



2022 Socioeconomic Research of Guadalupe Mountains National Park

Report on 2022 Data Collection (Revised)



Guadalupe Mountains National Park.
NPS

2022 Socioeconomic Research of Guadalupe Mountains National Park: Report on 2022 Data Collection (Revised)

Science Report NPS/SR—2026/475

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Abstract

A strong mandate and need for socioeconomic monitoring are expressed in the NPS strategic goals for science, in statements by the NPS leadership, and the report of the Second Century Commission. This mandate resulted in a pilot socioeconomic monitoring study in 2015/2016 at a sample of park units across the U.S; the current study uses outcomes from the first stage of the pilot program and progresses into a second stage of the pilot process at 24 NPS units across the United States.

Guadalupe Mountains National Park (Guadalupe Mountains) was selected as one of these units. This report informs core issues of visitor use management and develops a deeper, contemporary understanding of who visits Guadalupe Mountains and what they do during their visit. It uses a two-phased survey methodology to capture a representative sample of visitor information, characteristics, and behavior: (1) an on-site intercept survey conducted via tablet, and (2) a follow up (mail-back and/or online survey) for full trip details. The results are organized by these two phases and are intended to assist park managers in understanding current utilization and perception of park resources, operations and potential issues, as well as to facilitate communication and decision-making processes within the park and between the park and its local partners and stakeholders.

The revised version of this report corrects a previous error identified in Figure 9 and includes minor editorial, formatting, and accessibility updates. No substantive changes have been made to the findings or conclusions presented in the original 2022 report.

Introduction

The National Park Service (NPS) has both a strong mandate and need for socioeconomic research. This is expressed in the NPS strategic goals for science, in statements by the NPS leadership, in the report of the Second Century Commission, and through the Department of the Interior priorities for 2018–2022. Additionally, a recent U.S. Government Accountability Office (GAO) report identified the needs to better understand and monitor customer experience dimensions where results more directly link to investments made. The need for socioeconomic research and monitoring also was identified in an external review of the NPS Social Science Program and supported in the 2008 Interior Appropriations Bill Joint Explanatory Statement.

This mandate resulted in a pilot socioeconomic monitoring study in 2015/2016 at a sample of park units across the U.S., previously described as “Phase One.” The current study uses outcomes from the 2015/16 pilot program and progresses into “Phase Two” of the pilot process at 24 NPS units across the United States. Guadalupe Mountains National Park (Guadalupe Mountains) was selected as one of these units. Phase Two seeks to further explore visitor demographics and characteristics, applying recommendations from the 2015/16 Phase One pilot program and validating instrument and method refinements. It is part of the program designed to collect data from in-park visitors at a broad agency level in order to best represent information needs regarding visitors across the National Park System. Data collected during the 2022 Phase Two sampling period¹ are intended to inform individual park managers of key information about their visitors and allow for analysis of data at the agency level for future implementation.

The purpose of this study is to inform core issues of visitor use management, management solutions, and to develop a current and deeper understanding of who visits Guadalupe Mountains National Park, what they do during their visit, and their spending profile. The results of the study are intended to assist Guadalupe Mountains National Park managers in understanding current utilization and perception of park resources, operations, and issues that may exist due to increasing visitation, and facilitating communication and decision processes within the park and between the park and its local partners and stakeholders.

The study was conducted by a large-scale research team from Otak, Inc., RRC Associates, Inc., and the Institute for Tourism and Recreation Research at the University of Montana.

¹ It is important to note that during the 2022 Phase Two sampling period, some aspects of the visitor profiles (e.g., perceptions and behavior) may have been impacted, to varying degrees, by the COVID-19 pandemic.



Sunrise over Guadalupe Mountains National Park.
NPS

Methods

The study used a two-phased survey methodology to capture a representative sample of visitor information, characteristics, and behavior:

1. An on-site intercept survey conducted via tablet, and
2. A follow-up (mail-back and/or online) survey for full trip details.

This comprehensive two-phase approach provides the necessary information to make on-the-ground decisions using immediate feedback from the intercept survey while also capturing key in-depth information on visitor spending profiles and trip characteristics for long-term planning. Additionally, the tablet survey was kept brief to ensure the visitor's experience was not altered. The methods also permit a larger sample to be collected on key questions of interest.

Study Area

The Guadalupe Mountains local area map is shown in Figure 1. The local area around Guadalupe Mountains consists of Otera, Chaves, Edy, and Lea counties in New Mexico, and El Paso, Hudspeth, Culberson, Jeff Davis, Reeves, Loving, Winkler, Ward, Ector, Crane, Midland, Pecos, Gaines, and Andrews counties in Texas. Within Guadalupe Mountains, the study area was comprised of four locations. Table 1 shows more details about sampling locations. The locations and volumes of surveyor effort were determined based on historic visitor volumes and distribution across the park's main areas.

Table 1. Information about sampling locations in Guadalupe Mountains.

Intercept Site	Completed Intercept Surveys		Nearby Attractions
	Number of Surveys	Percent of Surveys	
Pine Springs	811	73.2%	Two parking lots, Visitor Center, Trailheads
Frijole Ranch	78	7.0%	–
McKittrick Canyon	202	18.2%	–
Dog Canyon	17	1.5%	–



Figure 1. Guadalupe Mountains National Park local area map.

NPS

Sampling Period and Procedure

Intercept Survey

The on-site intercept survey was developed to collect rapid visitor information via tablet-based responses, which were then analyzed and provided for park managers within several weeks of conclusion of data collection. This effort allowed for immediate management action if needed.

The intercept sampling was conducted during the period of March 19–28, 2022. A sample of visitors were intercepted while visiting Guadalupe Mountains across the designated locations listed in Table 1, above. The majority of respondents were visitors on foot at these locations.

Surveyors approached potential respondents at the site to introduce the purpose of the study and ask them to participate in a short 5–7-minute survey about their experience in Guadalupe Mountains (NPS 2022). If the visitor was eligible (at least 18 years of age, not a Guadalupe Mountains employee, and had not previously taken the survey) and agreed to participate in the study, the surveyor verbally administered the survey questions and recorded the responses on a handheld tablet device. If the visitor did not agree, surveyors asked if they would be willing to answer three non-

response bias questions (see Non-Response Bias Analysis section). Upon complete or partial refusal, the surveyor would thank the visitor for their time, log the non-response, and approach the next visitor group.

At the end of the intercept survey, visitors were invited to participate in a follow-up survey by mail-back or online response. Those who agreed to participate were given an envelope containing a printed copy of the follow-up survey and hyperlink and instructions for accessing it online. As part of the intercept protocol, surveyors logged a unique identifier (four-digit code) from the envelope into the tablet for future connection to the follow-up survey.

Therefore, four potential outcomes were possible when intercepting visitors (see Table 2):

1. Complete refusal, refusing to answer any questions, including non-response bias questions;
2. Partial refusal, answering non-response questions but nothing further;
3. Complete intercept, but refuse to take follow-up;
4. Complete intercept and take follow-up.

Table 2. Response outcomes—Guadalupe Mountains intercept Survey.

Outcome	Total
Eligible visitors contacted	1,234
Complete refusals	75
Partial refusals (non-response questions completed)	50
Intercept surveys completed	1,109
Follow-up surveys distributed	1,033
Intercept response rate	89.9%
Follow-up acceptance rate	93.1%

During the sampling period, four surveyors were stationed simultaneously at different sampling sites. Start times varied day-to-day and by location to capture a diverse sample of visitors Guadalupe Mountains. Each surveyor worked nine 7-hour days (six hours data collection and one-hour lunch break) and rotated between several sites. Each surveyor had one day off during the 10-day sampling window.

Mail-Back/Online Survey

The follow-up mail-back/online survey was distributed to participating respondents who completed the intercept survey and then agreed to take a follow-up survey after completing their trip to Guadalupe Mountains. This method extended data collection and asked participants to complete the survey after their visit either through a postage-paid envelope provided to them, or online via a provided survey link. The follow-up survey covers visitor trip spending details, travel patterns, and perceptions of their recent visit (NPS 2022). Both the intercept survey and the follow-up survey were tagged with a unique identifier (four-digit code) for each respondent so their on-site tablet responses

could be paired with their follow-up responses. Joining the two datasets provides a more complete picture of connecting in-park experiences and post-visit perceptions.

At the end of the intercept survey, respondents were asked for their physical mailing address or email address. This allowed for a reminder postcard or email to be sent to all contacts about a week following the end of each data collection period. This postcard or email thanked them for their original participation and encouraged them to complete the follow-up if they had not already done so.

Three weeks after postcard mailing, a second contact (with the same unique IDs) was delivered to all outstanding addresses/emails, noting that the individual's completed questionnaire had yet to be received. The mailed survey packets included replacement surveys and postage-paid, self-addressed return envelopes. A final contact was mailed/emailed to all remaining non-respondents four weeks after sending the second contact (i.e., first full replacement survey). Table 3 shows response rate for the follow-up mail-back/online survey.

Table 3. Response rate—Guadalupe Mountains follow-up mail-back/online survey.

Outcome	Total
Follow-up surveys distributed	1033
Valid follow-up surveys completed	461
Response rate	44.6%

Non-Response Bias Analysis

To account for potential biases between respondents and non-respondents, three questions were asked of eligible visitors contacted who did not wish to participate in the on-site intercept survey. These three questions can then be compared to both those who completed the intercept survey only, and those who completed both the intercept and follow-up surveys. With an intercept survey response rate of 90%, concern over *intercept* non-response is muted. Tables 4 through 6 below show results of bias testing between intercept-only and full survey respondents.

Table 4. Non-response bias question: "Are you a permanent or seasonal/second home resident of the local area around Guadalupe Mountains?" Note: p-value < 0.00001.

Response	Full Survey Respondents		Intercept-Only Respondents	
	Frequency	Percent	Frequency	Percent
Yes	11	2.4%	65	9.9%
No	444	97.6%	589	90.1%

Table 5. Non-response bias question: “Do you currently live in the United States?” Note: p-value = 0.40.

Response	Full Survey Respondents		Intercept-Only Respondents	
	Frequency	Percent	Frequency	Percent
Yes	449	98.7%	641	98.0%
No	6	1.3%	13	2.0%

Table 6. Non-response bias question: “On this trip away from home, have you [and your personal group] stayed, or will you stay overnight away from your permanent residence either in Guadalupe Mountains and/or within the local area?” Note: p-value < 0.00001.

Response	Full Survey Respondents		Intercept-Only Respondents	
	Frequency	Percent	Frequency	Percent
Yes	416	91.4%	528	80.9%
No	39	8.6%	125	19.1%

Using a p-value of 0.05, the distribution of responses among full survey respondents and intercept-only respondents differed significantly for two questions: 1) Permanent/seasonal residency, and 2) overnight visitation. Therefore, permanent/seasonal residents and day visitors are not as well represented in the full responses as desired.

Results

Intercept Survey Results

The following section provides results of the 1,109 visitor intercept surveys conducted in Guadalupe Mountains National Park from March 19th to 28th, 2022. All results are presented in this report, regardless of sample size, which varies by question. Caution is recommended in the interpretation of figures with sample size lower than $n = 30$. Categories on some questions may not sum to 100% due to rounding differences and/or the opportunity to select more than one response option. To preserve the data for additional analyses, outliers for open-ended numeric questions (e.g., nights spent, days in local area, etc.) have not been removed. Given these outliers, medians are shown instead of means throughout the report, in order to better represent the central tendency.

Questions 1–2: Visitor Residency

First, respondents were asked to indicate if they were permanent or seasonal residents of the local area around Guadalupe Mountains. If they did not reside permanently or seasonally in the local area, they were asked if they currently live in the U.S., and if so, for their ZIP code. Figure 2 depicts responses to this group of questions.

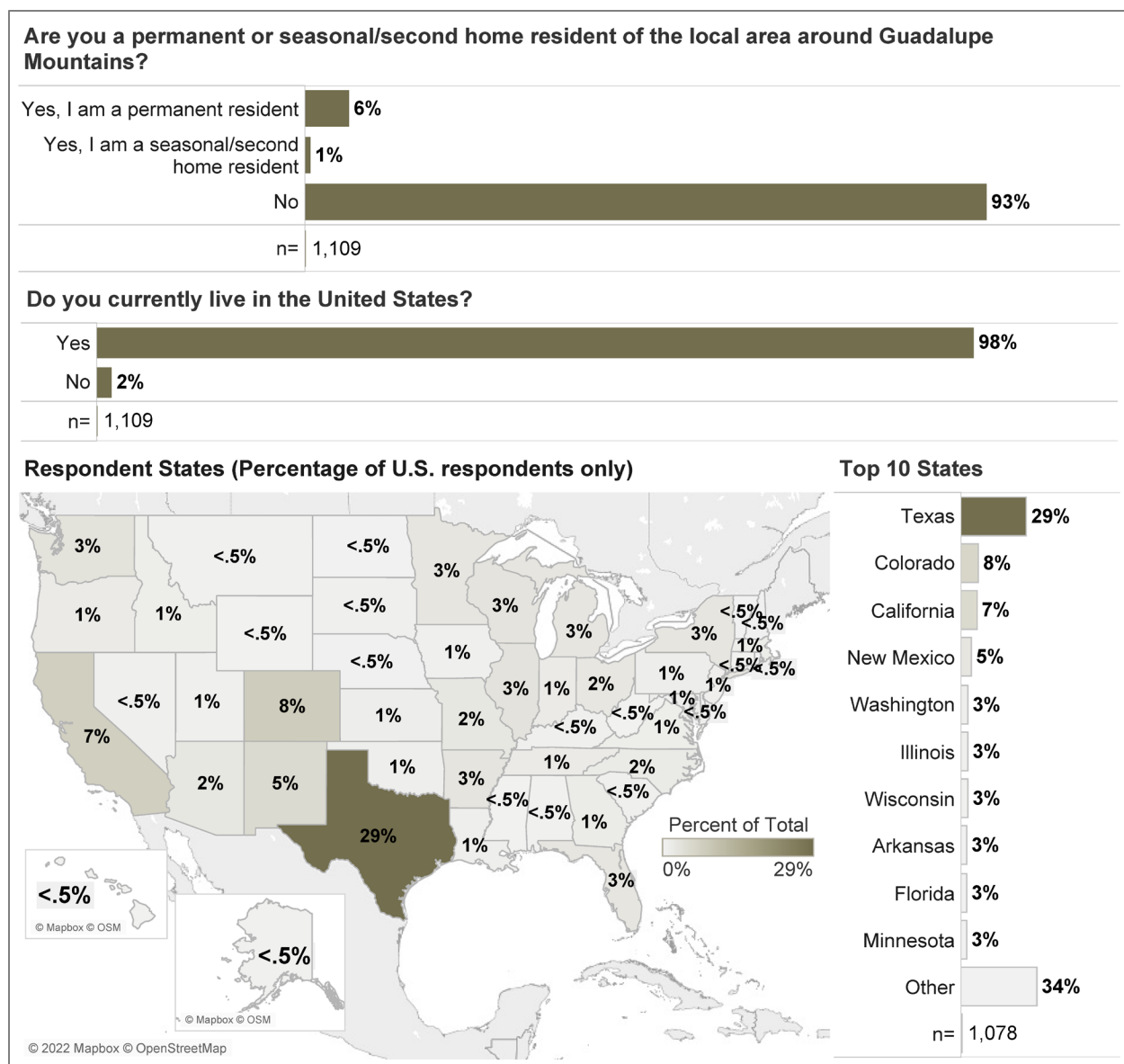


Figure 2. Visitor local residency status and geographic origin of domestic visitors to Guadalupe Mountains.

NPS

- A small percentage of respondents (a combined 7%) stated that they were either permanent or seasonal residents of the local area around Guadalupe Mountains.
- There was a large geographic concentration of visitors from Texas (where Guadalupe Mountains is located).
- Among the 98% of respondents currently residing in the U.S., 29% reside in Texas, followed by 8% from Colorado, and 7% from California.

Question 3: Trip Purpose

If respondents indicated that they were not permanent or seasonal residents of the local area, they were asked about the overall purpose for their trip away from home (Figure 3).

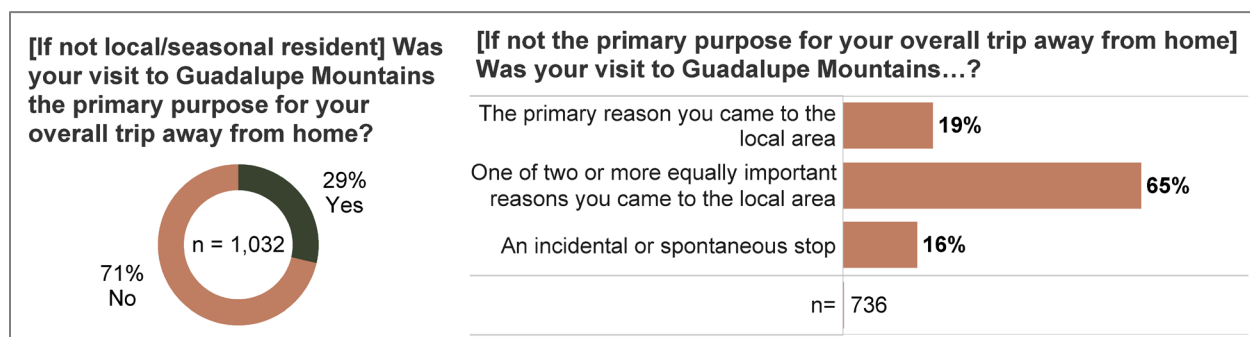


Figure 3. Role of Guadalupe Mountains in overall trip purpose.

NPS

- For the majority of non-local respondents (71%), visiting Guadalupe Mountains was not the primary purpose for their overall trip away from home.
- Among those respondents for whom Guadalupe Mountains was not their primary trip purpose, 65% stated that their visit to Guadalupe Mountains was one or two or more equally important reasons they came to the local area, while another 19% indicated that it was the primary reason they came to the local area.

Question 4: Length of Stay

If respondents indicated that they were not permanent or seasonal residents of the local area around Guadalupe Mountains, they were asked how many days they planned to spend within that local area, including days spent in the park. All respondents, regardless of residency, were asked whether they would be staying overnight away from their permanent residence within the local area. Responses to both of these questions are depicted in Figure 4.

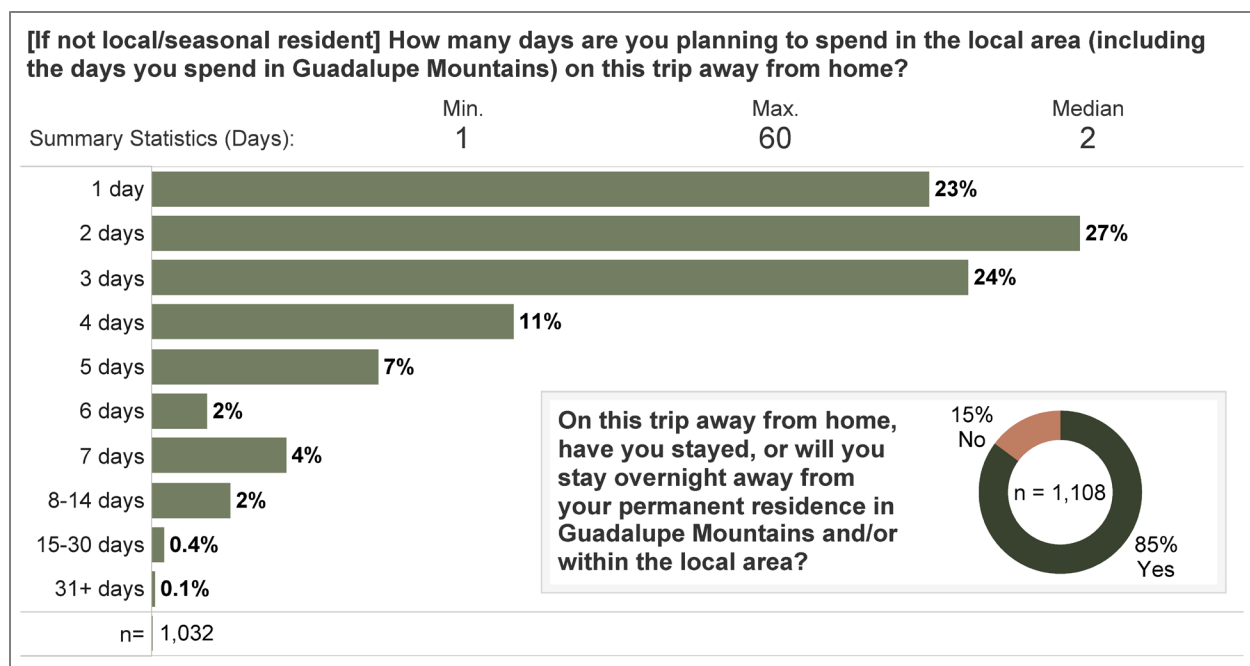


Figure 4. Time spent in the local area around Guadalupe Mountains.

NPS

- Slightly less than a third of non-local respondents (27%) spent two days in the local area, while 24% spent 3 days, and 23% spent 1 day. The median length of stay was 2 days.
- Additionally, the majority of all respondents (85%; including permanent/seasonal residents) had stayed or planned to stay overnight away from their permanent residence in the park and/or in the local area.

Questions 5–6: Overnight Visitors

If respondents indicated that they stayed overnight in the local area, they were asked about the type(s) of accommodation they used or planned to use while there (Figure 5).

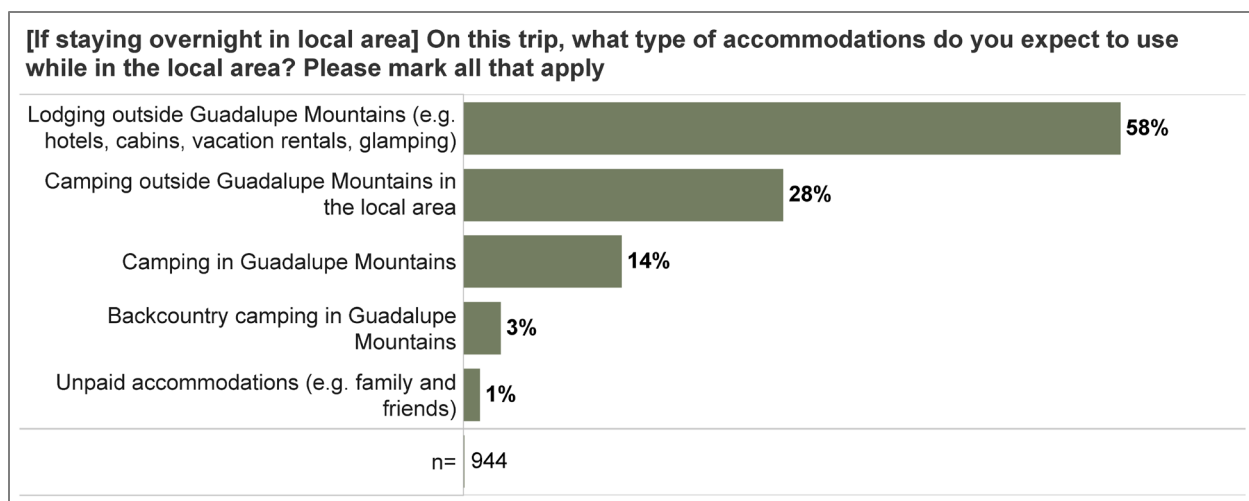


Figure 5. Accommodation types used in the local area around Guadalupe Mountains.

NPS

- The majority of overnight respondents (58%) lodged outside Guadalupe Mountains.
- This was followed in prevalence by those who had camped outside Guadalupe Mountains in the local area (28%), and those who had camped in Guadalupe Mountains (14%).
- Respondents who camped in Guadalupe Mountains were asked in which campground(s) they had stayed or planned to stay (Figure 6)

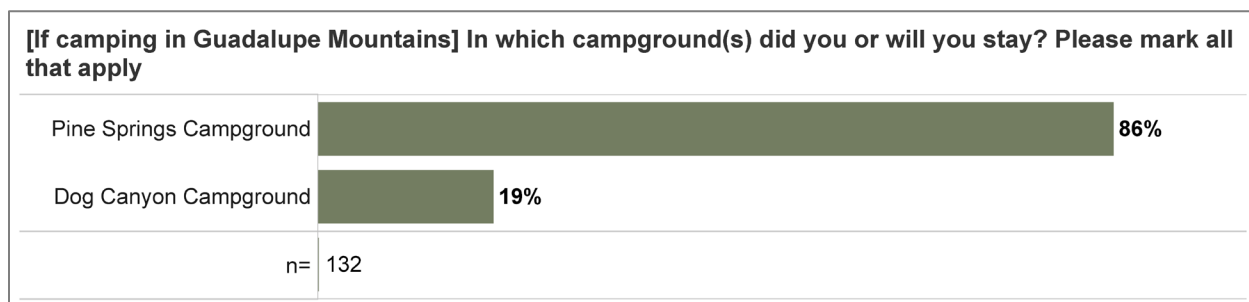


Figure 6. Campground use within Guadalupe Mountains.

NPS

- The majority of those respondents (86%) camped at Pine Springs Campground.

Respondents were then asked to indicate the number of nights they spent or would spend in each accommodation type (Figure 7).

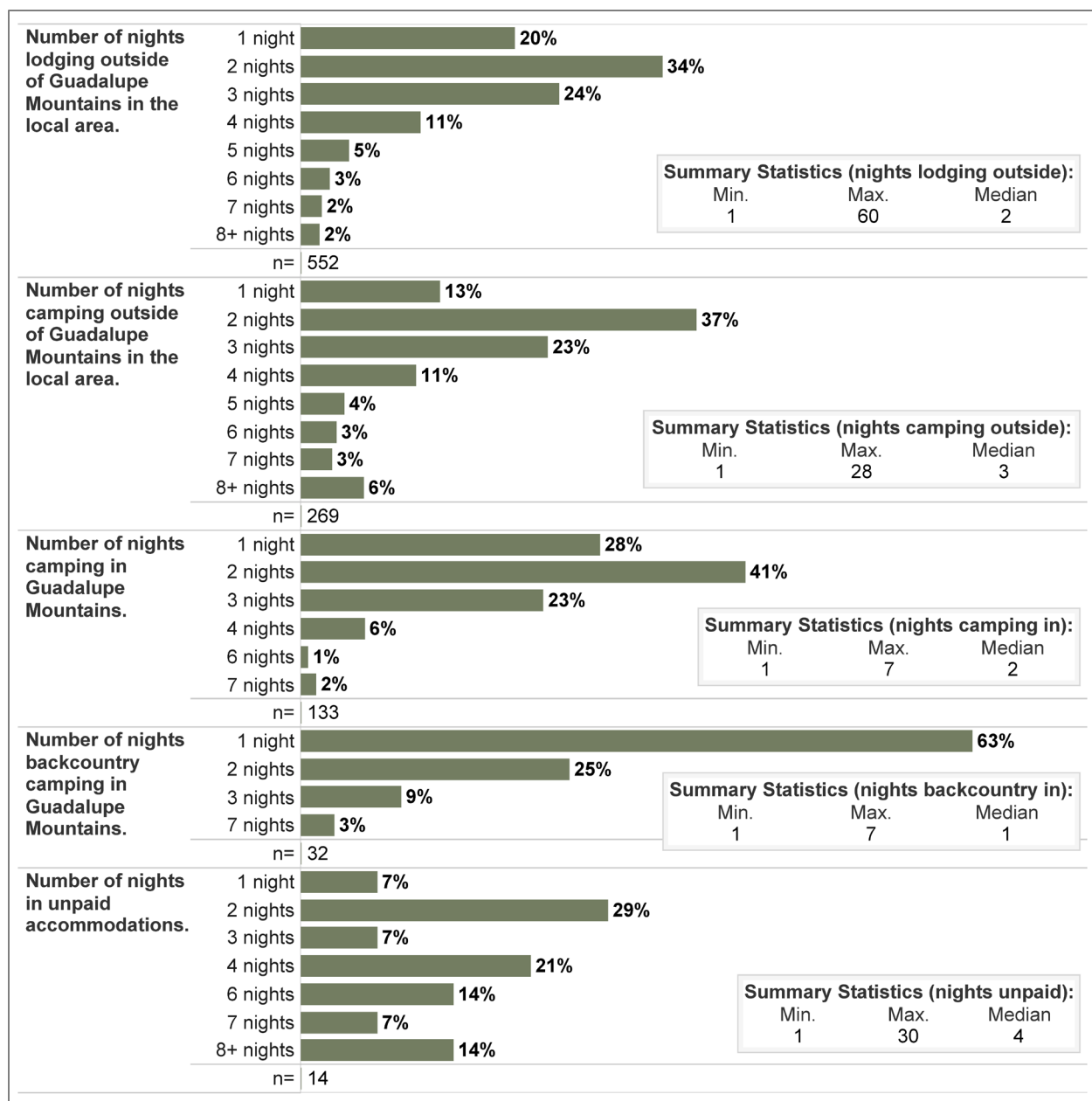


Figure 7. Number of nights spent in the local area around Guadalupe Mountains, by accommodation type. Tabular data shown in this figure are presented in [Appendix A, Table 8](#).

NPS

- Among the 58% of overnight respondents who lodged outside of Guadalupe Mountains in the local area (per Figure 5), median length of stay was 2 nights. The plurality (34%) lodged 2 nights in the local area this trip; 24% spent 3 nights and 20% spent one night.
- Among the 28% of overnight respondents who camped outside of Guadalupe Mountains (per Figure 5), the median length of stay was 3 nights, though the plurality (37%) stayed just 2 nights.

- Among the 14% of overnight respondents who camped in Guadalupe Mountains (per Figure 5), median length of stay was 2 nights. The plurality (41%) of campers stayed 2 nights; 28% reported camping only 1 night.
- Among the 3% of overnight respondents who backcountry camped in Guadalupe Mountains (per Figure 5), median length of stay was 1 night.
- Among the 1% of overnight respondents who stayed in unpaid accommodations in the local area (per Figure 5), median length of stay was 4 nights. The plurality of respondents (29%) reported staying just 2 nights. There was a much broader spread in length of overnight stay among those respondents staying in unpaid accommodations than those in paid options. Due to the small sample size for this category, caution should be exercised when interpreting these results.

Questions 9–11: Party Characteristics

Respondents were asked to indicate how many adults (18 or older) and children (under 18) were in their personal group during their visit to Guadalupe Mountains (Figure 8). A personal group was defined as the visitor and companions with whom they visited the park, such as a spouse, family, and/or friends, but visitors were informed not to account for the larger group with whom they may have traveled, such as a school, church, scout, or tour group.

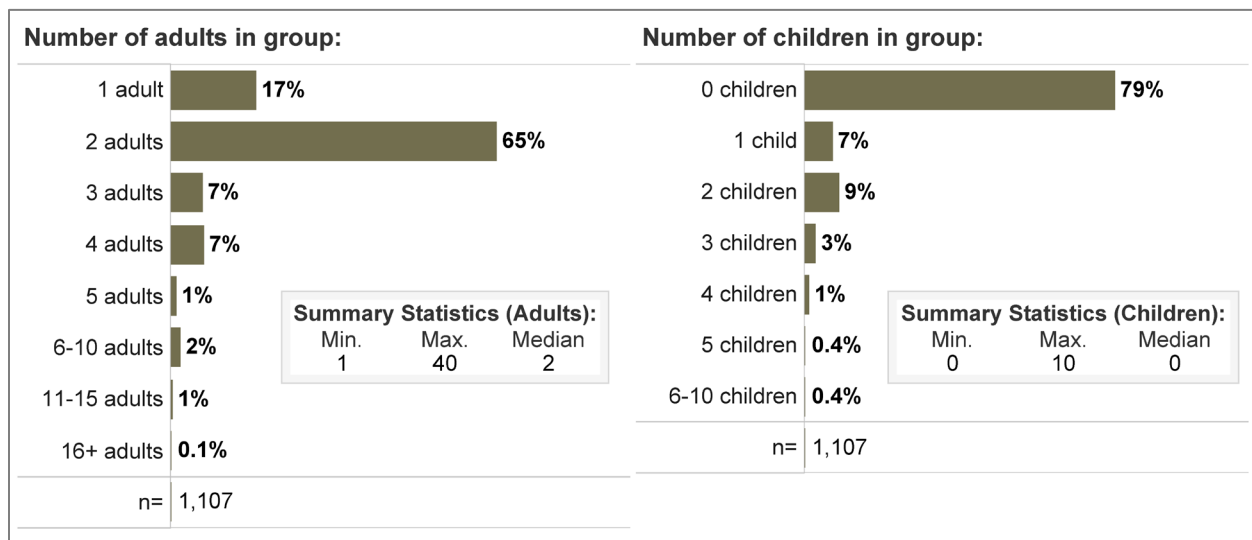


Figure 8. Number of adults and children in respondent's personal group while visiting Guadalupe Mountains. Tabular data shown in this figure are presented in [Appendix A, Table 9](#).

NPS

- The median number of adults per group was 2. Most groups (65%) included 2 adults.
- Most groups (79%) did not include any children.

Respondents were then asked to provide the age of each member of their group (Figure 9).

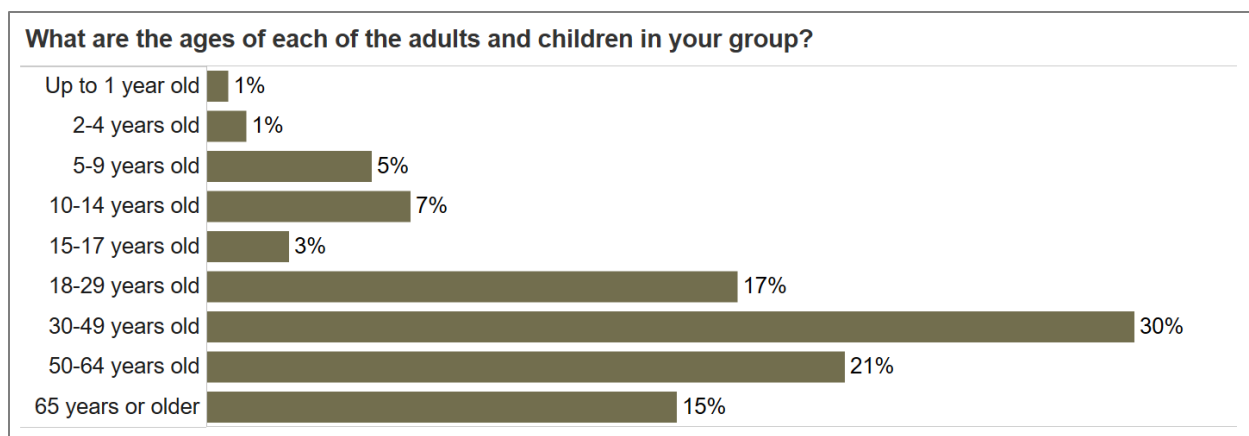


Figure 9. Age distribution of all members of respondent's personal group while visiting Guadalupe Mountains.

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- The most common age of the adults and children in a personal group was 30–49 years old (30%), followed by 50–64 years old (21%), and 18–29 years old (17%).
- Children (i.e., visitors under 18 years old) accounted for a combined total of just 17% of group members.

Questions 13–16: Park Use Characteristics

First, respondents were asked to indicate if they planned to visit Guadalupe Mountains for more than one day, and then a series of follow-up questions about the length of time they might spend in the park (Figure 10 and Table 7).

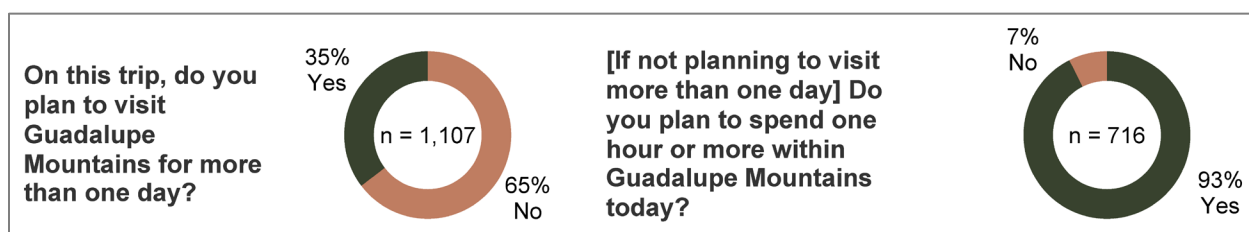


Figure 10. Duration of the respondent's trip to Guadalupe Mountains.

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Table 7. Amount of time spent within Guadalupe Mountains.

Question	n	Min.	Max.	Median
[If not planning to spend one hour or more] How many minutes do you plan to spend within Guadalupe Mountains today?	53	2	59	30
[If planning to spend less than a day, but one hour or more] How many hours do you plan to spend within Guadalupe Mountains today?	662	1	18	4
[If planning to visit at least one day] How many days do you plan to spend within Guadalupe Mountains on this trip?	392	1	10	2
[If planning to visit at least one day] On how many different days do you expect to enter the park?	390	1	8	2

- While visiting Guadalupe Mountains, almost two-thirds of respondents (65%) did not plan to spend more than one day in the park.
- Among the 65% of visitors who did not spend more than a day in Guadalupe Mountains, the overwhelming majority (93%) planned to spend one hour or more in the park. The median length of time spent in the park among this group was four hours.
- The remaining 35% of visitors planned to visit for more than one day; among those visitors, the median length of stay was two days.
- Those respondents who spent at least one day in the park were also asked on how many different days they expected to enter the park; the median answer was two days.

Next, respondents were asked to indicate the most recent entrance they used to enter Guadalupe Mountains (Figure 11).

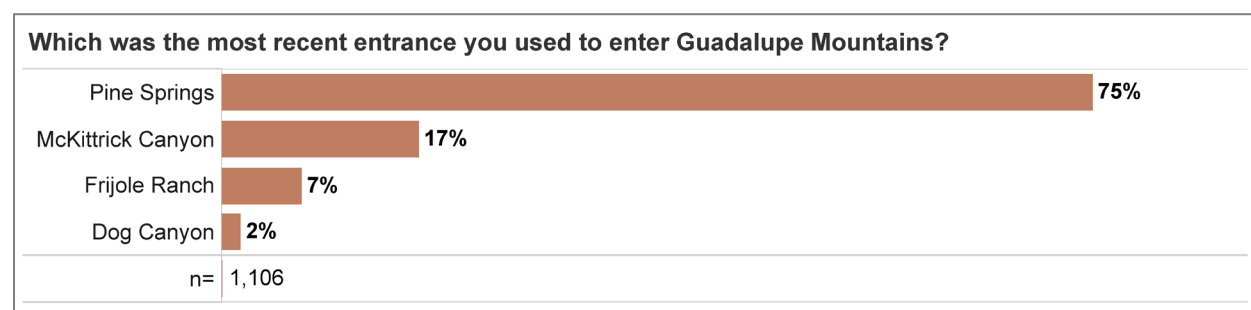


Figure 11. Most recent entrance used to enter Guadalupe Mountains.

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- Pine Springs was the most commonly used entrance to Guadalupe Mountains (75%).
- Seventeen percent of respondents entered Guadalupe Mountains at McKittrick Canyon, followed by 7% of respondents who used the Frijole Ranch entrance.

Due to park geography and proximity of intercept sites to entrances, the results for most recent entrance used were impacted by the volume of visitors intercepted at various sites.

Respondents were also presented with a list of locations within Guadalupe Mountains and asked to indicate if they had been to, or planned to visit them, that day (Figure 12).

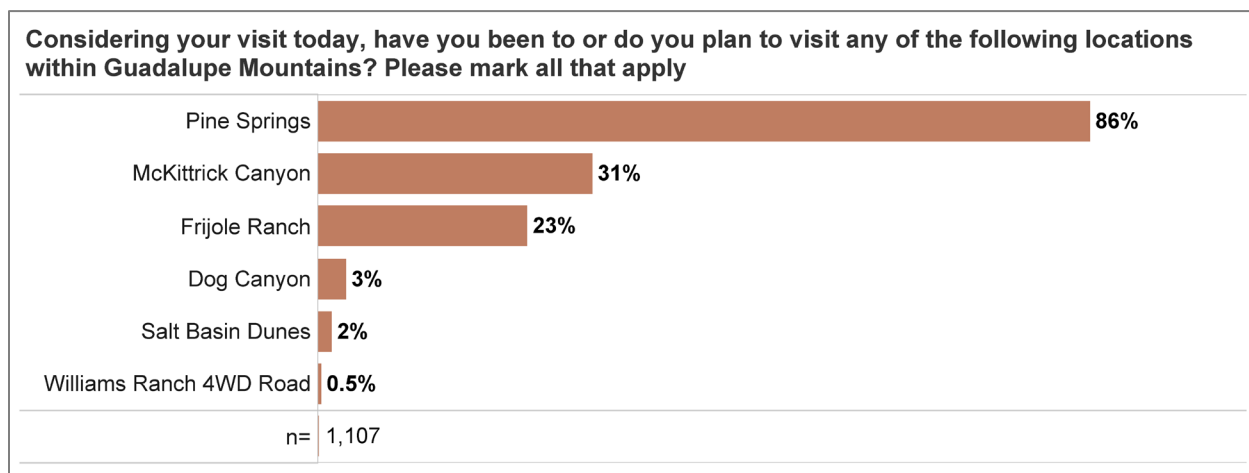


Figure 12. Park locations visited during the most recent trip to Guadalupe Mountains.

NPS

- The most commonly visited location in Guadalupe Mountains was Pine Springs (86% of respondents had either been there or planned to visit it on their trip), followed by McKittrick Canyon (31%) and Frijole Ranch (23%).
- Salt Basin Dunes was the least-visited location from the list provided, with only 2% of respondents reporting having visited or planning to visit.

Question 17: Transportation

Visitors were asked about the form of transportation they used to enter Guadalupe Mountains on the day they were surveyed (Figure 13).

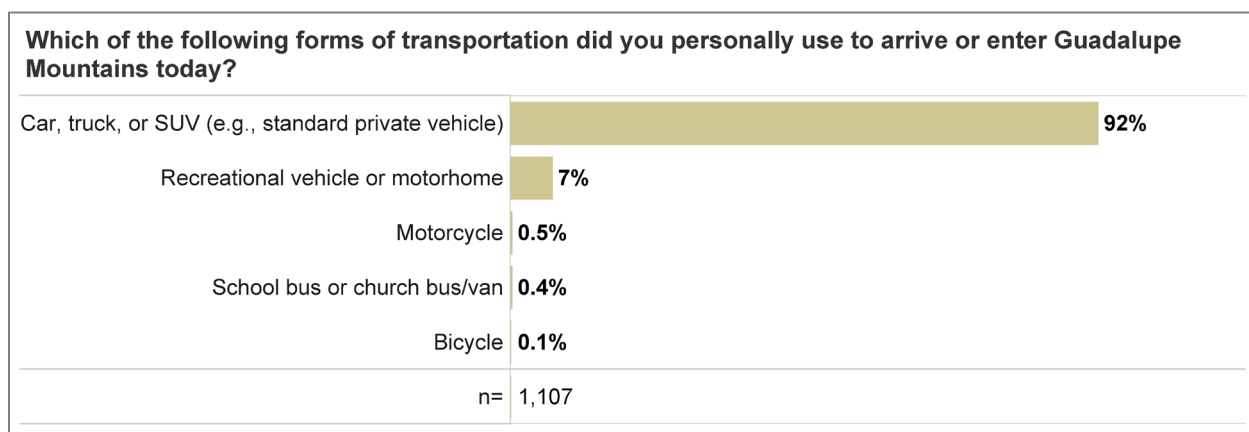


Figure 13. Form of transportation used to enter Guadalupe Mountains on the day of the survey.

NPS

- The majority of respondents (92%) reported that they used their car, truck, or SUV to enter Guadalupe Mountains on the day of the survey.
- This was followed distantly by the use of a recreational vehicle or motorhome (7%), and motorcycles (0.5%).

If respondents entered the park using a multi-passenger private vehicle (i.e., car, truck or SUV; recreational vehicle or motorhome; or motorcycle), they were asked to indicate how many people were traveling in or on that vehicle (Figure 14).

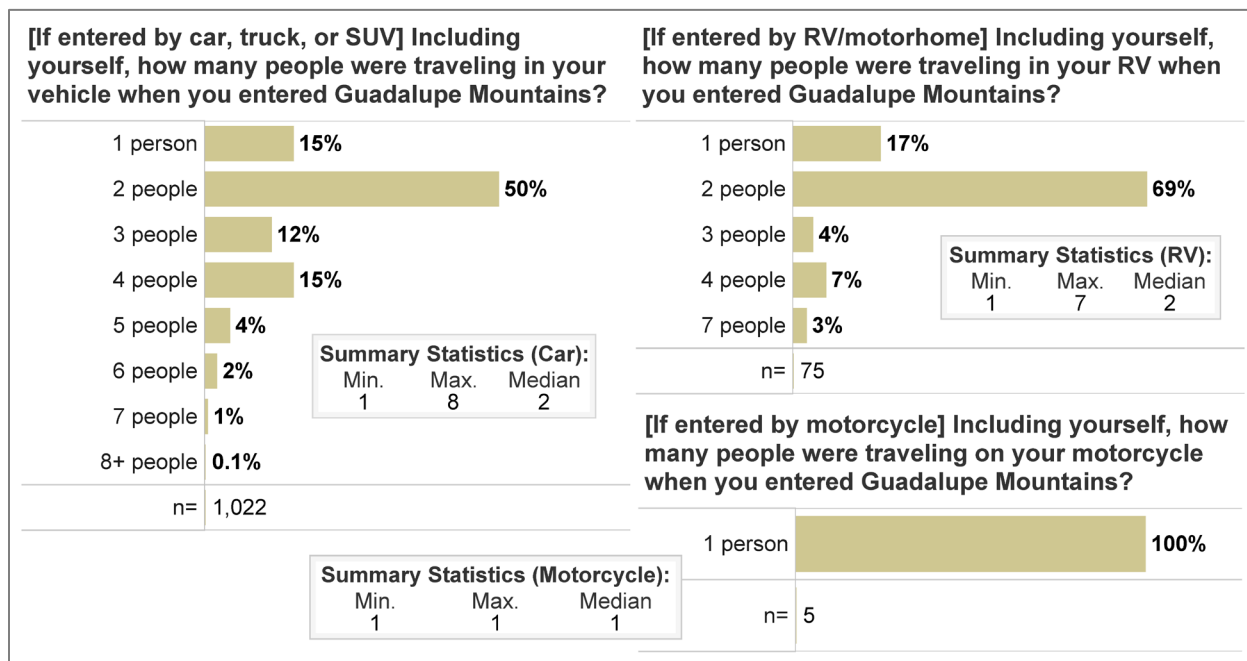


Figure 14. Number of people in or on respondent's vehicle when entering Guadalupe Mountains. Tabular data shown in this figure are presented in [Appendix A, Table 10](#).

NPS

- Half of respondents traveling by car reported two people in the vehicle. The next largest group sizes were four people and single passengers (15% each), followed by three people (12%).
- The majority of respondents entering Guadalupe Mountains by RV/motorhome reported traveling in a group of two people (69%), followed by single passengers (17%), and then groups of four (7%).
- All surveyed motorcyclists were traveling on their own.

Question 19: Previous Visits to Guadalupe Mountains

Respondents were asked if they were first time visitors to Guadalupe Mountains. Repeat visitors were then asked how many visits they have made to Guadalupe Mountains in the last 12 months and the last five years (Figure 15).

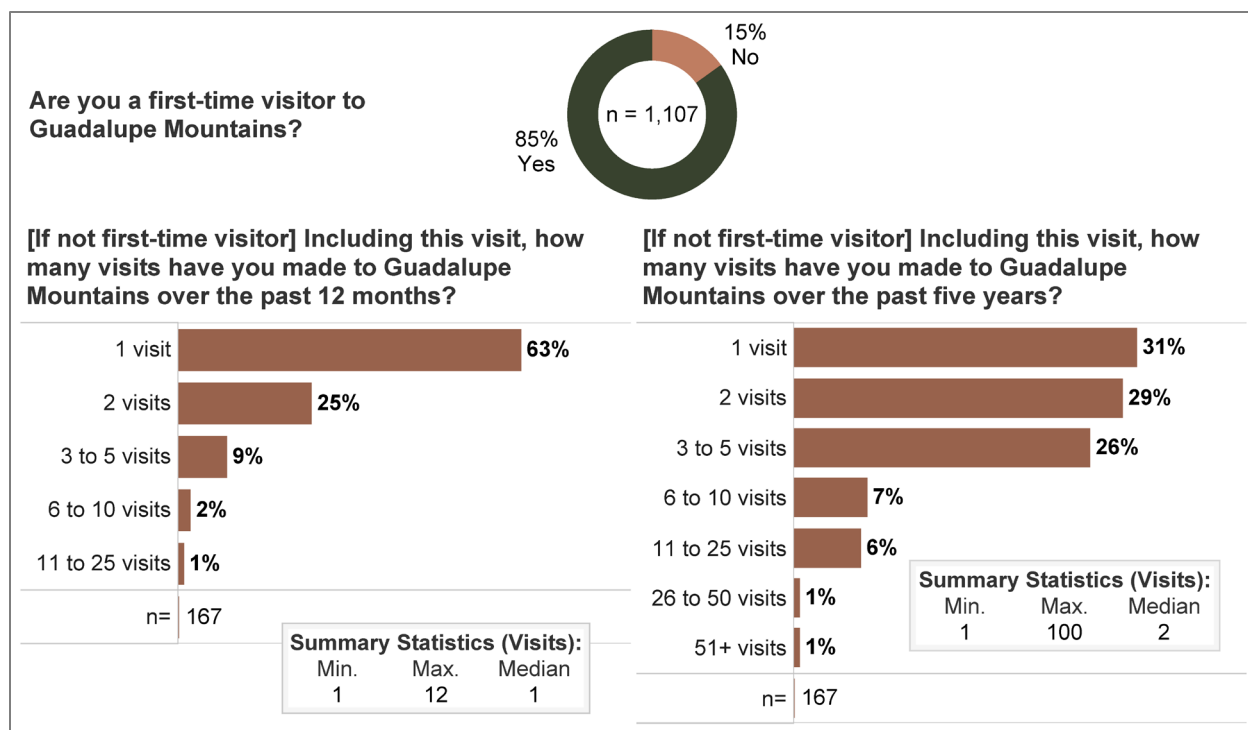


Figure 15. Previous visits to Guadalupe Mountains. Tabular data shown in this figure are presented in [Appendix A, Table 11](#).

NPS

- Most respondents (85%) were on their first ever trip to Guadalupe Mountains.
- Among the 15% of respondents who were repeat visitors, the majority (63%) were on their first visit in the past 12 months.
- When asked about their number of visits over the past five years, the largest proportion of repeat visitors (31%) had visited at least one prior time in the past 5 years.
- The median number of visits made in the past 5 years was 2, including the current trip; 8% of repeat visitors had made more than 10 visits in the past 5 years.

Question 20: Previous Visits to Other NPS Units

Finally, respondents were asked how many visits they made to other NPS sites over the past 12 months (Figure 16).

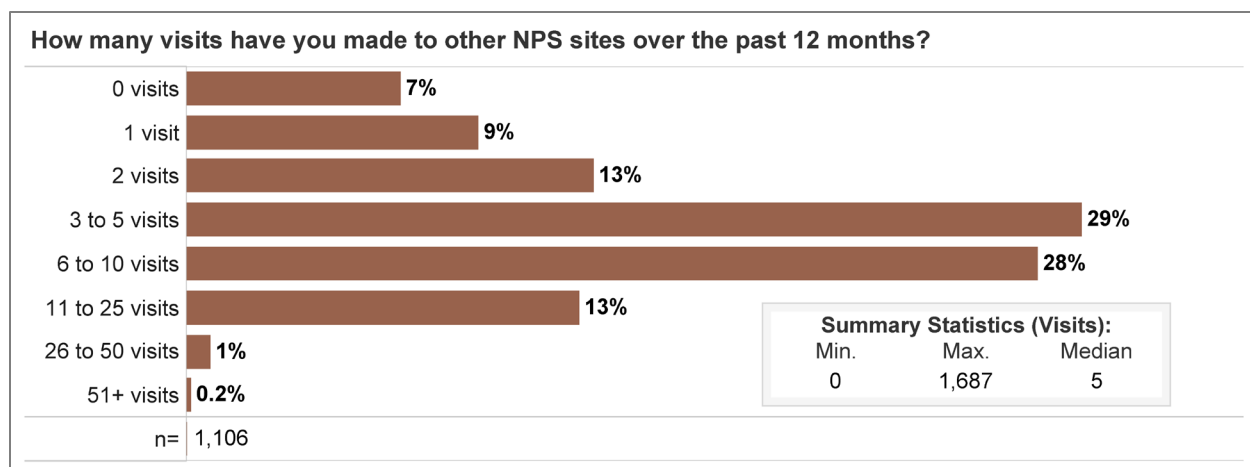


Figure 16. Visits made to other NPS sites within the past year. Tabular data shown in this figure are presented in [Appendix A, Table 12](#).

NPS

- The majority of respondents (93%) had made at least one visit to other NPS site(s) in the past year.
- The median number of visits made to other NPS site(s) in the past 12 months was 5, though a combined 71.2% had made 3 or more visits in the past year.

Follow-Up Survey Results

The following section provides results of the 461 follow-up visitor surveys received by mail-back or online following fieldwork conducted in Guadalupe Mountains National Park in spring 2022. Again, caution is recommended in the interpretation of figures with sample size lower than $n = 30$, and categories on some questions may not sum to 100% due to rounding differences and/or the opportunity to select more than one response option.

Questions 1–2: Information About Guadalupe Mountains

First, respondents were asked what sources they used to obtain information about Guadalupe Mountains prior to their trip, and whether they had the information they needed on their trip (Figure 17).

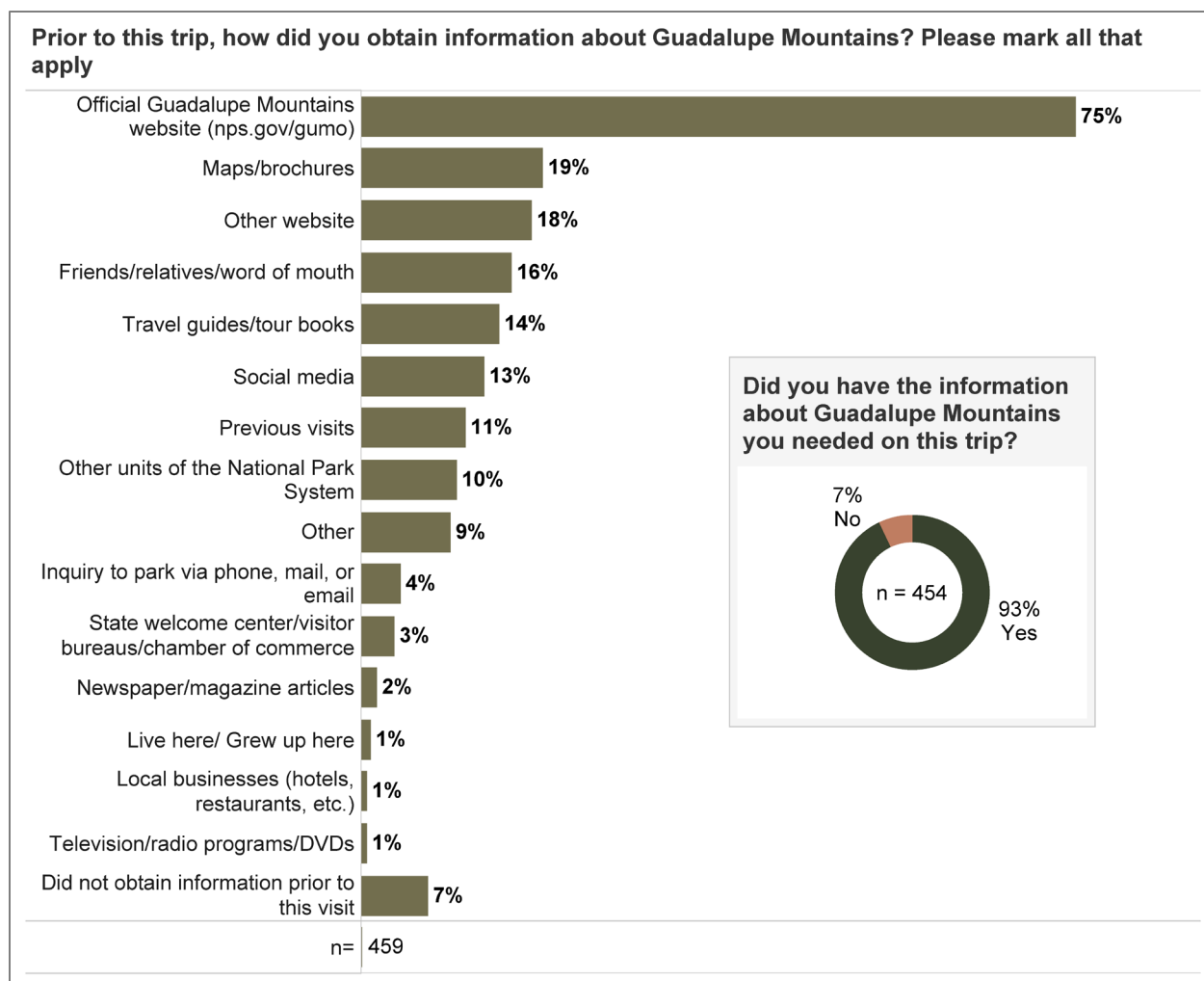


Figure 17. Sources used to obtain information about Guadalupe Mountains prior to the trip.

NPS

- The most used resource was the official Guadalupe Mountains website (nps.gov/gumo), with 75% of respondents reportedly using it. The second most common source were maps/brochures (19%), followed by other websites (18%), friends/relatives/word of mouth (16%), and travel guides/tour books (14%).
- In a follow-up question, 93% of respondents said that they had the information about Guadalupe Mountains that they needed on their trip, while 7% indicated that there was information that they needed but did not have.

In an open-ended follow-up question, those who did not have the information they needed on this trip were asked to elaborate. These comments are provided as an accompanying document for review.

Question 3: Transportation

While in the intercept survey, respondents indicated a mode of transportation they used to enter the park on the day of the intercept, the follow-up survey asked respondents to select all forms of

transportation they personally used to travel from their home to Guadalupe Mountains on their trip (Figure 18).

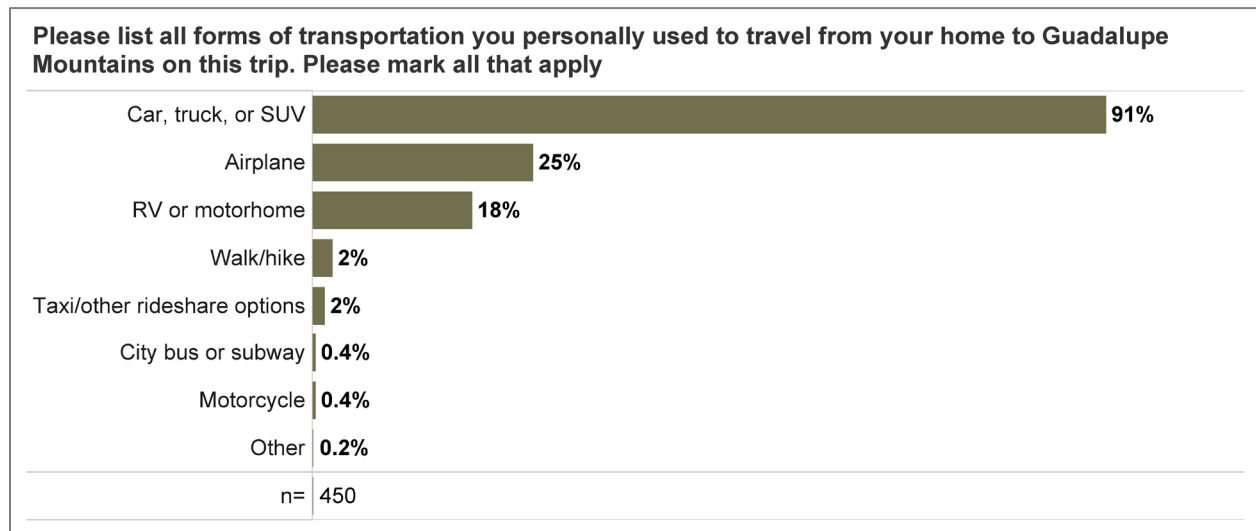


Figure 18. Forms of transportation used to travel from home to Guadalupe Mountains on the recent trip.
NPS

- Nearly all respondents (91%) used a personal vehicle, such as a car, truck, or SUV, at some point during their trip from home to Guadalupe Mountains.
- The second most common mode of travel was an airplane (25%), followed by an RV or motorhome (18%).

Question 4: Travel Party Composition

Respondents were asked what type of group they were with during their visit to Guadalupe Mountains on the day of the survey (Figure 19).

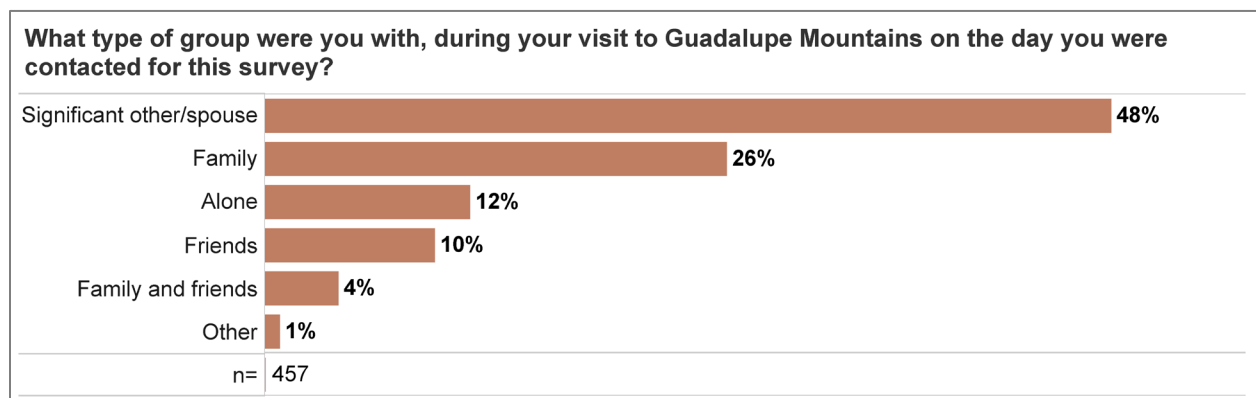


Figure 19. Travel party composition during Guadalupe Mountains visit.
NPS

- Almost half of respondents (48%) visited Guadalupe Mountains with their significant other or spouse on the day of the survey.
- Roughly a quarter of respondents (26%) explored Guadalupe Mountains with their family, and another 12% visited the park alone.

Question 10: Entrance Fees

Respondents were asked to indicate which type of entrance fees applied to them personally on their most recent trip to Guadalupe Mountains (Figure 20).

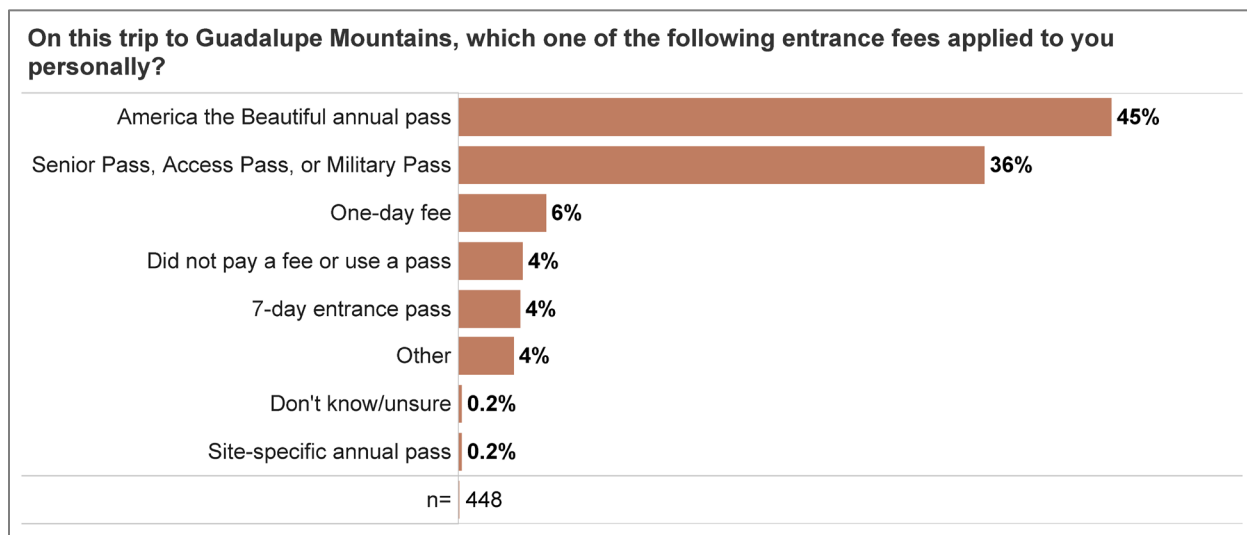


Figure 20. Entrance fees to enter Guadalupe Mountains on the most recent trip.

NPS

- Almost half of respondents (45%) reported using an America the Beautiful annual pass, and another 36% entered using a Senior Pass, Access Pass, or Military Pass.
- In contrast, about 10% of respondents entered the park using Guadalupe-Mountains-specific pass or fee (i.e., site-specific annual pass, 7-day, or single-day entrance fee).

Questions 12–14: Trip Characteristics

Respondents were asked if they visited other National Park Service sites on their trip away from home (Figure 21).



Figure 21. NPS sites visited on trip away from home.

NPS

- The majority (90%) of all respondents had visited other NPS sites on their trip, while 10% identified Guadalupe Mountains as the only NPS site they visited while away from home.
- In an open-ended follow-up question, those who had visited other NPS sites on their trip were asked to list which one(s). These comments are provided in an accompanying document.

Survey respondents were then asked to identify all activities that they participated in while visiting Guadalupe Mountains, and which of those was their primary activity (Figure 22).

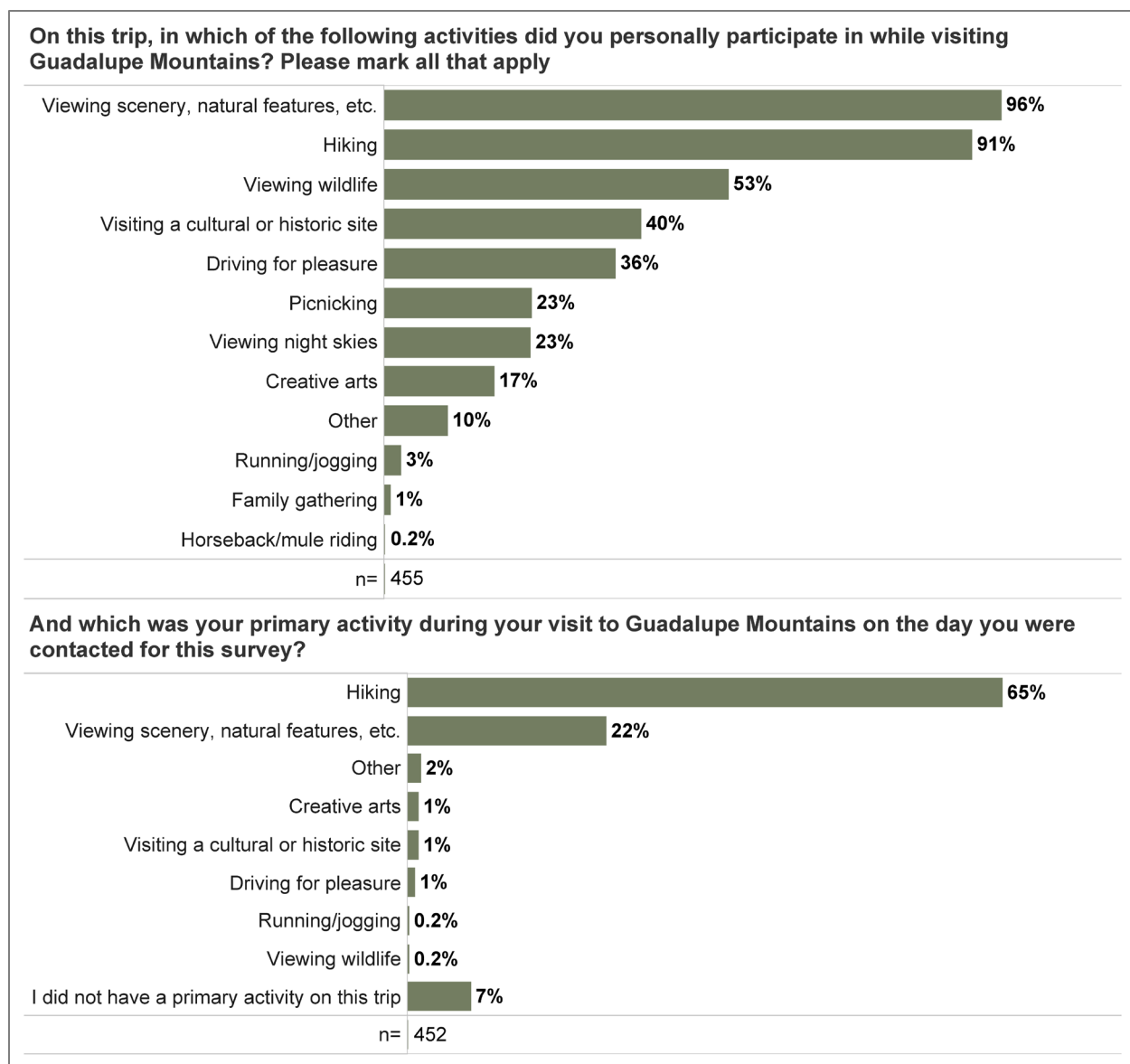


Figure 22. Participation in activities at Guadalupe Mountains.

NPS

- Almost all visitors reported viewing scenery, natural features, etc. (96%) and hiking (91%).
- Horse-back/mule riding, family gatherings, and running/jogging were all uncommon activities (reported by 3% or fewer of respondents).
- The majority of respondents (65%) reported hiking as their primary activity, followed by viewing scenery, natural features, etc. (22%).
- Notably, while over half of respondents (53%) reported viewing wildlife during their trip, just 0.2% of respondents identified this as their primary activity.

Questions 15–16: Reasons to Visit

Survey respondents were asked to rate the importance of various reasons to visit Guadalupe Mountains on their trip, then asked which of those was the most important reason for them to visit Guadalupe Mountains (Figure 23).

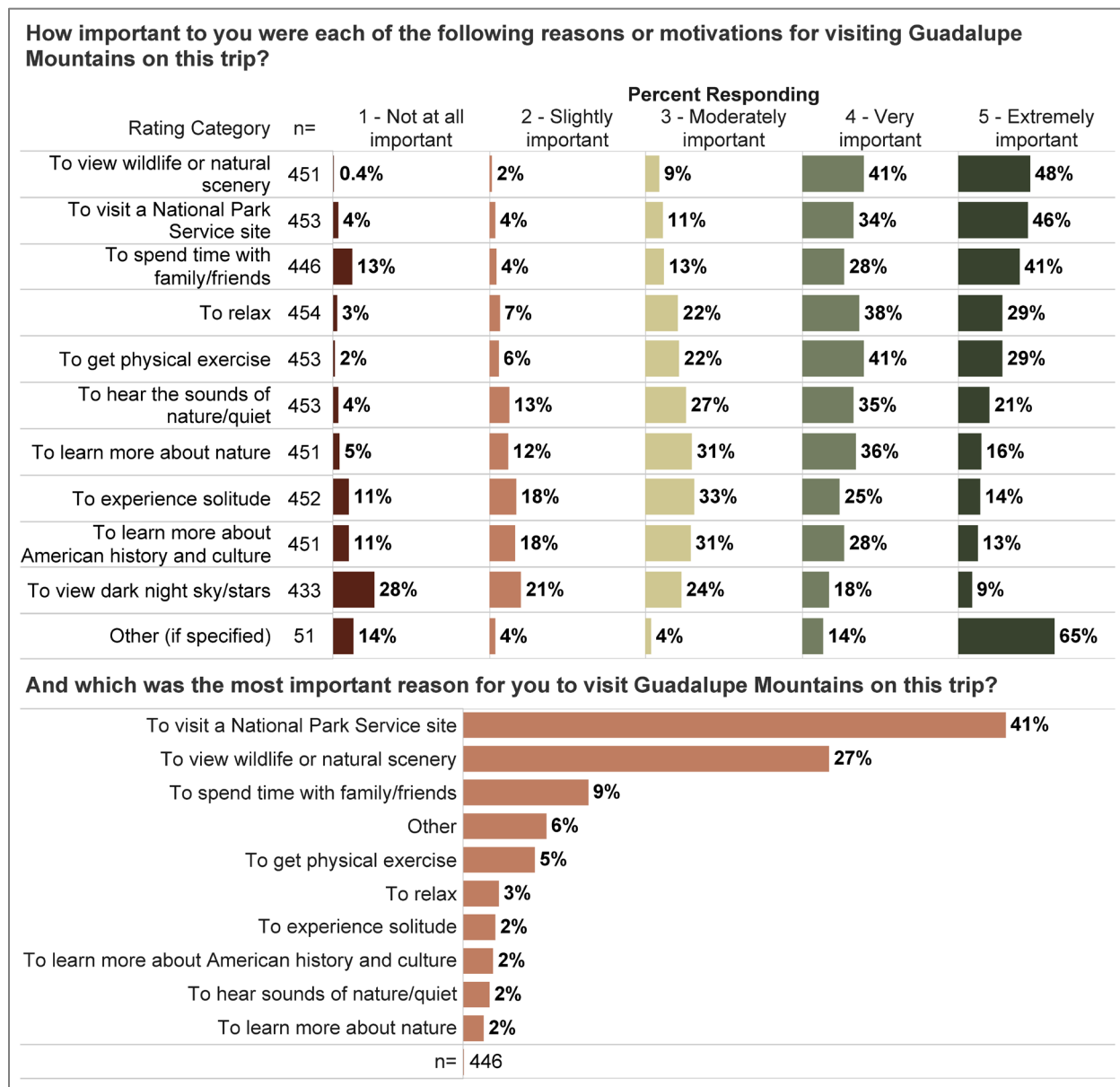


Figure 23. Reasons or motivations to visit Guadalupe Mountains. Tabular data shown in this figure are presented in [Appendix A, Table 13](#).

NPS

- Nearly half of respondents named viewing wildlife and natural scenery (48%) and visiting a National Park Service site (46%) as extremely important reasons for their trip to Guadalupe Mountains.

- Other important reasons were to spend time with family and friends, to relax, and to get physical exercise (41%, 29%, and 29% of respondents, respectively, rated them as extremely important).
- The least important reasons were to view dark night sky/stars and to learn more about American history and culture (only 9% and 13% of respondents, respectively, reported them as extremely important, and 28% and 11% of respondents, respectively, rated them as not at all important).
- The most common response about the most important reason was to visit a National Park Service site (41%), followed by viewing wildlife and natural scenery (27%), and spending time with family/friends (9%).

Questions 17–19: Programs, Services, and Learning

Respondents were asked to identify all programs and services that they personally participated in in Guadalupe Mountains during their trip (Figure 24).

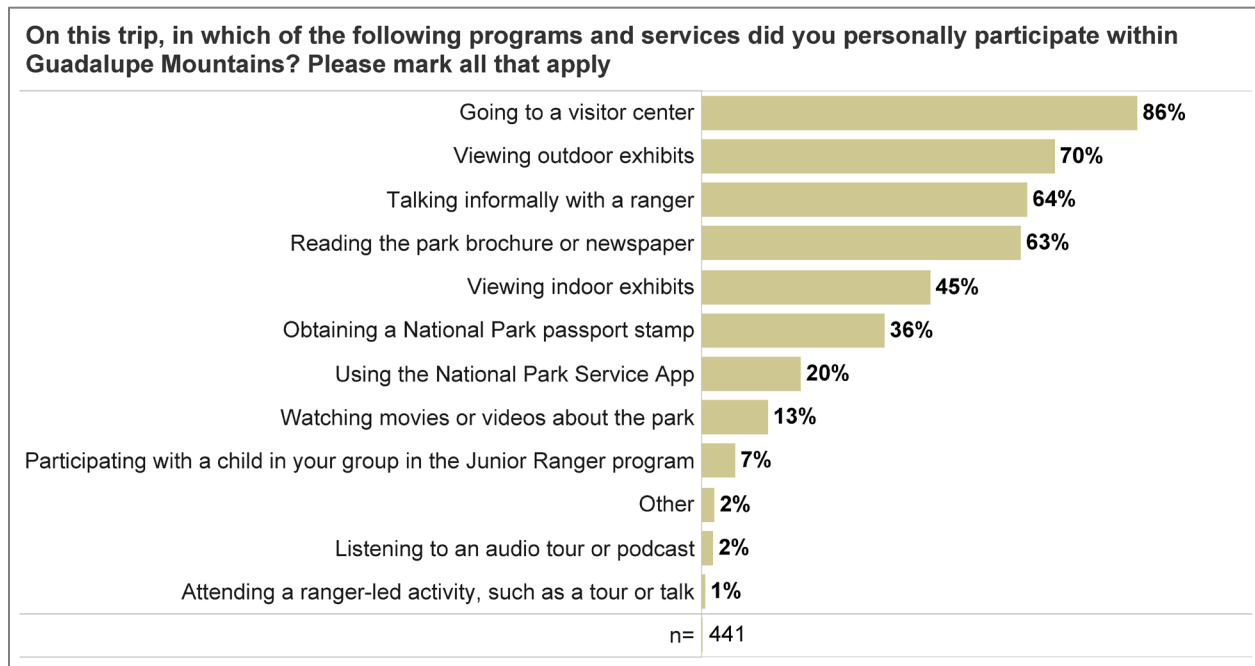


Figure 24. Programs participated while visiting Guadalupe Mountains.

NPS

- The two most-used programs were going to a visitor center and viewing outdoor exhibits, with the majority of respondents (86% and 70%, respectively) reporting participating in them.
- Several other programs were engaged in by over half of respondents: talking informally with a ranger (64%), and reading the park brochure or newspaper (63%).

Two follow-up questions asked if respondents learned anything from park staff, programs, and/or exhibits about American history, nature, and/or culture, and what specific subjects they would like to learn about in the future (Figure 25).

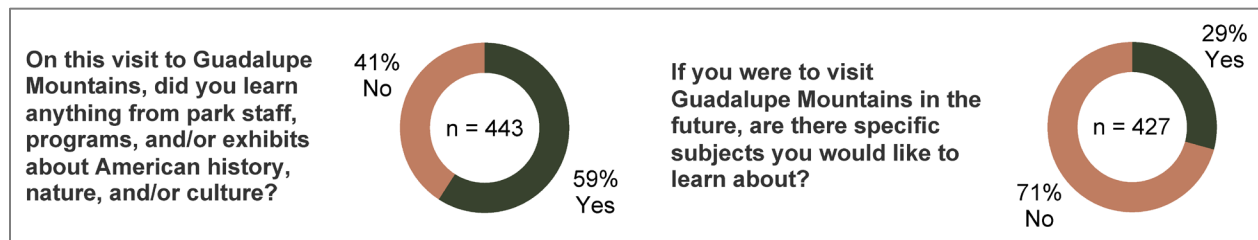


Figure 25. Learning.

NPS

- Over half of respondents (59%) reported that they learned something from park staff, programs, and/or exhibits about American history, nature, and/or culture.
- Almost a third of respondents (29%) reported that if they were to visit Guadalupe Mountains in the future, there are specific subjects they would like to learn about.

Respondents who said yes to either of these two questions were asked to elaborate. These comments are provided as an accompanying document for review.

Questions 20–21: Use of Devices

Two survey questions were focused on the use of electronic devices, their importance, and the quality of service provided. First, respondents were asked which personal electronic devices they used while in Guadalupe Mountains (Figure 26).

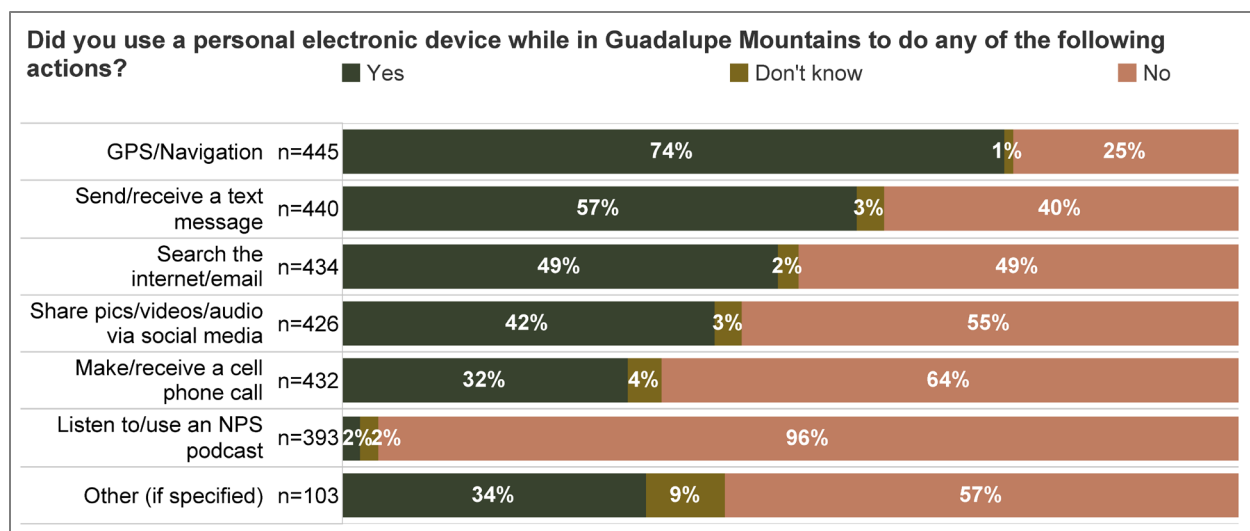


Figure 26. Use of personal electronic devices while visiting Guadalupe Mountains. Tabular data shown in this figure are presented in [Appendix A, Table 14](#).

NPS

- Nearly three out of four respondents (74%) reported using GPS/Navigation, and over half of respondents (57%) reported sending/receiving a text message.
- Conversely, only 2% of respondents listened to or used an NPS podcast.

Then, respondents were asked to rate both the importance of each of these electronic device uses (Figure 27), and the quality of their service (Figure 28).

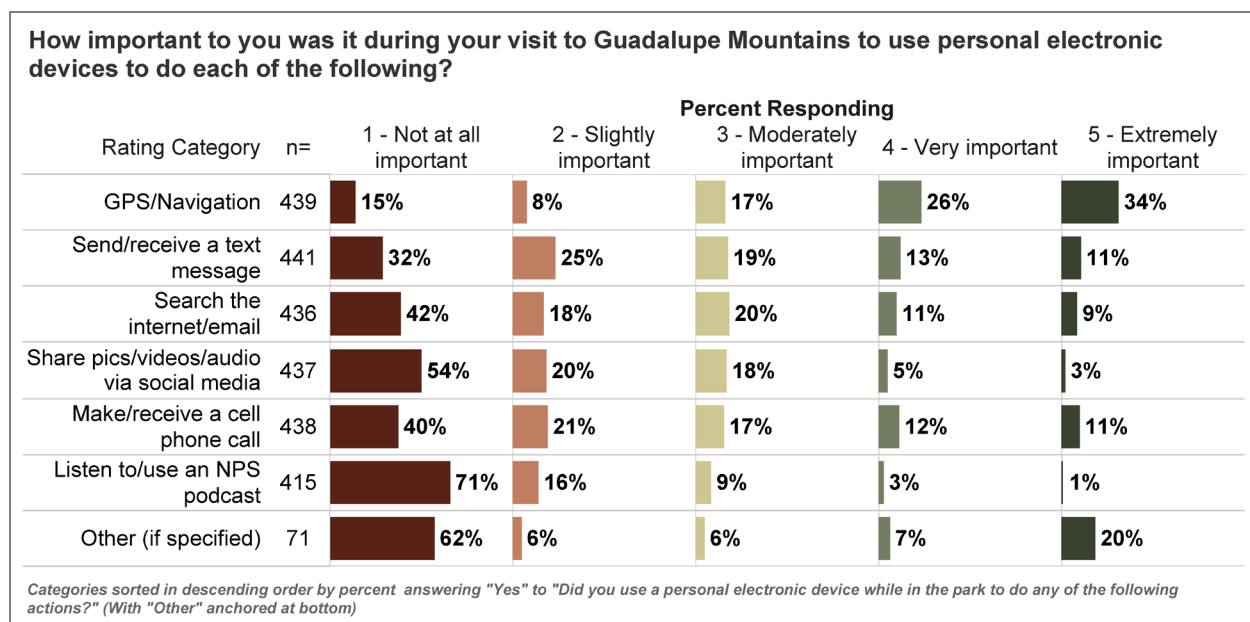


Figure 27. The importance of use of personal electronic devices while visiting Guadalupe Mountains. Tabular data shown in this figure are presented in [Appendix A, Table 15](#).

NPS

- The most important device used was GPS/Navigation (34% of respondents rated it as extremely important and another 26% rated it as very important).
- Listening to and using an NPS podcast was rated as extremely important only by 1% of respondents, and not at all important by 71% of respondents.

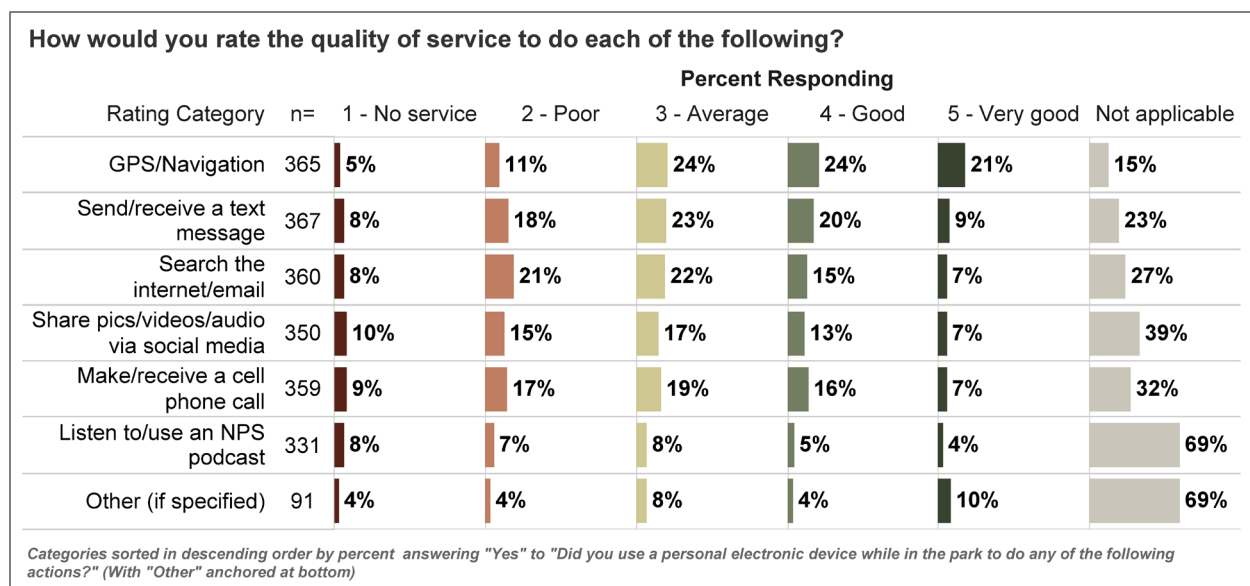


Figure 28. Quality of service of personal electronic devices while visiting Guadalupe Mountains. Tabular data shown in this figure are presented in [Appendix A, Table 16](#).

NPS

- GPS/Navigation was rated as very good or good by 21% and 24% of respondents, respectively. However, 5% of respondents reported that they had no service for this.
- Roughly one in ten respondents reported that they also had no service to share pics/videos/audio via social media, or to make/receive a cell phone call (10% and 9%, respectively). However, a small percentage of visitors rated these services as very good (7% each).

Question 22: Physical Difficulties

Respondents were asked if anyone in their personal group had a physical condition that made it difficult to access or participate in park activities or services during their visit to Guadalupe Mountains. If such condition was identified, respondents were asked to specify the type of difficulty (Figure 29).

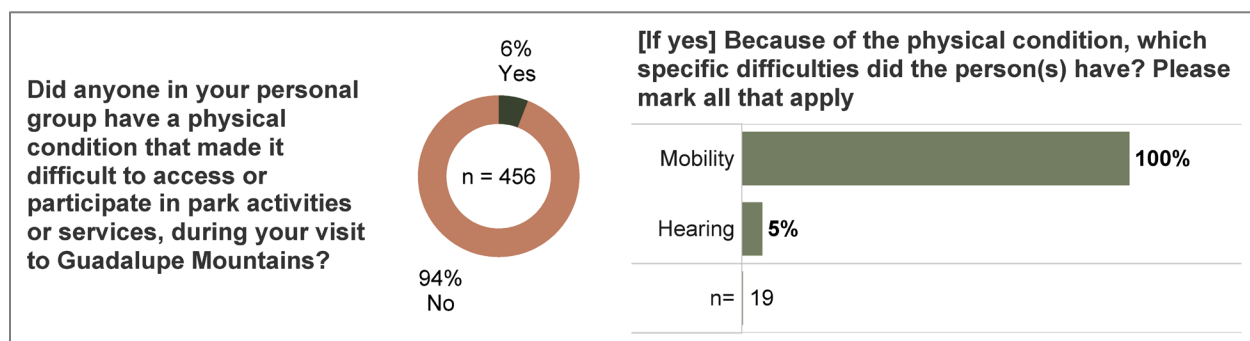


Figure 29. Physical difficulties while visiting Guadalupe Mountains.

NPS

- The majority of respondents (94%) reported that nobody in their personal group had a physical condition that made it difficult to access or participate in park activities or services during their visit to Guadalupe Mountains.
- Among the 6% of visitors who identified at least one difficulty, 100% reported mobility issues in their group, with small portion (6%) also reporting hearing difficulties.

Questions 25–28: Visitor Experience

Respondents were asked if their visit to Guadalupe Mountains met their expectations (Figure 30).

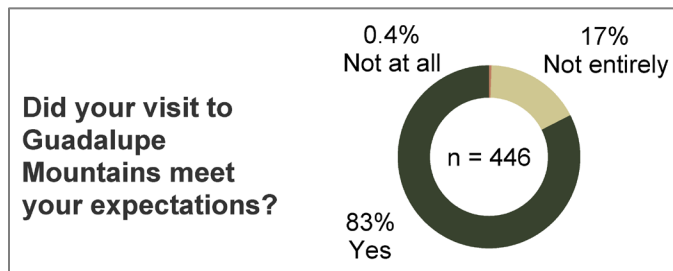


Figure 30. Meeting Guadalupe Mountains expectations.

NPS

- The majority of respondents (83%) reported that their visit to Guadalupe Mountains met their expectations, while 17% of respondents said it did not meet their expectations entirely, and less than 1% of respondents indicated that it did not meet their expectations at all.

In an open-ended follow-up question, respondents who indicated that Guadalupe Mountains did not meet their expectations were asked to elaborate. These comments are provided as an accompanying document for review.

Respondents were then given several statements about Guadalupe Mountains and asked to indicate their level of agreement or disagreement with each given statement (Figure 31).

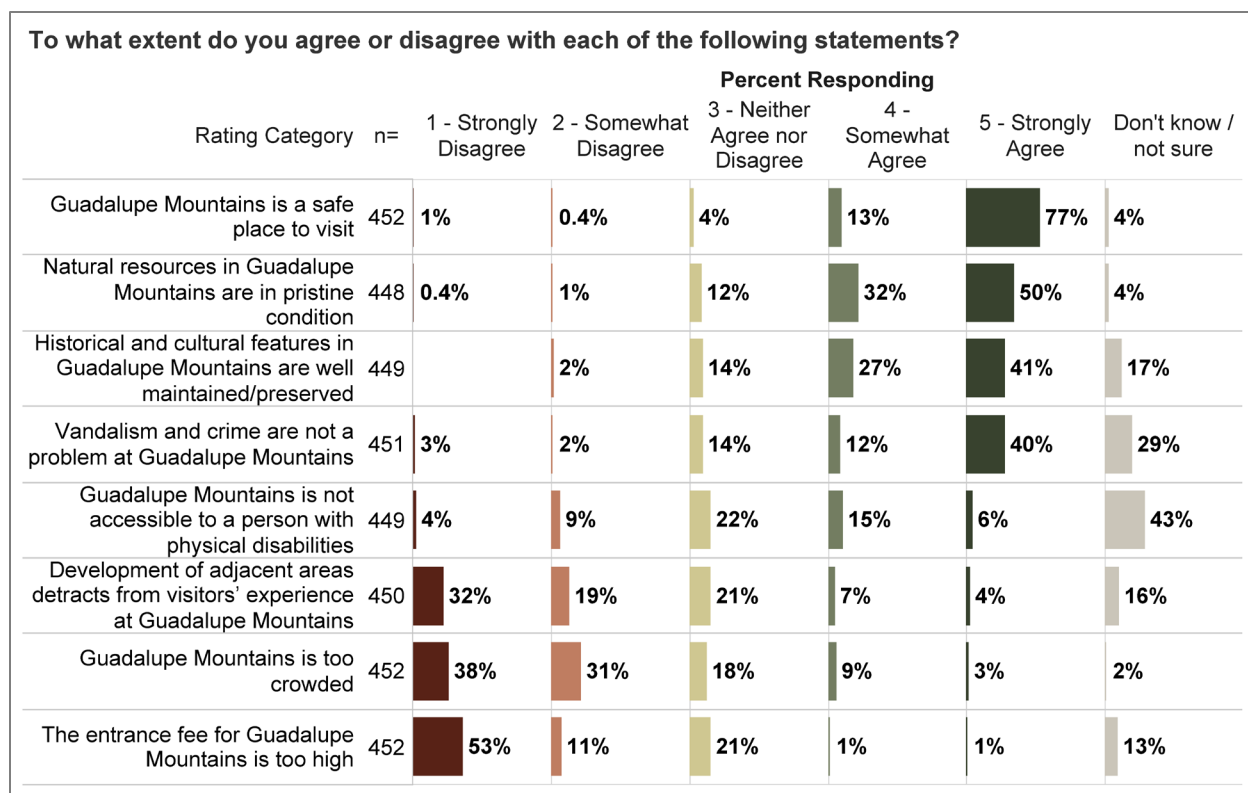


Figure 31. Rating Guadalupe Mountains experience. Tabular data shown in this figure are presented in [Appendix A, Table 17](#).

NPS

- From all the statements listed, “Guadalupe Mountains is a safe place to visit” received the most consensus with a combined 90% of respondents saying they either strongly or somewhat agreed with the statement. That was followed by “Natural resources in Guadalupe Mountains are in pristine condition” and “Historical and cultural features in Guadalupe Mountains are well maintained/preserved” (82% and 68% of respondents, respectively, strongly or somewhat agreed with these statements).
- Conversely, “The entrance fee for Guadalupe Mountains is too high” received the least support, with only 2% of respondents either somewhat or strongly agreeing with this statement, and 53% of respondents strongly disagreeing with it. Additionally, a combined 69% of respondents either strongly disagreed or somewhat disagreed with the statement that “Guadalupe Mountains is too crowded”.

Next, respondents were asked to rate the quality of park facilities, visitor services, and recreational opportunities in Guadalupe Mountains (Figure 32).

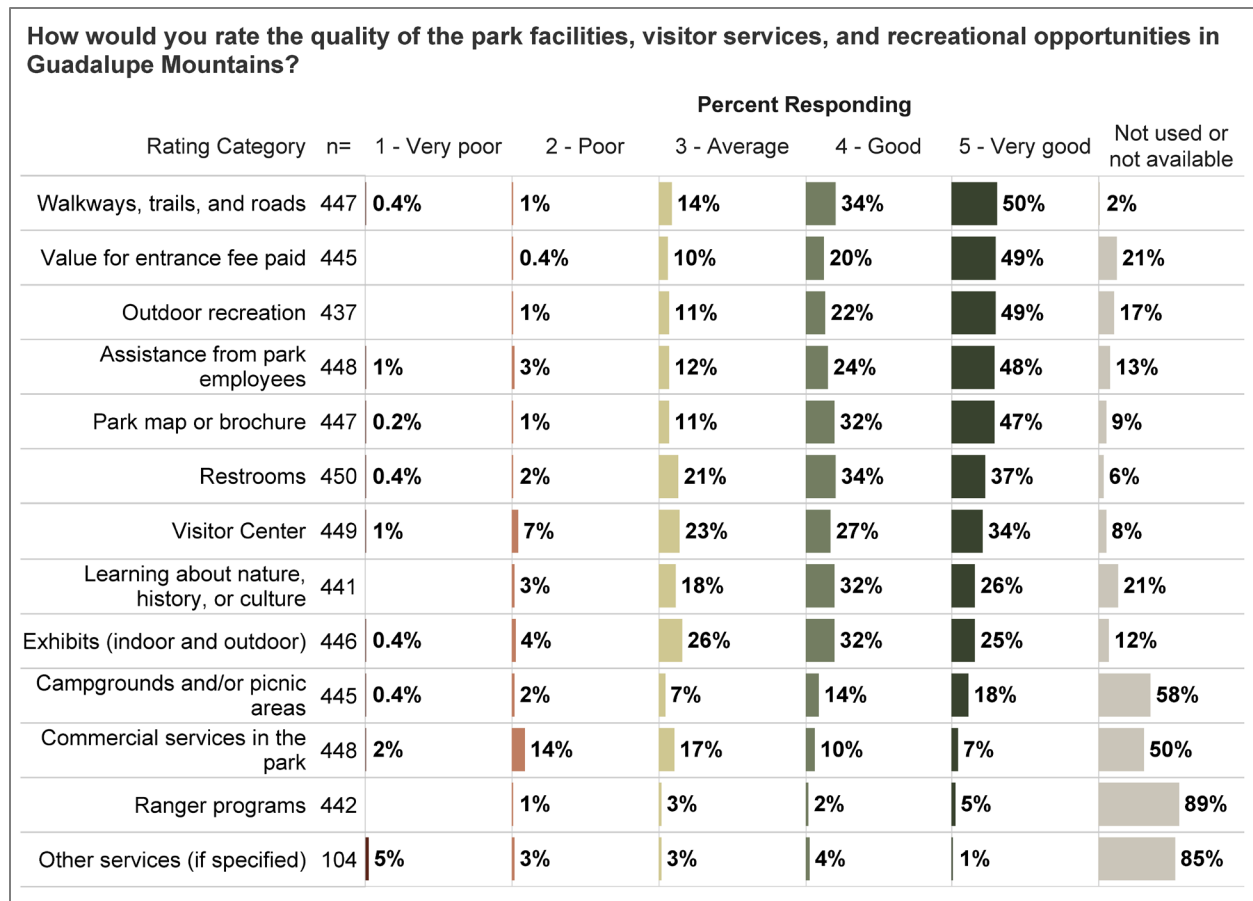


Figure 32. Rating the quality of Guadalupe Mountains facilities, visitor services, and recreational opportunities. Tabular data shown in this figure are presented in [Appendix A, Table 18](#).

NPS

- Half of visitors (50%) rated walkways, trails, and roads as very good while another 34% rated them as good.
- Additionally, more than half of visitors rated all other listed facilities as very good or good except for campgrounds and/or picnic areas, commercial services in the park, and ranger programs. For those ratings categories, visitors were most likely to say that they were either not available, or they did not use them. Only a small percentage of respondents reported very poor or poor quality for any of the services listed, with an exception of commercial services in the park (combined 16%).

Finally, respondents were asked to rate overall quality of the park facilities, visitor services, and recreation opportunities (Figure 33).

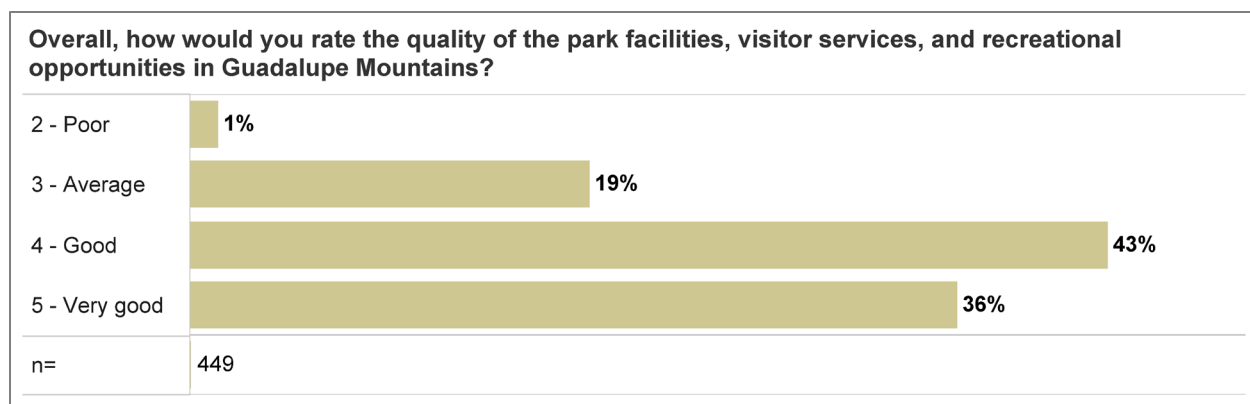


Figure 33. Rating overall quality of Guadalupe Mountains facilities, visitor services, and recreational opportunities.

NPS

- In general, about a third of respondents (36%) rated the quality of the park facilities, visitor services, and recreational opportunities in Guadalupe Mountains as very good, and another 43% rated them as good.
- Nineteen percent of respondents rated the overall quality as average while another 1% rated them as poor.

Questions 31–39: Background/Demographics

In the final section of the follow-up survey, respondents were asked various questions about their personal and household demographics. Figure 34 depicts descriptive statistics for respondent gender, age, and education.

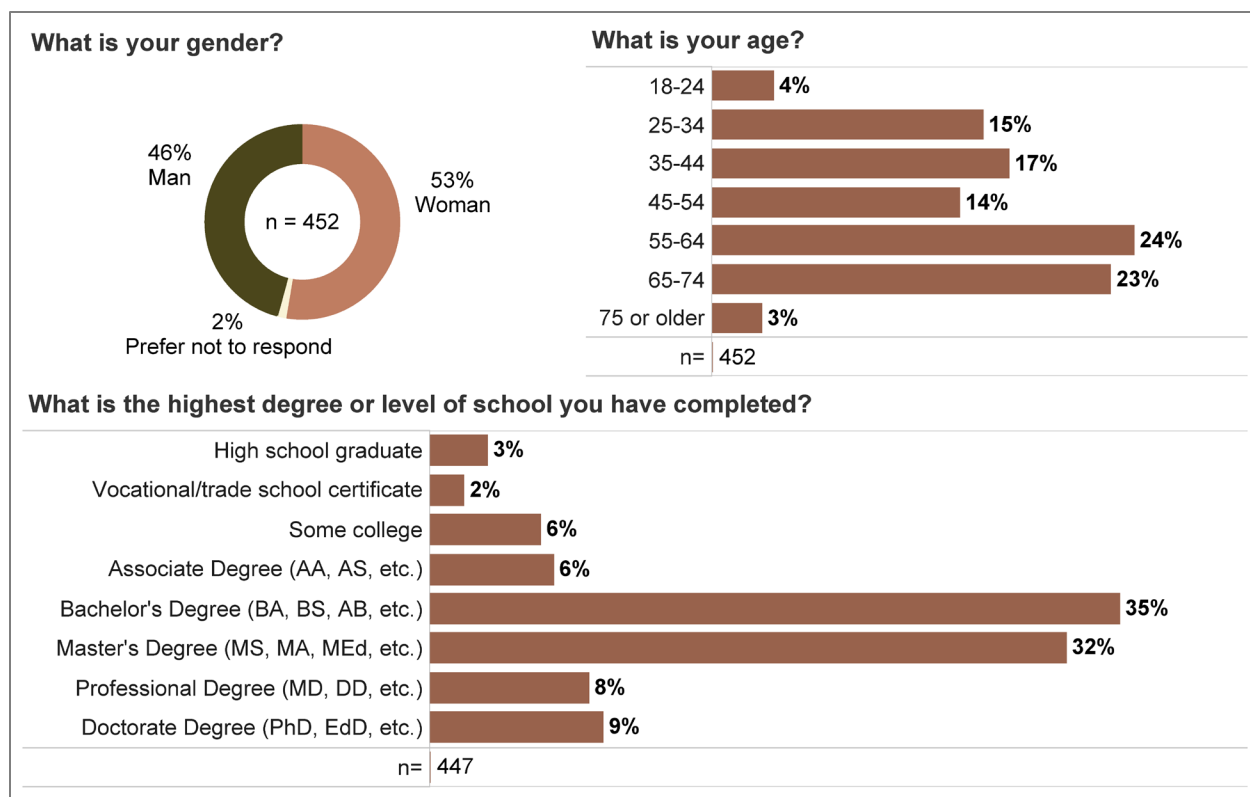


Figure 34. Respondent demographics: gender, age, and level of education.

NPS

- Follow-up survey respondents were slightly more likely to be women than men, though the sample was relatively balanced (53% vs. 46%, respectively). Another 2% preferred not to disclose their gender identity.
- The most common age categories were 55–64 (24%), 65–74 (23%), and 35–44 (17%). The least represented age group were those 75 years or older (only 3% of the participants surveyed).
- Most survey respondents were highly educated, with a combined 90% having some college degree, and a plurality (35%) holding a bachelor's degree.

Respondents were also asked to identify their race(s) and if they were of Hispanic, Latino or Spanish origin (Figure 35).

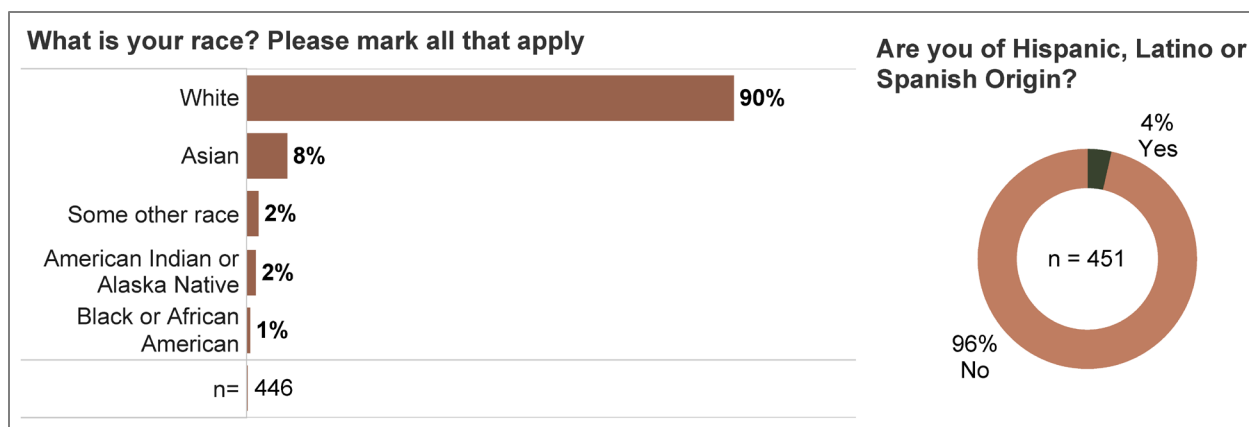


Figure 35. Respondent demographics: race and ethnicity.

NPS

- The majority of respondents (90%) were White, while 8% were Asian.
- Most respondents (96%) were not of Hispanic, Latino or Spanish origin.

At a household level, respondents were asked to report annual income and number of contributors, as well as how many people (adults and children) live in their household (Figure 36).

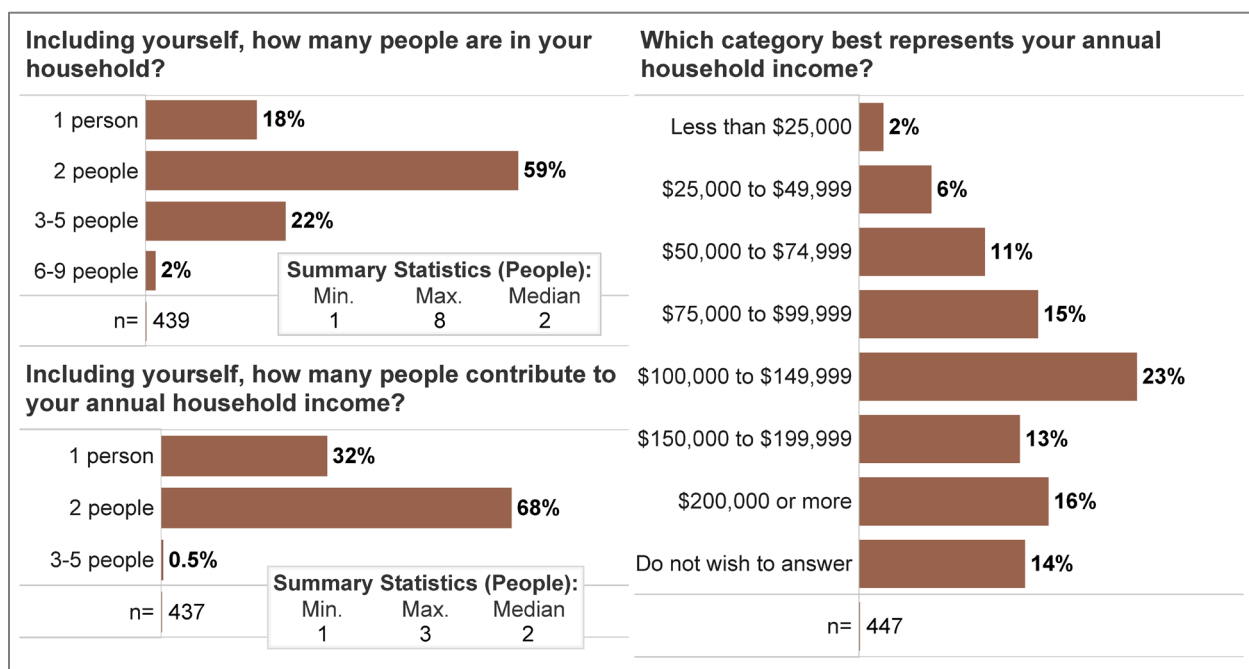


Figure 36. Household demographics: annual household income and household size. Tabular data shown in this figure are presented in [Appendix A, Table 19](#).

NPS

- Over half of respondents (59%) had two people in their household, followed by those with three to five people (22%).

- In addition to being highly educated, Guadalupe Mountains visitors are also relatively affluent. Almost a quarter of respondents (23%) reported that their annual household income was between \$100,000 and \$149,999, and another 16% earned \$200,000 or more.
- Most respondents (68%) came from a dual-income household.

Finally, respondents were asked about their language preference (Figure 37).

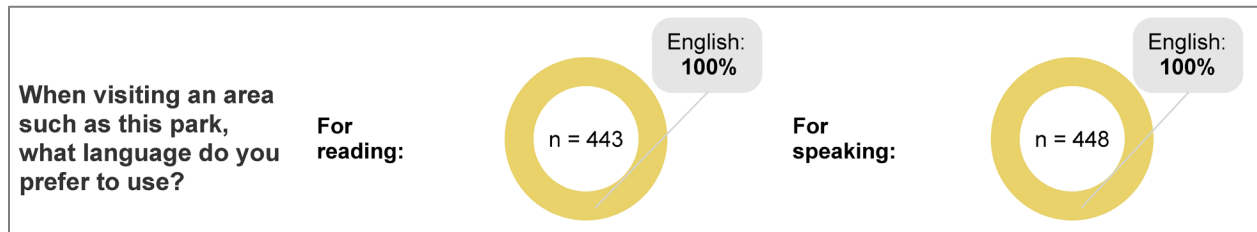


Figure 37. Respondent's language preference.

NPS

- While 4% of respondents were of Hispanic, Latino or Spanish origin, all respondents (100%) preferred to use English both for reading and speaking when visiting an area such as Guadalupe Mountains.

Literature Cited

National Park Service (NPS). 2022. 2022 Socioeconomic Monitoring of Guadalupe Mountains National Park: Visitor Intercept and Post-Trip Surveys.
<https://irma.nps.gov/DataStore/Reference/Profile/2318666>

Appendix A: Accessible Tables

This appendix contains accessible tables with data from figures found in the body of the report (Tables 8–19). Table captions include hyperlinks to the corresponding figures.

Table 8. Data from [Figure 7](#). Number of nights spent in the local area around Guadalupe Mountains, by accommodation type.

Accommodation Type	n	Min.	Max.	Median
Backcountry Camping in Guadalupe Mountains	32	1	7	1
Camping in Guadalupe Mountains	133	1	7	2
Camping outside Guadalupe Mountains	269	1	28	3
Lodging outside Guadalupe Mountains	552	1	60	2
Unpaid accommodations	14	1	30	4

Table 9. Data from [Figure 8](#). Number of adults and children in respondent's personal group while visiting Guadalupe Mountains.

Age Composition	n	Min.	Max.	Median
Adults	1107	1	40	2
Children	1107	0	10	0

Table 10. Data from [Figure 14](#). Number of people in respondent's vehicle when entering Guadalupe Mountains.

Question	n	Min.	Max.	Median
[If entered by car, truck, or SUV] Including yourself, how many people were traveling in your vehicle when you entered Guadalupe Mountains?	1022	1	8	2
[If entered by RV/motorhome] Including yourself, how many people were traveling in your RV when you entered Guadalupe Mountains?	75	1	7	2
[If entered by motorcycle] Including yourself, how many people were traveling on your motorcycle when you entered Guadalupe Mountains?	5	1	1	1

Table 11. Data from [Figure 15](#). Previous visits to Guadalupe Mountains.

Question	n	Min.	Max.	Median
[If not first-time visitor] Including this visit, how many visits have you made to Guadalupe Mountains over the past 12 months?	167	1	12	1
[If not first-time visitor] Including this visit, how many visits have you made to Guadalupe Mountains over the past five years?	167	1	100	2

Table 12. Data from [Figure 16](#). Visits made to other NPS sites within the past year.

Question	n	Min.	Max.	Median
How many visits have you made to other NPS sites over the past 12 months?	1106	0	1687	5

Table 13. Data from [Figure 23](#). Reasons or motivations to visit Guadalupe Mountains.

Rating Category	n
To view wildlife or natural scenery	451
To spend time with family/friends	446
To relax	454
To get physical exercise	453
To visit a National Park Service site	453
To hear sounds of nature/quiet	453
To experience solitude	452
To learn more about nature	451
To view dark night sky/stars	433
To learn more about American history and culture	451
Other (if specified)	51

Table 14. Data from [Figure 26](#). Use of personal electronic devices while visiting Guadalupe Mountains.

Device Use	n
GPS/Navigation	445
Send/receive a text message	440
Search the internet/email	434
Share pics/videos/audio via social media	426
Make/receive a cell phone call	432
Listen to/use an NPS podcast	393
Other (if specified)	103

Table 15. Data from [Figure 27](#). The importance of use of personal electronic devices while visiting Guadalupe Mountains.

Device Use	n
GPS/Navigation	439
Send/receive a text message	441
Search the internet/email	436
Share pics/videos/audio via social media	437
Make/receive a cell phone call	438
Listen to/use an NPS podcast	415
Other (if specified)	71

Table 16. Data from [Figure 28](#). Quality of service of personal electronic devices while visiting Guadalupe Mountains.

Device Use	n
GPS/Navigation	365
Send/receive a text message	367
Search the internet/email	360
Share pics/videos/audio via social media	350
Make/receive a cell phone call	359
Listen to/use an NPS podcast	331
Other (if specified)	91

Table 17. Data from [Figure 31](#). Rating Guadalupe Mountains experience.

Rating Category	n
Development of adjacent areas detracts from visitors' experience at Guadalupe Mountains	450
The entrance fee for Guadalupe Mountains is too high	452
Guadalupe Mountains is too crowded	452
Guadalupe Mountains is not accessible to a person with physical disabilities	449
Historical and cultural features in Guadalupe Mountains are well maintained/preserved	449
Vandalism and crime are not a problem at Guadalupe Mountains	451
Natural resources in Guadalupe Mountains are in pristine condition	448
Guadalupe Mountains is a safe place to visit	452

Table 18. Data from [Figure 32](#). Rating the quality of Guadalupe Mountains facilities, visitor services, and recreational opportunities.

Rating Category	n
Other services (if specified)	104
Ranger programs	442
Commercial services in the park	448
Exhibits (indoor and outdoor)	446
Visitor Center	449
Learning about nature, history, or culture	441
Campgrounds and/or picnic areas	445
Restrooms	450
Assistance from park employees	448
Value for entrance fee paid	445
Park map or brochure	447
Outdoor recreation	437
Walkways, trails, and roads	447

Table 19. Data from [Figure 36](#). Household demographics: annual household income and household size.

Question	n	Min.	Max.	Median
Including yourself, how many people are in your household?	439	1	8	2
Including yourself, how many people contribute to your annual household income?	437	1	3	2

National Park Service
U.S. Department of the Interior



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Natural Resource Stewardship and Science

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