



# Visitor Experiences and Preferences at Blue Lake Regional Park

Final Report

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Although several people assisted with this project, any errors, omissions, or typographical inconsistencies in this final report are the sole responsibility of the author. All content in this report was written by the author, represents views of the author based on the data, and does not necessarily represent views of the funding agency or others who assisted with this project.

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## **EXECUTIVE SUMMARY**

### **Objectives**

Blue Lake Regional Park is a 185-acre park located in Fairview near the south shore of the Columbia River just east of Portland, Oregon. More than 300,000 people visit this park each year. To protect and enhance this park's values, Metro is currently developing a new master plan, but limited representative data on visitor experiences, preferences, and behaviors have been collected at this park. Objectives of this project, therefore, were to understand visitors': (a) overall satisfaction with their visit and satisfaction with this park's amenities, conditions, management, and maintenance; (b) reasons for visiting this park; (c) trip characteristics (e.g., activity participation, group size) and past visitation to this park; and (d) demographic characteristics (e.g., age, gender, race, residential location).

### **Methods**

Data were obtained from questionnaires administered onsite (i.e., face-to-face) to people visiting this park in the summer of 2015 (July to September). Questionnaires were available in English, Spanish, Russian, Vietnamese, and Chinese, and were administered on both weekdays and weekends at four major locations within this park. In total, questionnaires were completed by  $n = 433$  visitors with an overall response rate of 44%. This sample size allows generalizations about the population of visitors at this park at the 95% confidence level with a margin of error of  $\pm 4.7\%$ , which is better than the conventional  $\pm 5\%$  standard accepted in most recreation research.

### **Results**

#### **Visit Characteristics**

- In total, 72% of respondents had visited this park before, whereas 28% had not. Those at the disc golf course (86%) and beach / spray pad (79%) were more likely to have visited before compared to those at other locations (60% to 70%). Repeat visitors had been to this park an average of 8 times in the past, but the highest proportions made only 1 (24%) or 2 to 3 (26%) previous trips. Visitors at the disc golf course had visited more often ( $M = 20$  trips) compared to those at other locations ( $M = 6$  to 9 trips).
- On average, visitors spent 3.5 hours in this park, with the largest proportions spending 2 to 2.5 hours (23%), 3 to 3.5 hours (22%), or 4 to 4.5 hours (20%). Visitors at the beach / spray pad spent the longest ( $M = 3.8$  hours), whereas those at the disc golf course spent the least amount of time ( $M = 2.9$  hours).
- The largest proportions of visitors traveled 10 to 14 miles (24%), 20 to 29 miles (17%), or 5 to 9 miles (16%) from home to get to this park. On average, visitors traveled 17 miles.
- The most popular activities at this park were picnicking and barbequing (46%), hiking or walking (40%), using the water spray / splash pad (36%), and relaxing on the lake's beach (31%); the least popular were softball, other boating (e.g., canoe, kayak, row), and playing horseshoes (all 3%). Most activities except for disc golf were much less popular among visitors at the disc golf course. Disc golf was extremely popular with visitors at the disc golf course, but not at other locations. Fishing was most popular at the boat rental / fishing pier area. Relaxing on the beach, swimming / wading, and using the water spray / splash pad were most popular among visitors at the beach / spray pad area.
- Respondents were then asked to specify the one main activity in which they participated at this park. The most common main activities were picnicking and barbequing (26%), using

the water spray / splash pad (16%), and disc golf (13%); the least common were volleyball or basketball and birding / wildlife watching (both 1%). There was a difference among locations with 87% of visitors at the disc golf course rating disc golf as their main activity. Using the water spray / splash pad was a popular main activity at the beach / spray pad (22%), and swimming / wading was also popular at the beach / spray pad area (16%). Fishing was most popular at the boat rental / fishing pier area (20%).

- The most important reasons why respondents visited this park were to have fun and excitement (93%), be in the outdoors close to nature (88%), get away from the daily routine (88%), and experience nice weather and temperatures (88%). The least important reasons were to be on their own (41%), teach recreation skills to others (43%), and participate in a special event (e.g., race, wedding, company picnic; 50%). Doing something with family, exploring a new place, learning about the area, and participating in an event were less important for visitors at the disc golf course. Getting exercise, escaping crowds, developing skills to get better at an activity, and being on their own were all more important to those at the disc golf course.
- The average group size at this park was 9 people, but groups most commonly consisted of 3 to 5 (33%), 2 (17%), or 6 to 10 people (16%). The average group size at the disc golf course was much smaller ( $M = 2$  people) compared to other locations ( $M = 8$  to 10).
- In total, 66% of those surveyed were visiting this park with children age 14 and younger. There was a difference among locations, as 87% of those at the disc golf course were not visiting with any children (compared to 18% to 43% without children at other locations).

### ***Perceptions of Experiences and Conditions***

- Overall satisfaction was extremely high, as 94% of visitors were satisfied and few (3%) were dissatisfied. In addition, 91% were likely to return in the future, with those at the disc golf course more likely to report future visitation as “very likely” (77% compared to 37% to 58% at other locations), and those at the boat rental / fishing pier having the lowest likelihood of returning (84% compared to 90% to 95% at other locations). These results, however, are not surprising because overall satisfaction and likely future visitation are almost always uniformly high in recreation. High overall satisfaction and repeat visitation does not mean: (a) respondents are satisfied with everything, (b) there is nothing problematic with the setting or experience, and (c) there is no reason to make improvements. Instead, it is important to examine other attributes.
- Visitors considered the most important *amenities and facilities* to be the cleanliness and condition of toilets (88%), number of toilets (84%), available parking (83%), and number of trash cans / recycling stations (80%). Least important were the horseshoe pits (36%), volleyball / basketball courts (42%), disc golf course (43%), and fishing pier (44%). Most attributes (e.g., cleanliness and number of toilets, picnic areas, children’s play areas, water spray / splash pad, beach and swimming area, fishing pier) were less important for visitors at the disc golf course. The disc golf course was more important for those at this course compared to other locations.
- For amenities and facilities, visitors were most satisfied with the number of trash cans / recycling stations (85%), available parking (85%), children’s play areas / playgrounds (84%), wait time for parking (81%), and number of toilets (81%). Visitors were most dissatisfied with the cleanliness / condition of toilets (15%), beach and swimming area (13%), and fees paid for parking (11%). Satisfaction with the disc golf course was higher (91%) among visitors at this course compared to other locations in the park (46% to 60%).

Satisfaction with the reservable picnic shelters and fishing pier was higher at the boat rental / fishing pier and central fields / picnic shelters.

- Importance-Performance (I-P) analysis showed that most amenities and facilities were in the “keep up the good work” category, indicating visitors thought park personnel were doing a good job with amenities and facilities. There were, however, some attributes that were highly important to visitors, but these visitors were only slightly satisfied with these attributes, including the beach and swimming area, and cleanliness / condition of toilets.
- Visitors considered the most important attributes associated with *management and maintenance* to be the absence of litter (91%), condition of the natural environment in the park (91%), safe facilities / services (90%), overall cleanliness of the park (90%), personal safety (89%), courteous park staff (88%), and clean facilities / services (88%). Least important were the quality (65%) and amount (66%) of informational / educational materials (e.g., signs, brochures), ease of movement or access (e.g., wheelchair, elderly, baby stroller; 76%), and ability to find park staff (78%). Personal safety, places or facilities for groups to gather, and accessible park staff were less important for visitors at the disc golf course compared to those at other locations in the park.
- For management and maintenance attributes, visitors were most satisfied with personal safety (86%), courteousness of park staff (84%), safety of facilities (83%), absence of litter (83%), condition of the environment (82%), helpfulness and knowledge of park staff (82%), variety of things to do (82%), signs with directions inside the park (82%), maintenance of facilities and services (82%), and overall cleanliness of the park (82%). Visitors were most dissatisfied with the absence of animal waste / excrement (15%) and ease of movement or access in the park (e.g., wheelchair, elderly, baby stroller; 8%).
- I-P analysis showed that all management and maintenance attributes were in the “keep up the good work” category, indicating visitors thought park personnel were doing a good job with management and maintenance. There were, however, some attributes that were highly important to visitors, but these visitors were only slightly satisfied with these attributes, including absence of animal waste / excrement and ease of movement or access (e.g., wheelchair, elderly, baby stroller).
- In total, 55% of visitors felt crowded with 60% feeling crowded at the boat rental / fishing pier and the central fields / picnic shelters, and 55% feeling crowded at the beach / spray pad. Only 34% felt crowded at the disc golf course. Crowding conditions for the park as a whole and at all locations within the park except the disc golf course can be considered “high normal” where these areas have not exceeded their capacity, but are trending in that direction. Crowding at the disc golf course can be considered “suppressed” where crowding is limited and the area offers low density experiences.
- The best attributes described by visitors were the water spray / splash pad, natural environment of the area (i.e., scenery, open space, beauty), disc golf course, variety of things to do, and the beach and swimming area. Visitors considered the worst attributes to be the presence of animal excrement (e.g., goose, duck, dog), dirty lake water, beach and lake closures that impact swimming, cleanliness of toilets, and crowding caused by too many people, especially on weekends and holidays.
- In total, 77% of respondents felt that visiting this park moderately or extremely reduced their stress and anxiety, and 76% believed that visiting moderately or extremely improved their overall mental health. In addition, 57% felt that visiting moderately or extremely improved their overall physical health, and 54% believed that visiting moderately or

extremely improved their physical fitness. There were greater perceptions of these benefits among visitors at the disc golf course compared to other locations.

- Parking fees for visiting are \$5 for a personal vehicle and \$7 for a van or bus. In total, 78% of visitors were not willing to pay higher fees, whereas 22% would be willing to pay more. The majority (61%) of these visitors who would be willing to pay more would pay \$6 (27%) or \$7 (34%) for a personal vehicle with an average of \$7.70, and the largest proportion (58%) would pay \$10 for a van or bus with an average of \$9.98.
- The overwhelming majority of visitors (84%) did not think there should be an hourly rate for parking, and only 7% were supportive of this idea.
- This park offers annual passes for \$40 per year (\$30 for seniors). In total, 65% of visitors did not have a pass or would not consider getting one, whereas 35% did have a pass or would consider getting one. Visitors at the disc golf course were more likely to have a pass or consider getting one (61%) compared to those at other locations (29% to 31%). The largest proportion (38%) of visitors who had a pass or would consider getting one would keep paying the current fee of \$40 with an average of \$40.64. Another 26% of these visitors would pay \$50 for an annual pass (\$10 more than the current fee).

### ***Demographic Characteristics***

- In total, 53% of respondents were female, 45% were male, and 2% were transgender persons. There was a difference among locations, as 91% of visitors surveyed at the disc golf course and 54% at the boat rental / fishing pier area were male (compared to 33% to 39% at other locations).
- The average age of respondents was 38 years of age with the largest proportions between 30 and 39 (33%), and 40 and 49 (21%) years of age.
- The largest proportion of visitors surveyed (67%) were White (Caucasian), followed by Hispanic / Latino (13%), Asian (8%), Black / African American (6%), Native Hawaiian / Pacific Islander (3%), and American Indian / Alaskan Native (2%).
- The largest proportion of visitors surveyed (79%) spoke English most often in their homes, followed by Spanish (12%), Russian (3%), Chinese (2%), and Vietnamese (2%).
- In total, 87% of respondents lived in Oregon, 9% were from Washington, 1% lived in California, and 3% were from other locations. The largest proportion of respondents lived in Multnomah County (71%). The most common cities and towns where visitors lived were Portland (38%), Gresham (14%), Fairview (10%), and Troutdale (7%).

### **Recommendations**

- Visitors are not homogeneous across this entire park; results showed several major differences depending on the location where visitors were surveyed. Visitors surveyed at the disc golf course, for example, were more likely than those at other locations in this park to be male and repeat visitors, spend the shortest amount of time at the park, visit in smaller groups and without children, be more likely to visit to exercise and develop skills, rate many amenities and facilities as less important, feel less crowded, perceive greater health benefits from visiting, and possess an annual pass or be interested in getting one. This suggests the need for managing some locations within the park separately to ensure that opportunities are available for the different clientele groups who visit these different locations. These results also highlight the importance of tailoring survey methodologies and / or questions to specific sites within a park. This is important because recreation research has usually

employed surveys asking general questions that compel visitors to average their experiences within a park (Manning, 2011; Needham et al., 2016).

- There was high repeat visitation, as 72% of respondents had previously visited this park with an average of 8 previous visits. Visitors surveyed at the disc golf course had visited an average of 20 times. In addition, visitors traveled an average of 17 miles from home to get to this park. It is clear, therefore, that this park is important to the lives of many people and plays a pivotal role in the broader community through the provision of ecosystem services. If population trends continue diversifying and urbanizing, this park will play an even greater role in the community in the future, so it will be critical for managers to continually understand their changing clientele, work with visitors and the community in planning and management, and disseminate information to these and other groups and organizations.
- Overall satisfaction among visitors at this park is high, as almost all (94%) were satisfied. In addition, 91% of visitors would be likely to return in the future. Conditions and experiences should be monitored frequently using survey research similar to approaches in this project to ensure that satisfaction does not decline. Overall satisfaction, however, is almost always high in recreation areas with most studies reporting more than 80% of recreationists as satisfied (Manning, 2011). High overall satisfaction does not mean that respondents are satisfied with every aspect of their experience, there is nothing problematic with the setting or experience, and there is no reason to make improvements. Instead, it is important to examine other aspects of the setting and experience (e.g., safety, crowding, trail conditions, fees, toilets, litter) to inform management.
- Visitors rated, on average, most attributes of their experience and the conditions at this park as important and were satisfied with these attributes, suggesting that managers should “keep up the good work” in their current management of this park. The most important park attributes for visitors included toilets, parking, trash cans, absence of litter, quality natural environment, safety, and clean and well-maintained facilities. Visitors were least satisfied, however, with cleanliness of toilets, conditions and access to the beach area and lake for swimming, absence of animal waste / excrement, and ease of movement or access (e.g., wheelchair, elderly, baby strollers) at this park. I-P analyses showed that absence of animal waste / excrement, ease of movement or access, the beach and swimming area, and cleanliness and condition of the toilets were highly important to visitors, but they were only slightly satisfied with these attributes. Managers should prioritize these issues in any planning and management efforts at this park.
- In addition, 55% of visitors felt crowded at this park with 60% feeling crowded at the boat rental / fishing pier area and the central fields / picnic shelters, and 55% feeling crowded at the beach / spray pad area. These crowding levels can be considered “high normal” where these locations have not exceeded their capacity, but are trending in that direction. As a result, these locations should be studied closely and monitored to see if increased use is expected, allowing management to anticipate future problems proactively instead of reactively after problems occur. Conversely, only 34% of visitors surveyed at the disc golf course felt crowded, suggesting that crowding is “suppressed” and this location offers unique low density experiences.
- The most important reasons why respondents visited this park were related to enjoying nature, being outdoors, having fun, and escaping daily routines and life pressures. It is important to consider these reasons in management decision making to ensure that any site and / or policy changes at the park do not negatively impact opportunities for fulfilling these motivations. In addition, amenities such as the horseshoe pits and volleyball and basketball

courts were not important to many visitors, suggesting that it may be wise to focus planning, management, and marketing efforts on natural setting attributes more than these types of contrived amenities and facilities.

- In total, many visitors (66%) were visiting this park with a child under the age of 14. Current nationwide trends, however, show declining child and youth visitation and recreation participation in natural settings such as parks, and increasing child and youth health concerns (e.g., obesity, attention deficit disorder; Louv, 2008). Park managers should be commended for accommodating a large number of children at this park, but they should also monitor trends over time to ensure this participation does not decline. Managers should also consider collaborating more with existing public and private programs (e.g., REI's Peak Program, Oregon Recreation and Park Association's Outdoor Seekers and Activity Passport) to enhance child and youth visitation, thereby providing opportunities for them to learn about and experience parks and natural areas, increase their physical activity and improve their physical and mental health, and increase the visibility and importance of this park and its managing agency.
- Visitors reported substantial mental and physical health benefits from visiting this park (e.g., 77% reduced stress and anxiety, 54% improved physical fitness). This is important because it illustrates broader benefits to individuals from visiting natural areas such as urban parks. In addition, these results suggest that benefits extend beyond individual park visitors to the broader society and economy (e.g., improved physical and mental health lowers healthcare costs on society and the economy). This is critically important for park management agencies when justifying their importance and the need for natural areas (e.g., parks, greenspaces) to other agencies, organizations, and funding entities.
- Visitors strongly opposed higher fees for parking and charging hourly rates. Managers, therefore, should be cautious and avoid any major changes to the current fee system at this park. However, the majority of visitors surveyed at the disc golf course either had an annual pass or would consider getting a pass (61%), so managers should provide educational information targeted specifically to disc golfers to inform them about the availability and benefits of annual passes.
- Survey personnel informally recorded verbal comments made by visitors while they were completing the questionnaire. These comments are provided in Appendix A and the most common comments were from visitors at the disc golf course who wanted more drinking water fountains, bathrooms, and directional signs at the disc golf course.
- Any future changes made at this park should be accompanied by educational and interpretive messages and materials that discuss the rationale for these changes. Messages should focus on how the changes may accommodate visitor use and enjoyment while reducing any potential negative impacts to environmental conditions and visitor experiences. Messages should be disseminated through a variety of outlets such as websites, newspapers, off-site and on-site brochures, on-site signs, and visitor contact with park staff and personnel.



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## ***INTRODUCTION AND OBJECTIVES***

Metro has evolved into a major public landowner and manager in the Portland, Oregon metropolitan region. Bond measures have focused on land acquisitions to provide natural areas that protect streams and rivers, wildlife habitats, trail corridors, and iconic landscapes. Many, but not all, of these areas also provide opportunities where people can connect with nature and recreate in the outdoors. Most of these acquisitions have given priority to sensitive habitats before they are developed or increase dramatically in price. With these acquisitions coupled with their existing parks, Metro has now increased the Portland metropolitan region's amount of publicly owned natural areas, greenspaces, and parklands by more than 40%, providing residents with greater opportunities for exploring and experiencing nature in the wildland-urban interface.

As this portfolio of natural areas and protected lands continues increasing, Metro faces important questions associated with visitor experiences in existing parks and also public demand for the use of these and other natural areas. Little reliable and representative data, however, have been collected on visitor experiences and public needs associated with Metro's parks and other natural areas. Baseline information is needed on visitor experiences and behaviors to help provide a foundation for current management and lay the groundwork for future decisions about Metro's role as a regional landowner and steward of these natural areas, greenspaces, and parklands.

One of Metro's flagship properties is Blue Lake Regional Park, located in Fairview (in Multnomah County) near the south shore of the Columbia River just east of Portland. This 185-acre park encompasses wooded areas, ponds, grass fields, and wetlands. More than 300,000 people visit Blue Lake Regional Park each year. Amenities include hiking trails and paved paths, covered and uncovered reservable and non-reservable picnic areas, playing fields for sports such as softball and soccer, a beach and swimming area, boating opportunities (including rentals for paddle boats, rowboats, and canoes), a fishing pier, children's playgrounds, a water spray, and a disc golf course. Other amenities include toilets, parking (fees apply), interpretive signs, and a Nature Discovery Garden. Metro is currently developing a new master plan for this park, so it is important to understand visitor experiences and behaviors to help inform this plan and future planning efforts. Objectives of this project, therefore, were to describe current visitors':

- Overall satisfaction with their visit and satisfaction with this park's amenities, conditions, management, and maintenance (e.g., parking, toilets, fees, litter, trail conditions, informational signs, park staff / personnel, crowding).

- Motivations and reasons for visiting this park.
- Trip characteristics (e.g., activity participation, group size) and past visitation to the park.
- Demographic characteristics (e.g., age, gender, race, residential location).

This report addresses these objectives by summarizing responses from an onsite survey of recreationists visiting Blue Lake Regional Park in the summer of 2015. Results improve understanding of visitors and their preferences at this park, and can be used for informing decision making and management, including current and future master planning processes.

## ***METHODS***

Data were obtained from questionnaires (Appendix B) administered onsite (i.e., face-to-face) randomly to recreationists visiting Blue Lake Regional Park in the summer of 2015 (July to September). Questionnaires were administered by Metro personnel on both weekdays and weekends at four locations within this park: (a) beach / spray pad area (including the swim beach area, spray pad area, picnic area E, Nature Discovery Garden, and part of the open picnic area); (b) boat rental / fishing pier area (including picnic areas B and C, boat launch area, fishing pier, and part of the open picnic area); (c) central fields / picnic shelters area (including picnic areas A and D, all major picnic structures, and all sports fields); and (d) the disc golf course (Figure 1).

Figure 1. Map of Blue Lake Regional Park



Visitors were approached in person at these locations and asked to complete the questionnaire onsite. Onsite questionnaires were necessary because personal contact information (e.g., mail and email addresses, telephone numbers) required for alternative approaches such as telephone or mail surveys was not currently available from all visitors, as Metro does not regularly collect this information. Questionnaires were printed on both sides of one legal sized (8 ½ x 14) page and took most respondents approximately 15 minutes to complete. Respondents were provided with a clipboard and pen to complete the questionnaire onsite. Questionnaire versions were available in English, Spanish, Russian, Vietnamese, and Chinese. In total, 433 questionnaires were completed by visitors with an overall response rate of 44% (Table 1). This sample size allows generalizations about the population of recreationists visiting Blue Lake Regional Park at the 95% confidence level with a margin of error of  $\pm 4.7\%$ , which is better than the conventional standard accepted in recreation research (i.e.,  $\pm 5\%$ ; Salant & Dillman, 1994; Vaske, 2008).

Table 1. Completed questionnaires at each location

Location	Completed questionnaires (n)
Beach / spray pad area	99
Boat rental / fishing pier area	61
Central fields / picnic shelters area	165
Disc golf course area	50
Total <sup>1</sup>	433

<sup>1</sup> There were 58 questionnaires for which technicians / personnel did not record the location.

The questionnaire included questions on a range of topics such as activity participation, prior visitation, satisfaction, crowding, and demographic characteristics. Results in this report are grouped into subsections according to project objectives and questionnaire items. Within each subsection, statistical analyses are conducted to reveal total responses across all respondents, and also compare responses among the four locations. Percentages, crosstabulations, and bivariate inferential statistical tests were used for analyzing and presenting results. Many of these tests produce *p*-values, and when a *p*-value associated with any test (i.e.,  $\chi^2$ , *F*) presented in this report is  $p < .05$ , a statistically significant relationship or difference among locations was observed. If no statistically significant difference or relationship was observed, it is denoted with “ns” (i.e., not significant). In addition to these tests of significance, effect size statistics (e.g., Cramer’s *V*, eta  $\eta$ ) were used for examining the strength of relationships. Effect sizes of .10 suggest “weak” (Cohen, 1988) or “minimal” (Vaske, 2008) relationships or differences. Effect sizes of .30 are considered “medium” or “typical,” and .50 or greater are “large” or “substantial;” larger effect

sizes imply stronger relationships or differences. To highlight findings, some data were recoded into major response categories (e.g., satisfied, dissatisfied), but descriptive results and percentages of all uncollapsed questions (e.g., strongly, slightly) are provided in Appendix C.

## RESULTS

### Visit Characteristics

**Previous Visitation.** Respondents were asked if they had ever visited Blue Lake Regional Park before. Figure 2 shows that 72% of respondents had visited before, whereas 28% had not visited previously. There was a significant difference among the four locations with recreationists surveyed at the disc golf course (86%) and beach / spray pad (79%) being more likely to have visited this park before compared to those surveyed at other locations (60% to 70%; Table 2).

Figure 2. Previous visitation to Blue Lake Regional Park for the entire sample ( $n = 433$ )

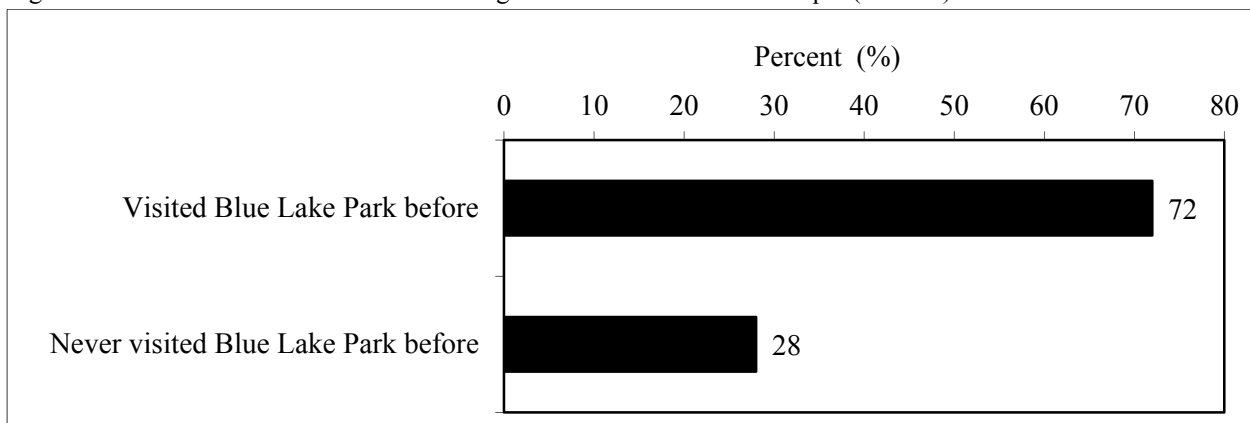


Table 2. Previous visitation to Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad ( $n = 99$ )	Boat rental / fishing pier ( $n = 61$ )	Central fields / picnic shelters ( $n = 165$ )	Disc golf course ( $n = 50$ )	
Visited before	79	60	70	86	72
Never visited before	21	40	30	14	28

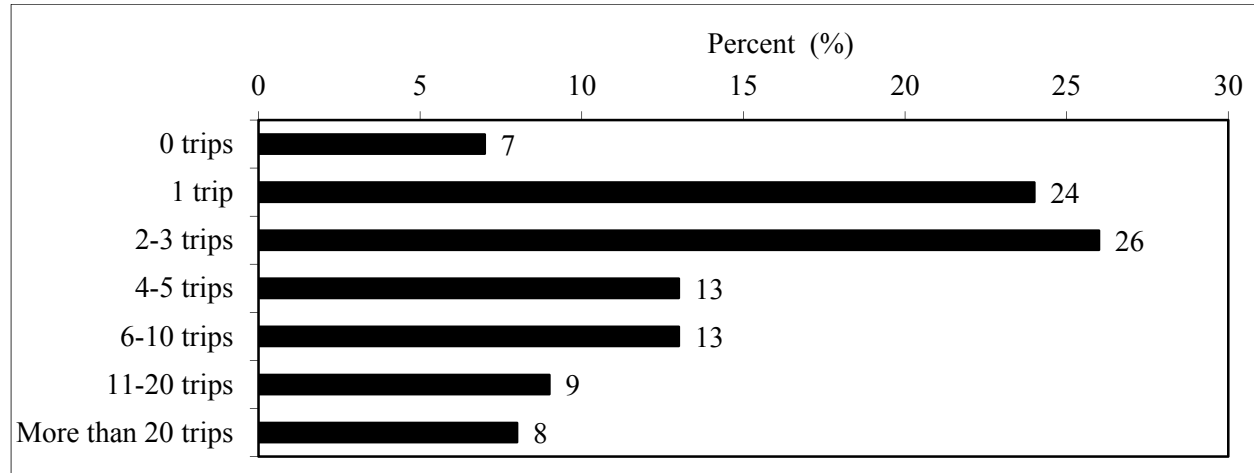
<sup>1</sup> Cell entries are percentages (%).  $\chi^2 = 11.69, p = .009$ , Cramer's  $V = .18$ .

Respondents who had visited previously were then asked how many trips they had made to this park. Figure 3 shows that respondents had visited an average of 8 times in the past. The highest proportions, however, had made only 1 (24%) or 2 to 3 (26%) previous trips to this park. Table 3 shows that, on average, recreationists surveyed at the disc golf course had visited significantly more times ( $M = 20$  trips) compared to those at the other locations ( $M = 6$  to 9 trips). For



example, 49% of visitors surveyed at the disc golf course had visited this park more than 10 times, whereas only 8% to 17% of those at the other locations had visited this many times.

Figure 3. Number of previous visits to Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> Average = 8 trips.

Table 3. Number of previous trips to Blue Lake Regional Park for each location

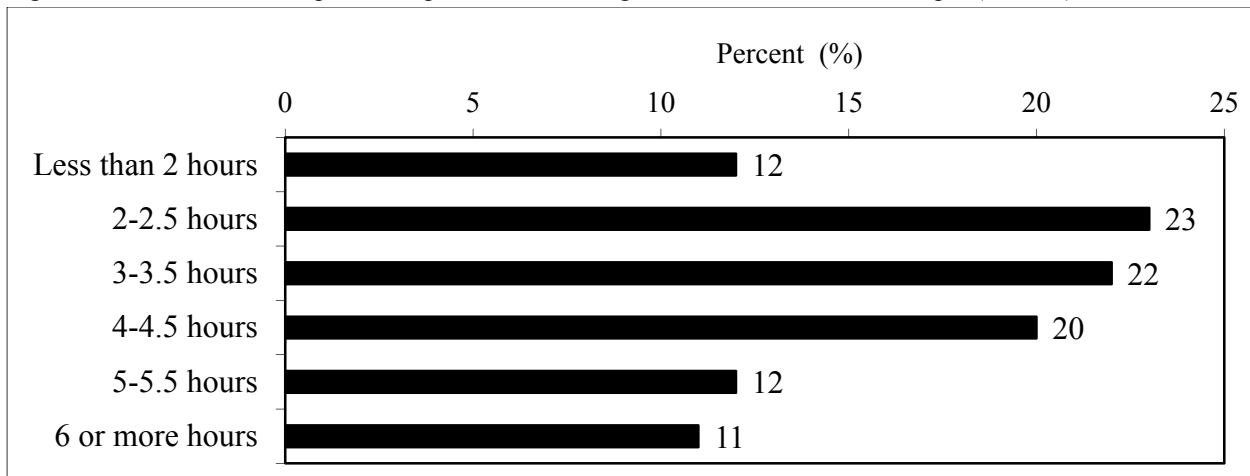
	Location <sup>1</sup>				Total
	Beach / spray pad ( $n = 99$ )	Boat rental / fishing pier ( $n = 61$ )	Central fields / picnic shelters ( $n = 165$ )	Disc golf course ( $n = 50$ )	
0 trips	10	13	7	0	7
1 trip	28	19	32	5	24
2 – 3 trips	24	36	23	26	26
4 – 5 trips	14	7	14	10	13
6 – 10 trips	16	10	14	10	13
11 – 20 trips	7	7	5	23	9
More than 20 trips	1	10	5	26	8
Average (mean) <sup>2</sup>	7	9	6	20	8

<sup>1</sup> Cell entries are percentages (%) unless specified as means.  $\chi^2 = 49.74, p < .001$ , Cramer's  $V = .26$ .

<sup>2</sup> Cell entries are average number of trips.  $F = 5.72, p = .001, \eta = .26$ .

**Duration of Visit.** Respondents were asked to report how many hours they were planning to spend at Blue Lake Regional Park on the day they were surveyed. Figure 4 shows that, on average, visitors spent 3.5 hours in the park, with the largest proportions spending 2 to 2.5 hours (23%), 3 to 3.5 hours (22%), or 4 to 4.5 hours (20%). The majority of visitors (57%) spent less than 4 hours in the park. There was a significant difference among the four locations, with visitors surveyed at the beach / spray pad spending, on average, the longest ( $M = 3.8$  hours) and those at the disc golf course spending the least amount of time ( $M = 2.9$  hours; Table 4).

Figure 4. Number of hours spent on trip to Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> Average = 3.5 hours.

Table 4. Number of hours spent on trip to Blue Lake Regional Park for each location

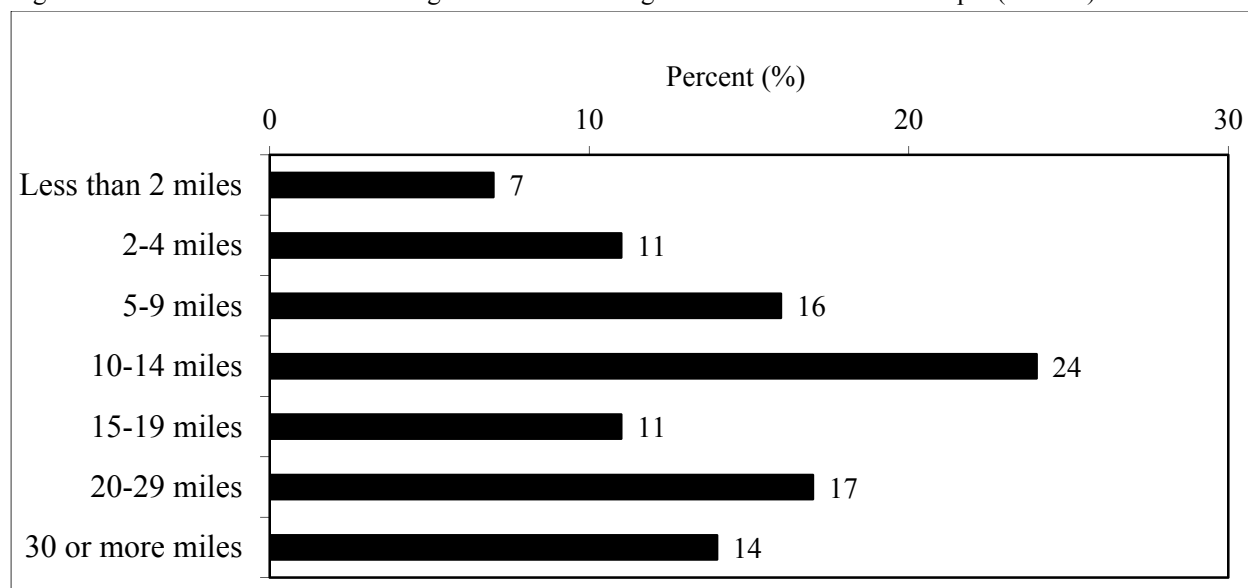
	Location <sup>1</sup>				Total
	Beach / spray pad ( $n = 99$ )	Boat rental / fishing pier ( $n = 61$ )	Central fields / picnic shelters ( $n = 165$ )	Disc golf course ( $n = 50$ )	
Less than 2 hours	12	22	12	6	12
2 – 2.5 hours	16	16	24	29	23
3 – 3.5 hours	19	14	23	42	22
4 – 4.5 hours	23	19	20	19	20
5 – 5.5 hours	15	17	12	4	12
6 or more hours	16	12	10	0	11
Average (mean) <sup>2</sup>	3.8	3.3	3.3	2.9	3.5

<sup>1</sup> Cell entries are percentages (%) unless specified as means.  $\chi^2 = 36.68, p < .001$ , Cramer’s  $V = .17$ .

<sup>2</sup> Cell entries are average number of hours.  $F = 3.60, p = .014, \eta = .17$ .

**Distance Traveled.** The questionnaire also asked respondents how many miles from their homes they traveled to get to Blue Lake Regional Park on the day they were surveyed. Figure 5 shows that the largest proportions of visitors traveled 10 to 14 miles (24%), 20 to 29 miles (17%), or 5 to 9 miles (16%) to get to this park. On average, visitors traveled approximately 17 miles. Table 5 shows there were no statistically significant differences in distances traveled among visitors surveyed across the four locations within this park.

Figure 5. Number of miles traveled to get to Blue Lake Regional Park for the entire sample (n = 433)<sup>1</sup>



<sup>1</sup> Average = 17 miles.

Table 5. Number of miles traveled to get to Blue Lake Regional Park for each location

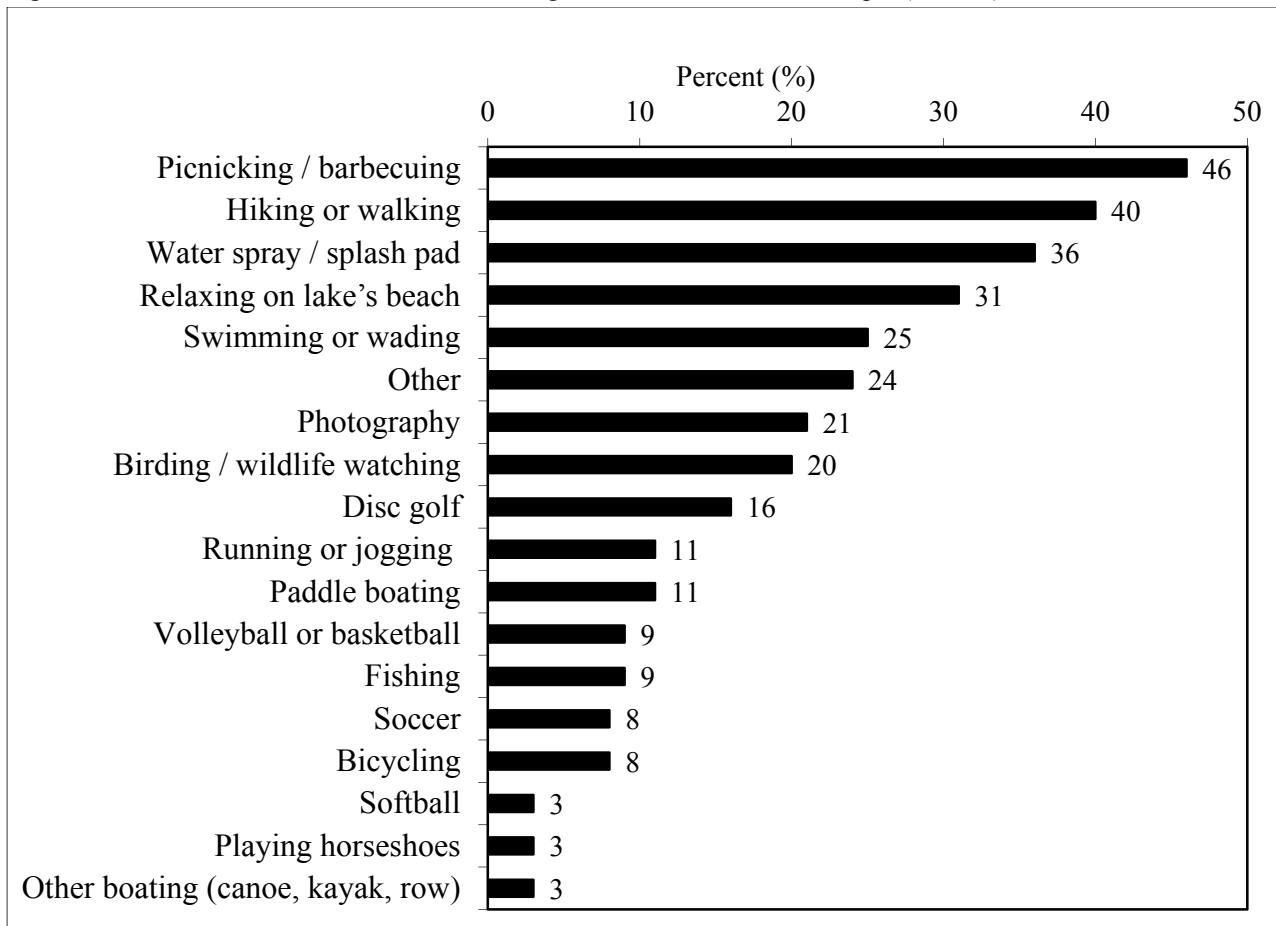
	Location <sup>1</sup>				Total
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)	
Less than 2 miles	7	7	7	9	7
2 – 4 miles	7	18	13	7	11
5 – 9 miles	21	23	12	15	16
10 – 14 miles	27	16	27	24	24
15 – 19 miles	6	11	11	17	11
20 – 29 miles	23	7	20	15	17
30 or more miles	10	18	9	13	14
Average (mean) <sup>2</sup>	17	18	14	14	17

<sup>1</sup> Cell entries are percentages (%) unless specified as means.  $\chi^2 = 25.97, p = .101$  (ns), Cramer's  $V = .16$ .

<sup>2</sup> Cell entries are average number of miles.  $F = 0.67, p = .573$  (ns),  $\eta = .08$ .

**Activity Participation.** Respondents were asked to check all of the activities in which they were participating at Blue Lake Regional Park on the day they were surveyed. Figure 6 shows that the most popular activities were picnicking and barbequing (46%), hiking or walking (40%), using the water spray / splash pad (36%), and relaxing on the lake's beach (31%). The least popular activities were softball, other boating (e.g., canoe, kayak, row), and playing horseshoes (all 3%).

Figure 6. All activities of visitors at Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> Percentages do not sum to 100% because respondents could select more than one activity in which they were participating during their visit. Most popular “other” activities are: playground use (7%), family or friend event (e.g., birthday, reunion, baby shower) (5%), company event (2%), and triathlon / marathon (2%).

Table 6 shows that participation differed significantly among locations for 11 of these 18 activities. Most activities other than disc golf (e.g., picnicking / barbecuing, hiking or walking, photography, birding / wildlife watching, using the water spray / splash pad, relaxing on the lake’s beach, swimming or wading, fishing, soccer) were all significantly less popular among visitors surveyed at the disc golf course compared to those at the other locations. Disc golf, on the other hand, was extremely popular among visitors surveyed at the disc golf course, but not with visitors surveyed at the other locations. Fishing was most popular with visitors surveyed at the boat rental / fishing pier area, but less important among those at the other locations. Relaxing on the lake’s beach, swimming or wading, and using the water spray / splash pad were all significantly more popular among visitors surveyed at the beach and spray pad area compared to those surveyed at the other locations.

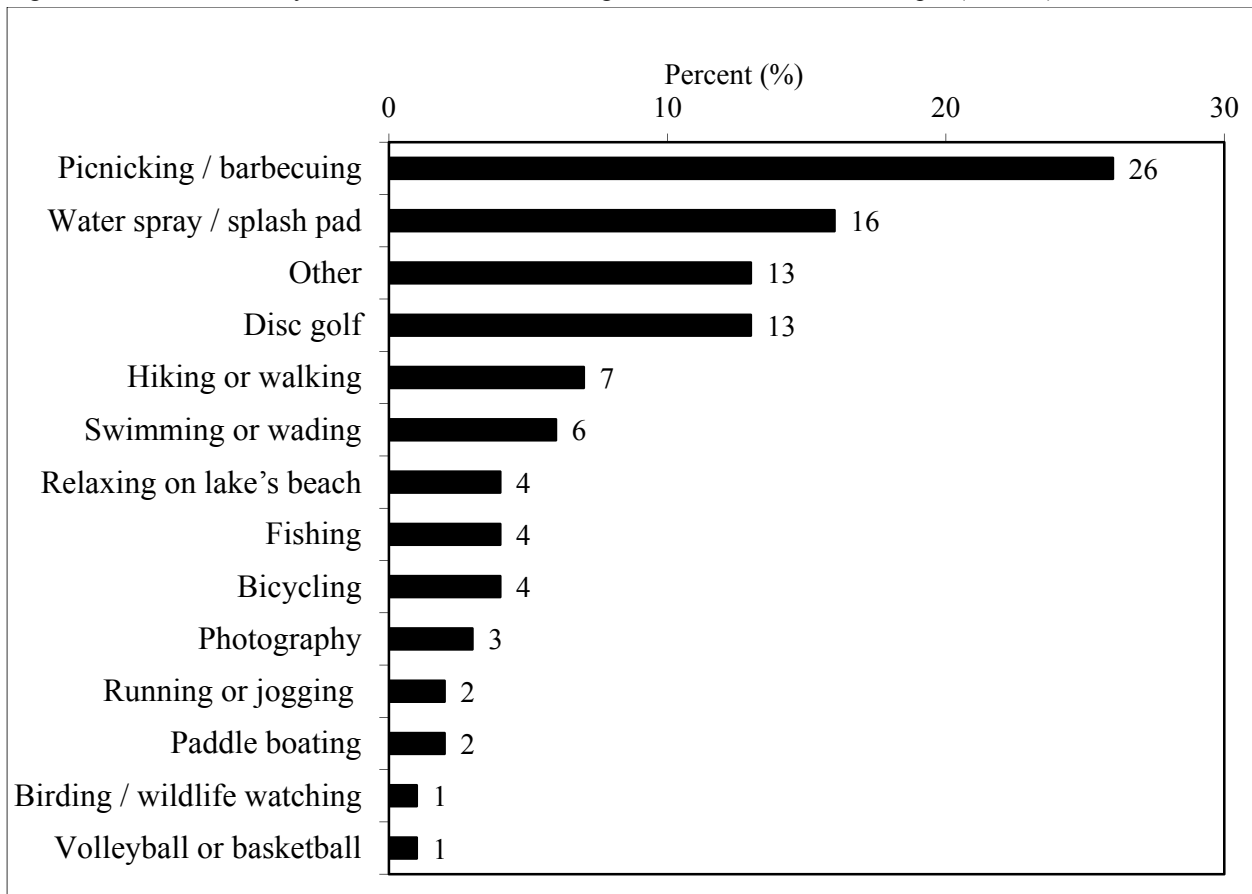
Table 6. All activities of visitors at Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total	$\chi^2$ -value	p-value	Cramer's V
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)				
Picnicking / barbecuing	54	39	53	10	46	36.56	< .001	.29
Hiking or walking	35	44	41	20	40	9.01	.029	.15
Water spray / splash pad	51	18	42	6	36	45.71	< .001	.33
Relaxing on lake's beach	53	20	26	8	31	40.75	< .001	.33
Swimming or wading	46	3	22	6	25	53.50	< .001	.36
Other	20	25	33	0	24	34.13	< .001	.25
Photography	31	30	19	2	21	24.58	< .001	.23
Birding / wildlife watching	23	28	17	4	20	14.09	.003	.18
Disc golf	4	7	4	92	16	180.72	< .001	.80
Running or jogging	10	18	12	6	11	4.11	.250 (ns)	.10
Paddle boating	14	8	12	4	11	4.54	.209 (ns)	.10
Volleyball or basketball	10	10	12	2	9	5.73	.125 (ns)	.11
Fishing	13	25	3	2	9	28.25	< .001	.28
Soccer	10	10	10	0	8	9.75	.021	.12
Bicycling	8	7	9	4	8	1.64	.651 (ns)	.06
Softball	2	3	4	0	3	4.14	.247 (ns)	.09
Playing horseshoes	1	3	4	2	3	2.07	.559 (ns)	.07
Other boating	4	0	3	0	3	6.55	.088 (ns)	.11

<sup>1</sup> Cell entries are percentages (%). Percentages do not sum to 100% because respondents could select more than one activity in which they were participating during their visit.

Respondents were then asked to specify the one main activity in which they participated at Blue Lake Regional Park during their visit. Figure 7 shows that the most common main activities at this park were picnicking and barbecuing (26%), using the water spray / splash pad (16%), and disc golf (13%). The least common main activities were volleyball or basketball and birding or wildlife watching (both 1%). There was, however, a statistically significant difference among the four locations, as shown in Table 7. For example, 87% of visitors surveyed at the disc golf course rated disc golf as their main activity at the park. Using the water spray / splash pad was a popular main activity at the beach / spray pad (22%) and central fields / picnic shelters (19%). Swimming and wading was a popular main activity at the beach / spray pad area (16%), but not at the other locations. Fishing was most popular at the boat rental / fishing pier area (20%), but not among visitors surveyed at the other locations.

Figure 7. One main activity of visitors at Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> Most popular “other” activities are: playground use, family or friend event (e.g., birthday, reunion, baby shower), company event, and triathlon / marathon.

Table 7. One main activity of visitors at Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad ( $n = 99$ )	Boat rental / fishing pier ( $n = 61$ )	Central fields / picnic shelters ( $n = 165$ )	Disc golf course ( $n = 50$ )	
Picnicking / barbecuing	29	26	31	4	26
Water spray / splash pad	22	9	19	0	16
Other	7	11	21	0	13
Disc golf	0	0	1	87	13
Hiking or walking	7	13	5	2	7
Swimming or wading	16	4	4	0	6
Relaxing on lake's beach	8	2	4	0	4
Fishing	2	20	1	0	4
Bicycling	4	6	4	0	4
Photography	4	5	1	2	3
Running or jogging	0	6	3	2	2
Paddle boating	0	0	4	2	2
Birding / wildlife watching	0	0	1	0	1
Volleyball or basketball	1	0	1	0	1

<sup>1</sup> Cell entries are percentages (%) unless specified as means.  $\chi^2 = 280.53, p < .001$ , Cramer's  $V = .61$ .

**Motivations for Visiting.** A leisure or recreation motivation is a reason for visiting an area or participating in an activity at a given time (Manning, 2011; Needham, Haider, & Rollins, 2016). Researchers often provide respondents with lists of “push” and “pull” reasons (i.e., motivations), and ask them to rate the importance of each for their participation in activities or visitation of a particular site or location. Forces that push people to engage in certain activities or visit particular sites are concerned with what arouses or activates recreation behavior at a particular site. Forces may also pull people to select certain activities or settings over others. In this study, for example, people may visit Blue Lake Regional Park because they are being pushed by internal factors such as the need to “get away from the daily routine” or “be in the outdoors close to nature.” They may also be pulled by beliefs that the park is a good place to visit because of “nice weather or temperatures” or it offers opportunities to “escape crowds of people.” This study measured 22 push and pull motivations for visiting Blue Lake Regional Park on 4-point scales of 1 “not important” to 4 “extremely important.” These items are from the Recreation Experience Preference (REP) scales (Manfredo, Driver, & Tarrant, 1996; Manning, 2011).

Figure 8. Reasons for visiting Blue Lake Regional Park for the entire sample ( $n = 433$ )

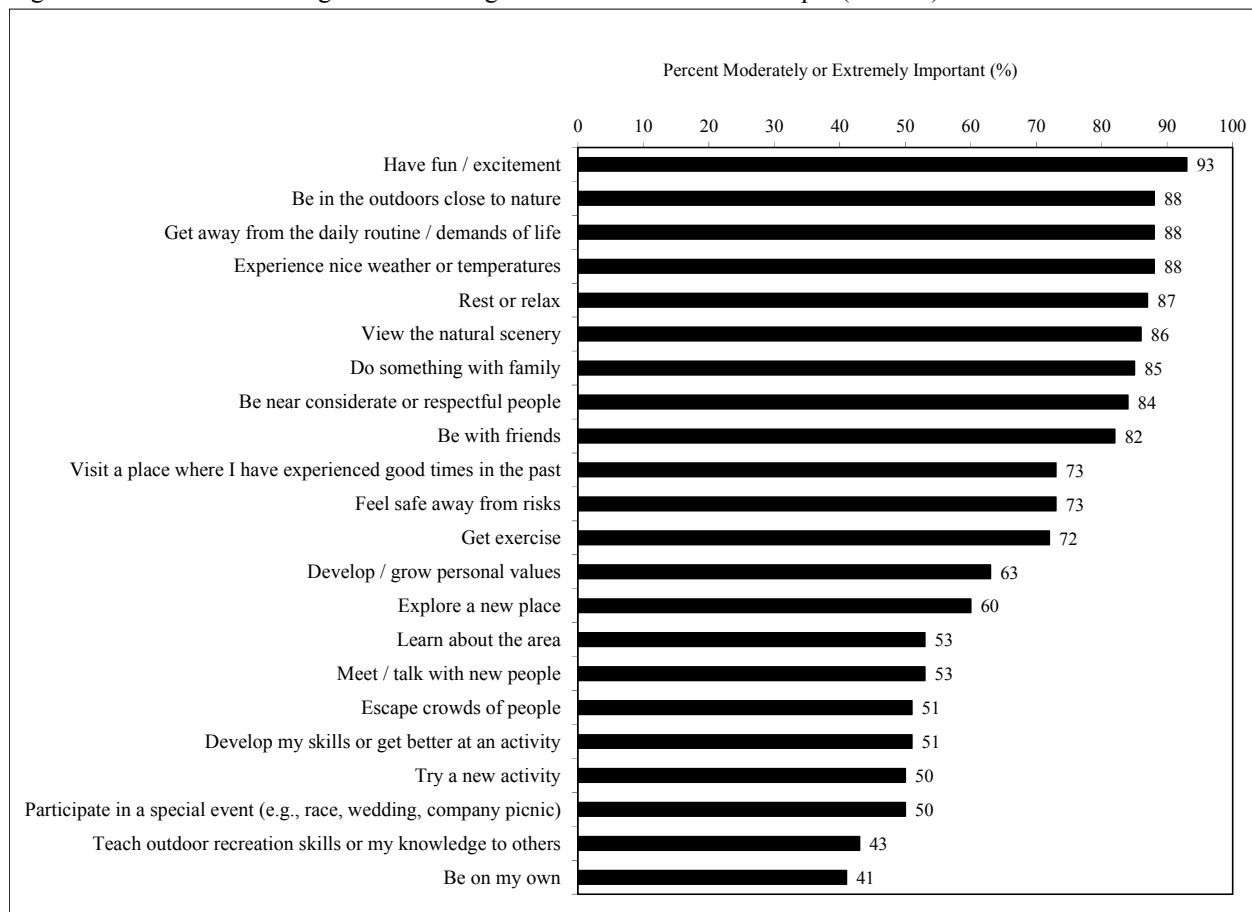


Figure 8 shows that the most important reasons why respondents visited this park were to have fun and excitement (93% moderately or extremely important), be in the outdoors close to nature (88%), get away from the daily routine and demands of life (88%), and experience nice weather and temperatures (88%). Other important motivations included rest and relaxation (87%), viewing the natural scenery (86%), and doing something with family (85%). The least important reasons for visiting were to be on their own (41%), teach recreation skills to others (43%), and participate in a special event (e.g., race, wedding, company picnic; 50%).

Table 8. Reasons for visiting Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total	$\chi^2$ -value	p-value	Cramer's V
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)				
Have fun / excitement	90	90	91	98	93	4.19	.242 (ns)	.09
Be in the outdoors close to nature	97	87	85	86	88	10.53	.015	.15
Get away from daily routine / demands of life	88	90	87	88	88	0.48	.924 (ns)	.04
Experience nice weather or temperatures	93	86	89	80	88	5.11	.164 (ns)	.12
Rest or relax	92	85	86	82	87	3.46	.326 (ns)	.10
View the natural scenery	94	85	83	83	86	7.04	.071 (ns)	.13
Do something with family	89	83	89	59	85	21.05	< .001	.27
Be near considerate or respectful people	79	93	84	77	84	7.75	.053 (ns)	.14
Be with friends	80	76	88	79	82	5.35	.148 (ns)	.12
Visit where experienced good times in the past	75	67	74	81	73	2.58	.460 (ns)	.09
Feel safe away from risks	67	83	75	60	73	8.85	.031	.16
Get exercise	70	70	66	87	72	9.07	.028	.15
Develop / grow personal values	61	69	63	60	63	1.33	.723 (ns)	.06
Explore a new place	61	66	65	39	60	10.42	.015	.18
Learn about the area	47	64	58	36	53	11.23	.011	.18
Meet / talk with new people	48	55	53	50	53	0.84	.841 (ns)	.05
Escape crowds of people	46	58	44	70	51	11.24	.011	.18
Develop my skills or get better at an activity	36	59	46	85	51	35.49	< .001	.31
Try a new activity	47	45	54	47	50	2.13	.546 (ns)	.08
Participate in a special event (race, wedding)	45	52	56	29	50	10.94	.012	.18
Teach recreation skills or my knowledge to others	36	46	48	34	43	5.19	.158 (ns)	.12
Be on my own	32	47	38	60	41	10.91	.012	.18

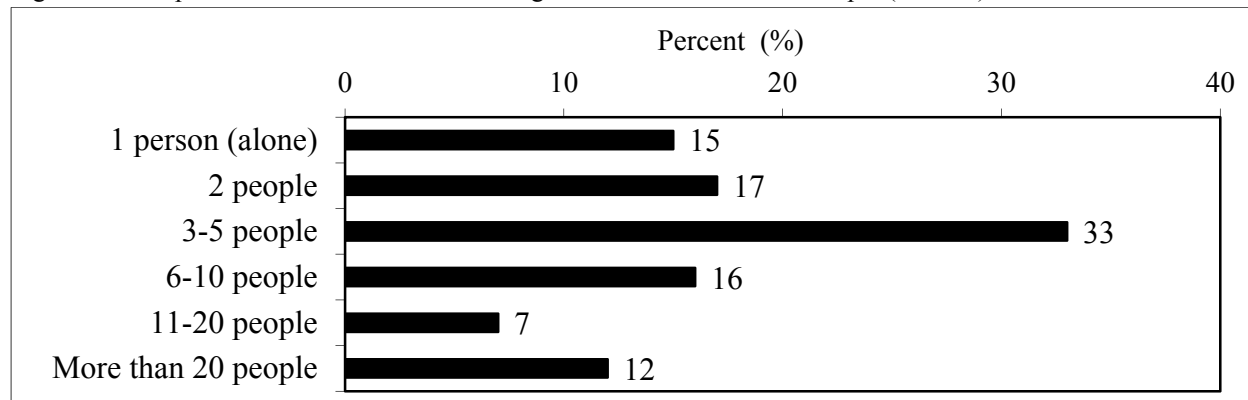
<sup>1</sup> Cell entries are percentages (%) who rated each as moderately or extremely important.



Table 8 shows that 10 of these 22 motivations differed among the four locations within the park, with most of these differences between visitors surveyed at the disc golf course versus those at the other locations. For example, doing something with family, exploring a new place, learning about the area, and participating in a special event were all significantly less important for visitors surveyed at the disc golf course. Conversely, getting exercise, escaping crowds of people, developing skills to get better at an activity, and being on their own were all more important to those at the disc golf course.

**Group Size.** Respondents were asked to report how many people, including themselves, accompanied them at Blue Lake Regional Park on the trip when they were surveyed. Figure 9 shows the average group size was 9 people, but groups most commonly consisted of 3 to 5 people (33%), 2 people (17%), or 6 to 10 people (16%). There was a significant difference among locations, as the average group size at the disc golf course was much smaller ( $M = 2$  people) compared to other locations in the park ( $M = 8$  to 10 people; Table 9).

Figure 9. Group size of visitors to Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> Average = 9 people.

Table 9. Group size of visitors to Blue Lake Regional Park for each location

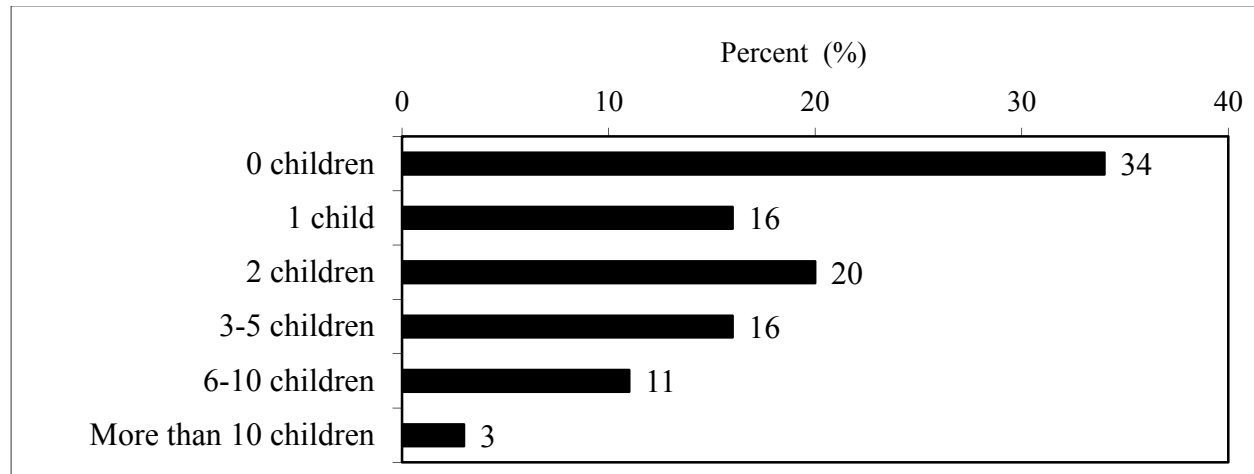
	Location <sup>1</sup>				Total
	Beach / spray pad ( $n = 99$ )	Boat rental / fishing pier ( $n = 61$ )	Central fields / picnic shelters ( $n = 165$ )	Disc golf course ( $n = 50$ )	
1 person (alone)	7	24	10	46	15
2 people	14	22	13	32	17
3 – 5 people	37	24	42	16	33
6 – 10 people	23	11	18	5	16
11 – 20 people	9	7	3	2	7
More than 20 people	11	13	14	0	12
Average (mean) <sup>2</sup>	10	8	10	2	9

<sup>1</sup> Cell entries are percentages (%) unless specified as means.  $\chi^2 = 69.47, p < .001$ , Cramer's  $V = .27$ .

<sup>2</sup> Cell entries are average number of people.  $F = 3.58, p = .014, \eta = .18$ .

In total, 66% of those surveyed were visiting this park with children age 14 and younger (Figure 10). The average number of children that respondents were visiting with was 3 children; 16% were visiting with 1 child, 20% were with 2 children, and 16% were visiting with 3 to 5 children. There was a difference among locations, as 87% of those surveyed at the disc golf course were not visiting with any children (compared to 18% to 43% at the other locations; Table 10).

Figure 10. Children (14 and younger) at Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> Average = 3 children. In total, 66% of visitors surveyed are visiting with children.

Table 10. Children (14 and younger) at Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad ( $n = 99$ )	Boat rental / fishing pier ( $n = 61$ )	Central fields / picnic shelters ( $n = 165$ )	Disc golf course ( $n = 50$ )	
0 children	24	43	18	87	34
1 child	15	18	22	9	16
2 children	19	16	29	2	20
3 – 5 children	23	7	16	0	16
6 – 10 children	14	13	9	2	11
More than 10 children	5	4	6	0	3
Average (mean) <sup>2</sup>	3	2	3	< 1	3

<sup>1</sup> Cell entries are percentages (%) unless specified as means.  $\chi^2 = 92.74, p < .001$ , Cramer’s  $V = .30$ .

<sup>2</sup> Cell entries are average number of children.  $F = 6.28, p < .001, \eta = .24$ .

**Section Summary.** Taken together, results in this section showed:

- In total, 72% of respondents had visited this park before, whereas 28% had not. Those at the disc golf course (86%) and beach / spray pad (79%) were more likely to have visited before compared to those at other locations (60% to 70%). Repeat visitors had been to this park an average of 8 times in the past, but the highest proportions made only 1 (24%)

or 2 to 3 (26%) previous trips. Visitors at the disc golf course had visited more often ( $M = 20$  trips) compared to those at other locations ( $M = 6$  to 9 trips).

- On average, visitors spent 3.5 hours in this park, with the largest proportions spending 2 to 2.5 hours (23%), 3 to 3.5 hours (22%), or 4 to 4.5 hours (20%). Visitors at the beach / spray pad spent the longest ( $M = 3.8$  hours), whereas those at the disc golf course spent the least amount of time ( $M = 2.9$  hours).
- The largest proportions of visitors traveled 10 to 14 miles (24%), 20 to 29 miles (17%), or 5 to 9 miles (16%) from home to get to this park. On average, visitors traveled 17 miles.
- The most popular activities at this park were picnicking and barbequing (46%), hiking or walking (40%), using the water spray / splash pad (36%), and relaxing on the lake's beach (31%); the least popular were softball, other boating (e.g., canoe, kayak, row), and playing horseshoes (all 3%). Most activities except for disc golf were much less popular among visitors at the disc golf course. Disc golf was extremely popular with visitors at the disc golf course, but not at other locations. Fishing was most popular at the boat rental / fishing pier area. Relaxing on the beach, swimming / wading, and using the water spray / splash pad were most popular among visitors at the beach / spray pad area.
- Respondents were then asked to specify the one main activity in which they participated at this park. The most common main activities were picnicking and barbequing (26%), using the water spray / splash pad (16%), and disc golf (13%); the least common were volleyball or basketball and birding / wildlife watching (both 1%). There was a difference among locations with 87% of visitors at the disc golf course rating disc golf as their main activity. Using the water spray / splash pad was a popular main activity at the beach / spray pad (22%), and swimming / wading was also popular at the beach / spray pad area (16%). Fishing was most popular at the boat rental / fishing pier area (20%).
- The most important reasons why respondents visited this park were to have fun and excitement (93%), be in the outdoors close to nature (88%), get away from the daily routine (88%), and experience nice weather and temperatures (88%). The least important reasons were to be on their own (41%), teach recreation skills to others (43%), and participate in a special event (e.g., race, wedding, company picnic; 50%). Doing something with family, exploring a new place, learning about the area, and participating in an event were less important for visitors at the disc golf course. Getting exercise,

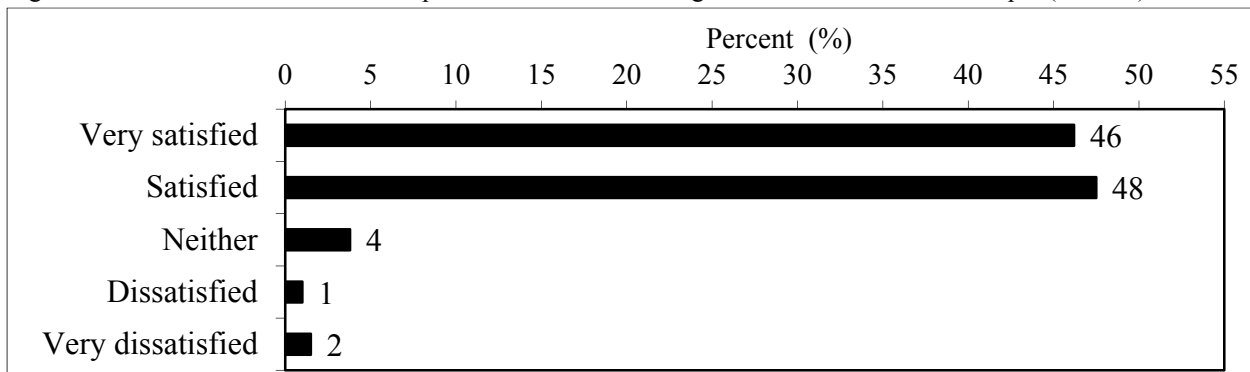
escaping crowds, developing skills to get better at an activity, and being on their own were all more important to those at the disc golf course.

- The average group size at this park was 9 people, but groups most commonly consisted of 3 to 5 (33%), 2 (17%), or 6 to 10 people (16%). The average group size at the disc golf course was much smaller ( $M = 2$  people) compared to other locations ( $M = 8$  to 10).
- In total, 66% of those surveyed were visiting this park with children age 14 and younger. There was a difference among locations, as 87% of those at the disc golf course were not visiting with any children (compared to 18% to 43% without children at other locations).

**Perceptions of Experiences and Conditions**

**Overall Satisfaction.** Respondents were asked “how dissatisfied or satisfied are you with your overall experience at Blue Lake Park today?” Figure 11 shows that overall satisfaction was extremely high, as 94% of park visitors were satisfied and few (3%) were dissatisfied. In addition, a high proportion of visitors reported being “very satisfied” (46%). Table 11 shows there were no differences in overall satisfaction among the four locations.

Figure 11. Satisfaction with overall experience at Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> Total percent satisfied = 94%.

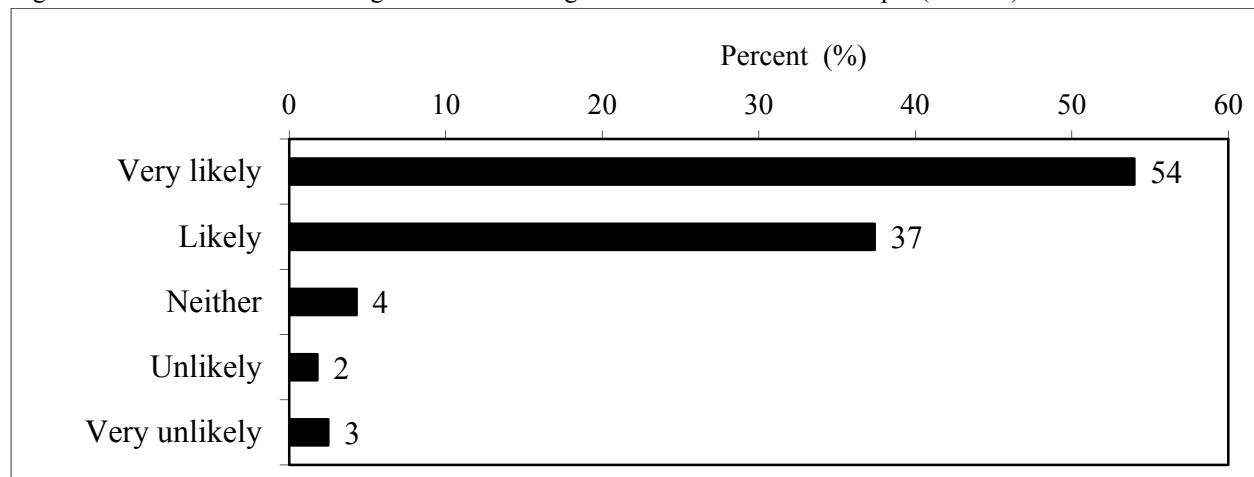
Table 11. Satisfaction with overall experience at Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad ( $n = 99$ )	Boat rental / fishing pier ( $n = 61$ )	Central fields / picnic shelters ( $n = 165$ )	Disc golf course ( $n = 50$ )	
Very satisfied	54	38	42	51	46
Satisfied	40	52	52	43	48
Neither	1	9	3	6	4
Dissatisfied	1	2	1	0	1
Very dissatisfied	3	0	1	0	2
Total percent satisfied	94	90	94	94	94

<sup>1</sup> Cell entries are percentages (%).  $\chi^2 = 16.99, p = .150$  (ns), Cramer’s  $V = .13$ .

**Likelihood of Returning.** Similar to overall satisfaction, respondent likelihood of returning to Blue Lake Regional Park was also high. Figure 12 shows that 91% of respondents reported they were likely to return to this park in the future, with 54% being “very likely.” Table 12 shows a slight difference among locations with those at the disc golf course more likely to report future visitation as “very likely” (77% compared to 37% to 58% at other locations), and those at the boat rental / fishing pier having the lowest likelihood of returning (84% compared to 90% to 95% at other locations). These results, however, are not surprising because overall satisfaction and related concepts such as repeat visitation are almost always uniformly high in recreation with most studies reporting that more than 80% of recreationists are typically satisfied (Manning, 2011). High overall satisfaction and repeat visitation does not mean: (a) respondents are satisfied with every aspect of their experience, (b) there is nothing problematic with the setting or experience, and (c) there is no reason to make improvements. Instead, it is important to examine other aspects of the setting and experience (e.g., safety, crowding) to inform management.

Figure 12. Likelihood of returning to Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> Total percent likely to return = 91%.

Table 12. Likelihood of returning to Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad ( $n = 99$ )	Boat rental / fishing pier ( $n = 61$ )	Central fields / picnic shelters ( $n = 165$ )	Disc golf course ( $n = 50$ )	
Very likely	58	37	54	77	54
Likely	36	47	41	13	37
Neither	3	11	3	2	4
Unlikely	1	2	1	4	2
Very unlikely	2	4	2	4	3
Total percent likely	94	84	95	90	91

<sup>1</sup> Cell entries are percentages (%).  $\chi^2 = 28.67, p = .004$ , Cramer’s  $V = .17$ .

**Importance and Satisfaction Regarding Amenities and Facilities.** Research has also shown that although recreationists may be satisfied with an aspect of the setting or their experience, it may not be important to them that this characteristic is actually provided or available (Manning, 2011). Visitors, for example, may be satisfied with information provided about an area, but feel that educational information is not an important characteristic of good experiences in the setting. This project, therefore, first measured respondent expectations by asking them the extent they believed that several attributes of Blue Lake Regional Park were important to them (e.g., personal safety, absence of litter, available parking, signs). Then, respondents reported their satisfaction with these same attributes at this park to measure performance.

Figure 13. Importance of amenities and facilities at Blue Lake Regional Park for the entire sample (n = 433)

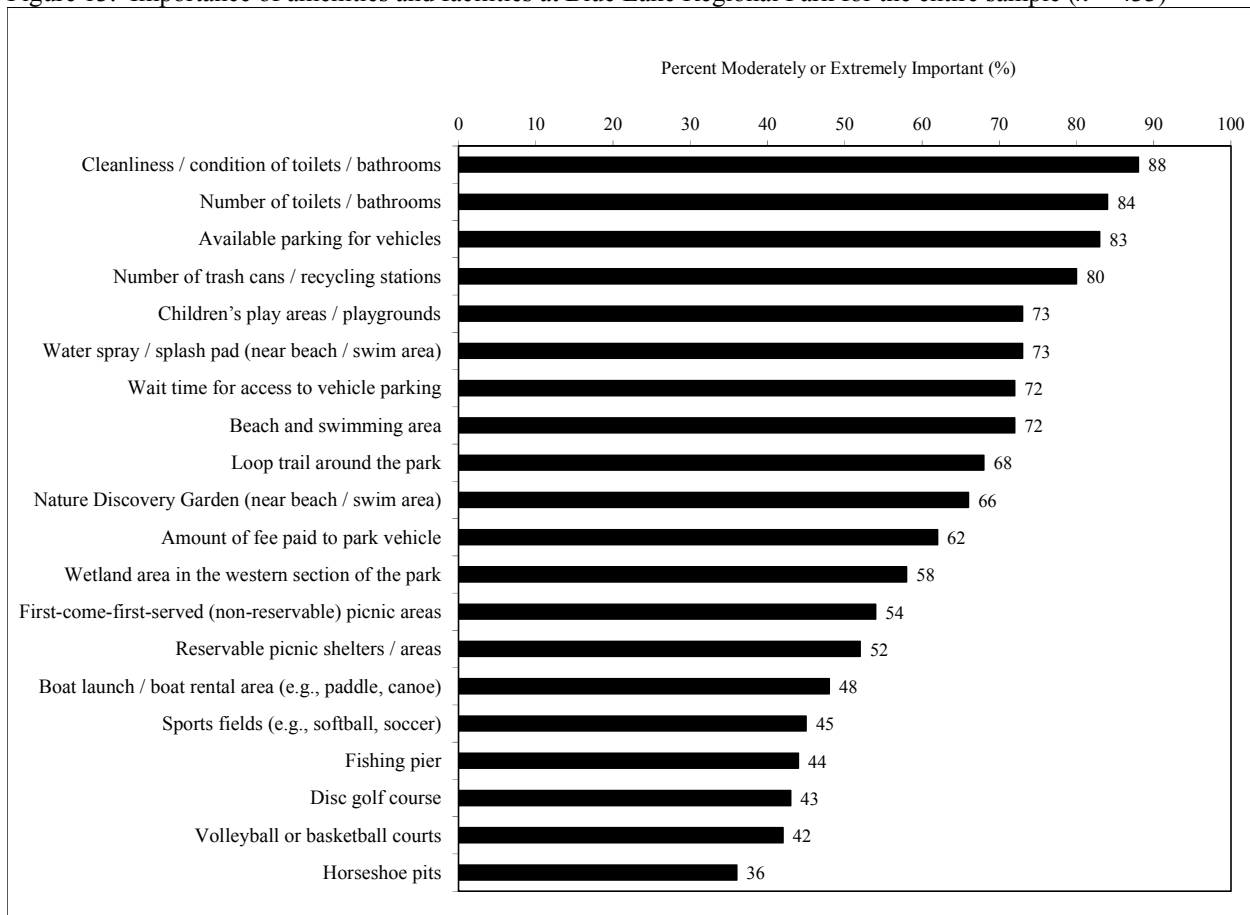


Figure 13 shows that visitors considered the most important *amenities and facilities* at this park to be the cleanliness and condition of toilets (88% moderately or extremely important), number of toilets (84%), available parking for vehicles (83%), and number of trash cans and recycling stations (80%). The least important amenities and facilities were the horseshoe pits (36%), volleyball and basketball courts (42%), disc golf course (43%), and fishing pier (44%). Table 13

shows that importance of 12 of these 20 amenities and facilities differed among locations, with most of these differences between visitors at the disc golf course versus the other locations. Cleanliness and number of toilets, reservable and non-reservable picnic areas, children’s play areas, loop trails around the park, and the water spray / splash pad, beach and swimming area, discovery garden, fishing pier, and boat launch were significantly less important for visitors surveyed at the disc golf course. Conversely, the disc golf course was significantly more important for those at the disc golf course compared to those surveyed at the other locations.

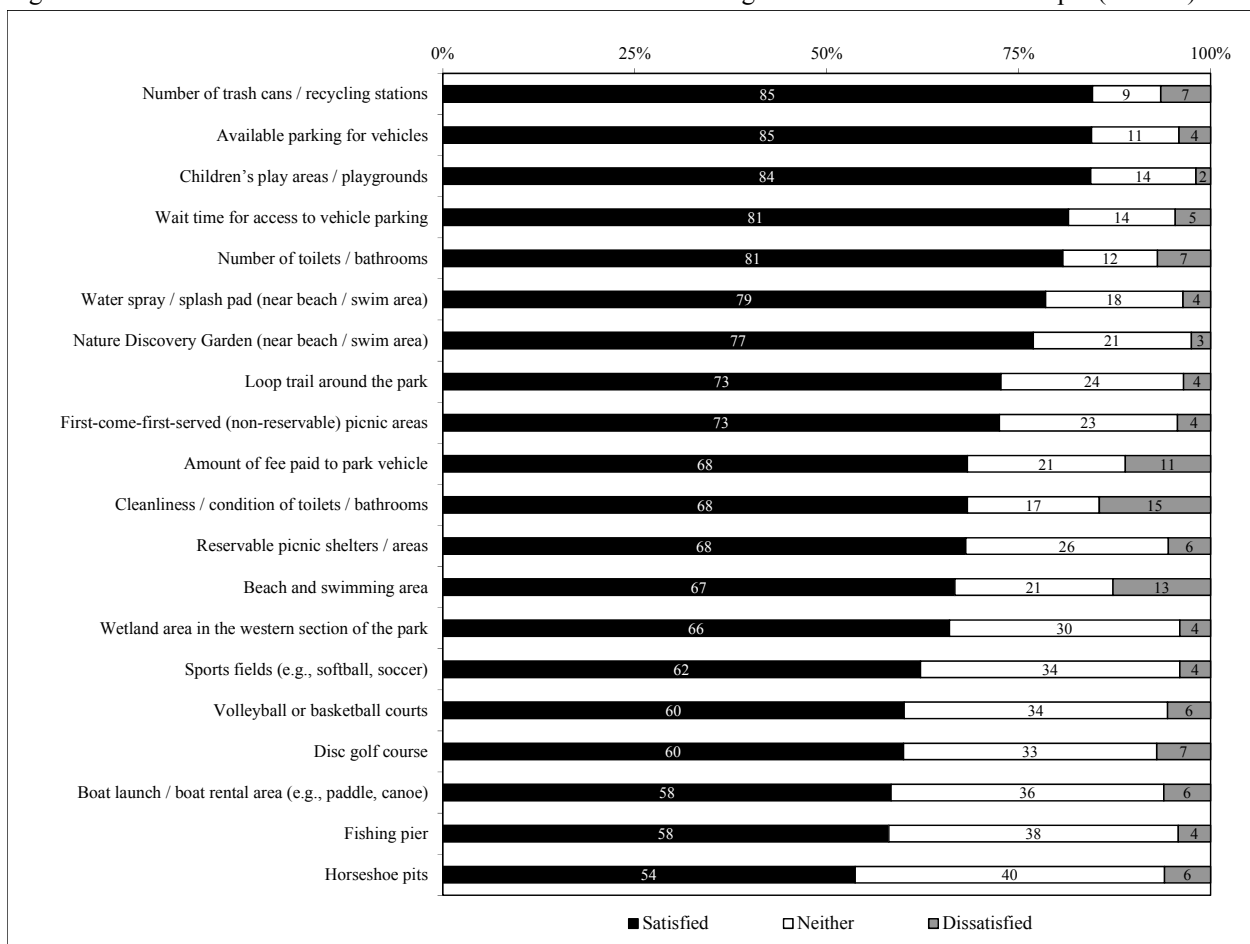
Table 13. Importance of amenities and facilities at Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total	$\chi^2$ -value	p-value	Cramer’s V
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)				
Cleanliness / condition of toilets / bathrooms	89	93	89	75	88	8.29	.040	.17
Number of toilets / bathrooms	86	93	81	71	84	10.38	.016	.17
Available parking for vehicles	79	85	84	80	83	1.70	.637 (ns)	.07
Number of trash cans / recycling stations	79	91	77	75	80	7.16	.067 (ns)	.13
Children’s play areas / playgrounds	77	76	82	47	73	21.37	< .001	.26
Water spray / splash pad (near beach / swim area)	76	75	79	46	73	19.26	< .001	.25
Wait time for access to vehicle parking	69	81	76	62	72	5.95	.114 (ns)	.13
Beach and swimming area	83	73	74	45	72	22.16	< .001	.26
Loop trail around the park	59	79	72	49	68	15.46	.001	.21
Nature Discovery Garden (near beach / swim area)	60	75	72	45	66	15.34	.002	.22
Amount of fee paid to park vehicle	64	67	61	55	62	1.75	.625 (ns)	.07
Wetland area in the western section of the park	55	67	61	41	58	7.80	.051 (ns)	.15
First-come-first-served (non-reservable) picnic areas	59	62	57	30	54	13.25	.004	.20
Reservable picnic shelters / areas	51	69	51	34	52	13.15	.004	.19
Boat launch / boat rental area (e.g., paddle, canoe)	40	58	53	38	48	8.40	.038	.16
Sports fields (e.g., softball, soccer)	41	50	50	45	45	2.01	.571 (ns)	.08
Fishing pier	37	57	47	34	44	7.98	.046	.15
Disc golf course	31	42	37	94	43	59.93	< .001	.40
Volleyball / basketball courts	40	47	46	33	42	3.66	.301 (ns)	.10
Horseshoe pits	28	42	42	33	36	5.84	.120 (ns)	.13

<sup>1</sup> Cell entries are percentages (%) who rated each as moderately or extremely important.

Figure 14 shows that the majority of visitors were satisfied with most of these amenities and facilities at Blue Lake Regional Park. Visitors were most satisfied with the number of trash cans and recycling stations (85%), available parking for vehicles (85%), children’s play areas and playgrounds (84%), wait time for access to vehicle parking (81%), and number of toilets (81%). Visitors were most dissatisfied with the cleanliness and condition of toilets (15%), beach and swimming area (13%), and amount of fee paid to park vehicles (11%). Table 14 shows that satisfaction with only 3 of these 20 amenities and facilities differed among locations. Satisfaction with the disc golf course was much higher (91%) among visitors surveyed at the disc golf course compared to the other locations (46% to 60%). In addition, satisfaction with the reservable picnic shelters and the fishing pier was higher among visitors surveyed at the boat rental / fishing pier area and central fields / picnic shelters compared to the other locations.

Figure 14. Satisfaction with amenities and facilities at Blue Lake Regional Park for the entire sample (n = 433)<sup>1</sup>



<sup>1</sup> Respondents who answered “I did not use” were excluded from these percentages.



Table 14. Satisfaction with amenities and facilities at Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total	$\chi^2$ -value	<i>p</i> -value	Cramer's <i>V</i>
	Beach / spray pad ( <i>n</i> = 99)	Boat rental / fishing pier ( <i>n</i> = 61)	Central fields / picnic shelters ( <i>n</i> = 165)	Disc golf course ( <i>n</i> = 50)				
Number of trash cans / recycling stations	87	89	86	78	85	2.53	.470 (ns)	.09
Available parking for vehicles	85	91	83	87	85	1.87	.599 (ns)	.07
Children's play areas / playgrounds	86	95	85	78	84	4.69	.196 (ns)	.12
Wait time for access to vehicle parking	82	89	81	77	81	2.48	.479 (ns)	.09
Number of toilets / bathrooms	81	87	79	78	81	2.08	.555 (ns)	.08
Water spray / splash pad (near beach / swim area)	81	87	82	69	79	2.82	.421 (ns)	.11
Nature Discovery Garden (near beach / swim area)	77	88	81	60	77	6.80	.079 (ns)	.17
Loop trail around the park	65	83	78	66	73	6.20	.102 (ns)	.16
First-come-first-served (non-reservable) picnic areas	78	76	76	55	73	6.13	.106 (ns)	.16
Amount of fee paid to park vehicle	64	64	76	59	68	6.97	.073 (ns)	.15
Cleanliness / condition of toilets / bathrooms	67	66	69	73	68	0.65	.885 (ns)	.05
Reservable picnic shelters / areas	65	91	72	41	68	18.91	< .001	.28
Beach and swimming area	70	57	69	64	67	1.79	.618 (ns)	.09
Wetland area in the western section of the park	59	71	73	58	66	4.49	.213 (ns)	.15
Sports fields (e.g., softball, soccer)	54	65	67	70	62	3.13	.372 (ns)	.13
Volleyball or basketball courts	49	70	66	68	60	5.22	.156 (ns)	.17
Disc golf course	46	60	58	91	60	25.24	< .001	.33
Boat launch / boat rental area (e.g., paddle, canoe)	55	75	62	46	58	5.55	.136 (ns)	.17
Fishing pier	50	77	65	44	58	9.64	.022	.22
Horseshoe pits	46	56	63	55	54	3.44	.328 (ns)	.14

<sup>1</sup> Cell entries are percentages (%) who rated each as satisfied or very satisfied.

One approach for visualizing relationships between expectations (i.e., importance of attributes) and satisfaction (i.e., performance of these attributes) is Importance-Performance (I-P) analysis (Figure 15). Importance or expectations are represented as averages (i.e., means) on the vertical axis (i.e., y-axis) and average performance or experiences (i.e., satisfaction) are measured on the horizontal axis (i.e., x-axis). When combined, these axes intersect and produce a matrix of four quadrants that can be interpreted as “concentrate here” (high importance or expectation, low satisfaction or poor experiences; Quadrant A), “keep up the good work” (high importance or

expectation and high satisfaction or good experiences; Quadrant B), “low priority” (low importance or expectation and low satisfaction or poor experiences; Quadrant C), and “possible overkill” (low importance or expectation, high satisfaction or good experiences; Quadrant D). This matrix provides managers with an easily understandable picture of the status of services, facilities, and conditions as perceived by visitors, and reveals issues that may or may not need attention (Bruyere, Rodriguez, & Vaske, 2002; Manning, 2011; Needham et al., 2016).

Figure 15. Importance-performance (I-P) analysis matrix

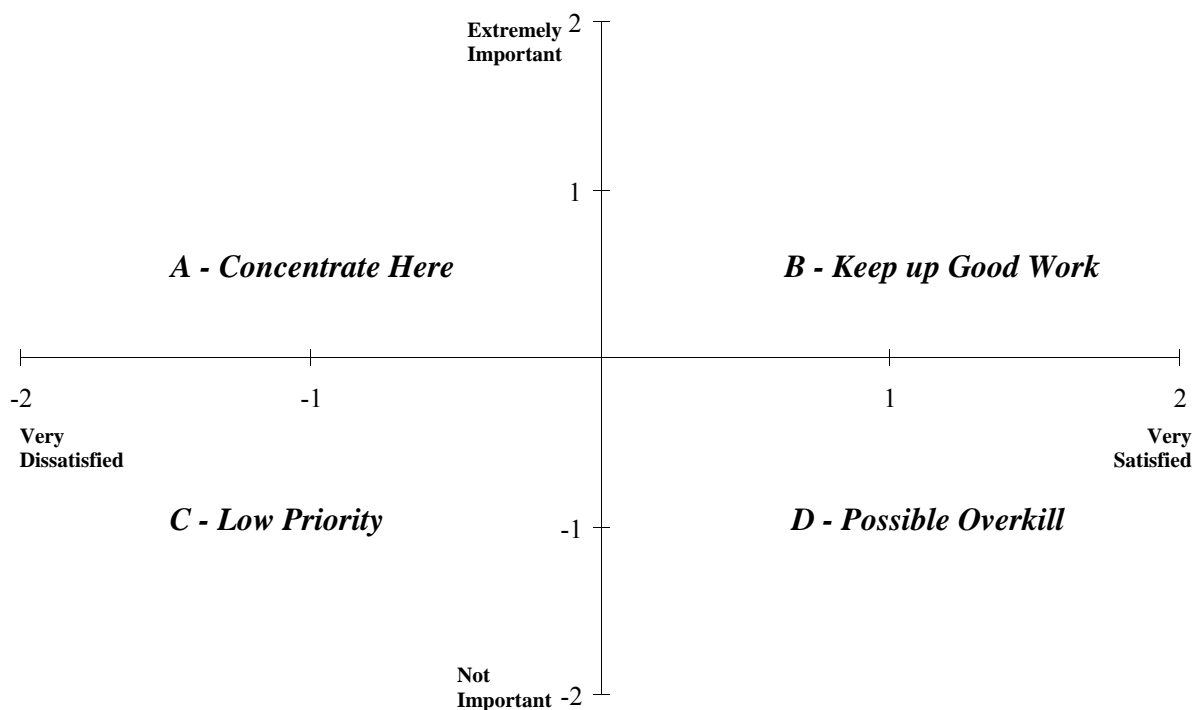


Figure 16 is the I-P matrix of amenities and facilities for the entire sample (i.e., all locations combined). This matrix shows that although horseshoe pits were in the “possible overkill” quadrant (i.e., satisfied, but low importance), all other attributes were in the “keep up the good work” quadrant, indicating that visitors thought park personnel were doing a good job managing amenities and facilities at Blue Lake Regional Park. It is important, however, to examine this “keep up the good work” quadrant (i.e., dashed lines), as there were some attributes that were highly important to visitors, but these visitors were only slightly satisfied with these attributes. These attributes include the beach and swimming area, and cleanliness and condition of toilets.

Figure 16. Importance-performance analysis for amenities and facilities at Blue Lake Regional Park for the entire sample (n = 433)

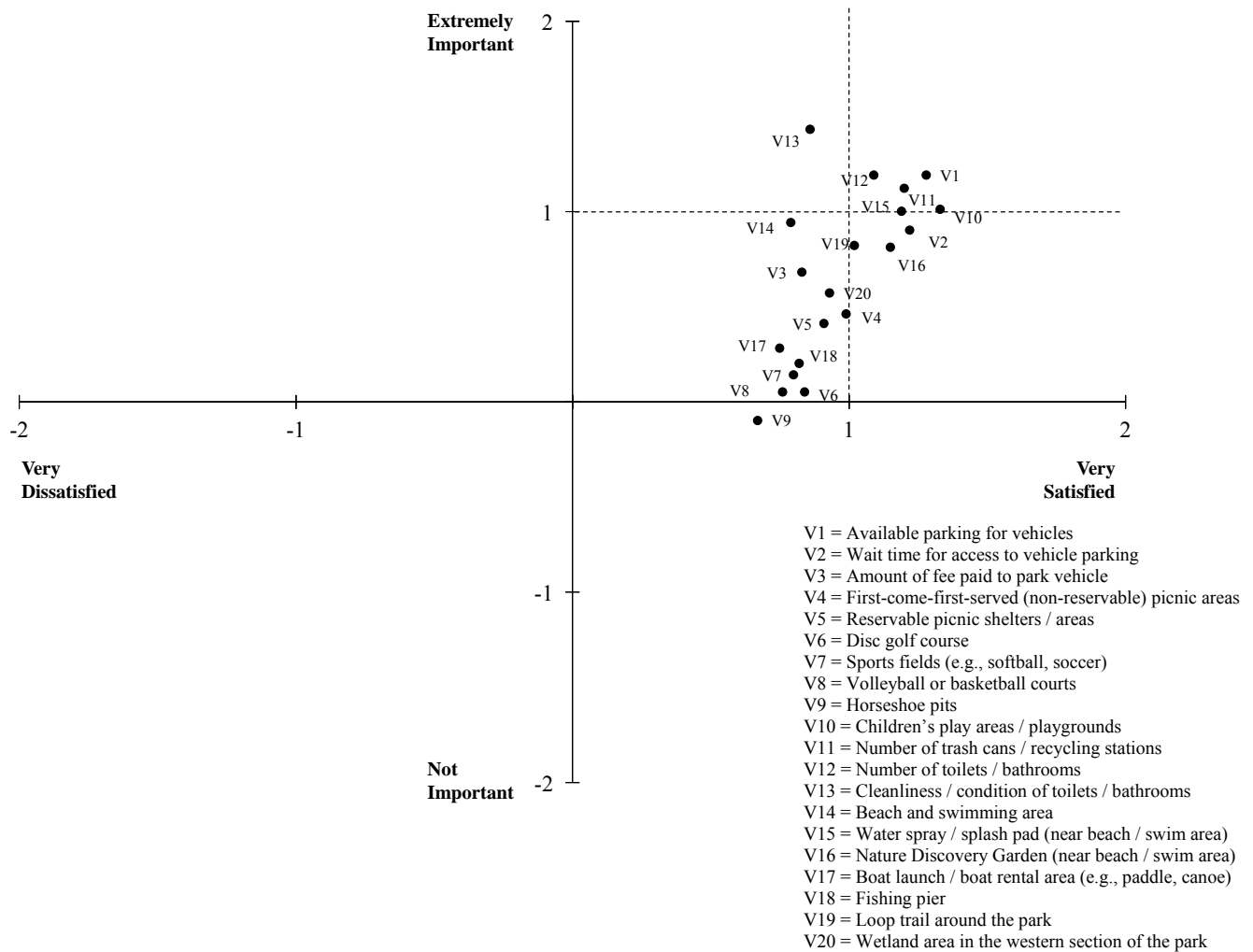
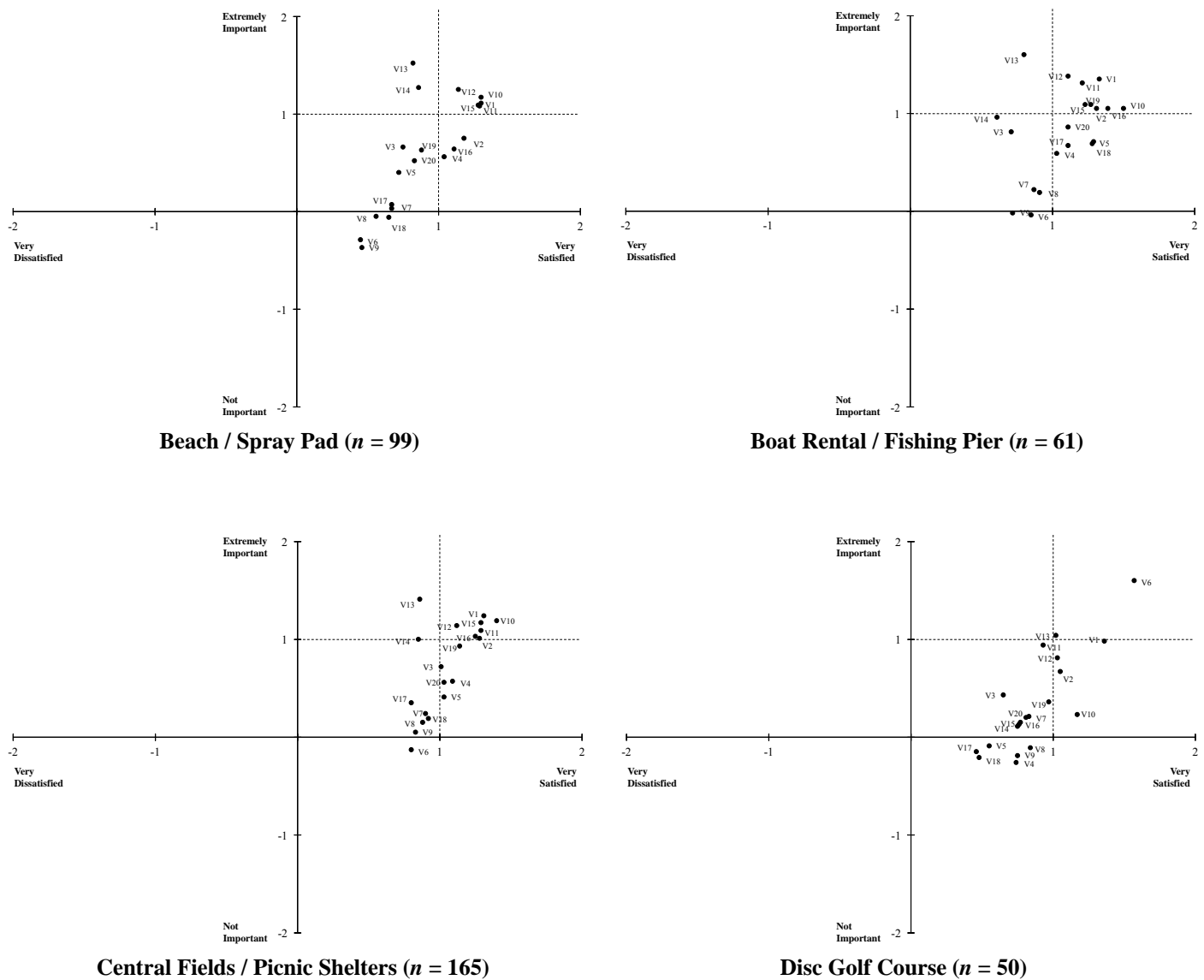


Figure 17 shows the I-P matrices for visitors surveyed at each of the four locations. Visitors at the beach / spray pad area considered the disc golf course, volleyball and basketball courts, horseshoe pits, and fishing pier to be in the “possible overkill” quadrant (i.e., satisfied, but low importance). Likewise, visitors surveyed at the boat rental / fishing pier area and the central fields / picnic shelters also rated the disc golf course to be “possible overkill.” Conversely, visitors surveyed at the disc golf course considered the picnic areas and shelters, volleyball and basketball courts, horseshoe pits, boat launch, and fishing pier to be “possible overkill.” All other attributes at each location were in the “keep up the good work” quadrant. There were, however, some attributes that were highly important to visitors at most of the locations, but these visitors were only slightly satisfied with these attributes. These attributes were the beach and swimming area, and cleanliness and condition of toilets.

Figure 17. Importance-performance analysis for amenities and facilities at Blue Lake Regional Park for each location



- V1 = Available parking for vehicles
- V2 = Wait time for access to vehicle parking
- V3 = Amount of fee paid to park vehicle
- V4 = First-come-first-served (non-reservable) picnic areas
- V5 = Reservable picnic shelters / areas
- V6 = Disc golf course
- V7 = Sports fields (e.g., softball, soccer)
- V8 = Volleyball or basketball courts
- V9 = Horseshoe pits
- V10 = Children’s play areas / playgrounds

- V11 = Number of trash cans / recycling stations
- V12 = Number of toilets / bathrooms
- V13 = Cleanliness / condition of toilets / bathrooms
- V14 = Beach and swimming area
- V15 = Water spray / splash pad (near beach / swim area)
- V16 = Nature Discovery Garden (near beach / swim area)
- V17 = Boat launch / boat rental area (e.g., paddle, canoe)
- V18 = Fishing pier
- V19 = Loop trail around the park
- V20 = Wetland area in the western section of the park

**Importance and Satisfaction Regarding Management and Maintenance.** The questionnaire also measured visitor ratings of importance and satisfaction with various attributes related to *management and maintenance* at Blue Lake Regional Park. Figure 18 shows that visitors considered the most important attributes associated with management and maintenance at this park to be the absence of litter (91% moderately or extremely important), condition of the natural

environment in the park (91%), safe facilities and services (90%), overall cleanliness of the park (90%), personal safety (89%), courteous park staff and personnel (88%), and clean facilities and services (88%). The least important attributes were the quality (65%) and amount (66%) of informational and educational materials (e.g., signs, brochures), ease of movement or access (e.g., wheelchair, elderly, baby stroller; 76%), and ability to access and find park staff or personnel (78%). Table 15 shows that importance of only 3 of these 21 attributes related to management and maintenance differed among locations, with most of these differences between visitors at the disc golf course versus the other locations. Personal safety, places or facilities for groups to gather, and accessible or easy to find park staff and personnel were significantly less important for visitors surveyed at the disc golf course compared to those at the other locations.

Figure 18. Importance of management and maintenance at Blue Lake Regional Park for the entire sample (n = 433)

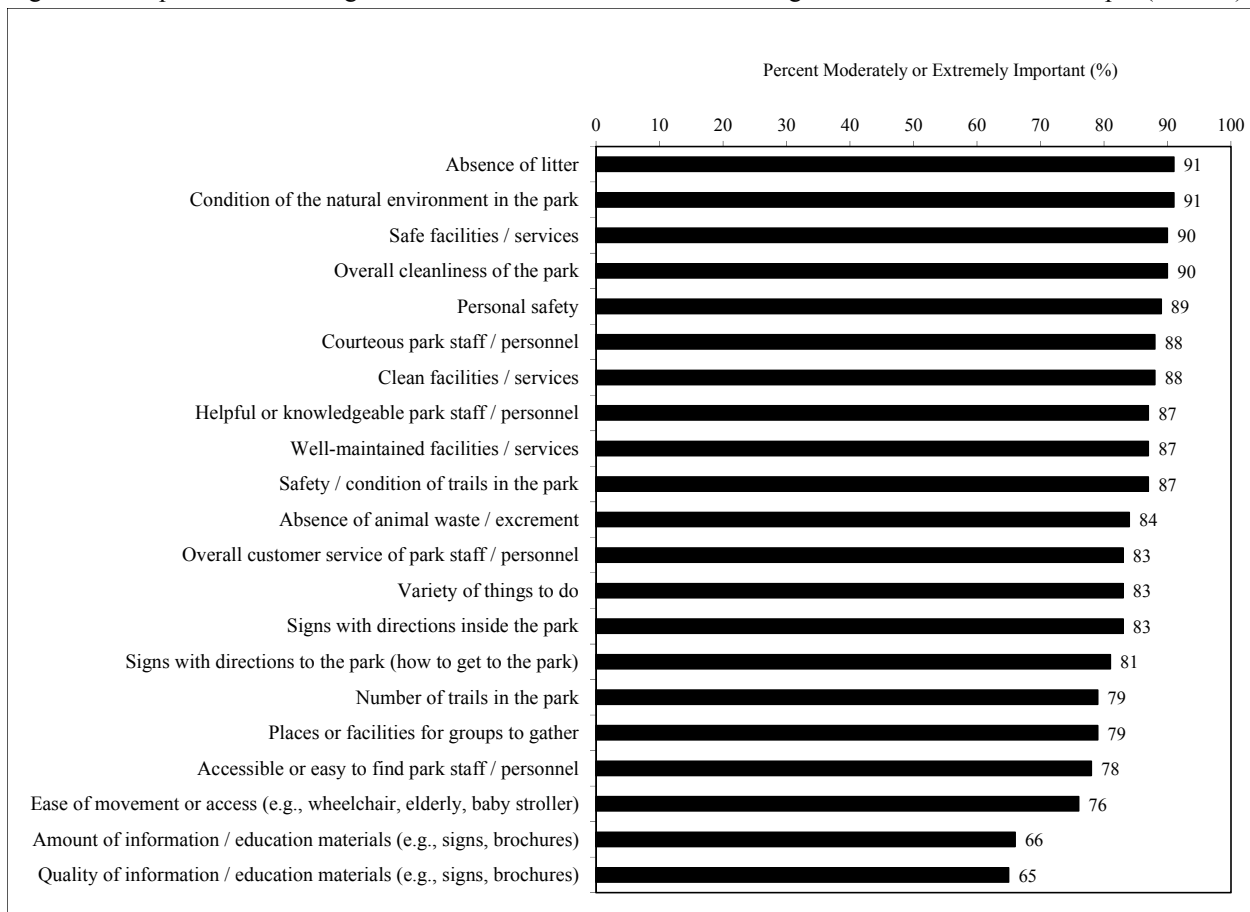


Table 15. Importance of management and maintenance at Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total	$\chi^2$ -value	<i>p</i> -value	Cramer's <i>V</i>
	Beach / spray pad ( <i>n</i> = 99)	Boat rental / fishing pier ( <i>n</i> = 61)	Central fields / picnic shelters ( <i>n</i> = 165)	Disc golf course ( <i>n</i> = 50)				
Absence of litter	90	91	93	89	91	0.82	.846 (ns)	.05
Condition of the natural environment in the park	93	95	89	89	91	2.35	.504 (ns)	.08
Safe facilities / services	93	89	92	78	90	7.14	.068 (ns)	.16
Overall cleanliness of the park	92	93	88	89	90	1.38	.710 (ns)	.07
Personal safety	88	93	91	75	89	8.82	.032	.18
Courteous park staff / personnel	90	90	88	81	88	2.29	.515 (ns)	.09
Clean facilities / services	88	89	90	81	88	2.46	.483 (ns)	.09
Helpful or knowledgeable park staff / personnel	91	91	83	78	87	6.14	.105 (ns)	.14
Well-maintained facilities / services	87	90	88	83	87	1.18	.758 (ns)	.06
Safety / condition of trails in the park	88	89	87	81	87	1.51	.681 (ns)	.07
Absence of animal waste / excrement	86	84	83	85	84	0.45	.930 (ns)	.04
Overall customer service of park staff / personnel	85	80	84	71	83	4.38	.223 (ns)	.12
Variety of things to do	81	85	87	71	83	5.51	.138 (ns)	.14
Signs with directions inside the park	84	85	84	71	83	4.32	.229 (ns)	.12
Signs with directions to the park (how to get to park)	87	76	82	70	81	6.79	.079 (ns)	.15
Number of trails in the park	81	80	81	73	79	1.36	.716 (ns)	.07
Places or facilities for groups to gather	84	80	80	61	79	8.87	.031	.18
Accessible or easy to find park staff / personnel	84	80	76	61	78	8.84	.031	.17
Ease of movement or access (wheelchair, elderly, stroller)	81	78	80	61	76	6.99	.072 (ns)	.16
Amount of information / education materials (e.g., signs, brochures)	69	62	69	49	66	6.90	.075 (ns)	.15
Quality of information / education materials (e.g., signs, brochures)	69	61	67	51	65	4.92	.177 (ns)	.13

<sup>1</sup> Cell entries are percentages (%) who rated each as moderately or extremely important.

Figure 19. Satisfaction with management and maintenance at Blue Lake Regional Park for the entire sample (n = 433)<sup>1</sup>

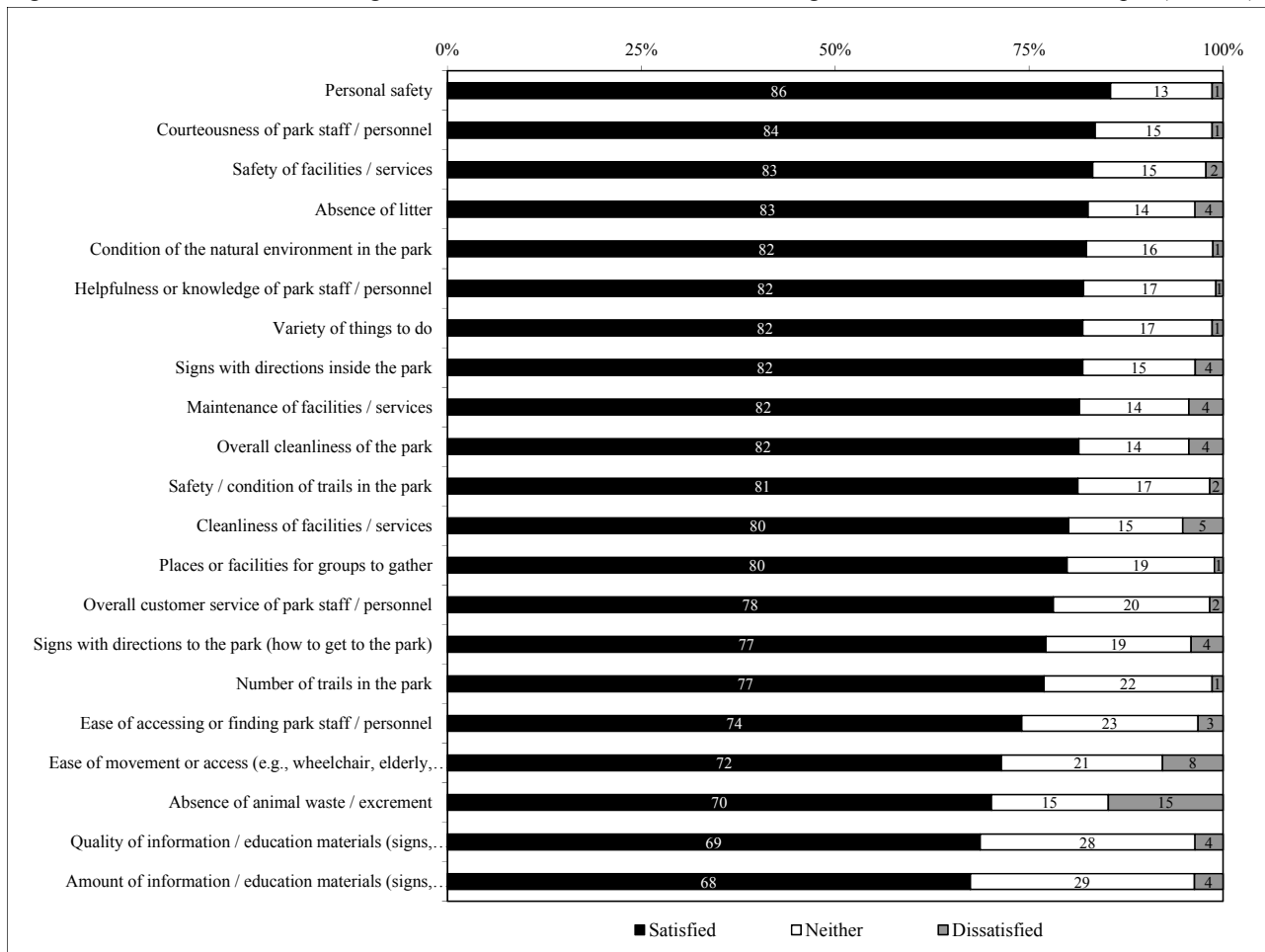


Figure 19 shows that the majority of visitors were satisfied with most of these attributes related to management and maintenance at Blue Lake Regional Park. Visitors were most satisfied with personal safety (86%), courteousness of park staff and personnel (84%), safety of facilities and services (83%), absence of litter (83%), condition of the natural environment (82%), helpfulness and knowledge of park staff and personnel (82%), variety of things to do (82%), signs with directions inside the park (82%), maintenance of facilities and services (82%), and overall cleanliness of the park (82%). Visitors were most dissatisfied with the absence of animal waste and excrement (15%) and ease of movement or access in the park (e.g., wheelchair, elderly, baby stroller; 8%). Table 16 shows there were no statistically significant differences in satisfaction with any of these attributes related to management and maintenance among the four locations.

Table 16. Satisfaction with management and maintenance at Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total	$\chi^2$ -value	p-value	Cramer's V
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)				
Personal safety	89	91	84	80	86	3.24	.356 (ns)	.10
Courteousness of park staff / personnel	87	84	83	83	84	0.70	.873 (ns)	.05
Safety of facilities / services	84	83	82	83	83	0.23	.972 (ns)	.03
Absence of litter	84	83	82	80	83	0.31	.959 (ns)	.03
Condition of the natural environment in the park	86	90	80	77	82	4.76	.190 (ns)	.12
Helpfulness or knowledge of park staff / personnel	85	85	81	83	82	1.06	.787 (ns)	.06
Variety of things to do	82	85	84	84	82	0.23	.972 (ns)	.03
Signs with directions inside the park	87	78	81	86	82	2.65	.449 (ns)	.09
Maintenance of facilities / services	79	84	83	80	82	0.72	.868 (ns)	.05
Overall cleanliness of park	85	77	81	83	82	1.29	.732 (ns)	.06
Safety / condition of trails in the park	86	88	78	79	81	3.84	.280 (ns)	.11
Cleanliness of facilities / services	81	85	81	77	80	1.03	.795 (ns)	.06
Places or facilities for groups to gather	87	79	83	70	80	5.28	.152 (ns)	.13
Overall customer service of park staff / personnel	78	81	78	78	78	0.27	.966 (ns)	.03
Signs with directions to the park (how to get to park)	81	74	79	80	77	1.12	.772 (ns)	.06
Number of trails in the park	82	80	77	72	77	1.82	.610 (ns)	.08
Ease of accessing or finding park staff / personnel	74	80	74	72	74	0.87	.832 (ns)	.05
Ease of movement or access (wheelchair, elderly, stroller)	78	67	74	63	72	4.10	.251 (ns)	.12
Absence of animal waste / excrement	67	70	70	77	70	1.49	.686 (ns)	.07
Quality of information / education materials (signs, brochures)	75	70	70	64	69	1.75	.626 (ns)	.08
Amount of information / education materials (signs, brochures)	73	68	70	62	68	1.66	.647 (ns)	.07

<sup>1</sup> Cell entries are percentages (%) who rated each as satisfied or very satisfied.

Figure 20 shows the I-P matrix of attributes associated with management and maintenance for the entire sample (i.e., all locations combined). All attributes were in the “keep up the good work” quadrant, indicating that visitors thought park personnel were doing a good job with management and maintenance at Blue Lake Regional Park. There were, however, some management and maintenance attributes that were highly important to visitors, but these visitors



were only slightly satisfied with these attributes. These attributes were the absence of animal waste and excrement, and the ease of movement or access (e.g., wheelchair, elderly, stroller).

Figure 20. Importance-performance analysis for management and maintenance at Blue Lake Regional Park for the entire sample ( $n = 433$ )

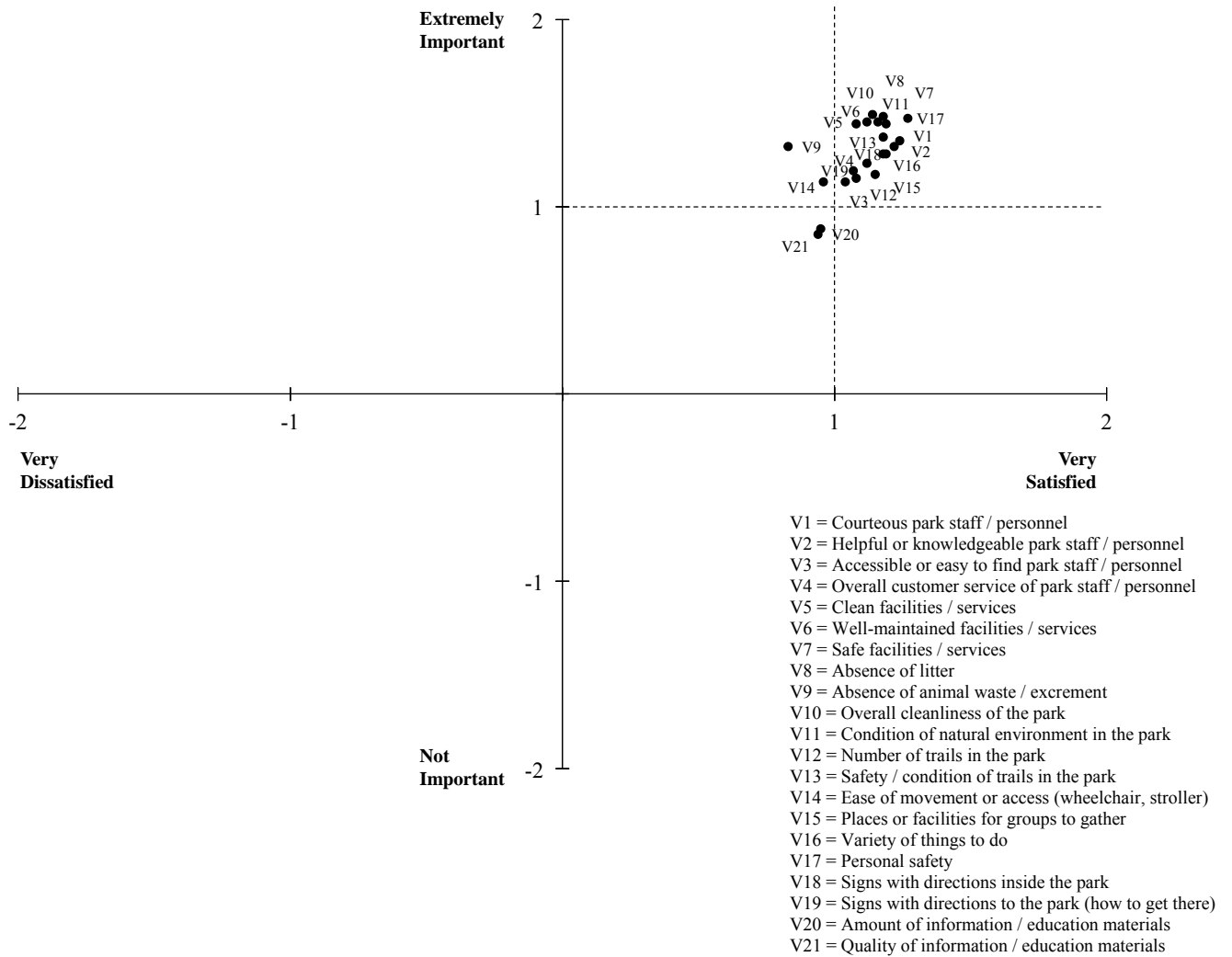
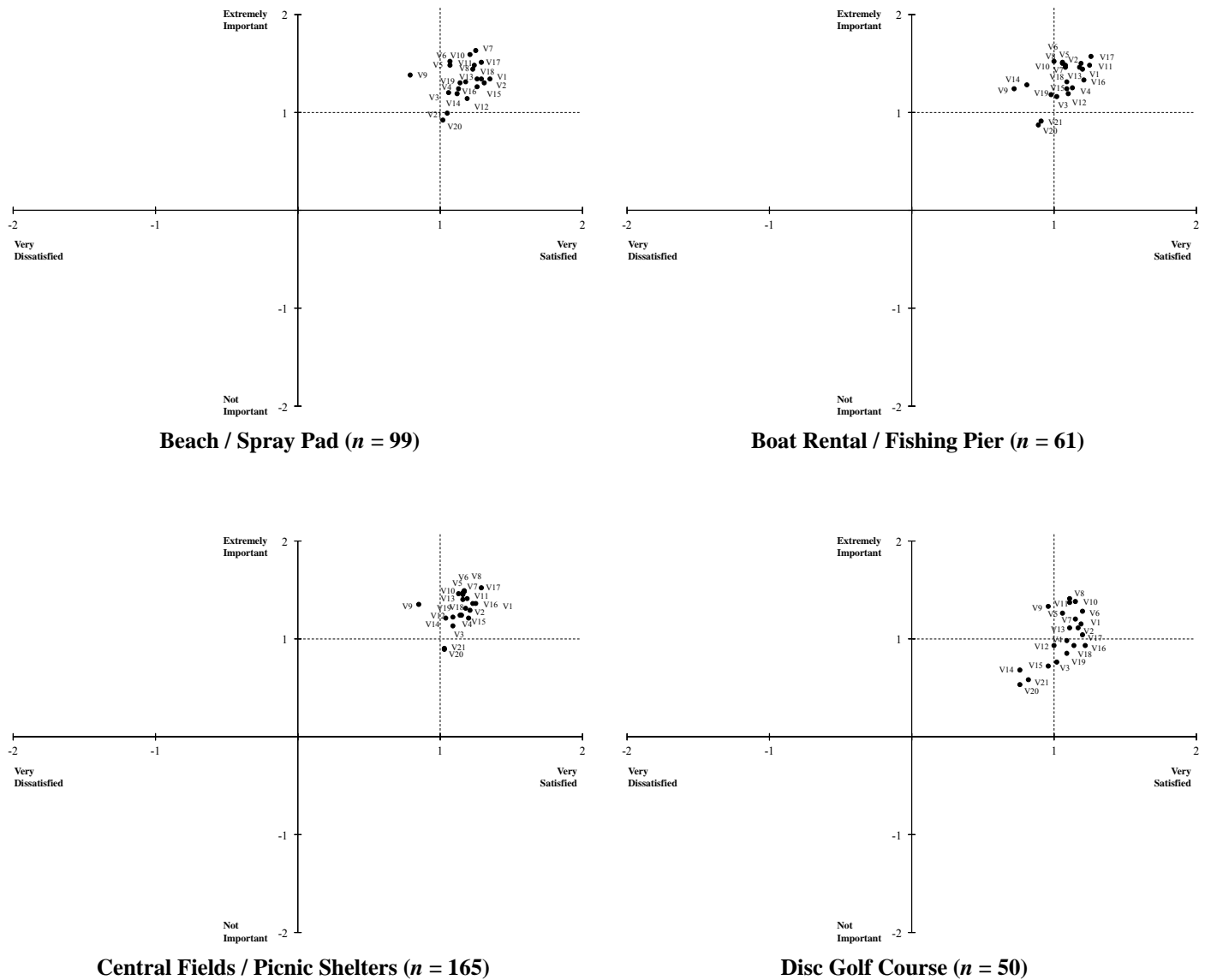


Figure 21 shows the I-P matrices of attributes associated with management and maintenance for visitors surveyed at each of the four locations. All attributes at each location were in the “keep up the good work” quadrant, indicating visitors thought that park personnel were doing a good job with management and maintenance at each location. There were, however, some management and maintenance attributes that were highly important to visitors, but these visitors were only slightly satisfied with these attributes at each location. These attributes included the absence of animal waste and excrement at all four locations, as well as the ease of movement or access at the boat rental / fishing pier area (e.g., wheelchair, elderly, stroller).

Figure 21. Importance-performance analysis for management and maintenance at Blue Lake Regional Park for each location



- V1 = Courteous park staff / personnel
- V2 = Helpful or knowledgeable park staff / personnel
- V3 = Accessible or easy to find park staff / personnel
- V4 = Overall customer service of park staff / personnel
- V5 = Clean facilities / services
- V6 = Well-maintained facilities / services
- V7 = Safe facilities / services
- V8 = Absence of litter
- V9 = Absence of animal waste / excrement
- V10 = Overall cleanliness of the park
- V11 = Condition of natural environment in the park

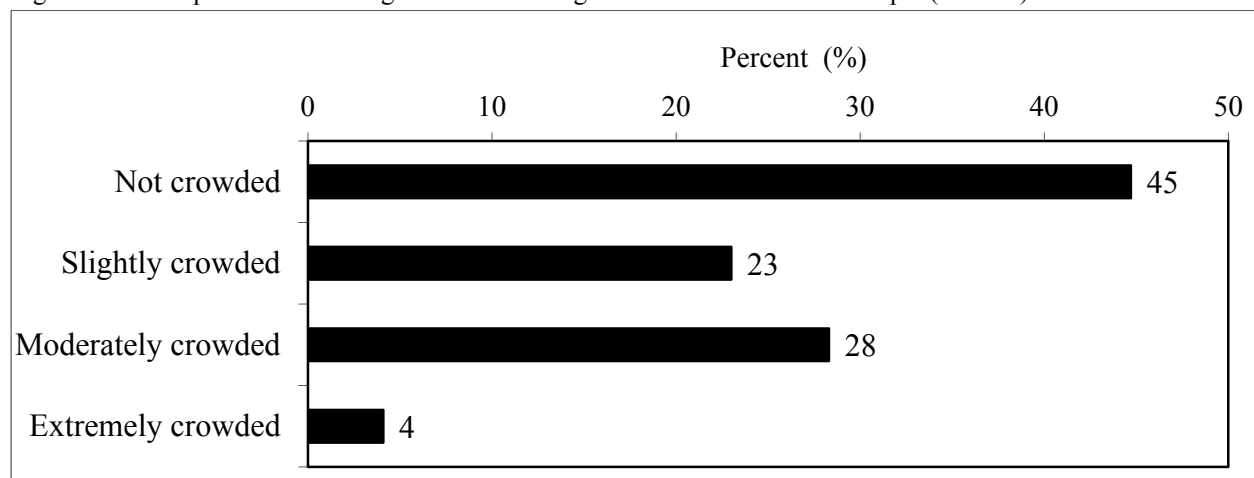
- V12 = Number of trails in the park
- V13 = Safety / condition of trails in the park
- V14 = Ease of movement or access (wheelchair, stroller)
- V15 = Places or facilities for groups to gather
- V16 = Variety of things to do
- V17 = Personal safety
- V18 = Signs with directions inside the park
- V19 = Signs with directions to the park (how to get there)
- V20 = Amount of information / education materials
- V21 = Quality of information / education materials

**Perceptions of Crowding.** Perceived crowding is a subjective and negative evaluation that the reported number of encounters or people observed in an area is excessive (Shelby, Vaske, & Heberlein, 1989; Vaske & Shelby, 2008). The questionnaire measured this concept using the 9-point perceived crowding scale of 1 “not at all crowded” to 9 “extremely crowded” that has been

used extensively and tested rigorously (Manning, 2007, 2011; Shelby et al., 1989; Vaske & Donnelly, 2002; Vaske & Shelby, 2008). Figure 22 shows that 55% of visitors felt crowded (3-9 on scale) during their visit to Blue Lake Regional Park (23% slightly, 28% moderately, 4% extremely crowded). Table 17 shows a difference in crowding among the locations, as 60% felt crowded at the boat rental / fishing pier and the central fields / picnic shelters, and 55% felt crowded at the beach / spray pad area, but only 34% felt crowded at the disc golf course.

Based on the typology by Shelby et al. (1989) and Vaske and Shelby (2008), these results suggest that conditions for the park as a whole and at all locations within the park except the disc golf course can be considered “high normal” crowding where these areas have not exceeded their capacity, but are trending in that direction. Use levels and crowding in these areas should be studied in detail and monitored closely to see if increased use is expected, allowing management to anticipate future problems. Crowding at the disc golf course can be considered “suppressed,” suggesting that crowding is limited and this area offers unique low density experiences.

Figure 22. Perceptions of crowding at Blue Lake Regional Park for the entire sample (n = 433)<sup>1</sup>



<sup>1</sup> Total percent feeling crowded = 55%.

Table 17. Perceptions of crowding at Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)	
Not crowded	45	40	40	66	45
Slightly crowded	21	26	23	28	23
Moderately crowded	29	32	33	6	28
Extremely crowded	5	2	4	0	4
Total percent feeling crowded	55	60	60	34	55

<sup>1</sup> Cell entries are percentages (%).  $\chi^2 = 22.46, p = .008, \text{Cramer's } V = .13.$

**Best and Worst Attributes.** The questionnaire included two short open-ended (i.e., fill-in-the-blank) questions asking visitors “what are the best things about Blue Lake Regional Park” and “what are the worst things about Blue Lake Regional Park?” Responses were coded into themes using content analysis. Table 18 shows that the best attributes described by visitors were the water spray / splash pad, overall environment of the area (i.e., scenery, open space, natural beauty), disc golf course, variety of things to do, and the beach and swimming area. Table 19 shows that visitors considered the worst attributes to be the presence of animal excrement (e.g., goose, duck, dog), dirty lake water, beach and lake closures that impact swimming, cleanliness of the toilets, and crowding caused by too many people, especially on weekends and holidays.

Table 18. Best attributes of Blue Lake Regional Park for the entire sample ( $n = 433$ )

Main themes from open-ended text response	Percent mentioned (%)
Water spray / splash pad area	18
Natural scenery, open space, beauty	17
Disc golf course	10
Number of activities, diversity of things to do	8
Beach, swimming, lake	8
Children’s playground area	5
Cleanliness	4
Trails	4
Proximity, access, close to home	4
Fishing	3
Friendly people, staff	3

Table 19. Worst attributes of Blue Lake Regional Park for the entire sample ( $n = 433$ )

Main themes from open-ended text response	Percent mentioned (%)
Animal excrement (goose, duck, dog)	16
Dirty lake water	10
Beach and lake closures, no swimming	10
Cleanliness of bathrooms	9
Too many people, overcrowded (especially on weekends)	9
No concessions, food	4
Fees too high	3
Bees, wasps	2
No dogs are allowed	2
Lack of benches (especially for parents at playground and splash pad)	2
Not enough trails	2
Dead, brown grass	2
Overflowing trash cans	2
Limited wheelchair accessibility, ramps, uneven ground	2
People smoking	2

**Health Benefits From Visiting.** The questionnaire also included a few questions measuring visitors’ self-assessed health benefits associated with their visit to Blue Lake Regional Park. Figure 23 shows that 77% of respondents felt that visiting this park moderately or extremely benefitted a reduction in stress and anxiety. Similarly, 76% believed that visiting moderately or extremely improved their overall mental health. By comparison, benefits to physical health were lower with 57% feeling that visiting this park moderately or extremely improved their overall physical health, and 54% believing that visiting moderately or extremely improved their physical fitness. Table 20 shows significant differences among the four locations for all of these health benefits, with greater perceptions of all benefits among visitors surveyed at the disc golf course.

Figure 23. Health benefits from visiting Blue Lake Regional Park for the entire sample (n = 433)

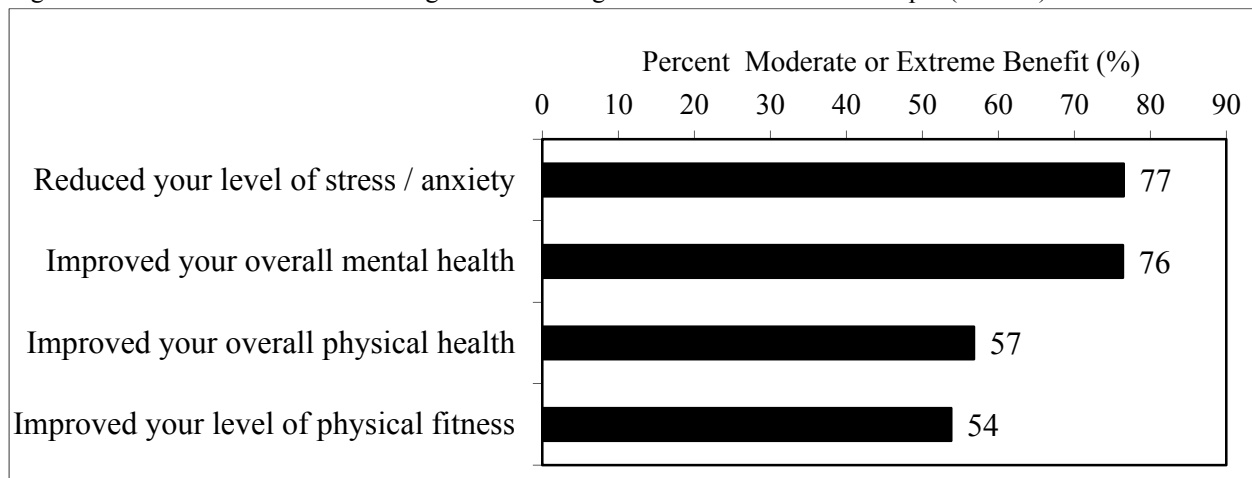


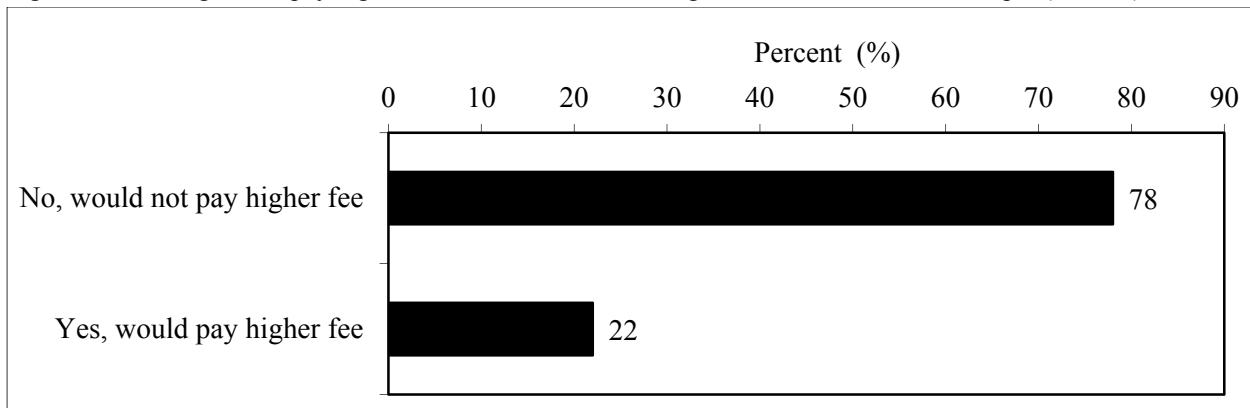
Table 20. Health benefits from visiting Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total	$\chi^2$ -value	p-value	Cramer’s V
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)				
Reduced stress / anxiety	78	63	82	83	77	8.55	.036	.17
Improved mental health	83	58	78	87	76	15.01	.002	.22
Improved physical health	49	50	54	80	57	14.69	.002	.21
Improved physical fitness	49	46	49	78	54	15.39	.002	.21

<sup>1</sup> Cell entries are percentages who said their visit resulted in either a moderate or extreme benefit to themselves (%).

**Perceptions of Fees.** Daily parking fees for visiting Blue Lake Regional Park are \$5 for a personal vehicle, and \$7 for a van or bus (12 or more people). Visitors were asked if they would be willing to pay higher fees to visit. Figure 24 shows that 78% of visitors are not willing to pay higher fees, whereas 22% would be willing to pay more. There were no statistically significant differences in responses among the four locations (Table 21).

Figure 24. Willingness to pay higher fees to visit Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> The question asked: “Daily fees for Blue Lake Park are \$5 for a personal vehicle, and \$7 for a van or bus (12 or more people). Would you be willing to pay a higher fee to visit?”

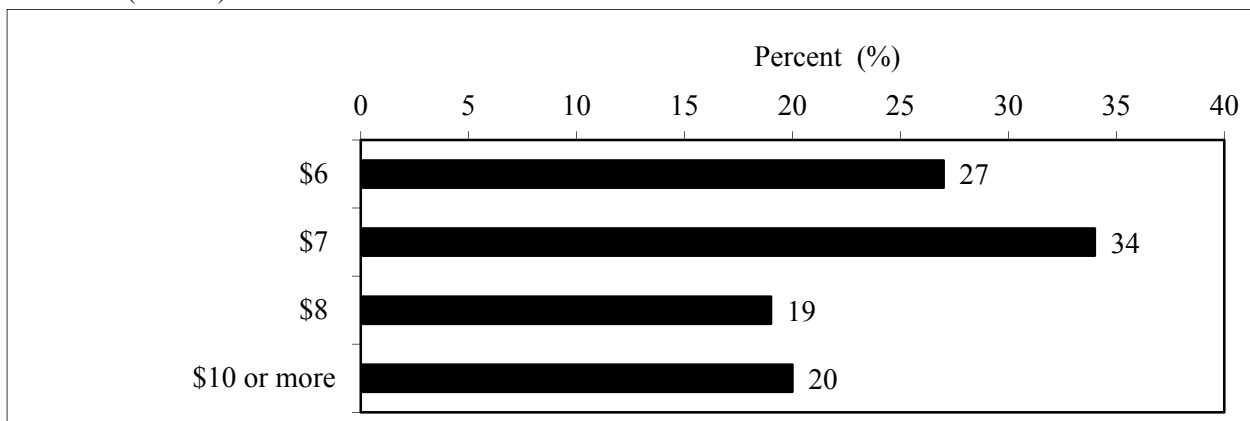
Table 21. Willingness to pay higher fees to visit Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad ( $n = 99$ )	Boat rental / fishing pier ( $n = 61$ )	Central fields / picnic shelters ( $n = 165$ )	Disc golf course ( $n = 50$ )	
No, would not pay higher fee	80	75	80	80	78
Yes, would pay higher fee	20	25	20	20	22

<sup>1</sup> Cell entries are percentages (%).  $\chi^2 = 0.68, p = .877$  (ns), Cramer’s  $V = .05$ .

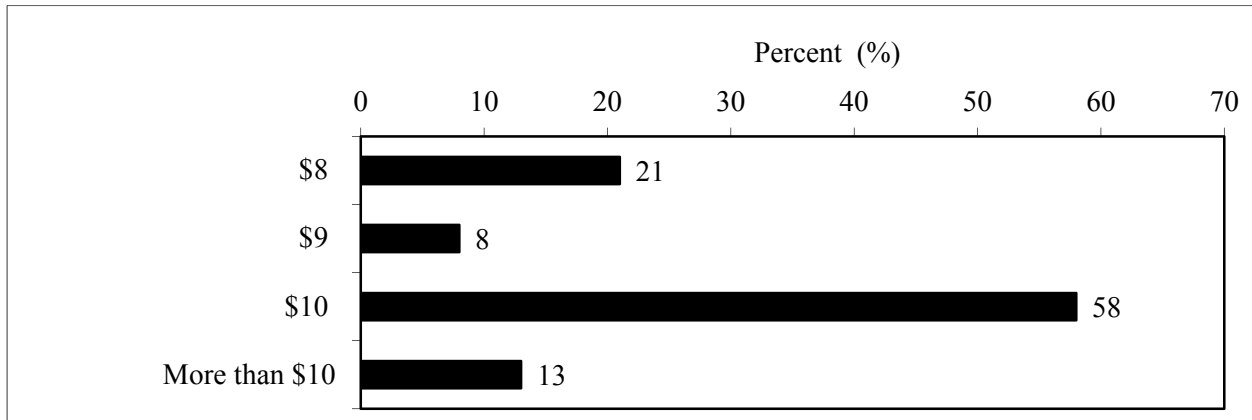
Visitors who were willing to pay higher fees (22%) were then asked the maximum amount they would be willing to pay. Figure 25 shows that the majority (61%) of these visitors would pay \$6 (27%) or \$7 (34%) for a personal vehicle, with an average fee of \$7.70. Figure 26 shows that the largest proportion (58%) of these visitors would pay \$10 for a van or bus, with an average fee of \$9.98. There were no differences in maximum willingness to pay among the four locations.

Figure 25. Maximum willingness to pay for a *personal vehicle* at Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> Percentages of those only willing to pay a higher fee, not percentages of all visitors. Average = \$7.70. Averages for each site: beach / spray pad = \$8.07; boat rental / fishing pier = \$6.94; central fields / picnic shelters = \$8.20; disc golf course = \$7.00;  $F = 0.87, p = .462$  (ns),  $\eta = .23$ .

Figure 26. Maximum willingness to pay for a van or bus at Blue Lake Regional Park for the entire sample (n = 433)<sup>1</sup>



<sup>1</sup> Percentages of those only willing to pay a higher fee, not percentages of all visitors. Average = \$9.98. Averages for each site: beach / spray pad = \$9.60; boat rental / fishing pier = \$10.25; central fields / picnic shelters = \$10.56; disc golf course = no data;  $F = 0.33, p = .722$  (ns),  $\eta = .21$ .

Visitors were then asked if they believed there should be an hourly rate for parking at Blue Lake Regional Park. Figure 27 shows that the overwhelming majority of visitors (84%) did not think there should be an hourly rate at this park, and only 7% were supportive of this idea. There were no significant differences in responses among the four locations (Table 22).

Figure 27. Preference for an hourly parking rate to visit Blue Lake Regional Park for the entire sample (n = 433)

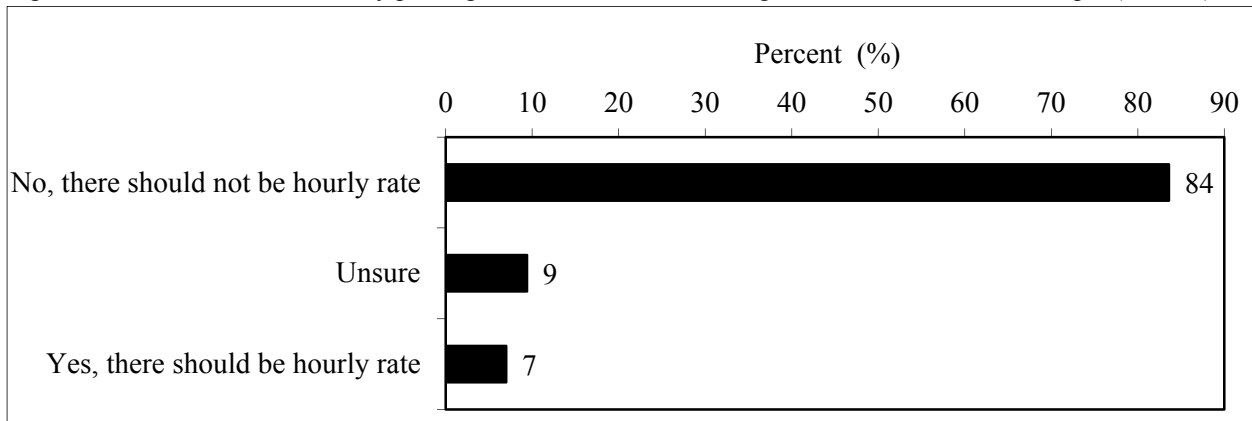


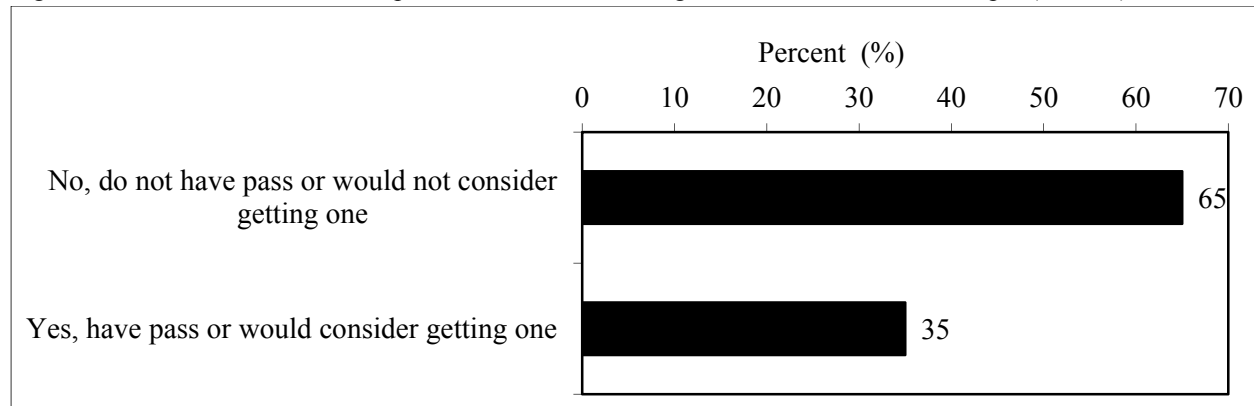
Table 22. Preference for an hourly parking rate to visit Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)	
No, should not be hourly rate	85	89	82	80	84
Unsure	7	8	11	9	9
Yes, should be hourly rate	7	4	7	11	7

<sup>1</sup> Cell entries are percentages (%).  $\chi^2 = 2.73, p = .842$  (ns), Cramer's  $V = .07$ .

Blue Lake Regional Park also offers annual passes for \$40 per year (\$30 for seniors). Visitors were asked if they have a pass or would consider getting one. Figure 28 shows that 65% of visitors surveyed did not have a pass or would not consider getting one, whereas 35% did have a pass or would consider getting one. There was a significant difference among locations, as visitors surveyed at the disc golf course were more likely to have a pass or would consider getting one (61%) compared to those surveyed at the other locations (29% to 31%; Table 23).

Figure 28. Possession of an annual pass to visit Blue Lake Regional Park for the entire sample (n = 433)<sup>1</sup>



<sup>1</sup> The question asked: “Annual passes are \$40 per year (\$30 for seniors). Do you have a pass or would you consider getting one?”

Table 23. Possession of an annual pass to visit Blue Lake Regional Park for each location

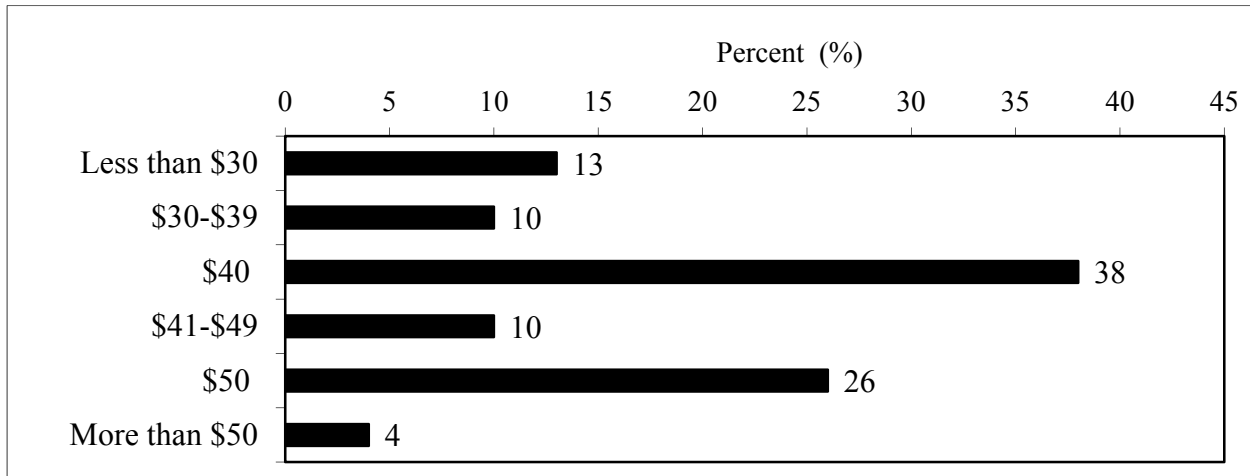
	Location <sup>1</sup>				Total
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)	
No, do not have pass or would not consider getting one	70	71	69	39	65
Yes, have pass or would consider getting one	30	29	31	61	35

<sup>1</sup> Cell entries are percentages (%).  $\chi^2 = 15.84, p = .001, \text{Cramer's } V = .23.$

Visitors who did have an annual pass or would consider getting one (35%) were then asked the maximum amount they would be willing to pay for a pass. Figure 29 shows the largest proportion (38%) of these visitors would keep paying the current rate of \$40, with an average of \$40.64. Another 26% of these visitors would pay \$50 for an annual pass (\$10 more than the current rate). There were no differences in maximum willingness to pay among the locations.



Figure 29. Maximum willingness to pay for an annual pass to visit Blue Lake Regional Park for the entire sample (n = 433)<sup>1</sup>



<sup>1</sup> Percentages of those who only have a pass or would consider getting a pass, not percentages of all visitors. Average = \$40.64. Averages for each site: beach / spray pad = \$35.63; boat rental / fishing pier = \$40.91; central fields / picnic shelters = \$40.97; disc golf course = \$42.12;  $F = 0.97, p = .438$  (ns),  $\eta = .17$ .

**Section Summary.** Taken together, results in this section showed:

- Overall satisfaction was extremely high, as 94% of visitors were satisfied and few (3%) were dissatisfied. In addition, 91% were likely to return in the future, with those at the disc golf course more likely to report future visitation as “very likely” (77% compared to 37% to 58% at other locations), and those at the boat rental / fishing pier having the lowest likelihood of returning (84% compared to 90% to 95% at other locations). These results, however, are not surprising because overall satisfaction and likely future visitation are almost always uniformly high in recreation. High overall satisfaction and repeat visitation does not mean: (a) respondents are satisfied with everything, (b) there is nothing problematic with the setting or experience, and (c) there is no reason to make improvements. Instead, it is important to examine other attributes.
- Visitors considered the most important *amenities and facilities* to be the cleanliness and condition of toilets (88%), number of toilets (84%), available parking (83%), and number of trash cans / recycling stations (80%). Least important were the horseshoe pits (36%), volleyball / basketball courts (42%), disc golf course (43%), and fishing pier (44%). Most attributes (e.g., cleanliness and number of toilets, picnic areas, children’s play areas, water spray / splash pad, beach and swimming area, fishing pier) were less important for visitors at the disc golf course. The disc golf course was more important for those at this course compared to other locations.

- For amenities and facilities, visitors were most satisfied with the number of trash cans / recycling stations (85%), available parking (85%), children’s play areas / playgrounds (84%), wait time for parking (81%), and number of toilets (81%). Visitors were most dissatisfied with the cleanliness / condition of toilets (15%), beach and swimming area (13%), and fees paid for parking (11%). Satisfaction with the disc golf course was higher (91%) among visitors at this course compared to other locations in the park (46% to 60%). Satisfaction with the reservable picnic shelters and fishing pier was higher at the boat rental / fishing pier and central fields / picnic shelters.
- Importance-Performance (I-P) analysis showed that most amenities and facilities were in the “keep up the good work” category, indicating visitors thought park personnel were doing a good job with amenities and facilities. There were, however, some attributes that were highly important to visitors, but these visitors were only slightly satisfied with these attributes, including the beach and swimming area, and cleanliness / condition of toilets.
- Visitors considered the most important attributes associated with *management and maintenance* to be the absence of litter (91%), condition of the natural environment in the park (91%), safe facilities / services (90%), overall cleanliness of the park (90%), personal safety (89%), courteous park staff (88%), and clean facilities / services (88%). Least important were the quality (65%) and amount (66%) of informational / educational materials (e.g., signs, brochures), ease of movement or access (e.g., wheelchair, elderly, baby stroller; 76%), and ability to find park staff (78%). Personal safety, places or facilities for groups to gather, and accessible park staff were less important for visitors at the disc golf course compared to those at other locations in the park.
- For management and maintenance attributes, visitors were most satisfied with personal safety (86%), courteousness of park staff (84%), safety of facilities (83%), absence of litter (83%), condition of the environment (82%), helpfulness and knowledge of park staff (82%), variety of things to do (82%), signs with directions inside the park (82%), maintenance of facilities and services (82%), and overall cleanliness of the park (82%). Visitors were most dissatisfied with the absence of animal waste / excrement (15%) and ease of movement or access in the park (e.g., wheelchair, elderly, baby stroller; 8%).
- I-P analysis showed that all management and maintenance attributes were in the “keep up the good work” category, indicating visitors thought park personnel were doing a good job with management and maintenance. There were, however, some attributes that were

highly important to visitors, but these visitors were only slightly satisfied with these attributes, including absence of animal waste / excrement and ease of movement or access (e.g., wheelchair, elderly, baby stroller).

- In total, 55% of visitors felt crowded with 60% feeling crowded at the boat rental / fishing pier and the central fields / picnic shelters, and 55% feeling crowded at the beach / spray pad. Only 34% felt crowded at the disc golf course. Crowding conditions for the park as a whole and at all locations within the park except the disc golf course can be considered “high normal” where these areas have not exceeded their capacity, but are trending in that direction. Crowding at the disc golf course can be considered “suppressed” where crowding is limited and the area offers low density experiences.
- The best attributes described by visitors were the water spray / splash pad, natural environment of the area (i.e., scenery, open space, beauty), disc golf course, variety of things to do, and the beach and swimming area. Visitors considered the worst attributes to be the presence of animal excrement (e.g., goose, duck, dog), dirty lake water, beach and lake closures that impact swimming, cleanliness of toilets, and crowding caused by too many people, especially on weekends and holidays.
- In total, 77% of respondents felt that visiting this park moderately or extremely reduced their stress and anxiety, and 76% believed that visiting moderately or extremely improved their overall mental health. In addition, 57% felt that visiting moderately or extremely improved their overall physical health, and 54% believed that visiting moderately or extremely improved their physical fitness. There were greater perceptions of these benefits among visitors at the disc golf course compared to other locations.
- Parking fees for visiting are \$5 for a personal vehicle and \$7 for a van or bus. In total, 78% of visitors were not willing to pay higher fees, whereas 22% would be willing to pay more. The majority (61%) of these visitors who would be willing to pay more would pay \$6 (27%) or \$7 (34%) for a personal vehicle with an average of \$7.70, and the largest proportion (58%) would pay \$10 for a van or bus with an average of \$9.98.
- The overwhelming majority of visitors (84%) did not think there should be an hourly rate for parking, and only 7% were supportive of this idea.
- This park offers annual passes for \$40 per year (\$30 for seniors). In total, 65% of visitors did not have a pass or would not consider getting one, whereas 35% did have a pass or

would consider getting one. Visitors at the disc golf course were more likely to have a pass or consider getting one (61%) compared to those at other locations (29% to 31%). The largest proportion (38%) of visitors who had a pass or would consider getting one would keep paying the current fee of \$40 with an average of \$40.64. Another 26% of these visitors would pay \$50 for an annual pass (\$10 more than the current fee).

**Demographic Characteristics**

The questionnaire contained several demographic questions. Figure 30 shows that 53% of respondents were female, 45% were male, and 2% were transgender persons. There was a significant difference among the four locations, as 91% of visitors surveyed at the disc golf course and 54% at the boat rental / fishing pier area were male (compared to 33% to 39% at the other locations; Table 24).

Figure 30. Gender of visitors to Blue Lake Regional Park for the entire sample (n = 433)

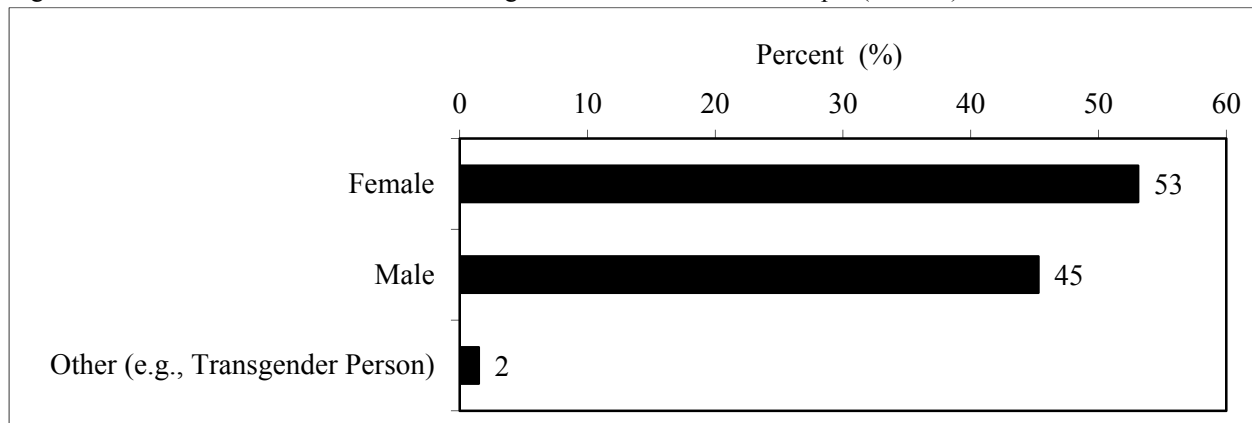


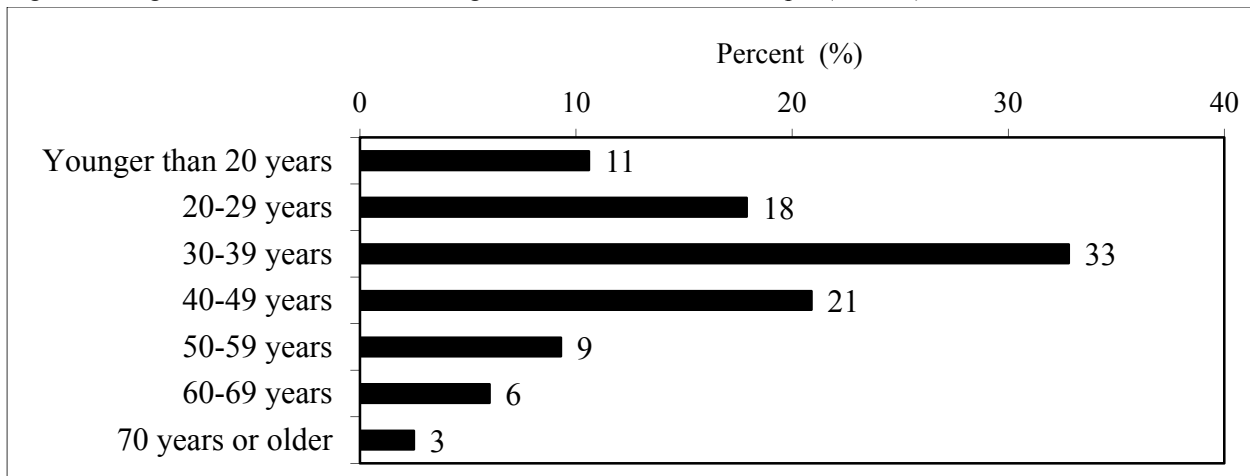
Table 24. Gender of visitors to Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)	
Female	65	46	60	9	53
Male	33	54	39	91	45
Other (e.g., Transgender Person)	2	0	1	0	2

<sup>1</sup> Cell entries are percentages (%).  $\chi^2 = 57.03, p < .001, \text{Cramer's } V = .27.$

Figure 31 shows that the average age of respondents was 38 years with the largest proportions between 30 and 39 (33%), and 40 and 49 (21%) years of age. There were no significant differences in average age among the locations (Table 25).

Figure 31. Age of visitors to Blue Lake Regional Park for the entire sample ( $n = 433$ )<sup>1</sup>



<sup>1</sup> Note that children and youth were not surveyed due to human subject regulations; only adults were surveyed. Average = 38 years.

Table 25. Age of visitors to Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad ( $n = 99$ )	Boat rental / fishing pier ( $n = 61$ )	Central fields / picnic shelters ( $n = 165$ )	Disc golf course ( $n = 50$ )	
Younger than 20 years	13	3	14	4	11
20 – 29 years	14	19	12	32	18
30 – 39 years	26	36	35	30	33
40 – 49 years	24	19	22	19	21
50 – 59 years	10	10	8	15	9
60 – 69 years	8	7	6	0	6
70 years or older	4	5	3	0	3
Average (mean) <sup>2</sup>	39	40	37	35	38

<sup>1</sup> Note that children and youth were not surveyed due to human subject regulations; only adults were surveyed.

<sup>2</sup> Cell entries are average age in years.  $F = 1.47, p = .222$  (ns),  $\eta = .11$ .

Figure 32. Race of visitors to Blue Lake Regional Park for the entire sample ( $n = 433$ )

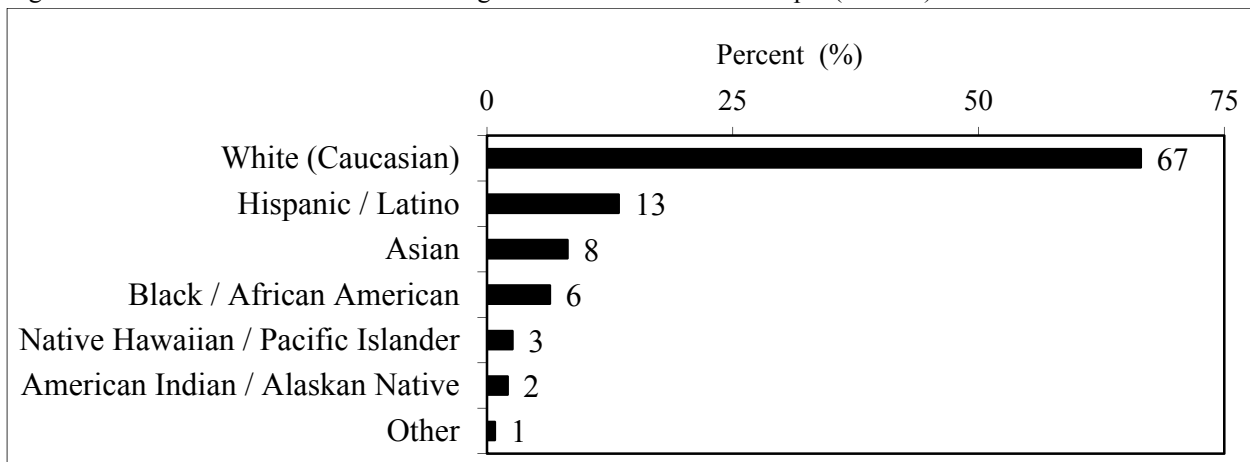


Figure 32 shows that the largest proportion of visitors surveyed (67%) were White (Caucasian), followed by Hispanic / Latino (13%), Asian (8%), Black / African American (6%), Native Hawaiian / Pacific Islander (3%), and American Indian / Alaskan Native (2%). There were no significant differences among the four locations (Table 26).

Table 26. Race of visitors to Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)	
White (Caucasian)	68	65	65	83	67
Hispanic / Latino	12	11	12	4	13
Asian	10	11	8	7	8
Black / African American	7	7	9	2	6
Native Hawaiian / Pacific Islander	3	4	3	2	3
American Indian / Alaskan Native	1	0	4	0	2
Other	0	2	0	2	1

<sup>1</sup> Cell entries are percentages (%).  $\chi^2 = 20.17, p = .324$  (ns), Cramer's  $V = .13$ .

Figure 33 shows that the largest proportion of visitors who were surveyed (79%) spoke English most often in their homes, followed by Spanish (12%), Russian (3%), Chinese (2%), and Vietnamese (2%). There were no significant differences among the locations (Table 27).

Figure 33. Language spoken most at home of visitors to Blue Lake Regional Park for the entire sample (n = 433)

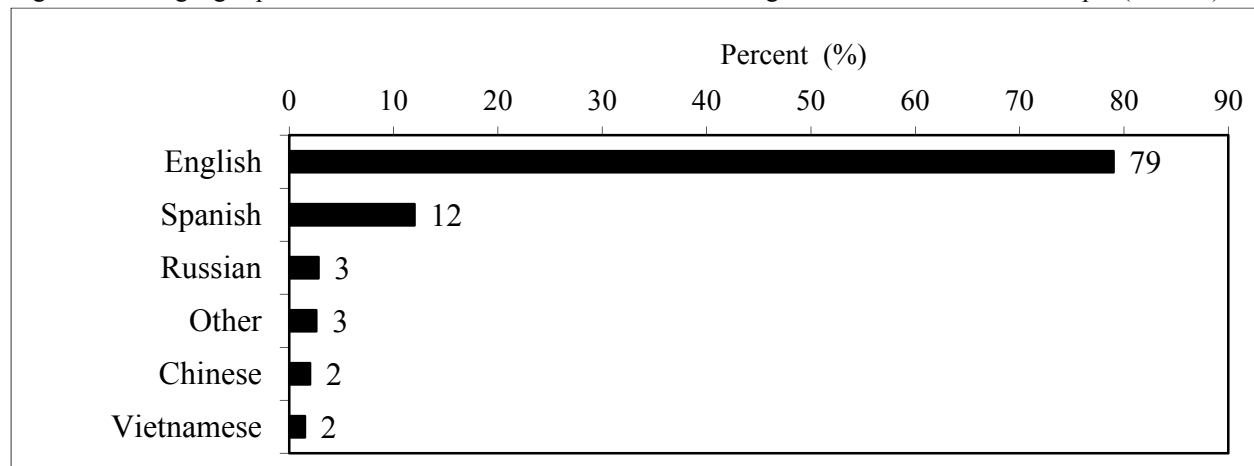


Table 27. Language spoken most at home of visitors to Blue Lake Regional Park for each location

	Location <sup>1</sup>				Total
	Beach / spray pad (n = 99)	Boat rental / fishing pier (n = 61)	Central fields / picnic shelters (n = 165)	Disc golf course (n = 50)	
English	78	70	83	94	79
Spanish	10	13	10	2	12
Russian	4	8	1	0	3
Other	3	6	3	0	3
Chinese	1	4	2	2	2
Vietnamese	3	0	1	2	2

<sup>1</sup> Cell entries are percentages (%).  $\chi^2 = 23.10, p = .082$  (ns), Cramer's  $V = .14$ .

Finally, Table 28 shows that 87% of respondents lived in Oregon, 9% were from Washington, 1% lived in California, and 3% were from other locations. The largest proportion of respondents lived in Multnomah County (71%), and the most common cities and towns where visitors lived were Portland (38%), Gresham (14%), Fairview (10%), and Troutdale (7%).

Table 28. Location of residence for visitors to Blue Lake Regional Park for the entire sample (n = 433)

	Percent (%)
<b>State</b>	
Oregon	87
Washington	9
California	1
Other	3
<b>County</b>	
Multnomah	71
Washington	9
Clark (WA)	7
Clackamas	5
Other	8
<b>City / town</b>	
Portland	38
Gresham	14
Fairview	10
Troutdale	7
Vancouver (WA)	5
Beaverton	5
Oregon City	1
Tigard	1
Milwaukie	1
Other	18

**Section Summary.** Taken together, results in this section showed:

- In total, 53% of respondents were female, 45% were male, and 2% were transgender persons. There was a difference among locations, as 91% of visitors surveyed at the disc golf course and 54% at the boat rental / fishing pier area were male (compared to 33% to 39% at other locations).
- The average age of respondents was 38 years of age with the largest proportions between 30 and 39 (33%), and 40 and 49 (21%) years of age.
- The largest proportion of visitors surveyed (67%) were White (Caucasian), followed by Hispanic / Latino (13%), Asian (8%), Black / African American (6%), Native Hawaiian / Pacific Islander (3%), and American Indian / Alaskan Native (2%).
- The largest proportion of visitors surveyed (79%) spoke English most often in their homes, followed by Spanish (12%), Russian (3%), Chinese (2%), and Vietnamese (2%).
- In total, 87% of respondents lived in Oregon, 9% were from Washington, 1% lived in California, and 3% were from other locations. The largest proportion of respondents lived in Multnomah County (71%). The most common cities and towns where visitors lived were Portland (38%), Gresham (14%), Fairview (10%), and Troutdale (7%).

## ***RECOMMENDATIONS***

Based on these findings from this survey of recreationists visiting Blue Lake Regional Park, the following recommendations, in no particular order, are made:

- Visitors are not homogeneous across this entire park; results showed several major differences depending on the location where visitors were surveyed. Visitors surveyed at the disc golf course, for example, were more likely than those at other locations in this park to be male and repeat visitors, spend the shortest amount of time at the park, visit in smaller groups and without children, be more likely to visit to exercise and develop skills, rate many amenities and facilities as less important, feel less crowded, perceive greater health benefits from visiting, and possess an annual pass or be interested in getting one. This suggests the need for managing some locations within the park separately to ensure that opportunities are available for the different clientele groups who visit these different locations. These results also highlight the importance of tailoring survey methodologies



and / or questions to specific sites within a park. This is important because recreation research has usually employed surveys asking general questions that compel visitors to average their experiences within a park (Manning, 2011; Needham et al., 2016).

- There was high repeat visitation, as 72% of respondents had previously visited this park with an average of 8 previous visits. Visitors surveyed at the disc golf course had visited an average of 20 times. In addition, visitors traveled an average of 17 miles from home to get to this park. It is clear, therefore, that this park is important to the lives of many people and plays a pivotal role in the broader community through the provision of ecosystem services. If population trends continue diversifying and urbanizing, this park will play an even greater role in the community in the future, so it will be critical for managers to continually understand their changing clientele, work with visitors and the community in planning and management, and disseminate information to these and other groups and organizations.
- Overall satisfaction among visitors at this park is high, as almost all (94%) were satisfied. In addition, 91% of visitors would be likely to return in the future. Conditions and experiences should be monitored frequently using survey research similar to approaches in this project to ensure that satisfaction does not decline. Overall satisfaction, however, is almost always high in recreation areas with most studies reporting more than 80% of recreationists as satisfied (Manning, 2011). High overall satisfaction does not mean that respondents are satisfied with every aspect of their experience, there is nothing problematic with the setting or experience, and there is no reason to make improvements. Instead, it is important to examine other aspects of the setting and experience (e.g., safety, crowding, trail conditions, fees, toilets, litter) to inform management.
- Visitors rated, on average, most attributes of their experience and the conditions at this park as important and were satisfied with these attributes, suggesting that managers should “keep up the good work” in their current management of this park. The most important park attributes for visitors included toilets, parking, trash cans, absence of litter, quality natural environment, safety, and clean and well-maintained facilities. Visitors were least satisfied, however, with cleanliness of toilets, conditions and access to the beach area and lake for swimming, absence of animal waste / excrement, and ease of movement or access (e.g., wheelchair, elderly, baby strollers) at this park. I-P analyses showed that absence of animal waste / excrement, ease of movement or access, the beach

and swimming area, and cleanliness and condition of the toilets were highly important to visitors, but they were only slightly satisfied with these attributes. Managers should prioritize these issues in any planning and management efforts at this park.

- In addition, 55% of visitors felt crowded at this park with 60% feeling crowded at the boat rental / fishing pier area and the central fields / picnic shelters, and 55% feeling crowded at the beach / spray pad area. These crowding levels can be considered “high normal” where these locations have not exceeded their capacity, but are trending in that direction. As a result, these locations should be studied closely and monitored to see if increased use is expected, allowing management to anticipate future problems proactively instead of reactively after problems occur. Conversely, only 34% of visitors surveyed at the disc golf course felt crowded, suggesting that crowding is “suppressed” and this location offers unique low density experiences.
- The most important reasons why respondents visited this park were related to enjoying nature, being outdoors, having fun, and escaping daily routines and life pressures. It is important to consider these reasons in management decision making to ensure that any site and / or policy changes at the park do not negatively impact opportunities for fulfilling these motivations. In addition, amenities such as the horseshoe pits and volleyball and basketball courts were not important to many visitors, suggesting that it may be wise to focus planning, management, and marketing efforts on natural setting attributes more than these types of contrived amenities and facilities.
- In total, many visitors (66%) were visiting this park with a child under the age of 14. Current nationwide trends, however, show declining child and youth visitation and recreation participation in natural settings such as parks, and increasing child and youth health concerns (e.g., obesity, attention deficit disorder; Louv, 2008). Park managers should be commended for accommodating a large number of children at this park, but they should also monitor trends over time to ensure this participation does not decline. Managers should also consider collaborating more with existing public and private programs (e.g., REI’s Peak Program, Oregon Recreation and Park Association’s Outdoor Seekers and Activity Passport) to enhance child and youth visitation, thereby providing opportunities for them to learn about and experience parks and natural areas, increase their physical activity and improve their physical and mental health, and increase the visibility and importance of this park and its managing agency.

- Visitors reported substantial mental and physical health benefits from visiting this park (e.g., 77% reduced stress and anxiety, 54% improved physical fitness). This is important because it illustrates broader benefits to individuals from visiting natural areas such as urban parks. In addition, these results suggest that benefits extend beyond individual park visitors to the broader society and economy (e.g., improved physical and mental health lowers healthcare costs on society and the economy). This is critically important for park management agencies when justifying their importance and the need for natural areas (e.g., parks, greenspaces) to other agencies, organizations, and funding entities.
- Visitors strongly opposed higher fees for parking and charging hourly rates. Managers, therefore, should be cautious and avoid any major changes to the current fee system at this park. However, the majority of visitors surveyed at the disc golf course either had an annual pass or would consider getting a pass (61%), so managers should provide educational information targeted specifically to disc golfers to inform them about the availability and benefits of annual passes.
- Survey personnel informally recorded verbal comments made by visitors while they were completing the questionnaire. These comments are provided in Appendix A and the most common comments were from visitors at the disc golf course who wanted more drinking water fountains, bathrooms, and directional signs at the disc golf course.
- Any future changes made at this park should be accompanied by educational and interpretive messages and materials that discuss the rationale for these changes. Messages should focus on how the changes may accommodate visitor use and enjoyment while reducing any potential negative impacts to environmental conditions and visitor experiences. Messages should be disseminated through a variety of outlets such as websites, newspapers, off-site and on-site brochures, on-site signs, and visitor contact with park staff and personnel.

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## **APPENDIX A: VERBAL COMMENTS RECORDED BY SURVEY PERSONNEL**

- More drinking water fountains needed at disc golf course (x 4)
- More bathrooms needed at disc golf course (x 3)
- Too much crowding (x 2)
- Water of lake needs to be cleaner
- Trails need better upkeep
- Need to clean up animal (geese, duck) excrement
- Beach area is closed too often
- Need “no smoking” signs, especially around the splash pad and children’s playgrounds
- Paddle boats are often closed even though signs say they are open – no consistency
- Need wheelchair accessible picnic areas
- Nowhere to site for parents at Nature Garden / Splash Pad area
- Confusing entrance and exit to park for the disc golf course
- Make operational season of splash pad known to visitors (i.e., when open / closed)
- Need slightly different park hours to accommodate disc golfers
- Free parking at hole #7 is a concern for disc golfers
- Improve signs on disc golf course from holes 4 to 5 and also 7 to 8; confusing
- Add food concessions again
- Front entrance to park is very confusing
- Offer golf cart rental for disc golf course
- Add water refill stations to beach, playground, and other areas
- Staff harassing people who have reservations (e.g., guest with reservation approached three times by different park staff inquiring about paperwork)

## APPENDIX B: QUESTIONNAIRE

### Your Opinions about Blue Lake Regional Park

We are conducting this survey to learn about your experiences at Blue Lake Regional Park. Your input is important and it will assist managers and planners. *Please complete this survey and return it to the researcher.*

1. **Before today**, had you ever visited Blue Lake Park? (check **ONE**)
  - No
  - Yes → if yes, how many trips have you made to this park **in the past 12 months**? (write number) \_\_\_\_\_ trip(s)
2. How many **hours** do you plan to spend at Blue Lake Park **today**? (write number) \_\_\_\_\_ hour(s)
3. About how many miles from your home did you travel to get to this park? (write number) \_\_\_\_\_ mile(s)
4. Please check **all** activities in which you are participating at Blue Lake Park **today**. (check **ALL THAT APPLY**)
 

<input type="checkbox"/> A. Hiking or walking	<input type="checkbox"/> G. Volleyball or basketball	<input type="checkbox"/> M. Photography
<input type="checkbox"/> B. Running or jogging	<input type="checkbox"/> H. Softball	<input type="checkbox"/> N. Playing horseshoes
<input type="checkbox"/> C. Picnicking or barbecuing	<input type="checkbox"/> I. Soccer	<input type="checkbox"/> O. Fishing
<input type="checkbox"/> D. Disc golf	<input type="checkbox"/> J. Bicycling	<input type="checkbox"/> P. Paddle boating
<input type="checkbox"/> E. Swimming or wading	<input type="checkbox"/> K. Water spray / splash pad	<input type="checkbox"/> Q. Other boating (canoe, kayak, row)
<input type="checkbox"/> F. Relaxing on lake's beach	<input type="checkbox"/> L. Birding / wildlife watching	<input type="checkbox"/> R. Other (write response) _____
5. From Question 4 above, what **ONE primary activity** are you participating in at Blue Lake Park **today**? (write **ONE letter**)  
**Letter** for **today's** primary activity \_\_\_\_\_
6. How important was each of the following reasons for visiting Blue Lake Park **today**? (circle one number for **EACH**)

<b><i>I visited this park today to:</i></b>	Not Important	Slightly Important	Moderately Important	Extremely Important
Be in the outdoors close to nature.	1	2	3	4
View the natural scenery.	1	2	3	4
Explore a new place.	1	2	3	4
Learn about the area.	1	2	3	4
Have fun / excitement.	1	2	3	4
Be with friends.	1	2	3	4
Do something with family.	1	2	3	4
Meet / talk with new people.	1	2	3	4
Be near considerate or respectful people.	1	2	3	4
Get exercise.	1	2	3	4
Rest or relax.	1	2	3	4
Get away from the daily routine / demands of life.	1	2	3	4
Develop / grow personal values.	1	2	3	4
Visit a place where I have experienced good times in the past.	1	2	3	4
Be on my own.	1	2	3	4
Escape crowds of people.	1	2	3	4
Try a new activity.	1	2	3	4
Develop my skills or get better at an activity.	1	2	3	4
Teach outdoor recreation skills or my knowledge to others.	1	2	3	4
Participate in a special event (e.g., race, wedding, company picnic).	1	2	3	4
Feel safe away from risks.	1	2	3	4
Experience nice weather or temperatures.	1	2	3	4
Other (write response) _____	1	2	3	4

7. How ***important*** to you is each of the following at Blue Lake Park? (**circle one number for EACH**)

	Not Important	2	Neither	3	Extremely Important	5
Available parking for vehicles.	1	2	3	4	5	
Wait time for access to vehicle parking.	1	2	3	4	5	
Amount of fee paid to park vehicle.	1	2	3	4	5	
First-come-first-served (non-reservable) picnic areas.	1	2	3	4	5	
Reservable picnic shelters / areas.	1	2	3	4	5	
Disc golf course.	1	2	3	4	5	
Sports fields (e.g., softball, soccer).	1	2	3	4	5	
Volleyball or basketball courts.	1	2	3	4	5	
Horseshoe pits.	1	2	3	4	5	
Children's play areas / playgrounds.	1	2	3	4	5	
Number of trash cans / recycling stations.	1	2	3	4	5	
Number of toilets / bathrooms.	1	2	3	4	5	
Cleanliness / condition of toilets / bathrooms.	1	2	3	4	5	
Beach and swimming area.	1	2	3	4	5	
Water spray / splash pad (near beach / swim area).	1	2	3	4	5	
Nature Discovery Garden (near beach / swim area).	1	2	3	4	5	
Boat launch / boat rental area (e.g., paddle, canoe).	1	2	3	4	5	
Fishing pier.	1	2	3	4	5	
Loop trail around the park.	1	2	3	4	5	
Wetland area in the western section of the park.	1	2	3	4	5	

8. Now, how ***dissatisfied or satisfied*** are you with each of the following at Blue Lake Park? (**circle one number for EACH**)

	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	I Did Not Use
Available parking for vehicles.	1	2	3	4	5	<input type="checkbox"/>
Wait time for access to vehicle parking.	1	2	3	4	5	<input type="checkbox"/>
Amount of fee paid to park vehicle.	1	2	3	4	5	<input type="checkbox"/>
First-come-first-served (non-reservable) picnic areas.	1	2	3	4	5	<input type="checkbox"/>
Reservable picnic shelters / areas.	1	2	3	4	5	<input type="checkbox"/>
Disc golf course.	1	2	3	4	5	<input type="checkbox"/>
Sports fields (e.g., softball, soccer).	1	2	3	4	5	<input type="checkbox"/>
Volleyball or basketball courts.	1	2	3	4	5	<input type="checkbox"/>
Horseshoe pits.	1	2	3	4	5	<input type="checkbox"/>
Children's play areas / playgrounds.	1	2	3	4	5	<input type="checkbox"/>
Number of trash cans / recycling stations.	1	2	3	4	5	<input type="checkbox"/>
Number of toilets / bathrooms.	1	2	3	4	5	<input type="checkbox"/>
Cleanliness / condition of toilets / bathrooms.	1	2	3	4	5	<input type="checkbox"/>
Beach and swimming area.	1	2	3	4	5	<input type="checkbox"/>
Water spray / splash pad (near beach / swim area).	1	2	3	4	5	<input type="checkbox"/>
Nature Discovery Garden (near beach / swim area).	1	2	3	4	5	<input type="checkbox"/>
Boat launch / boat rental area (e.g., paddle, canoe).	1	2	3	4	5	<input type="checkbox"/>
Fishing pier.	1	2	3	4	5	<input type="checkbox"/>
Loop trail around the park.	1	2	3	4	5	<input type="checkbox"/>
Wetland area in the western section of the park.	1	2	3	4	5	<input type="checkbox"/>

9. How **important** to you is each of the following at Blue Lake Park? (circle one number for ***EACH***)

	Not Important		Neither		Extremely Important
Courteous park staff / personnel.	1	2	3	4	5
Helpful or knowledgeable park staff / personnel.	1	2	3	4	5
Accessible or easy to find park staff / personnel.	1	2	3	4	5
Overall customer service of park staff / personnel.	1	2	3	4	5
Clean facilities / services.	1	2	3	4	5
Well-maintained facilities / services.	1	2	3	4	5
Safe facilities / services.	1	2	3	4	5
Absence of litter.	1	2	3	4	5
Absence of animal waste / excrement.	1	2	3	4	5
Overall cleanliness of the park.	1	2	3	4	5
Condition of the natural environment in the park.	1	2	3	4	5
Number of trails in the park.	1	2	3	4	5
Safety / condition of trails in the park.	1	2	3	4	5
Ease of movement or access (e.g., wheelchair, elderly, baby stroller).	1	2	3	4	5
Places or facilities for groups to gather.	1	2	3	4	5
Variety of things to do.	1	2	3	4	5
Personal safety.	1	2	3	4	5
Signs with directions inside the park.	1	2	3	4	5
Signs with directions to the park (how to get to the park).	1	2	3	4	5
Amount of information / education materials (e.g., signs, brochures).	1	2	3	4	5
Quality of information / education materials (e.g., signs, brochures).	1	2	3	4	5

10. Now, how **dissatisfied or satisfied** are you with each of the following at Blue Lake Park? (circle one number for ***EACH***)

	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied
Courteousness of park staff / personnel.	1	2	3	4	5
Helpfulness or knowledge of park staff / personnel.	1	2	3	4	5
Ease of accessing or finding park staff / personnel.	1	2	3	4	5
Overall customer service of park staff / personnel.	1	2	3	4	5
Cleanliness of facilities / services.	1	2	3	4	5
Maintenance of facilities / services.	1	2	3	4	5
Safety of facilities / services.	1	2	3	4	5
Absence of litter.	1	2	3	4	5
Absence of animal waste / excrement.	1	2	3	4	5
Overall cleanliness of the park.	1	2	3	4	5
Condition of the natural environment in the park.	1	2	3	4	5
Number of trails in the park.	1	2	3	4	5
Safety / condition of trails in the park.	1	2	3	4	5
Ease of movement or access (e.g., wheelchair, elderly, stroller).	1	2	3	4	5
Places or facilities for groups to gather.	1	2	3	4	5
Variety of things to do.	1	2	3	4	5
Personal safety.	1	2	3	4	5
Signs with directions inside the park.	1	2	3	4	5
Signs with directions to the park (how to get to the park).	1	2	3	4	5
Amount of information / education materials (signs, brochures).	1	2	3	4	5
Quality of information / education materials (signs, brochures).	1	2	3	4	5



11. How dissatisfied or satisfied are you with your **overall experience** at Blue Lake Park **today**? (check ONE)  
 Very Dissatisfied       Dissatisfied       Neither       Satisfied       Very Satisfied

12. To what extent have you felt crowded at Blue Lake Park **today**? (circle a number)

1	2	3	4	5	6	7	8	9
Not at all Crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	

13. What are the **best** things about Blue Lake Park? (write response) \_\_\_\_\_

14. What are the **worst** things about Blue Lake Park? (write response) \_\_\_\_\_

15. To what extent has visiting Blue Lake Park resulted in each of the following benefits for you? (circle one number for EACH)

	No Benefit	Slight Benefit	Moderate Benefit	Extreme Benefit
Improved your level of physical fitness.	1	2	3	4
Improved your overall physical health.	1	2	3	4
Reduced your level of stress / anxiety.	1	2	3	4
Improved your overall mental health.	1	2	3	4

16. How unlikely or likely are you to return to Blue Lake Park in the future? (check ONE)  
 Very Unlikely       Unlikely       Neither       Likely       Very Likely

17. Daily fees for Blue Lake Park are \$5 for a personal vehicle, and \$7 for a van or bus (12 or more people).  
 Would you be willing to pay a higher fee to visit? (check ONE)  
 No  
 Yes → if yes, what is the **maximum** you would be willing to pay? Vehicle: \$\_\_\_\_\_ Van / Bus: \$\_\_\_\_\_

18. Do you think there should be an hourly rate for parking? (check ONE)     No     Yes     Unsure

19. Annual passes are \$40 per year (\$30 for seniors). Do you have a pass or would you consider getting one? (check ONE)  
 No  
 Yes → if yes, what is the **maximum** you would be willing to pay for an annual pass? (write number) \$\_\_\_\_\_

20. **Including yourself**, how many people are accompanying you at Blue Lake Park **today**? (write number) \_\_\_\_\_ person(s)

21. How many children (age 14 and younger) are accompanying you at Blue Lake Park **today**? (write number) \_\_\_\_\_ children

22. Are you: (check ONE)     Male     Female     Other (e.g., Transgender Person)

23. What is your age? (write age) \_\_\_\_\_ years old

24. Which of the following best describes you? (check ONE)  
 White (Caucasian)       Hispanic / Latino       American Indian / Alaskan Native       Other (write response)  
 Black / African American       Asian       Native Hawaiian / Pacific Islander      \_\_\_\_\_

25. What language is spoken most often at your home? (check ONE)  
 English     Spanish     Russian     Vietnamese     Chinese     Other (write response) \_\_\_\_\_

26. Where do you live? (write responses) City / town \_\_\_\_\_ State \_\_\_\_\_ County \_\_\_\_\_ Zip \_\_\_\_\_

Thank you! <b>Please return this survey to the researcher immediately.</b>															
Site:	<input type="checkbox"/> Beach	<input type="checkbox"/> Boats	<input type="checkbox"/> Central	<input type="checkbox"/> Disc Golf	Day:	M	T	W	Th	F	Sat	Sun	Time:	_____:	_____

## APPENDIX C: UNCOLLAPSED TOTAL PERCENTAGES

### Your Opinions about Blue Lake Regional Park

We are conducting this survey to learn about your experiences at Blue Lake Regional Park. Your input is important and it will assist managers and planners. *Please complete this survey and return it to the researcher.*

1. **Before today**, had you ever visited Blue Lake Park? (check ONE)
  - 28% No
  - 72% Yes → if yes, how many trips have you made to this park **in the past 12 months**? (write number) [see Fig 3 & Table 3](#) trip(s)
2. How many **hours** do you plan to spend at Blue Lake Park **today**? (write number) [see Fig 4 & Table 4](#) hour(s)
3. About how many miles from your home did you travel to get to this park? (write number) [see Fig 5 & Table 5](#) mile(s)
4. Please check **all** activities in which you are participating at Blue Lake Park **today**. (check ALL THAT APPLY)
 

40% <b>A.</b> Hiking or walking	9% <b>G.</b> Volleyball or basketball	21% <b>M.</b> Photography
11% <b>B.</b> Running or jogging	3% <b>H.</b> Softball	3% <b>N.</b> Playing horseshoes
46% <b>C.</b> Picnicking or barbecuing	8% <b>I.</b> Soccer	9% <b>O.</b> Fishing
16% <b>D.</b> Disc golf	8% <b>J.</b> Bicycling	11% <b>P.</b> Paddle boating
25% <b>E.</b> Swimming or wading	36% <b>K.</b> Water spray / splash pad	3% <b>Q.</b> Other boating (canoe, kayak, row)
31% <b>F.</b> Relaxing on lake's beach	20% <b>L.</b> Birding / wildlife watching	24% <b>R.</b> Other (write response) <a href="#">see Fig 6</a>
5. From Question 4 above, what **ONE primary activity** are you participating in at Blue Lake Park **today**? (write ONE letter) Letter for **today's** primary activity [see Fig 7 & Table 7](#)
6. How important was each of the following reasons for visiting Blue Lake Park **today**? (circle one number for EACH)

<b><i>I visited this park today to:</i></b>	Not Important	Slightly Important	Moderately Important	Extremely Important
Be in the outdoors close to nature.	3%	10%	32%	56%
View the natural scenery.	3	11	34	52
Explore a new place.	16	24	30	30
Learn about the area.	20	27	29	24
Have fun / excitement.	2	6	27	66
Be with friends.	10	8	24	58
Do something with family.	8	8	21	64
Meet / talk with new people.	26	21	28	25
Be near considerate or respectful people.	7	10	34	50
Get exercise.	9	19	33	39
Rest or relax.	3	10	33	54
Get away from the daily routine / demands of life.	3	8	32	56
Develop / grow personal values.	17	20	35	28
Visit a place where I have experienced good times in the past.	15	12	33	40
Be on my own.	40	19	18	23
Escape crowds of people.	28	22	26	25
Try a new activity.	27	23	30	20
Develop my skills or get better at an activity.	27	21	24	27
Teach outdoor recreation skills or my knowledge to others.	36	20	23	20
Participate in a special event (e.g., race, wedding, company picnic).	36	14	21	29
Feel safe away from risks.	12	14	28	45
Experience nice weather or temperatures.	5	7	37	51

7. How ***important*** to you is each of the following at Blue Lake Park? (**circle one number for EACH**)

	Not Important		Neither		Extremely Important
Available parking for vehicles.	4%	4%	10%	35%	48%
Wait time for access to vehicle parking.	7	4	17	37	35
Amount of fee paid to park vehicle.	6	8	24	35	27
First-come-first-served (non-reservable) picnic areas.	11	9	25	31	23
Reservable picnic shelters / areas.	12	10	26	28	24
Disc golf course.	23	12	23	22	21
Sports fields (e.g., softball, soccer).	16	13	26	30	15
Volleyball or basketball courts.	18	14	26	28	14
Horseshoe pits.	23	13	29	23	13
Children's play areas / playgrounds.	6	5	16	28	45
Number of trash cans / recycling stations.	3	3	14	38	42
Number of toilets / bathrooms.	2	5	10	40	44
Cleanliness / condition of toilets / bathrooms.	2	2	9	27	61
Beach and swimming area.	6	6	17	32	40
Water spray / splash pad (near beach / swim area).	7	5	16	26	47
Nature Discovery Garden (near beach / swim area).	7	5	22	30	36
Boat launch / boat rental area (e.g., paddle, canoe).	14	12	25	28	20
Fishing pier.	17	12	27	23	21
Loop trail around the park.	5	8	19	36	32
Wetland area in the western section of the park.	9	10	23	32	26

8. Now, how ***dissatisfied or satisfied*** are you with each of the following at Blue Lake Park? (**circle one number for EACH**)

	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	I Did Not Use
Available parking for vehicles.	1%	3%	11%	33%	46%	7%
Wait time for access to vehicle parking.	2	3	13	32	43	8
Amount of fee paid to park vehicle.	3	7	19	36	28	7
First-come-first-served (non-reservable) picnic areas.	1	2	18	31	25	23
Reservable picnic shelters / areas.	1	3	18	27	21	30
Disc golf course.	1	3	19	16	19	41
Sports fields (e.g., softball, soccer).	1	1	19	22	13	43
Volleyball or basketball courts.	1	2	19	20	13	46
Horseshoe pits.	1	2	21	16	11	49
Children's play areas / playgrounds.	1	1	11	26	42	20
Number of trash cans / recycling stations.	2	4	8	38	41	8
Number of toilets / bathrooms.	2	5	12	40	36	6
Cleanliness / condition of toilets / bathrooms.	3	10	16	30	32	9
Beach and swimming area.	4	5	15	26	22	28
Water spray / splash pad (near beach / swim area).	1	1	13	24	33	28
Nature Discovery Garden (near beach / swim area).	1	1	15	26	29	29
Boat launch / boat rental area (e.g., paddle, canoe).	2	2	19	18	14	46
Fishing pier.	2	1	21	15	17	45
Loop trail around the park.	2	1	17	26	25	29
Wetland area in the western section of the park.	1	1	19	21	21	37

9. How ***important*** to you is each of the following at Blue Lake Park? (**circle one number for EACH**)

	Not Important		Neither		Extremely Important
Courteous park staff / personnel.	1%	1%	9%	38%	50%
Helpful or knowledgeable park staff / personnel.	1	1	12	39	48
Accessible or easy to find park staff / personnel.	1	2	19	39	39
Overall customer service of park staff / personnel.	1	1	16	41	42
Clean facilities / services.	0	1	11	31	57
Well-maintained facilities / services.	0	1	12	29	58
Safe facilities / services.	0	1	9	30	60
Absence of litter.	0	1	8	35	56
Absence of animal waste / excrement.	3	3	12	27	57
Overall cleanliness of the park.	0	2	8	29	61
Condition of the natural environment in the park.	1	1	8	36	55
Number of trails in the park.	1	3	17	38	41
Safety / condition of trails in the park.	1	1	12	35	52
Ease of movement or access (e.g., wheelchair, elderly, baby stroller).	3	3	18	32	44
Places or facilities for groups to gather.	1	3	17	35	44
Variety of things to do.	1	1	15	35	48
Personal safety.	0	1	11	29	60
Signs with directions inside the park.	1	2	14	34	49
Signs with directions to the park (how to get to the park).	2	2	16	37	44
Amount of information / education materials (e.g., signs, brochures).	3	5	27	36	30
Quality of information / education materials (e.g., signs, brochures).	3	4	28	33	32

10. Now, how ***dissatisfied or satisfied*** are you with each of the following at Blue Lake Park? (**circle one number for EACH**)

	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied
Courteousness of park staff / personnel.	0%	1%	15%	41%	43%
Helpfulness or knowledge of park staff / personnel.	0	1	17	41	41
Ease of accessing or finding park staff / personnel.	1	3	23	40	34
Overall customer service of park staff / personnel.	1	1	20	42	37
Cleanliness of facilities / services.	1	4	15	46	34
Maintenance of facilities / services.	1	3	14	46	36
Safety of facilities / services.	1	1	15	45	38
Absence of litter.	1	2	14	45	38
Absence of animal waste / excrement.	5	10	15	38	32
Overall cleanliness of the park.	1	3	14	44	38
Condition of the natural environment in the park.	1	1	16	44	38
Number of trails in the park.	0	1	22	44	33
Safety / condition of trails in the park.	0	1	17	43	38
Ease of movement or access (e.g., wheelchair, elderly, stroller).	3	5	21	36	36
Places or facilities for groups to gather.	0	1	19	44	36
Variety of things to do.	0	1	17	43	39
Personal safety.	0	1	13	43	43
Signs with directions inside the park.	0	3	15	43	40
Signs with directions to the park (how to get to the park).	1	3	19	42	35
Amount of information / education materials (signs, brochures).	1	3	29	37	30
Quality of information / education materials (signs, brochures).	1	3	28	38	31

11. How dissatisfied or satisfied are you with your **overall experience** at Blue Lake Park **today**? (**check ONE**)

2% Very Dissatisfied      1% Dissatisfied      4% Neither      48% Satisfied      46% Very Satisfied

12. To what extent have you felt crowded at Blue Lake Park **today**? (**circle a number**)

32%	13%	14%	9%	11%	12%	6%	2%	2%
Not at all Crowded	Slightly Crowded		Moderately Crowded			Extremely Crowded		

13. What are the **best** things about Blue Lake Park? (**write response**) [see Table 18](#)

14. What are the **worst** things about Blue Lake Park? (**write response**) [see Table 19](#)

15. To what extent has visiting Blue Lake Park resulted in each of the following benefits for you? (**circle one number for EACH**)

	No Benefit	Slight Benefit	Moderate Benefit	Extreme Benefit
Improved your level of physical fitness.	16%	30%	36%	18%
Improved your overall physical health.	15	28	38	19
Reduced your level of stress / anxiety.	5	19	41	35
Improved your overall mental health.	7	17	42	34

16. How unlikely or likely are you to return to Blue Lake Park in the future? (**check ONE**)

3% Very Unlikely      2% Unlikely      4% Neither      37% Likely      54% Very Likely

17. Daily fees for Blue Lake Park are \$5 for a personal vehicle, and \$7 for a van or bus (12 or more people).

Would you be willing to pay a higher fee to visit? (**check ONE**)

78% No

22% Yes → if yes, what is the **maximum** you would be willing to pay? Vehicle: \$ [see Fig 24](#) Van / Bus: \$ [see Fig 25](#)

18. Do you think there should be an hourly rate for parking? (**check ONE**)      84% No      7% Yes      9% Unsure

19. Annual passes are \$40 per year (\$30 for seniors). Do you have a pass or would you consider getting one? (**check ONE**)

65% No

35% Yes → if yes, what is the **maximum** you would be willing to pay for an annual pass? (**write number**) \$ [see Fig 28](#)

20. **Including yourself**, how many people are accompanying you at Blue Lake Park **today**? (**write number**) [see Fig 9 & Table 9](#) person(s)

21. How many children (age 14 and younger) are accompanying you at Blue Lake Park **today**? (**write number**) [see Fig 10 & Table 10](#) children

22. Are you: (**check ONE**)      45% Male      53% Female      2% Other (e.g., Transgender Person)

23. What is your age? (**write age**) [see Fig 30 & Table 25](#) years old

24. Which of the following best describes you? (**check ONE**)

67% White (Caucasian)      13% Hispanic / Latino      2% American Indian / Alaskan Native      1% Other  
6% Black / African American      8% Asian      3% Native Hawaiian / Pacific Islander

25. What language is spoken most often at your home? (**check ONE**)

79% English      12% Spanish      3% Russian      2% Vietnamese      2% Chinese      3% Other (write response) \_\_\_\_\_

26. Where do you live? (**write responses**) City / town [see Table 28](#) State [see Table 28](#) County [see Table 28](#) Zip [see Table 28](#)

Thank you! <b>Please return this survey to the researcher immediately.</b>	
Site: <input type="checkbox"/> Beach <input type="checkbox"/> Boats <input type="checkbox"/> Central <input type="checkbox"/> Disc Golf	Day: M T W Th F Sat Sun    Time: _____

