National Park Service
U.S. Department of the Interior

Natural Resource Stewardship and Science

2021 Colter Bay Visitor Use and Experience Study

Final Report on 2021 Data Collection

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Introduction

Colter Bay is a popular developed area within Grand Teton National Park (GRTE) on the eastern shore of Jackson Lake. During the summer months, Colter Bay offers the largest amount of overnight lodging of any area in the park, as well as a wide range of additional visitor services, facilities, and opportunities, including a visitor center, amphitheater, hiking trails, swim beach, and public boat launch. Concession-operated amenities include a marina, campground, restaurants, service station, general store, laundromat, and showers. As park visitation at Colter Bay increases, it becomes imperative to better understand how visitors engage with the park and its resources.

In 2012, a Visitor Service Plan and Environmental Assessment was created for the Colter Bay developed area. The overall intent of the National Park Service (NPS) preferred alternative is to enhance the visitor experience, improve Colter Bay's rustic character, increase sustainability of facilities, reduce the impact of the built environment on scenic resources, encourage visitors to experience outdoor settings, improve wayfinding, improve vehicular and pedestrian circulation, and decrease overall built environment footprint.

Since the finalization of the plan, recreational visits to Grand Teton National Park have increased 26%, and the Colter Bay Visitor Center has experienced a 100% increase in visitation volume. Due to changing visitor use, it is essential to understand current use and perceptions of experience in order to appropriately create designs that both meet the needs of visitation and protect natural and cultural resources. Thus, as GRTE moves forward with implementing the Colter Bay Visitor Service Plan, it is imperative to understand how visitors are currently flowing through and using the developed area, including parking demand and turnover and what activities, services, and opportunities visitors are seeking and doing.

This report summarizes social science research conducted in Colter Bay in July 2021. To best address the visitor experience and use issues that Colter Bay is experiencing as identified by GRTE staff, both a visitor survey and a parking accumulation/turnover and demand study were conducted. Data collection for the efforts started on July 16-17, 2021. Data collection occurred for a total of 10 days within Colter Bay. The purpose of the visitor survey was to assess topics such as demographics, trip characteristics, evaluations of the visitor experience, likelihood of using future services and amenities, and more. The parking data were collected to understand demand and turnover among Colter Bay visitors to complete a full picture of visitor use across the area over the study period. The study was conducted by a large-scale research team from Otak, RRC Associates, the Institute for Tourism and Recreation Research, and Gaia Environmental Consulting.

Methods

Visitor Survey Methods

For 10 days spanning from July 17th - 26th, five research technicians were stationed throughout the Colter Bay area intercepting and surveying visitors to understand their perceptions of the area, trip characteristics, demographics, evaluations of facilities and amenities, and more. Intercept surveys were chosen as the primary collection method because respondents can provide feedback while still on-site and before they return home. This allows managers to understand how visitors directly perceive their experience while in Colter Bay. The survey was designed to be delivered on a tablet and was self-administered by the respondent, with assistance provided by the research technician when needed.

Study Area

The study area stretched across four major locations within Colter Bay: 1) the visitor center, 2) marina, 3) trailhead/boat launch, and 4) swim beach. These four locations were chosen by Grand Teton National Park staff as the most relevant areas for understanding use and experiences in Colter Bay. The visitor center is one of the first facilities encountered by visitors who utilize the major parking areas in Colter Bay. The marina hosts a variety of activities, such as lunch and dinner cruises and kayak, canoe, and paddleboard rentals. The trailhead/boat launch area comprises the start of the Hermitage Point trail system and includes the only boat ramp in Colter Bay for use by private boaters launching into Jackson Lake. The swim beach, located further away from the other three sites, is a large rocky beach with a designated swimming area. There is a small picnic area adjacent to the swim beach which was included as part of the overall sampling zone. The sampling areas for the visitor survey are marked on the detailed Colter Bay area map shown in Figure 1.

Questionnaire Design

The questionnaire was designed primarily by the social scientist and park staff at Grand Teton National Park with assistance from the research team for on-site deployment. Topics were focused on identifying general trip characteristics of visitors, demographics, evaluation of current facilities and amenities, activity participation, information sources, and likelihood of using future potential services. Overall, the questionnaire was aimed at assessing specific needs at Colter Bay and not of Grand Teton as a whole. All topics were geared towards providing information for management decisions using public feedback. The questionnaire was tested with park staff and small modifications were made by the research team to ensure respondents could complete the survey while on-site with a tablet.

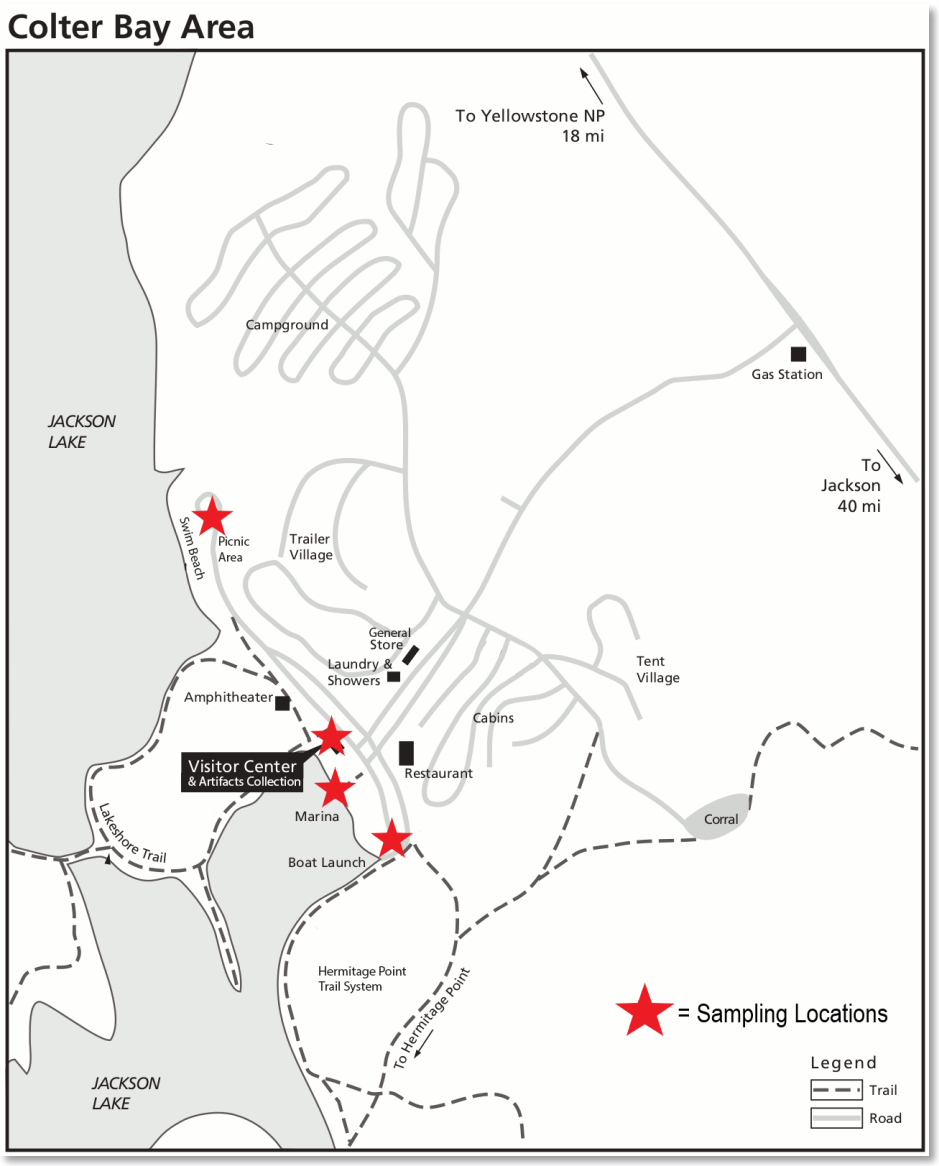


Figure 1. Detailed map of Colter Bay showing visitor survey sampling locations.

Beginning July 17th, 2021, research technicians were stationed simultaneously at each of the four sampling sites for seven hours per day. While all technicians used the same sampling schedule on any given day, start times varied day-to-day between 9:00 – 11:00 AM. These times and method were chosen to ensure safety among survey staff and to capture a representative sample of visitors across Colter Bay. All survey sites were outfitted with a table, and shade tents were provided for select sites. The five surveyors rotated days off during the sampling period; however, at least one surveyor was at each location on every day of the sampling period. When all five surveyors were present, one member would roam between the additional locations to provide supplementary sampling. Due to the extensive geographic layout of the swim beach site area, a second surveyor was sometimes used at this site. The sampling schedule is provided in Table 1.

Table 1. Surveyor schedule.

Day	Date	Sampling Time
Saturday	7/17	8:00-3:00 PM
Sunday	7/18	9:00-4:00 PM
Monday	7/19	11:00-6:00 PM
Tuesday	7/20	9:00-4:00 PM
Wednesday	7/21	10:00-5:00 PM
Thursday	7/22	10:00-5:00 PM
Friday	7/23	11:00-6:00 PM
Saturday	7/24	9:00-4:00 PM
Sunday	7/25	10:00-5:00 PM
Monday	7/26	9:00-4:00 PM

Using a systematic sampling protocol, surveyors approached visitor groups to ask if they would participate in a survey about their Colter Bay experience. If the group agreed to participate, the adult in the group with the next upcoming birthday was asked to complete the survey. The surveys were self-administered by participants on Android tablets using Qualtrics (a commonly used survey software). The surveyor provided a laminated map of Colter Bay amenities and helped the respondent answer the first question. If the respondent needed further assistance, the surveyor would provide support when asked. If the respondent did not wish to participate, they were asked if they would be willing to answer two questions: 1) are you a first-time visitor to Colter Bay, and 2) what was your primary destination today in Colter Bay? Respondents who did not wish to answer these questions were thanked for their time. For all nonrespondents, observations were recorded for perceived group size and the presence of a language barrier between surveyor and visitor.

Table 2. Response rates by survey site.

Agree to Participate?	Visitor Center	Swim Beach	Trailhead / Boat Launch	Marina	TOTAL
Yes	255 (50.5%)	290 (68.1%)	168 (64.5%)	255 (51.5%)	938 (57.8%)
No	250 (49.5%)	136 (31.9%)	91 (35.5%)	212 (48.5%)	689 (42.3%)

Data Cleaning

Results were collected offline using the tablets and uploaded by the survey team every night to the Qualtrics system. As data were uploaded, an off-site researcher examined the results to understand trends and patterns and alert the onsite research team of any issues. A cleaning syntax was developed in SPSS to ensure variables are accurately labeled, easy to understand, and to remove any unnecessary information. On some ratings questions, “Not applicable” or “did not use” options were provided for the respondent. These options were removed from the analysis, as many visitors may not have a need or ability to participate in specific activities. Additionally, outliers were evaluated for

major impacts on open-ended numeric variables (e.g., nights spent) and Winsorized to the 95th percentile if deemed necessary.

Nonresponse Bias Analysis

To account for potential biases between respondents and nonrespondents, two questions were asked of those who did not wish to participate, along with the surveyor's observation of group size and language barrier. A nonresponse bias analysis tests for significant differences on the two select questions between respondents and nonrespondents. Results were tested using a chi-square test of the frequencies of respondents compared to nonrespondents. Because multiple significance tests are being performed, a Bonferroni correction was applied. Therefore, results were considered significantly different at p-value less than .025. The results of this analysis are shown in Table 3 and Table 4.

Table 3. Nonresponse bias test: First-time visitation to Colter Bay.

Response	Respondent Frequency	Respondent Percent	Nonrespondent Frequency	Nonrespondent Percent*
Yes	587	67%	382	79%
No	278	32%	100	21%

*Significant at p <= .001.

Table 4. Nonresponse bias test: Primary destination in Colter Bay on sampling day.

Response	Respondent Frequency	Respondent Percent	Nonrespondent Frequency	Nonrespondent Percent*
Swim Beach	156	19%	76	16%
Colter Bay Campground	153	19%	39	8%
Colter Bay Visitor Center	128	16%	136	28%
Hermitage Point Trail System	92	11%	68	14%
Marina	91	11%	76	16%
Lakeshore trail	76	9%	52	11%
Swim Beach Picnic Area	32	4%	24	5%
Other Sites	73	9%	15	3%

*Significant at p <= .001.

As shown in the above tables, significant differences were observed between respondents and nonrespondents for both questions asked. First-time visitors were less likely to participate in the study than repeat visitors. Furthermore, the primary destination between respondents and nonrespondents differed significantly too. Respondents were more likely to say their primary destination was the campground than nonrespondents, but they were less likely to say the visitor center was their primary destination.

For all nonrespondents, observations were made regarding group size and potential for a language barrier. Because the respondents completed their group size themselves compared to an observation made by research technicians, accurate comparisons are not feasible. Of all nonrespondents, most were in groups of two (38%) with those with four people (20%) following. Overall, no single group size emerged as a main contributor to nonresponse.

Table 5. Observed nonresponse group size.

Group size	Frequency	Percent
1 person	78	11%
2 people	258	38%
3 people	92	13%
4 people	134	20%
5 people	45	7%
6+ people	80	8%

Of nonrespondents, approximately 9% were perceived to have a language barrier. While language barriers were not a major contributor to nonresponse, there were challenges with approximately 9% of nonrespondents. The specific language in which challenges existed was not recorded.

Table 6. Observed nonresponse language barrier.

Language barrier?	Frequency	Percent
Yes	64	9%
No	625	91%

Parking Lot Accumulation and Turnover Methods and Study Area

A license plate recording method via tablet was used in the Colter Bay parking lot to record hourly counts of parked vehicles (parking accumulation), the amount of time each vehicle was parked (parking turnover), and vehicle type. Parking data collection was conducted from 9:00 a.m. to 4:00 p.m.[1] on each day of the 10-day sampling period, from July 16 through July 26, 2021.[2] Vehicle license plates were recorded for specific parking spaces and according to three defined parking lot circuits, one for each of the parking data field technicians. The total number of vehicles, if any, parked in undesignated or overflow areas of the parking lot was also counted. Turnover data were not collected for vehicles parked in undesignated or overflow areas of the parking lot. Appendix 2 contains screenshots of the electronic Qualtrics form used to collect parking lot accumulation and turnover data for a single parking space within the lot.

Figure 2 through Figure 4 depict the parking lot circuits that each of the three Colter Bay parking data field technicians walked each hour to record parking accumulation and turnover data. The circuits divided the Colter Bay parking lot into three subareas such that each subarea could be walked by a field technician in a one-hour period, and each subarea contained roughly a third of the total parking spaces. Circuit A included parking near the marina and Hermitage Point trailhead as well as the general store and restaurant (Figure 2). Circuit B included parking near the general store and restaurant, overflow parking for Swim Beach (referred to hereafter as "Swim Beach B), and some Visitor Center parking (Figure 3). Circuit C included the main parking area for Swim Beach (referred to hereafter as "Swim Beach A") and parking near the visitor center (Figure 4). Each field technician performed their assigned data collection circuit by starting at the first space within their circuit (denoted by the "Start" label in Figure 2 through Figure 4) and proceeding in ascending order of numbered parking spaces following the direction of the arrows, to the final space in their circuit (denoted by the "End" label in Figure 2 through Figure 4) for each hour of data collection.

[1] Only three hours of parking lot data were collected on the first sampling day (12:00 – 2:00 p.m. on July 16, 2021).

[2] July 19, 2021 was a scheduled day off for the field staff and no data were collected on that date.

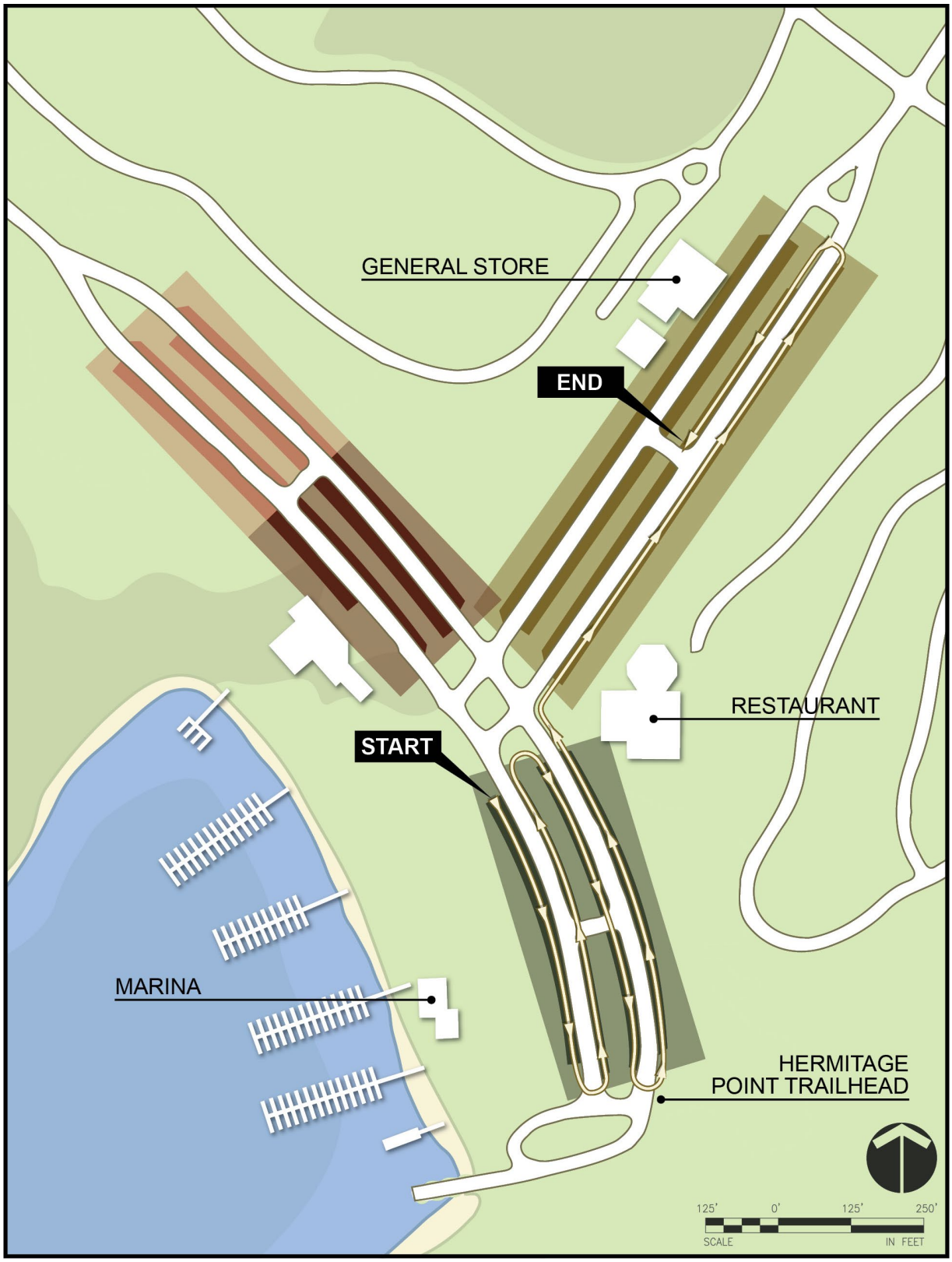


Figure 2. Parking lot accumulation and turnover data collection circuit A.

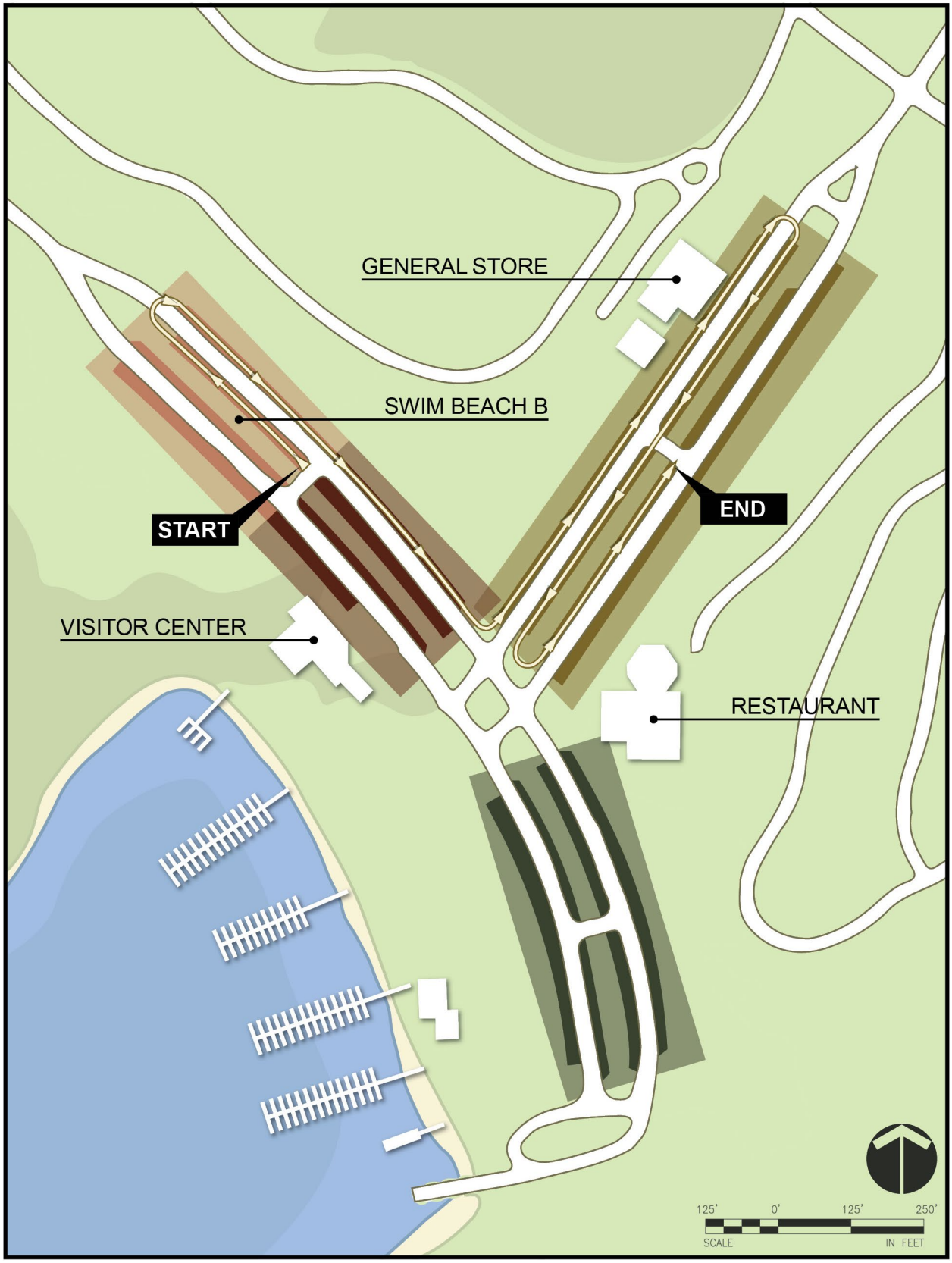


Figure 3. Parking lot accumulation and turnover data collection circuit B.

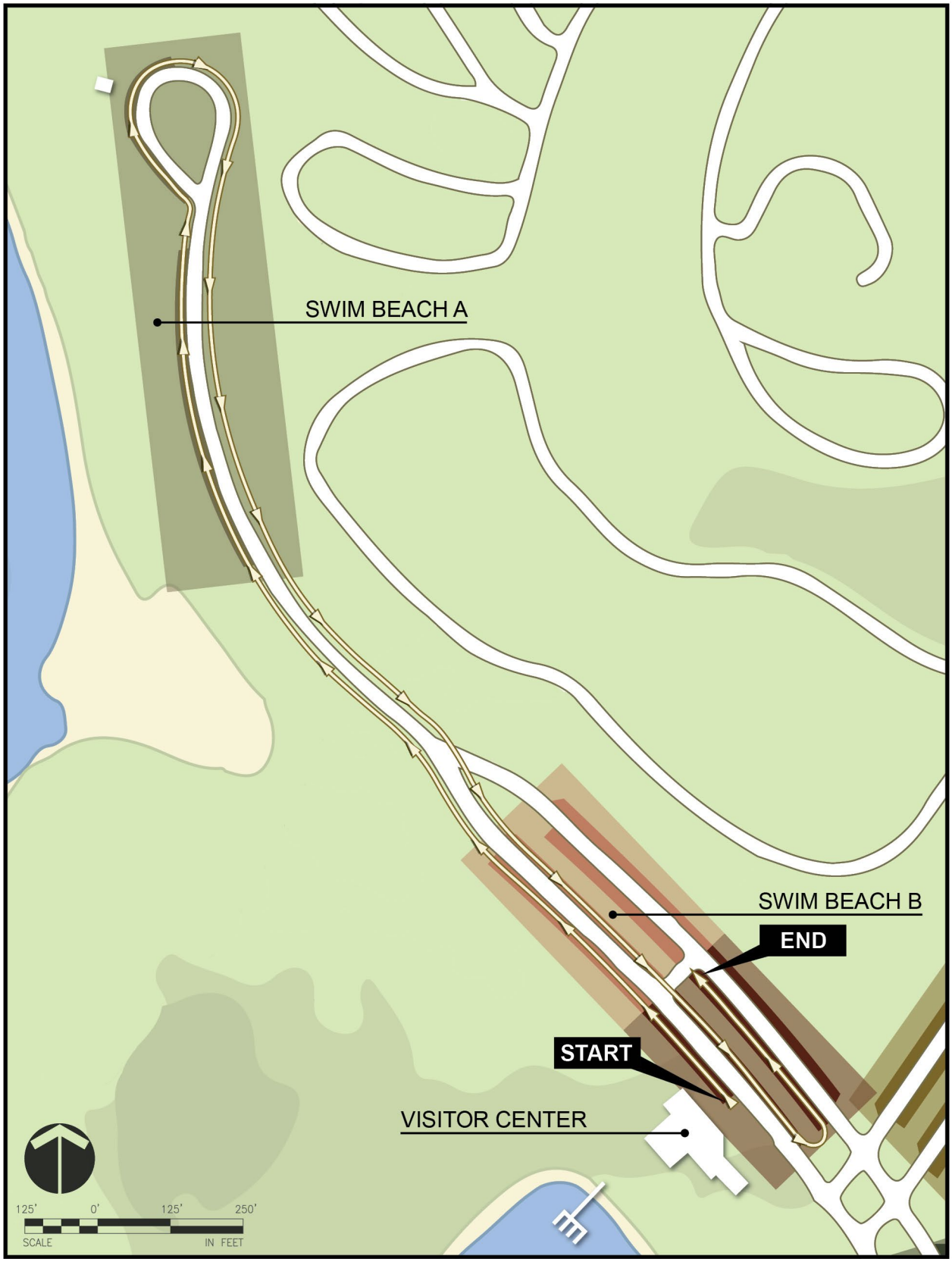


Figure 4. Parking lot accumulation and turnover data collection circuit C.

Results

Visitor Survey Results

The following section provides results of the visitor survey conducted in Colter Bay in July 2021. This section begins with a demographic overview of the 938 visitors intercepted at Colter Bay. It is important to note that aspects of the visitor demographic profile are presumed to have been impacted, to varying degrees, by the COVID-19 pandemic. The demographic overview of respondents is followed by detailed findings regarding visitors' travel plans and reasons for visiting, length of stay in Colter Bay and lodging types used in the area, visitor use and flow within Colter Bay, activities and amenities utilized, assessment of potential problems, and considerations for future use of Colter Bay. Crosstabulations were provided for questions that showed notable practical implications; significant differences were not tested for this analysis. Note: categories on some questions may not sum to 100% due to rounding differences.

Visitor Demographics

Geographic Origin

A full 99% of respondents were current residents of the United States, while just 1% were international visitors. The top-represented state of residence was California (home to 10% of all U.S. respondents), followed by Utah, Colorado, Texas, and Florida (see Figure 5). States labeled on the map with 0% were home to fewer than 1% of all respondents, while no visitors were encountered from the following states: Alaska, Hawaii, Mississippi, Rhode Island, and West Virginia.

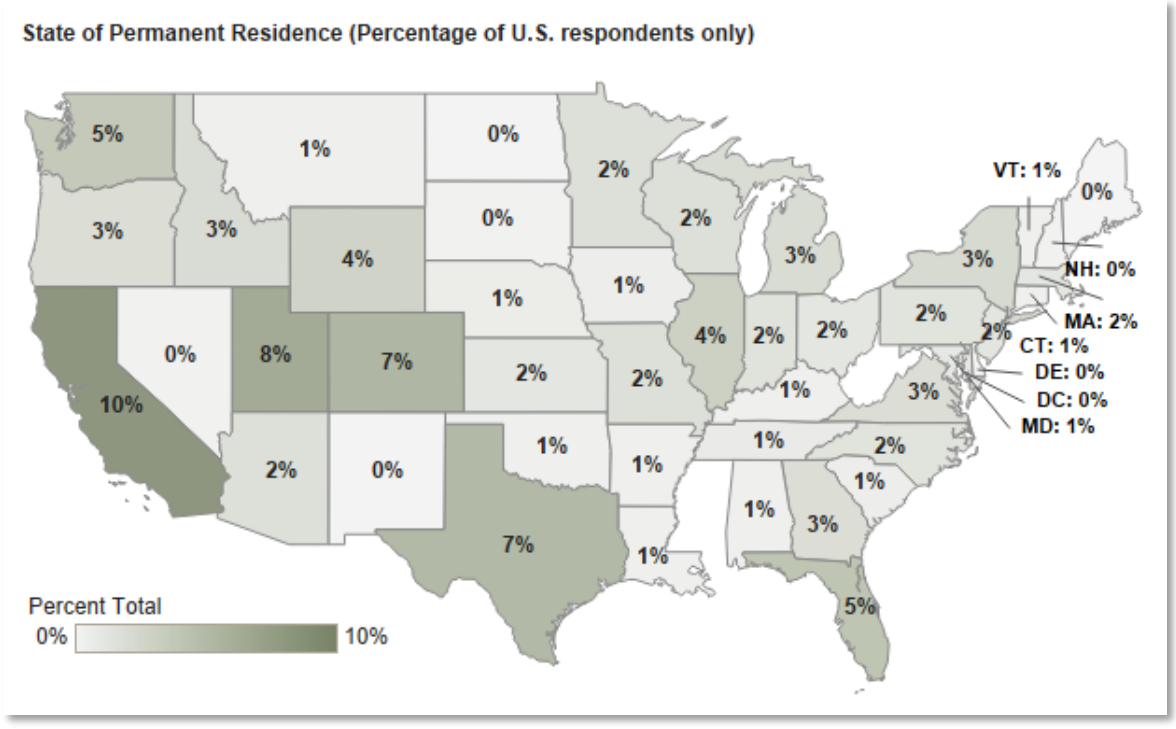


Figure 5. State of permanent residence among U.S. resident visitors to Colter Bay.

Age and Education

Overall, age was well distributed, with nearly a third of respondents (30%) under age 35, about half (55%) in the 35-64 range, and 15% aged 65+. Summary statistics are given in Figure 6 below. Most visitors intercepted in Colter Bay were highly educated; a combined 88% had a college, business, or trade school degree or higher, and nearly half (48%) had a master's, doctoral, or professional degree.

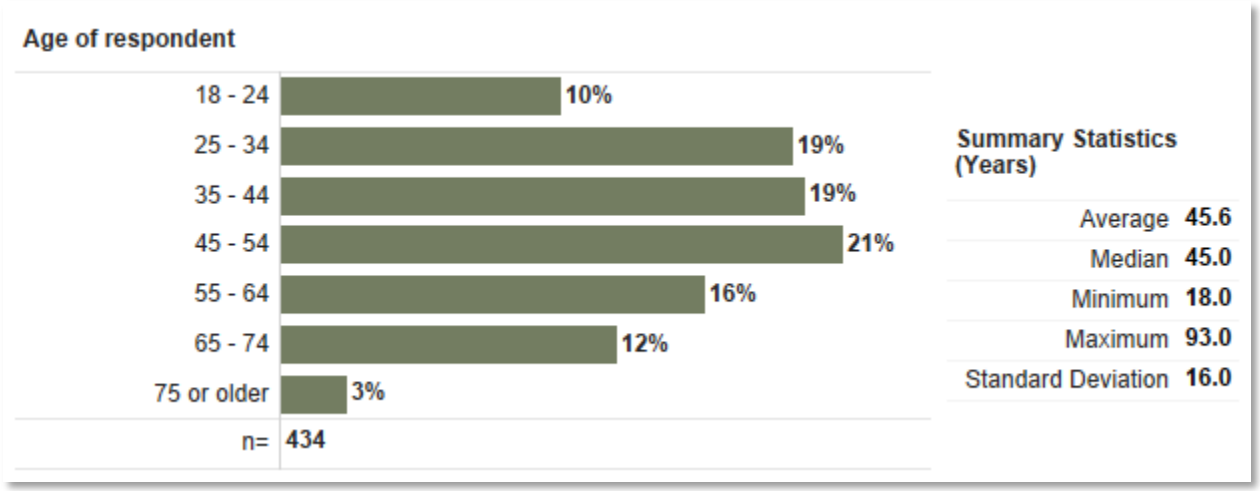


Figure 6. Respondent's age.

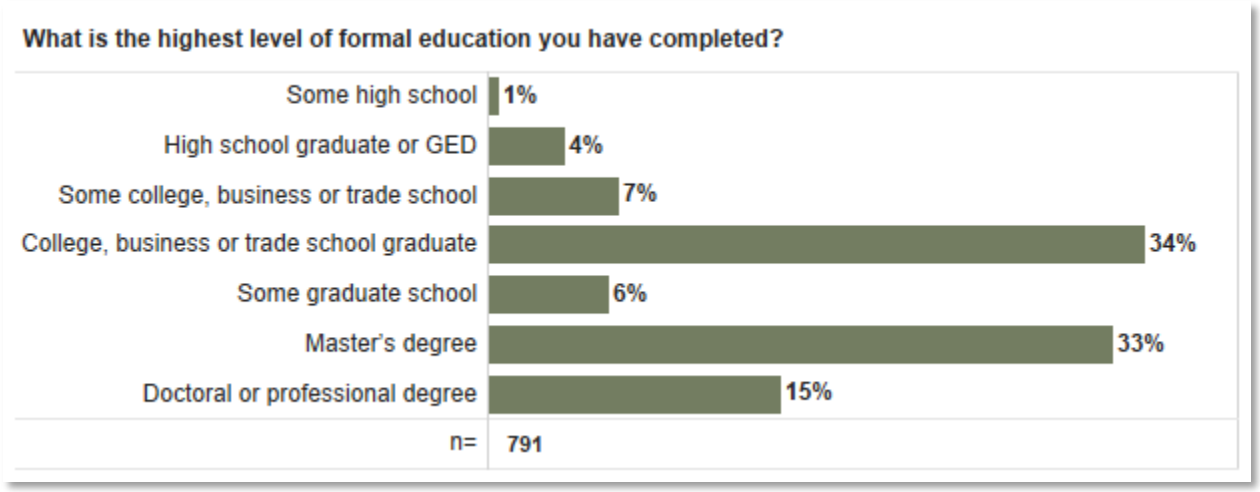


Figure 7. Respondent's formal education level.

Travel Party Characteristics

Over two-thirds of respondents (68%) were traveling with a group comprised of only family, while smaller shares (ranging from 6-13%) were traveling with family and friends, friends only, or alone; fewer than 1% were part of a tour or other group. Roughly equal shares of groups included school-aged children, teenagers, and older adults (each 11-12%), while 5% were traveling with children under age 5, and 3% of respondents were traveling with pets. Nearly all groups (98%) reported using

English as their primary language of communication. Roughly one in ten groups indicated a member of their group had physical conditions that made it difficult to access or participate in park activities or services. Of those groups who indicated such, 82% indicated that this condition was related to mobility limitations, while 12% indicated hearing as a limiting factor to participation.

Groups ranged in size from 1 to 15 people. Nearly a third of visitors (31%) were traveling with just one other person (i.e., total group size of two), while 41% were in a group of 3-5 people and just under a quarter (23%) were traveling in a group of 6 or more. Summary statistics for group size are shown in Figure 9 below.

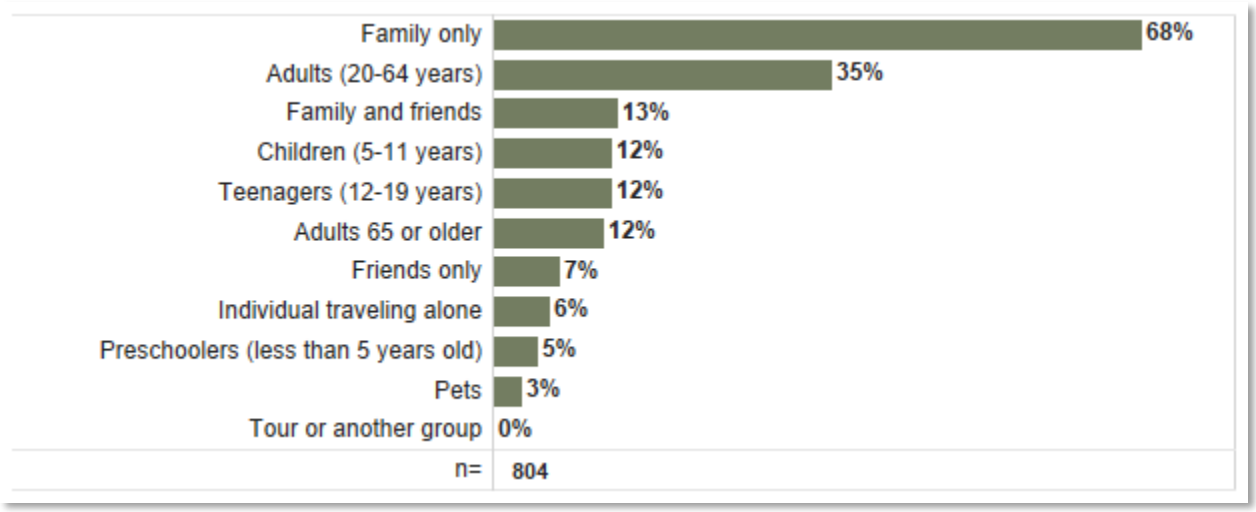


Figure 8. Travel party composition.

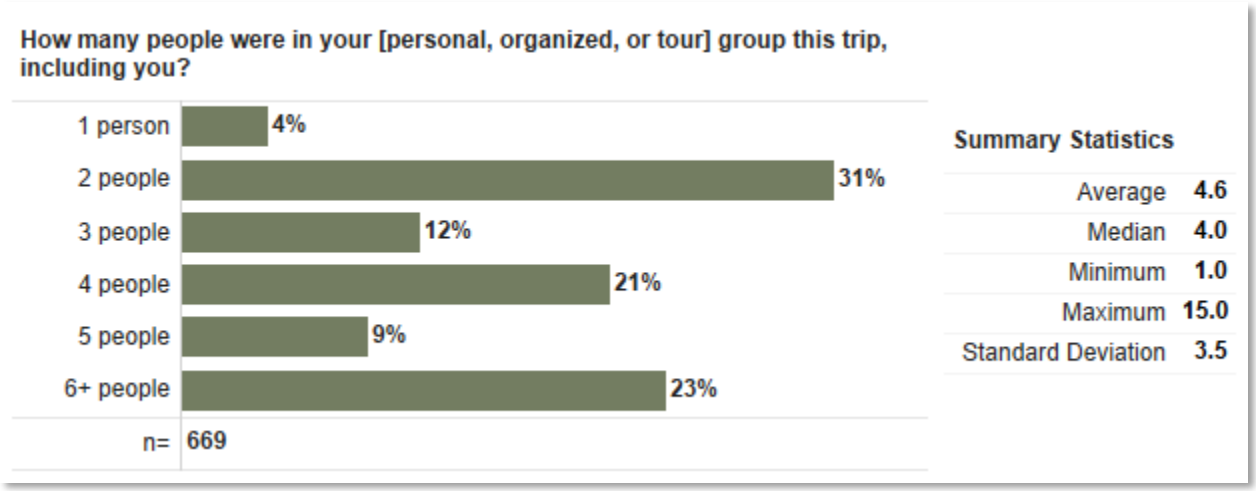


Figure 9. Size of travel party.

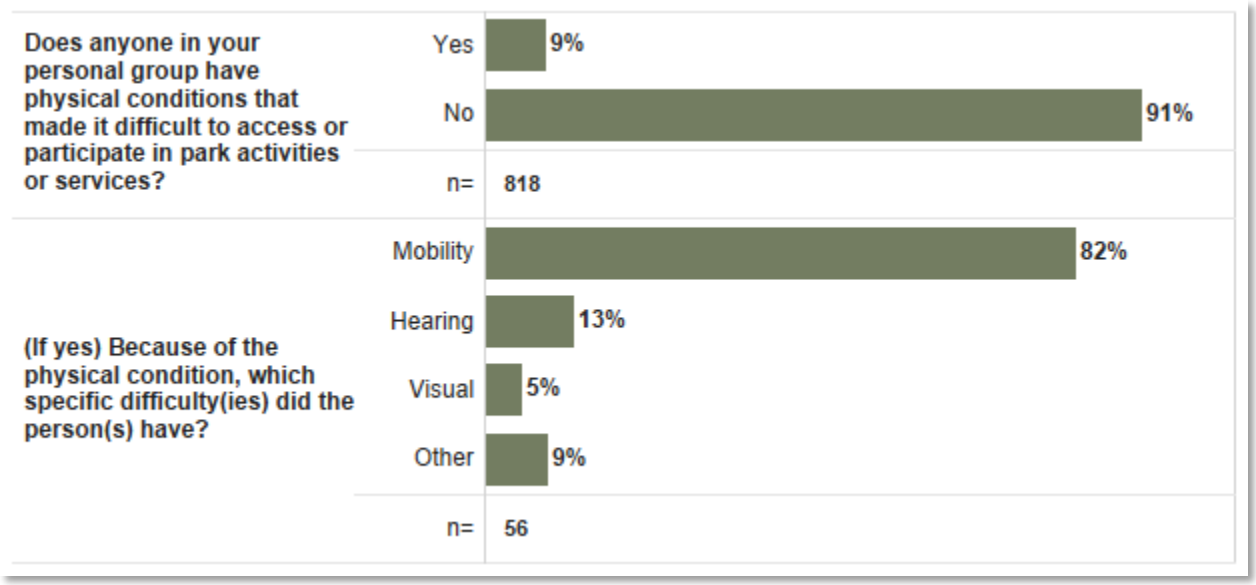


Figure 10. Presence and nature of physical accessibility considerations within the travel party.

Previous Visitation

While most respondents (88%) had previous experience visiting a National Park, more than half (54%) were on their first ever trip to GRTE, and two-thirds (67%) were first-time visitors to Colter Bay.

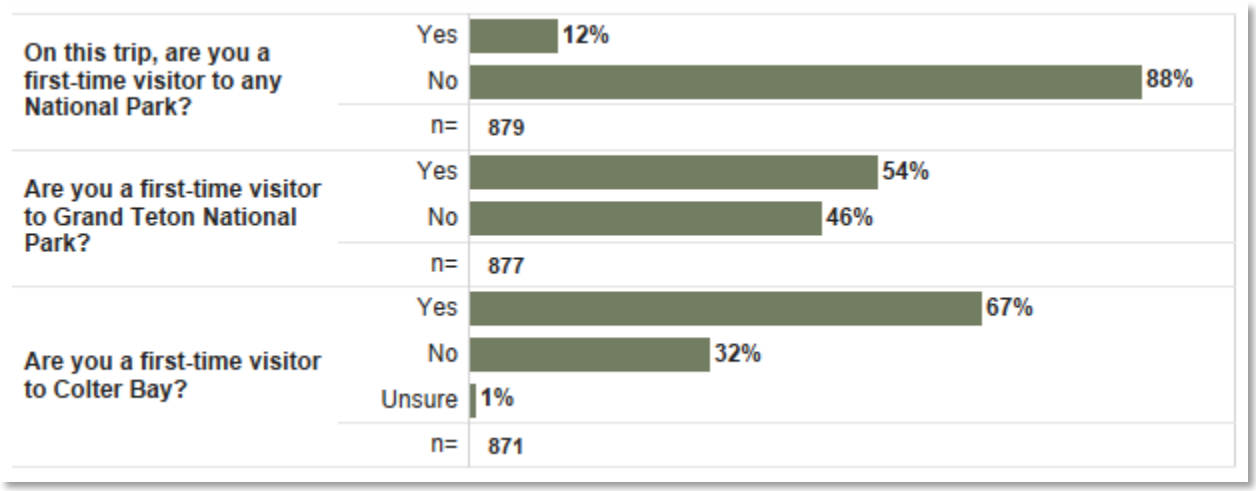


Figure 11. Previous visitation to any National Park, Grand Teton National Park, and Colter Bay.

Those respondents who were repeat visitors to either GRTE or to both GRTE and Colter Bay were asked what year they made their first visit to each area. In both cases, responses ranged from earlier this year to more than 50 years ago (see Figure 12 and Figure 13 for Summary Statistics) but were more heavily distributed toward longer time periods. Two-thirds of repeat visitors to GRTE (67%) had first visited the park more than 10 years ago, while nearly a third (31%) first visited more than 30

years ago. Similarly, 58% of repeat visitors to Colter Bay had first visited more than 10 years ago, and 34% had first visited more than 30 years ago.

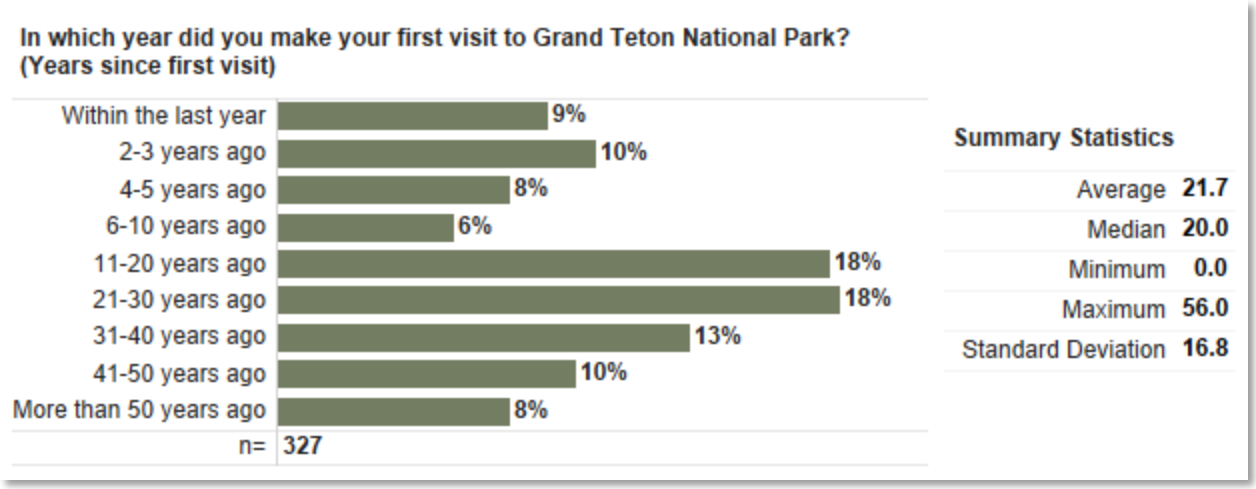


Figure 12. Repeat visitors to GRTE: Number of years since first visit to Grand Teton National Park.

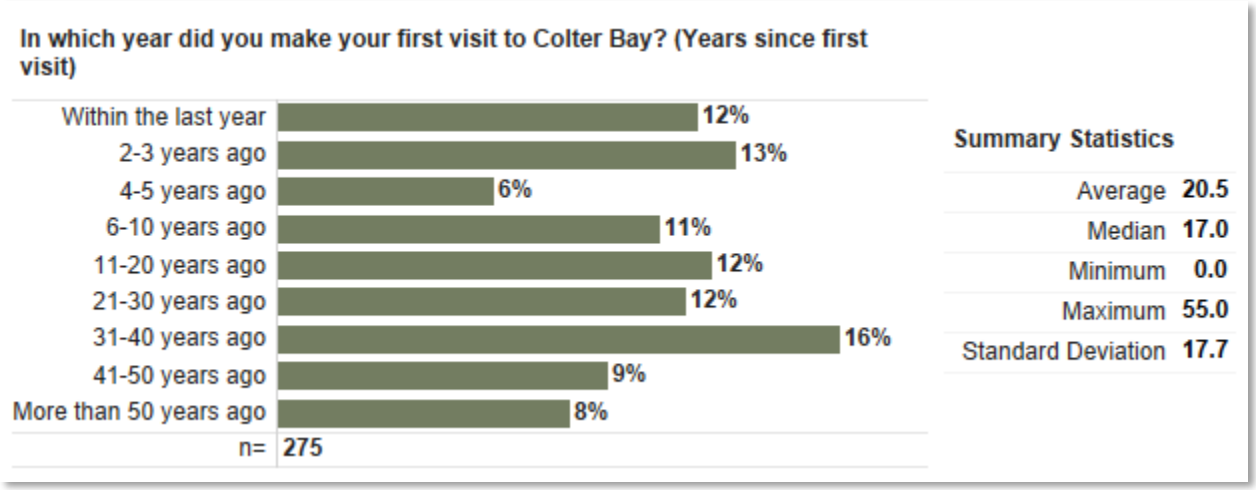


Figure 13. Repeat visitors to Colter Bay: Number of years since first visit to Colter Bay.

Travel Planning, Reasons for Visit, and Length of Stay

Although GRTE attracts a significant amount of travel to the region, over two-thirds of respondents (70%) stated that GRTE was just one of several destinations on their trip. Overall, 63% of respondents claimed to have visited both GRTE and Yellowstone National Park (YELL), while 29% considered GRTE to be their primary destination during their trip. Only 6% of respondents visited several destinations not including YELL, followed by 2% of respondents who were just passing through the park on their way to their primary destination.

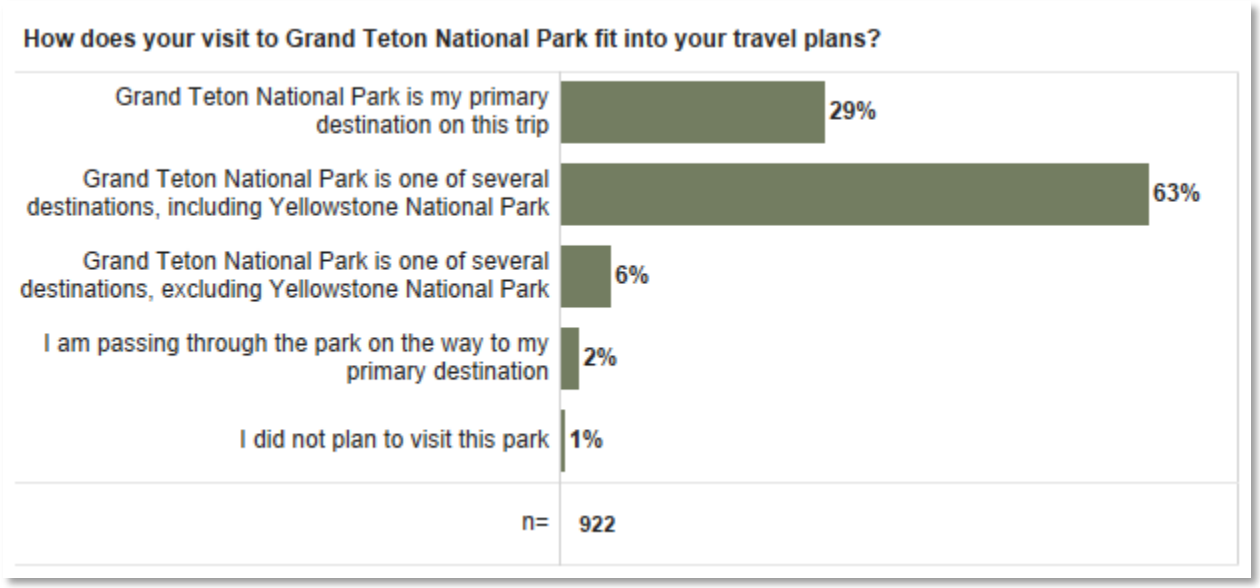


Figure 14. How visiting Grand Teton National Park fits into respondent's overall plans for this trip.

Respondents were asked what sources of information they used both before arriving to the park and during their visit. The most popular source used by respondents before arriving was the GRTE NPS website, with 79% of respondents reporting use before their trip. The second most popular source used by respondents before their arrival was a collection of 'Other websites' (66%), followed by both smartphone access to current data (52%) and friends and/or relatives (52%).

During their visit, respondents reported higher use of traditional and/or paper resources like park maps (73%), trailhead bulletin boards (53%), and visitor/tourist information centers (52%). Respondents also reported moderate use of printed materials like books and brochures (46%), smartphones (44%), and park newspapers (42%).

An overwhelming majority (86%) of visitors reported they did not participate in any ranger-led programs or tours. This figure is largely influenced by COVID-19 as ranger-led programs were mostly non-existent during the summer. Furthermore, 83% of respondents didn't use hotel information kiosks/computer terminals, followed by 80% of respondents who never made a phone inquiry to GRTE. Conversely, only 15% of respondents reported they did not use a park map on any portion of their trip followed by 22% who didn't use the GRTE website. The use rates for information sources are shown in Figure 15.

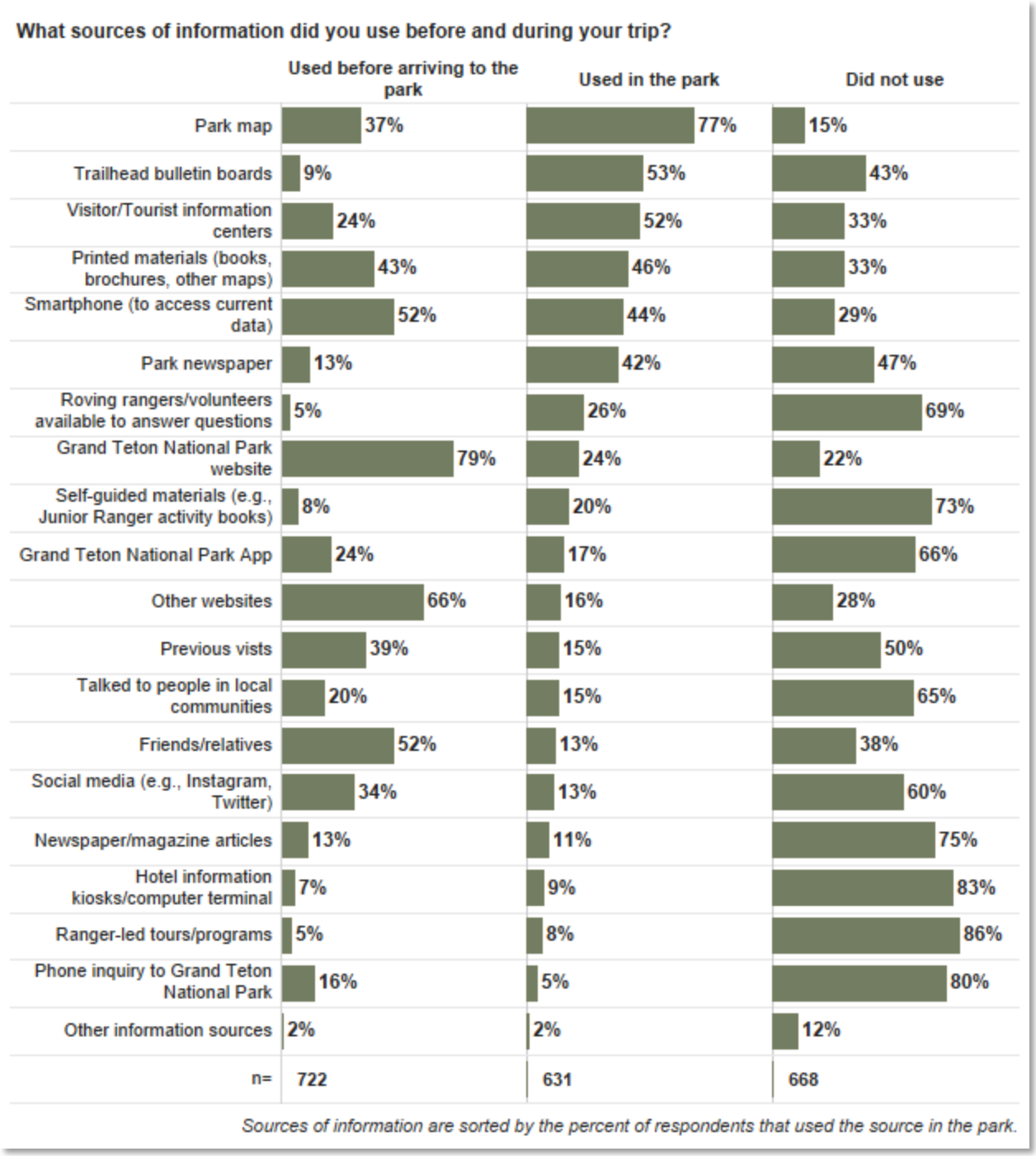


Figure 15. Sources used to obtain information before and during the trip.

Overall, two out of five (40%) of respondents indicated their decision to visit Colter Bay was made on the same day as they were surveyed. A smaller share (16%) of respondents made the decision to visit Colter Bay 2-6 months before their visit, followed by 11% who made the decision to visit a week before their trip. Results were analyzed by three different types of visitors to Colter Bay:

overnight visitors staying within Colter Bay, overnight visitors staying outside Colter Bay, and local/day visitors.

Of the respondents who were not staying the night in Colter Bay, a majority (55% each of visitors staying overnight outside Colter Bay and local/day visitors) made the decision to visit Colter Bay on the day of their visits. Not surprisingly, overnight visitors staying in Colter Bay were much more likely to plan ahead, with just 7% making the decision to visit Colter Bay on the day they arrived. Three-quarters (75%) of visitors staying overnight in Colter Bay had decided to visit the area 2 or more months in advance, compared to just 20% each of overnight visitors staying elsewhere in the region and local/day visitors.

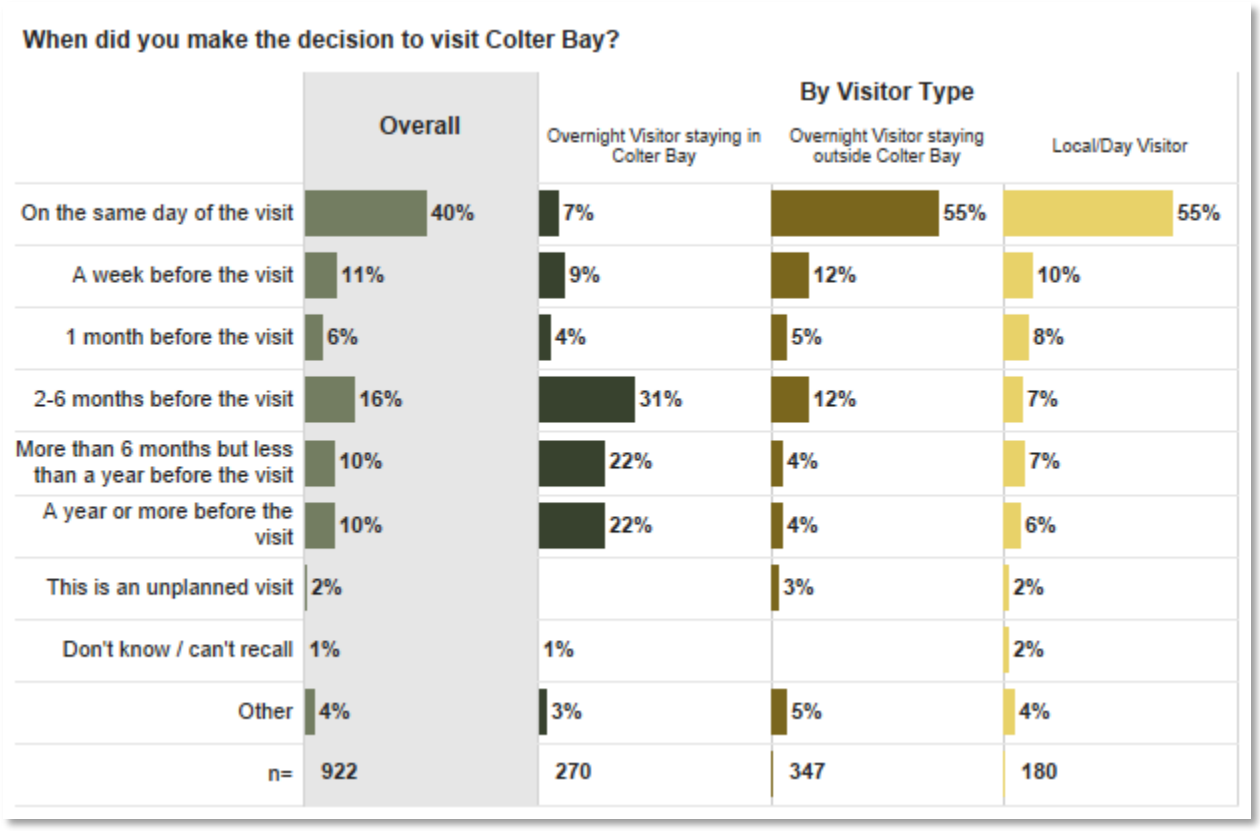


Figure 16. Lead time for planning to visit Colter Bay: Overall and by visitor type.

Among a variety of reasons for visiting Colter Bay, experiencing nature (with an average importance rating of 4.3 out of 5), spending time with family (4.1), wildlife viewing (4.1), and resting and relaxation (4.1) were the primary reasons given for visiting Colter Bay. When examined by survey site (Figure 18), the ranking of individual reasons for visiting does not fluctuate greatly, but there are some logical differences. Respondents intercepted at the trailhead / boat launch were more likely than average to be visiting to maintain physical health and to experience nature, respondents intercepted at the visitor center were more likely than average to look for opportunities to learn, and swim beach

visitors gave higher-than-average importance ratings for experiencing nature, spending time with family, and resting and relaxation.

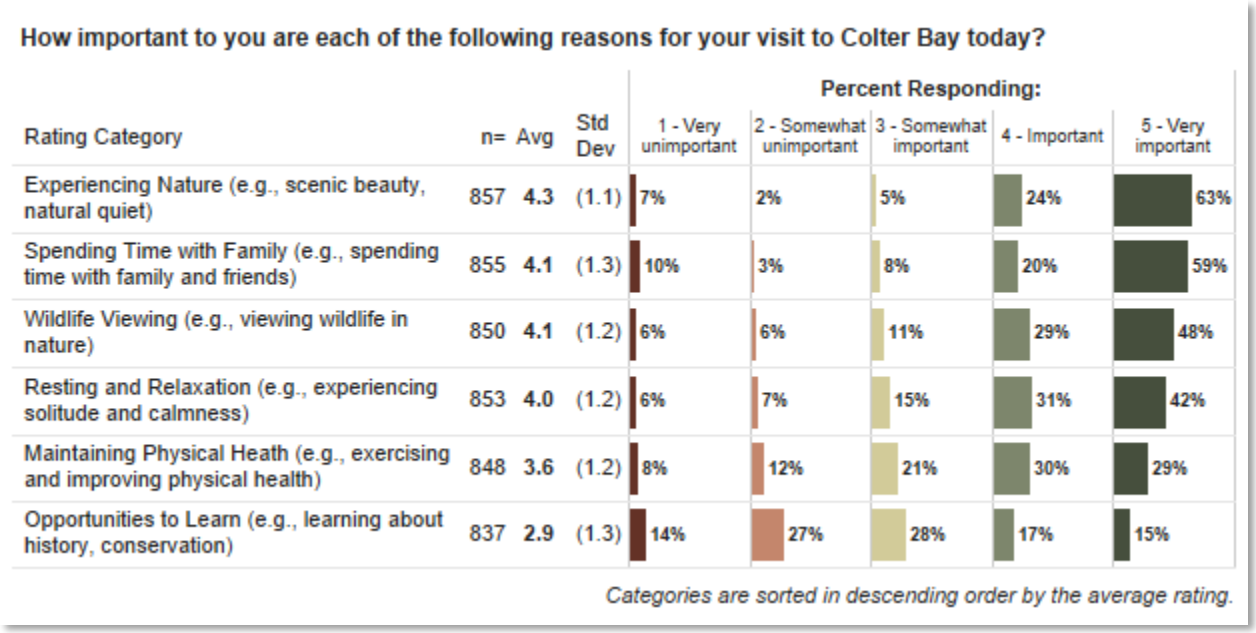


Figure 17. Reasons for visiting Colter Bay: Detailed results.

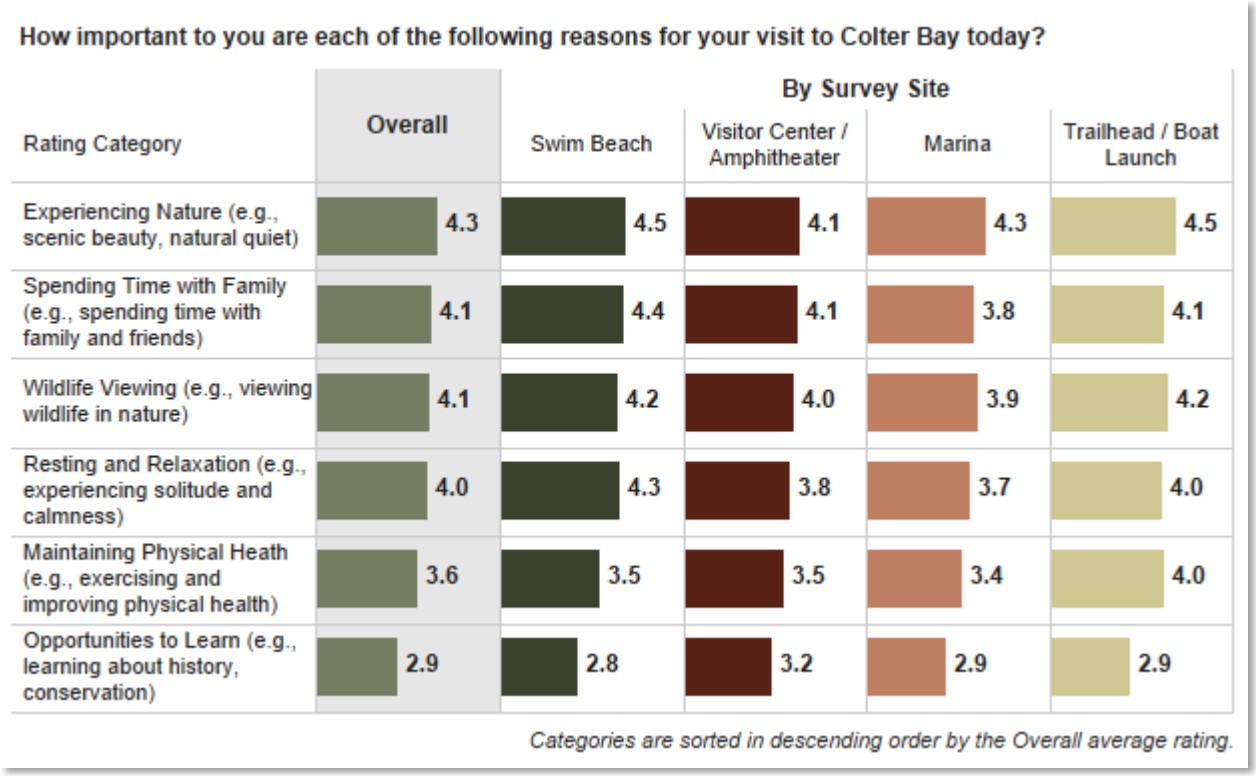


Figure 18. Reasons for visiting Colter Bay: Average ratings by survey site.

When asked how long the respondent and/or their group planned to stay in Colter Bay, approximately 60% were staying for less than 24 hours, while 40% were spending more than a day. Among those spending less than 24 hours, respondents spent an average of 4.0 hours and a median of 3.0 hours. Comparatively, visitors who were staying more than one day had a median of 3.5 days with a wide distribution of days spent.

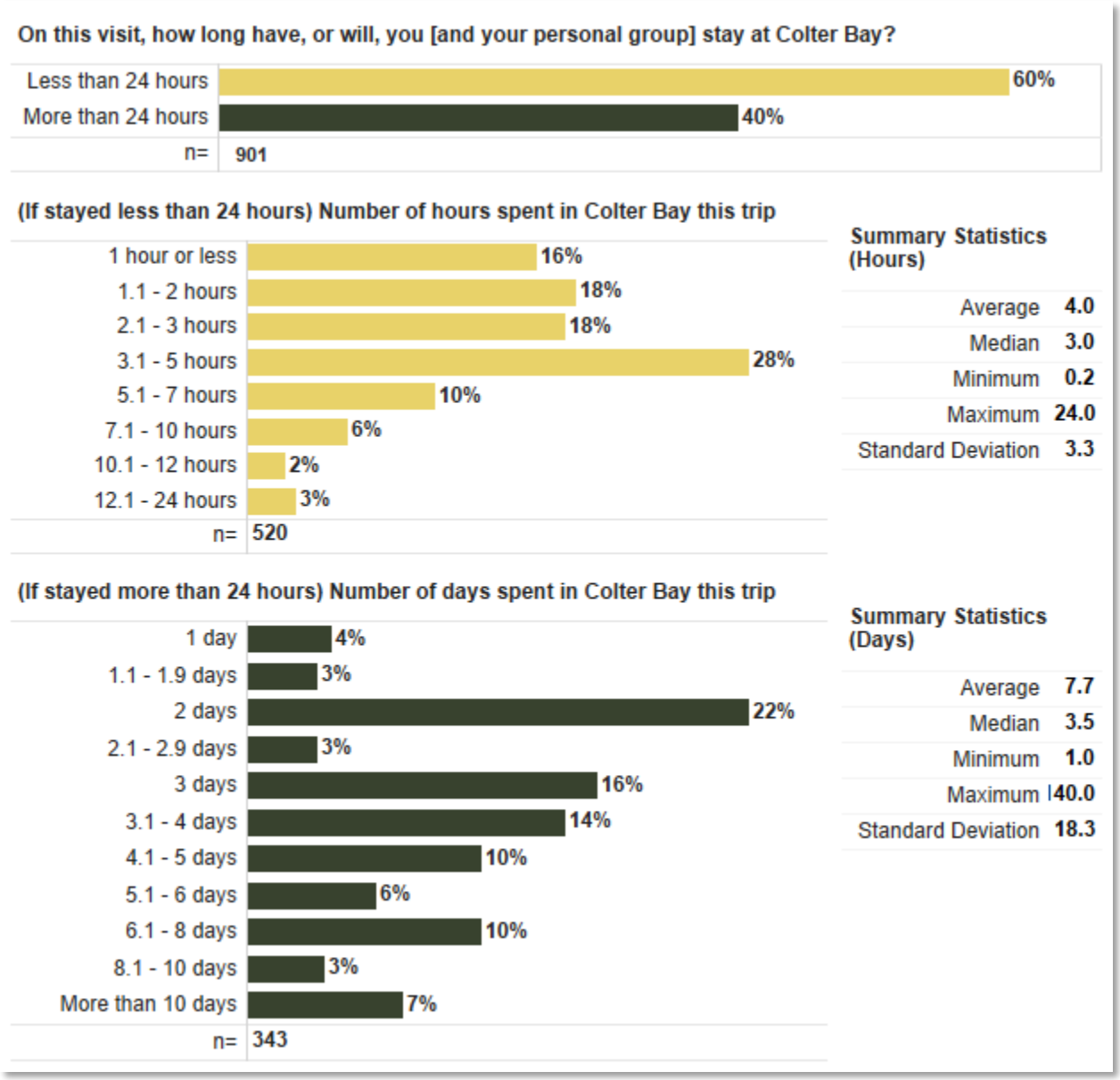


Figure 19. Length of time spent in Colter Bay.

Most visitors (51%) spent about the amount of time they planned in Colter Bay, while one third (34%) said they didn't plan a specific amount of time to spend in the area. Just 2% spent less time than planned, while 14% spent more time than planned. Of those who spent a different amount of time than planned, 83% said their change in plans was because there were more things to do/see in the area than expected.

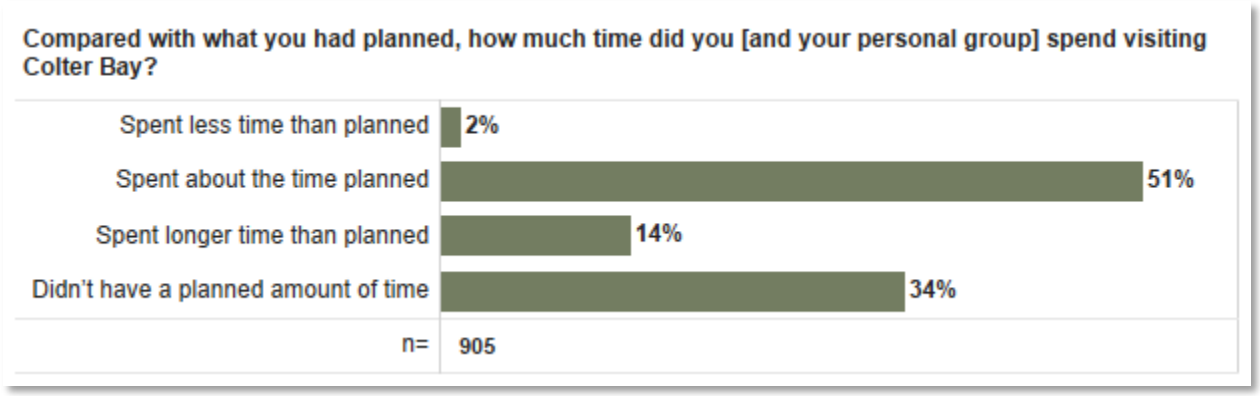


Figure 20. Length of time spent in Colter Bay compared to planned.

Use of Area Lodging by Overnight Visitors

Figure 21 provides the types of accommodations used by visitors who were on an overnight trip away from home. Overall, 78% of respondents spent at least one night away from their permanent residence as part of their trip to GRTE, staying either within GRTE or the nearby area. Of those respondents, 32% camped in GRTE in Colter Bay, followed by 26% who found lodging outside of GRTE. Another 15% of respondents found lodging in GRTE at different locations while 13% either camped in GRTE at another campground or found lodging in GRTE in Colter Bay, respectively. For information regarding camping and lodging locations within the GRTE area, see the local area map found in Appendix 3.

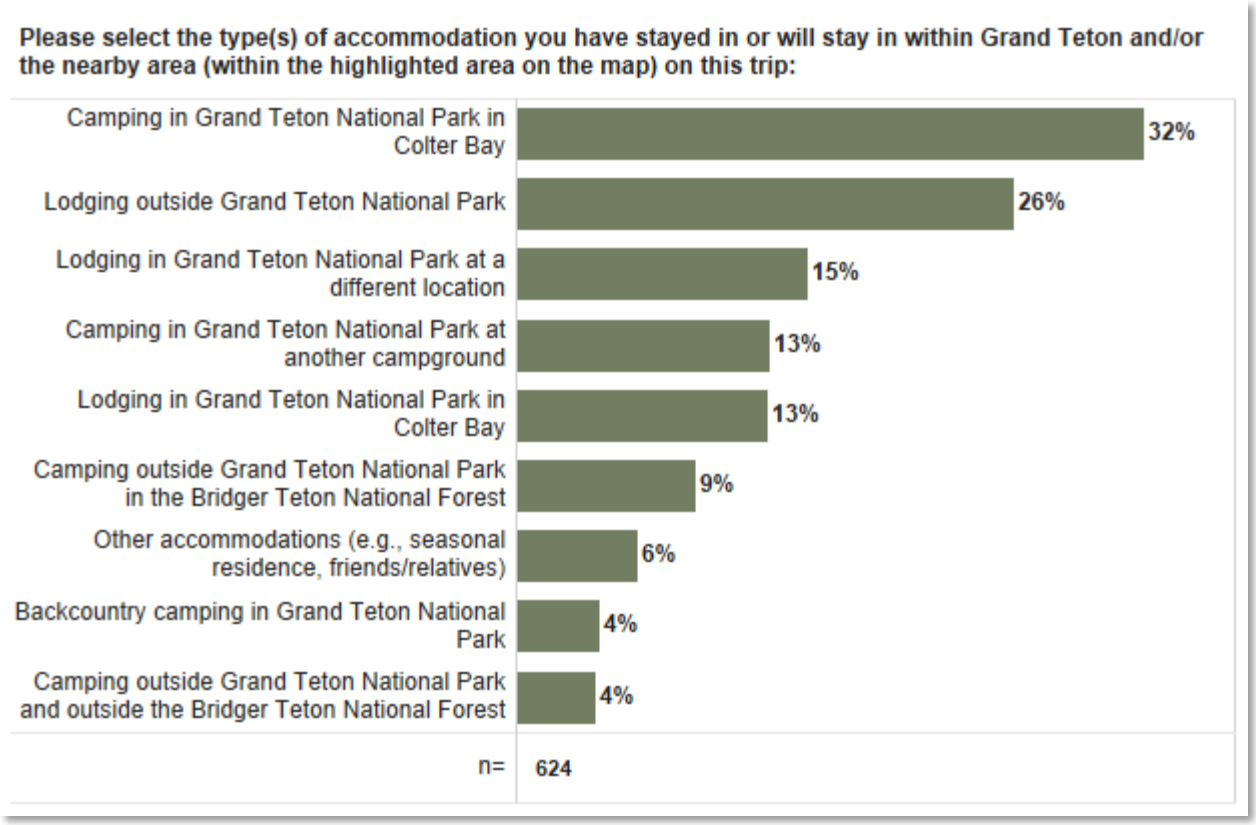


Figure 21. Type(s) of accommodation used by visitors on an overnight trip.

Figure 22 provides summary statistics for the number of nights spent in the park or the local area. On average, respondents camping outside of GRTE in the Bridger National Forest and those that were backcountry camping in GRTE spent the shortest amount of time overnight in the park at 2.8 days, respectively. Respondents camping in GRTE at other campgrounds spent a slightly longer amount of time in the park with an average of 3.0 nights, while those who decided to camp in Colter Bay spent closer to four nights in the area (3.8 nights). Although only 6% of respondents said they were staying at other accommodations (e.g., seasonal residence, friends/relatives), that cohort reported spending the greatest number of nights on their trip, with an average stay of 18.6 nights. This figure is likely influenced by visitors spending months at their second home in the area.

Please list the number of nights you spent or will spend:

		Summary Statistics				
		Average	Median	Minimum	Maximum	Standard Deviation
Camping outside of Grand Teton in the Bridger National Forest	n=58	2.8	2.0	1.0	8.0	1.9
Backcountry camping in Grand Teton National Park	n=25	2.8	3.0	1.0	5.0	1.1
Camping in Grand Teton at another campground	n=79	3.0	3.0	1.0	7.0	1.9
Lodging in Grand Teton at a different location	n=92	3.6	3.0	1.0	10.0	2.3
Lodging outside Grand Teton National Park	n=160	3.7	3.0	1.0	8.0	2.1
Camping in Colter Bay	n=200	3.8	3.0	1.0	10.0	2.6
Lodging in Colter Bay	n=78	4.4	3.0	1.0	14.0	3.4
Camping outside of Grand Teton or Bridger National Forest	n=25	4.8	3.0	1.0	14.0	3.6
Lodging in other accommodations (e.g., seasonal residence, friends/relatives)	n=34	18.6	5.0	1.0	120.0	33.7

Figure 22. Length of stay by lodging type.

Over a third of respondents (35%) reported that their decision to not stay in Colter Bay had to do with other reasons than the response options provided in the survey. Some noted that this was due to the unplanned nature of their visit to Colter Bay or that they were just passing through, while similarly, others said that they were unaware of the location or lodging options. Additionally, some of these respondents simply preferred to stay at other locations, while some noted that they had been unable to obtain a spot due to the campground switching from first-come-first-serve to a reservation system.

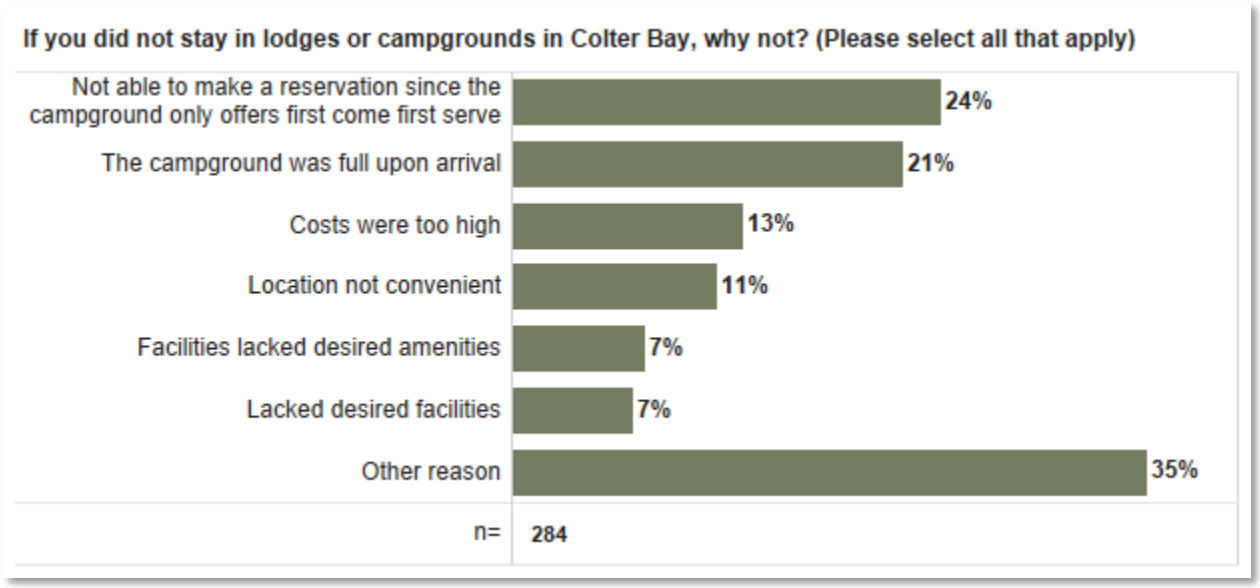


Figure 23. Reasons for not using Colter Bay lodging.

Visitor Use and Flow

Respondents were asked to indicate whether they and their personal group visited a variety of locations in Colter Bay. Based on all sites visited, respondents then stated which order they visited each site. Finally, respondents were asked to choose a primary destination for that day within Colter Bay.

The Colter Bay Visitor Center (which 69% of respondents reported visiting) was the most popular site followed closely by the General Store (67%). As a second tier of visitation, swim beach (52%), the marina (52%), and the Lakeshore trail (46%) were also commonly visited locations among respondents. The David T. Vernon Indian artifacts collection (15%), shower facilities (15%), amphitheater (14%), and laundry facilities (13%) were the least visited locations within Colter Bay.

The locations visited vary somewhat by intercept site (Figure 25). Respondents intercepted at the swim beach and the trailhead/boat launch were less likely to visit to the Visitor Center. The General Store is used frequently by visitors intercepted at all sites. As may be expected, the sites nearest to the location where the visitor was intercepted were more likely to be included in their list of visited locations.

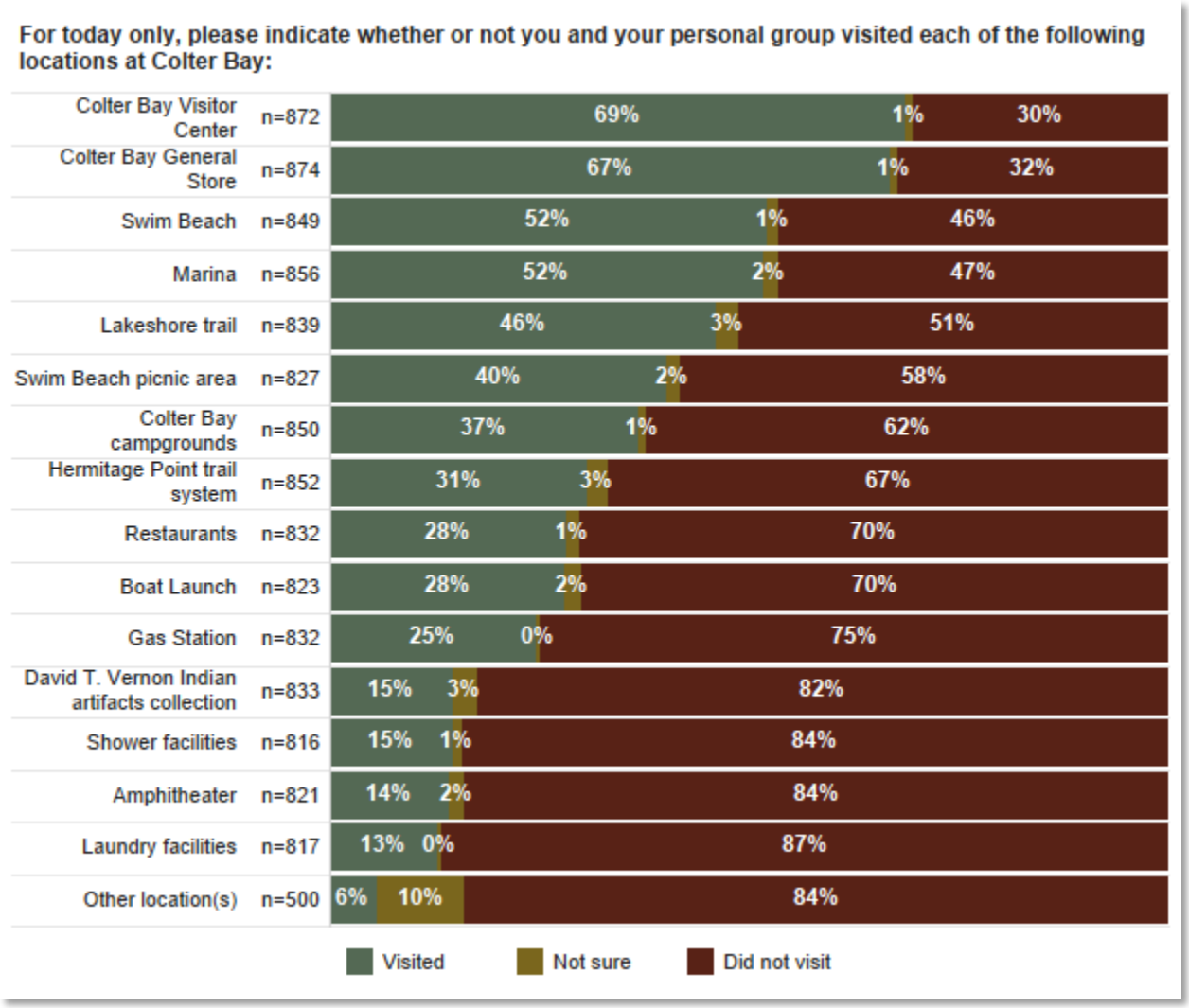


Figure 24. Locations visited in Colter Bay today: Detailed results.

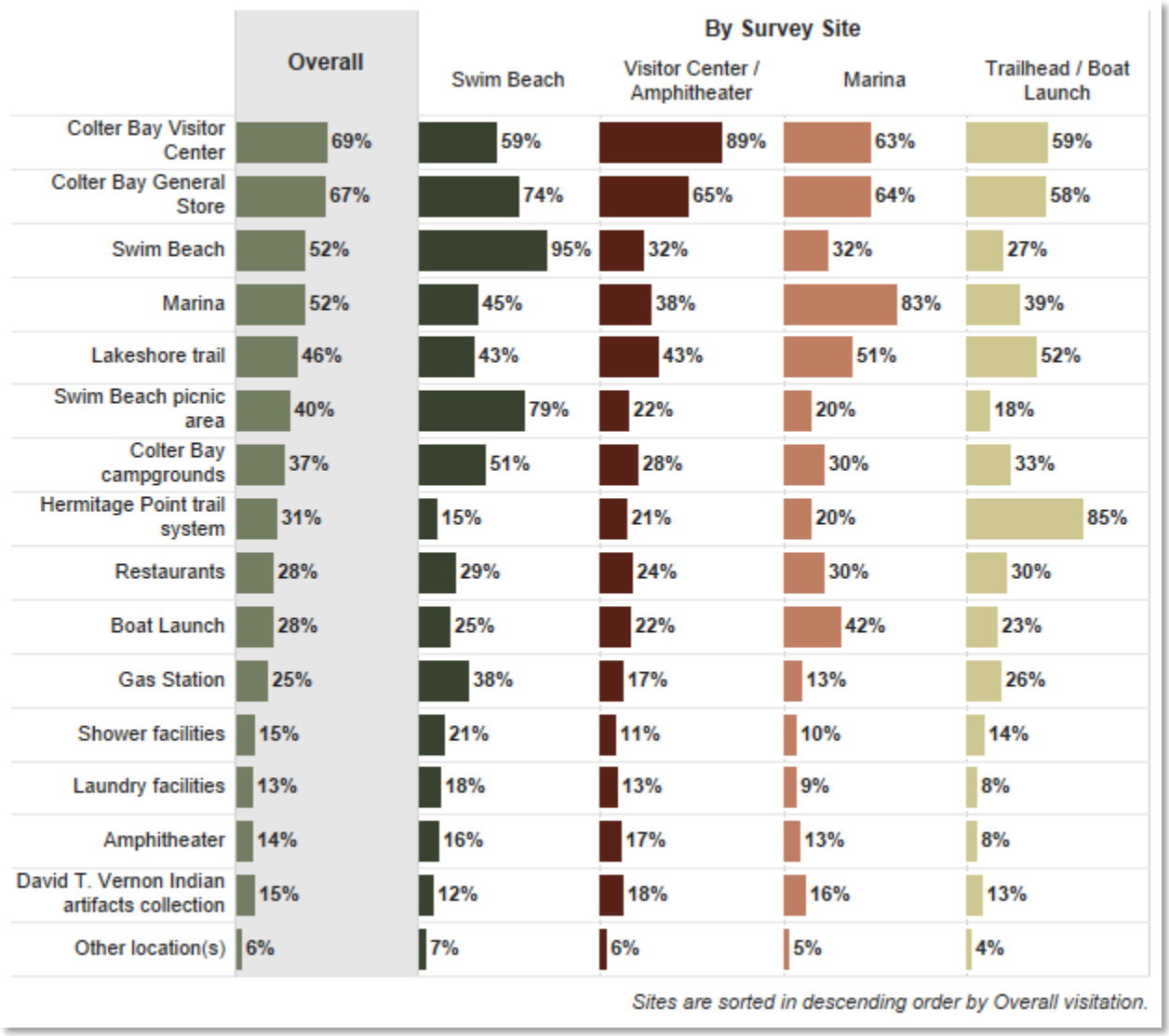


Figure 25. Locations visited in Colter Bay today: Overall and by survey site.

When asked to name a single primary destination, the swim beach (19%), Colter Bay campgrounds (19%), and Colter Bay Visitor Center (16%) were most common among respondents; the Hermitage Point trail system (11%), marina (11%), and Lakeshore trail (9%) were not far behind. When examined by visitor type (Figure 26), a single large difference emerges; visitors staying overnight in Colter Bay were much more likely to list the Colter Bay campgrounds as their primary destination. Day visitors and overnight visitors staying outside of Colter Bay were quite similar when it came to primary destinations.

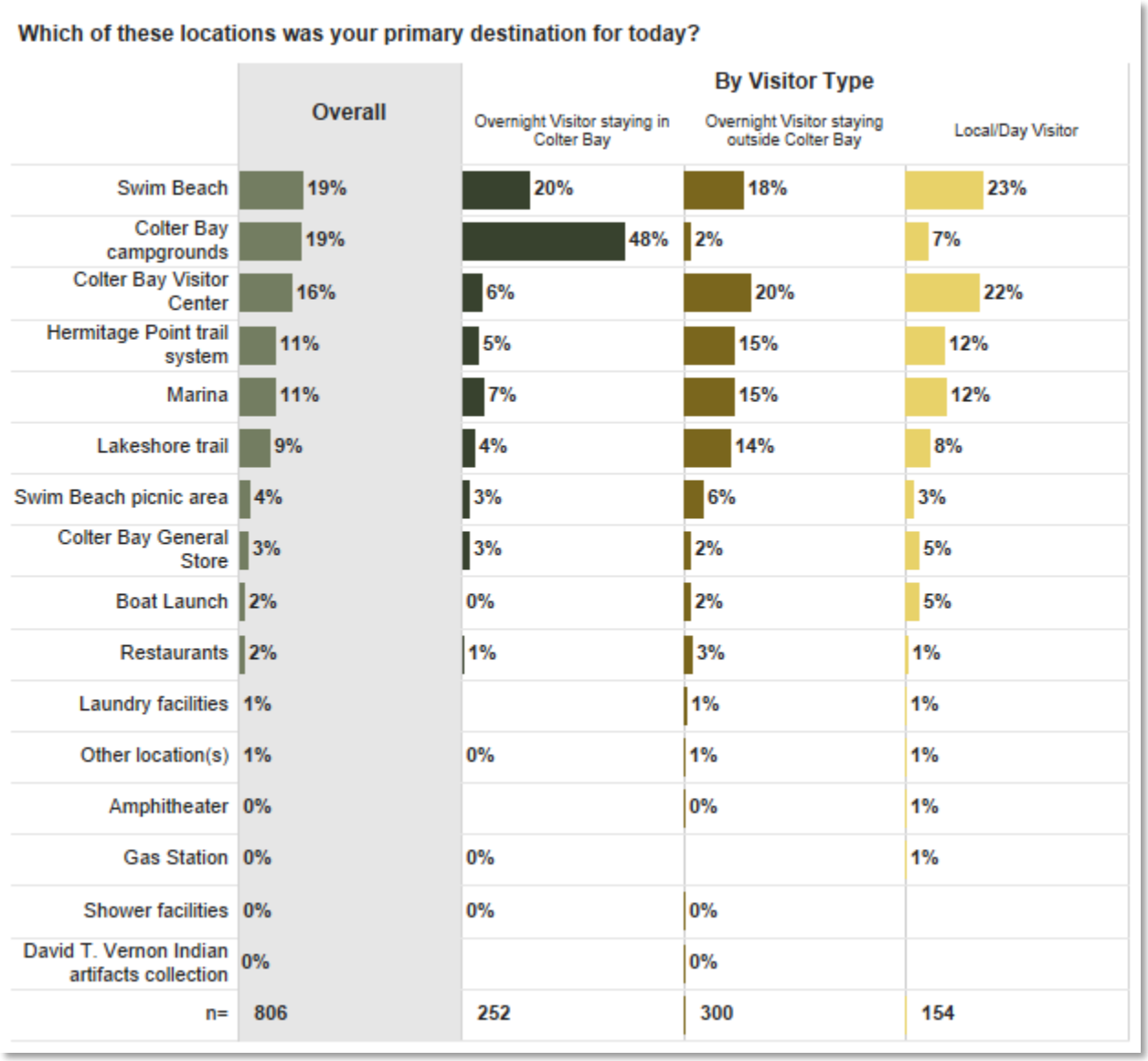
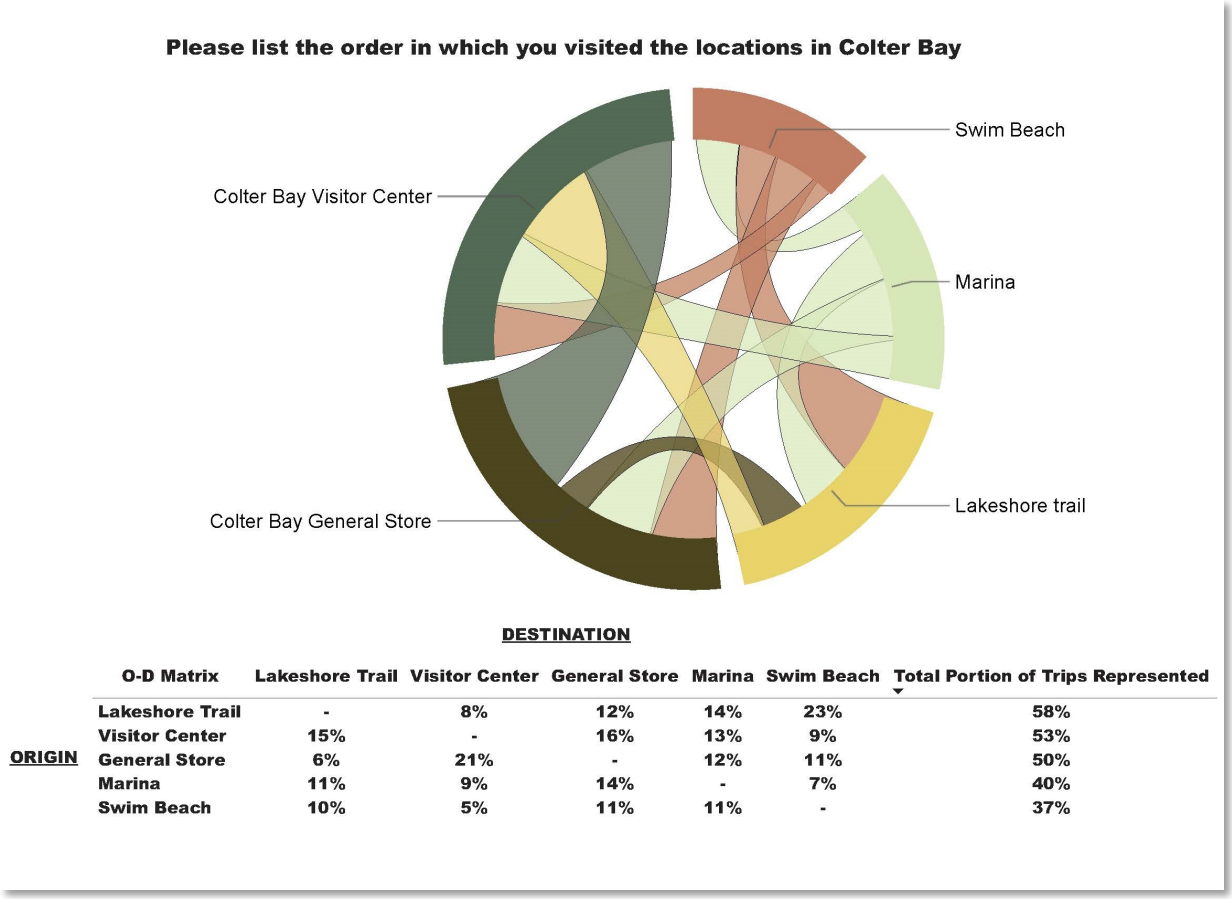


Figure 26. Primary destination in Colter Bay today: Overall and by visitor type.

After selecting sites visited within Colter Bay, respondents were asked to provide the order in which they visited those sites. Out of a list of 15 destinations within Colter Bay, most respondents (57%) visited four or fewer sites on the day they were intercepted. Figure 27 provides a chord diagram and summary of the top five origin destination (O-D) pairs. These correspond with the top five sites visited as shown in Figure 24 above.

The segments (nodes) of the outer ring are sized proportionately to the number of observations originating at each site; Colter Bay Visitor Center (largest node) was identified as the most common origin, and the swim beach (smallest node) the least common of these top five. The chords connecting each node are also sized proportionately, with the thickness at the node indicative of the relative proportion of visitors indicating they left that site heading for one of the other four sites.

Using the Visitor Center as an example, the largest share of those leaving the visitor center went to either the general store (16%) or the lakeshore trail (15%). As such, the chords leaving the visitor center and connecting to those other two nodes are larger than that representing the 9% who left the visitor center to go to the swim beach. The O-D Matrix below the diagram provides these data in a table format; origin sites are in the rows, while destination sites are in the columns. For each of the five origins, the proportion of all trips to the sum of the four other destinations is shown. For example, 58% of all trips from the Lakeshore trail went to the other four locations shown. The remaining 42% went to one of the 10 additional sites not shown, or an "other" location.



DESTINATION

ORIGIN	O-D Matrix	Lakeshore Trail	Visitor Center	General Store	Marina	Swim Beach	Total Portion of Trips Represented
	Lakeshore Trail	-	8%	12%	14%	23%	58%
	Visitor Center	15%	-	16%	13%	9%	53%
	General Store	6%	21%	-	12%	11%	50%
	Marina	11%	9%	14%	-	7%	40%
	Swim Beach	10%	5%	11%	11%	-	37%

Note: Chord color indicates the dominant flow of visitors between node pairs. For example, more visitors flow into the marina from each of the other four locations than flow away from marina to the other four locations. As such, each of the marina node's chords match its color.

Figure 27. Top 5 pairs of visitor flow between sites in Colter Bay.

Visitors indicated in which order they visited the various sites within Colter Bay on their trip. The Visitor Center (24%) and the campgrounds (24%) were the two sites that were most likely to visit first by visitors. The General Store (15), marina (6%), and Hermitage Point Trail System (6%) follow. The second site was most likely to be either the Visitor Center (16%) or the General Store (14%). Swim Beach (9%) and the Lakeshore Trail (9%) start to appear more prominently around the

3rd site visited, indicating their relative importance in the chain of sites visited. Overall, it's clear that the Visitor Center, campground, and General Store are primary sites that are first visited by respondents.

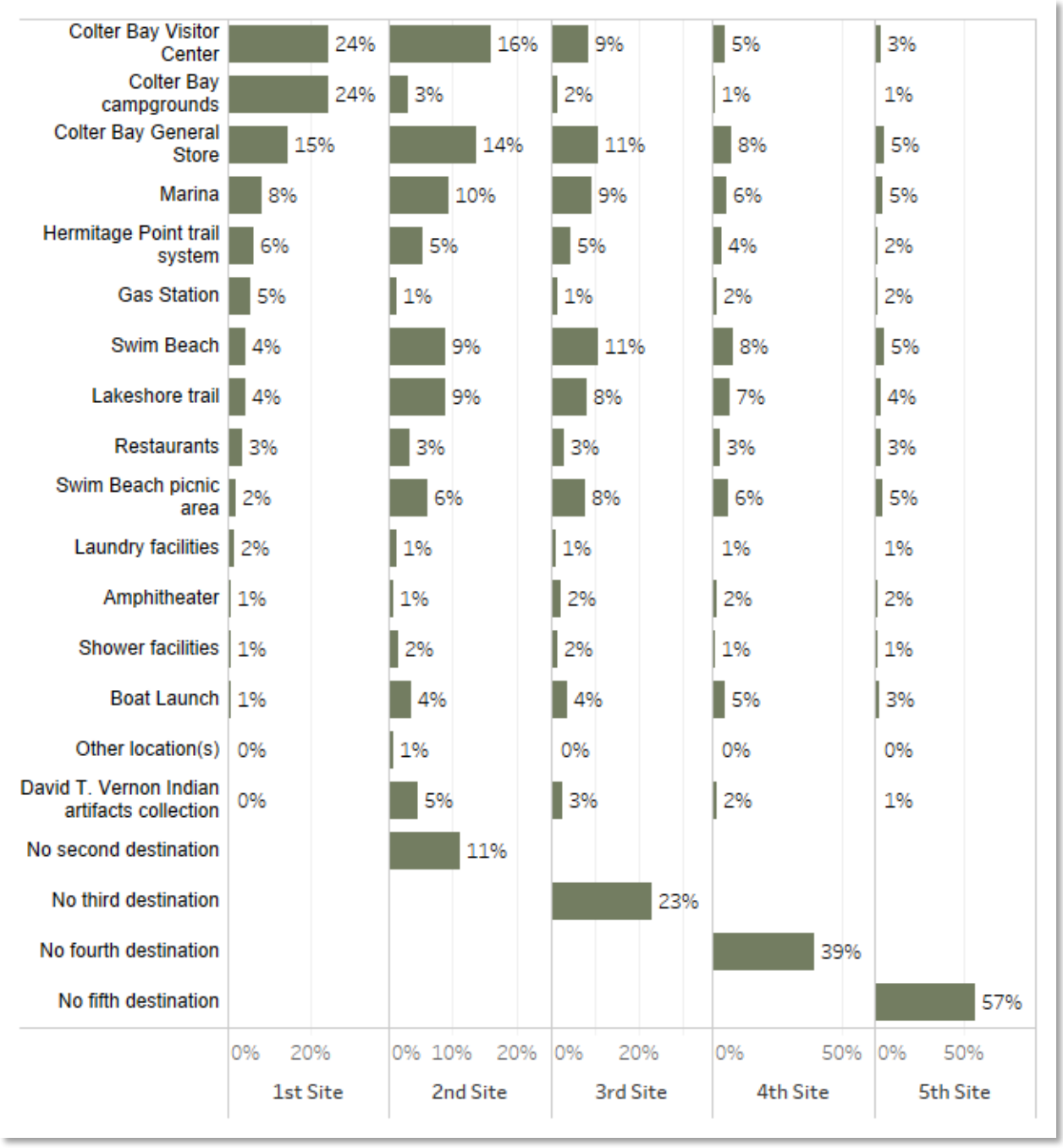


Figure 28. Order of Sites Visited in Colter Bay.

The following three figures show visitor flow from their first visited location. The three primary locations chosen to display are the Visitor Center, General Store, and Campground. A large majorities (89%) of respondents visited at least two sites, while 61% indicated at least four different sites visited. Of the respondents who began their visit to Colter Bay at the Visitor Center and went on to a second site (n=185) we most likely to move on to the Lakeshore Trail, Indian Artifacts Collection, or the General Store; each collected 18% of the flow (Figure 29). Respondents starting at the Campgrounds and continuing to a second site (n=193) were most likely to move on to the Visitor Center (29%) or the General Store (25%) (Figure 30). Meanwhile, those originating at the General Store and moving to a second location (n=116) were most likely to flow to the Visitor Center (43%) (Figure 31).

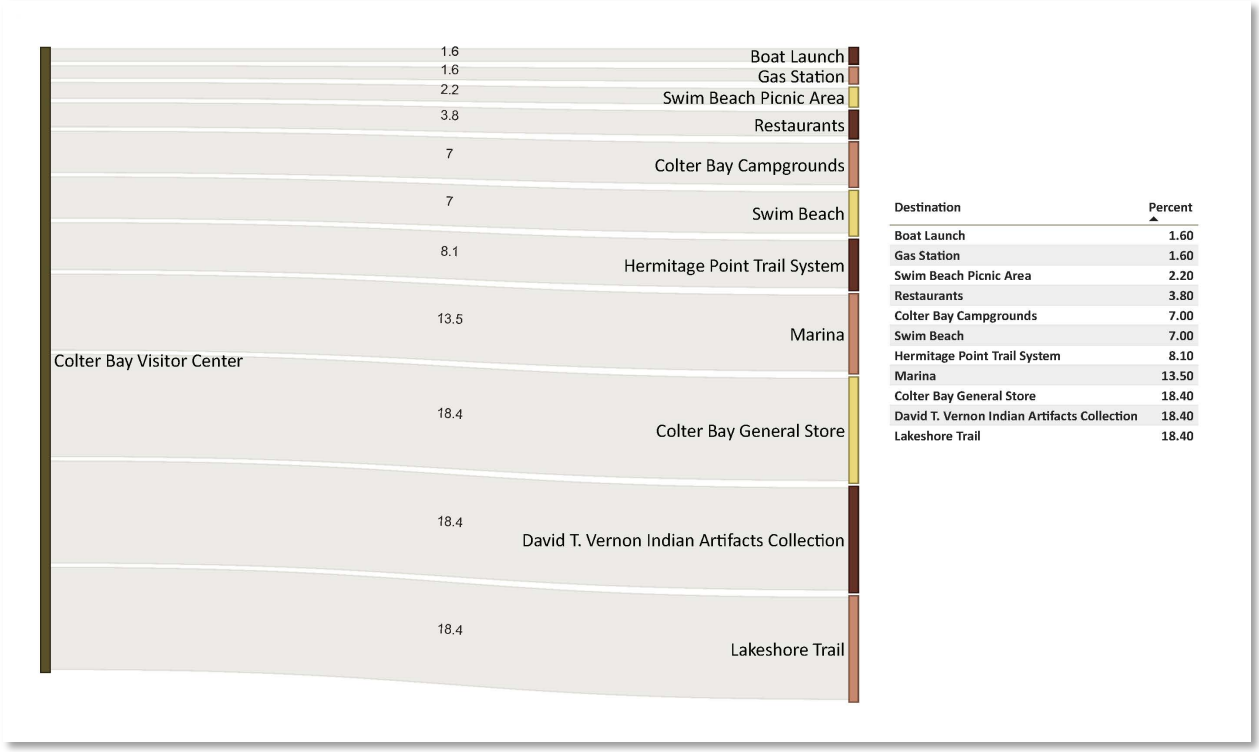
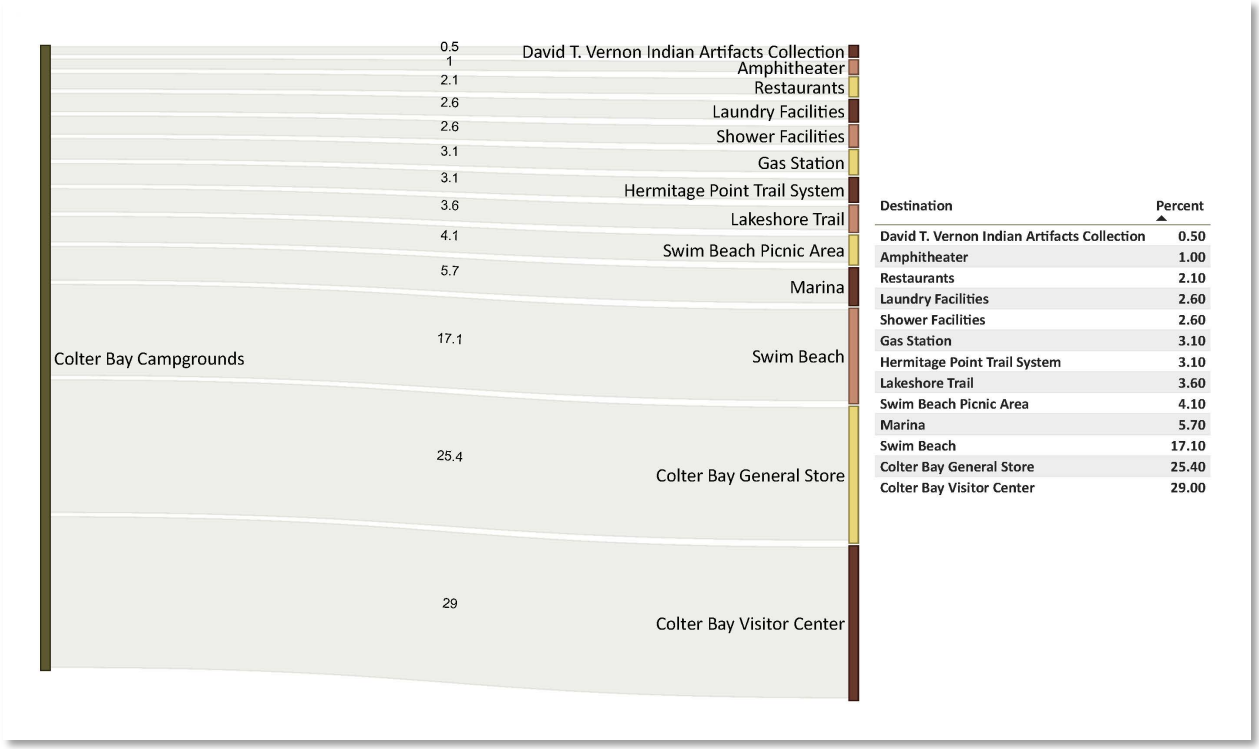
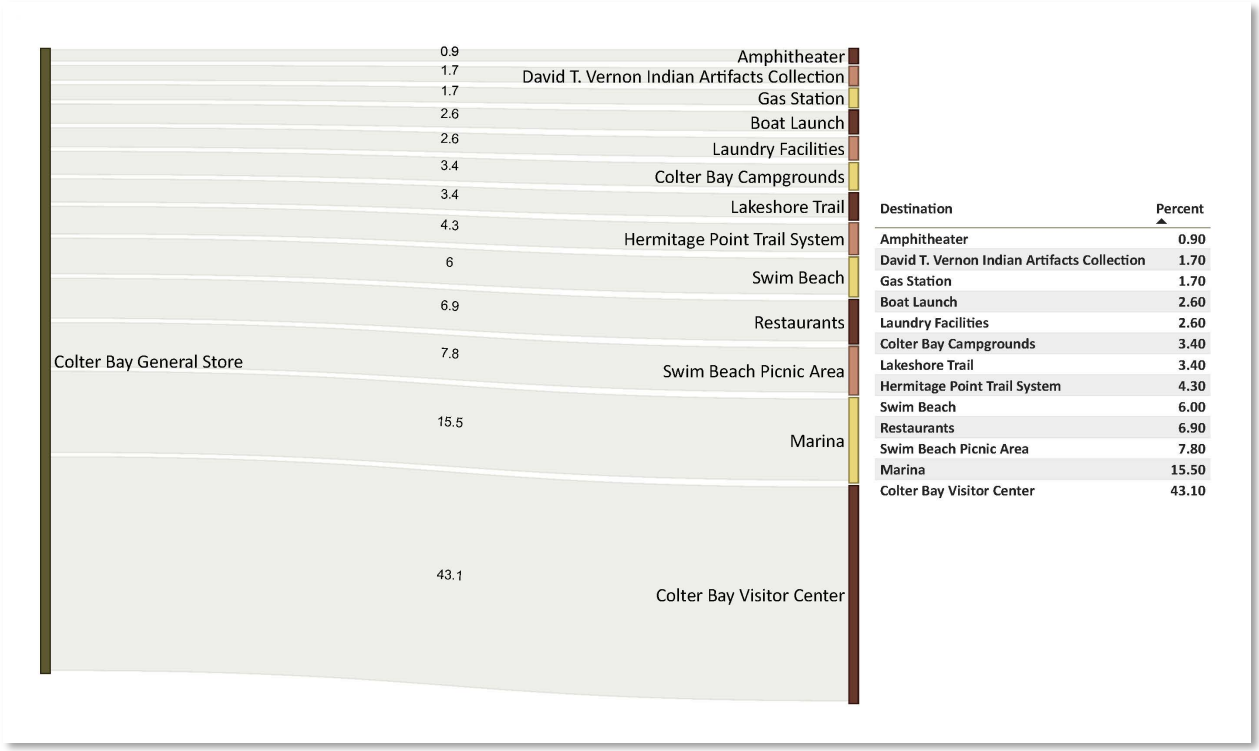


Figure 29. Respondent destinations when originating from Visitor Center.



Destination	Percent
David T. Vernon Indian Artifacts Collection	0.50
Amphitheater	1.00
Restaurants	2.10
Laundry Facilities	2.60
Shower Facilities	2.60
Gas Station	3.10
Hermitage Point Trail System	3.10
Lakeshore Trail	3.60
Swim Beach Picnic Area	4.10
Marina	5.70
Swim Beach	17.10
Colter Bay General Store	25.40
Colter Bay Visitor Center	29.00

Figure 30. Respondent destinations when originating from Campgrounds.



Destination	Percent
Amphitheater	0.90
David T. Vernon Indian Artifacts Collection	1.70
Gas Station	1.70
Boat Launch	2.60
Laundry Facilities	2.60
Colter Bay Campgrounds	3.40
Lakeshore Trail	3.40
Hermitage Point Trail System	4.30
Swim Beach	6.00
Restaurants	6.90
Swim Beach Picnic Area	7.80
Marina	15.50
Colter Bay Visitor Center	43.10

Figure 31. Respondent destinations when originating from General Store.

Transportation

Parking in popular locations within Grand Teton can be challenging at times. Respondents were asked whether they thought it would be difficult to find parking in Colter Bay before visiting, and 38% of respondents said they did. About a quarter of all respondents didn't have expectations; thus, there may be opportunities to further understand how to set expectations during busy times. Swim beach visitors were more likely to expect to encounter difficulties finding parking than visitors intercepted at other sites, especially when compared to the trailhead/boat launch. The marina and trailhead/boat launch were the only two sites at which the share of visitors who did not expect parking difficulties exceeded the share who did.

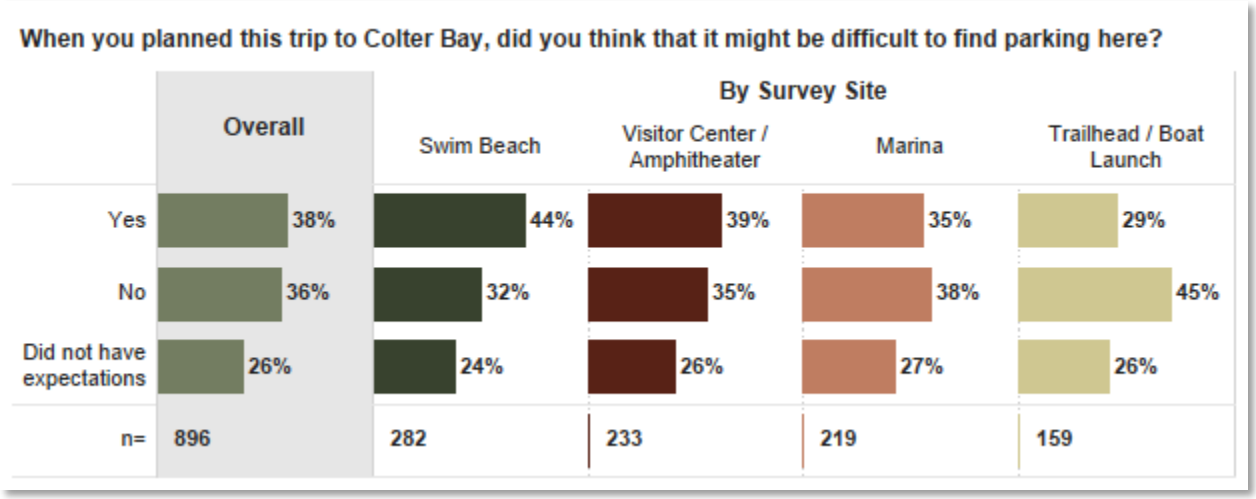


Figure 32. Expectations regarding parking difficulty in Colter Bay by Site.

Transportation to and from Colter Bay follows a typical pattern of travel modes. The bulk of respondents used their personal vehicle (84%) to enter Colter Bay, the most common mode of travel in many parks. However, walking to/from sites once in the area was very common. About half (56%) of respondents said they walked to sites with, 22% defining their mode specifically as "hiking". Furthermore, most visitors (57%) parked and walked to other locations in Colter Bay. The layout of the site lends itself to walking in between sites, likely contributing to some of these patterns in the results.

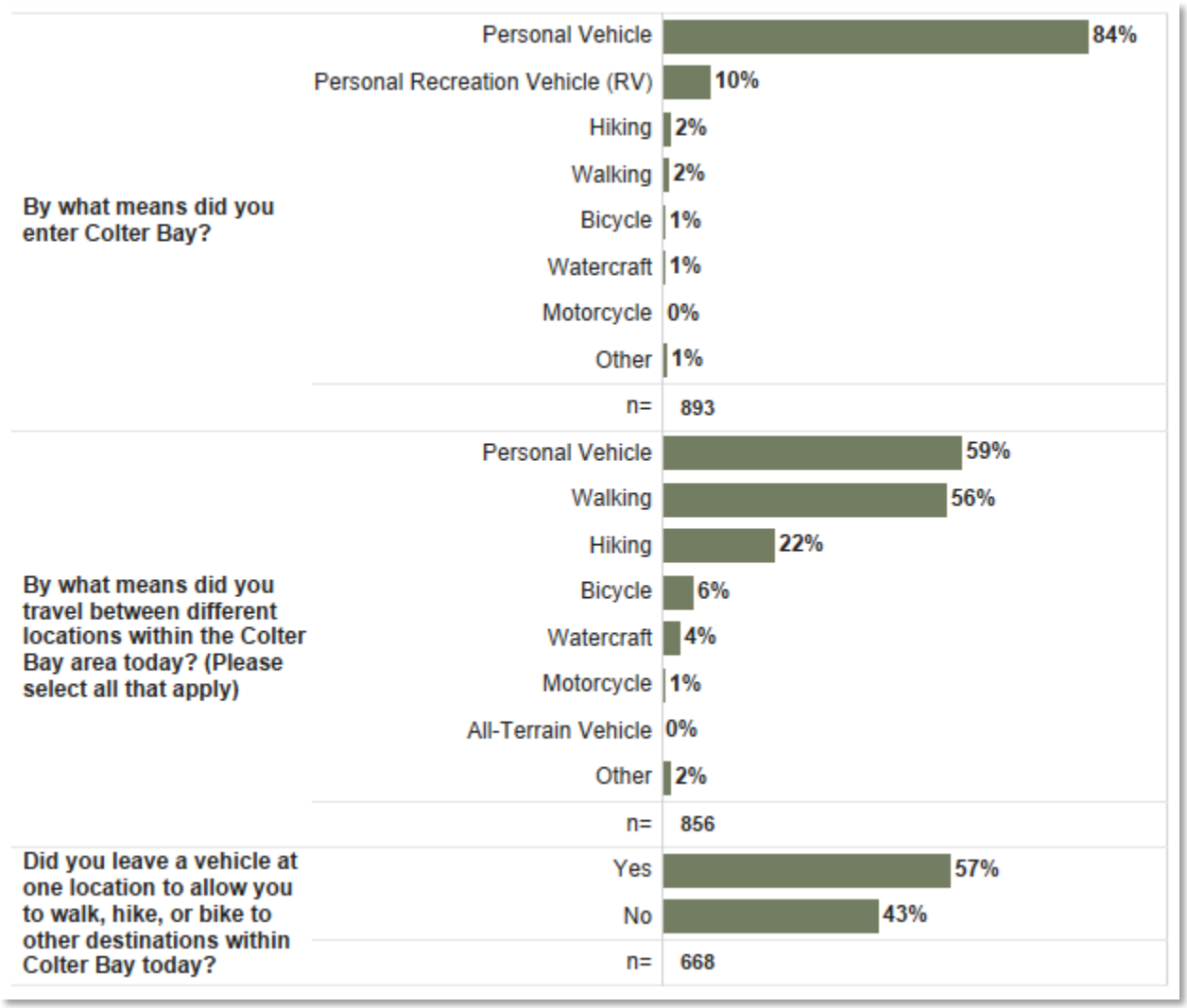


Figure 33. Means of transportation used to enter and to travel within Colter Bay.

Activities and Amenities

Prior to visiting, over two thirds of respondents (68%) planned to hike/walk in Colter Bay. Over half of visitors also planned on participating in wildlife viewing (55%), photography (54%), scenic driving (53%), and visiting a visitor center (51%). These same activities saw the highest on-site participation from respondents. In fact, for many activities, more visitors actually participated in them that had planned to. Few activities had noticeable differences in planned vs. actual participation. Horseback riding (15% planned, 5% participated) and stargazing (27% planned, 18% participated) had the highest differences between planning and participation.

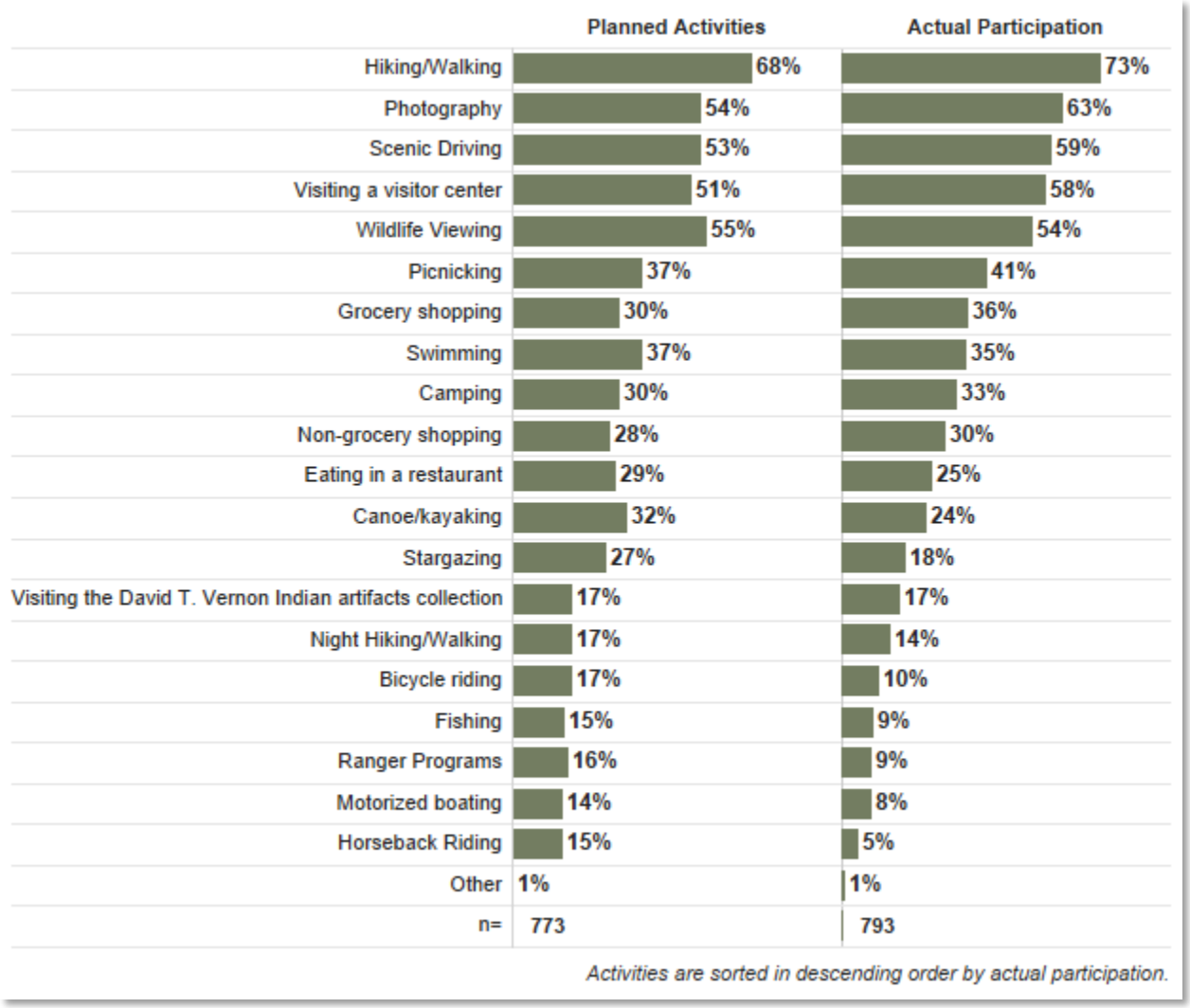


Figure 34. Before this visit to Colter Bay, what activities did you plan to do during your visit in Colter Bay, and which did you actually (or will you actually) participate in once you arrived?

The following two figures show cross tabulations of actual activity participation by survey site and by visitor type. By site, the activities participated in are mostly tied with the location of intercept. For instance, swim beach has the highest percentage of users who went swimming (66%) and picnicking (64%). Nearly all trailhead/boat launch users went hiking/walking (95%).

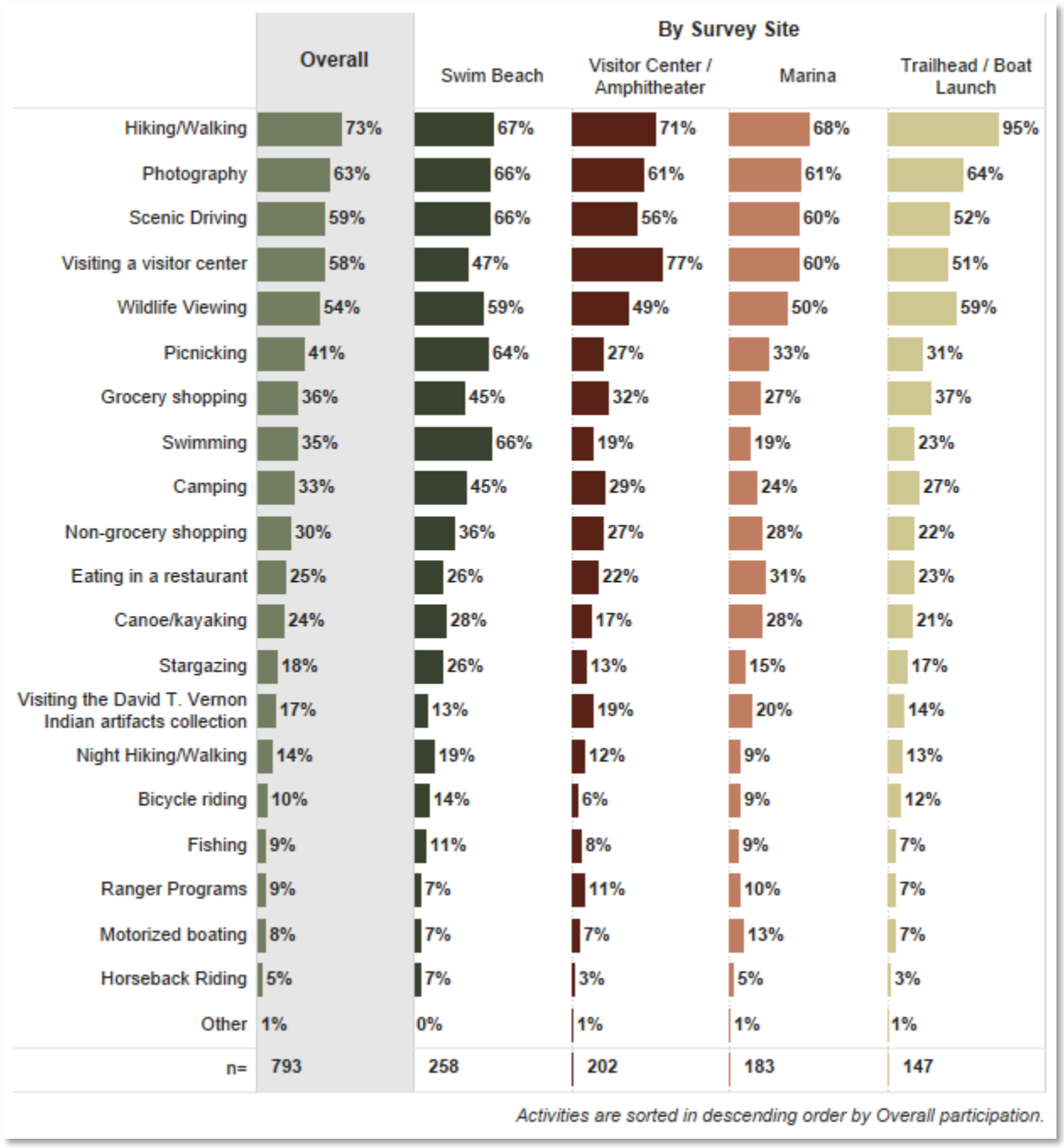


Figure 35. Actual participation in Colter Bay activities: Overall and by survey site.

Overnight visitors at Colter Bay were much more likely than other overnight visitors and local/day visitors to do most activities, likely correlated with higher amounts of time spent in Colter Bay. All activities except for photography were participated in more frequently by overnight visitors in Colter Bay. Other overnight visitors and local/day visitors are very similar in their overall activity participation profile.

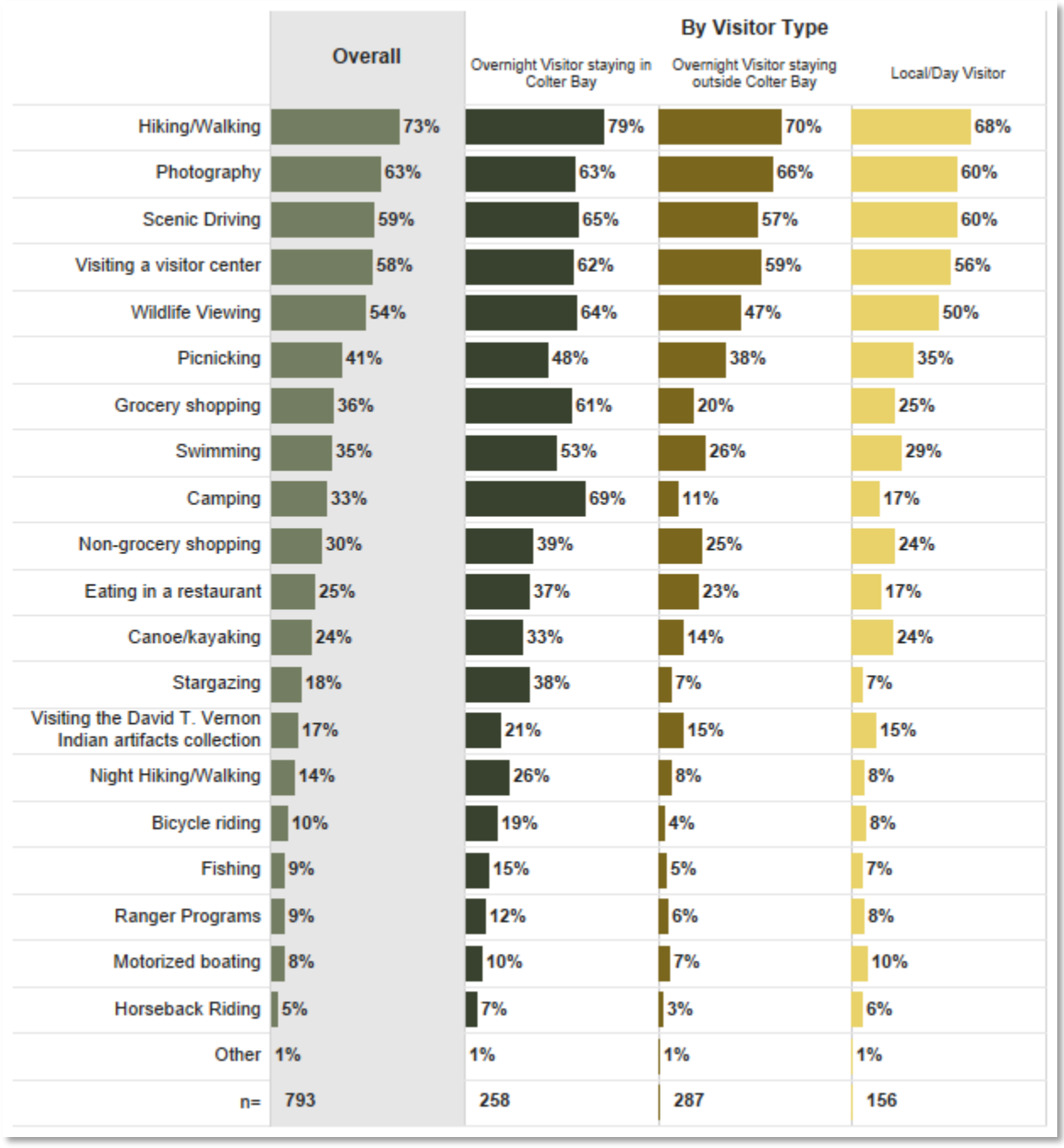


Figure 36. Actual participation in Colter Bay activities: Overall and by visitor type.

Respondents were asked to rate how important each of the following amenities were in their decision to visit Colter Bay. The availability of hiking trails was the most important amenity for visitors to Colter Bay, producing a mean of 3.9 on a scale from 1 (Unimportant) to 5 (Very important). In total, 70% of respondents indicated hiking trails were either important or very important for their visit. Other amenities that were important to visitors were the beach area (average rating 3.2), The Colter Bay Visitor Center (3.2), grocery shopping opportunities (3.1), and swimming opportunities (3.0). Other amenities such as motorized boating opportunities (2.0) and equipment rentals (2.2) were of less importance to visitors. Figure 37 provides the importance of each amenity in descending order by their average importance rating.

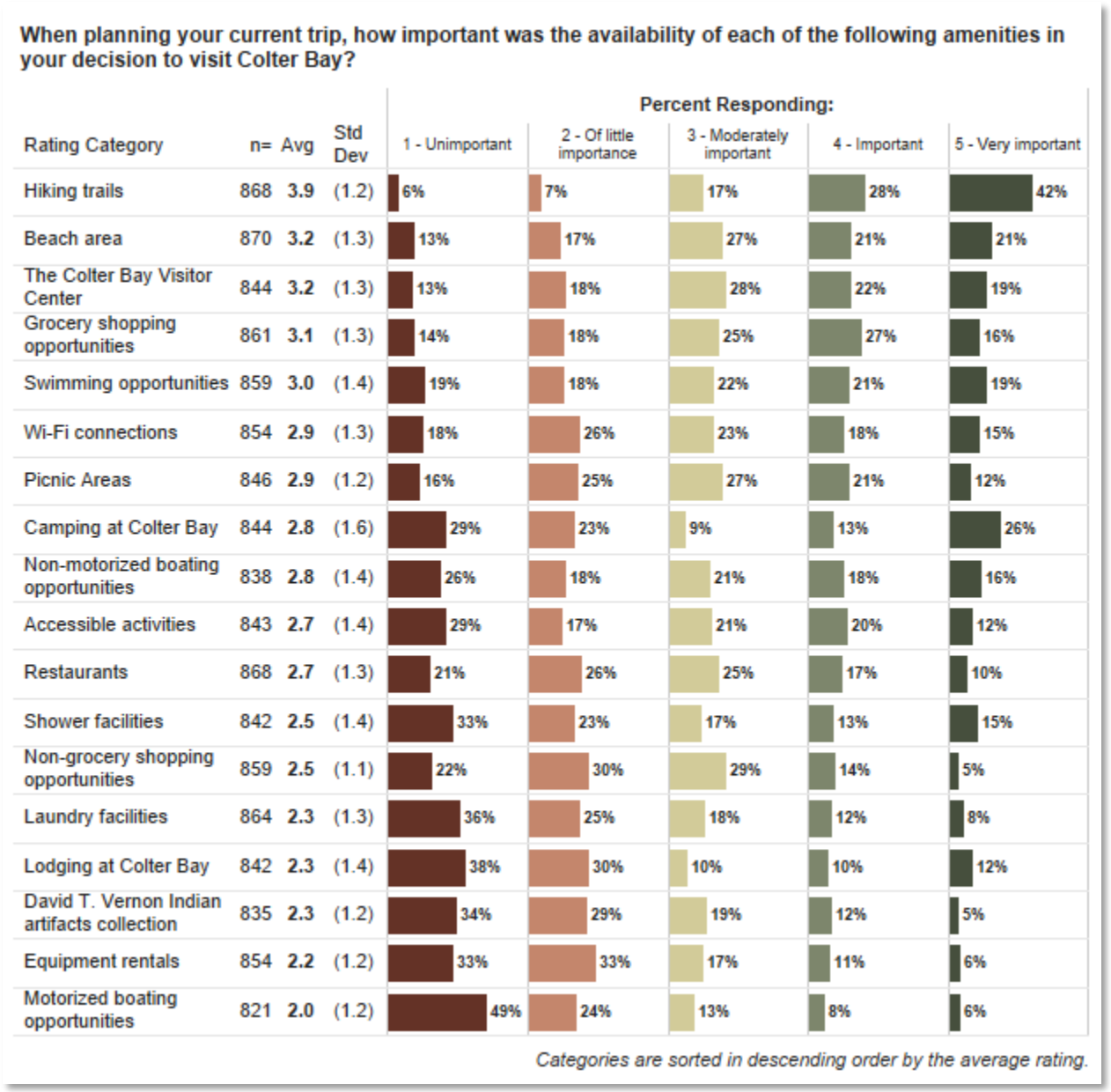


Figure 37. Importance of Colter Bay amenities: Detailed results.

When analyzed by the survey site, a few key similarities and differences emerge. Hiking trails were an important amenity regardless of survey location, with respondents reporting it as the most important amenity at three of the four survey sites. The only survey site at which hiking trails were not the most important amenity was at the swim beach, where, unsurprisingly, visitors found the beach area be the most important amenity. Regardless of the survey site, amenities like motorized boating opportunities, equipment rental, and the David T. Vernon Indian artifacts collection were less important to visitors, on average.

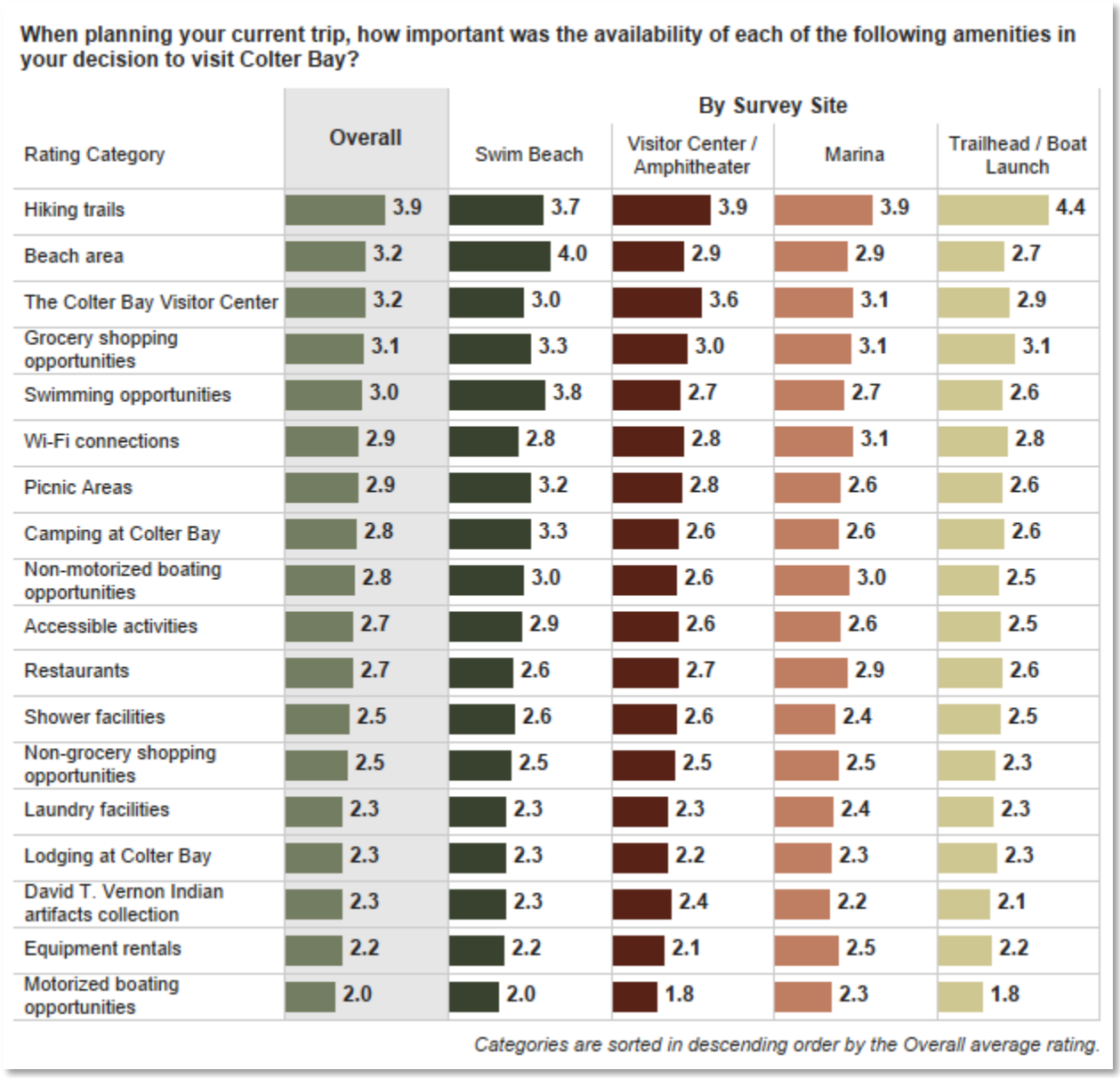


Figure 38. Importance of Colter Bay amenities: Average rating by survey site.

Respondents were then asked to rate the quality of the services and facilities they encountered during their visit to Colter Bay. The service/facility with the highest average quality rating was the maintained hiking trails (4.5). Nine out of ten of respondents (91%) found the hiking trails to be either good or very good. Visitors also reported that the quality of services/facilities at the Visitor Center (4.4), beach area (4.4), and picnic area (4.4) were all positive. In fact, every one of the 18 Colter Bay services/facilities evaluated by visitors received an average quality of at least 4.0. Few differences in quality ratings were noted by intercept site.

Please rate the quality of services/facilities you received and/or encountered during today's visit to Colter Bay.

Rating Category	n=	Avg	Std Dev	Percent Responding: 1 - Very poor	2 - Poor	3 - Fair	4 - Good	5 - Very good
Maintained Hiking Trails	579	4.5	(0.7)	0%	1%	8%	32%	59%
Visitor Center	601	4.4	(0.7)	0%	1%	11%	36%	52%
Beach Area	529	4.4	(0.7)	0%	1%	10%	37%	52%
Picnic Area	459	4.4	(0.7)		0%	13%	36%	50%
General Store	553	4.3	(0.8)	0%	1%	14%	38%	48%
Developed Campgrounds	346	4.3	(0.8)	1%	1%	15%	31%	51%
Information Signs	699	4.2	(0.8)	1%	2%	16%	37%	44%
Trail Signage	593	4.2	(0.9)	2%	4%	15%	34%	46%
Information about Park Natural and Cultural Resources	550	4.1	(0.8)	1%	2%	20%	37%	40%
Laundry	198	4.1	(0.9)	2%	1%	23%	33%	42%
Restroom Facilities	678	4.1	(0.9)	2%	4%	17%	38%	40%
Lodging	245	4.1	(0.9)	2%	1%	23%	35%	40%
Boat Launch	180	4.1	(1.0)	2%	2%	24%	31%	42%
Showers	201	4.1	(1.0)	2%	3%	21%	30%	43%
Rentals	218	4.1	(1.0)	2%	3%	22%	31%	42%
Ranger Presence	593	4.1	(1.0)	2%	4%	23%	30%	42%
Food Service/Restaurants	373	4.0	(0.9)	2%	3%	22%	37%	36%
Amphitheater	152	4.0	(1.0)	3%	3%	23%	38%	34%

Categories are sorted in descending order by the average rating.

Figure 39. Ratings of Colter Bay services/facilities.

Potential Problems and Future Use

When asked to rate possible issues/problems at Colter Bay, most respondents did not feel that those identified by park management were, in fact, major issues. On a scale from 1 (Not a problem) to 3 (Big problem), the issue with the highest percentage of respondents indicating a "big problem" was "too many other people," at just 14%, but a further 45% of respondents thought that "too many other people" was not a problem. For all other possible issues listed, more than half of visitors indicated "not a problem". Between 25-33% of respondents said there were small problems with a variety of issues. However, no glaring problem was noted either overall or by intercept site; results between sites showed consistent findings with little variation.

Please indicate the extent to which the following possible issues were problems for you while visiting Colter Bay.

Rating Category	n=	Avg	Std Dev	Percent Responding: 1 - Not a problem	2 - Small problem	3 - Big problem
Too many other people	708	1.7	(0.7)	45%	41%	14%
Informal (visitor-created) erosion	548	1.5	(0.7)	57%	32%	11%
Informal (visitor-created) vegetation loss	558	1.5	(0.7)	58%	31%	11%
The actions or behaviors of other visitors	602	1.5	(0.7)	61%	29%	10%
Large groups recreating	633	1.4	(0.6)	63%	28%	8%
Parking availability (trailer)	302	1.4	(0.7)	69%	21%	11%
Parking availability (non-trailer)	586	1.4	(0.6)	67%	25%	8%
Finding a place to picnic at a picnic table	551	1.4	(0.6)	68%	24%	8%
Adequate facilities/amenities at campsites (e.g., restrooms, fire rings, etc.)	566	1.4	(0.6)	70%	22%	7%
Available information about lake conditions	493	1.4	(0.6)	69%	26%	5%
Number of boat ramps	321	1.3	(0.6)	80%	15%	6%
Informal (visitor-created) campsites and fire rings	455	1.3	(0.5)	78%	18%	4%
Condition or maintenance of boat ramps	269	1.2	(0.5)	84%	11%	4%

Categories are sorted in descending order by the average rating.

Figure 40. Potential problems encountered while visiting Colter Bay: Detailed results.

Regarding activity offerings, most respondents would like to see either the current level or more. Very few respondents indicated a preference for fewer activity offerings. In all cases except trails for horse use, the average rating is above 2.0 which indicates either the same level of offering or more. Due to some activities being not applicable/not used, sample sizes vary on this question. Among those who rated the activity, ranger-led programs see the most demand for increased offerings (51% the same, 48% more). Over 50% of respondents on each facility/service would like to see the same level of offering. Very little variation was noted between sites, further cementing the results.

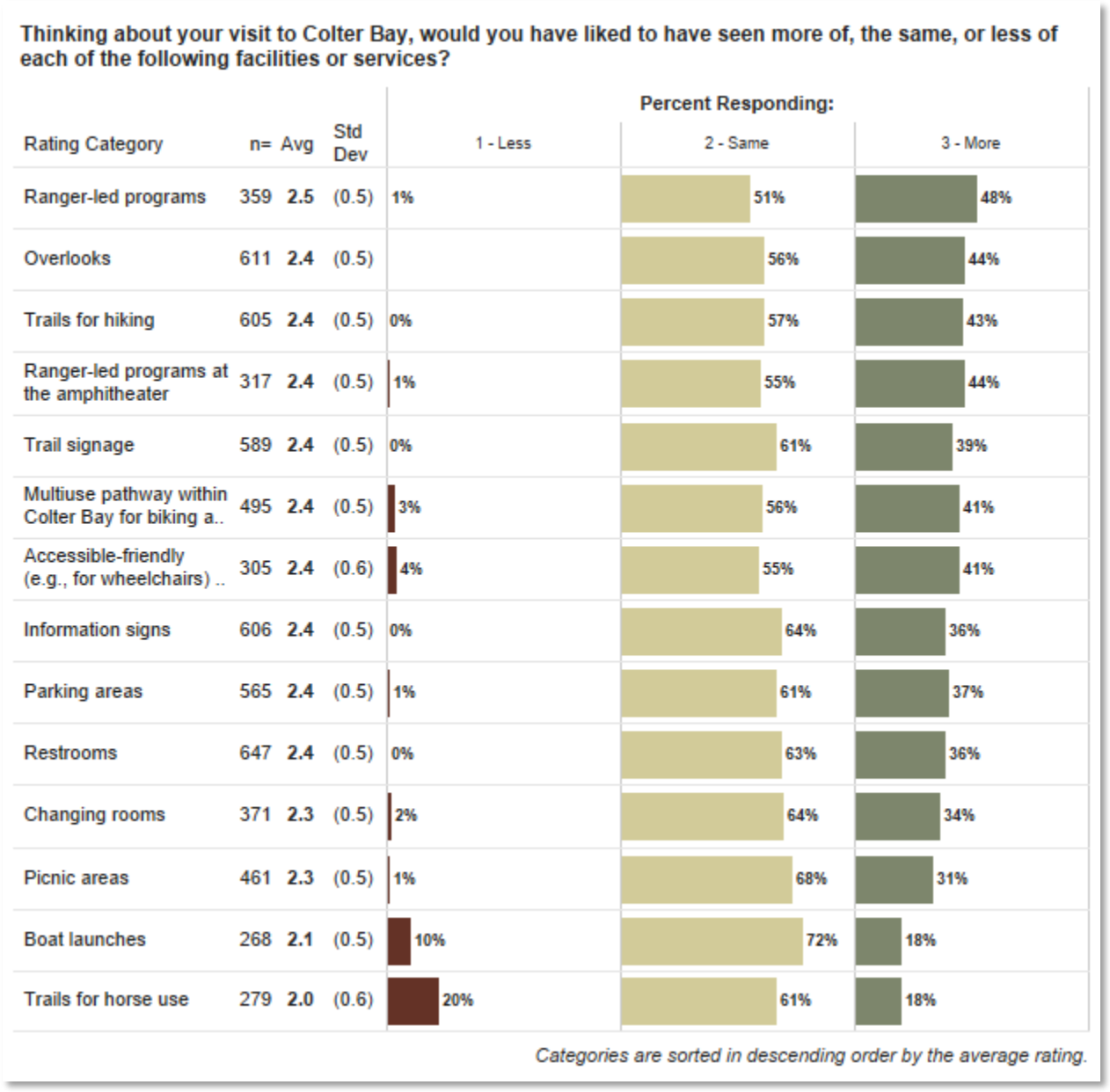


Figure 41. Desired volume of existing Colter Bay facilities and services.

Park staff also looked to gauge the likelihood that a visitor would use a new service in the Colter Bay area. As shown, respondents are split on whether they would utilize new services such as a bike share rental program, small shuttle, electric bike rentals, or a transit bus. Overall, the bike share rental program is most likely to be used by respondents. The transit bus has the lowest likelihood of use, despite 50% of respondents at least moderately likely to use this service. Very little variation was noted for these ratings by survey site or visitor type.

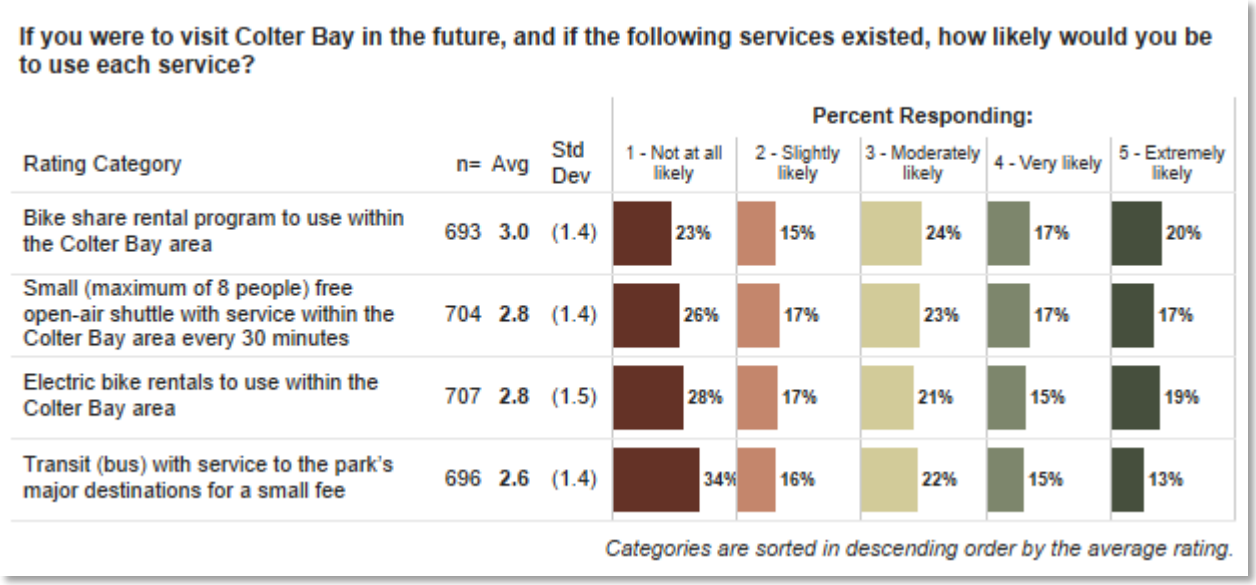


Figure 42. Likelihood to use possible future Colter Bay services.

Open-ended Comments

Three primary open-ended questions were asked of visitors in Colter Bay:

1. (If a respondent was not likely to use potential new services) Why might they be unlikely to use them?
2. What could managers do as they plan for the future of Colter Bay?
3. Is there anything else you would like to tell us about Colter Bay?

Using the tablet, respondents hand entered their own comments. During analysis, all comments were open-coded to allow for the emergence of primary themes. Some comments fall into just one theme, while some comments hit on multiple themes, and other comments don't fit into any of the primary themes. This section presents an overview of the primary themes identified for each of the three open-ended questions listed above and lists the share of received comments that fall into each theme. Because those who feel most strongly about a particular topic (whether positive or negative) are more likely to take the time to write an explanatory comment, it is understood that the prevalence of particular themes is not necessarily representative of all visitors' opinions and should be interpreted

with caution. Despite this limitation, the identification and prevalence of themes is included here as a helpful tool in further understanding the visitor experience and desires.

If you answered "Not at all likely" or "Slightly likely" for any of the services listed above, why might you be unlikely to use it?

The word cloud below highlights the most used words among respondents when explaining their unlikelihood to use a variety of new potential services. Only respondents who said they were unlikely to use any of these new services (bike share, ebikes, small open-air shuttle within Colter Bay, and/or transit bus to other destinations in Grand Teton) were asked to provide a follow-up comment. Among the 200 responses received, the most common themes include the following:

- Prefer using own vehicle (33% of comments) – many respondents found that buses are inconvenient for their group due to the size/makeup of their group (e.g., large party or children), or desire the convenience of a car to maintain their own schedule and pace
- Not interested (21%) – many respondents indicated that they simply were not interested in that type of service (which could refer to any or multiple of the potential new services above)
- Prefer to walk/hike (16%) – some respondents prefer walking or hiking over biking or riding a shuttle; commenters felt that Colter Bay is very walkable and/or wanted to get exercise
- Concerns with proposed services (13%) – while higher shares of respondents were simply not interested or preferred other options, a small portion expressed concerns with the proposed new services, including hesitancy around ebikes, a desire to preserve natural sights/sounds, concern about increased crowding, and possible safety issues
- Additional themes: not necessary in Colter Bay (11%), brought own bike(s) (10%), cost concerns or unwilling to pay for service (9%)

Figure 43. Word Cloud: Why respondents are not likely to use potential new services.

Is there anything else you would like to tell us about Colter Bay?

At the end of the survey, respondents were provided an option to leave additional comments about their Colter Bay experience. In most cases, this question captures a variety of information as it represents the last chance to provide feedback to staff. Overall, comments were overwhelmingly positive about the Colter Bay experience. Among the 238 comments received, some of the most common/clear themes were:

- Appreciation/enjoyment of the park and Colter Bay (61% of comments) – including the scenic beauty, variety of activities and amenities, atmosphere, and more
- Suggestions for improvement, maintenance, or addition of amenities, like the bathrooms, marina slips, beach path and changing rooms (6%); as well as calls for more signs and information (5%); better restaurant quality and availability of food options (3%); and cell phone and/or Wi-Fi service (3%)
- Concern with crowding, including parking and/or difficulty getting a campsite (5%)
- 12% of comments indicated not applicable, or that the respondent had no additional comments

Figure 44. Word Cloud: Is there anything else you would like to tell us about Colter Bay?

What could the managers do as they plan for the future of Colter Bay? Please be specific.

The final open-ended comment relates to suggestions for management on future planning. In general, respondents offered a wide range of suggestions for improvements. Among the 295 comments received, primary themes include:

- More signage and information (17%) – including trail and directional signs, local information, ranger programs
- Other amenities/infrastructure improvements (14%) – larger swim/beach area, picnic areas, bike trails, etc.
- Conservation efforts (11%) – including prioritizing the preservation of a natural experience, minimizing the human impact, better environmentally-friendly options, limiting motorboat and generator use
- Additional themes: bathroom upgrades and cleaning (9%), Wi-Fi and/or cell service (7%), anticipate/limit crowding (6%), more parking (5%), shuttles and/or improved transportation options (5%), dog/pet friendly (5%)
- 13% of comments were specific to the campgrounds; 9% of comments indicated no suggestions or don't know / not applicable

Figure 45: Word Cloud: What could the managers do as they plan for the future of Colter Bay?

Parking Lot Accumulation, Turnover, and Vehicle Type Analysis and Results

Parking Accumulation

Figure 46 displays hourly parking accumulation for the full Colter Bay parking lot by day-of-week category (weekday and weekend day). Figure 47 displays hourly parking accumulation for the full Colter Bay parking lot by vehicle size category.[3] Figure 48 displays the hourly parking accumulation for specific subsections of the Colter Bay parking lot, by day-of-week category. Figure 49 and Figure 50 display hourly parking accumulation of by vehicle size category (autos and motorcycles and large vehicles, respectively) for specific subsections of the Colter Bay parking lot. The horizontal lines in Figure 46 through Figure 50 represent the designated capacity (i.e., number of striped parking spaces) of each parking area. These data suggest:

- Parking accumulation at the full Colter Bay parking lot generally increased through the morning and peaked midday through the afternoon, with peaks of approximately 300 to almost 450 parked vehicles per hour. On all days during the sampling period, over 100 vehicles were parked in the lot at the start of the sampling day and over 250 vehicles remained in the lot at the end of the sampling day. Hourly parking accumulation did not exceed the overall designated capacity of the full Colter Bay parking lot at any point during the sampling period.

- On two weekend days during the sampling period, parking accumulation at the full Colter Bay parking lot was higher than all other days during the sampling period for practically all hours of the day but remained below the designated capacity throughout the day.

- On all days during the sampling period, hourly parking accumulation of autos and motorcycles did not exceed the designated capacity for this vehicle size category in the full Colter Bay parking lot. In contrast, during the 13:00 hour on one weekend day of the sampling period (July 18, 2021), the hourly parking accumulation of large vehicles exceeded the designated capacity for this vehicle size category in the full Colter Bay parking lot.

- Hourly parking accumulation increased throughout the day at the Swim Beach A and Swim Beach B subsections and was still increasing at the end of most sampling days. At the Swim Beach A subsection, the designated capacity was exceeded on multiple weekdays and weekend days, starting as early as 13:00 and continuing through the end of the sampling day. Hourly parking accumulation did not exceed the overall designated capacity of the Swim Beach B subsection at any point during the sampling period. At the Swim Beach A and Swim Beach B subsections, hourly parking accumulation was frequently higher on weekend days compared to weekdays.

- Hourly parking accumulation increased slowly throughout the morning and remained steady during late morning through the afternoon at the General Store/Restaurant, Marina/Hermitage

[3] Vehicle size is categorized as "autos and motorcycles" and "large vehicles" (i.e., RV/camper, trailer, vehicle with trailer, tour bus, and other)

Point TH, and Visitor Center subsections. The designated capacity was slightly exceeded at the Marina/Hermitage Point TH subsection on a few weekend days from 12:00 through 14:00. Parking accumulation at the General Store/Restaurant and Visitor Center subsections remained under capacity at all times during the sampling period.

- On all days during the sampling period, the hourly parking accumulation of autos and motorcycles did not exceed the designated subsection capacities for the vehicle size category at the General Store/Restaurant, Marina/Hermitage Point TH, Swim Beach B, and Visitor Center subsections. Meanwhile, the hourly parking accumulation of autos and motorcycles observed in the Swim Beach A subsection exceeded the designated subsection capacity for this vehicle size category on multiple sampling period days during the afternoon hours.

- Throughout the sampling period, the hourly parking accumulation of large vehicles exceeded the designated subsection capacities for this vehicle size category at the General Store/Restaurant, Marina/Hermitage Point TH, Swim Beach A, and Swim Beach B subsections.

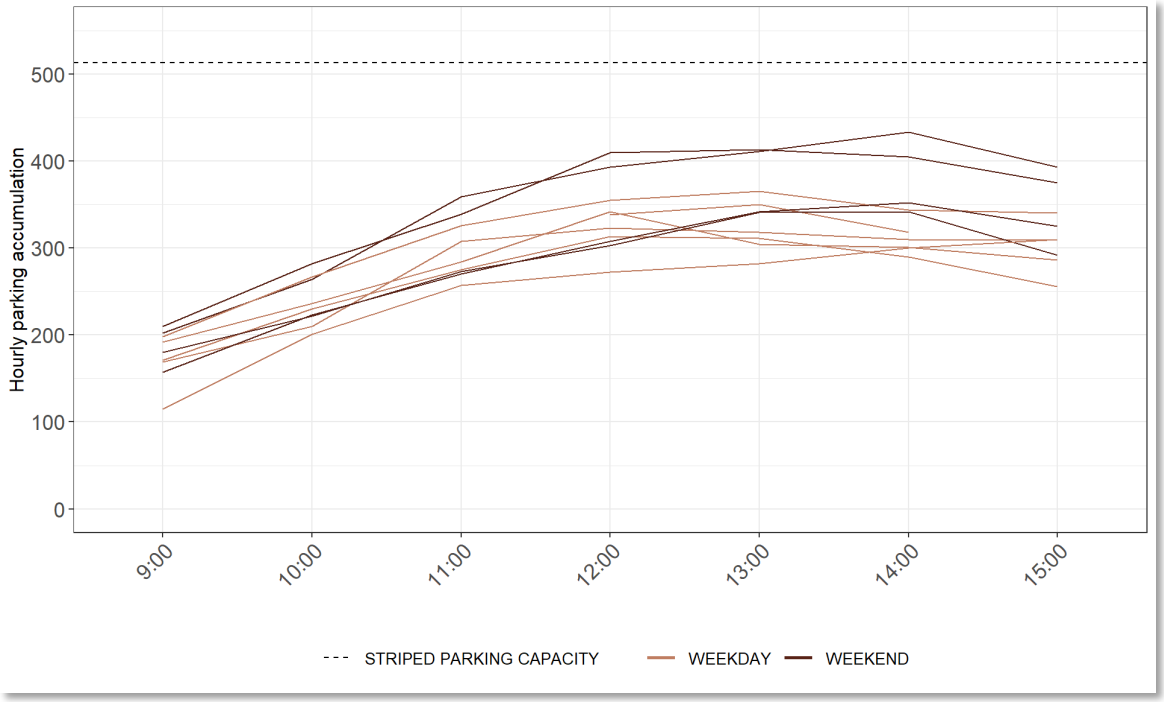


Figure 46. Hourly parking accumulation for the full Colter Bay parking lot, by day-of-week category.[4]

[4] Only three hours of parking lot data were collected on the first sampling day (12:00 – 2:00 p.m. on July 16, 2021).

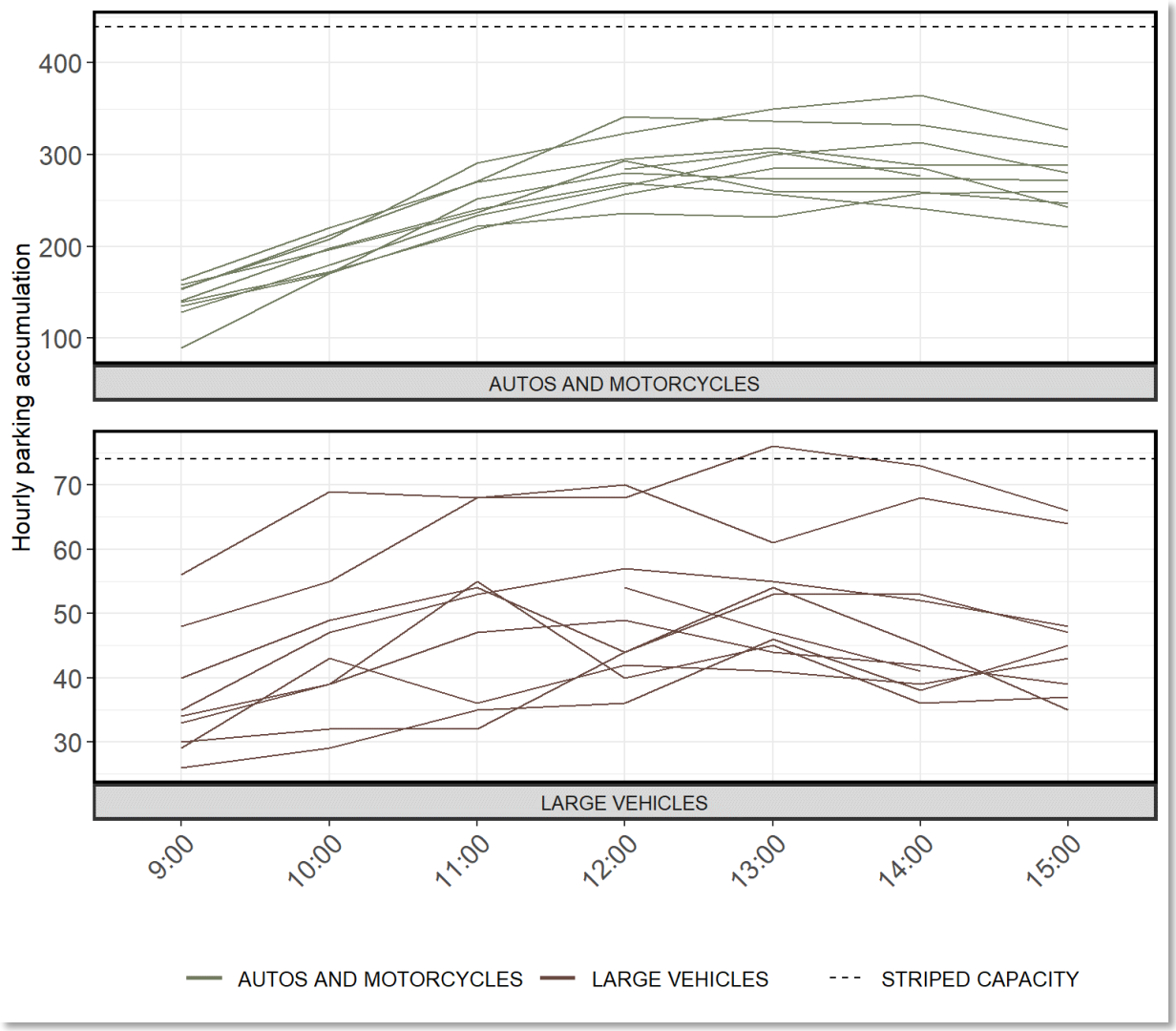


Figure 47. Hourly parking accumulation for the full Colter Bay parking lot, by vehicle size category.[5]

[5] Striped capacity represents the number of striped spaces available for each vehicle size category ("autos and motorcycles" and "large vehicles"), regardless of whether the vehicle was observed in a striped space appropriate for its vehicle size category.

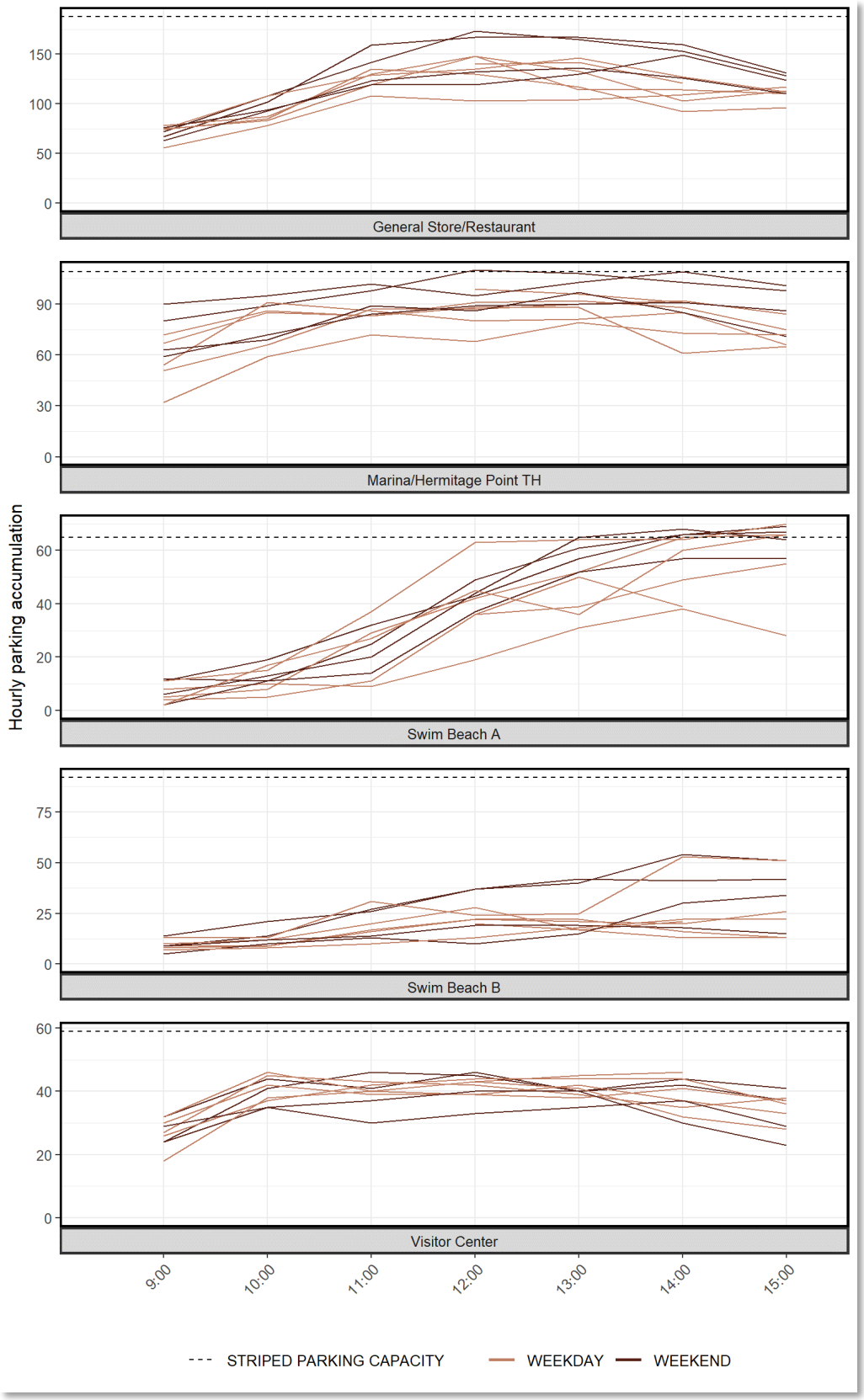


Figure 48. Hourly parking accumulation, by parking lot subsection and day-of-week category.

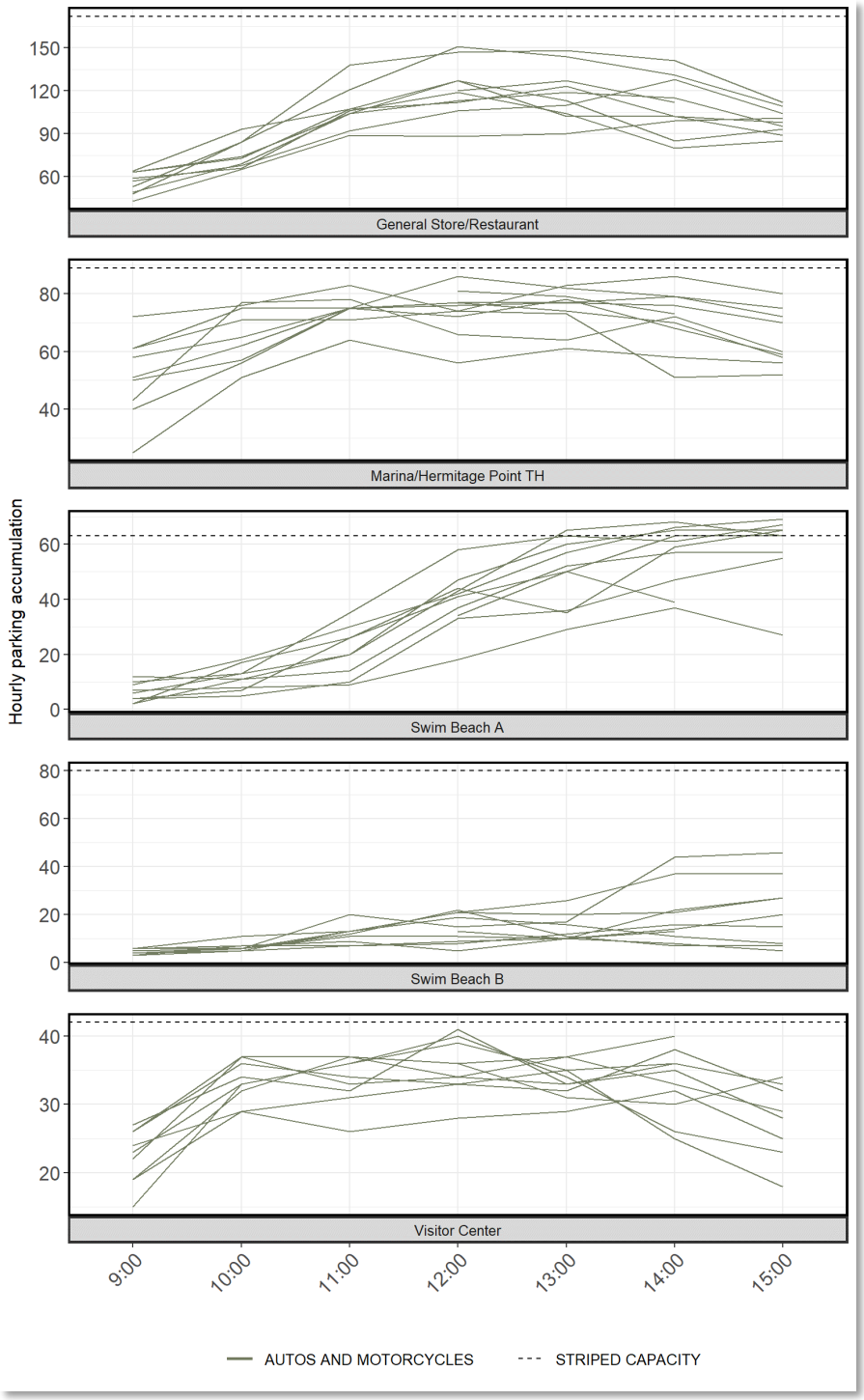


Figure 49. Auto and motorcycle hourly parking accumulation, by parking lot subsection.[6]

[6] Striped capacity represents the number of striped spaces available for autos and motorcycles, regardless of whether the auto or motorcycle was observed in a striped space appropriate for its vehicle size category.

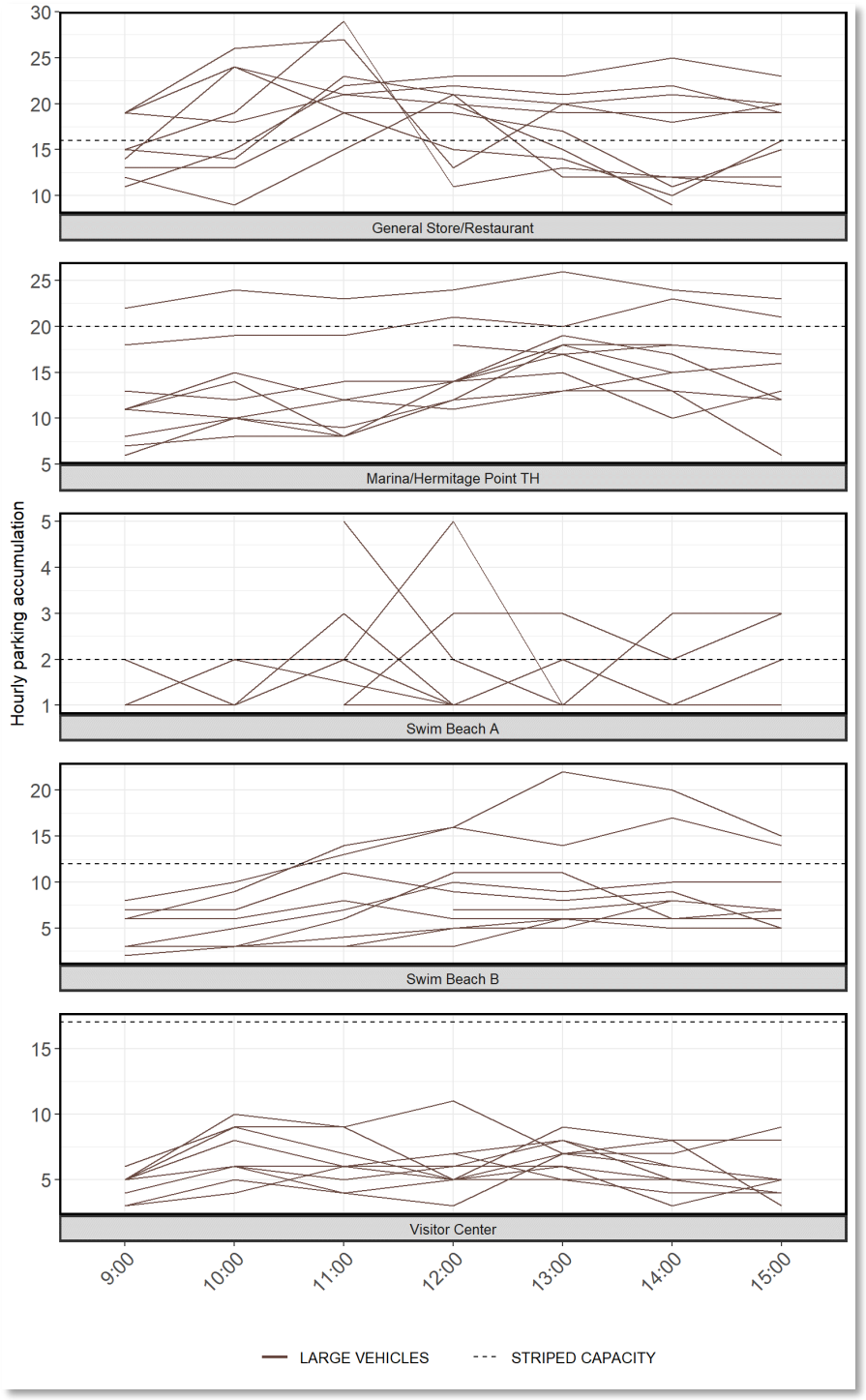


Figure 50. Large vehicle hourly parking accumulation, by parking lot subsection.[7]

[7] Striped capacity represents the number of striped spaces available for large vehicles, regardless of whether the large vehicle was observed in a striped space appropriate for its vehicle size category.

Figure 51 displays the average hourly parking accumulation for the full Colter Bay parking lot by day-of-week category. Figure 52 displays the average hourly parking accumulation for the full Colter Bay parking lot, by vehicle size category.[8] Figure 53 displays the average hourly parking accumulation for specific subsections of the Colter Bay parking lot, by day-of-week category. Figure 54 and Figure 55 display average hourly parking accumulation by vehicle size category (autos and motorcycles and large vehicles, respectively) for specific subsections of the Colter Bay parking lot. The horizontal lines in Figure 51 through Figure 55 represent the designated capacity (i.e., number of striped parking spaces) of each parking area. These data suggest:

- Average hourly parking accumulation at the full Colter Bay parking lot increased during the morning hours and peaked at 12:00 on weekdays and 14:00 on weekend days. On average, over 150 vehicles were parked in the lot at the start of the sampling day and over 300 vehicles were parked in the lot at the end of the sampling day, regardless of day-of-week category. Average hourly parking accumulation was greater throughout the day on weekend days than on weekdays. On average, the designated capacity was never exceeded on weekdays or weekend days, and in fact, parking accumulation peaked with approximately 125-200 parking spaces still available, depending on the day-of-week category.

- On average, the designated capacity across all parking lot subsections was never exceeded on weekdays. Swim Beach A was the only subsection where average hourly parking accumulation exceeded the designated capacity on weekend days at 15:00. Average parking accumulation at the Marina/Hermitage Point TH subsection approached the designated capacity at 13:00 on weekend days but did not exceed the designated capacity at any time.

- In the full Colter Bay parking lot, average hourly parking accumulation by vehicle size category did not exceed the vehicle size category designated capacities.

- Average hourly parking accumulation at the Swim Beach A and Swim Beach B subsections increased throughout the sampling day and was highest at the end of the sampling day (15:00) on both weekdays and weekend days. At the General Store/Restaurant, Marina/Hermitage Point TH, and the Visitor Center subsections the average hourly parking accumulation increased in the morning and reached a plateau through the midday and afternoon.

- In general, average parking accumulation during weekend days was higher than average parking accumulation on weekdays throughout the day for all parking lot subsections except the Visitor Center subsection. Average parking accumulation at the Visitor Center subsection was slightly higher during weekdays throughout the day, but similar to average parking accumulation on weekend days.

[8] Vehicle size is categorized by “autos and motorcycles” and “large vehicles” (i.e., RV/camper, trailer, vehicle with trailer, tour bus, and other)

- The average hourly parking accumulation of autos and motorcycles observed at all parking lot subsections did not exceed the designated subsection capacities for this vehicle size category.
- Average hourly parking accumulation of large vehicles at the General Store/Restaurant and the Swim Beach A parking lot subsections was at or exceeded the designated capacities for this vehicle size category for most of the day. Meanwhile, average hourly parking accumulation of large vehicles at the Marina/Hermitage Point TH, Swim Beach B and Visitor Center parking lot subsections did not exceed the designated subsection capacities for this vehicle size category.

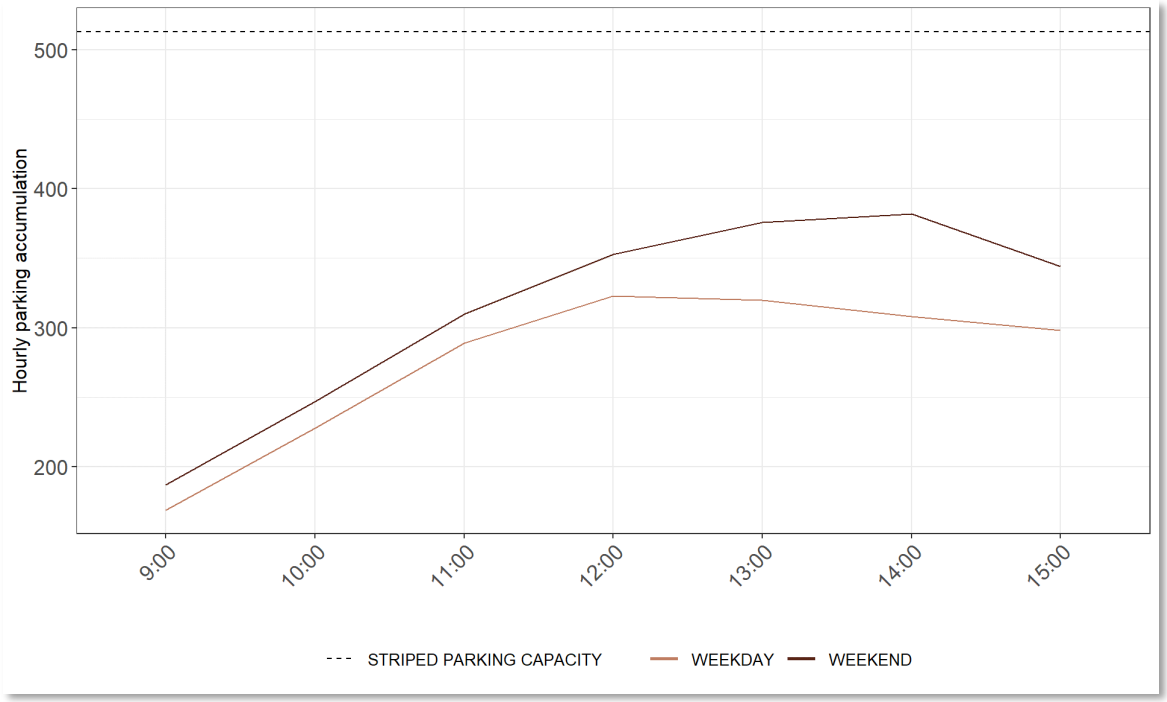


Figure 51. Mean hourly parking accumulation for the full Colter Bay parking lot, by day-of-week category.

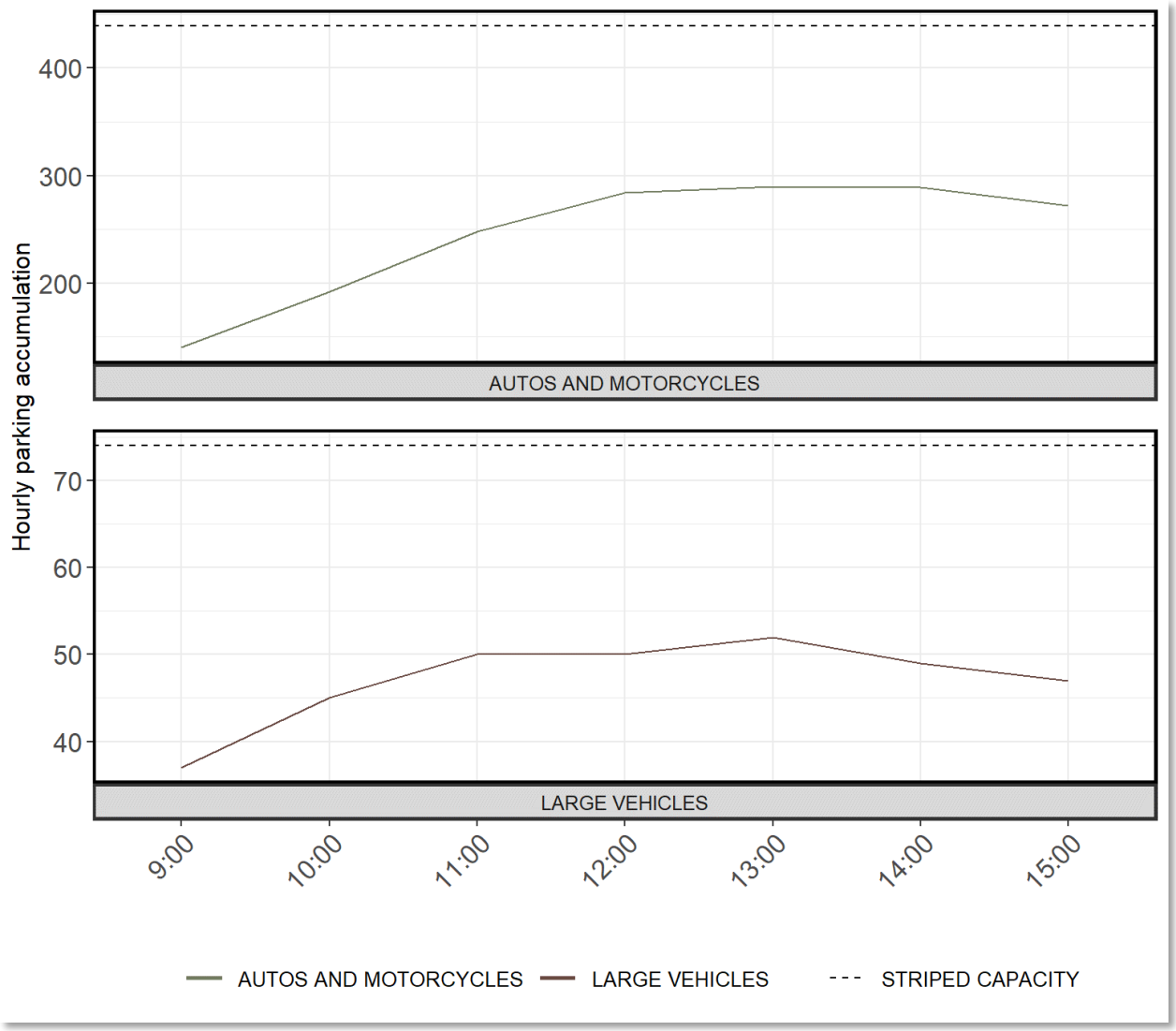


Figure 52. Mean hourly parking accumulation for the full Colter Bay parking lot, by vehicle size category.[9]

[9] Striped capacity represents the number of striped spaces available for each vehicle size category ("autos and motorcycles" and "large vehicles"), regardless of whether the vehicle was observed in a striped space appropriate for its vehicle size category.

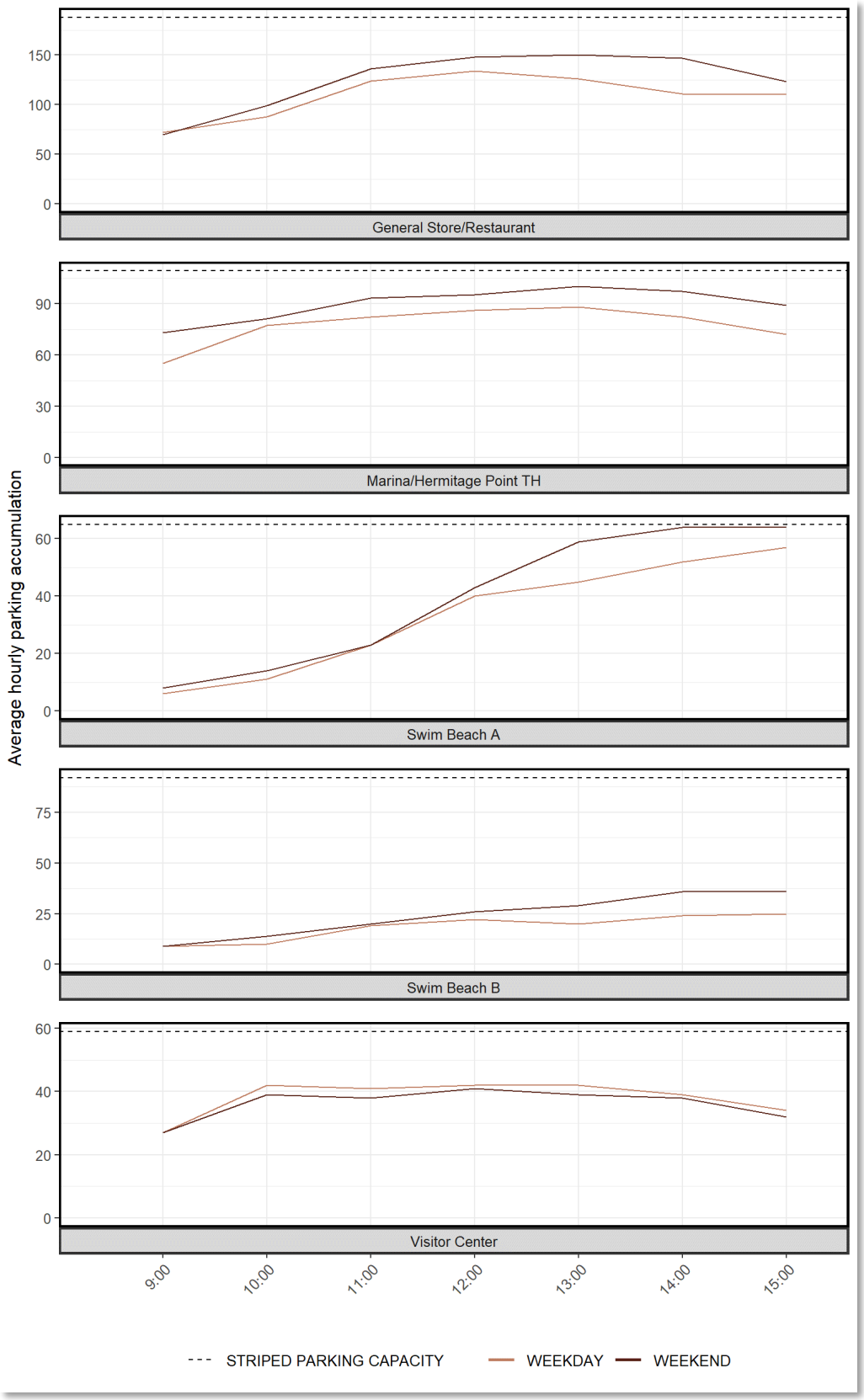


Figure 53. Mean hourly parking accumulation, by parking lot subsection and day-of-week category.

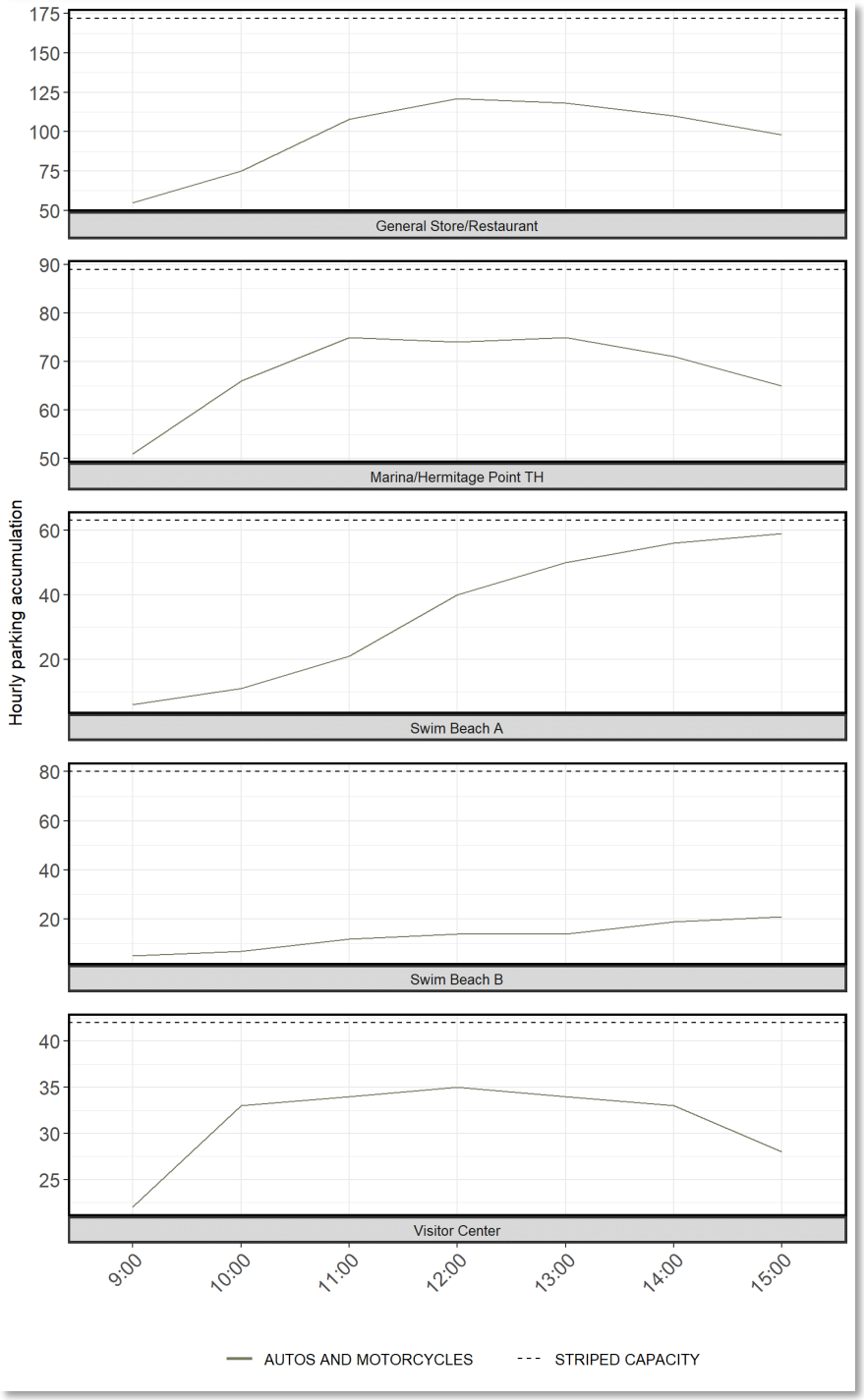


Figure 54. Mean auto and motorcycle hourly parking accumulation, by parking lot subsection.[10]

[10] Striped capacity represents the number of striped spaces available for autos and motorcycles, regardless of whether the auto or motorcycle was observed in a striped space appropriate for its vehicle size category.

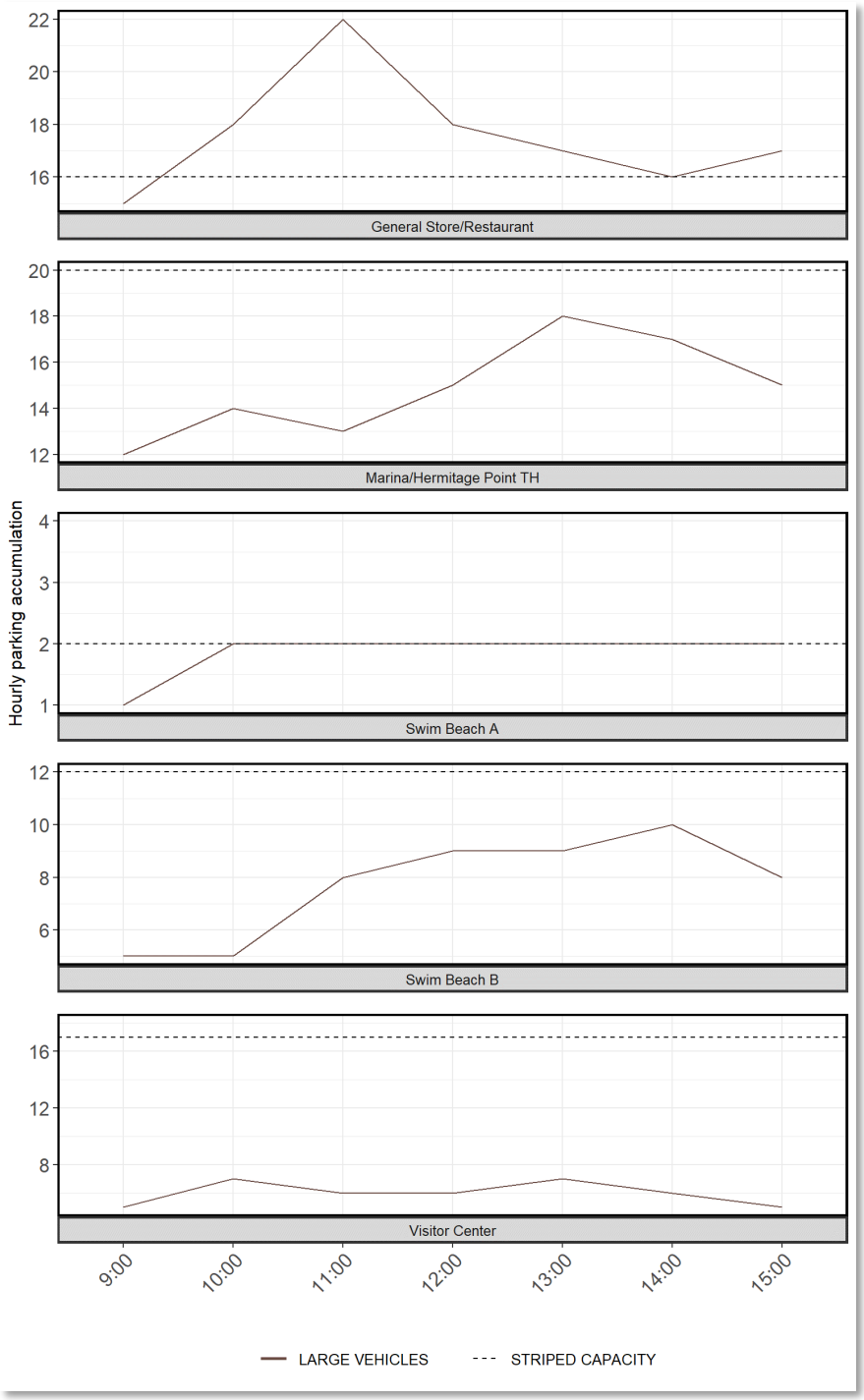


Figure 55. Mean large vehicle hourly parking accumulation, by parking lot subsection.[11]

[11] Striped capacity represents the number of striped spaces available for large vehicles, regardless of whether the large vehicle was observed in a striped space appropriate for its vehicle size category.

Figure 56 displays the overall average parking accumulation for specific subsections of the Colter Bay parking lot, by day-of-week category, regardless of the specific hour of the day, along with the peak hourly accumulation, regardless of day-of-week category. These data suggest:

- On average, hourly parking accumulation was higher on weekend days than on weekdays for all parking lot subsections except the Visitor Center. At the Visitor Center subsection, hourly parking accumulation was slightly lower on weekend days but similar to hourly parking accumulation on weekdays.
- Peak hourly parking accumulation was always higher than average hourly parking accumulation on weekend days for all parking lot subsections, with differences ranging from 10-48 vehicles.
- At the Swim Beach B subsection, peak hourly parking accumulation was more than double the average hourly parking accumulation on weekend days. At the Swim Beach A subsection, peak hourly parking accumulation was almost double the average parking accumulation on weekend days.

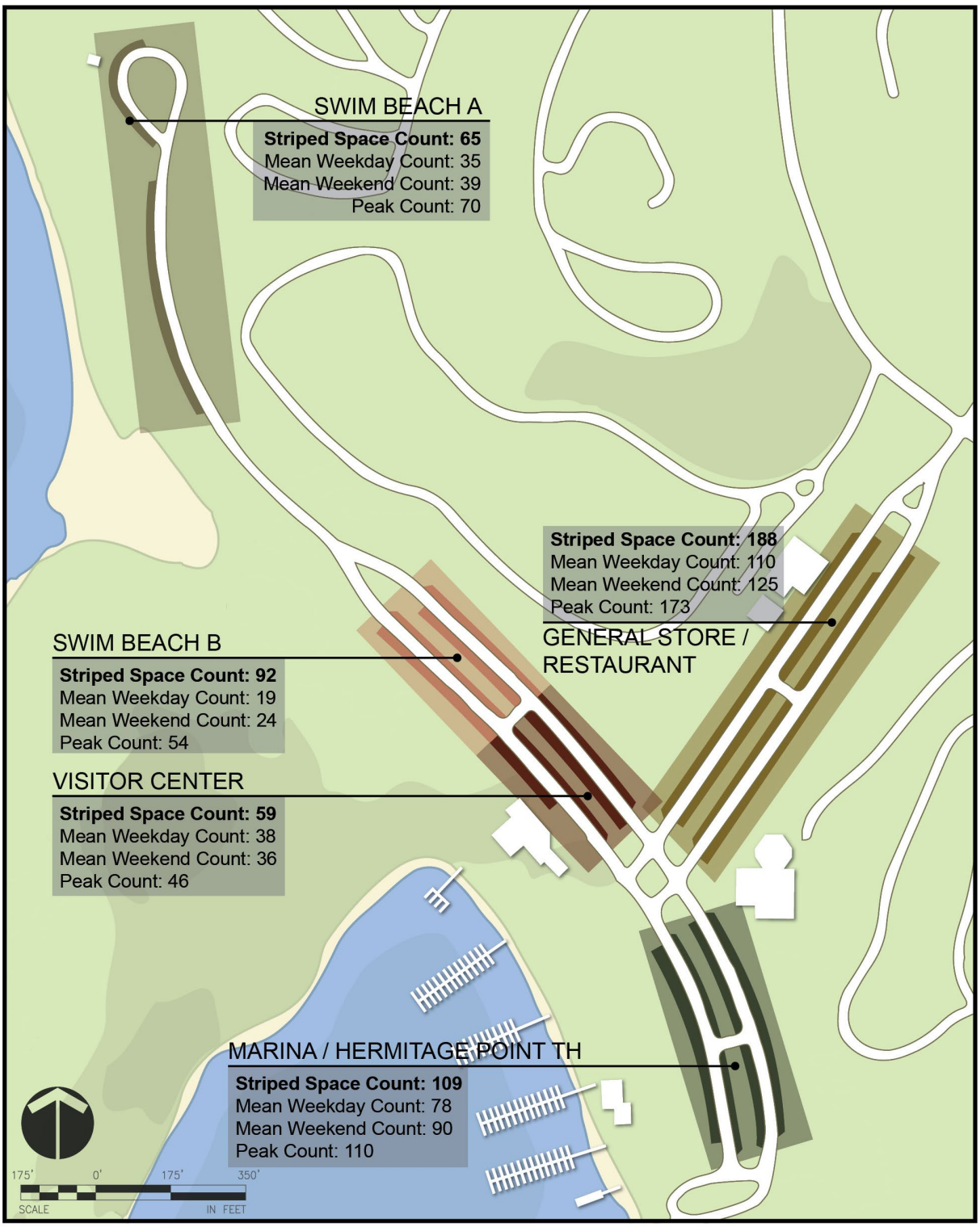


Figure 56. Mean parking accumulation by day-of-week category and peak hourly count, by parking lot subsection.

Figure 57 displays the average proportion of designated parking spaces that were occupied each hour for the full Colter Bay parking lot and for specific subsections of the Colter Bay parking lot, regardless of day-of-week category. These data suggest:

- At the full Colter Bay parking lot, the average proportion of occupied designated spaces increased through the morning, reaching peak average occupancy (67%) at 13:00. These results suggest that overall, approximately 33% or more of designated parking spaces were available throughout the sampling day.

- At the Swim Beach A subsection, the average proportion of occupied designated parking spaces increased substantially throughout the sampling day, reaching peak average occupancy (95%) by the end of the sampling day (15:00). Swim Beach A had the highest average proportion of occupied parking spaces (95%) out of all subsections. Three subsections had similarly high average proportions of occupied designated spaces throughout the sampling day: the Visitor Center (69% at 12:00), General Store/Restaurant (74% at 12:00), and Marina/Hermitage Point TH (85% at 13:00).

- At the Swim Beach B subsection, the average proportion of occupied designated parking spaces increased slightly throughout the sampling day, reaching peak average occupancy (33%) by the end of the sampling day (15:00).

- Across all parking lot subsections, the peak average proportion of occupied designated spaces ranged from 33% to 95%, indicating some degree of parking was always available at each subsection lot throughout the sampling day.

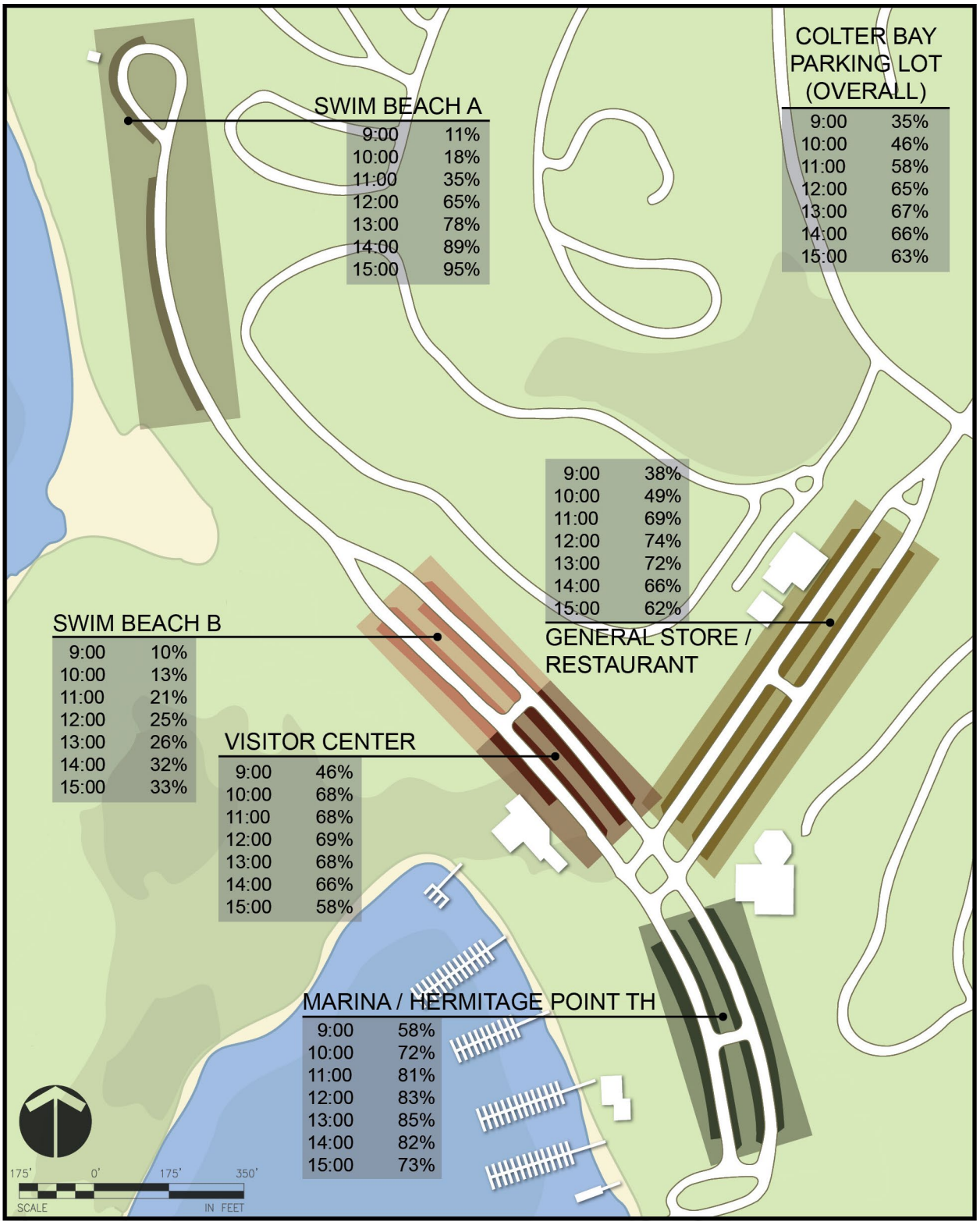


Figure 57. Mean proportion of parking lot that was occupied each hour, overall and by parking lot subsection.

Parking Duration

Figure 58 and Figure 59 display turnover rates (i.e., the duration of time vehicles were parked in the lot) estimated in hourly bins, with a minimum duration of one hour or less, by day-of-week category (weekdays and weekend day). Figure 58 displays turnover rates for the full Colter Bay parking lot, while Figure 59 displays turnover rates for specific subsections of the Colter Bay parking lot. These data suggest:

- On average during weekdays, vehicles were parked in the full Colter Bay parking lot for 1.75 hours. On weekend days, the average parking duration increased slightly to 2 hours. The majority (65% on weekdays and 59% on weekend days) of vehicles parked for one hour or less in the Colter Bay parking lot. A slightly higher percentage of vehicles parked for three hours or more on weekend days (14%), compared to weekdays (9%).

- Across all parking lot subsections, durations of stay of one hour or less were the most common. The majority of vehicles were parked for one hour or less at the General Store/ Restaurant, Swim Beach A, and the Visitor Center subsections on weekdays and weekend days (55% - 76%). At the Swim Beach B subsection, a majority (56%) of vehicles were parked for one hour or less on weekdays, while a plurality (46%) of vehicles were parked for one hour or less on weekend days. A plurality of vehicles were parked for one hour or less at the Marina/Hermitage Point TH subsection on weekdays (39%) and weekend days (33%).

- Across all parking lot subsections except the Marina/Hermitage Point TH subsection, parking durations dropped off substantially with each increasing hour. The Marina/Hermitage Point TH subsection had a higher proportion of vehicles parked for longer durations, with 18% of vehicles parked for three hours or more on weekdays, and 29% of vehicles parked for three hours or more on weekend days.

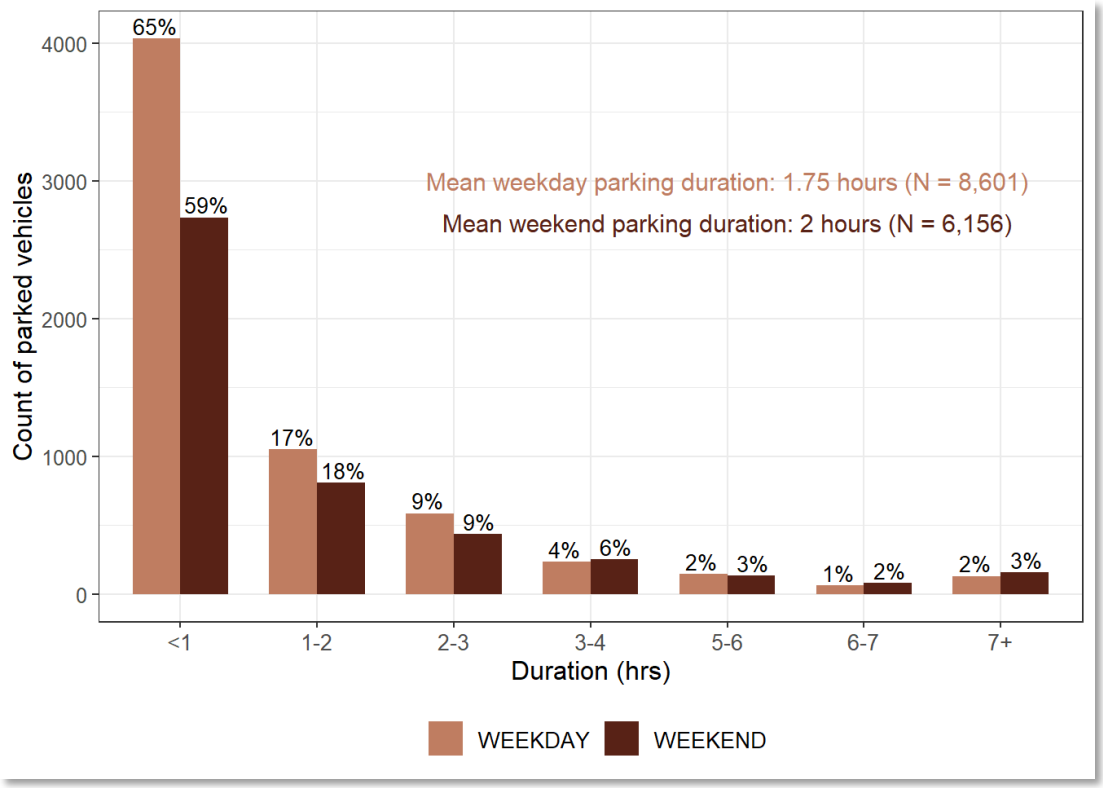


Figure 58. Average and frequency distribution of parking duration for the full Colter Bay parking lot, by day-of-week category.[12]

[12] Average values were rounded to the nearest quarter hour.

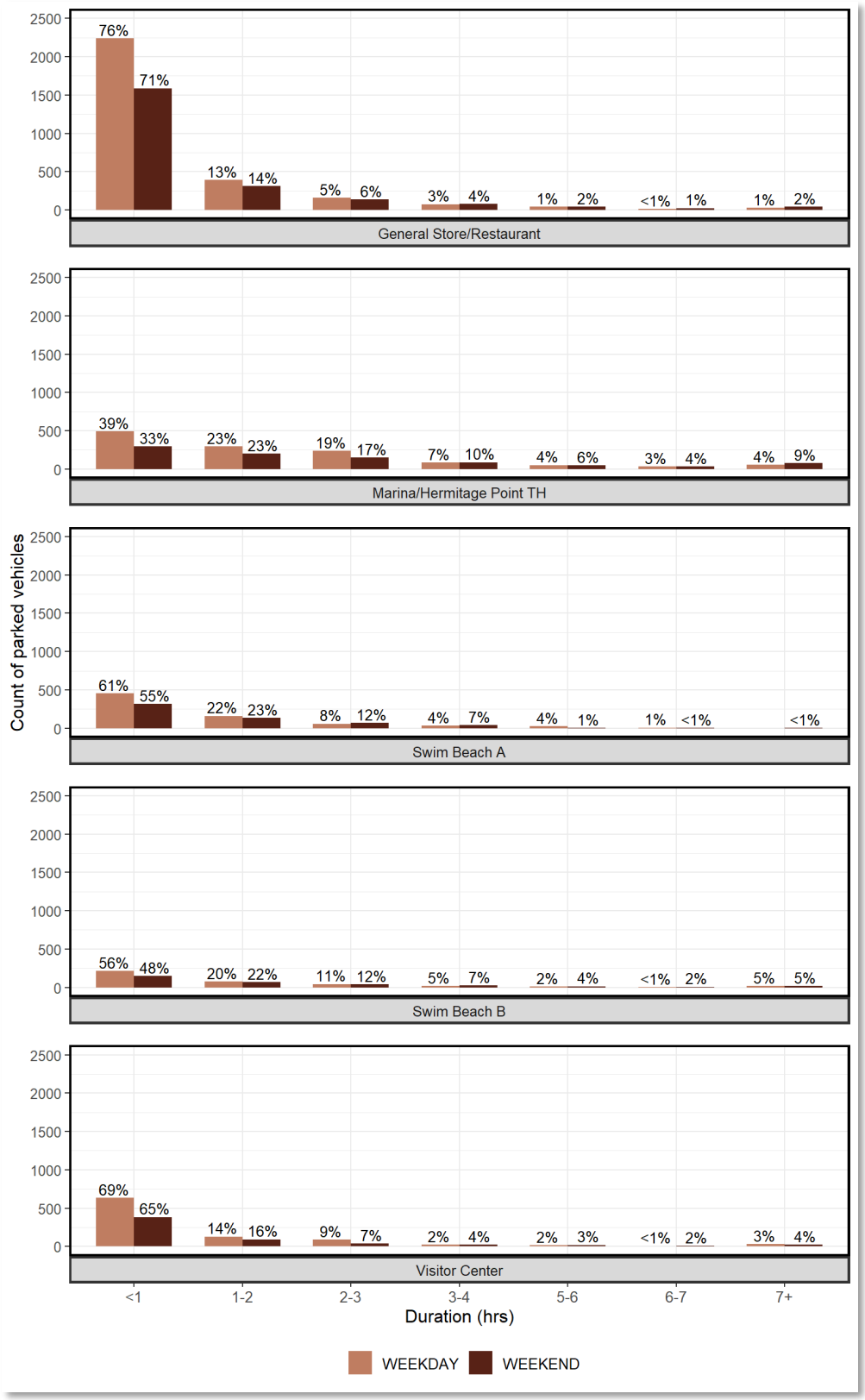


Figure 59. Frequency distribution of parking duration, by parking lot subsection and day-of-week category.

Figure 60 displays the mean parking duration for specific subsections of the Colter Bay parking lot by day-of-week category (weekday and weekend day). These data suggest:

- Average parking duration was similar on weekdays and weekend days at the Swim Beach A (1.75 hours), the General Store/Restaurant (1.5 hours), and the Visitor Center subsections (1.75 hours).
- Average parking duration was slightly higher on weekend days compared to weekdays at the Swim Beach B subsection (2.25 hours on weekend days compared to 2 hours on weekdays) and the Marina/Hermitage Point TH subsection (2.75 hours on weekend days compared to 2.5 hours on weekdays).
- Across all parking lot subsections, average parking duration was highest at the Marina/Hermitage Point TH subsection on weekdays (2.5 hours) and on weekend days (2.75 hours).
- Across all parking lot subsections, average parking duration was lowest the General Store/Restaurant subsection (1.5 hours), regardless of day-of-week category.

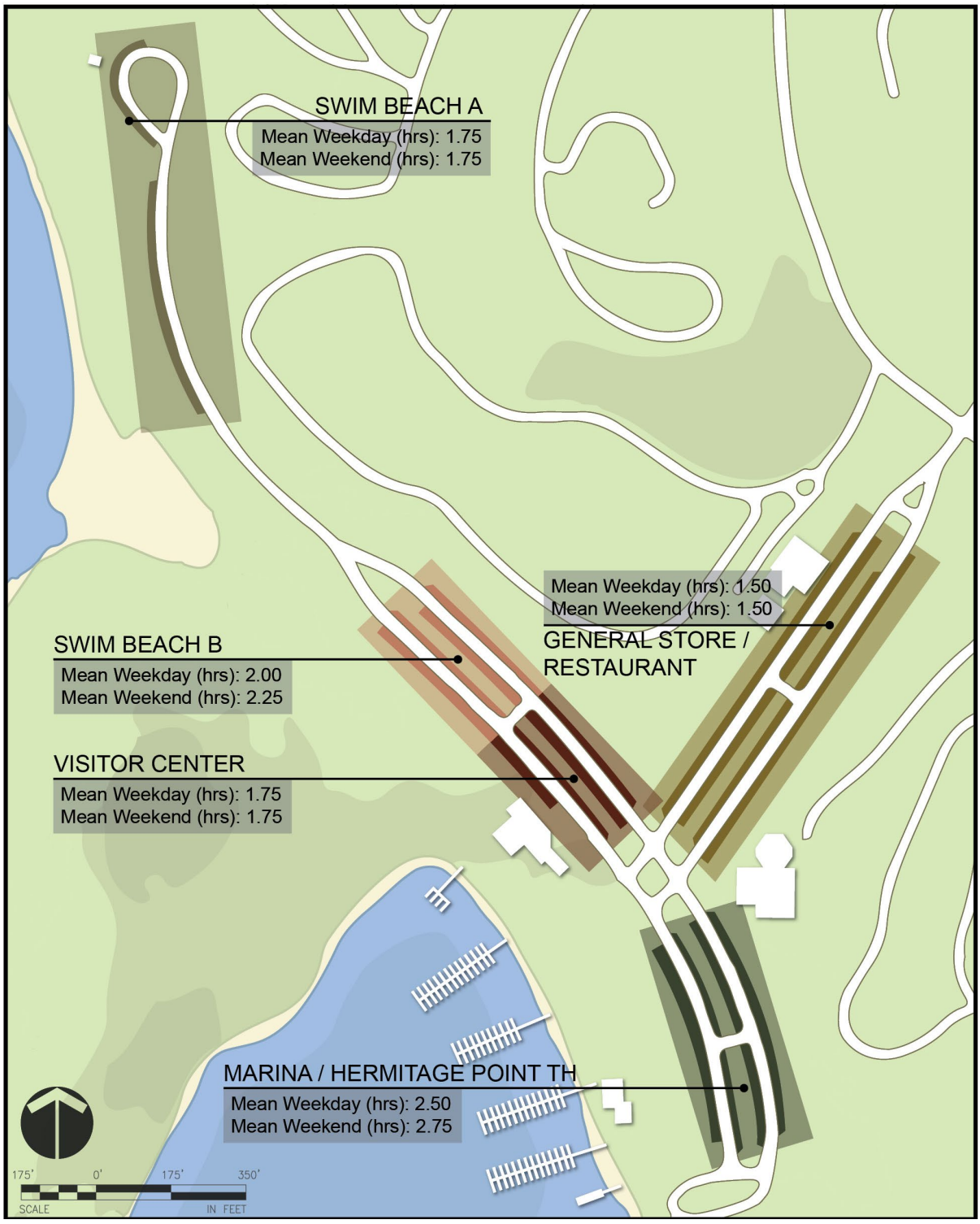


Figure 60. Mean parking duration, by parking lot subsection and day-of-week category.[13]

[13] Average values were rounded to the nearest quarter hour.

Figure 61 displays the mean parking duration for specific subsections of the Colter Bay parking lot by vehicle type, categorized as "auto" which includes all personal vehicles, and "other" which includes motorcycles, RVs/campers, trailers, tour buses, and vehicles with trailers. These data suggest:

- Across all parking lot subsections and vehicle types, average parking durations ranged from approximately 1.5 hours to 3.2 hours.
- Average parking duration for auto vehicles ranged from approximately 1.5 hours to approximately 2.5 hours and was highest at the Marina/Hermitage Point TH subsection.
- Average parking duration for other vehicles ranged from approximately 1.5 hours to approximately 3.2 hours and was highest at the Swim Beach B subsection. average parking duration for other vehicles was similarly high at the Marina/Hermitage Point TH subsection (3 hours).
- Swim Beach A was the only subsection where average parking duration for auto vehicles was slightly higher (approximately 1.8 hours) than average parking duration for other vehicle types (approximately 1.5 hours).

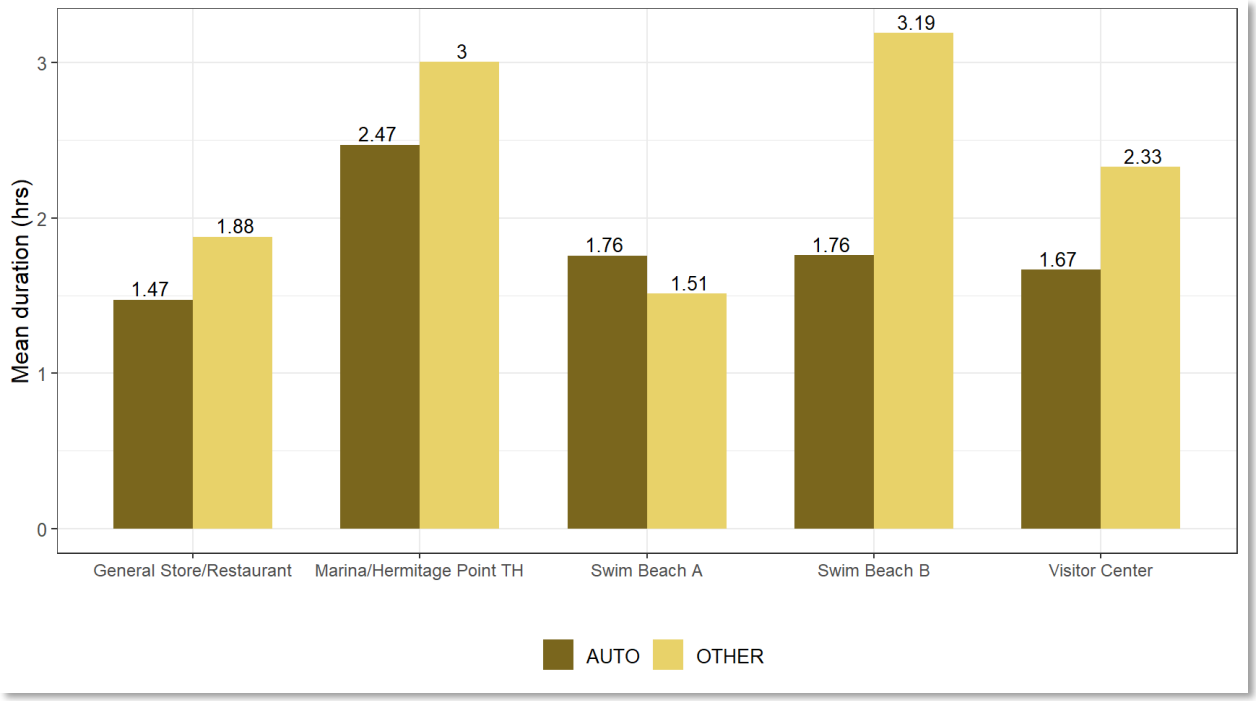


Figure 61. Mean parking duration, by parking lot subsection and vehicle type.

Vehicle Type

Figure 62 displays the frequency distribution of vehicle types observed in the full Colter Bay parking lot by sampling date. Vehicles were categorized as "auto," which includes all personal vehicles,

"motorcycles", "RV/camper", "tour bus", "trailer", and "vehicle with trailer." Figure 63 displays the frequency distribution of vehicle types observed at specific subsections of the Colter Bay parking lot by sampling date. These data suggest:

- The majority (83%-87%) of vehicles across all days in the full Colter Bay parking lot were categorized as "auto." All other vehicle types represented less than 20% of the remaining observations each sampling day.
- Tour bus vehicles were the least represented (<1%) in the full Colter Bay parking lot across all sampling days.
- The majority (61%-100%) of vehicles across all parking lot subsections and sampling days were categorized as "auto."
- A greater variety of vehicle types was observed at most parking lot subsections and across sampling days, with the exception of the Swim Beach A subsection. Specifically, Swim Beach B had the lowest percent of "auto" vehicles observed each day during the sampling period compared to other subsections. In contrast at Swim Beach A, the vast majority (93%-100%) of vehicles observed each sampling day were categorized as "auto."
- Across all parking lot subsections, tour buses were more common at the Visitor Center during the sampling period and were observed on seven sampling days, but only represented 2% or less of the total vehicles on those days.

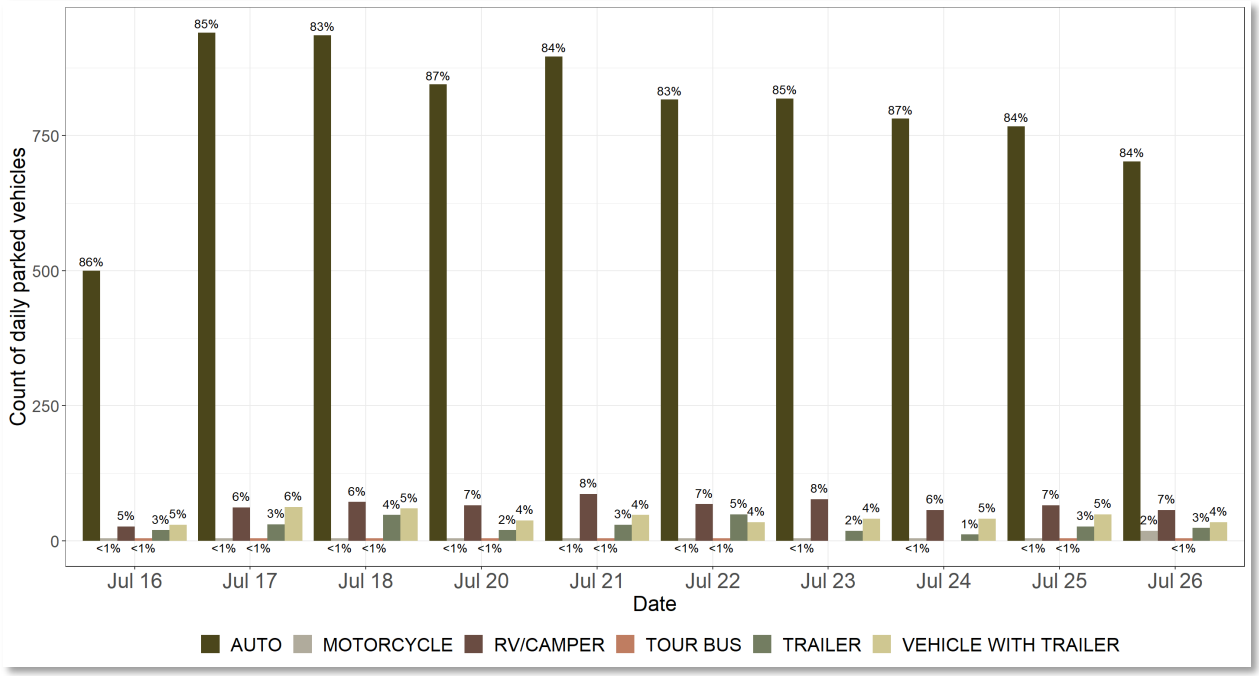


Figure 62. Frequency distribution of vehicle type for the full Colter Bay parking lot by sampling date.

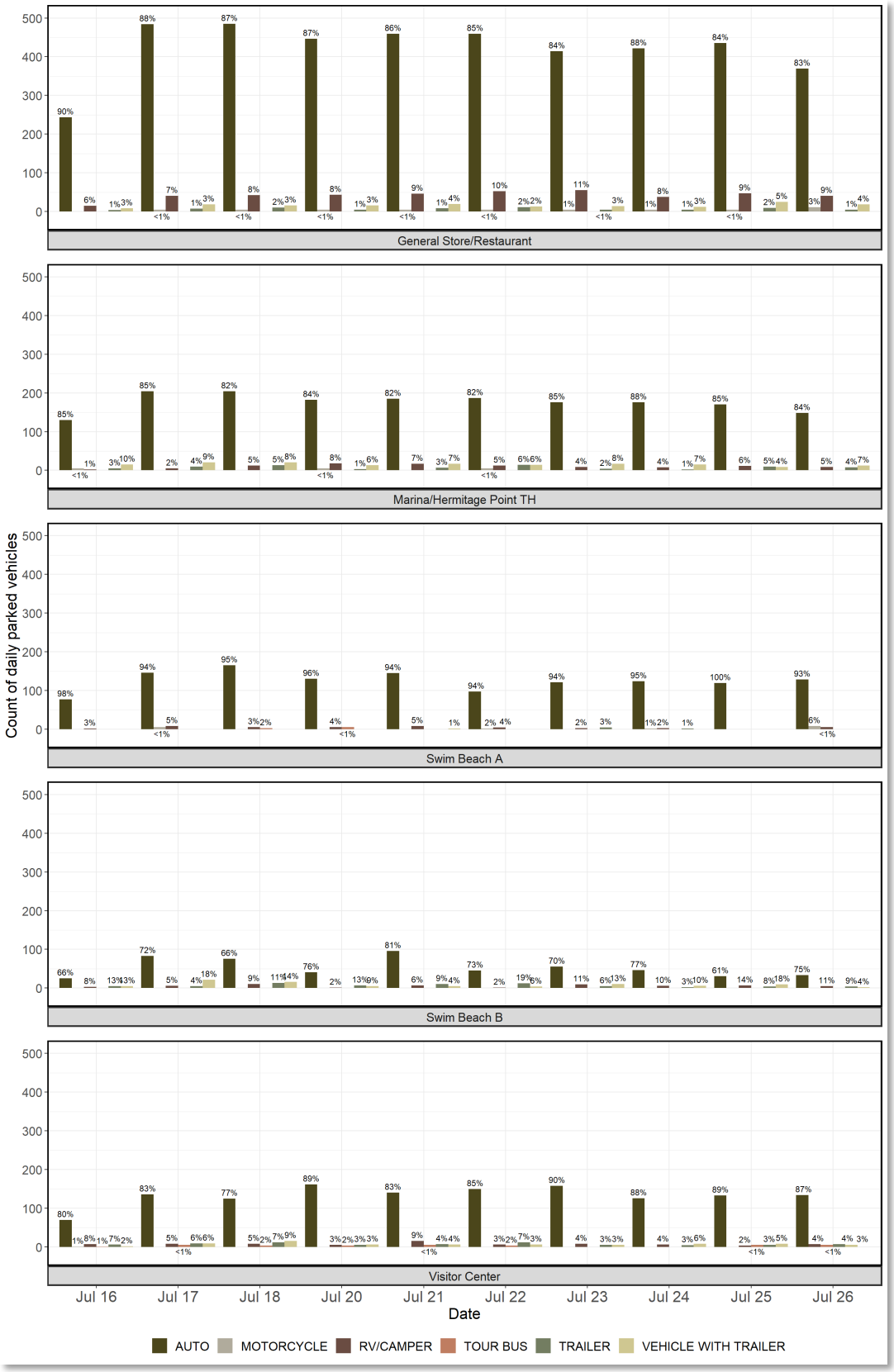


Figure 63. Frequency distribution of vehicle type by sampling date and parking lot subsection.

Discussion and Conclusions

Visitor Survey

Colter Bay is home to a wide array of activities, experiences, and unique amenities. Most findings from the 2021 Visitor Survey show that visitors are generally very satisfied with Colter Bay, but some minor improvements could benefit the site into the future. Visitors to Colter Bay are diverse, with a varied mix of overnight and day users. Visitors were surveyed from almost every state in the country, but international visitors are underrepresented due to COVID-19. Typically, GRTE would expect to host visitors from a variety of international destinations but travel restrictions and hesitancy have limited those potential users. Colter Bay, specifically, is positioned well to capture visitors as they arrive from YELL, representing a first location in the park for many GRTE visitors.

The demographic profile of Colter Bay visitors is comparable to other large natural park studies, with visitors averaging about 45 years old, with ages distributed across the spectrum. Group size varied, with most visitors traveling with 2-4 people, but nearly a quarter indicating at least 6 people in their group. This finding suggests an increase in larger groups traveling to Colter Bay. With larger group sizes, visitors may expect more group camp sites and/or have unique needs when it comes to activity participation. Most visitors were spending the night somewhere in the area, which is not surprising given the travel distances in the greater Teton region and the wide range of geographic origins represented. Further, it's clear that GRTE represents one of many destinations for most visitors, highlighting the regional nature of travel between YELL and GRTE. However, many overnight visitors were staying directly in Colter Bay. Overnight visitors staying within Colter Bay participated in a much wider variety of activities in Colter Bay than day visitors or overnight visitors staying in other locations.

Activity participation is very widespread in nature within Colter Bay. The types of activities participated in can range from boating to hiking to stargazing and are correlated to a given visitor's primary location for the day. Colter Bay's physical setup allows for visitors to participate in multiple activities during their stay; hiking/waking is a popular activity for many. Sites within Colter Bay lend themselves to a particular type of activity and the results of this study match up well with expectations of use. For park managers, it's important to recognize the differences in activity participation across Colter Bay. The marina and trailhead / boat launch areas represent very different users than both the Visitor Center and swim beach. The major activities of hiking, photography, and wildlife watching are popular across Colter Bay, but specialized uses such as motorboating, swimming, and picnicking are much more localized to visitors intercepted at specific sites.

Overall, ratings of the services and facilities are high. Of visitors who used facilities/services, no quality ratings dropped below an average of 4.0 out of 5.0, indicating very positive sentiment. Even between survey sites and visitor types, the perceived quality doesn't waver. High levels of perceived quality should be a welcome result to park staff, especially if concerns have existed around the topic at Colter Bay. Ranger-led programs, more trails, and additional trail signage were a few of the amenities and services for which visitors asked for more options. Keeping levels of available services

at current levels was desired by most respondents. From the open-ended comments, mostly minor improvements were suggested.

Regarding specific issues within Colter Bay, visitors don't appear to have major concerns about any particular challenge. The only problem that had much variation was crowding or "too many people". Even then, this was seen as only a small problem by visitors. Colter Bay can get busy during peak times, especially on weekends. Swim Beach can be swamped with users during warm afternoons. However, visitors did not seem overly bothered by this.

Finally, park staff may want to consider how best to move forward with some of the still hypothetical, alternative service options. Visitors were mostly split on whether they would or would not use them. Bike rentals look to be a viable option within the site. On average, visitors were moderately likely to use some of the services; however, the transit bus was the least likely to be considered. Visitors are quite tied to their personal vehicles in Colter Bay, as it's challenging to travel outside of the site to other areas of the park without a vehicle.

In summary, Colter Bay is many things to many people. It is likely the first stop for many on their way from YELL to GRTE, the first point of contact for most. Locals/day visitors use it for hiking, sightseeing, and boating. The Colter Bay campground houses a large volume of visitors looking to swim in the afternoons and try most of the activities across the site. The marina area provides visitors with many options to see Jackson Lake. Park staff should consider these various uses and how they interact together. Visitors are quite satisfied but adding more ranger interactions (programs and informal activities), signage, and support for trail use may be beneficial given visitor perceptions.

Parking Lot Accumulation, Turnover, and Vehicle Type

Throughout the sampling period, the designated capacity (513 striped parking spaces) of the full Colter Bay parking lot was never exceeded, and in fact, average hourly parking accumulation peaked at approximately 325 vehicles on weekdays and 380 vehicles on weekend days. These results suggest that on average, ample parking is available on weekdays and weekend days in the full Colter Bay parking lot. In contrast, the designated capacity at the Swim Beach A subsection was exceeded on multiple weekdays and weekend days during the sampling period, starting as early as 13:00 and continuing to increase through the end of most sampling days (15:00). These results suggest that while the full Colter Bay parking lot's capacity supports current parking demand for the Colter Bay area, demand for parking at Swim Beach is high and may exceed the subsection's capacity and potentially push visitors to park elsewhere in the Colter Bay parking lot (likely in the Swim Beach B subsection) to access Swim Beach.

Across the full Colter Bay parking lot, vehicles were parked on average for slightly less than two hours (1.75) on weekdays and for approximately 2 hours on weekend days. Across most parking lot subsections, vehicles were parked for one hour or less on weekdays and weekend days, with the exception of the Marina/Hermitage Point Trailhead where a higher proportion of vehicles were parked for a longer duration of three hours or more. These results suggest that most visitors tend not to dwell in the full Colter Bay parking lot for long periods of time.

The most common vehicle type observed in the full Colter Bay parking lot and each subsection, by far, was “auto,” which includes all personal vehicles. All other vehicles types combined represented less than 20% of the vehicles observed each sampling day. The majority of striped parking spaces are in fact designated for “autos,” which is consistent with the predominance of “auto” vehicle types observed during the sampling period.

Overall, the full Colter Bay parking lot has ample capacity to accommodate the current demand for parking, by vehicle type, given the prevalence for short parking durations in the area. However, parking demand varied by subsection and was high at Swim Beach A compared to the capacity in this parking lot subsection.

Appendix 1. Visitor Survey Instrument

OMB Control Number: 1024-0224
Expiration Date: XX/XX/20XX

Colter Bay Visitor Use & Experience Survey

The focus of this study is to better understand visitor flow and use, as well as the activities, services, and opportunities visitors are seeking and doing within the **Colter Bay Area**, which is this area (*please see surveyor's map if needed*) of Grand Teton National Park.

Your participation in the study is voluntary. There are no penalties for not answering some or all questions, however because each participant will represent many others who will not be included in the study, your input is extremely important. The answers you provide will remain anonymous. The results will be summarized so that the answers you provide cannot be associated with you or anyone in your group or household.

Grand Teton National Park thanks you for your assistance.

PAPERWORK REDUCTION ACT STATEMENT: The National Park Service is authorized by the NPS Research Mandate (54 USC 100702) to collect this information. This information will be used by park managers to understand existing social conditions, visitor experiences, and visitor perspectives about Colter Bay area of Grand Teton National Park. Response to this request is voluntary. No action may be taken against you for refusing to supply the information requested. The permanent data will be anonymous. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

BURDEN ESTIMATE Public reporting burden for this form is estimated to average 10 minutes per response. Please direct comments regarding the burden estimate or any other aspect of this form to: Jennifer N. Newton, Science and Resource Management, Grand Teton National Park, Jennifer_newton@nps.gov (email); or Phadrea Ponds, NPS Information Collection Clearance Officer, Fort Collins, CO; phadrea_ponds@nps.gov (email).

[FOR SURVEYOR USE ONLY] What is the name of the location you are currently surveying?

- ☐ Visitor Center / Amphitheater
- ☐ Swim Beach
- ☐ Trailhead
- ☐ Campground
- ☐ Marina / Boat Launch

1. For ***today only***, please indicate whether or not you and your personal group visited each of the following locations at Colter Bay. (Please select an answer for each location listed. Use the laminated map of the area to help you identify locations).

	Visited	Did not visit	Not sure
Colter Bay campgrounds	☐	☐	☐
Colter Bay Visitor Center	☐	☐	☐
David T. Vernon Indian artifacts collection	☐	☐	☐
Amphitheater	☐	☐	☐
Hermitage Point trail system	☐	☐	☐
Lakeshore trail	☐	☐	☐
Swim Beach	☐	☐	☐
Swim Beach picnic area	☐	☐	☐
Marina	☐	☐	☐
Boat Launch	☐	☐	☐
Colter Bay General Store	☐	☐	☐
Restaurants	☐	☐	☐
Gas Station	☐	☐	☐
Laundry facilities	☐	☐	☐
Shower facilities	☐	☐	☐
Other location(s): _____			

2. Please list the order in which you visited the above locations in Colter Bay today.
   (Pipe in only those locations that they marked as "visited")

3. Which of these locations was your primary destination for today?
   (Pipe in only those locations that they marked as "visited")

4. When did you make the decision to visit Colter Bay?

- ☐ On the same day of the visit
- ☐ A week before the visit
- ☐ 1 month before the visit
- ☐ 2-6 months before the visit
- ☐ More than 6 months but less than a year before the visit
- ☐ A year or more before the visit
- ☐ This is an unplanned visit
- ☐ Don't Know/can't recall
- ☐ Other:_____

5. On this trip, are you a first-time visitor to any National Park?
   - ☐ YES
   - ☐ NO
     - ➢ Are you a first-time visitor to Grand Teton National Park?
       - ☐ YES
       - ☐ NO
         - ➢ In which year did you make your first visit to Grand Teton National Park? ___ Year
         - ➢ Are you a first-time visitor to Colter Bay?
           - ☐ YES
           - ☐ NO
             - ➢ In which year did you make your first visit to Colter Bay? _____ Year
           - ☐ Unsure

6. How does your visit to Grand Teton National Park fit into your travel plans?
   - ☐ Grand Teton National Park is my primary destination on this trip
   - ☐ Grand Teton National Park is one of several destinations, including Yellowstone National Park
   - ☐ Grand Teton National Park is one of several destinations, excluding Yellowstone National Park
   - ☐ I am passing through the park on the way to my primary destination
   - ☐ I did not plan to visit this park

7. On this trip to Grand Teton National Park and the nearby area, have you, or will you, stay overnight away from your **permanent residence** either inside Grand Teton or within the nearby area (within the highlighted area on the map)?
   - ☐ NO
   - ☐ YES
     - ➢ Please select the type(s) of accommodation you have stayed in or will stay in within Grand Teton and/or the nearby area (within the highlighted area on the map) on this trip:

       - ☐ Backcountry camping in Grand Teton National Park
       - ☐ Camping in Grand Teton National Park in Colter Bay
       - ☐ Camping in Grand Teton National Park at another campground
       - ☐ Camping outside Grand Teton National Park within the Bridger Teton National Forest
       - ☐ Camping outside Grand Teton National Park and outside the Bridger Teton National Forest
       - ☐ Lodging in Grand Teton National Park in Colter Bay
       - ☐ Lodging in Grand Teton National Park at a different location
       - ☐ Lodging outside Grand Teton National Park
       - ☐ Other accommodations (e.g., seasonal residence, friends/relatives): _____

     - ➢ Please list the number of nights you spent or will spend in [lodging type] *(asks question for each accommodation type selected above)*

8. If you did not stay in lodges or campgrounds in Colter Bay, why not? (*Please select all that apply)*
   - ☐ Costs were too high
   - ☐ Facilities lacked desired amenities
   - ☐ Location not convenient
   - ☐ The campground was full upon arrival
   - ☐ Not able to make a reservation since the campground only offers first come first serve
   - ☐ Lacked desired facilities

☐ Other (Please specify) _____

9. If the campgrounds lacked desired camp site types or facilities/amenities, what is it that you [and your personal group] needed that was not available? Please be specific.

_____

_____

10. When planning your current trip, how important was the availability of each of the following amenities in your decision to visit Colter Bay?

Availability of…	Unimportant	Of little importance	Moderately Important	Important	Very Important
Equipment rentals	1	2	3	4	5
Hiking trails	1	2	3	4	5
Wi-Fi connections	1	2	3	4	5
Lodging at Colter Bay	1	2	3	4	5
Camping at Colter Bay	1	2	3	4	5
Picnic Areas	1	2	3	4	5
Restaurants	1	2	3	4	5
Non-grocery shopping opportunities	1	2	3	4	5
Grocery shopping opportunities	1	2	3	4	5
Laundry facilities	1	2	3	4	5
Shower facilities	1	2	3	4	5
The Colter Bay Visitor Center	1	2	3	4	5
David T. Vernon Indian artifacts collection	1	2	3	4	5
Swimming opportunities	1	2	3	4	5
Beach area	1	2	3	4	5
Accessible activities	1	2	3	4	5
Non-motorized boating opportunities	1	2	3	4	5
Motorized boating opportunities	1	2	3	4	5
Other: _____	1	2	3	4	5

11. Compared with what you had planned, how much time did you [and your personal group] spend visiting Colter Bay?
    - ☐ Didn't have a planned amount of time
    - ☐ Spent longer time than planned
    - ☐ Spent about the time planned
    - ☐ Spent less time than planned

12. If you [and your personal group] stayed for a shorter or longer time than planned, what were your reasons for changing your plans? *(Please select all that apply)*
    - ☐ Fewer things to do/see than expected
    - ☐ More things to do/see than expected
    - ☐ Other (Please specify) _____

13. Before this visit to Colter Bay, which activities did you plan to do during your visit in Colter Bay, and which did you actually (or will you actually) participate in once you arrived? (*Please select **ALL** that apply. If you both planned to and participated in an activity, please check both columns.*)

Planned to participate in at Colter Bay	Actually participated in at Colter Bay	
☐	☐	Hiking/Walking
☐	☐	Night Hiking/Walking
☐	☐	Scenic Driving
☐	☐	Camping
☐	☐	Ranger Programs
☐	☐	Picnicking
☐	☐	Photography
☐	☐	Wildlife Viewing
☐	☐	Bicycle riding
☐	☐	Non-grocery shopping
☐	☐	Grocery shopping
☐	☐	Eating in a restaurant
☐	☐	Stargazing
☐	☐	Horseback Riding
☐	☐	Canoe/kayaking
☐	☐	Motorized boating
☐	☐	Swimming
☐	☐	Fishing
☐	☐	Visiting a visitor center
☐	☐	Visiting the David T. Vernon Indian artifacts collection
☐	☐	Other _____

14. On this visit, how long have, or will, you [and your personal group] stay at Colter Bay?
    - ☐ Less than 24 hours
        - ➢ Please record the number of hours and minutes you have spent, or will spend, at Colter Bay.
            Hours_____
            Minutes_____
    - ☐ More than 24 hours
        - ➢ Please record the number of days and hours you have spent, or will spend, at Colter Bay.
            Days_____
            Hours_____

15. When you planned this trip to Colter Bay, did you think that it might be difficult to find parking here?
    - ☐ YES
    - ☐ NO
    - ☐ Did not have expectations

16. By what means did you **enter** Colter Bay?

☐ Walking	☐ Motorcycle

☐ Hiking	☐ Personal Vehicle
☐ Bicycle	☐ Personal Recreation Vehicle (RV)
☐ Watercraft	☐ Other (please specify) _____

17. By what means did you travel between different locations **within the Colter Bay area** today? *(Select all that apply)*

☐ Walking	☐ Personal Vehicle	☐ Watercraft
☐ Hiking	☐ Motorcycle	☐ Other (please specify): _____
☐ Bicycle	☐ All-Terrain Vehicle	

18. Did you leave a vehicle at one location to allow you to walk, hike, or bike to other destinations within Colter Bay today?
    - ☐ YES – If yes, where did you park your vehicle? _____
    - ☐ NO

19. How important to you are each of the following reasons for your visit to Colter Bay today?

	Very unimportant	Somewhat Unimportant	Somewhat important	Important	Very Important
Opportunities to Learn (e.g., learning about history, conservation)	1	2	3	4	5
Experiencing Nature (e.g., scenic beauty, natural quiet)	1	2	3	4	5
Wildlife Viewing (e.g., viewing wildlife in nature)	1	2	3	4	5
Resting and Relaxation (e.g., experiencing solitude and calmness)	1	2	3	4	5
Maintaining Physical Heath (e.g., exercising and improving physical health)	1	2	3	4	5
Spending Time with Family (e.g., spending time with family and friends)	1	2	3	4	5

20. Please rate the quality of services/facilities you received and/or encountered during today's visit to Colter Bay.

	Very Poor	Poor	Average	Good	Very Good	Did Not Use
Developed Campgrounds	1	2	3	4	5	6
Visitor Center	1	2	3	4	5	6
Maintained Hiking Trails	1	2	3	4	5	6
Trail Signage	1	2	3	4	5	6
Restroom Facilities	1	2	3	4	5	6
Ranger Presence	1	2	3	4	5	6
Information signs	1	2	3	4	5	6
Information about park natural and cultural resources	1	2	3	4	5	6
General Store	1	2	3	4	5	6
Food service/restaurants	1	2	3	4	5	6
Lodging	1	2	3	4	5	6

Rentals	1	2	3	4	5	6
Boat Launch	1	2	3	4	5	6
Amphitheater	1	2	3	4	5	6
Beach Area	1	2	3	4	5	6
Picnic Area	1	2	3	4	5	6
Laundry	1	2	3	4	5	6
Showers	1	2	3	4	5	6
Other: _____	1	2	3	4	5	6

21. Thinking about your visit to Colter Bay, would you have liked to have seen more of, the same, or less of each of the following facilities or services?

	Less	Same	More
Trails for hiking	1	2	3
Trail signage	1	2	3
Multiuse Pathway within Colter Bay for biking and walking	1	2	3
Trails for horse use	1	2	3
Accessible-friendly (e.g., for wheelchairs) sites, facilities, and trails	1	2	3
Ranger-led Programs	1	2	3
Ranger-led programs at the amphitheater	1	2	3
Boat launches	1	2	3
Picnic areas	1	2	3
Parking areas	1	2	3
Overlooks	1	2	3
Information signs	1	2	3
Restrooms	1	2	3
Changing rooms	1	2	3
Other (please specify) _____	1	2	3

22. Please indicate the extent to which the following possible issues were problems for you while visiting Colter Bay. *(Or select "Not Applicable" if it doesn't apply to you)*

	Not a Problem	Small Problem	Big Problem	Not Applicable
Too many other people	☐	☐	☐	☐
Large groups recreating	☐	☐	☐	☐
Finding a place to picnic at a picnic table	☐	☐	☐	☐
Adequate facilities/amenities at campsites (e.g., restrooms, fire rings, etc.)	☐	☐	☐	☐
Informal (visitor-created) campsites and fire rings	☐	☐	☐	☐
Informal (visitor-created) vegetation loss	☐	☐	☐	☐
Informal (visitor-created) erosion	☐	☐	☐	☐
The actions or behaviors of other visitors	☐	☐	☐	☐
Available information about lake conditions	☐	☐	☐	☐

	Not a Problem	Small Problem	Big Problem	Not Applicable
Number of boat ramps	☐	☐	☐	☐
Condition or maintenance of boat ramps	☐	☐	☐	☐
Parking availability (non-trailer)	☐	☐	☐	☐
Parking availability (trailer)	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐

23. If you were to visit Colter Bay in the future, and if the following services existed, how likely would you be to use each service?

Service	Not at all Likely	Slightly likely	Moderately Likely	Very Likely	Extremely Likely	Undecided
Small (maximum of 8 people) free open-air shuttle with service within the Colter Bay area every 30 minutes	☐	☐	☐	☐	☐	☐
Transit (bus) with service to the park's major destinations for a small fee	☐	☐	☐	☐	☐	☐
Electric bike rentals to use within the Colter Bay area	☐	☐	☐	☐	☐	☐
Bike share rental program to use within the Colter Bay area	☐	☐	☐	☐	☐	☐

If you answered "Not at all likely" or "Slightly likely" for any of the services listed above, why might you be unlikely to use it?

_____

24. Does anyone in your personal group have physical conditions that made it difficult to access or participate in park activities or services?
    - ☐ NO
    - ☐ YES
        - ➢ On this visit what activity(ies) or service(s) did the person(s) have difficulty accessing or participating in?

          _____
        - ➢ Because of the physical condition, which specific difficulty(ies) did the person(s) have? *(Please select 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 (difficult in accessing facilities, services, or programs even with walking aid and/or wheelchairs)
            - ☐ Other (Please specify) _____

25. What sources of information did you use before and during your trip? (*Please select **ALL** that apply. If you used a source both before and during your trip, please check both columns.*)

	Did not use	Before arriving in the park	In the park
Grand Teton National Park website	☐	☐	☐
Other websites	☐	☐	☐
Friends/relatives	☐	☐	☐
Previous visits	☐	☐	☐
Visitor/Tourist Information centers	☐	☐	☐
Park newspaper	☐	☐	☐
Park map	☐	☐	☐
Printed materials (books, brochures, other maps etc.)	☐	☐	☐
Social Media (e.g. Instagram, Twitter)	☐	☐	☐
Ranger-led tours/programs	☐	☐	☐
Roving rangers/volunteers available to answer questions	☐	☐	☐
Trailhead bulletin boards	☐	☐	☐
Self-guided materials (e.g. Junior Ranger activity books)	☐	☐	☐
Hotel information kiosks/computer terminal	☐	☐	☐
Phone inquiry to Grand Teton National Park	☐	☐	☐
Smartphone (to access current data)	☐	☐	☐
Grand Teton National Park App	☐	☐	☐
Newspaper/magazine articles	☐	☐	☐
Talked to people in local communities	☐	☐	☐
Other: _____	☐	☐	☐

26. Which of the sources you used is your preferred source to obtain information?
(Pipe in only those options they marked as used)

27. What could the managers do as they plan for the future of Colter Bay? Please be specific.

_____

_____

28. Which one language do you and members of your personal group primarily use to communicate with each other?
- ☐ English
- ☐ Other (please specify) _____

29. How many people were in your [personal, organized, or tour] group this trip, including you?

____Number of people

30. Please select the choice(s) below that best describe your travel party. (*Please select all that apply*)

☐ Individual traveling alone	☐ Preschoolers (less than 5 years old) ☐ Children (aged 5-11)
☐ Family only	☐ Teenagers (12-19)
☐ Friends only	☐ Adults (20-64)

☐ Family and friends	☐ Adults 65 and older
☐ Tour or other group	☐ Pets

31. In what year were you born?

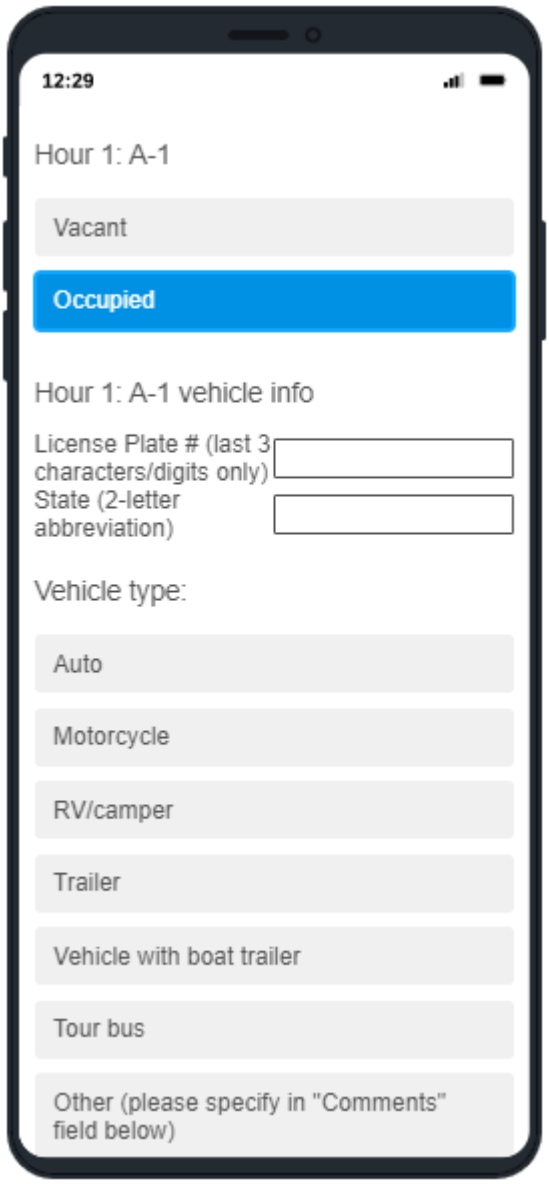
    Year born: _____

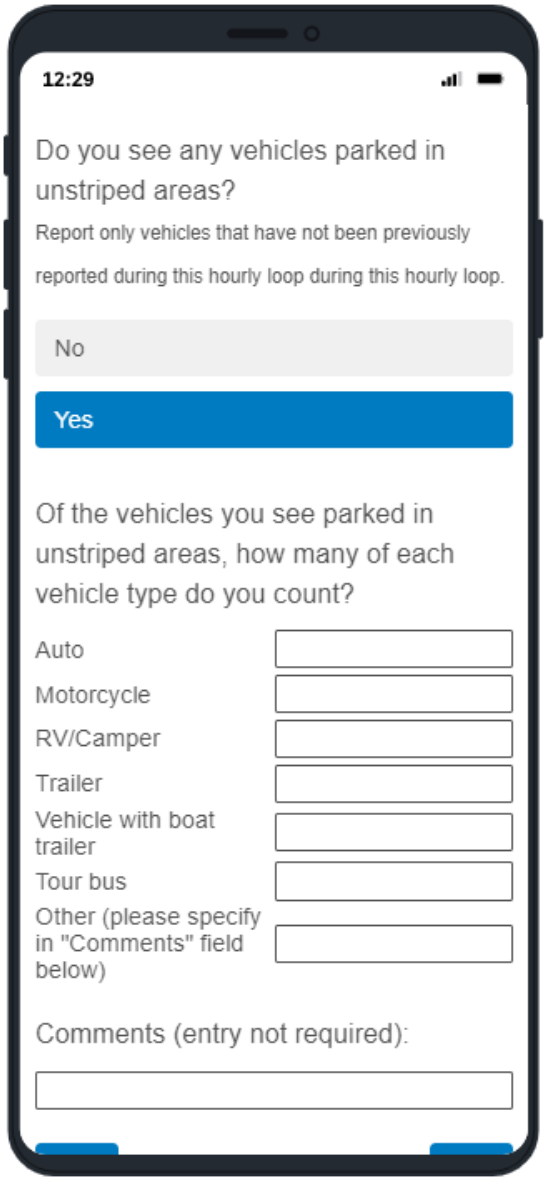
32. What is the highest level of formal education you have completed?
    - ☐ Some high school
    - ☐ High school graduate or GED
    - ☐ Some college, business or trade school
    - ☐ College, business or trade school graduate
    - ☐ Some graduate school
    - ☐ Master's degree
    - ☐ Doctoral or professional degree

33. Do you currently live in the United States?
    - ☐ Yes (What is your zip code? _____)
    - ☐ No (In which country do you reside? _____)

34. Is there anything else you [and your personal group] would like to tell us about your visit to Colter Bay?

Appendix 2. Parking Lot Accumulation and Turnover Data Collection Form (Qualtrics Screenshot)





Appendix 3. Area Maps

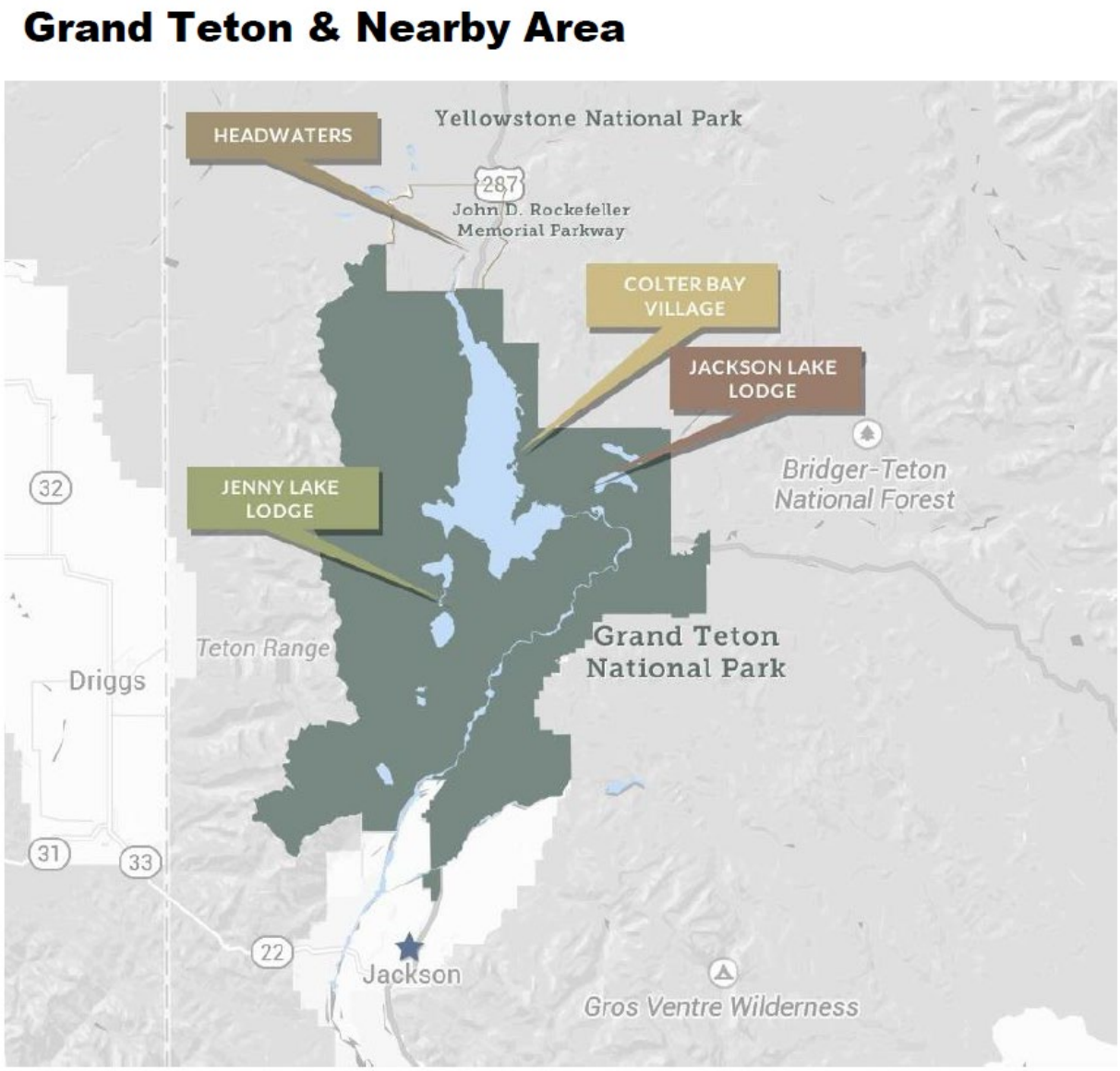


Figure 64. Map of greater Grand Teton area (Source: Grand Teton Lodging Company).

Colter Bay Detail Map

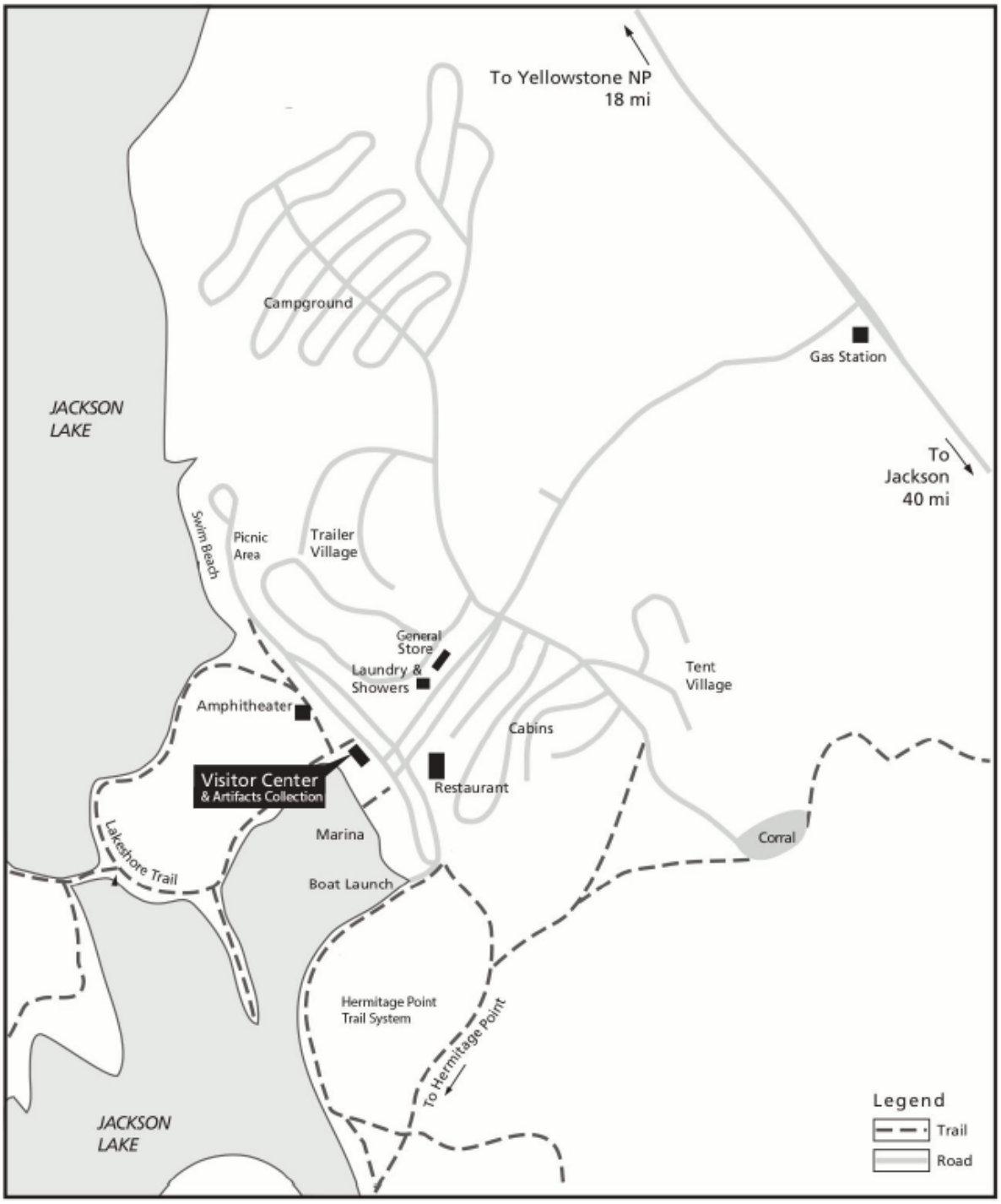


Figure 65. Detailed map of Colter Bay.

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 XXXXXX, Month Year (The Fort Collins Support Office will fill out this line for you)

Natural Resource Stewardship and Science
1201 Oakridge Drive, Suite 150
Fort Collins, CO 80525