state of residence

State	Number of visitors	Percent of U.S. visitors N = 1,109 visitors*	Percent of all visitors N = 1,600 visitors
Nebraska	13	1%	<1%
Oregon	13	1%	<1%
Tennessee	13	1%	<1%
Iowa	12	1%	<1%
Massachusetts	11	<1%	<1%
12 Other States	48	4%	3%



**Figure 12.** Proportion of U.S. 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 1 answer

### ***International visitors' country of residence***

#### **Question 34**

For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide your country of residence, if other than U.S.

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

#### **Results (Table 13)**

- 15% of visitors came from the Netherlands.
- 13% of visitors came from France.
- 13% of visitors came from Germany

**Table 13.** International visitors by country of residence

<b>Country</b>	<b>Number of visitors</b>	<b>Percent of international visitors N = 491 visitors*</b>	<b>Percent of all visitors N = 1,600 visitors</b>
The Netherlands	75	15%	4%
France	65	13%	4%
Germany	62	13%	3%
Belgium	54	11%	3%
Canada	37	8%	2%
United Kingdom	36	7%	2%
Switzerland	32	7%	2%
Sweden	28	6%	1%
Austria	11	2%	<1%
Norway	10	2%	<1%
18 other countries	71	14%	4%

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Live in nearby area***

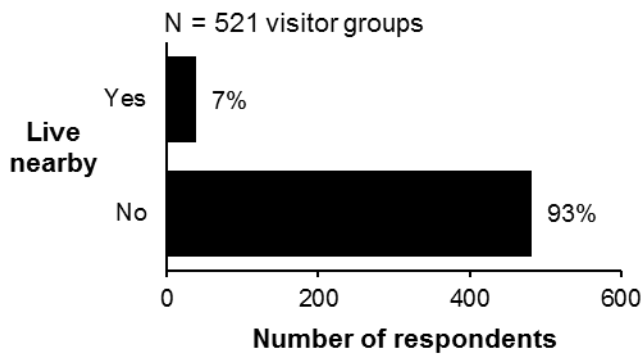
#### **Question 26**

Do you live within the nearby area (within the shaded area shown on the map)?

See Figure 14 on the next page or Appendix 2 for map.

Results (Figure 13)

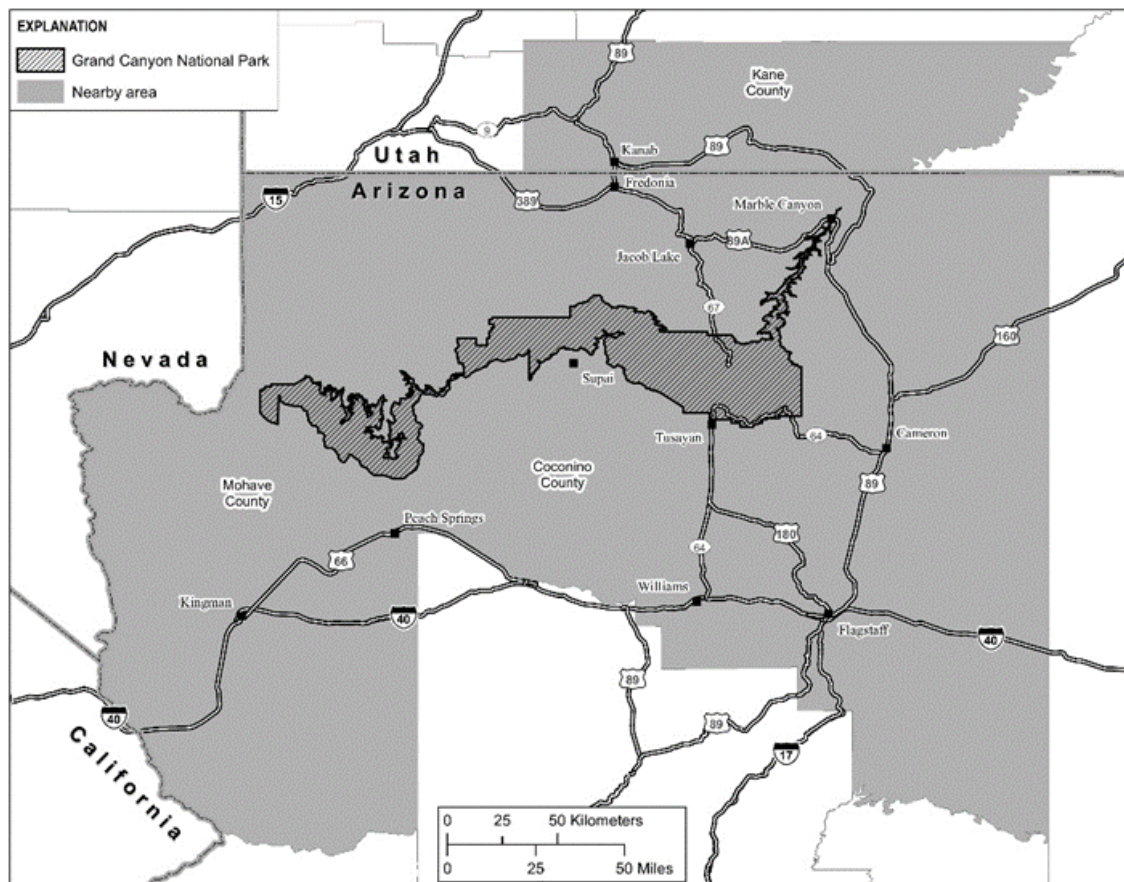
- 93% of visitor groups did not live within the shaded area on the map (i.e., nearby area).
- 7% of visitor groups live in the shaded area (i.e., nearby area).



**Figure 13.** Visitors who live in nearby area

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



**Figure 14.** Map of Grand Canyon NP and nearby area

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



### Visitor level of education

#### Question 37

For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, what is the highest level of formal education completed by each member of your group?

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

Results (Figure 15)

- 27% of visitors' highest level of formal education completed was a master's, doctoral, or professional degree.
- 20% of visitors' highest level of formal education completed was college, business, or trade school.

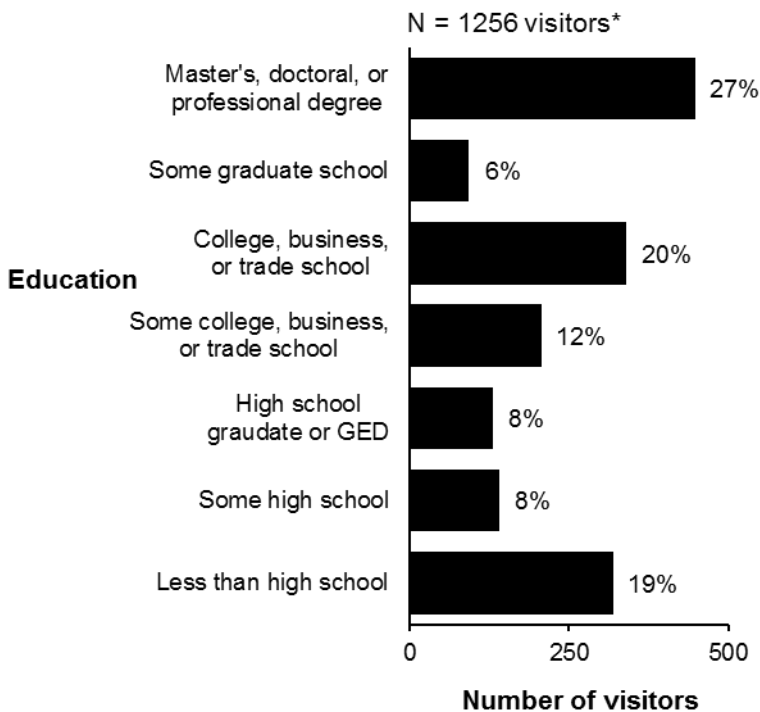


Figure 15. Visitor level of education

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## Household income

### Question 38

Which category best represents your annual household income?

Results (Figure 16)

- 21% of visitor groups had an annual income between \$100,000 and \$149,000.
- 20% of visitor groups had an annual income between \$50,000 and \$74,999.
- 17% of visitor groups had an annual income between \$75,000 and \$99,999.

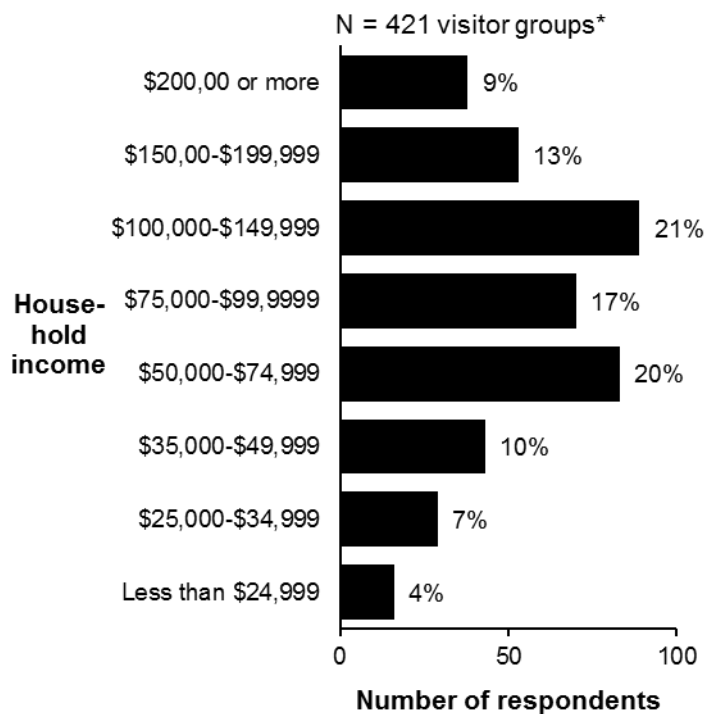


Figure 16. Annual household income

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## **Household size**

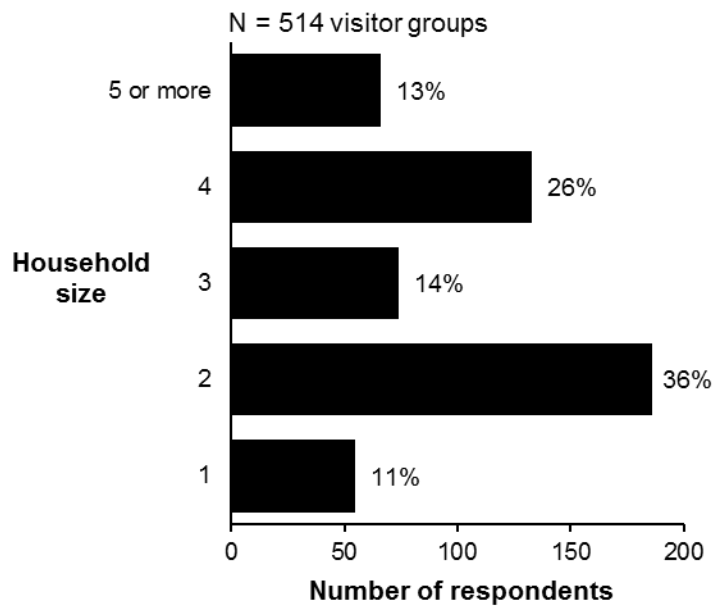
### **Question 39**

Including yourself, how many people are in your household?

Results (Figure 17)

- 36% of visitor groups had a household of two people.
- 26% of visitor groups had a household of four people.
- The average household size was three people.

See Appendix 1 for more details.



**Figure 17.** Size of household

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Frequency of visits to park***

#### **Question 34**

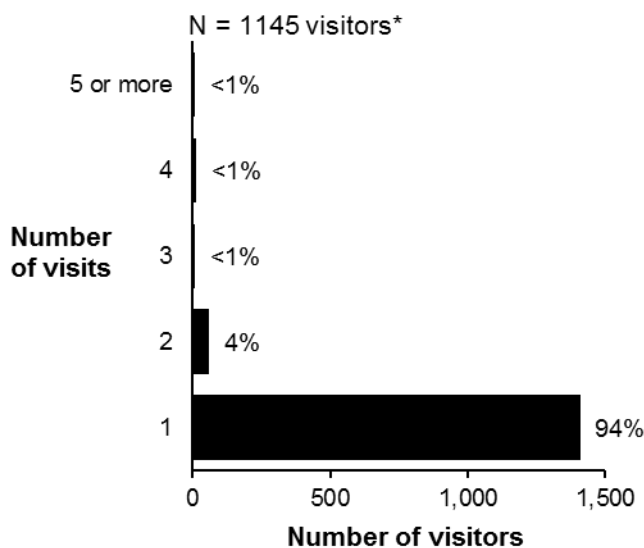
For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide the number of visits to Grand Canyon NP in the last 12 months, including this trip.

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

Results (Figure 18).

- 94% of visitors visited the park only once in the last 12 months.
- Less than 7% of visitors visited the park 2 or more times in the last 12 months.

See Appendix 1 for more details.



**Figure 18.** Park visits in last 12 months

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Frequency of visits to other National Park Service sites***

#### **Question 34**

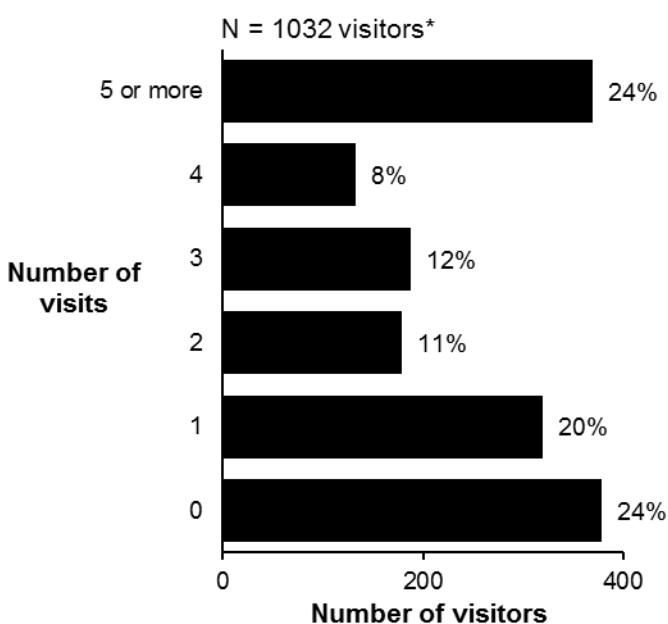
For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide the number of visits to other NPS sites in the last 12 months.

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

Results (Figure 19)

- 24% of visitors visited other NPS sites five or more times in the last 12 months.
- 24% of visitors did not visit any other NPS sites in the last 12 months.

See Appendix 1 for more details.



**Figure 19.** Other NPS site visits in last 12 months

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## Pre-Trip Planning and Experience

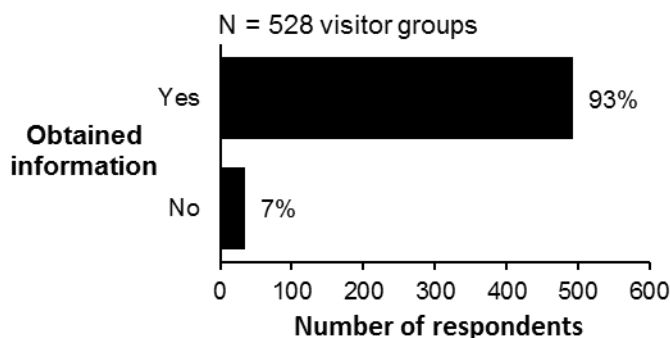
### *Information sources prior to visit*

#### Question 8

Prior to this trip, how did you obtain information about Grand Canyon NP?

Results (Figure 20 and Figure 21)

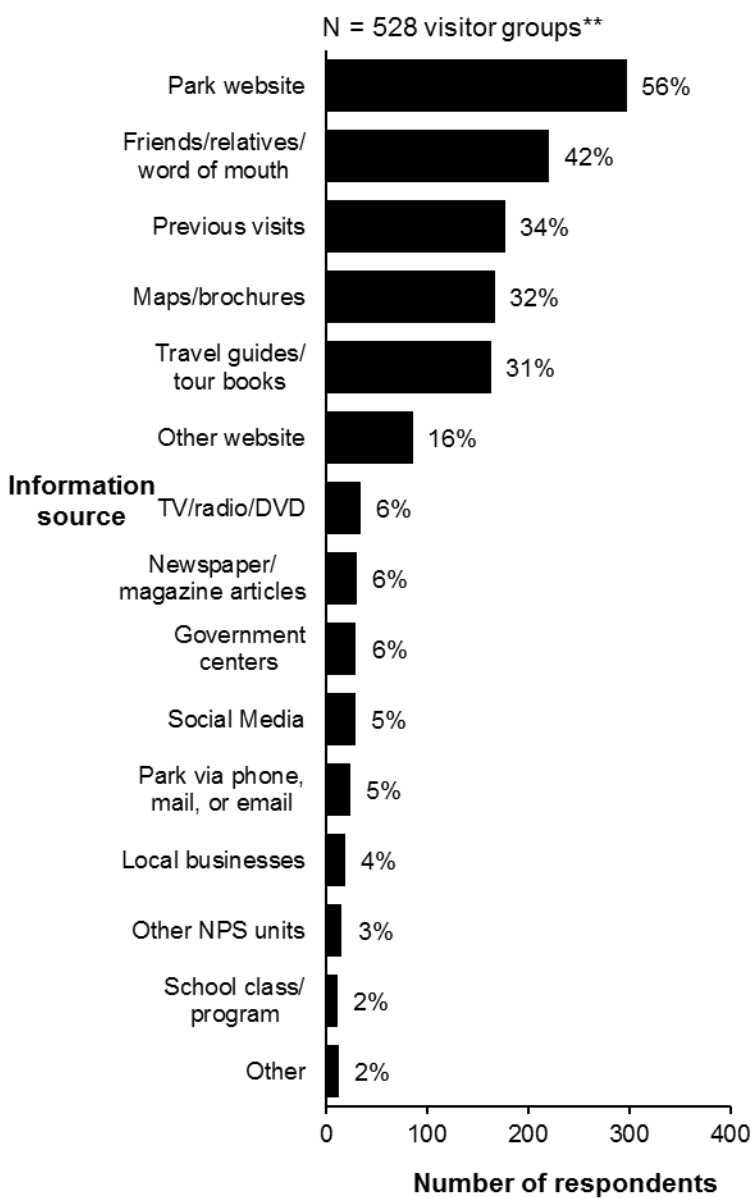
- 93% of visitor groups obtained information about Grand Canyon NP prior to their visit.
- As shown in Figure 20 , among those visitor groups who obtained information about Grand Canyon NP prior to their visit, the most common information sources were:
  - 56% Park website
  - 42% Friends/relatives/word of mouth
  - 34% Previous visits
- “Other websites” used by visitor groups (16%) included:
  - “Trip Advisor”
  - “Google”
  - “Travel Blogs”
- “Other information sources” used by visitor groups (2%) included:
  - “App”
  - “Tour”
  - “Rangers”



**Figure 20.** Visitor groups that obtained information about the park prior to visit

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



**Figure 21.** Information sources used prior to trip

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

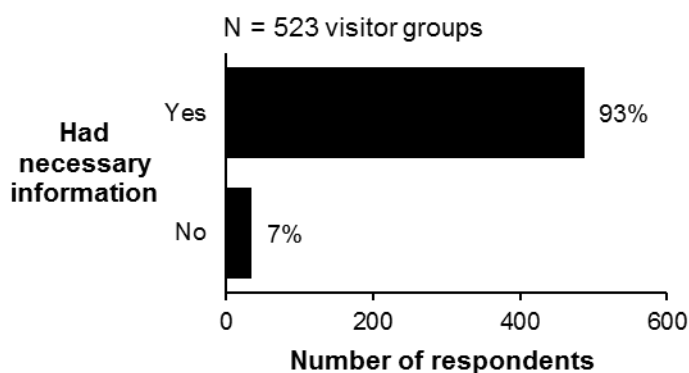
## Information needed

### Question 9

Did you have the information about Grand Canyon NP you needed on this trip?

Results (Figure 22)

- 93% of visitor groups had the information they needed prior to their visit.



**Figure 22.** Had information needed on this trip

### Question 9

If NO, please specify the information you needed but didn't have on this trip (open-ended).

Results (Table 14)

- Of those who did not have information they needed, "attractions" was most frequently mentioned (mentioned 6 times)
- "Fire closures" was second most frequent (mentioned 4 times)

**Table 14.** Information needed

N = 40 comments	
Some visitor groups may have made more than one comment.	
Information	Frequency of times mentioned
Attractions	6
Fire closures	4
Park map	3
Parking	3
Wayfinding information	2
Other comments	22

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



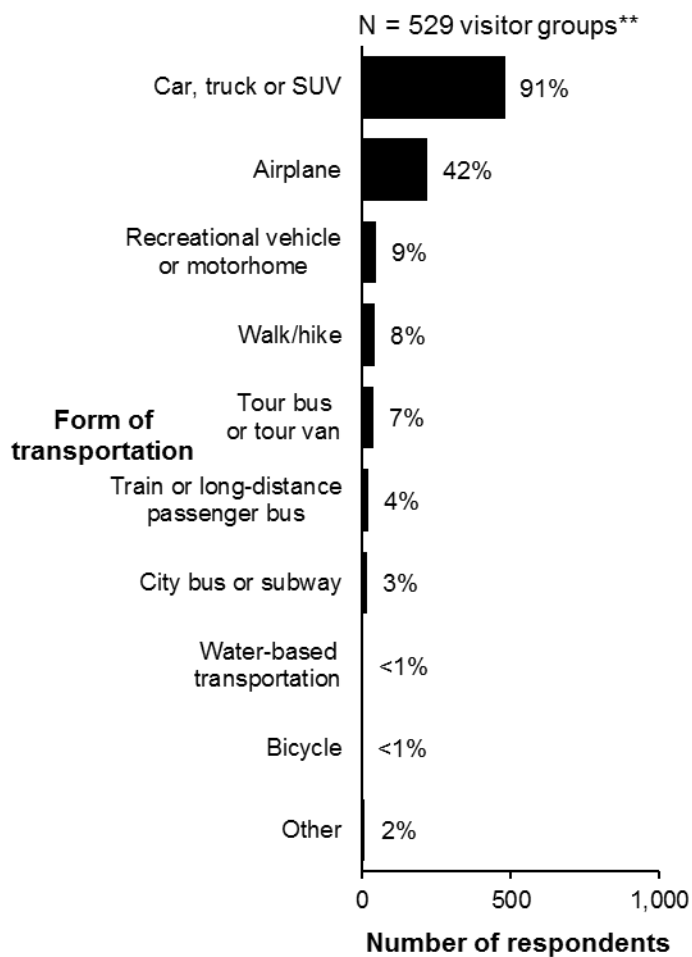
## Forms of transportation

### Question 3

Please indicate all of the forms of transportation you personally used to travel from your home to Grand Canyon NP on this trip.

Results (Figure 23)

- 91% of visitor groups used a car, truck, or SUV.
- Of those who responded “Other” (2%), forms of transportation included:
  - “Shuttle”
  - “Motorcycle”



**Figure 23.** Transportation used to travel to park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Number of people in vehicle***

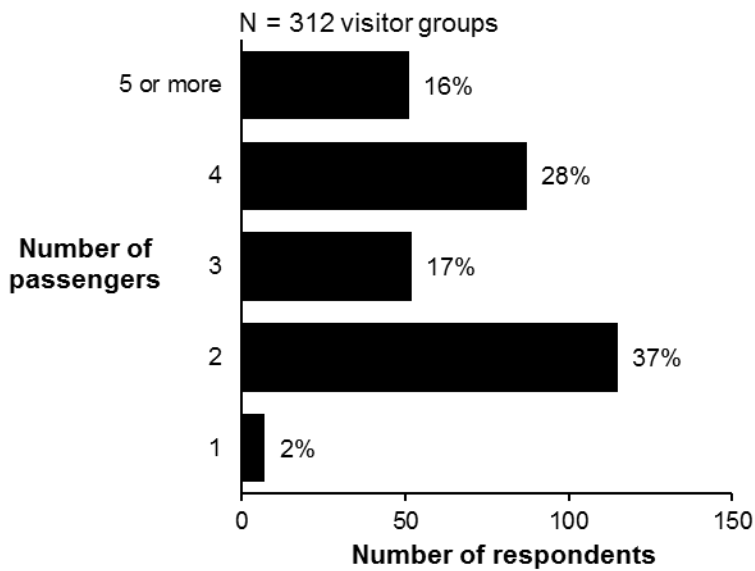
#### **Question 3**

Please indicate the number of people in the car, truck, or SUV, including you.

Results (Figure 24)

- 37% of visitor groups traveled to the park in a vehicle with two people.
- 28% of visitor groups traveled to the park in a vehicle with four people
- 17% of visitor groups traveled to the park in a vehicle with three people.

See Appendix 1 for more details.



**Figure 24.** Number of passengers in car, truck, or SUV

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

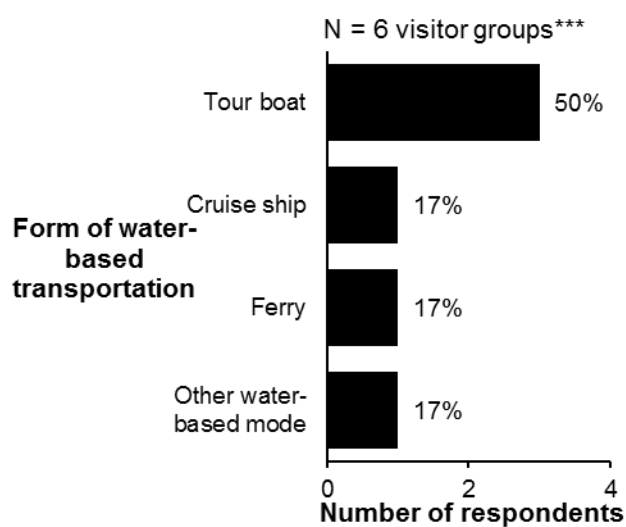
### **Water-based transportation**

#### **Question 3**

Please indicate all of the forms of water-based transportation you personally used to travel from your home to Grand Canyon NP on this trip.

Results (Figure 25)

- 50% of visitor groups who used water based transportation to travel from their home to the park traveled on a tour boat.



\*CAUTION: Number of respondents less than 30 visitor groups.

**Figure 25.** Water-based transportation used to travel to park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Hours traveled to park**

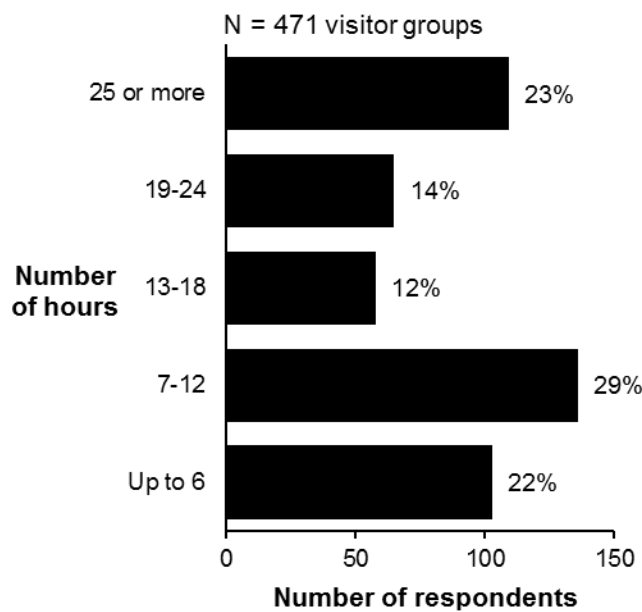
#### **Question 4**

Approximately how many hours from home did you travel one-way to get to Grand Canyon NP on this trip?

Results (Figure 26)

- 29% of visitor groups traveled 7 to 12 hours one-way to get to Grand Canyon NP.
- 23% of visitor groups traveled 25 or more hours one-way to get to Grand Canyon NP.

See Appendix 1 for more details.



**Figure 26.** Hours traveled one-way to park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Miles traveled to park***

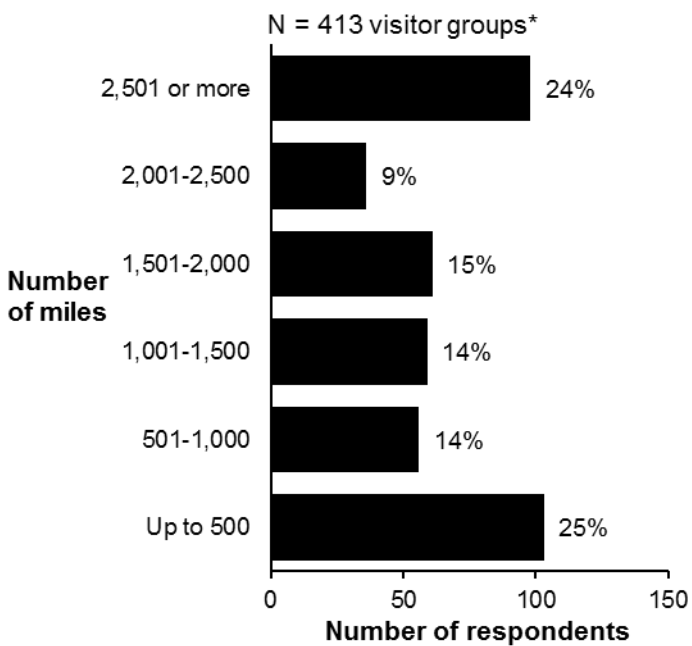
#### **Question 4**

Approximately how many miles from home did you travel one-way to get to Grand Canyon NP on this trip?

Results (Figure 27)

- 25% of visitor groups traveled up to 500 miles one-way to get to Grand Canyon NP.
- 24% of visitor groups traveled 2,501 miles or more one-way to get to Grand Canyon NP.

See Appendix 1 for more details.



**Figure 27.** Miles traveled one-way to park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

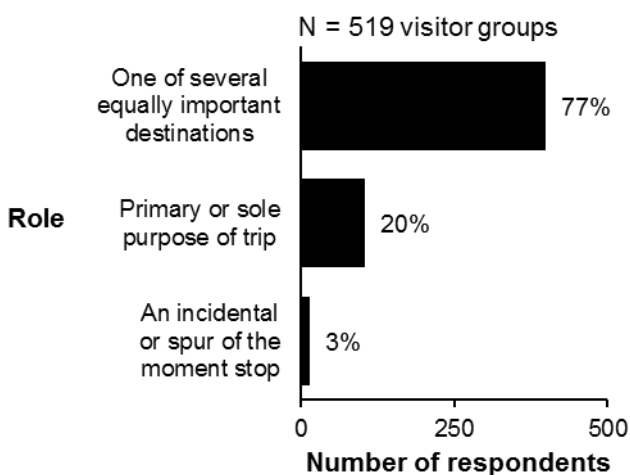
### ***Role of park visit in trip away from home***

#### **Question 28**

Was this trip to Grand Canyon NP your primary or sole purpose for your trip away from home, one of several equally important destinations on your trip away from home, or just an incidental or spur of the moment stop on your trip away from home?

Results (Figure 28)

- 77% of visitor groups reported that their visit to the park was one of several equally important destinations.
- 20% of visitor groups reported that their visit to the park was the primary or sole purpose their trip.



**Figure 28.** Role of park visit in trip away from home

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

***Role of park visit in trip away from home, if not primary or sole purpose for trip***

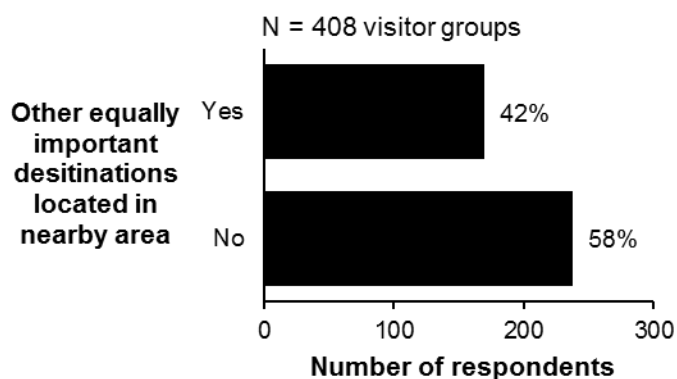
**Question 28**

If this was one of several equally important destinations on your trip away from home, was one or more of the other equally important destinations located within the nearby area (within the shaded area of the map on p.12)?

See Figure 14 or Appendix 2 for map.

Results (Figure 29)

- For those visitor groups that reported visiting Grand Canyon NP as one of several equally important destinations, 42% reported that one or more equally important destinations were within the nearby area.



**Figure 29.** Location of other equally important destinations

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

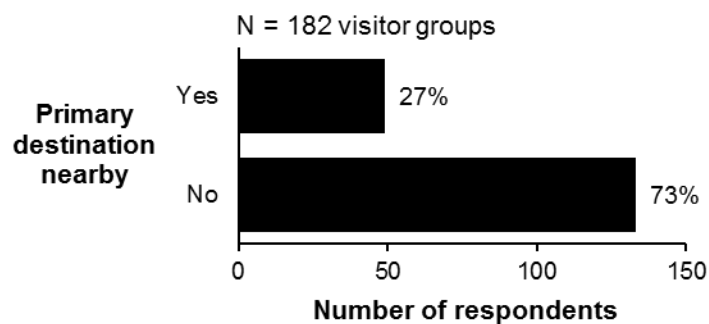
## Question 28

If this was just an incidental or spur of the moment stop on your trip away from home, was your primary destination located within the nearby area (within the shaded area of the map on p.12)?

See Figure 14 or Appendix 2 for map.

Results (Figure 30)

- For those visitor groups that reported visiting Grand Canyon NP as just an incidental stop, 73% reported that their primary destination was not within the shaded area of the map.



**Figure 30.** Location of primary destination if spur of the moment trip

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



### ***Reasons for visiting the park on this trip***

#### Question 10

How important to you was each of the following reasons for visiting Grand Canyon NP on this trip?

Rating choices:

- 1 = Extremely important
- 2 = Very important
- 3 = Moderately important
- 4 = Slightly important
- 5 = Not at all important

Results (Figure 31)

- Figure 31 shows the combined proportions of “extremely important” and “very important” ratings for reasons for visiting the park.
- The reasons that received the highest combined proportions of “extremely important” and “very important” ratings were:
  - 91% View wildlife or natural scenery
  - 85% Spend time with friends/family
  - 73% Be outdoors
- The reasons that received the lowest combined proportions of “extremely important” and “very important” ratings were:
  - 28% View dark night sky/stars
  - 24% Experience solitude
  - 4% Attend a special event
    - Of those who rated “Attend a special event” (N = 463), events specified included:
      - “Ranger talk”
      - “Mule ride”
- Of those who rated “Other” (N = 126), reasons specified included:
  - “See the Grand Canyon”
  - “Bucket list”

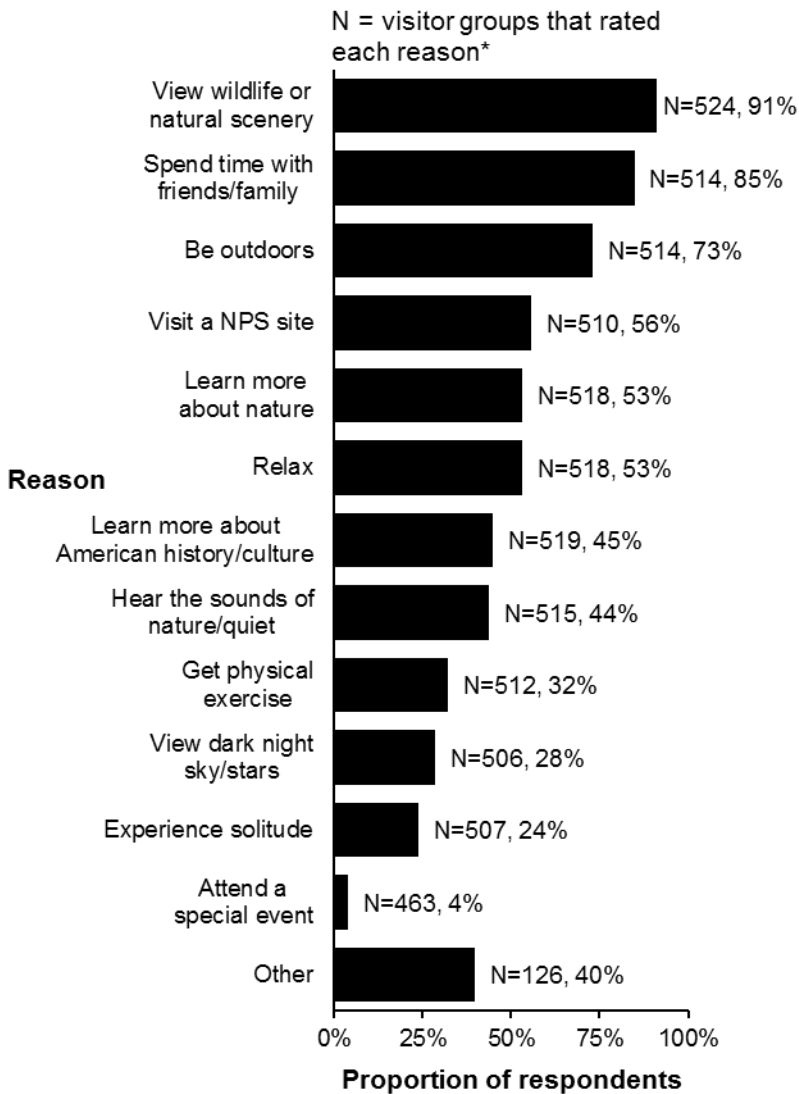
See Appendix 1 for more details.

Figure 32 through Figure 43 show ratings for each reason.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

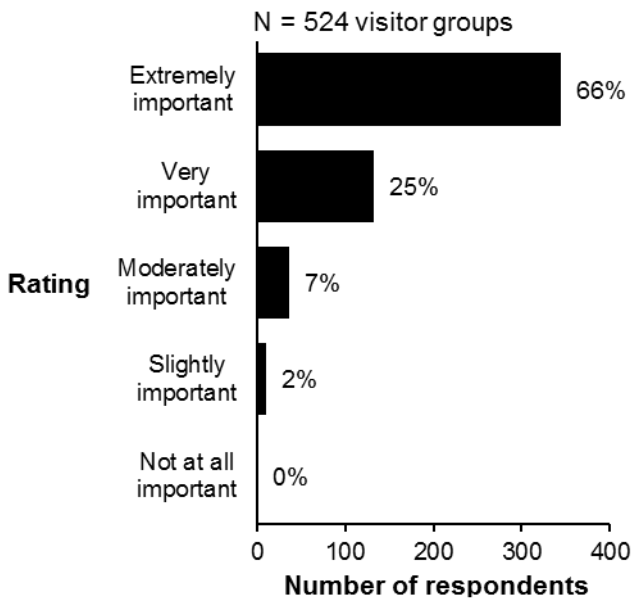
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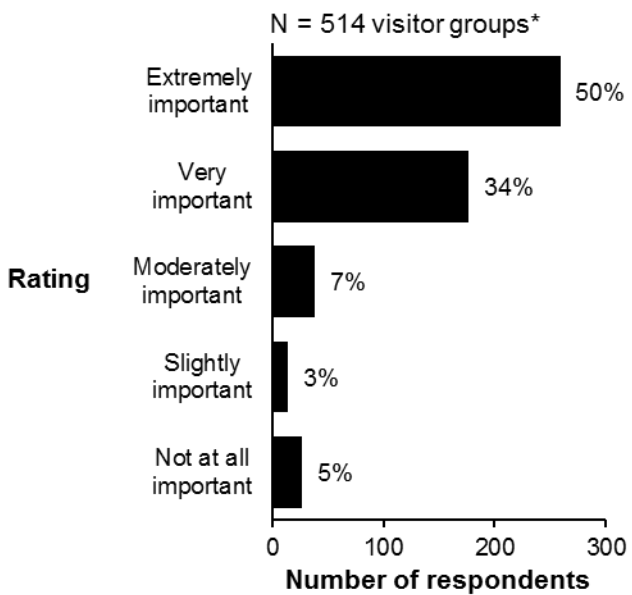
**Figure 31.** Reasons for visiting the park on this trip

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



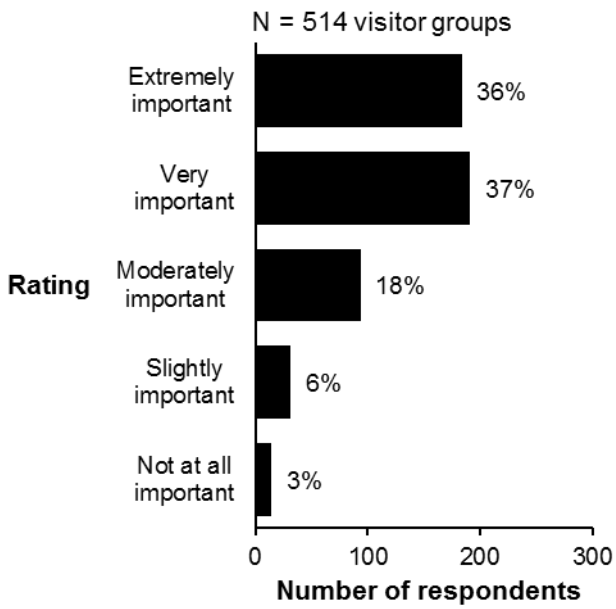
**Figure 32.** Importance of viewing wildlife or natural scenery



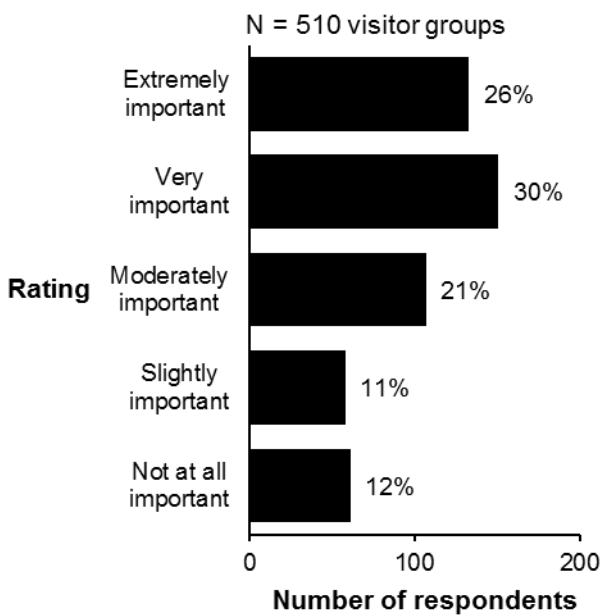
**Figure 33.** Importance of spending time with friends/family

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



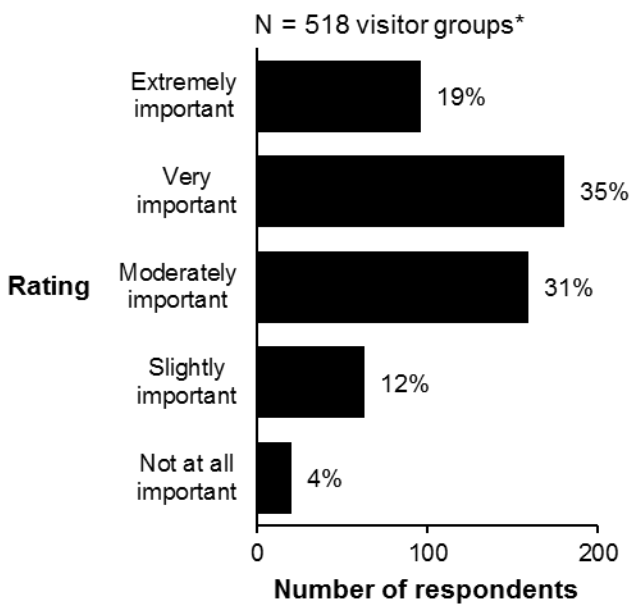
**Figure 34.** Importance of being outdoors



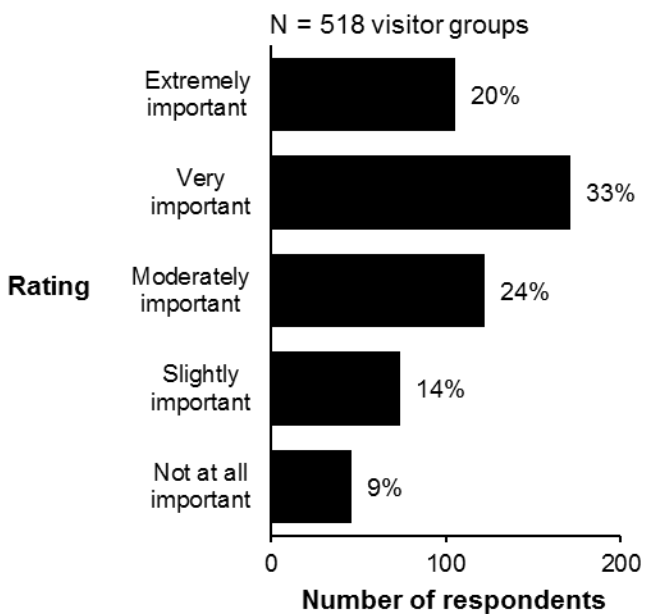
**Figure 35.** Importance of visiting an NPS site

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



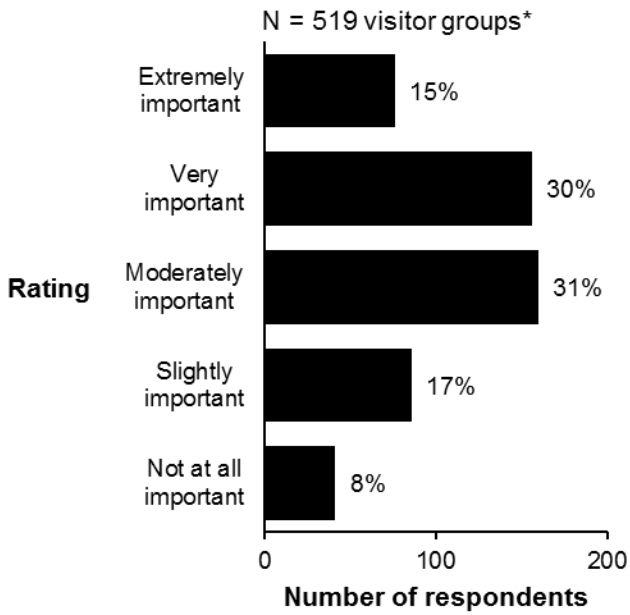
**Figure 36.** Importance of learning more about nature



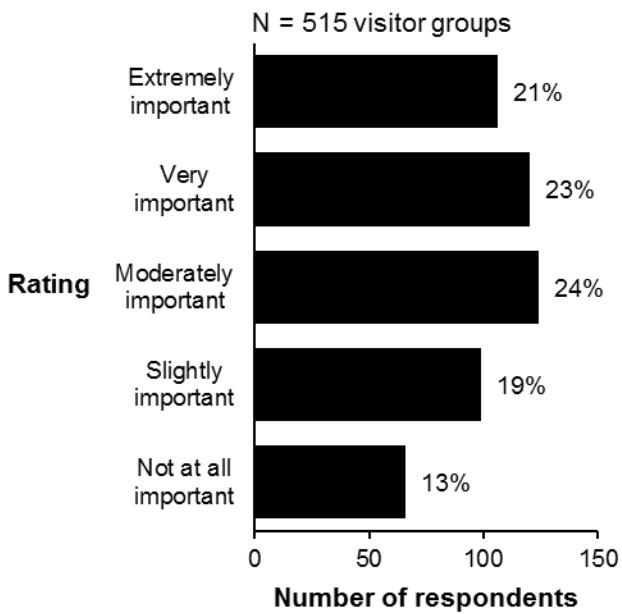
**Figure 37.** Importance of relaxing

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



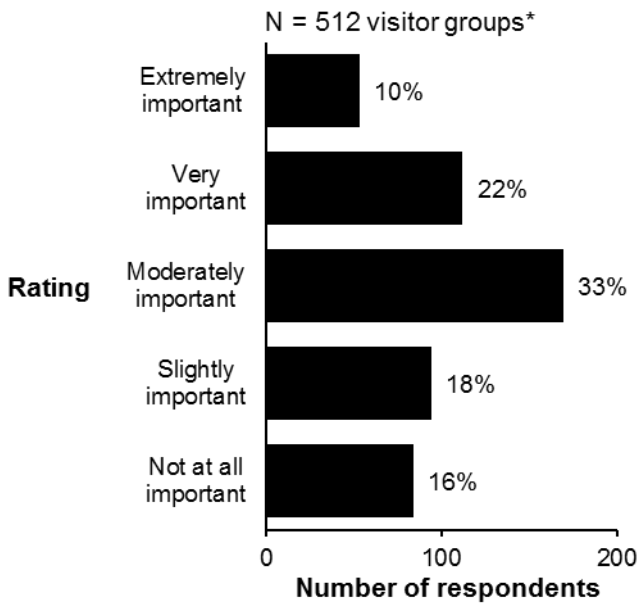
**Figure 38.** Importance of learning more about American history/culture



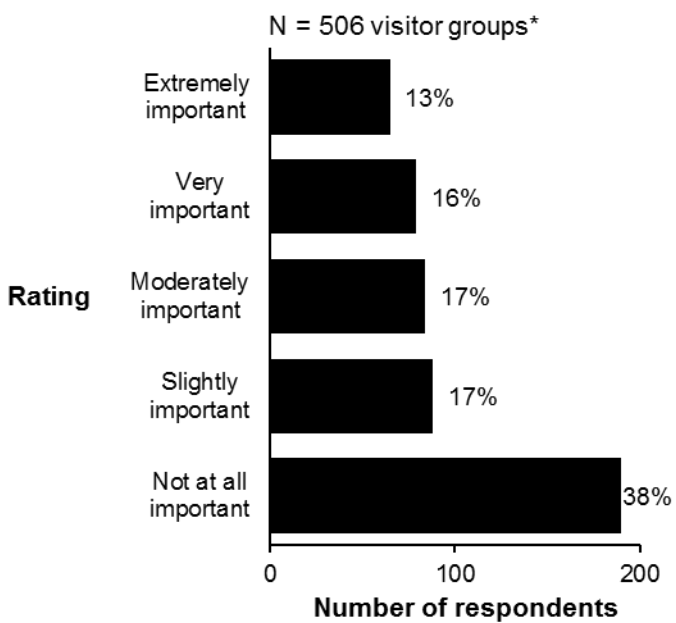
**Figure 39.** Importance of hearing the sounds of quiet

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



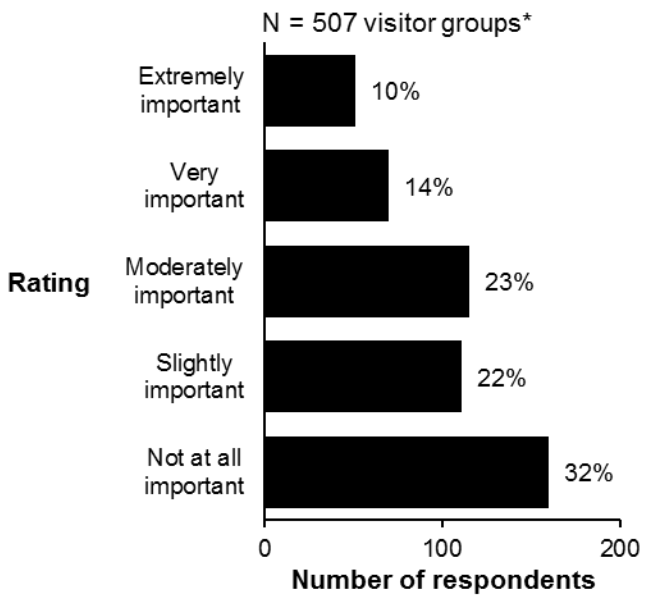
**Figure 40.** Importance of getting physical exercise



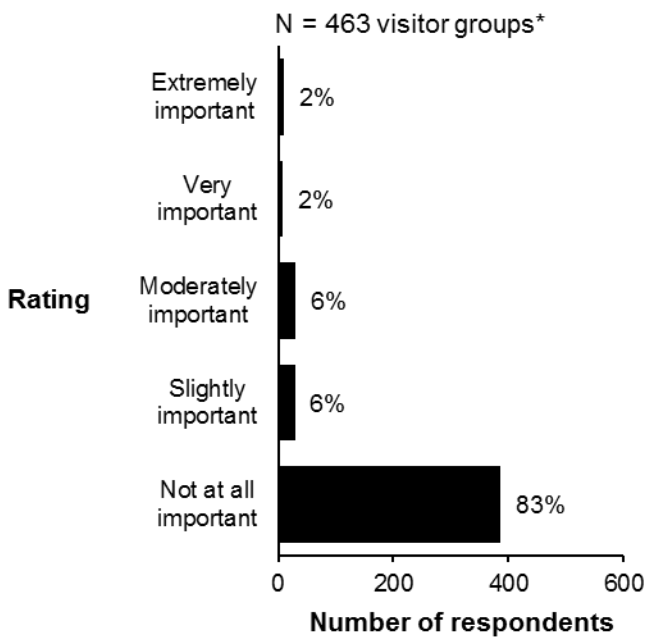
**Figure 41.** Importance of viewing dark night sky/stars

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



**Figure 42.** Importance of experiencing solitude



**Figure 43.** Importance of attending a special event

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



### ***Most important reason for visiting on this trip***

#### Question 11

Of the reasons listed in Question 10, which was the most important reason for your visit to Grand Canyon NP on this trip?

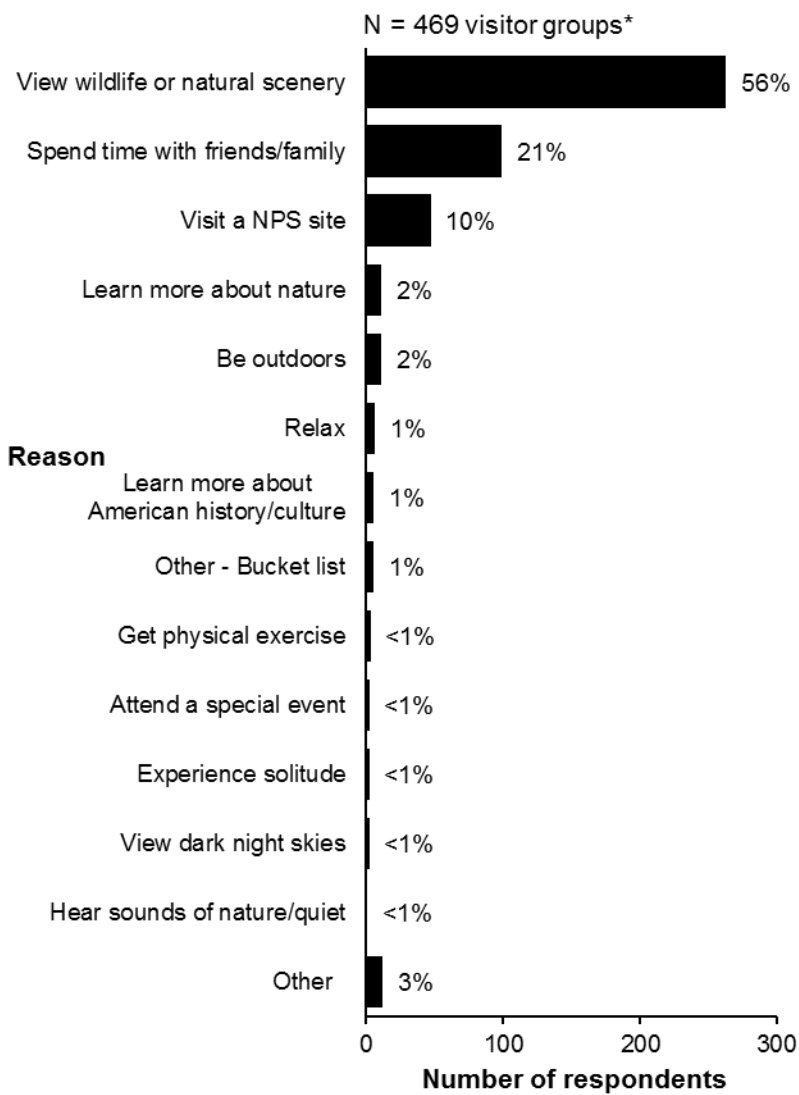
#### Results

- As shown in Figure 44, the most common most important reasons for visiting Grand Canyon NP were:
  - 56% View wildlife or natural scenery
  - 21% Spend time with fiends/family
  - 10% Visit a NPS site
- The least common most important reasons were:
  - <1% Experience solitude
  - <1% View dark night skies
  - <1% Hear sounds of nature/quiet
- Of those who reported “Other” (3%), reasons specified included:
  - “All was important”
  - “To be impressed”

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

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**Figure 44.** Most important reason for visiting the park on this trip

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## Park Experience and Activities

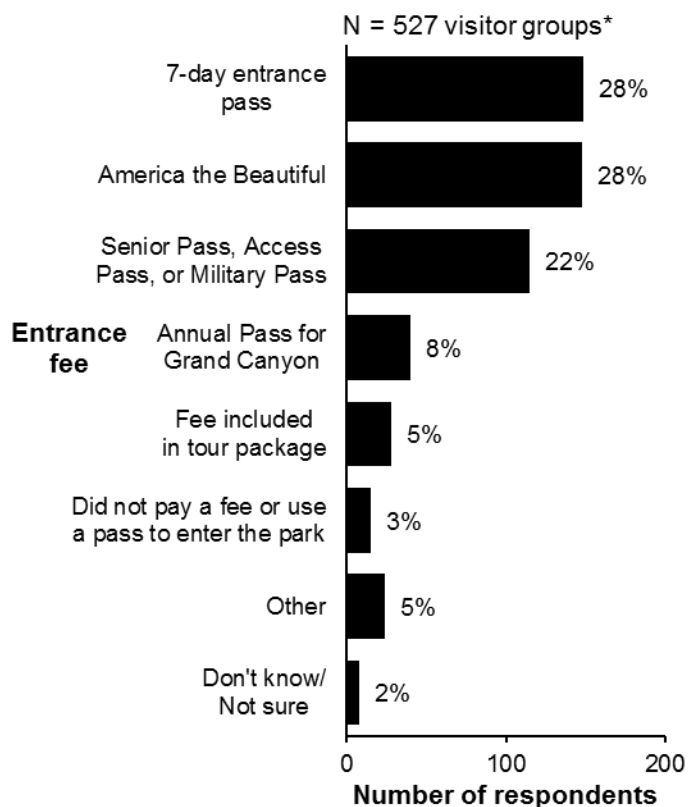
### *Type of entrance fee applied*

#### Question 5

On this trip to Grand Canyon NP, which of the following entrance fees applied to you personally?

Results (Figure 45)

- 28% of visitor groups used a 7-day entrance pass.
- 28% of visitor groups used an America the Beautiful pass.
- Of those who responded with “Other” (5%), entrance fees specified included:
  - “4<sup>th</sup> grade pass”
  - “One day visit fee”



**Figure 45.** Entrance fees that applied to visitor groups

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## ***Length of stay in Grand Canyon NP***

### **Question 7**

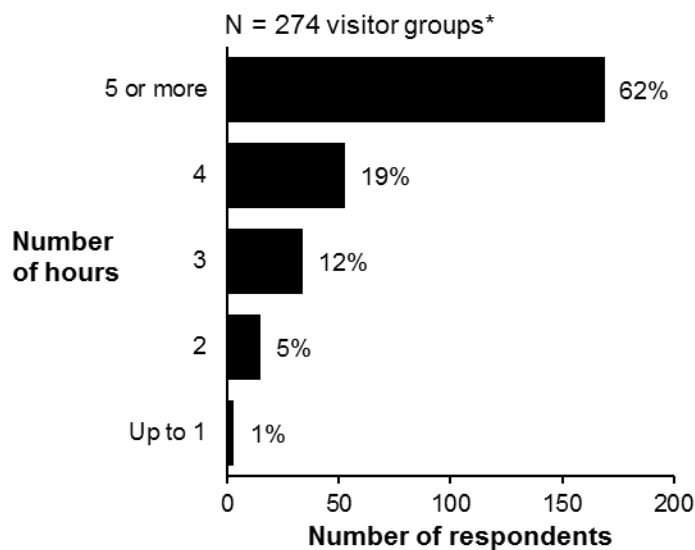
On this trip, how much total time did you spend within Grand Canyon NP?

#### Number of hours, if day trip

Results (Figure 46)

- 62% of visitor groups who spent less than 24 hours in the park visited for five or more hours.
- 19% of visitor groups who spent less than 24 hours in the park visited for four hours.
- The average number of hours spent in the park was five hours.

See Appendix 1 for more details.



**Figure 46.** Number of hours visiting the park by groups who spent less than 24 hours in the park

\*total percentages do not equal 100 due to rounding

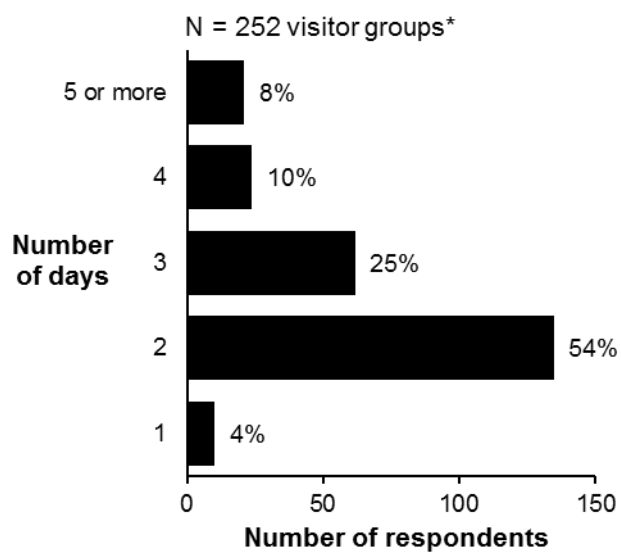
\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### Number of days, if greater than 1 day

Results (Figure 47)

- 54% of visitor groups who reported spending 24 hours or more in the park visited for two days.
- 25% of visitor groups who reported spending 24 hours or more in the park visited for three days.
- The average number of days spent visiting the park was two days.

See Appendix 1 for more details.



**Figure 47.** Number of days visiting the park by groups who spent 24 hours or more in the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Days entered or re-entered park***

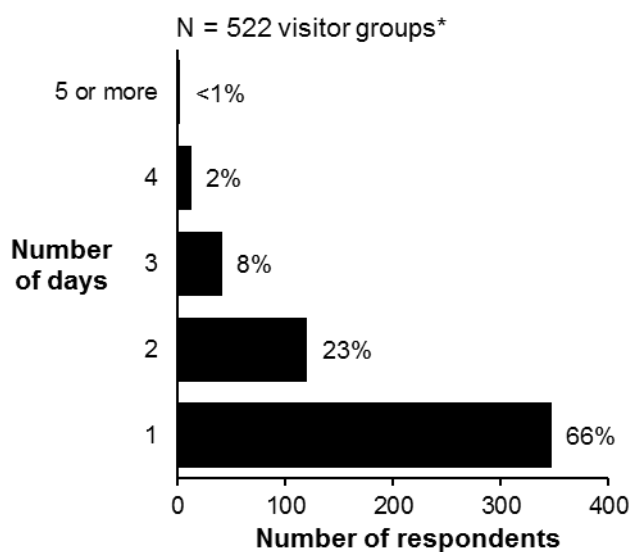
#### **Question 6**

On how many days during this trip did you enter or re-enter Grand Canyon NP? If you were on a day trip or if you camped or lodged inside the park and did not leave the park boundaries for the entire length of your stay, then answer 1 day.

Results (Figure 48)

- 66% of visitor groups entered or re-entered the park on only one day.
- 23% of visitor groups entered or re-entered the park on two days.

See Appendix 1 for more details.



**Figure 48.** Number of days entered or re-entered park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Overnight stay**

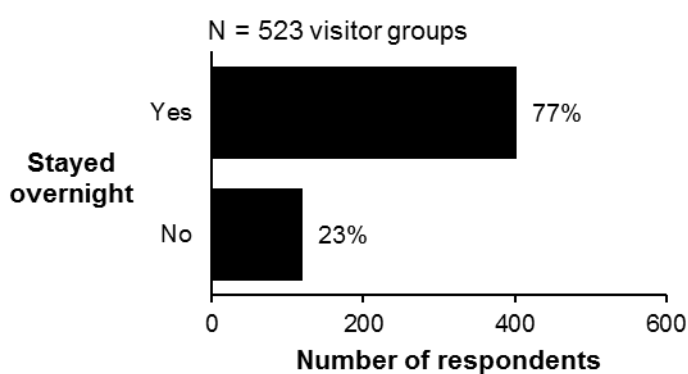
#### **Question 27a**

On this trip to Grand Canyon NP and the nearby area, did you stay overnight away from your permanent residence either inside Grand Canyon NP or within the nearby area (within the shaded area of the map on p. 12)?

See Figure 14 or Appendix 2 for map.

Results (Figure 49)

- 77% of visitor groups stayed overnight inside Grand Canyon NP or within the nearby area on this trip.



**Figure 49.** Visitors who stayed overnight in/near Grand Canyon NP

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

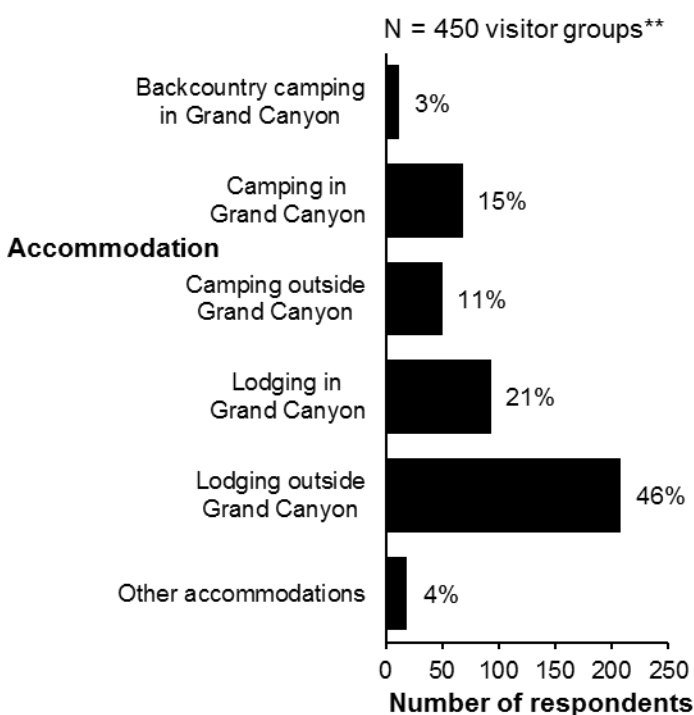
### ***Nights spent in overnight accommodations***

#### **Question 27b**

If YES, please list the number of nights you stayed in Grand Canyon NP and/or in the nearby area (within the shaded area of the map on p. 12) on this trip.

Results (Figure 50)

- Figure 50 shows the proportions of visitor groups that reported staying one or more nights in one of the listed overnight accommodations.
- 46% of visitor groups who stayed overnight one or more nights stayed in lodging outside of Grand Canyon NP.
- 21% of visitor groups who stayed overnight one or more nights stayed in Grand Canyon NP.



**Figure 50.** Accommodations for nights spent in Grand Canyon NP or the nearby area

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

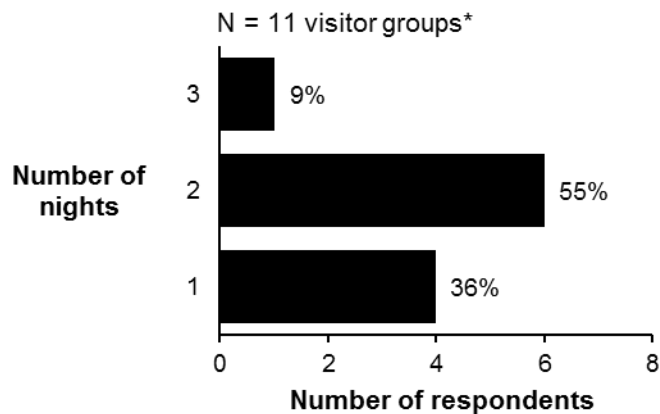


## Backcountry Camping in Grand Canyon NP

Results (Figure 51)

- 55% of visitor groups who camped in the backcountry of Grand Canyon NP camped for two nights
- 36% of visitor groups who camped in the backcountry of Grand Canyon NP camped for one night.

See Appendix 1 for more details.



*\*CAUTION: Number of respondents less than 30 visitor groups.*

**Figure 51.** Nights spent in backcountry in Grand Canyon NP

\*total percentages do not equal 100 due to rounding

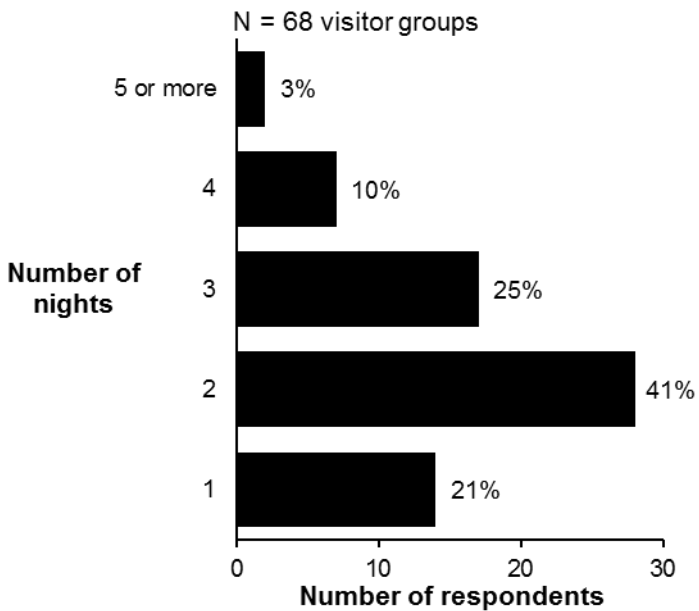
\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### Camping in Grand Canyon NP

Results (Figure 52)

- 41% of visitor groups who camped inside Grand Canyon NP camped for two nights.
- 25% of visitor groups who camped inside Grand Canyon NP camped for three nights.

See Appendix 1 for more details.



**Figure 52.** Nights spent camping in Grand Canyon NP

\*total percentages do not equal 100 due to rounding

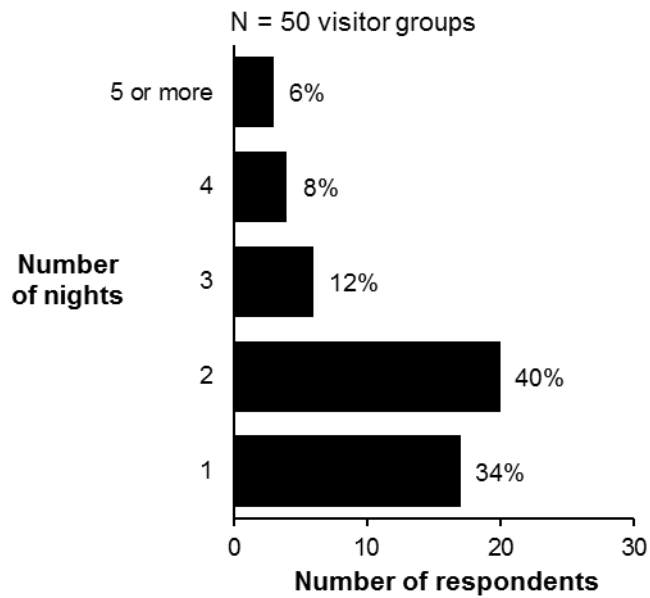
\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### Camping outside Grand Canyon NP

Results (Figure 53)

- 40% of visitor groups who camped outside of Grand Canyon NP camped for two nights.
- 34% of visitor groups who camped outside of Grand Canyon NP camped for one night.

See Appendix 1 for more details.



**Figure 53.** Nights spent camping outside Grand Canyon NP

\*total percentages do not equal 100 due to rounding

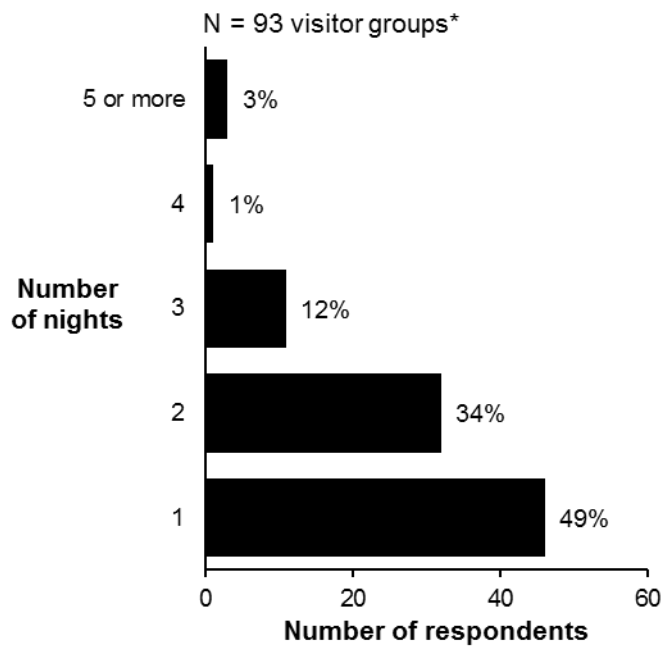
\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### Lodging in Grand Canyon NP

Results (Figure 54)

- 49% of visitor groups who stayed in lodging in Grand Canyon NP stayed for one night.
- 34% of visitor groups who stayed in lodging in Grand Canyon NP stayed for two nights.

See Appendix 1 for more details.



**Figure 54.** Nights spent in lodging in Grand Canyon NP

\*total percentages do not equal 100 due to rounding

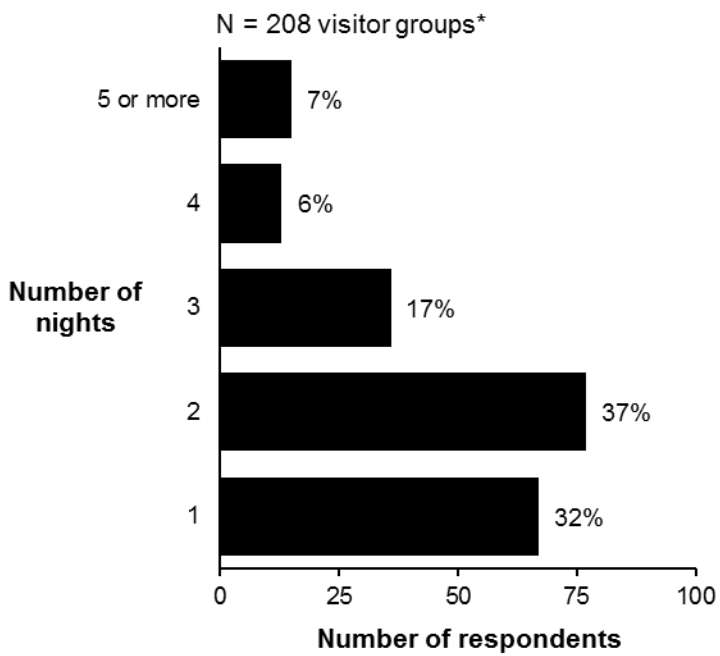
\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### Lodging Outside Grand Canyon NP

Results (Figure 55)

- 37% of visitor groups who stayed in lodging outside of Grand Canyon NP stayed for two nights.
- 32% of visitor groups who stayed in lodging outside of Grand Canyon NP stayed for one night.

See Appendix 1 for more details.



**Figure 55.** Nights spent in lodging outside Grand Canyon NP

\*total percentages do not equal 100 due to rounding

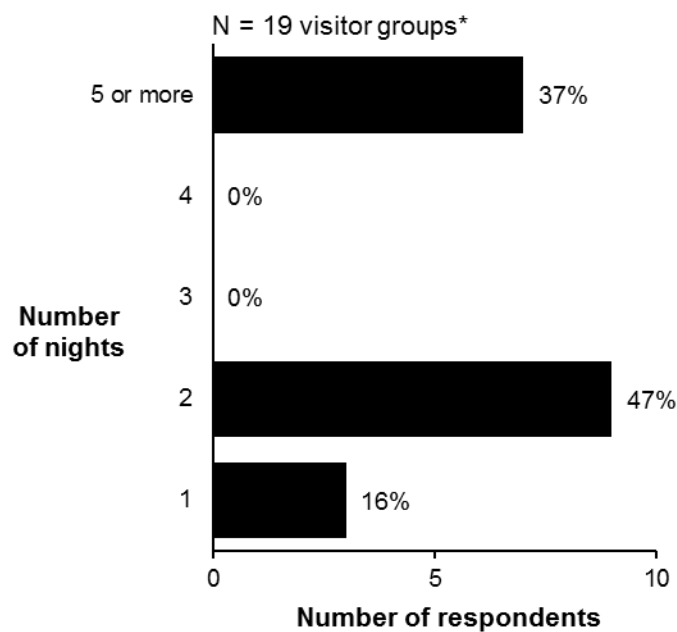
\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### Other accommodations (e.g., friends/relatives)

Results (Figure 56)

- 47% of visitor groups who stayed overnight in other accommodations stayed for two nights.
- 37% of visitor groups who stayed overnight in other accommodations stayed for five or more nights.

See Appendix 1 for more details.



*\*CAUTION: Number of respondents less than 30 visitor groups.*

**Figure 56.** Nights in other accommodations (e.g., friends/relatives)

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

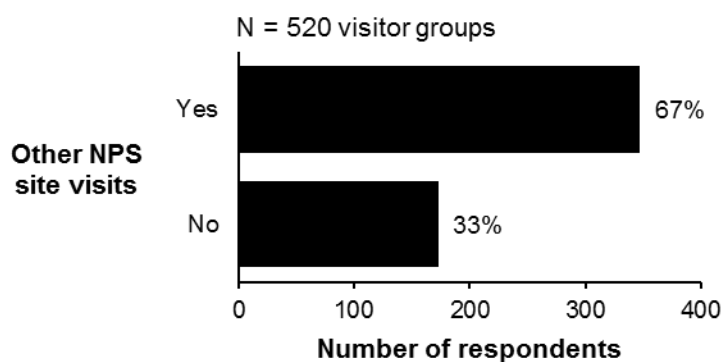
### **Visits to other National Park Service sites**

#### **Question 29**

Did you visit any other National Park Service sites on your trip away from home?

Results (Figure 57)

- 67% of visitor groups visited other NPS units on their trip away from home.



**Figure 57.** Visited other NPS sites on trip away from home

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Other National Park Service sites visited***

#### Question 29

If YES, please specify other National Park Services sites you visited.

#### Results (Table 15)

- Of those visitor groups that visited other NPS units on their trip (67%), the most common other NPS units included:
  - Zion National Park (mentioned 166 times)
  - Bryce Canyon National Park (mentioned 160 times)
  - Arches National Park (mentioned 76 times)

**Table 15.** Other National Park Service sites visited

N = 1043 comments Some visitor groups may have visited more than one other NPS site.	
Site	Frequency of times mentioned
Zion National Park	166
Bryce Canyon National Park	160
Arches National Park	76
Yosemite National Park	75
Yellowstone National Park	44
Canyonlands National Park	42
Death Valley National Park	39
Petrified Forest National Park	37
Glen Canyon National Recreation Area	36
Mesa Verde National Park	36
Joshua Tree National Park	30
Grand Teton National Park	25
Sequoia National Park	21
Capital Reef National Park	18
Mount Rushmore National Memorial	17
Rocky Mountain National Park	16
Sunset Crater Volcano National Monument	12
Carlsbad Caverns National Park	11
Badlands National Park	10
Montezuma Castle National Monument	10
Walnut Canyon National Monument	10
Glacier National Park	8

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



**Table 15 (continued).** Other National Park Service sites visited

N = 1043 comments	
Some visitor groups may have visited more than one other NPS site.	
Site	Frequency of times mentioned
Wupatki National Monument	8
Cedar Breaks National Monument	7
Natural Bridge National Monument	7
Pipe Spring National Monument	7
Devil's Tower National Monument	6
Muir Woods National Monument	6
Redwood National Monument	5
Alcatraz Island	4
Canyon de Chelly National Monument	4
Kings Canyon National Park	4
Little Bighorn Battlefield National Monument	4
Tonto National Monument	4
White Sands National Monument	4
Wind Cave National Monument	4
Black Canyon of the Gunnison National Park	3
Dinosaur National Monument	3
Great Sand Dunes National Park & Preserve	3
Hubble Trading Post National Historic Site	3
Jefferson National Expansion Memorial	3
Lake Mead National Recreation Area	3
Saguaro National Park	3
Casa Grande Ruins National Monument	2
Chaco Culture National Historic Park	2
Crater Lake National Park	2
Craters of the Moon National Monument	2
Great Basin National Park	2
Other sites	37

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## **Activity participation**

### Question 12

On this trip, in which of the following activities did you personally participate within Grand Canyon NP?

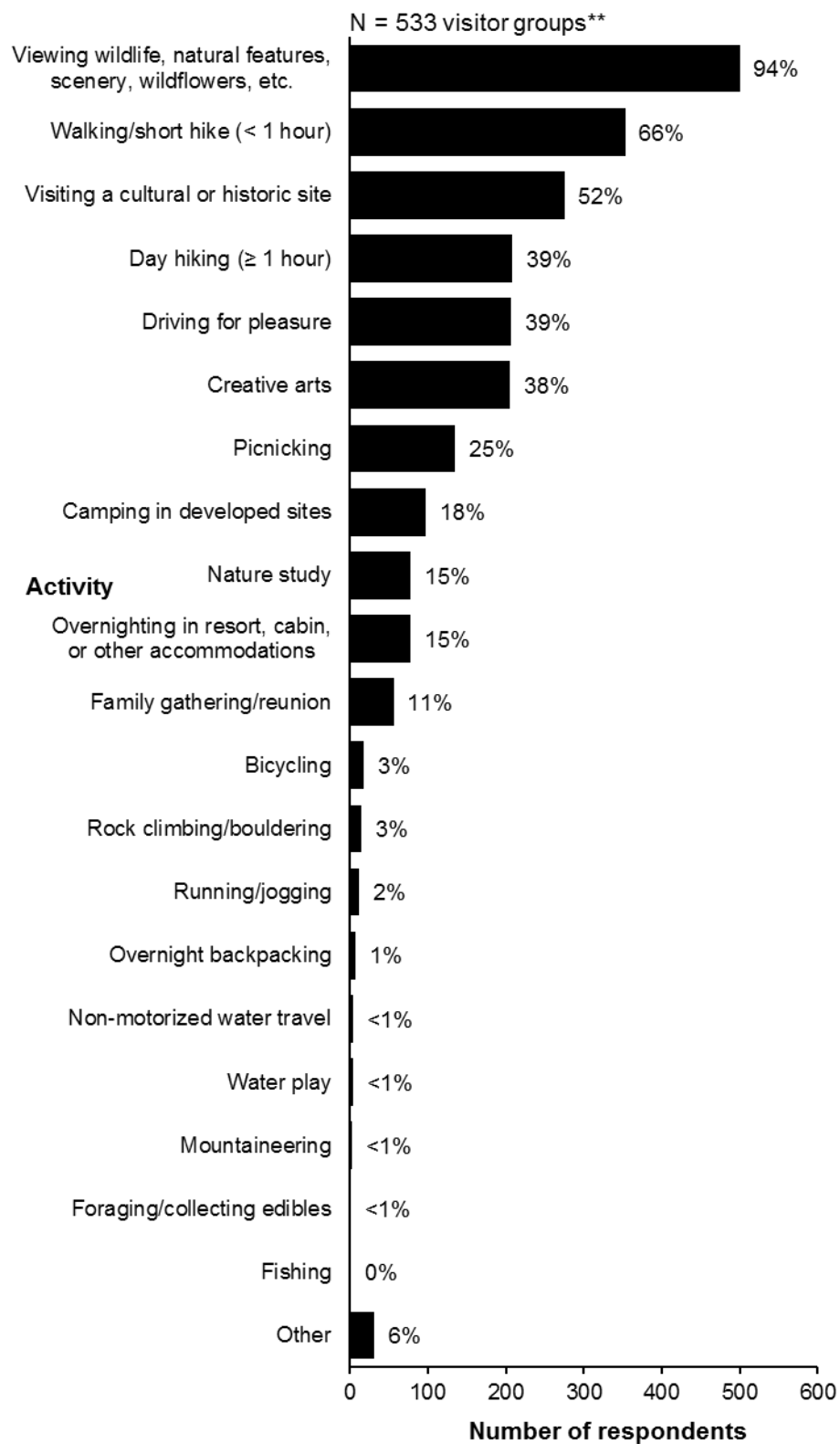
### Results

- As shown in Figure 58, the most common activities in which visitor groups participated were:
  - 94% Viewing wildlife, natural features, scenery, wildflowers, etc.
  - 66% Walking/short hike (<1 hour)
  - 52% Visiting a cultural or historic site
- Of those who responded “Non-motorized water travel” (<1%), activities in which groups participated included:
  - “Swimming”
- Of those who responded “Other” (6%), activities in which groups participated in included:
  - “Flight”
  - “Mule ride”
  - “Ranger program”

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

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**Figure 58.** Participation in activities on this trip

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Primary activity on this trip***

#### Question 13

Of the activities listed in Question 12, which was your primary activity during your visit to Grand Canyon NP on the day you were contacted for this survey?

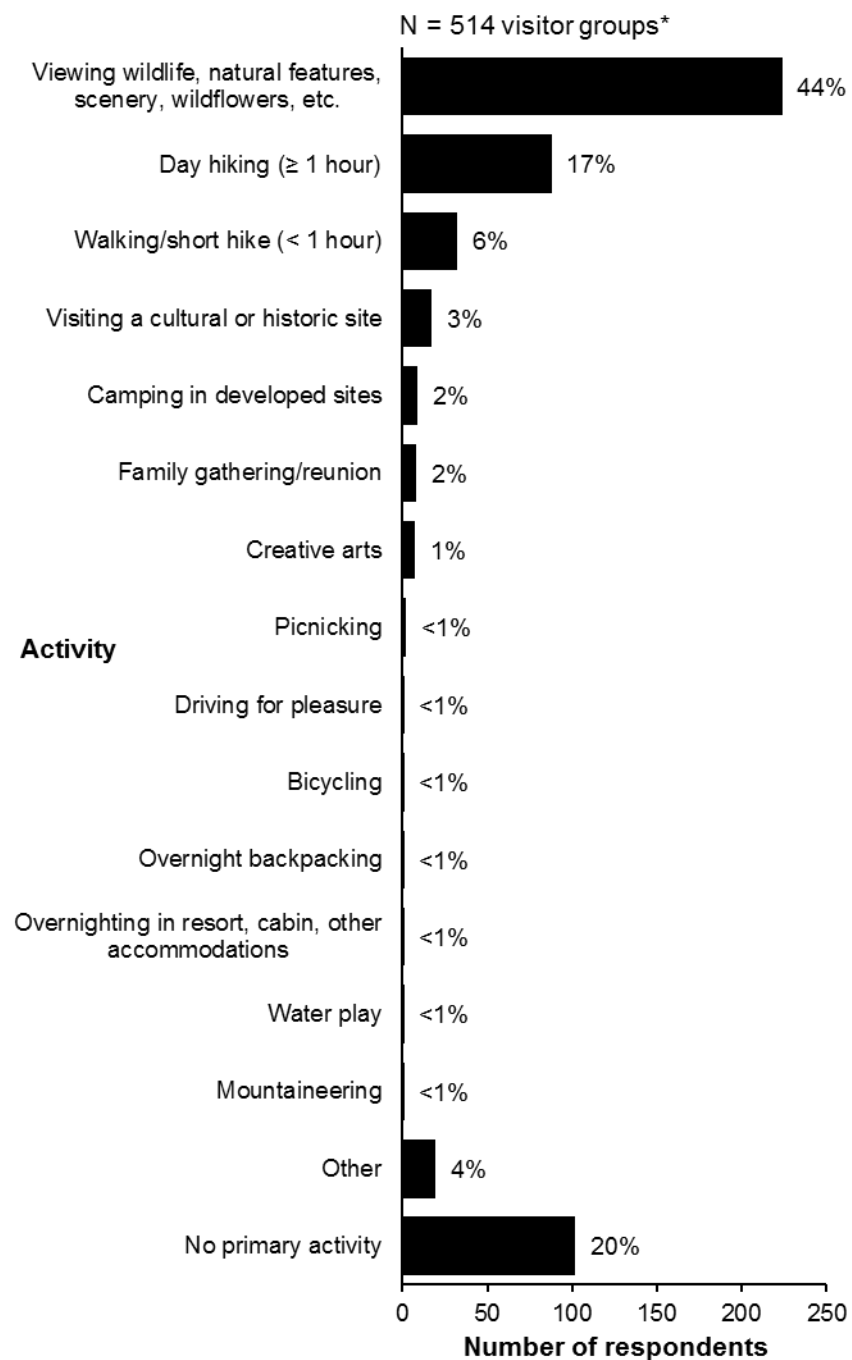
#### Results

- As shown in Figure 59, the most common primary activities listed by visitor groups were:
  - 44% Viewing wildlife, natural features, scenery, wildflowers, etc.
  - 17% Day hiking ( $\geq 1$  hour)
- Of those who responded “Other” (4%), activities specified included:
  - “Mule ride”
  - “Helicopter tour”
  - “Jr. Ranger program”
- 20% of visitor groups did not have a primary activity.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

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**Figure 59.** Primary activity on this trip to Grand Canyon NP

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

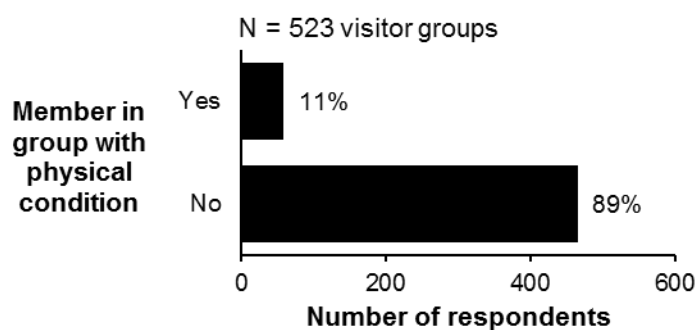
### **Visitors with physical conditions**

#### **Question 18a**

Did anyone in your personal group have a physical condition that made it difficult to access or participate in park activities or services, during your visit to Grand Canyon NP?

Results (Figure 60)

- 11% of visitor groups had members with physical conditions that made it difficult to access or participate in park activities or services.



**Figure 60.** Visitors with physical conditions

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

Question 18b

If YES, what activities, services, or facilities did the person(s) have difficulty participating in or accessing? (open-ended)

Results (Table 16)

- “Hiking” was the most frequently mentioned (mentioned 24 times) activity in which members of visitor groups had difficulty participating.

**Table 16.** Activities/services/facilities difficult to participate in/access

N = 54 comments Some visitor groups may have made more than one comment.	
<b>Activity/service/facility</b>	<b>Frequency of times mentioned</b>
Hiking	24
Walking steps or big rocks	10
Steep trails	6
Handicap	2
Used rental wheelchair	2
Used transportation	2
Other comments	6

\*total percentages do not equal 100 due to rounding

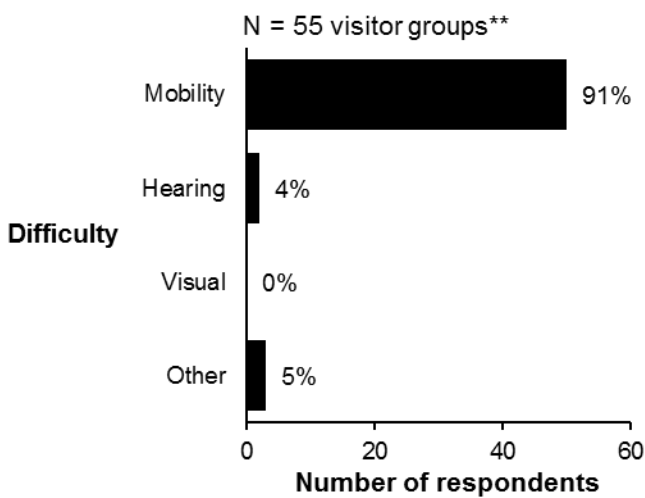
\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### Question 18c

Because of the physical condition, which specified difficulties did the person(s) have?

Results (Figure 61)

- Of the visitor groups that had a least one member with a physical condition, difficulties had by member(s) were:
  - 91% Mobility
  - 4% Hearing
- Of those who responded with “Other” (5%), specific difficulties included:
  - “Breathing”
  - “Heart”



**Figure 61.** Specific difficulties had by visitor group member(s)

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



## ***Programs and services participation***

### **Question 14**

On this trip, in which of the following programs and services did you personally participate within Grand Canyon NP?

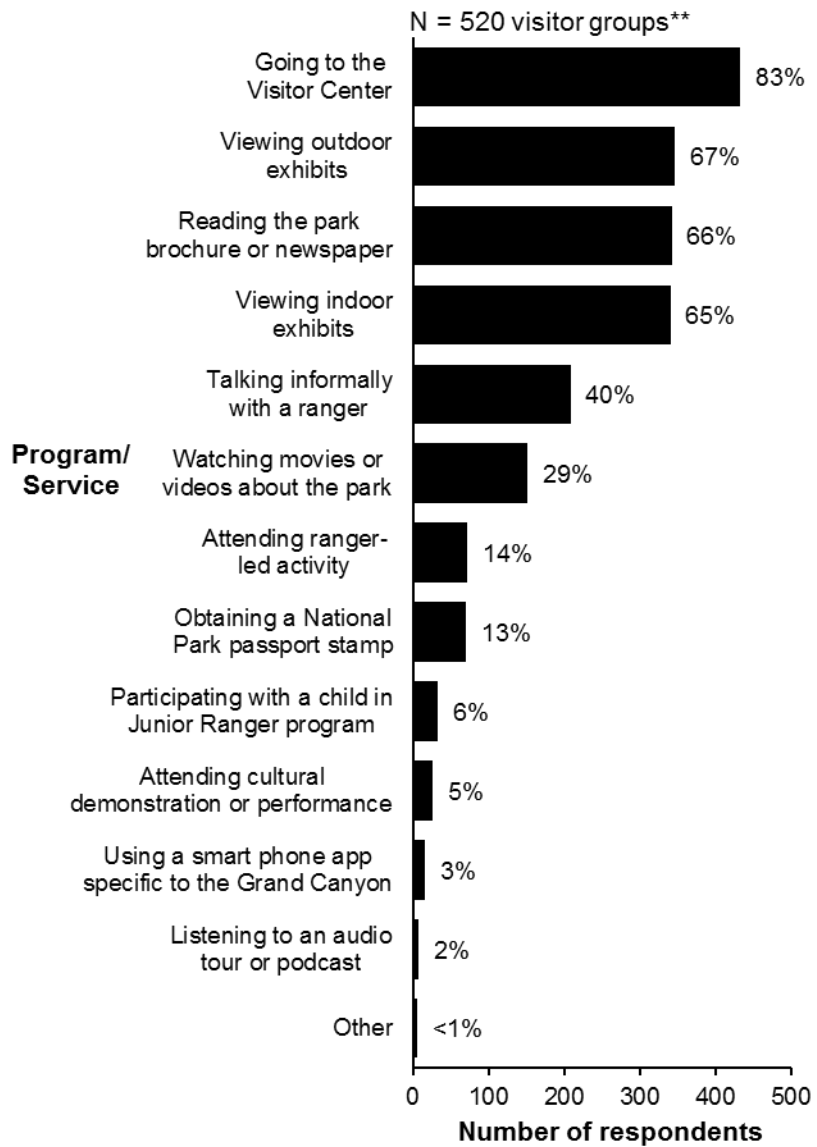
### **Results**

- As shown in Figure 62, the most common programs and services in which visitor groups participated were:
  - 83% Going to the Visitor Center
  - 67% Viewing outdoor exhibits
  - 66% Reading the park brochure or newspaper
- Of those who responded “Other” (< 1%), programs and services included:
  - “Shuttle bus”

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

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**Figure 62.** Participation in programs and services

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

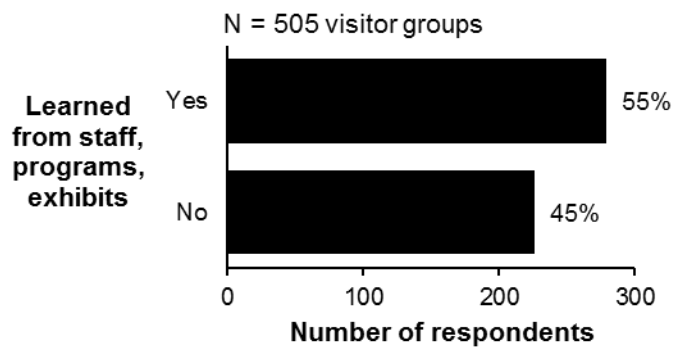
### ***Learning from park staff, programs, and/or exhibits***

#### **Question 15**

On this visit to Grand Canyon NP, did you learn anything from park staff, programs, and/or exhibits about American history, nature, and/or culture?

Results (Figure 63)

- 55% of visitors learned something from park staff, programs, and/or exhibits about American history, nature, and/or culture.



**Figure 63.** Visitors who learned something from park staff, programs, and/or exhibits

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## Question 15

If YES, please specify subjects you learned about (open-ended).

### Results (Table 17)

- Table 17 shows the subjects visitors learned about from park staff, programs, and/or exhibits. The most frequently mentioned subjects were:
  - “Geology” (mentioned 68 times)
  - “How the Grand Canyon was formed” (mentioned 39 times)

**Table 17.** Subjects learned

N = 272 comments	
Some visitor groups may have made more than one comment.	
Subject	Frequency of times mentioned
Geology	68
How the Grand Canyon was formed	39
Wildlife	35
Native Americans	32
Park History	32
Nature	23
Wildfires	14
History	12
Trails	12
Condors	11
Visitor Center film	11
Culture	10
Early pioneers	10
Early inhabitants	9
The tower	8
Ecosystems	7
Ranger talk	7
Plants	6
Ranger talk on condors	6
Visitor Center	6
American History	5
Colorado River	5
Geography	5
Photography studio	4
Architecture	3
Natural History	3
Trees	3
Other comments	70

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

\*total percentages do not equal 100 due to rounding  
\*\*total percentages do not equal 100 because visitors could select more than 1 answer

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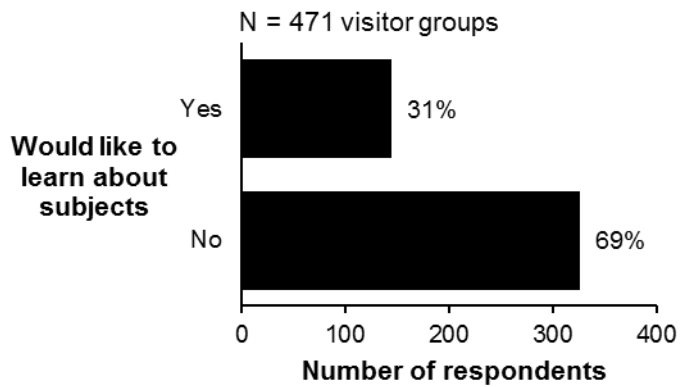
### ***Learning about subjects on future visits***

#### **Question 16**

If you were to visit Grand Canyon NP in the future, are there specific subjects you would like to learn about?

Results (Figure 64)

- 69% of visitor groups did not have specific subjects they would like to learn about on a future visit to Grand Canyon NP.



**Figure 64.** Visitors who would like to learn about specific subjects on future visits

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## Question 16

If YES, please specify subjects you would like to learn about (open-ended).

Results (Table 18)

- Table 18 shows the subjects visitors would like to learn about on future visits to Grand Canyon NP. The most frequently mentioned subjects were:
  - “Wildlife (mentioned 29 times)
  - “Geology (mentioned 25 times)
  - “History (mentioned 22 times)

**Table 18.** Subjects visitors would like to learn

N = 149 comments Some visitor groups may have made more than one comment.	
<b>Subject</b>	<b>Frequency of times mentioned</b>
Wildlife	29
Geology	25
History	22
Native Americans	21
Hiking into the Grand Canyon	10
Nature	8
Astronomy	7
Rafting on the Colorado River	5
Weather patterns	5
Buffalo	4
How the Grand Canyon was formed	4
Ranger-led programs	4
Wildfires	4
Architecture	3
Camping	3
Colorado River	3
Culture	3
Early pioneers	3
How to preserve park	3
Interaction with Ranger	3
Plants	3
Spend more time in park	3
Wildflowers	3
Other comments	26

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## Expenditures

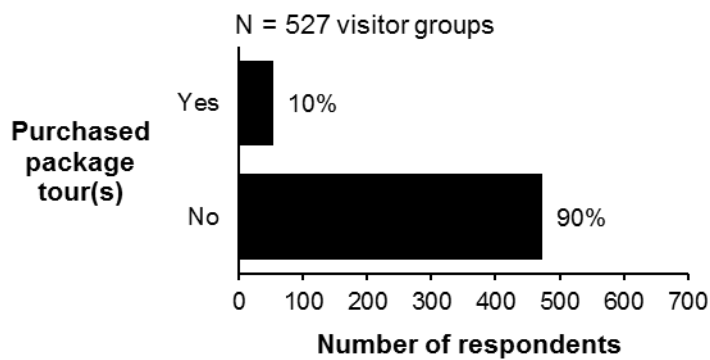
### *Purchase of package tour(s)*

Question 30a

Did you or anyone in your personal group purchase any package tours that included at least some meals, some lodging, and/or some transportation while on this trip?

Results (Figure 65)

- 10% of visitor groups had at least one member who purchased a package tour.



**Figure 65.** Visitor groups with member(s) who purchased packaged tour(s)

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



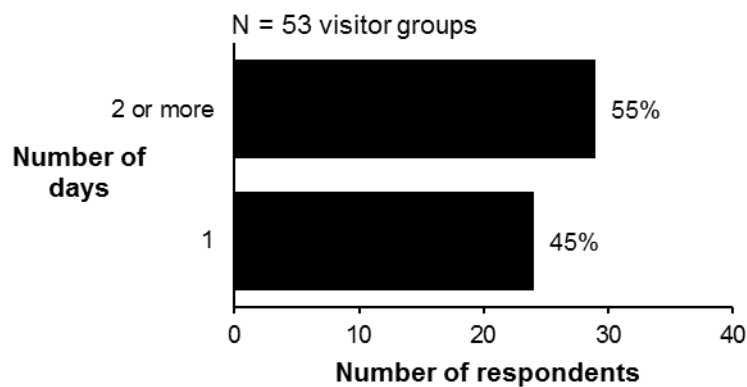
### Question 30b

If YES, what was the total length of your package tour(s)?

Results (Figure 66)

- Of the 10% of visitor groups who purchased a package tour:
  - 55% purchased a package tour with a total length of two or more days.
  - 45% purchased a package tour with a total length of one day.
  - The median total length of package tours was two days.

See Appendix 1 for more details.



**Figure 66.** Total length of package tour(s) purchased by at least one group member

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

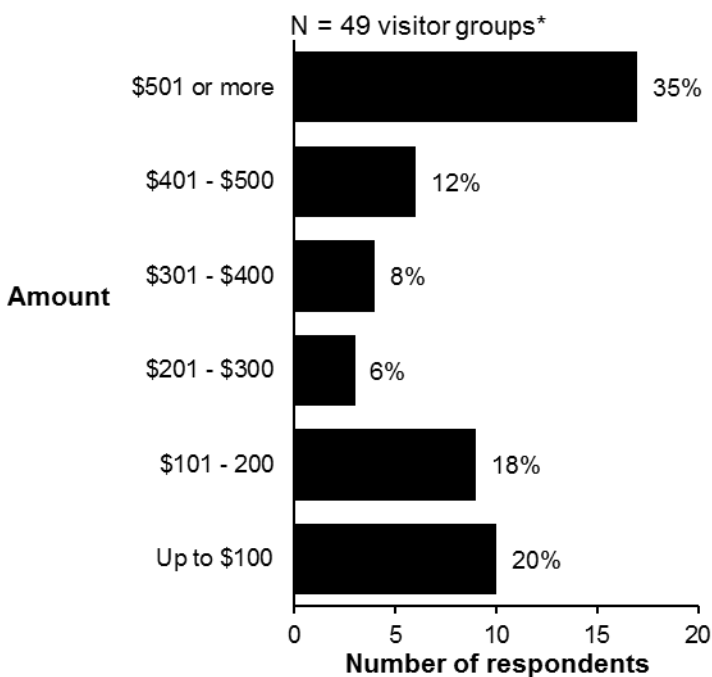
### Question 30c

If YES, what was the total cost per person for the package tour(s)?

Results (Figure 67)

- Of the 10% of visitor groups who purchased a package tour:
  - 35% purchased a package tour with a total cost of \$501 or more per person.
  - 20% purchased a package tour with a total cost of up to \$100 per person.
  - The average total cost per person of package tours was \$1,079.

See Appendix 1 for more details.



**Figure 67.** Total cost per person for package tour(s) purchased by at least one group member

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

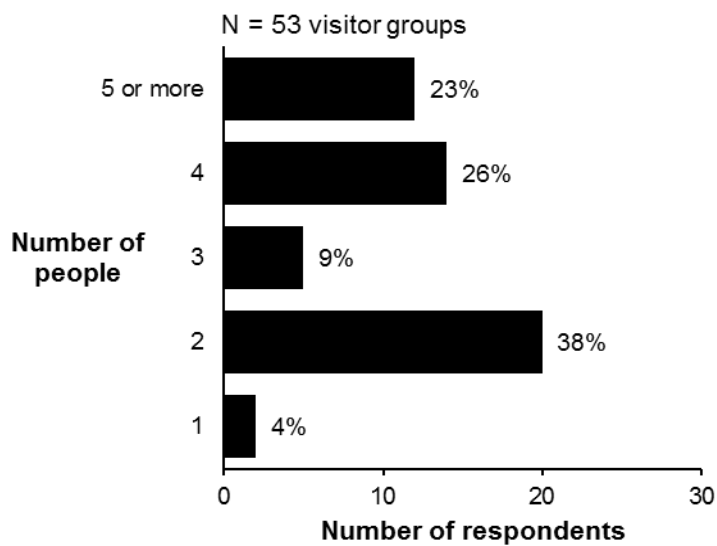
#### Question 30d

If YES, how many people in your personal group were on the package tour(s)?

Results (Figure 68)

- Of the 10% of visitor groups who purchased a package tour:
  - 38% were on a package tour with two people.
  - 26% were on a package tour with four people.

See Appendix 1 for more details.



**Figure 68.** Number of group members on package tour(s) purchased by at least one group member

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

***Items included in package tour(s) as a part of visit***

Question 30e

If YES, which of the following were included in the package tour(s) as part of your visit to Grand Canyon NP and the nearby area (within the shaded area of the map on p. 12)?

See Figure 14 or Appendix 2 for map.

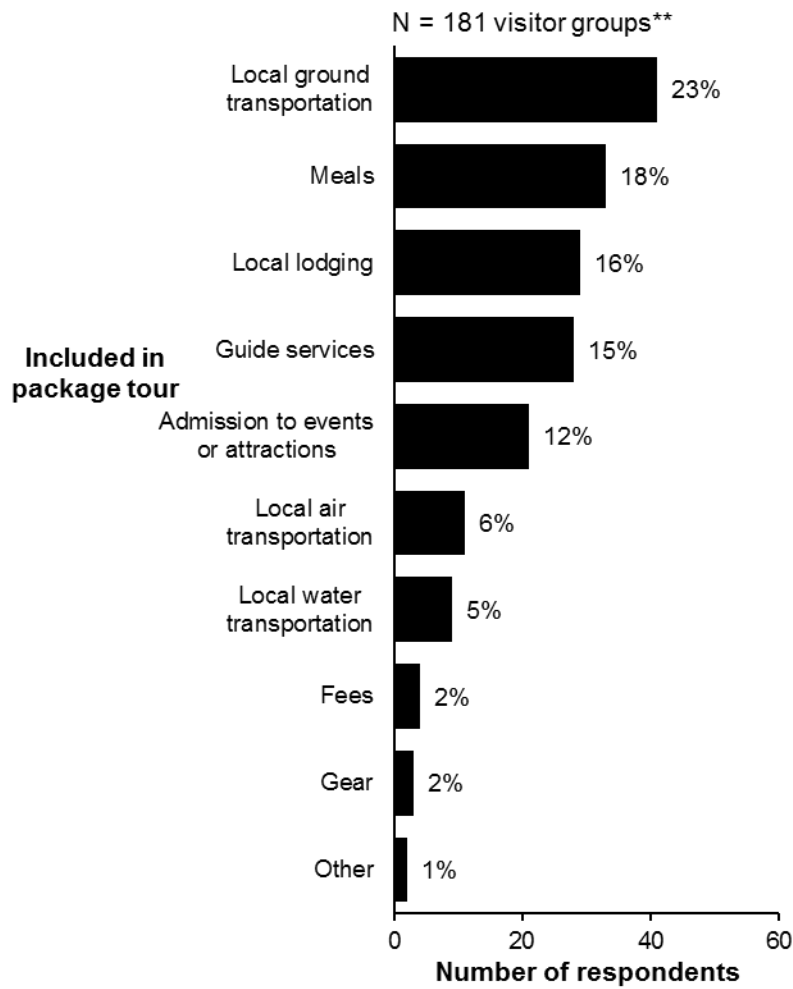
Results (Figure 69)

- Of the 10% of visitor groups who purchased a package tour, the most common items that were included in the package tours purchased was:
  - 23% Local group transportation
  - 18% Meals
  - 16% Local lodging
- Of those who responded “Other” (2%), items included:
  - “Maps and directions”
  - “Mule ride”

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

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**Figure 69.** Items included in package tour(s) purchased by at least one group member

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Total expenditures inside Grand Canyon NP and nearby area**

#### **Question 31**

Please estimate how much you and your personal group with whom you shared expenses (e.g., other family members, traveling companions) spent both inside Grand Canyon NP and within the nearby area (within the shaded area of the map on p. 12) during your time in the nearby area. If you reported expenditures for package tours, please only include individual expenses that were NOT part of your package tour(s).

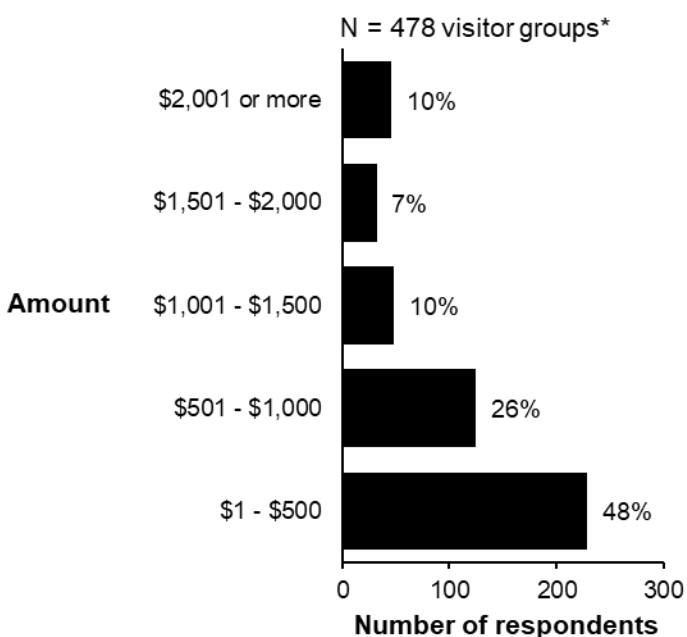
Note: Residents living with the highlighted area of the map should only include expenditures that were directly related to this trip in Grand Canyon NP.

See Figure 14 or Appendix 2 for map.

Results – group expenditures excluding package tour expenses (Figure 70)

- 48% of visitor groups spent \$1 to \$500 in Grand Canyon NP.
- 26% of visitor groups spent \$501 to \$1,000 in Grand Canyon NP.

See Appendix 1 for more details.



**Figure 70.** Total expenditures inside the park and in nearby area

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

***Percentages of total expenditures inside park and nearby area***

**Question 31**

Please estimate how much you and your personal group with whom you shared expenses (e.g., other family members, traveling companions) spent both inside Grand Canyon NP and within the nearby area (within the shaded area of the map on p. 12) during your time in the nearby area.

See Figure 14 or Appendix 2 for map.

**Results (Figure 71)**

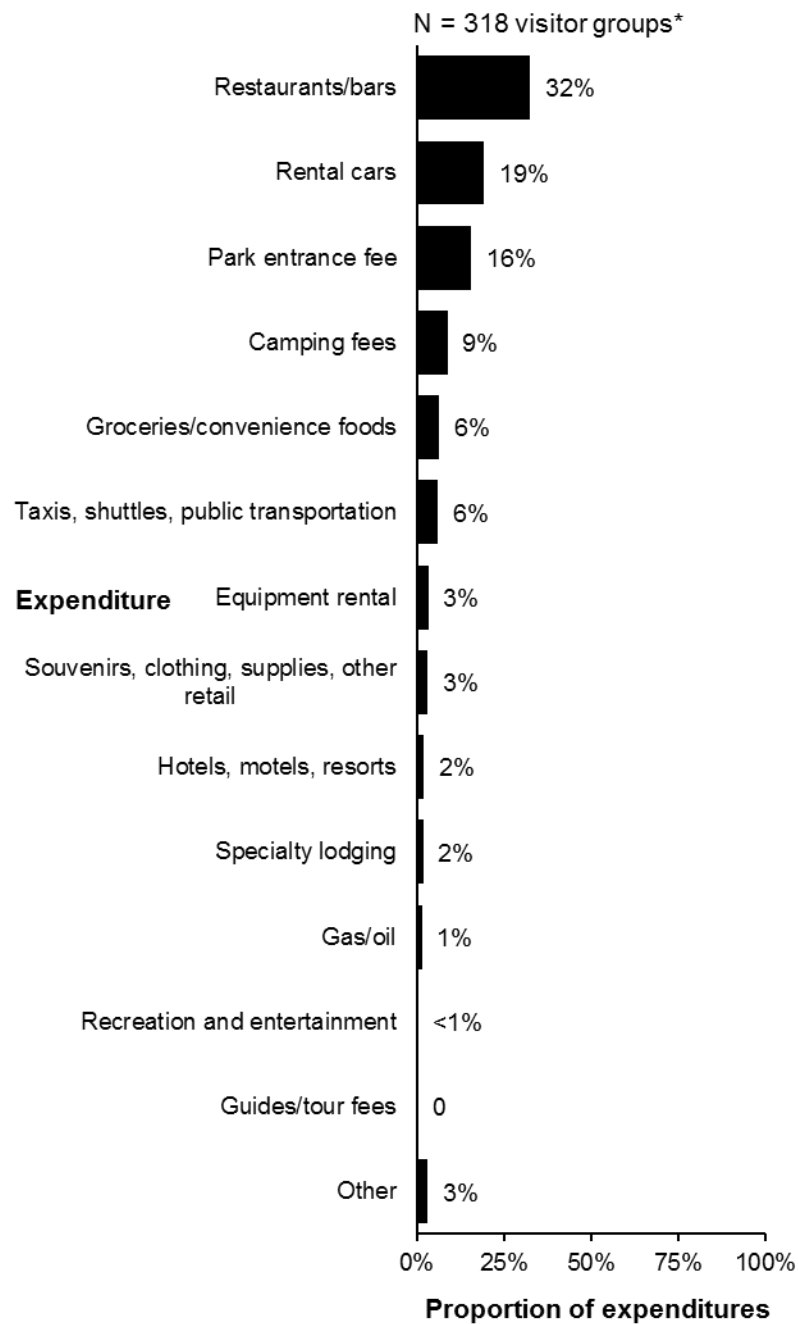
- Percentages of group expenditures (excluding package tour expenses)
  - 32% Restaurants/bars
  - 19% Rental cards
  - 16% Park entrance fee

See Appendix 1 for more details.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

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**Figure 71.** Percentages of total expenditures within the park and nearby area

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



### ***Number of people covered by expenses***

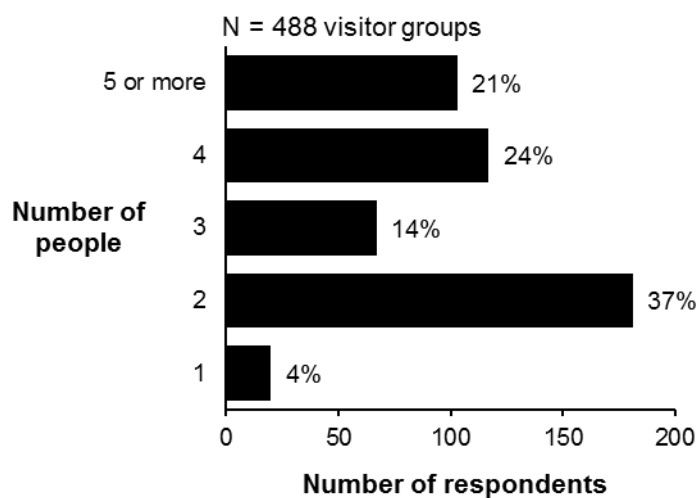
#### **Question 33a**

Including yourself, how many people in your personal group were covered by the expenses for this trip away from home?

Results (Figure 72)

- 37% of visitor groups had two members covered by expenses.
- 24% of visitor groups had four members covered by expenses.

See Appendix 1 for more details.



**Figure 72.** Visitors covered by expenses

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Adults covered by expenses**

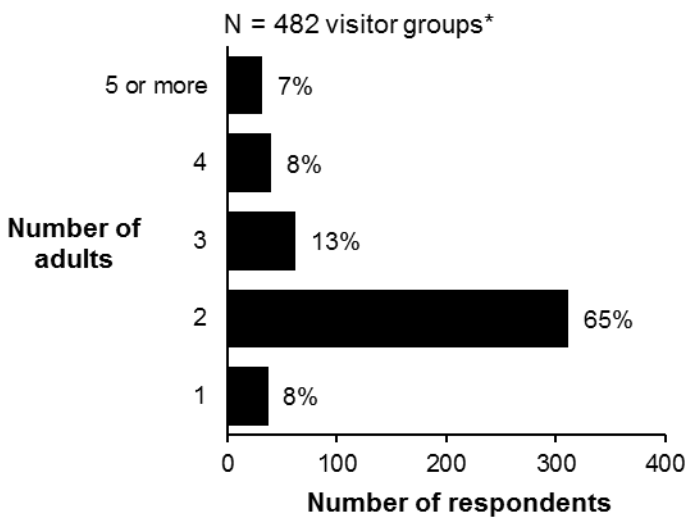
#### **Question 33a**

Including yourself, how many adults (18 years or over) in your personal group were covered by the expenses for this trip away from home?

Results (Figure 73)

- 65% of visitor groups had two adults covered by expenses.
- 13% of visitor groups had three adults covered by expenses.

See Appendix 1 for more details.



**Figure 73.** Adults covered by expenses

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Children covered by expenses**

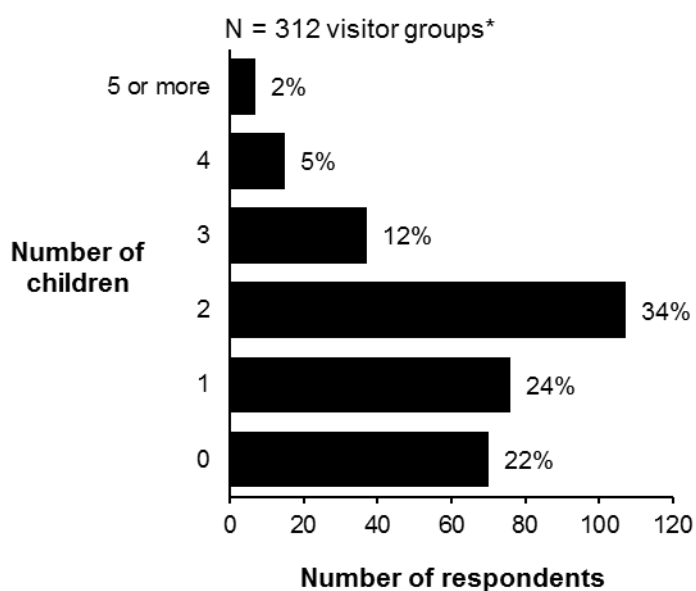
#### **Question 33a**

How many children (under 18 years) in your personal group were covered by the expenses for this trip away from home?

Results (Figure 74)

- 34% of visitor groups had two children covered by expenses.
- 24% of visitor groups had one child covered by expenses.

See Appendix 1 for more details.



**Figure 74.** Children covered by expenses

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Sharing of expenses***

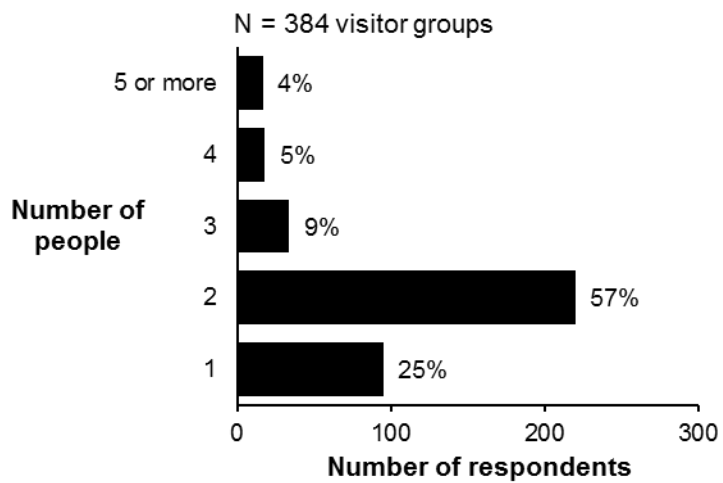
#### **Question 33b**

Including yourself, how many people in your group split these trip expenses?

Results (Figure 75)

- 57% of visitor groups had two people split trip expenses.
- 25% of visitor groups did not split expenses.

See Appendix 1 for more details.



**Figure 75.** Sharing of expenses in visitor group

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Total expenditures outside of park and nearby area**

#### **Question 32**

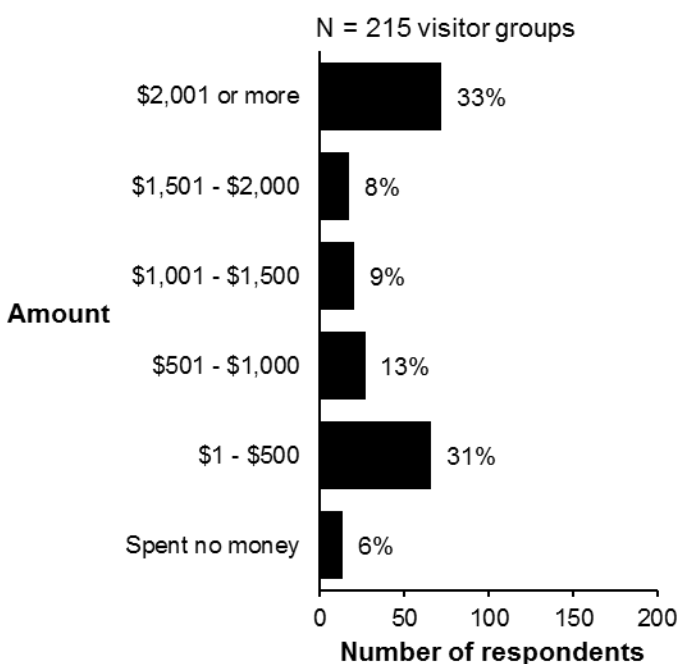
For you and any members of your personal group with whom you shared expenses, please record any additional money spent outside of the map area during your trip away from home (for example, travel or food expenditures).

See Figure 14 or Appendix 2 for map.

Results (Figure 76)

- 33% of visitor groups spent \$2,001 or more on additional expenses outside of Grand Canyon NP and the nearby area.
- 31% of visitor groups spent \$1 to \$500 on additional expenses outside of Grand Canyon NP and the nearby area.

See Appendix 1 for more details.



**Figure 76.** Total expenditures outside of park and nearby area

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## Evaluations of Park Experience and Post-Trip Experience

### *Aspects most liked about visit to Grand Canyon NP*

#### Question 19

What did you like most about your visit to Grand Canyon NP (open-ended)?

#### Results (Table 19)

- Table 19 shows the aspects visitor groups liked most about their visit. The most frequently mentioned aspects were:
  - “Hiking” (mentioned 28 times)
  - “Scenery” (mentioned 23 times)
  - “Wildlife” (mentioned 23 times)

**Table 19.** Aspects most liked about visit

N = 194 comments Some visitor groups may have made more than one comment.	
Aspect	Frequency of times mentioned
Hiking	28
Scenery	23
Wildlife	23
The view	20
Ease of transportation	18
Quiet	11
Staff friendly/helpful	11
Camping	10
Clean	9
Nature	9
Beauty	7
Easy access to viewing spots	6
Information available	5
Trails	5
Well maintained trails	5
Dining at Lodge	4
Lookout spots	4
Peaceful	4
Well preserved	4
Astronomy	3
Cycling	3
Visitor Center	3

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

**Table 19 (continued).** Aspects most liked about visit

N = 194 comments	
Some visitor groups may have made more than one comment.	
Aspect	Frequency of times mentioned
Geology	3
Mule Ride	3
Not crowded	3
Restrooms	3
Water Access	3
Weather	3
Driving	2
Good signage	2
Photography	2
Safe	2
Spending time with family/friends	2
Sunrise/sunset	2
The canyon	2
The tower	2
Other comments	19

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Aspects least liked about visit to Grand Canyon NP**

#### Question 20

What did you like least about your visit to Grand Canyon NP (open-ended)?

#### Results (Table 20)

- Table 20 shows the aspects visitor groups least liked about their visit. The most frequently mentioned aspects were:
  - “Crowded” (mentioned 81 times)
  - “Nothing” (mentioned 61 times)
  - “Hot weather” (mentioned 35 times)

**Table 20.** Aspects least liked about visit

N = 435 comments Some visitor groups may have made more than one comment.	
Aspect	Frequency of times mentioned
Crowded	81
Nothing	61
Hot weather	35
Parking	25
More/better dining options	16
Not enough time	16
Poor internet service	16
Roads closed due to wildfires	15
People getting too close to edge	13
Poor cell service	13
Raining weather	13
Buses overfilled	11
Expensive	9
Rude tourists	9
Trails closed due to wildfires	9
Tourists	8
Littering	7
Long drive	7
More quality water available	7
Walking on difficult terrain	7

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



**Table 20 (continued).** Aspects least liked about visit

N = 435 comments Some visitor groups may have made more than one comment.	
Aspect	Frequency of times mentioned
Accommodations need maintenance	6
More information	6
Mule droppings	6
No electricity	6
Need better restroom maintenance	5
Restrooms need upgrades	5
More seating	4
Poor trail signage	4
Traffic	4
Visitors interacting too much with wildlife	4
No available campsites	3
Other comments	63

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

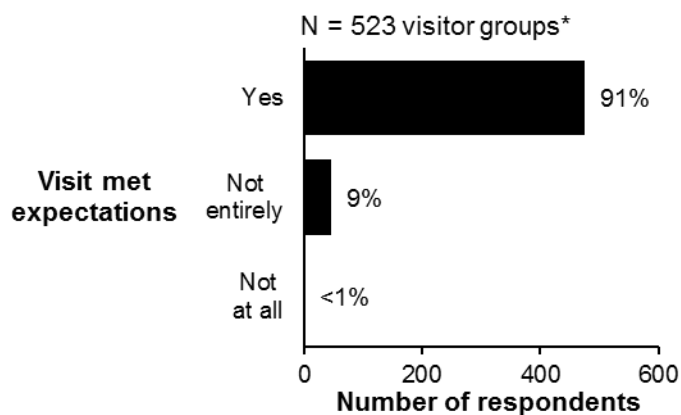
## ***Expectations for visit to Grand Canyon NP***

### **Question 21**

Did your visit to Grand Canyon NP, on this trip, meet your expectations?

Results (Figure 77)

- 91% of visitor groups had their expectations met during their visit to Grand Canyon NP, on this trip.
- Of those who responded to “Not at all” (< 1%), reasons mentioned included:
  - “Needed more info”
  - “Limited viewpoints”



**Figure 77.** Meeting of expectations for visit on this trip

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## Question 21

If NOT ENTIRELY, please explain (open-ended).

### Results (Table 21)

- Table 21 shows the reasons visitor groups' expectations were "not entirely" met. The most frequently mentioned reasons were:
  - "Wildfire affected experience" (mentioned 11 times)
  - "Crowded" (mentioned 6 times)
  - "Not enough time" (mentioned 4 times)

**Table 21.** Reasons expectations were "not entirely" met

N = 60 comments	
Some visitor groups may have made more than one comment.	
Reason	Frequency of times mentioned
Wildfire affected experience	11
Crowded	6
Not enough time	4
Better than expected	3
Cleanliness	3
Has changed for the worse	3
More information/exhibits/programs	3
Hot weather	2
Not always car accessible	2
Poor accommodations	2
Rude visitors	2
Too many tourists	2
Wish I could experience the bottom	2
Other comments	14

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Importance of use of personal electronic devices***

#### **Question 17**

How important to you was it during your visit to Grand Canyon NP to use personal electronic devices to do each of the following, and how would you rate the quality of the service in Grand Canyon NP required to do each?

Rating choices:

- 1 = Extremely important
- 2 = Very important
- 3 = Moderately important
- 4 = Slightly important
- 5 = Not at all important

#### **Results (Figure 78)**

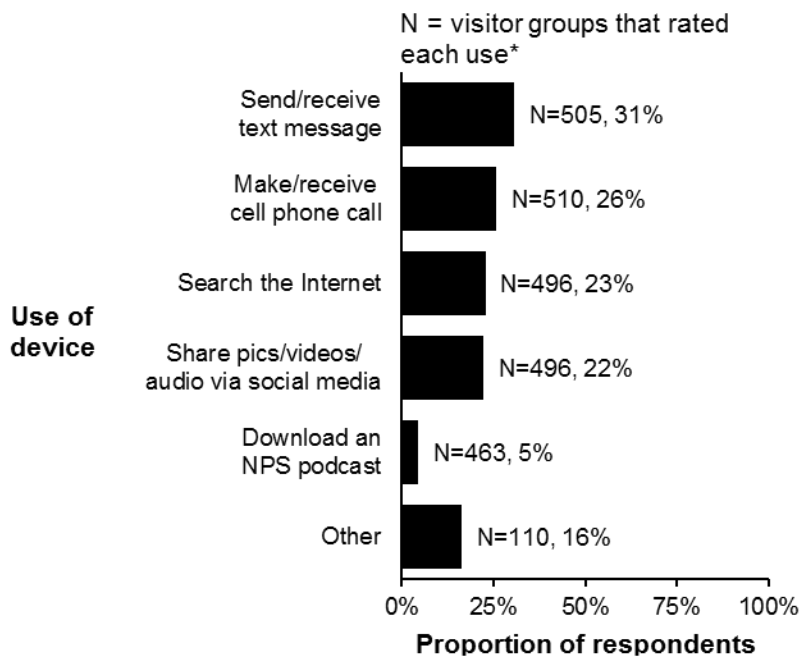
- Figure 78 shows the combined proportions of “extremely important” and “very important” ratings for use of a personal electronic device.
- The uses that received the highest proportions of “extremely important” and “very important” ratings were:
  - 31% Send/receive text message
  - 26% Make/receive cell phone call
- Of those who responded “Other” (N = 110), uses included:
  - “Take photos”
  - “GPS navigations”

See Appendix 1 for more details.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

---



**Figure 78.** Importance of using personal electronic devices

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Quality of service required to use personal electronic devices***

#### **Question 17**

How important to you was it during your visit to Grand Canyon NP to use personal electronic devices to do each of the following, and how would you rate the quality of the service in Grand Canyon NP required to do each?

Rating choices:

- 1 = Very good
- 2 = Good
- 3 = Average
- 4 = Poor
- 5 = No service at all
- 99 = Not applicable

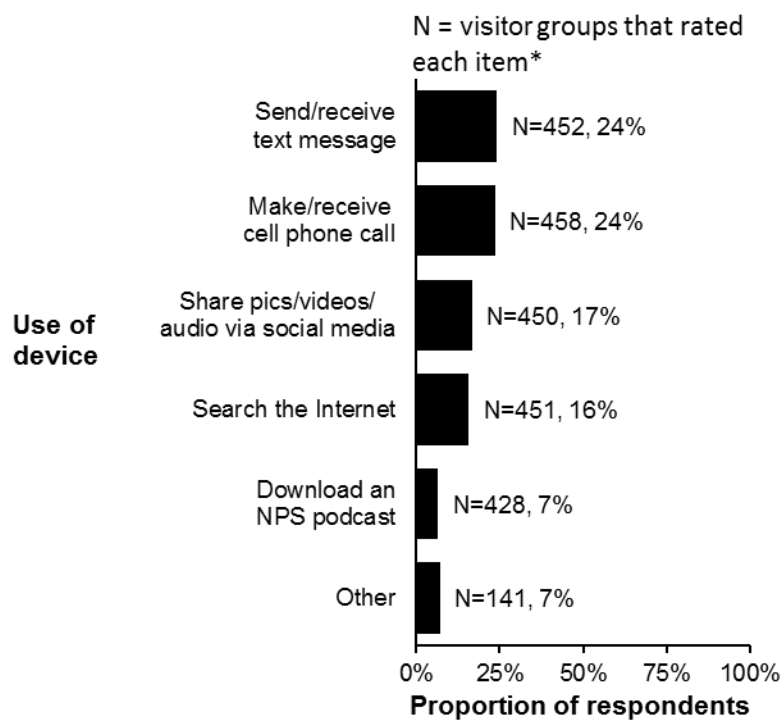
#### **Results (Figure 79)**

- Figure 79 shows the combined proportions of “very good” and “good” ratings for quality of service required to use a personal electronic device.
- The uses that received the highest combined proportions of “very good” and “good” ratings for quality of service required were:
  - 24% Send/receive text message
  - 24% Make/receive cell phone call
- Of those who responded “Other” (N = 141), uses included:
  - “Take photos”
  - “GPS navigation”

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

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**Figure 79.** Quality of service required to use personal electronic devices

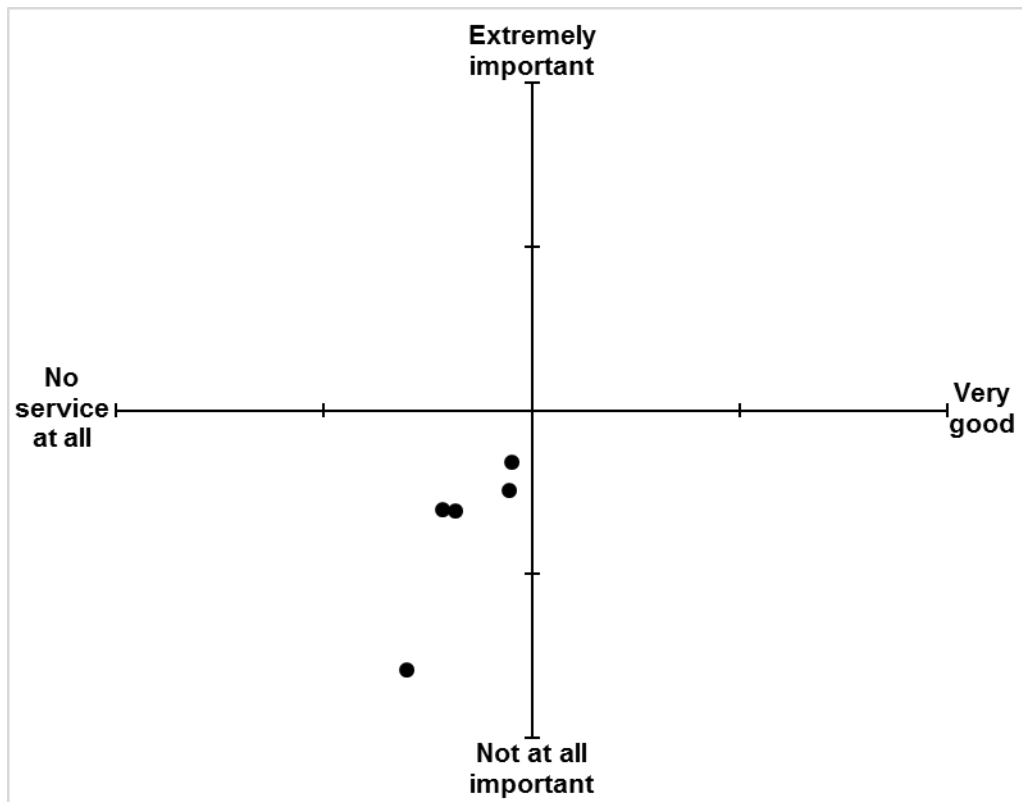
\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Mean scores of importance and quality ratings for use of personal electronic devices**

#### **Question 17**

- Figure 80 shows the mean scores of importance and quality ratings for all uses of personal electronic devices.
- All uses of personal electronic devices were rated relatively unimportant.
- The quality of service required was rated relatively average to poor for each use.



**Figure 80.** Mean scores for importance and quality ratings for use of personal electronic devices

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



## Safety

### Question 22

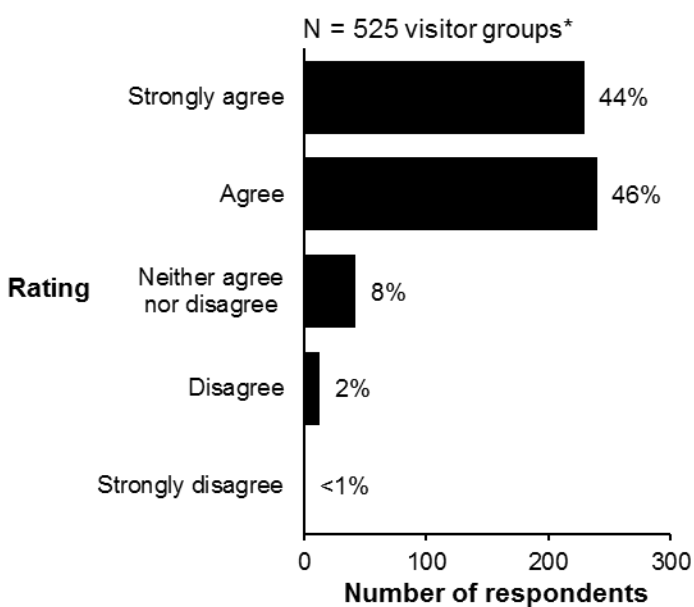
To what extent do you agree or disagree with each of the following statements?

Grand Canyon NP is a safe place to visit.

Results (Figure 81)

- 46% of visitor groups agreed that Grand Canyon NP was a safe place to visit.
- 44% of visitor groups strongly agreed with this statement.

See Appendix 1 for more details.



**Figure 81.** Extent of agreement/disagreement with statement on safety of Grand Canyon NP

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## **Crowding**

### **Question 22**

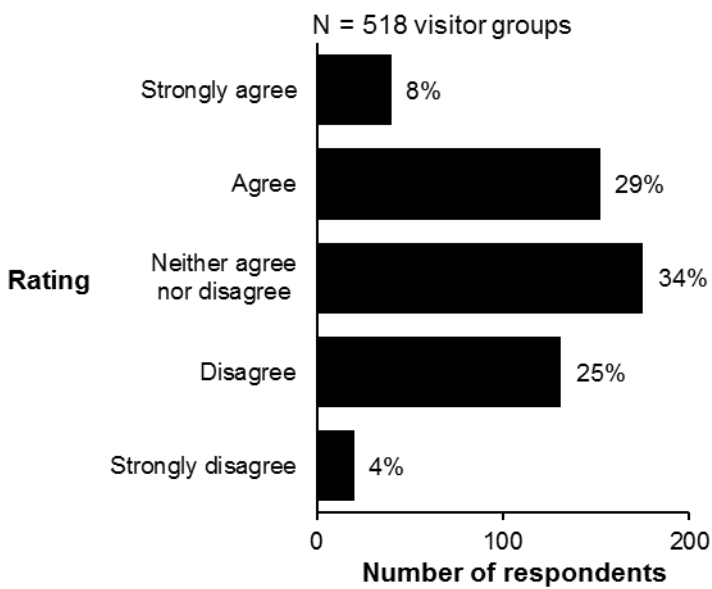
To what extent do you agree or disagree with each of the following statements?

Grand Canyon NP is too crowded.

Results (Figure 82)

- 34% of visitor groups neither agreed nor disagreed that Grand Canyon NP is too crowded.
- 29% of visitor groups agreed with this statement.

See Appendix 1 for more details.



**Figure 82.** Extent of agreement/disagreement with statement on crowding in Grand Canyon NP

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Condition of natural resources**

#### **Question 22**

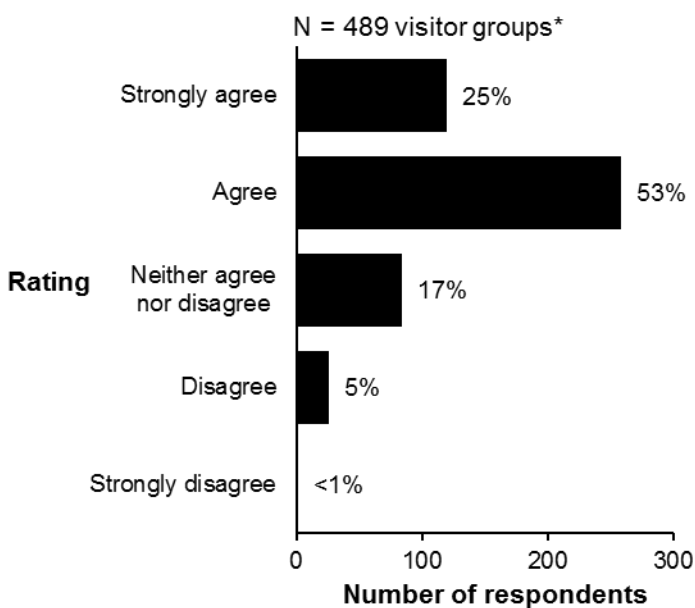
To what extent do you agree or disagree with each of the following statements?

Natural resources in Grand Canyon NP are in pristine condition.

Results (Figure 83)

- 53% of visitor groups agreed that natural resources in Grand Canyon NP are in pristine condition.
- 25% of visitor groups strongly agreed with this statement.

See Appendix 1 for more details.



**Figure 83.** Extent of agreement/disagreement with statement on condition of natural resources in Grand Canyon NP

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## **Entrance fee**

### **Question 22**

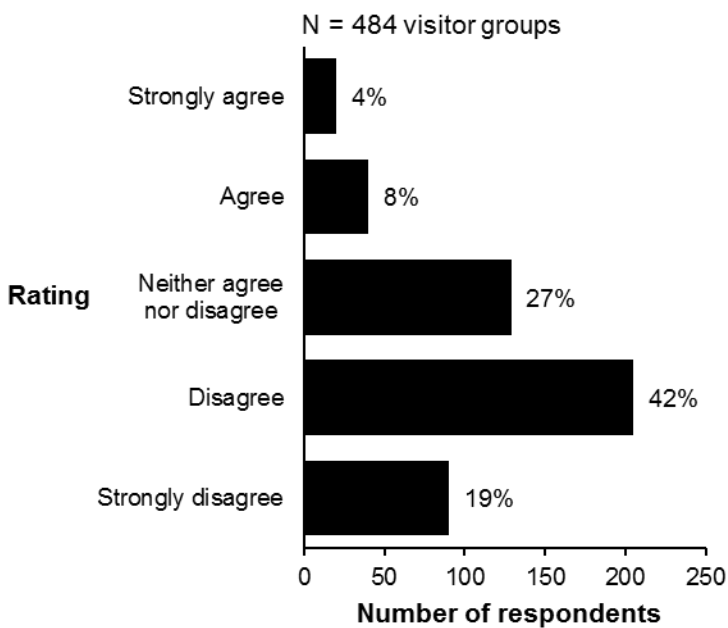
To what extent do you agree or disagree with each of the following statements?

The entrance fee for Grand Canyon NP is too high.

Results (Figure 84)

- 42% of visitor groups disagreed that the entrance fee for Grand Canyon NP is too high.
- 27% of visitor groups neither agreed nor disagreed with this statement.

See Appendix 1 for more details.



**Figure 84.** Extent of agreement/disagreement with statement on entrance fee for Grand Canyon NP

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## ***Vandalism and crime***

### Question 22

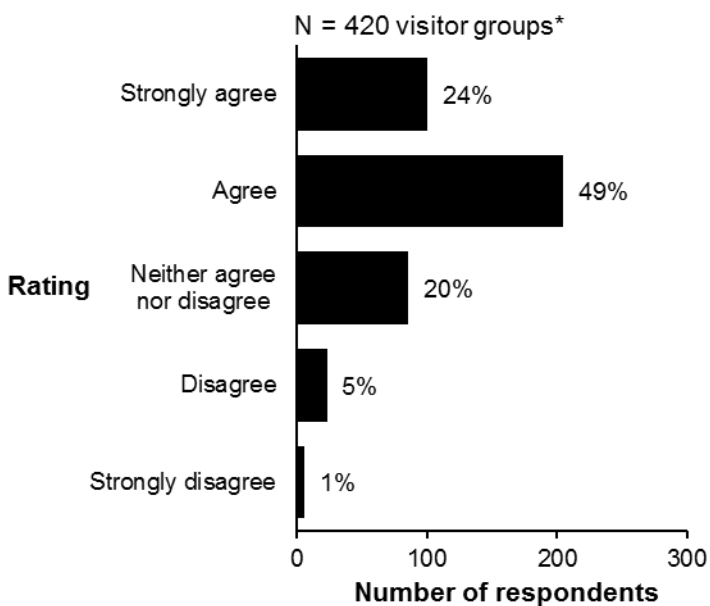
To what extent do you agree or disagree with each of the following statements?

Vandalism and crime are not a problem in Grand Canyon NP.

Results (Figure 85)

- 49% of visitor groups agreed that vandalism and crime are not a problem in Grand Canyon NP.
- 24% of visitor groups strongly agreed with this statement.

See Appendix 1 for more details.



**Figure 85.** Extent of agreement/disagreement with statement on vandalism and crime in Grand Canyon NP

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## **Accessibility**

### **Question 22**

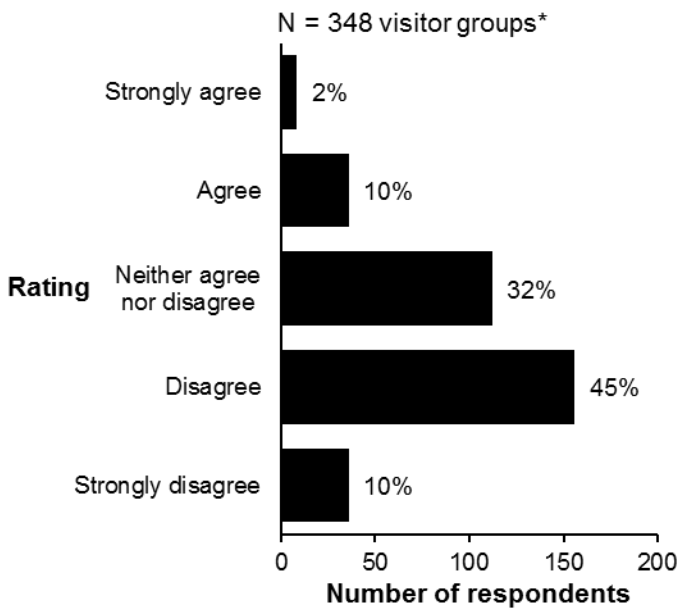
To what extent do you agree or disagree with each of the following statements?

Grand Canyon NP is not accessible to persons with physical disabilities.

Results (Figure 86)

- 45% of visitor groups disagreed that Grand Canyon NP is not accessible to persons with physical disabilities.
- 32% of visitor groups neither agreed nor disagreed with this statement.

See Appendix 1 for more details.



**Figure 86.** Extent of agreement/disagreement with statement on accessibility of Grand Canyon NP

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Condition of historical and cultural features***

#### **Question 22**

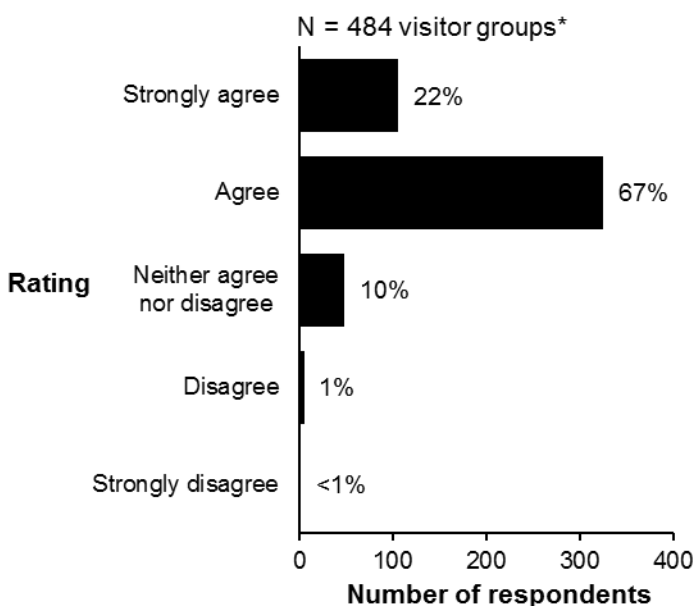
To what extent do you agree or disagree with each of the following statements?

Historical and cultural features in Grand Canyon NP are well maintained/preserved.

Results (Figure 87)

- 67% of visitor groups agreed that historical and cultural features in Grand Canyon NP are well maintained/preserved.
- 22% of visitor groups strongly agreed with this statement.

See Appendix 1 for more details.



**Figure 87.** Extent of agreement/disagreement with statement on condition of historical and cultural features in Grand Canyon NP

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### ***Development of adjacent areas***

#### **Question 22**

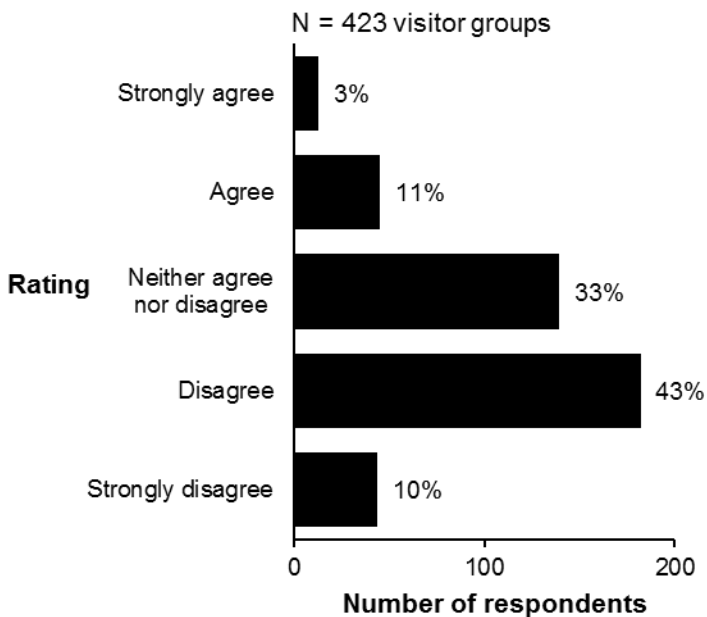
To what extent do you agree or disagree with each of the following statements?

Development of adjacent areas detracts from visitors' experiences at Grand Canyon NP.

Results (Figure 88)

- 43% of visitor groups disagreed that development of adjacent areas detracts from visitors' experience at Grand Canyon NP.
- 33% of visitor groups neither agreed nor disagreed with this statement.

See Appendix 1 for more details.



**Figure 88.** Extent of agreement/disagreement with statement on development of adjacent areas near Grand Canyon NP

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



## ***Quality of facilities, services, and recreational opportunities***

### **Question 22**

How would you rate the quality of the facilities, services, and recreational opportunities in Grand Canyon NP?

Rating choices:

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

### **Results (Figure 89)**

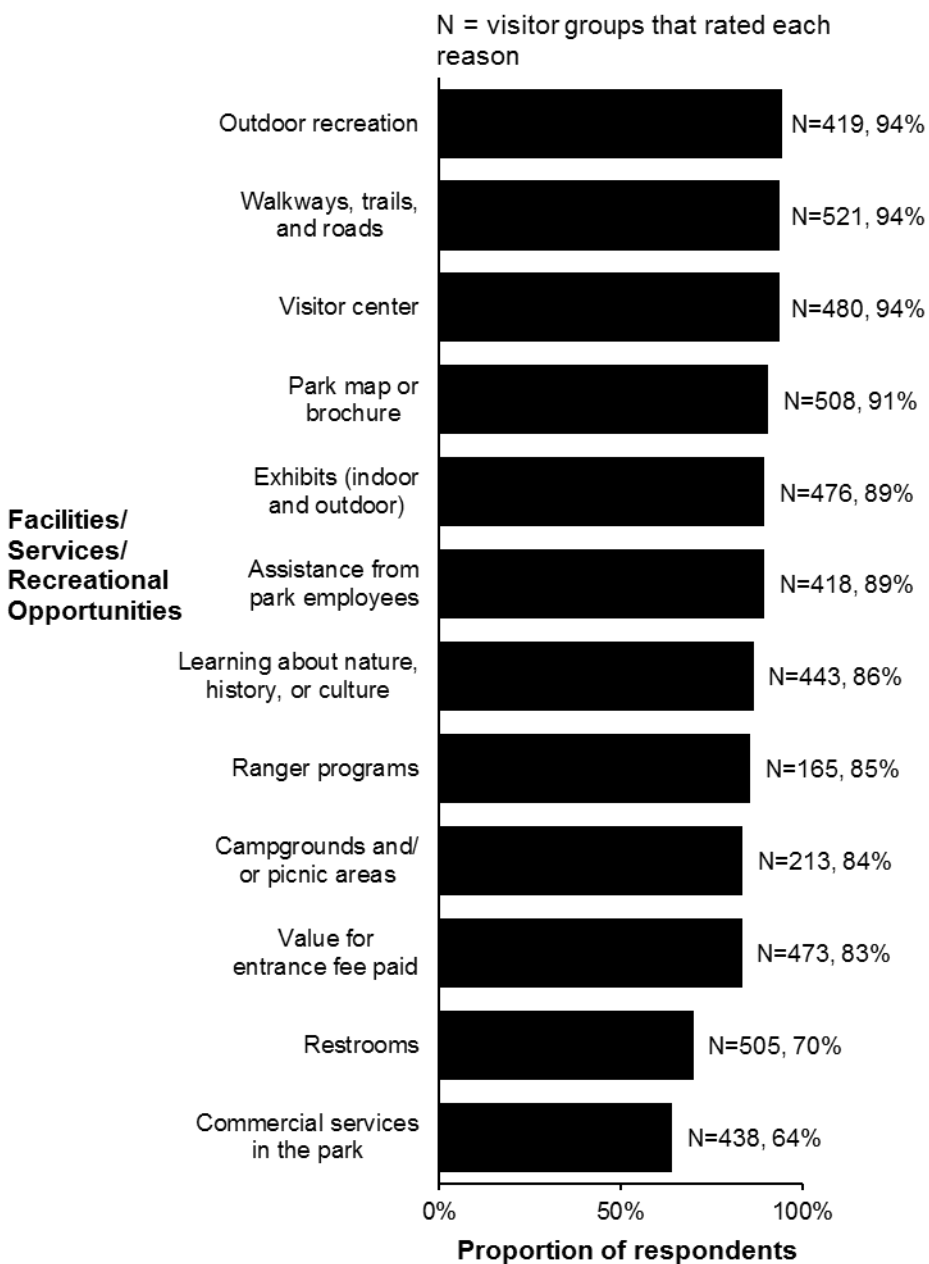
- Figure 89 shows the combined proportions of “very good” and “good” ratings for facilities, services, and recreational opportunities.
- The facility, services, and recreational opportunities that received the highest combined proportions of “very good” and “good” ratings were:
  - 94% Outdoor recreation
  - 94% Walkways, trails and roads
  - 94% Visitor center
  - 91% Park map or brochure
- The facilities, services, and recreational opportunities that received the lowest combined proportions of “very good” and “good” ratings were:
  - 83% Value for entrance fee paid
  - 70% Restrooms
  - 64% Commercial services in park

Figure 90 through Figure 101 show ratings for each facility, program, or recreational opportunity.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

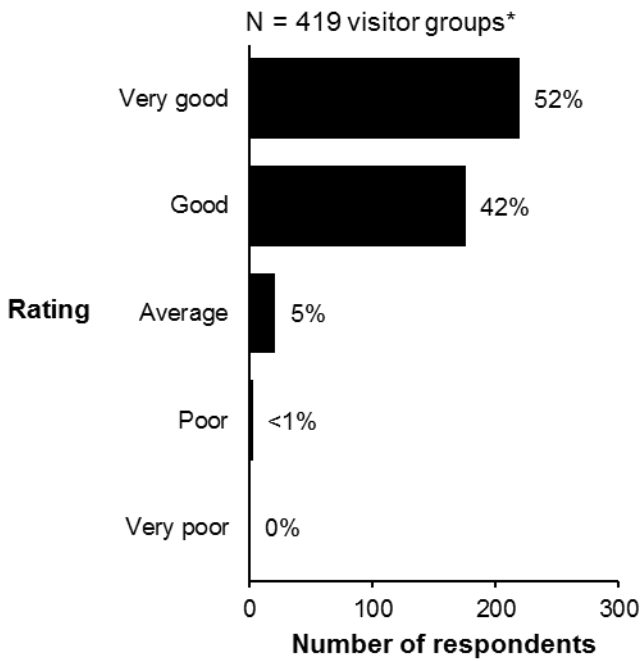
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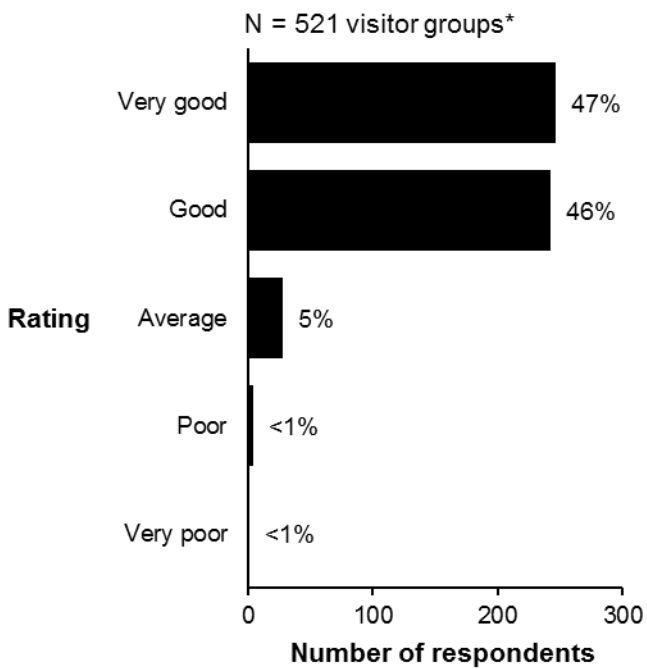
**Figure 89.** Quality of facilities, services, and recreational opportunities

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



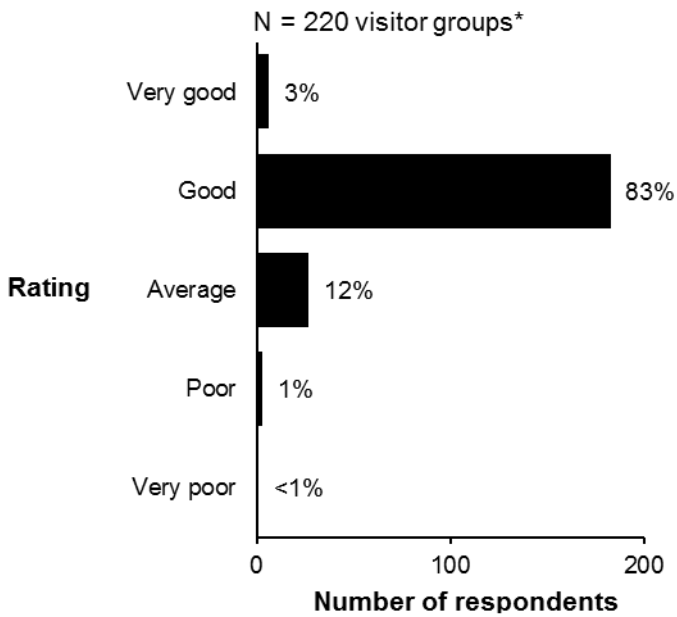
**Figure 90.** Quality of outdoor recreation (sightseeing, camping, bicycling, boating, hiking, etc.)



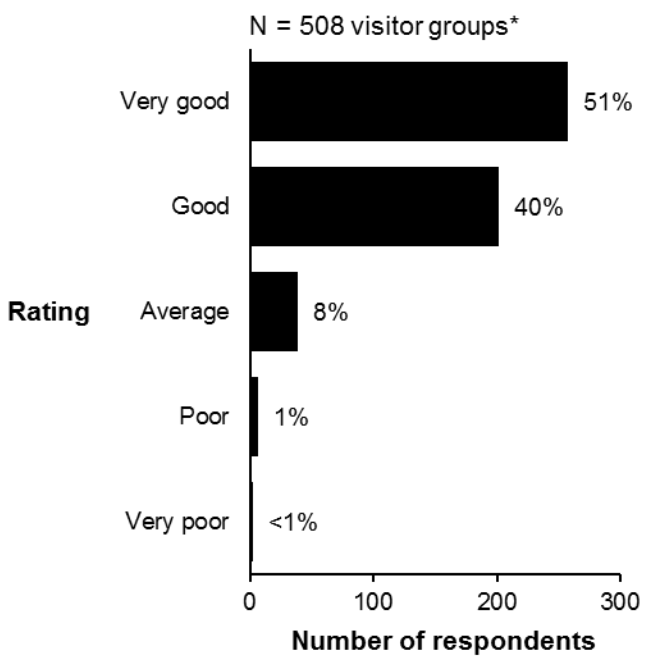
**Figure 91.** Quality of walkways, trails, and roads

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



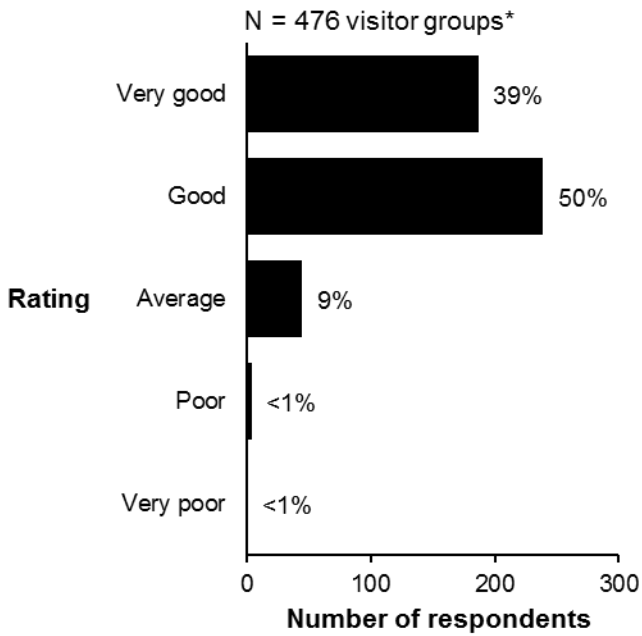
**Figure 92.** Quality of visitor center



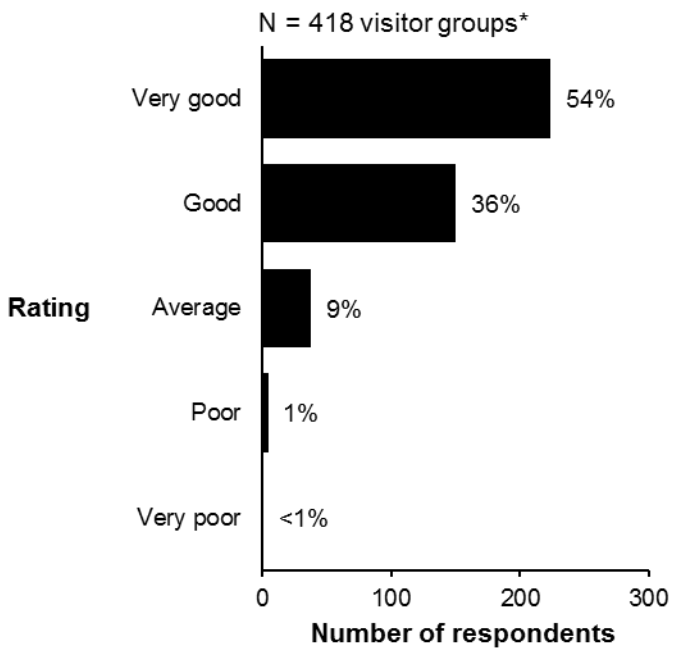
**Figure 93.** Quality of park map/brochure

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



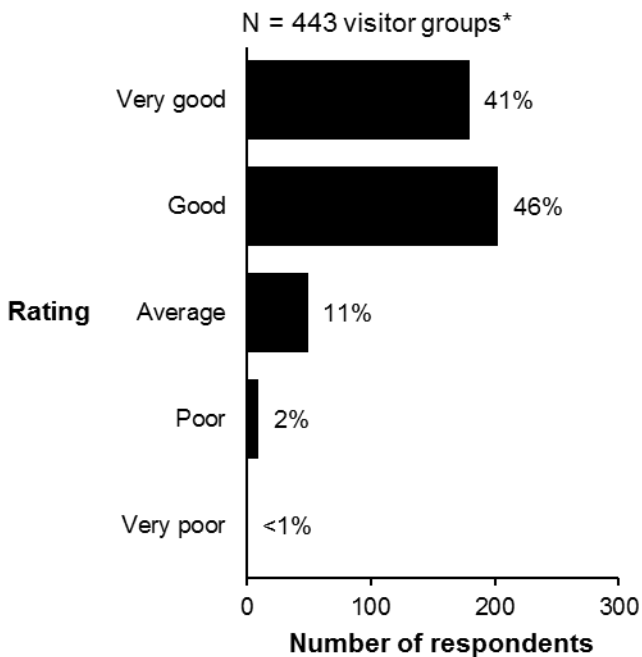
**Figure 94.** Quality of exhibits (indoor and outdoor)



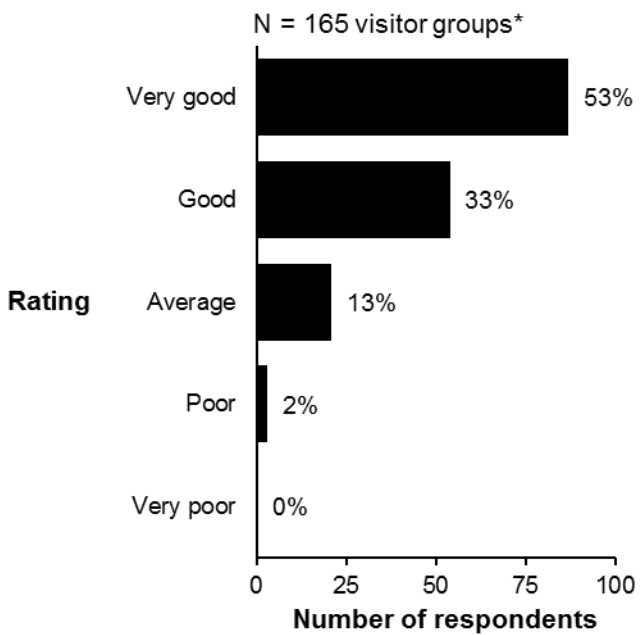
**Figure 95.** Quality of assistance from park employees

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



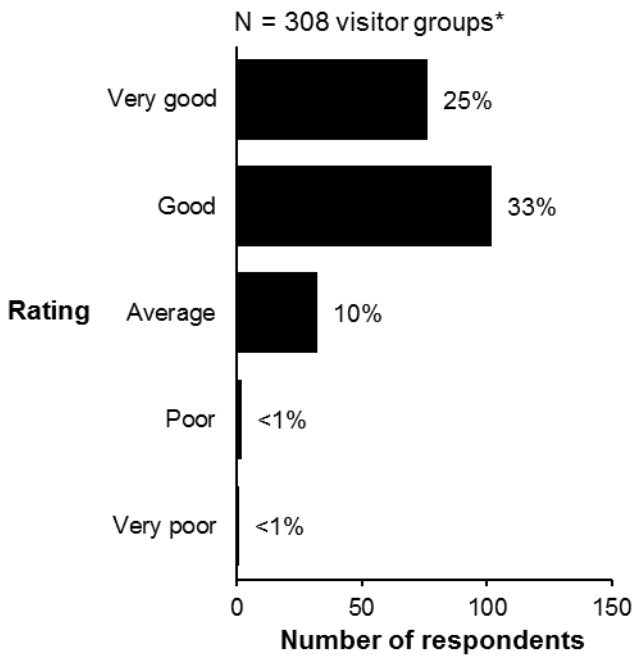
**Figure 96.** Quality of learning about nature, history, or culture



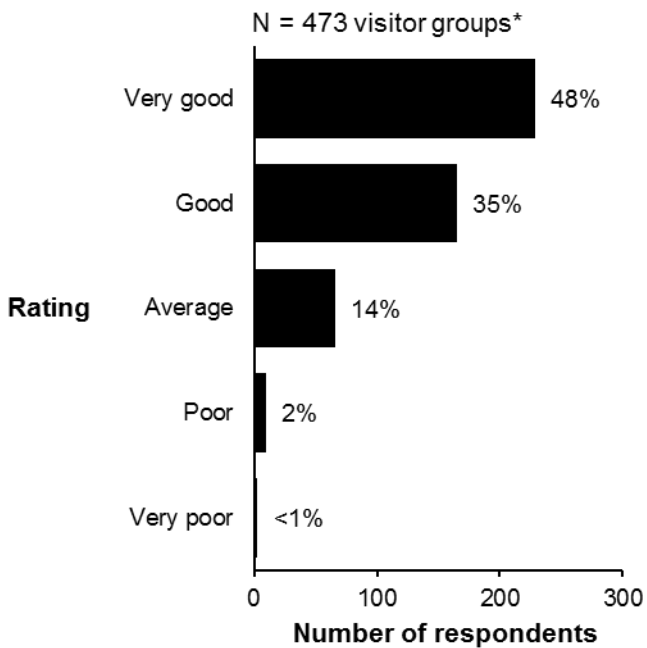
**Figure 97.** Quality of ranger programs

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



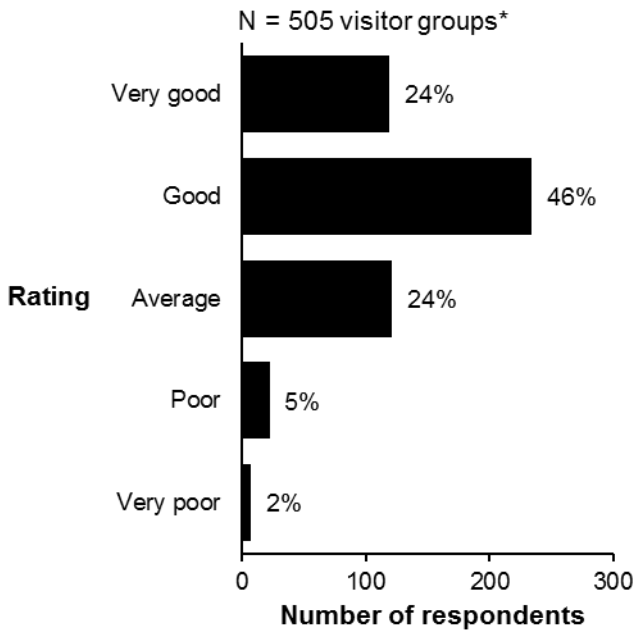
**Figure 98.** Quality of campgrounds and/or picnic areas



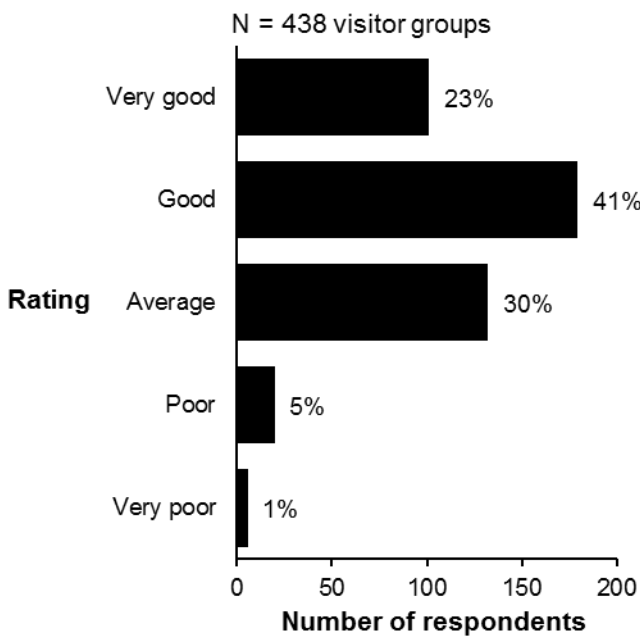
**Figure 99.** Quality of value for entrance fee paid

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



**Figure 100.** Quality of restrooms



**Figure 101.** Quality of commercial services in the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer



## **Services used**

### Question 23

Please specify services used.

### Results (Table 22)

- Table 22 shows the services used by visitor groups. The most frequently mentioned services were:
  - “Dining” (mentioned 91 times)
  - “Gift shops” (mentioned 53 times)

**Table 22.** Services used

N = 161 comments	
Some visitor groups may have made more than one comment.	
Service	Frequency of times mentioned
Dining	91
Gift shops	53
Lodging	30
Restrooms	18
Visitor Center	18
Store	15
Staff/ranger assistance	14
Buses	12
Map	8
Rentals	7
All facilities/services	6
Trails	6
Water stations	6
Brochure	5
Other comments	19

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

### **Overall quality of facilities, services, and recreational opportunities**

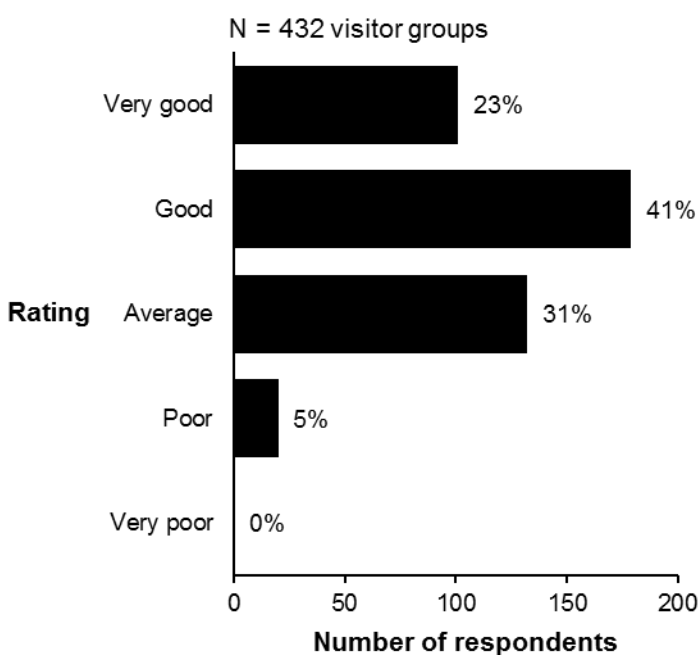
#### **Question 24**

Overall, how would you rate the quality of facilities, services, and recreational opportunities in Grand Canyon NP?

Results (Figure 102)

- 41% of visitor groups rated the quality of facilities, services, and recreational opportunities overall as “good”.
- 31% of visitor groups gave an overall rating of “average”.

See Appendix 1 for more details.



**Figure 102.** Overall rating of 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 1 answer

### ***Opinion of national significance of park***

#### **Question 25**

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

#### **Results (Table 23)**

- Table 23 shows what visitor groups believed the national significance of Grand Canyon NP to be. The items most frequently mentioned were:
  - “The Canyon” (mentioned 95 times)
  - “A great natural wonder” (mentioned 72 times)
  - “Pristine land” (mentioned 69 times)

**Table 23.** Opinions of national significance of park

N = 419 comments Some visitor groups may have made more than one comment.	
<b>Significance</b>	<b>Frequency of times mentioned</b>
The Canyon	95
A great natural wonder	72
Pristine land	69
Views	63
Geological History	62
Beauty	55
Grandeur	28
Natural scenery	26
Patriotism	25
History	23
Accessible	15
Natural beauty	15
Nature	15
International significance	12
Don't know	11
God's creation	11
Education	9
Great significance	9
American History	8
Unique	5
A great place to visit	4
Culture	4

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

**Table 23 (continued). Opinions of national significance of park**

N = 419 comments	
Some visitor groups may have made more than one comment.	
<b>Significance</b>	<b>Frequency of times mentioned</b>
Recreation	4
Resource preservation	4
Ecosystems	3
Other comments	12

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

## Visitor Comments

### *Additional comments*

#### Question 41

Is there anything else you would like to tell us about Grand Canyon NP's facilities, services, or recreational opportunities?

#### Results (Table 24)

- Table 24 shows additional comments from visitor groups. Most of the comments were positive:
  - “Enjoyed visit” (mentioned 54 times)
  - “Great experience” (mentioned 23 times)

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than 1 answer

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**Table 24.** Additional comments about facilities, services, or recreational opportunities

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N = 245 comments		
Some visitor groups may have made more than one comment.		
Category	Comment	Frequency of times mentioned
<b>PERSONNEL</b>	Friendly helpful staff/rangers	9
	Poor staff/rangers experience	4
<b>POLICIES/MANAGEMENT</b>	Improve policies and management	7
	Overpriced	4
	Longer hours	3
	Need one-day entrance fee	2
<b>INTERPRETIVE AND INFORMATION SERVICES</b>	More translations	4
<b>FACILITIES AND MAINTENANCE</b>	Improve infrastructure and amenities	9
	Well maintained	8
	More signage	6
	Improve lodging	5
	More information on amenities	4
	More dining options	4
	More restrooms	4
	Improve wi-fi	3
	More lodging	3
	Express entrance lane	2
	More accessibility	2
	More attractions	2
	More parking	2
	More shuttle buses	2
	Not well maintained	2
<b>GENERAL COMMENTS</b>	Enjoyed visit	54
	Great experience	23
	Park preservation	12
	Good work	9
	Thank you	8
	Beautiful park	6
	Wonderful park	4
	Love NPS	2

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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 1 answer

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## Appendix 1. Descriptive Statistics

Table 25 shows the mean, median, and standard deviation for those variables for which measures of central tendency can be computed.

**Table 25.** Mean/median/standard deviation of selected variables

Question number	Description	N	Mean	Median	Standard deviation
Q01	Group size	533	3.83	3	3.46
Q01	Number of adults in group	533	2.71	2	2.40
Q01	Number of children in group	261	2.29	2	2.01
Q03	Number of people per vehicle	313	3.32	3	1.49
Q04	Number of hours traveled to get from home to park	469	31.24	12	122.78
Q04	Number of miles traveled to get from home to park	413	2,501.95	1500	6,304.96
Q06	Number of days entering/reentering the park	522	1.50	1	1.12
Q07	Number of hours in the park	290	6.20	5	3.94
Q07	Number of days in the park	255	3.63	2	9.93
Q10	Importance of attending a special event	463	4.67 <sup>3</sup>	5	0.85
Q10	Importance of getting physical exercise	512	3.09	3	1.21
Q10	Importance of spending time with friends/family	514	1.78	1	1.05
Q10	Importance of learning more about American history and culture	519	2.73	3	1.14
Q10	Importance of learning more about nature	518	2.48	2	1.05
Q10	Importance of "other"	128	3.32	5	1.87
Q10	Importance of being outdoors	514	2.03	2	1.01
Q10	Importance of hearing the sounds of nature/quiet	515	2.80	3	1.31
Q10	Importance of relaxing	518	2.58	2	1.21
Q10	Importance of experiencing solitude	507	3.51	4	1.33
Q10	Importance of viewing dark night sky/stars	506	3.51	4	1.44
Q10	Importance of viewing wildlife or natural scenery	524	1.45	1	0.71
Q10	Importance of visiting an NPS site	510	2.54	2	1.31

<sup>3</sup> Responses for Question 10 were rated on a scale from 1 = Extremely Important to 5 = Not at all Important.



Question number	Description	N	Mean	Median	Standard deviation
Q17	Importance of being able to use personal electronic devices to make/receive cell phone call	510	3.49 <sup>4</sup>	4	1.39
Q17	Quality of being able to use personal electronic devices to make/receive cell phone call	330	3.11 <sup>5</sup>	3	1.23
Q17	Importance of being able to use personal electronic devices to send/receive text message	505	3.31	3	1.39
Q17	Quality of being able to use personal electronic devices to send/receive text message	349	3.09	3	1.20
Q17	Importance of being able to use personal electronic devices to search the Internet	496	3.61	4	1.38
Q17	Quality of being able to use personal electronic devices to search the internet	313	3.43	3	1.23
Q17	Importance of being able to use personal electronic devices to share pics/videos/audio via social media	496	3.62	4	1.35
Q17	Quality of being able to use personal electronic devices to share pics/videos/audio via social media	291	3.37	3	1.24
Q17	Importance of being able to use personal electronic devices to download an NPS podcast	463	4.59	5	0.88
Q17	Quality of being able to use personal electronic devices to download an NPS podcast	131	3.60	4	1.35
Q17	Importance of being able to use personal electronic devices to "other"	112	4.28	5	1.41
Q17	Quality of being able to use personal electronic devices to "other"	38	3.42	3.5	1.33
Q22	Grand Canyon NP is not accessible to persons with physical disabilities	348	3.51	4	0.90
Q22	Vandalism and crime are not a problem in Grand Canyon NP	420	2.12	2	0.88
Q22	Grand Canyon NP is too crowded	518	2.88	3	1.00
Q22	Development of adjacent areas detracts from visitors' experiences at Grand Canyon NP	430	3.43	4	0.97
Q22	The entrance fee for Grand Canyon NP is too high	484	3.63	4	1.01
Q22	Grand Canyon NP is a safe place to visit	525	1.70	2	0.74

<sup>4</sup> Responses for Question 17 on Importance were rated on a scale from 1 = Extremely Important to 5 = Not at all Important.

<sup>5</sup> Responses for Question 17 on Quality were rated on a scale from 1 = Very good to 5 = No service at all

Question number	Description	N	Mean	Median	Standard deviation
Q23	Quality of assistance from park employees	418	1.59 <sup>6</sup>	1	0.73
Q23	Quality of campgrounds and/or picnic areas	213	1.83	2	0.75
Q23	Quality of exhibits	476	1.72	2	0.68
Q23	Quality of learning about nature, history, or culture	443	1.75	2	0.75
Q23	Quality of park map or brochure	508	1.61	1	0.72
Q23	Quality of outdoor recreation	419	1.54	1	0.63
Q23	Quality of ranger programs	165	1.64	1	0.77
Q23	Quality of restrooms	505	2.14	2	0.88
Q23	Quality of commercial services in the park	438	2.20	2	0.89
Q23	Quality of walkways, trails, and roads	521	1.60	2	0.65
Q23	Quality of value for entrance fee paid	473	1.72	2	0.83
Q23	Quality of visitor center	480	1.52	1	0.65
Q24	Quality of the park overall	519	1.56	2	0.60
Q27	Nights backcountry camping in Grand Canyon NP	12	1.92	2	0.90
Q27	Nights camping in Grand Canyon NP	68	2.40	2	1.21
Q27	Nights camping outside Grand Canyon NP	50	3.34	2	8.33
Q27	Nights lodging in Grand Canyon NP	93	3.31	2	15.40
Q27	Nights lodging outside Grand Canyon NP	209	2.26	2	1.38
Q27	Nights in other accommodations	18	5.17	2	5.27
Q27	Total nights in overnight accommodations	397	3.09	2	8.40
Q30	Total length of package tour	54	6.59	2	7.88
Q30	Total cost per person of package tour	49	1,079.49	400	1,363.38
Q30	Total number of people on the package tour	53	5.64	3	8.86
Q31	Expenditures on park entrance fee	288	46.44	30	30.50
Q31	Expenditures on gas and oil	388	95.44	50	158.21
Q31	Expenditures on rental cars	146	403.09	227.5	644.21
Q31	Expenditures on taxis, shuttles, and public transportation	10	535.20	65	1,004.13
Q31	Expenditures on restaurants and bars	385	190.22	120	235.65
Q31	Expenditures on groceries and convenience foods	298	78.15	50	97.51
Q31	Expenditures on hotels, motels, resorts	247	490.82	300	641.38
Q31	Expenditures on specialty lodging	43	515.15	250	831.06
Q31	Expenditures on camping fees	104	72.29	48	74.60

<sup>6</sup> Responses for Question 23 were rated on a scale from 1 = Very good to 5 = Very poor.

<b>Question number</b>	<b>Description</b>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Standard deviation</b>
Q31	Expenditures on recreation and entertainment expenses	40	161.92	117.5	199.37
Q31	Expenditures on souvenirs, clothing, supplies, other retail	337	99.78	50	137.79
Q31	Expenditures on equipment rental	14	148.50	70	256.28
Q31	Expenditures on guides and tours	35	319.40	175	409.66
Q31	Expenditures on other	33	478.03	360	442.73
Q32	Expenditures outside the area	203	2,747.65	1500	3,999.19
Q33	Adults covered by expenses	483	2.60	2	2.59
Q33	Children covered by expenses	242	2.07	2	1.12
Q33	Visitors who split expenses	382	2.60	2	6.47
Q33	Visitors covered by expenses	488	3.61	3	2.94
Q31	Total expenditures in park and nearby area	480	898.47	519	1,250.10
Q34	Age: respondent	516	48.44	49	14.55
Q34	Park visits past 12 months: respondent	483	3.18	2	3.99
Q34	NPS site visits past 12 months: respondent	456	1.38	1	3.89
Q34	Age: all group members	1721	37.68	41	20.84
	Park visits past 12 months: All group members	1564	2.98	2	3.80
Q34	NPS site visits past 12 months: all group members	1537	1.14	1	2.16

## **Appendix 2. The Questionnaire**



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

# **Grand Canyon National Park**

## **Visitor Study**



**2016**

**Paperwork Reduction and Privacy Act Statements:** The Paperwork Reduction Act requires us to tell you why we are collecting this information, how we will use it, and whether or not you have to respond. This information will be used by the National Park Service as authorized by 16 USC 5931 §201. We will use this information to evaluate visitor services and facilities managed by the National Park Service. Your responses are voluntary and anonymous. Your name and address have been requested for follow-up purposes only. At the completion of this collection all names and personal information will be destroyed and in no way be connected with the results of this survey. A Federal agency may not conduct or sponsor and you are not required to respond to, a collection of information unless it displays a currently valid OMB Control Number.

**Burden Estimate:** We estimate that it will take an average of 20 minutes to complete this questionnaire. You may send comments concerning the burden estimates or any aspect of this information collection to the Social Science Program Chief, National Park Service, 1201 Oakridge Drive, Fort Collins, CO, 80525-5596; [nps\\_nrss\\_social\\_science@nps.gov](mailto:nps_nrss_social_science@nps.gov) (email).



United States Department of the Interior

NATIONAL PARK SERVICE

1849 C Street, N.W.  
Washington, DC 20240



Summer, 2016

Dear National Park Visitor:

Thank you for participating in this study. Our goal is to learn about the expectations, opinions, and interests of visitors to the National Park System. This information will assist us in our efforts to better manage this park and to serve you.

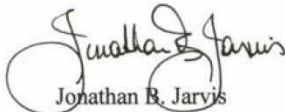
This questionnaire is only being given to a select number of visitors, so your participation is very important. It should take about 20 minutes to complete after your visit.

When your visit is over, the adult in your group who will have the next birthday should complete this questionnaire. Seal it in the postage-paid envelope provided and drop it in any U.S. Postal Service mailbox.

If you have any questions, please contact the Social Science Program Chief, National Park Service, 1201 Oakridge Drive, Fort Collins, CO, 80525-5596; [nps\\_nrss\\_social\\_science@nps.gov](mailto:nps_nrss_social_science@nps.gov) (email).

We appreciate your help.





Sincerely,

  
Jonathan B. Jarvis  
Director

### RETURN PROCEDURE

At the end of your visit:

1. Please have the adult in your group (at least 18 years old) who has the next birthday complete this questionnaire. That will help give us a statistically reliable sample.
2. For questions that use circles (O), please mark your answer by filling in the circle with **black or blue ink**. Please do not use pencil.

Like this: ● Not like this:    

3. Seal it in the postage-paid envelope provided.
4. Drop it in a U.S. Postal Service mailbox.



**DIRECTIONS**

Please have the adult in your group (at least 18 years old) having the next birthday complete this questionnaire.

In this questionnaire, your **personal group** is defined as you and anyone with whom you visited Grand Canyon National Park on this trip, such as a spouse, family, friends, etc. This does not include the larger group that you might have traveled with, such as a school, church, scout, or tour group.

A **visit** is defined as the day in which you were contacted to complete this questionnaire. A **trip** is defined as the total extent of time away from your personal residence that could include multiple visits to Grand Canyon National Park.

**A. Trip Description**

1. Including yourself, how many people were in your personal group during your visit to Grand Canyon National Park (NP) on the day you were contacted for this survey?

\_\_\_\_\_ Number of adults (18 years or older)

\_\_\_\_\_ Number of children (under 18 years)

2. What type of group were you with, during your visit to Grand Canyon NP on the day you were contacted for this survey? Please mark (●) **one**.

☐ Alone

☐ Friends

☐ Family

☐ Family and friends

☐ Other (Please specify) \_\_\_\_\_

3. Please indicate all of the forms of transportation you personally used to travel from your home to Grand Canyon NP, on this trip. Please mark (●) **all that apply**.
- ☐ Car, truck, or SUV (Number of people in vehicle, including you) \_\_\_\_\_
  - ☐ Recreational vehicle or motorhome
  - ☐ Airplane
  - ☐ Tour bus or tour van
  - ☐ City bus or subway
  - ☐ Train or long-distance passenger bus
  - ☐ Water-based transportation (Please mark (●) **all that apply**.)
    - ☐ Cruise ship
    - ☐ Ferry
    - ☐ Tour boat
    - ☐ Other water-based mode (Please specify) \_\_\_\_\_
  - ☐ Bicycle
  - ☐ Walk/hike
  - ☐ Other (Please specify) \_\_\_\_\_
4. Approximately how many hours and miles from home did you travel one way to get to Grand Canyon NP on this trip?
- \_\_\_\_\_ Number of hours
- AND**
- \_\_\_\_\_ Number of miles
5. On this trip to Grand Canyon NP, which one of the following entrance fees applied to you personally? Please mark (●) **one**.
- ☐ Did not pay a fee or use a pass to enter the park
  - ☐ 7-day entrance pass
  - ☐ Annual Pass for Grand Canyon NP
  - ☐ America the Beautiful – National Parks and Federal Recreational Lands
  - ☐ Senior Pass, Access Pass, or Military Pass
  - ☐ Fee included in tour package
  - ☐ Don't know/Not sure
  - ☐ Other (Please specify) \_\_\_\_\_

6. On how many days during this trip did you enter or re-enter Grand Canyon NP? If you were on a day trip or if you camped or lodged inside the park and did not leave the park boundaries for the entire length of your stay, then answer 1 day.

\_\_\_\_\_ Number of days entering or re-entering Grand Canyon NP

**OR**

☐ Don't know/Not sure

7. On this trip, how much total time did you spend within Grand Canyon NP?

\_\_\_\_\_ Number of hours, if a day trip

\_\_\_\_\_ Number of days, if greater than 1 day

<b>B. Trip Planning and Motivations</b>
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8. Prior to this trip, how did you obtain information about Grand Canyon NP? Please mark (●) **all that apply**.

- ☐ Did not obtain information prior to this visit
- ☐ Previous visits
- ☐ Friends/relatives/word of mouth
- ☐ Inquiry to park via phone, mail, or email
- ☐ Grand Canyon NP website (nps.gov/grca)
- ☐ Other website (Please specify) \_\_\_\_\_
- ☐ Local businesses (hotels, motels, restaurants, etc.)
- ☐ Maps/brochures
- ☐ Newspaper/magazine articles
- ☐ Other units of the National Park System (NPS)
- ☐ School class/program
- ☐ Social media (such as Facebook, Twitter, etc.)
- ☐ State welcome center/visitors bureau/chamber of commerce
- ☐ Television/radio programs/DVDs
- ☐ Travel guides/tour books (such as AAA, etc.)
- ☐ Other (Please specify) \_\_\_\_\_

9. Did you have the information about Grand Canyon NP you needed on this trip? Please mark (●) **one**.
- ☐ Yes
- ☐ No (Please specify information you needed but didn't have on this trip.)

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10. How important to you was each of the following reasons for visiting Grand Canyon NP on this trip? Please mark (●) **one for each row**.

	Extremely Important	Very Important	Moderately Important	Slightly Important	Not at All Important
To visit a National Park Service site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To spend time with friends/family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To view wildlife or natural scenery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To get physical exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To relax	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To learn more about American history and culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To learn more about nature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To attend a special event (Please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<hr/>					
To hear the sounds of nature/quiet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To experience solitude	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To be outdoors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To view dark night sky/stars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (Please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<hr/>					

11. Of the reasons listed in Question 10, which was the most important reason for you to visit Grand Canyon NP on this trip?

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**C. Park Activities, Programs, and Services**

12. On this trip, in which of the following activities did you personally participate within Grand Canyon NP? Please mark (●) **all that apply**.
- ☐ Viewing wildlife, natural features, scenery, wildflowers, etc.
  - ☐ Creative arts (photography/drawing/painting/writing)
  - ☐ Visiting a cultural or historic site
  - ☐ Nature study
  - ☐ Driving for pleasure
  - ☐ Walking/short hike (less than 1 hour)
  - ☐ Day hiking (1 hour or more)
  - ☐ Bicycling
  - ☐ Running/jogging
  - ☐ Fishing
  - ☐ Non-motorized water travel (rafting, kayaking, canoeing, tubing, etc.)  
Please specify: \_\_\_\_\_
  - ☐ Camping in developed sites
  - ☐ Overnight backpacking
  - ☐ Overnighiting in resort, cabin, or other accommodations in Grand Canyon NP
  - ☐ Family gathering/reunion
  - ☐ Picnicking
  - ☐ Water play (swimming, snorkeling, scuba diving, etc.)  
Please specify: \_\_\_\_\_
  - ☐ Foraging/collecting edibles (e.g., mushrooms, truffles)
  - ☐ Rock climbing/bouldering
  - ☐ Mountaineering
  - ☐ Other (Please specify) \_\_\_\_\_
  - ☐ Other (Please specify) \_\_\_\_\_
13. Of the activities listed in Question 12, which was your primary activity during your visit to Grand Canyon NP on the day you were contacted for this survey?
- \_\_\_\_\_
- OR**
- ☐ I did not have a primary activity on this trip to Grand Canyon NP.

14. On this trip, in which of the following programs and services did you personally participate within Grand Canyon NP? Please mark (●) **all that apply**.
- ☐ Attending a ranger-led activity, such as a tour or talk
  - ☐ Talking informally with a ranger
  - ☐ Viewing outdoor exhibits
  - ☐ Viewing indoor exhibits
  - ☐ Attending a cultural demonstration or performance
  - ☐ Reading the park brochure or newspaper
  - ☐ Going to the Visitor Center
  - ☐ Watching movies or videos about the park
  - ☐ Participating with a child in your group in the Junior Ranger program
  - ☐ Obtaining National Park passport stamp
  - ☐ Listening to an audio tour or podcast
  - ☐ Using a smart phone app specific to Grand Canyon NP
  - ☐ Other (Please specify) \_\_\_\_\_
15. On this visit to Grand Canyon NP, did you learn anything from park staff, programs, and/or exhibits about American history, nature, and/or culture? Please mark (●) **one**.
- ☐ Yes (Please specify subjects you learned about.)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  - ☐ No
16. If you were to visit Grand Canyon NP in the future, are there specific subjects you would like to learn about? Please mark (●) **one**.
- ☐ Yes (Please specify subjects you would like to learn about.)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  - ☐ No

17. How important to you was it during your visit to Grand Canyon NP to use personal electronic devices to do each of the following, and how would you rate the quality of the service in Grand Canyon NP required to do each? For each item, please mark (●) **one for importance and one for quality of service needed.**

	IMPORTANCE					QUALITY OF SERVICE REQUIRED					
	Extremely Important	Very Important	Moderately Important	Slightly Important	Not at all Important	Very Good	Good	Average	Poor	No Service at All	Not Applicable
Make/receive cell phone call	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Send/receive text message	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Search the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Share pics/videos/audio via social media (Facebook, Twitter, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Download an NPS podcast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (Please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. a) Did anyone in your personal group have a physical condition that made it difficult to access or participate in park activities or services, during your visit to Grand Canyon NP? Please mark (●) **one**.

- ☐ Yes  
☐ No → Go to Question 19

- b) If YES, what activities, services, or facilities did the person(s) have difficulty participating in or accessing? Please be specific.

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- c) Because of the physical condition, which specified difficulties did the person(s) have? Please mark (●) **all that apply**.

- ☐ Hearing (difficulty hearing ranger programs, bus drivers, audio-visual exhibits or programs, or information desk staff even with hearing aid)  
☐ Visual (difficulty in seeing exhibits, directional signs, visual aids that are part of programs even with prescribed glasses or due to blindness)  
☐ Mobility (difficulty in accessing facilities, services, or programs even with walking aid and/or wheelchairs)  
☐ Other (Please specify) \_\_\_\_\_

19. What did you like most about your visit to Grand Canyon NP?

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20. What did you like least about your visit to Grand Canyon NP?

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21. Did your visit to Grand Canyon NP, on this trip, meet your expectations?  
Please mark (●) **one**.

☐ Yes

☐ Not entirely (Please explain)

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☐ Not at all (Please explain)

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<b>D. Park Management</b>
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22. To what extent do you agree or disagree with each of the following statements? Please mark (●) **one for each row**.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't Know / Not Sure
Grand Canyon NP is a safe place to visit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grand Canyon NP is too crowded	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural resources in Grand Canyon NP are in pristine condition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The entrance fee for Grand Canyon NP is too high	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vandalism and crime are not a problem in Grand Canyon NP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grand Canyon NP is not accessible to persons with physical disabilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historical and cultural features in Grand Canyon NP are well maintained/preserved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development of adjacent areas detracts from visitors' experiences at Grand Canyon NP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. How would you rate the quality of the facilities, services, and recreational opportunities in Grand Canyon NP? Please mark (●) **one for each row**.

	Very Good	Good	Average	Poor	Very Poor	Not Used or Not Available
<b>Park Facilities</b>						
Visitor center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exhibits (indoor and outdoor)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Restrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkways, trails, and roads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Campgrounds and/or picnic areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Visitor Services</b>						
Assistance from park employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Park map or brochure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ranger programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Value for entrance fee paid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commercial services in the park (food, lodging, gifts, rental, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please specify services used: _____						
<b>Recreational Opportunities</b>						
Learning about nature, history, or culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor recreation (sightseeing, camping, bicycling, boating, hiking, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. Overall, how would you rate the quality of the facilities, services, and recreational opportunities in Grand Canyon NP? Please mark (●) **one**.
- ☐ Very good
  - ☐ Good
  - ☐ Average
  - ☐ Poor
  - ☐ Very poor

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

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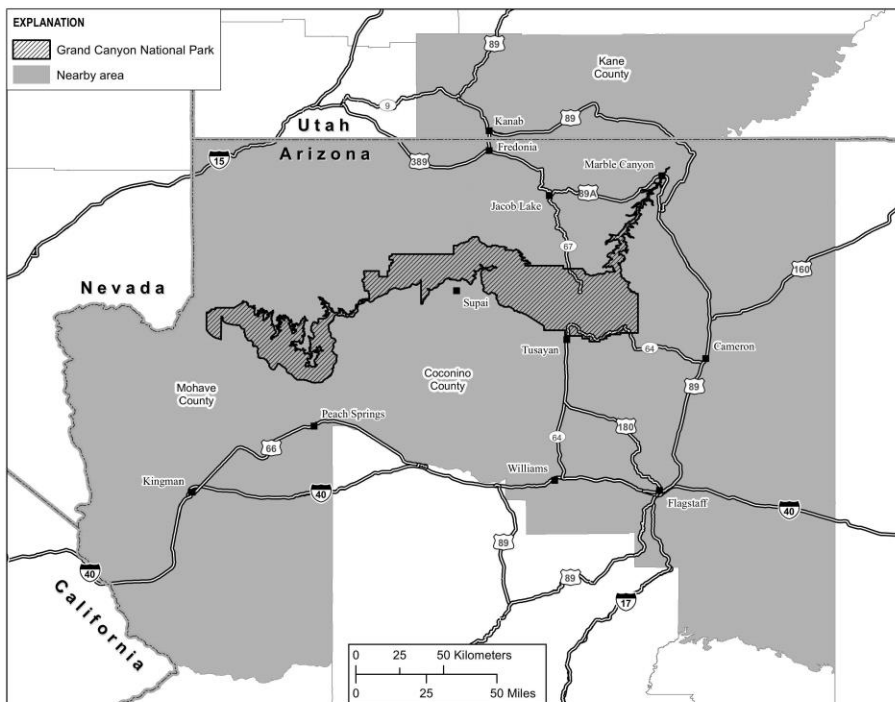
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### E. Expenditures

Please refer to the map when answering the questions in this section.



26. Do you live within the nearby area (within the shaded area shown on the map)? Please mark (●) **one**.
- ☐ Yes
- ☐ No

27. a) On this trip to Grand Canyon NP and the nearby area, did you stay overnight away from your permanent residence either inside Grand Canyon NP or within the nearby area (within the shaded area of the map on p.12)? Please mark (●) **one**.

☐ Yes  
☐ No → **Go to Question 28**

- b) If **YES**, please list the number of nights you stayed in Grand Canyon NP and/or in the nearby area (within the shaded area of the map on p.12) on this trip.

Accommodation	Number of Nights
Backcountry camping in Grand Canyon NP	_____
Camping in Grand Canyon NP	_____
Camping outside Grand Canyon NP	_____
Lodging in Grand Canyon NP	_____
Lodging outside Grand Canyon NP	_____
Other accommodations (e.g., friends/relatives)	_____

28. Was this trip to Grand Canyon NP? Please mark (●) **one**.

- ☐ Your primary or sole purpose of your trip away from home?
- ☐ One of several equally important destinations on your trip away from home?
- Was one or more of the other equally important destinations located within the nearby area (within the shaded area of the map on p.12)? Please mark (●) **one**.
- ☐ Yes  
☐ No
- ☐ Just an incidental or spur of the moment stop on your trip away from home?
- Was your primary destination located within the nearby area (within the shaded area of the map on p.12)? Please mark (●) **one**.
- ☐ Yes  
☐ No

29. Did you visit any other National Park Service sites on your trip away from home? Please mark (●) **one**.
- ☐ Yes (Please specify)
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- ☐ No
30. a) Did you or anyone in your personal group purchase any package tours that included at least some meals, some lodging, and/or some transportation while on this trip?
- ☐ Yes
- ☐ No → **Go to Question 31**
- b) What was the total length of your package tour(s)? #\_\_\_\_\_ days
- c) What was the total cost per person for the package tour(s)?
- \$\_\_\_\_\_ per person
- d) How many people in your personal group were on the package tour(s)?
- #\_\_\_\_\_ people

- e) Which of the following were included in the package tour(s) as part of your visit to Grand Canyon NP and the nearby area (within the shaded area of the map on p.12)? Please mark (●) **all that apply**.

	Items included in your package tour(s) as part of your visit to Grand Canyon NP and nearby area
Local air transportation	<input type="radio"/>
Local ground transportation	<input type="radio"/>
Local water transportation	<input type="radio"/>
Local lodging	<input type="radio"/>
Meals	<input type="radio"/>
Guide services	<input type="radio"/>
Fees (e.g., fishing licenses)	<input type="radio"/>
Gear (e.g., camping equipment, bikes, kayaks)	<input type="radio"/>
Admission to events or attractions	<input type="radio"/>
Other (Please specify)	<input type="radio"/>

31. Please estimate how much you and your personal group with whom you shared expenses (e.g., other family members, traveling companions) spent both inside Grand Canyon NP and within the nearby area (within the shaded area of the map on p.12) during your time in the nearby area. If you reported expenditures for package tours, please only include individual expenses that were NOT part of your package tour(s).

If you no longer have your receipts, estimate as closely as you can how much you and your group spent. Please enter 0 (zero) if you did not spend any money in a particular category.

**Note:** Residents living within the highlighted area of the map should only include expenditures that were directly related to this trip to Grand Canyon NP.

Expenses	Amount spent in Grand Canyon NP and nearby area
Park entrance fee	\$ _____
Gas and oil (e.g., auto, RV, boat, etc.)	\$ _____
Rental cars	\$ _____
Taxis, shuttles, and public transportation	\$ _____
Restaurants and bars	\$ _____
Groceries and convenience foods	\$ _____
Hotels, motels, resorts	\$ _____
Specialty lodging (e.g., B&Bs, hostels, cabins, vacation rentals)	\$ _____
Camping fees (tent, RV)	\$ _____
Recreation and entertainment expenses (e.g., movies, bowling, miniature golf, etc.)	\$ _____
Souvenirs, clothing, supplies, other retail	\$ _____
Equipment rental	\$ _____
Guides and tour fees	\$ _____
Other (Please list) _____	\$ _____

OR

☐ Don't know/Not sure



32. For you and any members of your personal group with whom you shared expenses, please record any additional money spent outside of the map area during your trip away from home (for example, travel or food expenditures).

\$ \_\_\_\_\_

**OR**

☐ Don't know/Not sure

33. a) Including yourself, how many people in your personal group were covered by the expenses for this trip away from home?

\_\_\_\_\_ Number of adults (18 years or over)

\_\_\_\_\_ Number of children (under 18 years)

- b) Including yourself, how many people in your group split these trip expenses?

\_\_\_\_\_ Number of people

<b>F. Background</b>
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34. For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide the following information. (If you don't know the answer, enter "DK.")

	Current Age	U.S. ZIP code or name of country other than U.S.	Number of visits to Grand Canyon NP in last 12 months, including this trip	Number of visits to other NPS sites in the last 12 months
Yourself	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Member #2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Member #3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Member #4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Member #5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Member #6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Member #7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

35. For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide the following information. Please mark (●) **one for each group member, including yourself, for gender and Hispanic or Latino.** (If you don't know the answer, mark (●) "Don't know.")

Additional members of your personal group

	Yourself	#2	#3	#4	#5	#6	#7
Male	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Female	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hispanic or Latino	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not Hispanic or Latino	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

36. For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, please provide the following information. Please mark (●) **one or more for each group member, including yourself.** (If you don't know the answer, mark (●) "Don't know.")

	Yourself	#2	#3	#4	#5	#6	#7
American Indian or Alaska Native	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asian	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black or African American	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Native Hawaiian or other Pacific Islander	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
White	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't know	—	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

37. For your personal group during your visit to Grand Canyon NP on the day you were contacted for this survey, what is the highest level of formal education completed by each member of your group? Please mark (●) **one for each group member, including yourself.** (If you don't know the answer, mark (●) "Don't know.")

	Yourself	#2	#3	#4	#5	#6	#7
Less than high school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Some high school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High school graduate or GED	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Some college, business, or trade school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
College, business, or trade school graduate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Some graduate school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Master's, doctoral, or professional degree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't know	—	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

38. Which category best represents your annual household income? Please mark (●) **one**.

- ☐ Less than \$24,999  
☐ \$25,000-\$34,999  
☐ \$35,000-\$49,999  
☐ \$50,000-\$74,999  
☐ \$75,000-\$99,999  
☐ \$100,000-\$149,999  
☐ \$150,000-\$199,999  
☐ \$200,000 or more  
☐ Do not wish to answer

39. Including yourself, how many people are in your household?

\_\_\_\_\_ Number of people

40. When visiting an area such as Grand Canyon NP, what language do you personally prefer to use? Please mark (●) **one for speaking and one for reading**.

	Speaking	Reading
English	<input type="radio"/>	<input type="radio"/>
Spanish	<input type="radio"/>	<input type="radio"/>
Other (Please specify) _____	<input type="radio"/>	<input type="radio"/>

41. Is there anything else you would like to tell us about Grand Canyon NP's facilities, services, or recreational opportunities?

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**Thank you for your help!**

**Please place the questionnaire in the  
envelope provided and drop it in any U.S.  
Postal Service mailbox.**

SURVEY ID NUMBER:



## Appendix 3. The Thank You/Reminder Postcard

Postcard mailed to respondents with United States addresses



Dear National Park Visitor,

About two weeks ago we contacted you to participate in a visitor use survey for the National Park Service. On your recent trip to one of the many National Park Service units, you spoke with one of our survey administrators and received a questionnaire booklet and postage-paid envelope. If you have already sent in your completed survey, we **thank you!**

However, if you have not yet had the opportunity to complete the survey, please do so. A select number of people were contacted for this study, so your opinions are very important! Please complete and return the questionnaire booklet at your earliest convenience. If you have lost the questionnaire booklet, another one will be mailed to you in approximately two weeks.

*Jonathan B. Jarvis*

Jonathan B. Jarvis  
Director, National Park Service

## Postcard mailed to respondents with international addresses



### Dear National Park Visitor,

About two weeks ago we contacted you to participate in a visitor use survey for the National Park Service. On your recent trip to one of the many National Park Service units, you spoke with one of our survey administrators and received a questionnaire booklet and postage-paid envelope. If you have already sent in your completed survey, we **thank you!**

However, if you have not yet had the opportunity to complete the survey, please do so. A select number of people were contacted for this study, so your opinions are very important! Please complete and return the questionnaire booklet at your earliest convenience. If you have lost the questionnaire booklet or need additional postage to mail it to the US, another booklet will be mailed to you in approximately two weeks and will include a return envelope with international postage.

Thank you,

***The National Park Service***



## Appendix 4. The Replacement Mailing Cover Letter



UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE  
1849 C. Street, N.W.  
Washington, DC 20240



Dear [Name],

About a month ago, on your recent trip to one of the many National Park Service units, we asked you to participate in a visitor survey for the National Park Service. The National Park Service would like to thank you for agreeing to participate in this visitor study. We selected only a small number of visitors to participate in this study; therefore, the return of each questionnaire is very important. The information you provide will help us better manage the National Park Service, and better serve you, our visitor.

If you have already returned your questionnaire, we would like to thank you. However, if you have not, we are asking you to please return it by mail today. Since we have not received yours as of the date we mailed this letter, we have included a replacement questionnaire for your convenience, along with a postage paid envelope.

If you have any questions regarding your questionnaire, please contact the Social Science Program Chief, National Park Service, 1201 Oakridge Drive, Fort Collins, CO, 80525-5596; [nps\\_nrss\\_social\\_science@nps.gov](mailto:nps_nrss_social_science@nps.gov) (email).

Thank you for your help with this important study. Your opinions matter, and we appreciate you sharing them with us. They will help us improve the management of the National Park Service.

Sincerely,

Jonathan B. Jarvis  
Director  
National Park Service

## **Appendix 5. Detailed Sampling Procedures**

### **Site Schematics**

As noted, the SEM visitor survey was administered at four locations in Grand Canyon NP. A specific survey administration point was identified at each sampling location, based on analysis of aerial site photos and on-site scoping, with the exception of the North Rim Campground where on-site scoping and the park-provided campground map were used to identify a survey administration circuit in the campground. The survey administration point for each location was denoted with a yellow star in a site schematic provided to the survey administrator assigned to the site, with the exception of the North Rim Campground, where surveys were administered at individual campsites (Figure 103 through Figure 106). For the South Rim Visitor Center, Desert Visitor Center, and North Rim Visitor Center locations, a red line was used in each site schematic to denote the boundary or point at which visitor groups traveling on foot were considered to have entered the survey area and were intercepted for the survey. A red arrow was used in each of these site schematics to denote the direction of travel in which visitor groups were intercepted. For the Desert View Visitor Center and the North Rim Visitor Center, a yellow star indicates the position of the survey administrator during survey administration. For the South Rim Visitor Center, a yellow star indicates the starting position of the survey administrator when survey administration began, and a yellow line is used to indicate the direction of travel the survey administrator followed when asking visitor groups to participate in the survey. For the North Rim Campground, colored boxes and labels are used to indicate the individual campsite groupings used to distributed surveys evenly throughout the campground.

### **Timed-Interval Sampling Procedures**

At all locations except the North Rim Campground, visitor groups were sampled using a timed-interval approach (i.e., attempt to sample one visitor group every  $N$  minutes of the sampling day, where  $N$  is the time interval). Interval times were designed in advance of on-site administration to ensure that there was a sufficient number of questionnaires to administer to visitor groups during all hours of each sampling day and each day of the sampling period. The timed-interval approach involved having the survey administrator contact the first visitor group to enter the survey area at the start of the sampling period and asking them to participate in the survey. If the group agreed to participate, they were administered the survey; if the group refused to participate, they were asked to complete the non-response bias questions and then thanked for their time. After completing a contact with a refusal group, the survey administrator contacted the next visitor group to enter the survey area and asked them to participate in the survey. The survey administrator continued this process until a visitor group agreed to participate. Once a participating group was administered the survey, the survey administrator waited until the start of the next time interval to contact a visitor group. At the start of the next time interval, the survey administrator contacted the first group to enter the survey area and asked them to participate in the survey. If the next time interval started before the survey administrator was able to recruit a visitor group to participate in the survey for the previous time interval, he/she advanced to the next time interval simply by contacting the next arriving visitor group. Once a group agreed to participate, the survey administrator then waited until the start of the

next time interval to continue. The survey administrator repeated this sequence of steps throughout the sampling period.

At the South Rim Visitor Center, physical characteristics of the site and the nature of visitor use at the site were not conducive to the selection of a single survey administration point. The South Rim Visitor Center is part of a much larger visitor services complex. Visitor groups arriving at this location had the potential to arrive from five unique locations including two parking areas, a shuttle bus stop, and two pathways leading back to the South Rim Visitor Center from the Mather Point canyon viewing area. Thus, the timed-interval approach was conducted using a roving circuit, where the survey administrator rotated among five pre-identified survey administration points; the survey administrator started at the same survey administration point at the beginning of each survey administration period and administered a survey at the next location in the circuit at the start of the next timed-interval. For example, at the start of the sampling period the survey administrator contacted the first visitor group to cross the first survey administration point and asked them to participate in the survey. The survey administrator then followed the above protocols for survey administration. At the start of the next timed-interval, the survey administrator would walk to the next survey administration point in the circuit, and repeat the intercept protocols. The survey administrator continued rotating between the five survey administration locations throughout the sampling period.

### **Campground Sampling Procedures**

On four sampling days, visitor groups at the North Rim Campground were sampled in the evening (between 6:00 pm and 7:30 pm) using a campsite-interval approach to evenly distribute survey administration throughout the campground (i.e., attempt to sample one visitor group at every Nth campsite, where N is the campsite-interval number). The target number of questionnaires for distribution at the North Rim Campground was 40. Given this target distribution and the number of campground sampling days (four), the target number of questionnaires for distribution per day was 10. The campsite-interval was determined by the number of overall sites in the campground, the number of questionnaires to be distributed per day, and the distribution of site types within the campground. The North Rim Campground is divided into two areas: a tent-only area with 12 campsites and the main campground area with 78 regular sites and three group sites. Given this distribution of sites, one questionnaire was reserved for administration at the tent-only sites (T1-T12) and nine questionnaires were reserved for distribution at the remaining 81 sites. A survey administration interval of every ninth campsite was generated to distribute surveys evenly across the 81 campsites in the main campground (78 regular sites plus three group sites). A survey administration interval was not generated for the tent-only sites, as only one questionnaire was reserved for this area. Given the established distribution of surveys across the tent-only and main campground, the sites were divided into the following campground groups for administration of the questionnaire: Group 1 (Sites 1-9); Group 2 (Sites 10-18), Group 3 (Sites 19-27), Group 4 (Sites 28-36), Group 5 (Sites 37-45), Group 6 (Sites 46-54), Group 7 (Sites 55-63), Group 8 (Sites 64-72), Group 9 (Sites 73-78 and group campsites 1, 2, and 3), Group 10 (T1-T12).

The survey administrator was provided with a random number to indicate the starting position within the campsite group (1-9 for Groups 1-9; T1-T12 for Group 10) at which the survey administrator should start administering the survey. If the randomly selected campsite had no campers present, the survey administrator proceeded to the next campsite within the group in numeric order (e.g., from campsite 4 to campsite 5, if campsite 4 was randomly selected for sampling but no campers were present). The survey administrator continued to each successive campsite within the campsite group until he/she contacted a campsite with campers present. Once at an occupied campsite within the first campsite group, the survey administrator asked the visitor group at the campsite to participate in the survey. If the visitor group agreed to participate, they were administered the survey; if the group refused, they were asked to answer the non-response bias questions and then thanked for their time. The survey administrator moved to the next campsite group once a questionnaire was administered to a group within the current campsite group (i.e., moved from Group 1 to Group 2) or all of the campsites in the group were contacted without a questionnaire being administered (because no campers were present in any of the campsites in the group and/or because of refusals). The survey administrator repeated this process in each of the campsite groups during the sampling period, spending no more than one hour sampling the campground.





**Figure 103.** South Rim Visitor Center sampling location

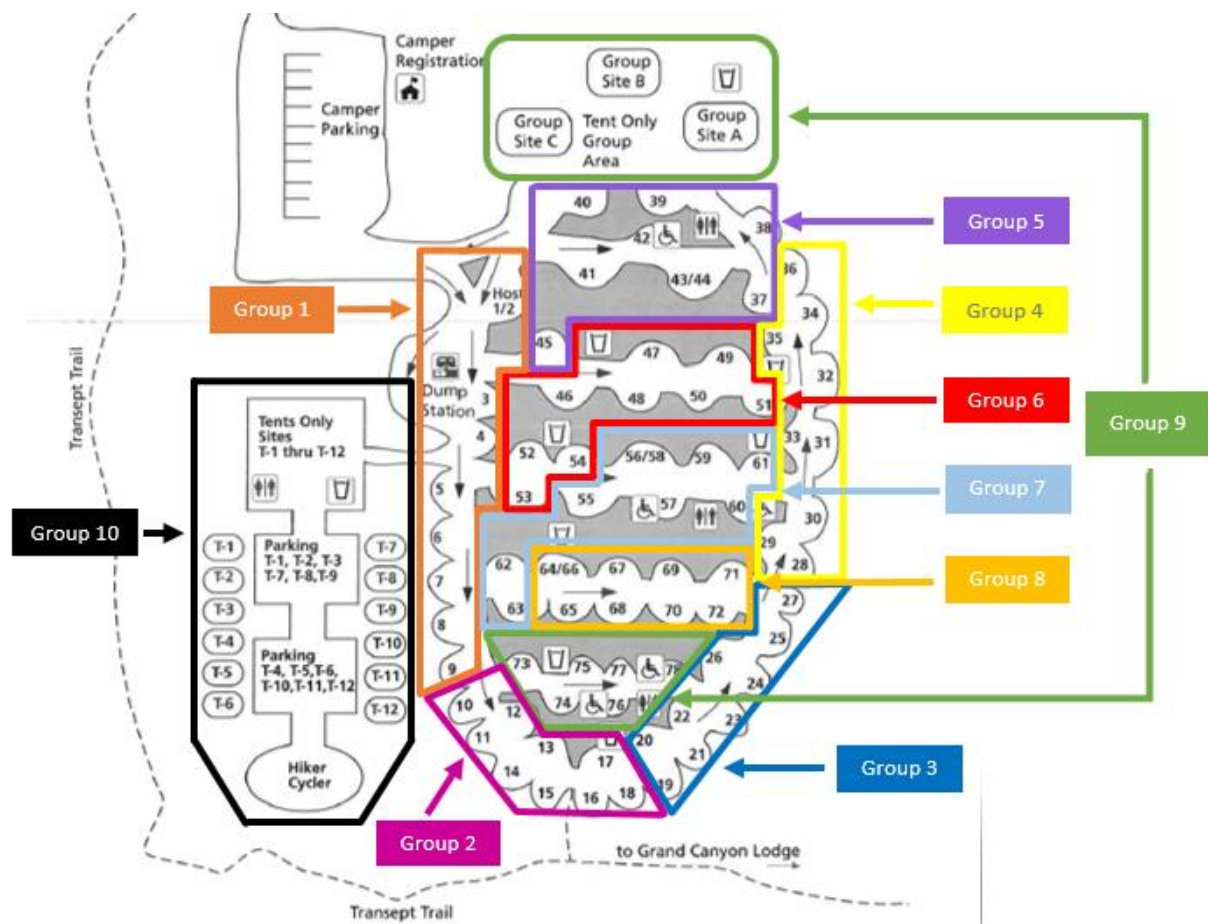


**Figure 104.** Desert View Visitor Center sampling location





**Figure 105.** North Rim Visitor Center sampling location



**Figure 106.** North Rim Campground sampling location

## Appendix 6. Non-response Bias Analysis - Effects on Survey Responses due to Initial Contact Gender, Number of Adults in Group, and Visit Length

This study used answers to five, pre-selected non-response bias questions and one observable characteristic (initial contact gender) of contacted visitors to compare respondents with non-respondents and check for non-response bias. Results of a chi-square test for independence with  $\alpha = 0.05$  and  $p \leq 0.008$  (following Bonferroni correction) suggest that groups who responded to the SEM survey differ significantly from non-respondents with respect to initial contact gender ( $p = 0.001$ ), number of adults in the visitor group ( $p < 0.001$ ), and visit length ( $p < 0.001$ ); thus, there is evidence of potential non-response bias related to the initial contact gender, number of adults in the visitor group, and visit length within the survey's sample. Specifically, females were more likely to respond to the survey than males, groups with two adults were more likely to respond to the survey than groups with one or three or more adults, and visitor groups with visit lengths of 48 hours or greater were more likely to respond to the survey than visitor groups with visit lengths of 1-4 hours.

The potential impact of this non-response bias on the results of the SEM survey was further explored. Specifically, effects due to initial contact gender, number of adults in the visitor group, and visit length were examined for 68 key questions in the SEM survey that were designed to assess use of information sources for trip planning, motivations for visiting Grand Canyon NP, participation in activities, programs, and services, attitudes toward park management, and satisfaction with park services and facilities (Table 26 through Table 28). A Bonferroni correction was applied to account for the fact that 68 simultaneous statistical tests were conducted with the same data set. The Bonferroni correction minimizes the likelihood of concluding from the results of the statistical tests that there are differences between respondents and non-respondents, when there actually are no differences (i.e., minimizes the probability of making a Type I error). With the Bonferroni correction applied in this analysis, statistical test results with p-values of less than 0.0007 are assumed to be statistically significant. No statistically significant effects of initial contact gender on survey responses were observed for any of the 68 questions that were assessed (Table 26). Statistically significant effects of the number of adults in the visitor group were observed on three of 68 questions that were assessed and are emphasized in bold text in Table 27. Six of 68 questions that were assessed for visit length showed statistically significant effects and are emphasized in bold text in Table 28.

Results of these statistical tests comparing respondents to non-respondents (i.e., non-response bias analysis) suggest that, for a small number of questions in the survey, the survey results may over-represent opinions, evaluations, or behaviors from visitor groups with two adults or visitor groups with visit lengths 48 hours or greater. Where statistical differences were found between respondent subgroups, results by subgroup are reported in this Appendix to document the effects of these differences (Figure 107 through Figure 115). The format of these figures is as follows:

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



2. Listed below the graph, the “N” shows the number of individuals or visitor groups responding to the question for each group. The phrase “**CAUTION!**” is shown on the graph to indicate the results are unreliable due to low sample size ( $N < 30$ ).

\* appears when total percentages do not equal 100 due to rounding.

3. Vertical information (y-axis) describes the response category.
4. Horizontal information (x-axis) percentage of responses in each category.
5. The proportion of visitor groups/visitors who responded to each category.

**Table 26.** Statistical tests of effects due to Initial Contact Gender on key questions in SEM survey instrument administered

Question	Response scale	N	Chi-square; p-value
Prior to this trip, how did you obtain information about Grand Canyon NP? Please mark all that apply. (Q8)	0 = No 1 = Yes		
Did not obtain information prior to this visit		526	$\chi^2 = 0.167$ $p = 0.683$
Previous visits		526	$\chi^2 = 0.193$ $p = 0.661$
Friends/relatives/word of mouth		526	$\chi^2 = 9.707$ $p = 0.002$
Inquiry to park via phone, mail, or email		526	$\chi^2 = 0.130$ $p = 0.718$
Grand Canyon NP website		526	$\chi^2 = 0.036$ $p = 0.850$
Other website		526	$\chi^2 < 0.001$ $p = 0.983$
Local businesses (hotels, motels, restaurants, etc.)		526	$\chi^2 = 6.904$ $p = 0.009$
Maps/brochures		526	$\chi^2 = 0.158$ $p = 0.691$
Newspaper/magazine articles		526	$\chi^2 = 0.539$ $p = 0.463$
Other units of the National Park System		526	$\chi^2 = 2.731$ $p = 0.098$
School class/program		526	$\chi^2 = 0.849$ $p = 0.357$
Social media (such as Facebook, Twitter, etc.)		526	$\chi^2 = 0.520$ $p = 0.471$
State welcome center/visitors bureau/chamber of commerce		526	$\chi^2 = 2.985$ $p = 0.084$
Television/radio programs/DVDs		526	$\chi^2 = 0.113$ $p = 0.736$
Travel guides/tour books (such as AAA, etc.)		526	$\chi^2 = 0.272$ $p = 0.602$
How important to you was each of the following reasons for visiting Grand Canyon NP on this trip? Please mark one for each row. (Q10)	1 = "Extremely important" to 5 = "Not at all important"		
To visit a National Park Service site		508	$\chi^2 = 4.127$ ; $p = 0.389$
To spend time with friends/family		512	$\chi^2 = 5.254$ ; $p = 0.262$
To view wildlife or natural scenery		522	$\chi^2 = 3.132$ ; $p = 0.372$

Question	Response scale	N	Chi-square; p-value
To get physical exercise		510	$\chi^2 = 4.120$ ; $p = 0.390$
To relax		516	$\chi^2 = 8.244$ ; $p = 0.083$
To learn more about American history and culture		517	$\chi^2 = 6.327$ ; $p = 0.176$
To learn more about nature		516	$\chi^2 = 0.731$ ; $p = 0.948$
To attend a special event		461	$\chi^2 = 3.217$ ; $p = 0.522$
To hear the sounds of nature/quiet		513	$\chi^2 = 2.817$ ; $p = 0.589$
To experience solitude		505	$\chi^2 = 2.942$ ; $p = 0.568$
To be outdoors		512	$\chi^2 = 5.898$ ; $p = 0.207$
To view dark night sky/stars		504	$\chi^2 = 4.186$ ; $p = 0.381$
On this trip, in which of the following activities did you personally participate within Grand Canyon NP? Please mark all that apply. (Q12)	0 = No 1 = Yes		
Viewing wildlife, natural features, scenery, wildflowers, etc.		531	$\chi^2 = 2.062$ ; $p = 0.151$
Creative arts (photography/drawing/painting/writing)		531	$\chi^2 = 0.815$ ; $p = 0.367$
Visiting a cultural or historic site		531	$\chi^2 = 3.924$ ; $p = 0.048$
Nature study		531	$\chi^2 = 0.010$ ; $p = 0.921$
Driving for pleasure		531	$\chi^2 = 0.966$ ; $p = 0.326$
Walking/short hike (less than 1 hour)		531	$\chi^2 = 3.238$ ; $p = 0.072$
Day hiking (1 hour or more)		531	$\chi^2 = 1.588$ ; $p = 0.208$
Bicycling		531	$\chi^2 = 5.837$ ; $p = 0.016$
Running/jogging		531	$\chi^2 = 1.487$ ; $p = 0.223$
Fishing		531	N/A
Non-motorized water travel (rafting, kayaking, canoeing, tubing, etc.)		531	$\chi^2 = 3.349$ ; $p = 0.067$
Camping in developed sites		531	$\chi^2 = 2.831$ ; $p = 0.092$

Question	Response scale	N	Chi-square; p-value
Overnight backpacking		531	$\chi^2 = 0.018$ ; $p = 0.892$
Overnighting in resort, cabin, or other accommodations in Grand Canyon NP		531	$\chi^2 = 1.174$ ; $p = 0.279$
Family gathering/reunion		531	$\chi^2 = 0.014$ ; $p = 0.906$
Picnicking		531	$\chi^2 = 0.056$ ; $p = 0.812$
Waterplay (swimming, snorkeling, scuba diving, etc.)		531	$\chi^2 = 3.349$ ; $p = 0.067$
Foraging/collecting edibles (e.g., mushrooms, truffles)		531	$\chi^2 = 1.206$ ; $p = 0.272$
Rock Climbing		531	$\chi^2 = 2.072$ ; $p = 0.150$
Mountaineering		531	$\chi^2 = 0.551$ ; $p = 0.458$
On this trip, in which of the following programs and services did you personally participate within Grand Canyon NP? (Q14)	0 = No 1 = Yes		
Attending a ranger-led activity, such as tour or talk		518	$\chi^2 = 0.142$ ; $p = 0.707$
Talking informally with a ranger		518	$\chi^2 = 3.952$ ; $p = 0.047$
Viewing outdoor exhibits		518	$\chi^2 = 0.519$ ; $p = 0.471$
Viewing indoor exhibits		518	$\chi^2 = 1.299$ ; $p = 0.254$
Attending a cultural demonstration or performance		518	$\chi^2 = 0.019$ ; $p = 0.763$
Reading the park brochure or newspaper		518	$\chi^2 = 0.006$ ; $p = 0.939$
Going to the Visitor Center		518	$\chi^2 = 1.232$ ; $p = 0.267$
Watching movies or videos about the park		518	$\chi^2 = 0.859$ ; $p = 0.354$
Participating with child in the Junior Ranger program		518	$\chi^2 = 0.156$ ; $p = 0.693$
Obtaining National Park passport stamp		518	$\chi^2 = 0.010$ ; $p = 0.922$
Listening to an audio tour or podcast		518	$\chi^2 = 0.193$ ; $p = 0.660$
Using a smart phone app specific to Grand Canyon NP		518	$\chi^2 = 0.014$ ; $p = 0.907$

Question	Response scale	N	Chi-square; p-value
To what extent do you agree or disagree with each of the following statements? Please mark one for each row. (Q22)	1 = "Strongly agree" to 5 = "Strongly disagree"		
Grand Canyon NP is a safe place to visit		524	$\chi^2 = 4.516$ ; $p = 0.478$
Grand Canyon NP is too crowded		519	$\chi^2 = 4.579$ ; $p = 0.469$
Natural resources in Grand Canyon NP are in pristine condition		515	$\chi^2 = 5.629$ ; $p = 0.344$
The entrance fee for Grand Canyon NP is too high		520	$\chi^2 = 10.016$ ; $p = 0.075$
Vandalism and crime are not a problem in Grand Canyon NP		524	$\chi^2 = 2.605$ ; $p = 0.761$
Grand Canyon NP is not accessible to persons with physical disabilities		524	$\chi^2 = 5.599$ ; $p = 0.347$
Historical and cultural features in Grand Canyon NP are well maintained/preserved		525	$\chi^2 = 7.765$ ; $p = 0.170$
Development of adjacent areas detracts from visitors' experiences at Grand Canyon NP		518	$\chi^2 = 1.191$ ; $p = 0.946$
Overall, how would you rate the quality of the facilities, services, and recreational opportunities in Grand Canyon NP? (Q24)	1 = "Very good" to 5 = "Very poor"	517	$\chi^2 = 2.260$ ; $p = 0.520$

**Table 27.** Statistical tests of effects due to Number of Adults on key questions in SEM survey instrument administered

Question	Response scale	N	Chi-square; p-value
Prior to this trip, how did you obtain information about Grand Canyon NP? Please mark all that apply. (Q8)	0 = No 1 = Yes		
Did not obtain information prior to this visit		528	$\chi^2 = 4.272$ ; $p = 0.234$
Previous visits		528	$\chi^2 = 8.466$ ; $p = 0.037$
Friends/relatives/word of mouth		528	$\chi^2 = 6.532$ ; $p = 0.088$
Inquiry to park via phone, mail, or email		528	$\chi^2 = 3.583$ ; $p = 0.310$
Grand Canyon NP website		528	$\chi^2 = 5.332$ ; $p = 0.149$
Other website		528	$\chi^2 = 2.360$ ; $p = 0.501$
Local businesses (hotels, motels, restaurants, etc.)		528	$\chi^2 = 0.638$ ; $p = 0.888$
Maps/brochures		528	$\chi^2 = 3.505$ ; $p = 0.320$
Newspaper/magazine articles		528	$\chi^2 = 3.077$ ; $p = 0.380$
Other units of the National Park System		528	$\chi^2 = 0.949$ ; $p = 0.814$
School class/program		528	$\chi^2 = 1.816$ ; $p = 0.612$
Social media (such as Facebook, Twitter, etc.)		528	$\chi^2 = 0.715$ ; $p = 0.870$
State welcome center/visitors bureau/chamber of commerce		528	$\chi^2 = 4.657$ ; $p = 0.199$
Television/radio programs/DVDs		528	$\chi^2 = 3.528$ ; $p = 0.317$
Travel guides/tour books (such as AAA, etc.)		528	$\chi^2 = 9.412$ ; $p = 0.024$
How important to you was each of the following reasons for visiting Grand Canyon NP on this trip? Please mark one for each row. (Q10)	1 = "Extremely important" to 5 = "Not at all important"		
To visit a National Park Service site		510	$\chi^2 = 11.302$ ; $p = 0.503$
<b>To spend time with friends/family</b>		<b>514</b>	<b><math>\chi^2 = 38.943</math>; <math>p &lt; 0.0001</math></b>
To view wildlife or natural scenery		524	$\chi^2 = 4.887$ ; $p = 0.844$

Question	Response scale	N	Chi-square; p-value
To get physical exercise		512	$\chi^2 = 9.758$ ; $p = 0.637$
To relax		518	$\chi^2 = 16.215$ ; $p = 0.182$
To learn more about American history and culture		519	$\chi^2 = 11.037$ ; $p = 0.526$
To learn more about nature		518	$\chi^2 = 5.357$ ; $p = 0.945$
To attend a special event		463	$\chi^2 = 10.245$ ; $p = 0.594$
To hear the sounds of nature/quiet		515	$\chi^2 = 13.425$ ; $p = 0.339$
To experience solitude		507	$\chi^2 = 16.184$ ; $p = 0.183$
To be outdoors		514	$\chi^2 = 8.709$ ; $p = 0.728$
To view dark night sky/stars		506	$\chi^2 = 7.461$ ; $p = 0.826$
On this trip, in which of the following activities did you personally participate within Grand Canyon NP? Please mark all that apply. (Q12)	0 = No 1 = Yes		
Viewing wildlife, natural features, scenery, wildflowers, etc.		533	$\chi^2 = 3.281$ ; $p = 0.350$
Creative arts (photography/drawing/painting/writing)		533	$\chi^2 = 3.572$ ; $p = 0.312$
Visiting a cultural or historic site		533	$\chi^2 = 1.445$ ; $p = 0.695$
Nature study		533	$\chi^2 = 5.590$ ; $p = 0.133$
Driving for pleasure		533	$\chi^2 = 2.519$ ; $p = 0.472$
Walking/short hike (less than 1 hour)		533	$\chi^2 = 4.406$ ; $p = 0.221$
Day hiking (1 hour or more)		533	$\chi^2 = 1.895$ ; $p = 0.595$
Bicycling		533	$\chi^2 = 1.217$ ; $p = 0.749$
Running/jogging		533	$\chi^2 = 3.449$ ; $p = 0.327$
Fishing		533	N/A
Non-motorized water travel (rafting, kayaking, canoeing, tubing, etc.)		533	$\chi^2 = 2.160$ ; $p = 0.540$
Camping in developed sites		533	$\chi^2 = 4.116$ ; $p = 0.249$

Question	Response scale	N	Chi-square; p-value
Overnight backpacking		533	$\chi^2 = 3.332$ ; $p = 0.343$
Overnighting in resort, cabin, or other accommodations in Grand Canyon NP		533	$\chi^2 = 3.776$ ; $p = 0.287$
<b>Family gathering/reunion</b>		<b>533</b>	<b><math>\chi^2 = 27.801</math>;</b> <b><math>p &lt; 0.0001</math></b>
Picnicking		533	$\chi^2 = 1.354$ ; $p = 0.716$
Water play (swimming, snorkeling, scuba diving, etc.)		533	$\chi^2 = 2.198$ ; $p = 0.532$
Foraging/collecting edibles (e.g., mushrooms, truffles)		533	$\chi^2 = 16.224$ ; $p = 0.001$
Rock climbing/bouldering		533	$\chi^2 = 0.517$ ; $p = 0.915$
Mountaineering		533	$\chi^2 = 4.806$ ; $p = 0.187$
On this trip, in which of the following programs and services did you personally participate within Grand Canyon NP? (Q14)	0 = No 1 = Yes		
Attending a ranger-led activity, such as tour or talk		520	$\chi^2 = 6.799$ ; $p = 0.079$
Talking informally with a ranger		520	$\chi^2 = 4.010$ ; $p = 0.260$
Viewing outdoor exhibits		520	$\chi^2 = 3.570$ ; $p = 0.312$
Viewing indoor exhibits		520	$\chi^2 = 1.297$ ; $p = 0.730$
Attending a cultural demonstration or performance		520	$\chi^2 = 1.366$ ; $p = 0.714$
Reading the park brochure or newspaper		520	$\chi^2 = 2.555$ ; $p = 0.465$
Going to the Visitor Center		520	$\chi^2 = 1.541$ ; $p = 0.673$
Watching movies or videos about the park		520	$\chi^2 = 3.155$ ; $p = 0.368$
Participating with child in the Junior Ranger program		520	$\chi^2 = 4.085$ ; $p = 0.252$
Obtaining National Park passport stamp		520	$\chi^2 = 0.732$ ; $p = 0.866$
Listening to an audio tour or podcast		520	$\chi^2 = 5.835$ ; $p = 0.120$
Using a smart phone app specific to Grand Canyon NP		520	$\chi^2 = 1.539$ ; $p = 0.673$



Question	Response scale	N	Chi-square; p-value
To what extent do you agree or disagree with each of the following statements? Please mark one for each row. (Q22)	1 = "Strongly agree" to 5 = "Strongly disagree"		
Grand Canyon NP is a safe place to visit		526	$\chi^2 = 13.458$ ; $p = 0.567$
<b>Grand Canyon NP is too crowded</b>		<b>521</b>	<b><math>\chi^2 = 39.776</math>; <math>p &lt; 0.0001</math></b>
Natural resources in Grand Canyon NP are in pristine condition		517	$\chi^2 = 10.400$ ; $p = 0.794$
The entrance fee for Grand Canyon NP is too high		522	$\chi^2 = 15.473$ ; $p = 0.418$
Vandalism and crime are not a problem in Grand Canyon NP		526	$\chi^2 = 17.344$ ; $p = 0.299$
Grand Canyon NP is not accessible to persons with physical disabilities		526	$\chi^2 = 8.768$ ; $p = 0.889$
Historical and cultural features in Grand Canyon NP are well maintained/preserved		527	$\chi^2 = 7.032$ ; $p = 0.957$
Development of adjacent areas detracts from visitors' experiences at Grand Canyon NP		520	$\chi^2 = 18.725$ ; $p = 0.226$
Overall, how would you rate the quality of the facilities, services, and recreational opportunities in Grand Canyon NP? (Q24)	1 = "Very good" to 5 = "Very poor"	519	$\chi^2 = 2.760$ ; $p = 0.973$

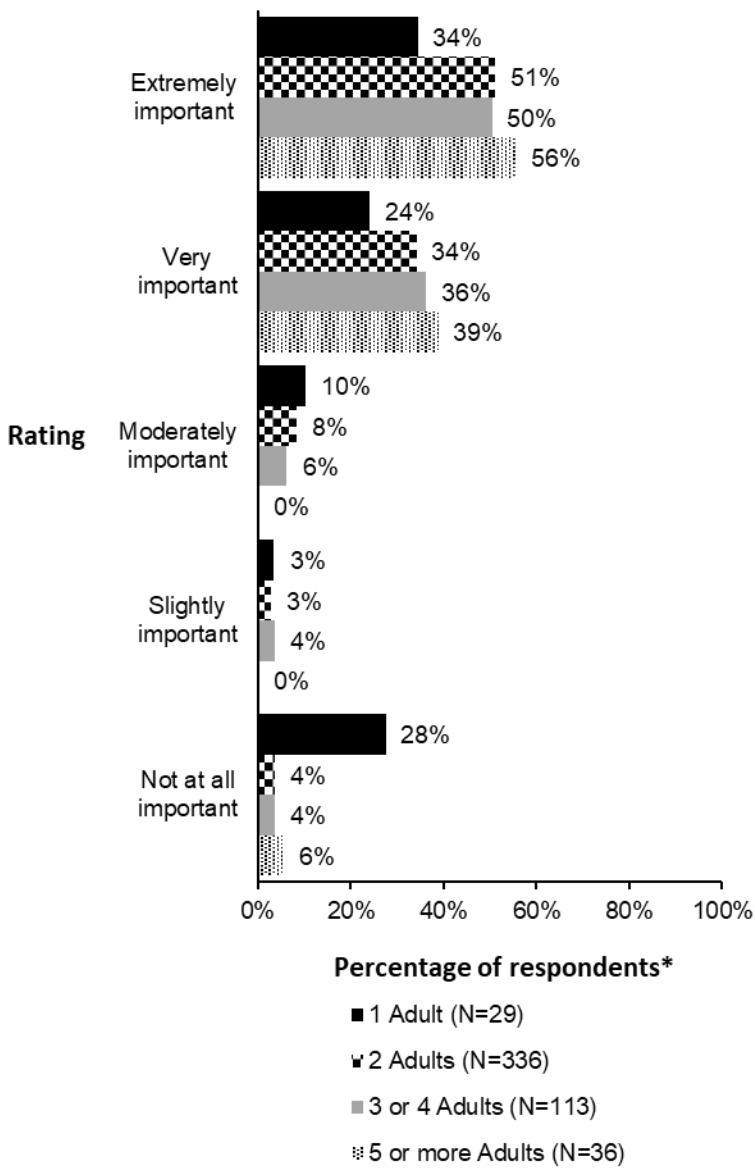
**Table 28.** Statistical tests of effects due to Visit Length on key questions in SEM survey instrument administered

Question	Response scale	N	Chi-square; p-value
Prior to this trip, how did you obtain information about Grand Canyon NP? Please mark all that apply. (Q8)	0 = No 1 = Yes		
Did not obtain information prior to this visit		527	$\chi^2 = 5.017$ ; $p = 0.286$
Previous visits		527	$\chi^2 = 9.748$ ; $p = 0.045$
Friends/relatives/word of mouth		527	$\chi^2 = 4.141$ ; $p = 0.387$
Inquiry to park via phone, mail, or email		527	$\chi^2 = 5.288$ ; $p = 0.259$
Grand Canyon NP website		527	$\chi^2 = 9.255$ ; $p = 0.055$
Other website		527	$\chi^2 = 1.915$ ; $p = 0.751$
Local businesses (hotels, motels, restaurants, etc.)		527	$\chi^2 = 2.675$ ; $p = 0.614$
Maps/brochures		527	$\chi^2 = 4.508$ ; $p = 0.342$
Newspaper/magazine articles		527	$\chi^2 = 1.800$ ; $p = 0.772$
Other units of the National Park System		527	$\chi^2 = 5.591$ ; $p = 0.232$
School class/program		527	$\chi^2 = 1.213$ ; $p = 0.876$
Social media (such as Facebook, Twitter, etc.)		527	$\chi^2 = 1.092$ ; $p = 0.896$
State welcome center/visitors bureau/chamber of commerce		527	$\chi^2 = 6.226$ ; $p = 0.183$
Television/radio programs/DVDs		527	$\chi^2 = 3.436$ ; $p = 0.488$
Travel guides/tour books (such as AAA, etc.)		527	$\chi^2 = 17.792$ ; $p = 0.001$
How important to you was each of the following reasons for visiting Grand Canyon NP on this trip? Please mark one for each row. (Q10)	1 = "Extremely important" to 5 = "Not at all important"		
To visit a National Park Service site		510	$\chi^2 = 18.863$ ; $p = 0.276$

Question	Response scale	N	Chi-square; p-value
To spend time with friends/family		514	$\chi^2 = 13.144$ ; $p = 0.662$
To view wildlife or natural scenery		523	$\chi^2 = 28.457$ ; $p = 0.005$
To get physical exercise		512	$\chi^2 = 15.555$ ; $p = 0.484$
To relax		517	$\chi^2 = 15.760$ ; $p = 0.470$
To learn more about American history and culture		518	$\chi^2 = 17.560$ ; $p = 0.350$
To learn more about nature		517	$\chi^2 = 14.412$ ; $p = 0.568$
To attend a special event		463	$\chi^2 = 24.507$ ; $p = 0.079$
To hear the sounds of nature/quiet		515	$\chi^2 = 22.359$ ; $p = 0.132$
To experience solitude		507	$\chi^2 = 22.204$ ; $p = 0.137$
To be outdoors		514	$\chi^2 = 29.480$ ; $p = 0.021$
<b>To view dark night sky/stars</b>		<b>506</b>	<b><math>\chi^2 = 57.308</math>;</b> <b><math>p &lt; 0.0001</math></b>
On this trip, in which of the following activities did you personally participate within Grand Canyon NP? Please mark all that apply. (Q12)	0 = No 1 = Yes		
Viewing wildlife, natural features, scenery, wildflowers, etc.		532	$\chi^2 = 5.304$ ; $p = 0.258$
Creative arts (photography/drawing/painting/writing)		532	$\chi^2 = 13.448$ ; $p = 0.009$
Visiting a cultural or historic site		532	$\chi^2 = 12.245$ ; $p = 0.016$
Nature study		532	$\chi^2 = 13.515$ ; $p = 0.009$
Driving for pleasure		532	$\chi^2 = 5.297$ ; $p = 0.258$
Walking/short hike (less than 1 hour)		532	$\chi^2 = 4.851$ ; $p = 0.303$
<b>Day hiking (1 hour or more)</b>		<b>532</b>	<b><math>\chi^2 = 41.252</math>;</b> <b><math>p &lt; 0.0001</math></b>
Bicycling		532	$\chi^2 = 12.457$ ; $p = 0.014$
Running/jogging		532	$\chi^2 = 3.906$ ; $p = 0.419$
Fishing		532	N/A

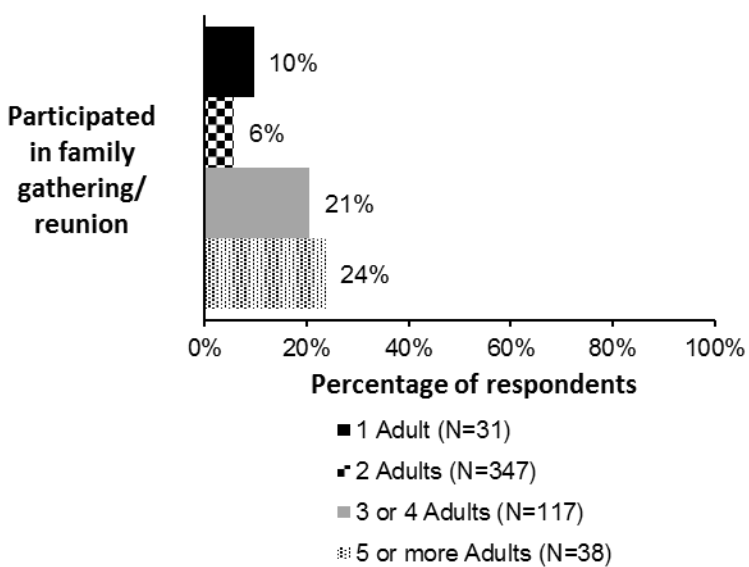
Question	Response scale	N	Chi-square; p-value
Non-motorized water travel (rafting, kayaking, canoeing, tubing, etc.)		532	$\chi^2 = 3.952$ ; $p = 0.413$
<b>Camping in developed sites</b>		<b>532</b>	<b><math>\chi^2 = 54.400</math>; <math>p &lt; 0.0001</math></b>
Overnight backpacking		532	$\chi^2 = 4.616$ ; $p = 0.329$
<b>Overnighting in resort, cabin, or other accommodations in Grand Canyon NP</b>		<b>532</b>	<b><math>\chi^2 = 27.753</math>; <math>p &lt; 0.0001</math></b>
Family gathering/reunion		532	$\chi^2 = 5.494$ ; $p = 0.240$
Picnicking		532	$\chi^2 = 9.536$ ; $p = 0.049$
Water play (swimming, snorkeling, scuba diving, etc.)		532	$\chi^2 = 2.036$ ; $p = 0.729$
Foraging/collecting edibles (e.g., mushrooms, truffles)		532	$\chi^2 = 1.210$ ; $p = 0.876$
Rock climbing/bouldering		532	$\chi^2 = 3.644$ ; $p = 0.456$
Mountaineering		532	$\chi^2 = 1.925$ ; $p = 0.750$
On this trip, in which of the following programs and services did you personally participate within Grand Canyon NP? (Q14)	0 = No 1 = Yes		
<b>Attending a ranger-led activity, such as tour or talk</b>		<b>519</b>	<b><math>\chi^2 = 39.133</math>; <math>p &lt; 0.0001</math></b>
<b>Talking informally with a ranger</b>		<b>519</b>	<b><math>\chi^2 = 30.631</math>; <math>p &lt; 0.0001</math></b>
Viewing outdoor exhibits		519	$\chi^2 = 9.669$ ; $p = 0.046$
Viewing indoor exhibits		519	$\chi^2 = 3.149$ ; $p = 0.533$
Attending a cultural demonstration or performance		519	$\chi^2 = 1.088$ ; $p = 0.896$
Reading the park brochure or newspaper		519	$\chi^2 = 14.022$ ; $p = 0.007$
Going to the Visitor Center		519	$\chi^2 = 9.008$ ; $p = 0.061$
Watching movies or videos about the park		519	$\chi^2 = 15.657$ ; $p = 0.004$
Participating with child in the Junior Ranger program		519	$\chi^2 = 8.377$ ; $p = 0.079$
Obtaining National Park passport stamp		519	$\chi^2 = 11.598$ ; $p = 0.021$

Question	Response scale	N	Chi-square; p-value
Listening to an audio tour or podcast		519	$\chi^2 = 4.177$ ; $p = 0.383$
Using a smart phone app specific to Grand Canyon NP		519	$\chi^2 = 3.435$ ; $p = 0.488$
To what extent do you agree or disagree with each of the following statements? Please mark one for each row. (Q22)	1 = "Strongly agree" to 5 = "Strongly disagree"		
Grand Canyon NP is a safe place to visit		525	$\chi^2 = 18.834$ ; $p = 0.533$
Grand Canyon NP is too crowded		521	$\chi^2 = 24.494$ ; $p = 0.221$
Natural resources in Grand Canyon NP are in pristine condition		516	$\chi^2 = 10.828$ ; $p = 0.951$
The entrance fee for Grand Canyon NP is too high		522	$\chi^2 = 23.157$ ; $p = 0.281$
Vandalism and crime are not a problem in Grand Canyon NP		526	$\chi^2 = 26.452$ ; $p = 0.151$
Grand Canyon NP is not accessible to persons with physical disabilities		526	$\chi^2 = 23.811$ ; $p = 0.251$
Historical and cultural features in Grand Canyon NP are well maintained/preserved		526	$\chi^2 = 11.523$ ; $p = 0.932$
Development of adjacent areas detracts from visitors' experiences at Grand Canyon NP		520	$\chi^2 = 10.192$ ; $p = 0.965$
Overall, how would you rate the quality of the facilities, services, and recreational opportunities in Grand Canyon NP? (Q24)	1 = "Very good" to 5 = "Very poor"	518	$\chi^2 = 13.166$ ; $p = 0.357$



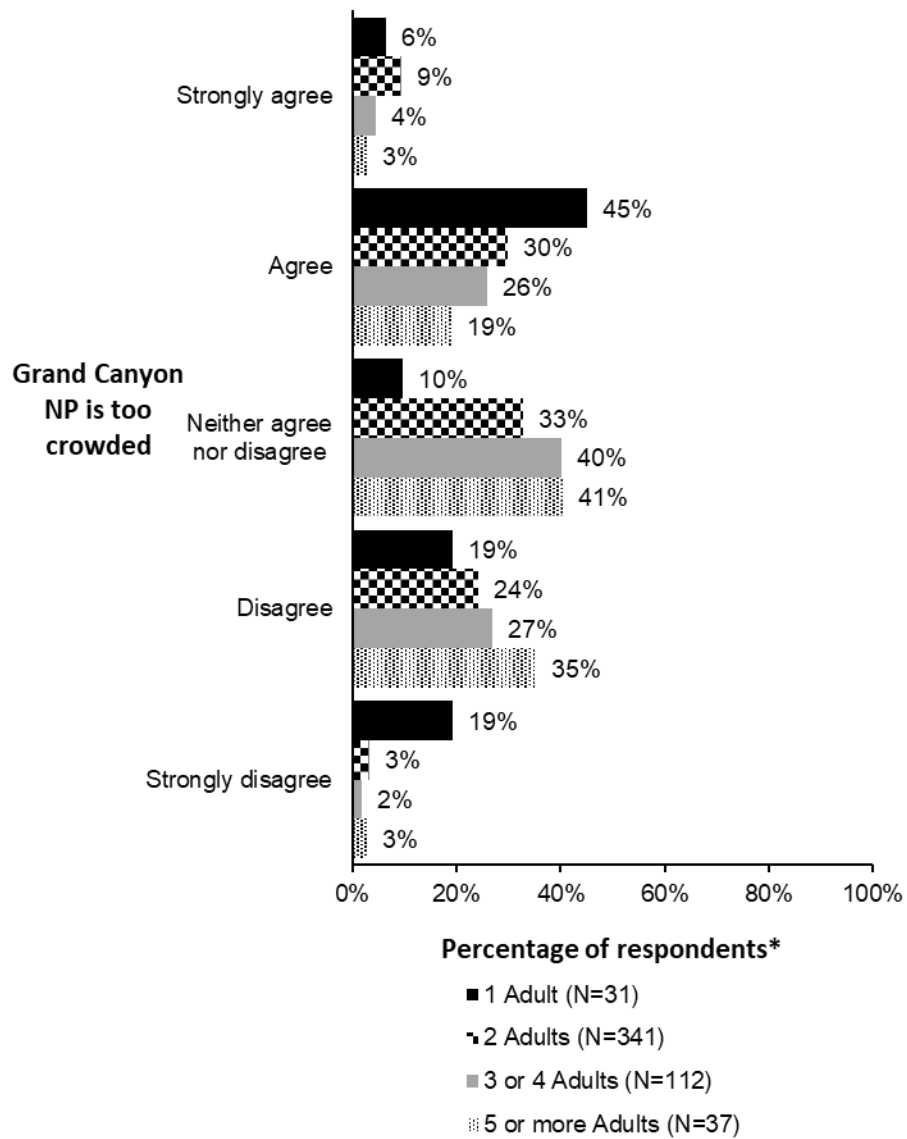
**Figure 107.** Importance of spending time with family/friends, by Number of Adults in Group

\*total percentages do not equal 100 due to rounding



**Figure 108.** Participated in family gathering/reunion, by Number of Adults in Group

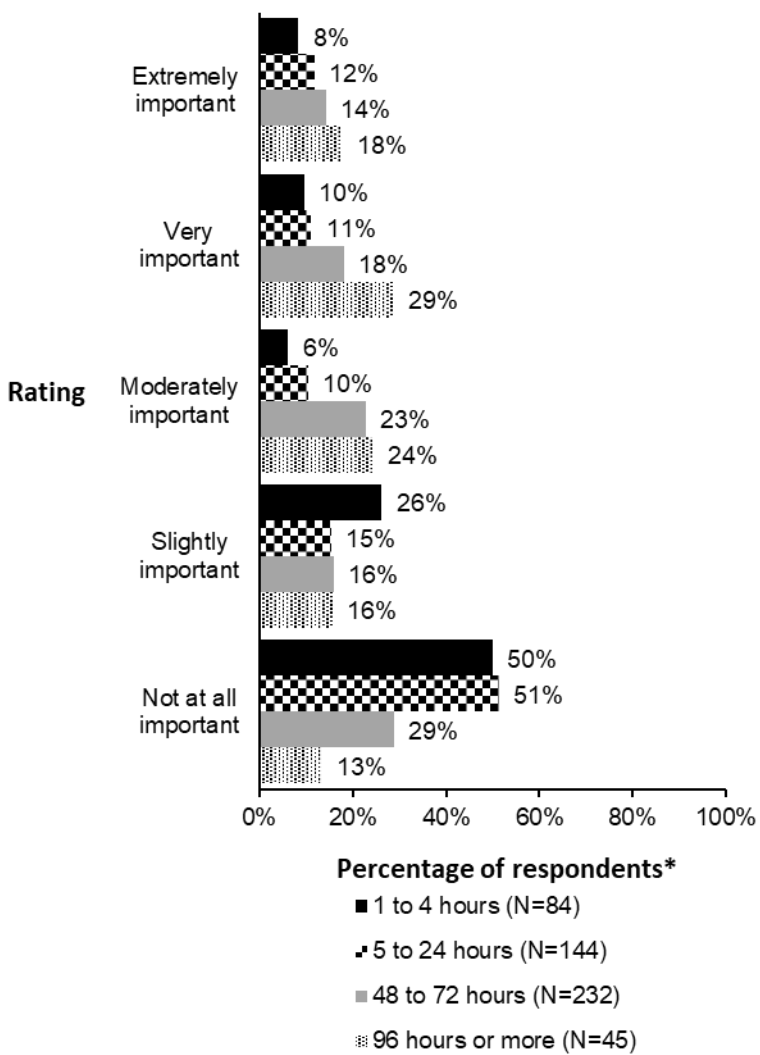
\*total percentages do not equal 100 due to rounding



**Figure 109.** Grand Canyon NP is too crowded, by Number of Adults in Group

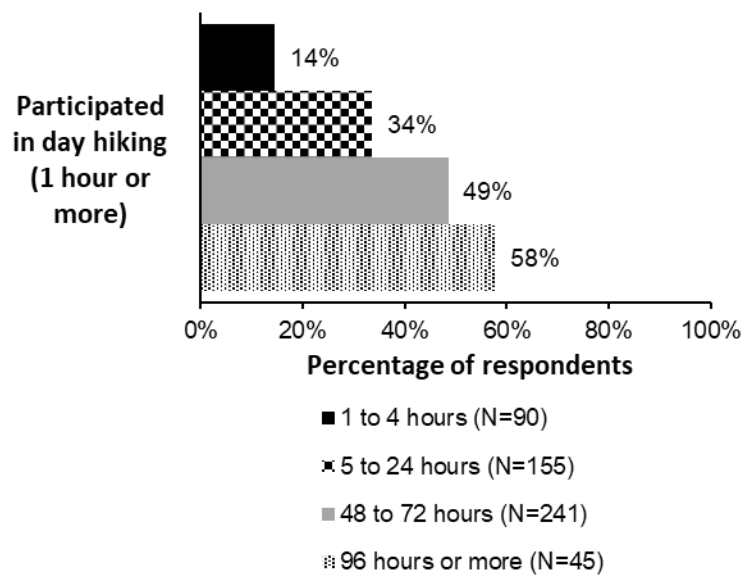
\*total percentages do not equal 100 due to rounding



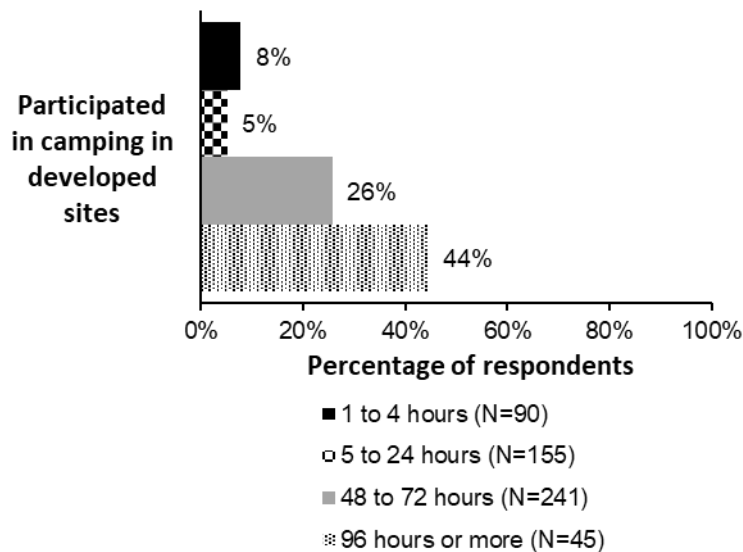


**Figure 110.** Importance of viewing dark night sky/stars, by Visit Length

\*total percentages do not equal 100 due to rounding

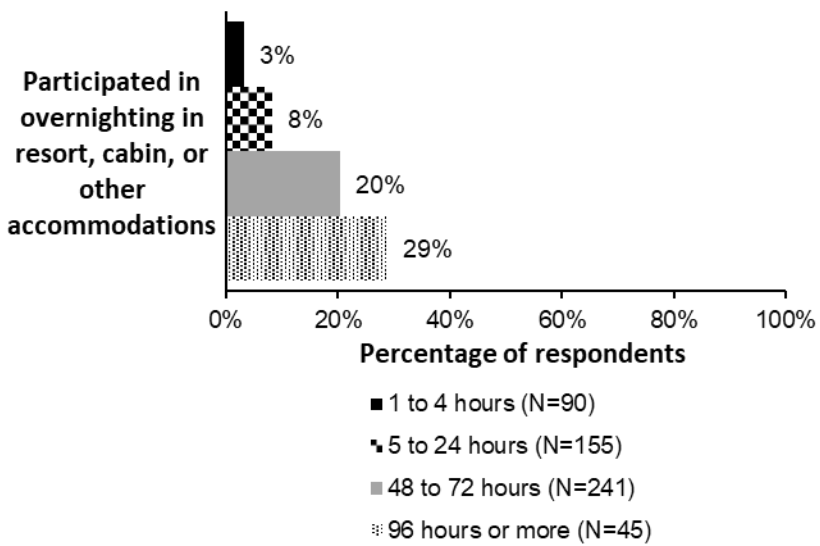


**Figure 111.** Participated in day hiking (1 hour or more), by Visit Length

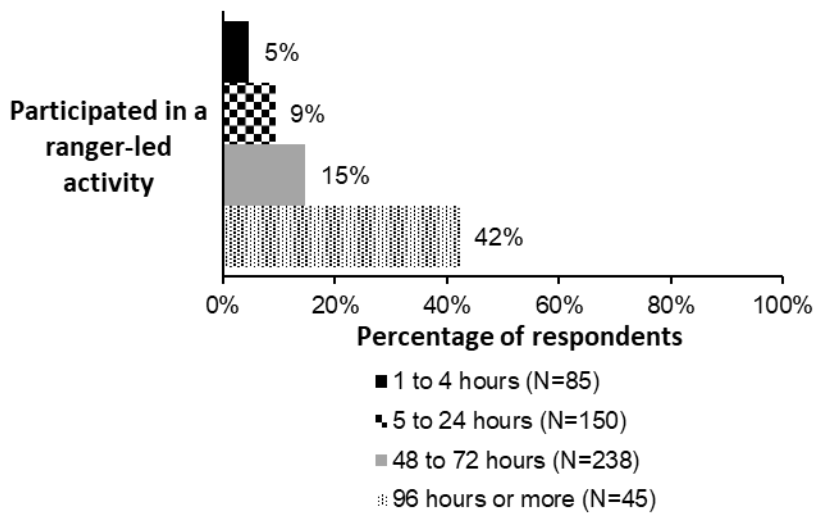


**Figure 112.** Participated in camping in developed sites, by Visit Length

\*total percentages do not equal 100 due to rounding

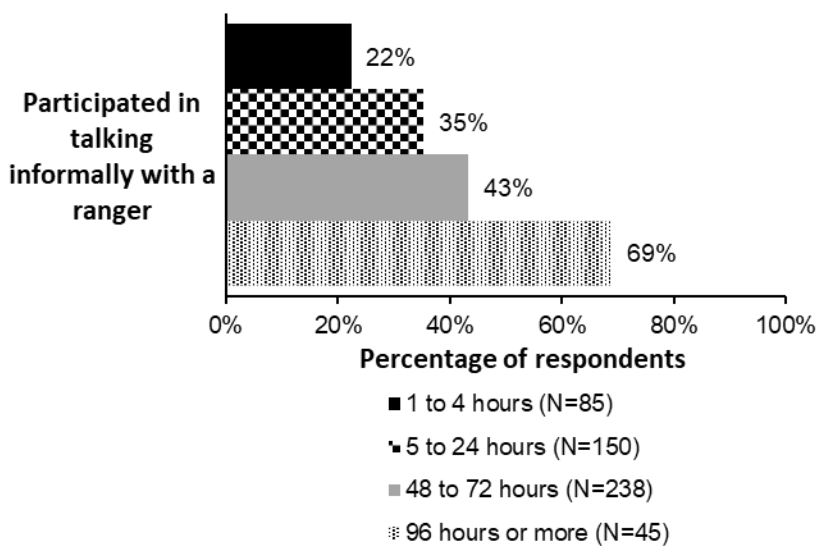


**Figure 113.** Participated in camping in overnighting in resort, cabin, or other accommodations, by Visit Length



**Figure 114.** Participated in a ranger-led activity, by Visit Length

\*total percentages do not equal 100 due to rounding



**Figure 115.** Participated in talking informally with a ranger, by Visit Length

\*total percentages do not equal 100 due to rounding

The Department of the Interior protects and manages the nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its special responsibilities to American Indians, Alaska Natives, and affiliated Island Communities.

NPS 113/139484, August 2017

**National Park Service**  
**U.S. Department of the Interior**



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**Natural Resource Stewardship and Science**

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