

1999 Wakonda State Park Visitor Survey

Project Completion Report

Submitted to

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Prepared by

Dawn K. Fredrickson C. Randal Vessell Ph.D.

Department of Parks, Recreation, & Tourism School of Natural Resources University of Missouri-Columbia

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Executive Summary

The purpose of this study was to describe visitors' socio-demographic characteristics, patterns of use, and satisfaction with park facilities, programs and services at Wakonda State Park (WSP).

An on-site exit survey of adult visitors to WSP was conducted July, August, and September 1999. Two hundred twelve (212) surveys were collected, with an overall response rate of 58%. Results of the survey have a margin of error of plus or minus 7%. The following information summarizes the results of the study.

Socio-demographic Characteristics

- WSP visitors were comprised almost equally of males (53%) and females (47%), and the average age of the adult visitor to WSP was 43.
- Over half (55%) of the visitors reported a household income of between \$25,000 and \$50,000, and almost half (48%) reported having completed grade school or high school as the highest level of education completed.
- The majority (97%) of visitors were Caucasian. One percent (1%) was African American and 1% was Native American. Less than 1% (0.5%) of visitors reported being Hispanic and no visitors reported being of Asian ethnic origin.
- Five percent (5%) of the visitors reported having a disability.

- Over half (52%) of the visitors were from out of state, with Illinois accounting for the majority (83%) of the out of state visitors.
- Almost three-fourths (73%) of the visitors lived within 50 miles of WSP.

Use-Patterns

- The majority (90%) of visitors drove less than a day's drive (less than 150 miles) to visit WSP. Of those driving 150 miles or less, 66% lived within 25 miles of WSP, including almost two-thirds of the Illinois visitors.
- About three-fourths (74%) of WSP visitors had visited the park before.
- WSP visitors had visited the park an average of 13 times in the past year.
- Two-thirds of the visitors were dayusers. Of the visitors staying overnight, 99% stayed in the campground at WSP. The average number of nights overnight visitors stayed was 2.4 nights.
- The majority of WSP visitors visited the park with family and/or friends.
- The most frequent recreation activities in which visitors participated were walking, fishing, picnicking, camping, swimming, and viewing wildlife.

Satisfaction and Other Measures

- Ninety-nine percent (99%) of WSP visitors were either satisfied or very satisfied overall.
- Of the nine park features, the park signs and RV rentals were given the highest satisfaction ratings and the boat ramps were given the lowest satisfaction rating.
- Visitors gave higher performance ratings to the following park attributes: care of the natural resources and being free of litter and trash.
- Visitors gave lower performance ratings to the following park attributes: clean restrooms, disabled accessibility, being safe, and upkeep of park facilities.
- One-third (35%) of visitors to WSP felt some degree of crowding during their visit. Of those who felt crowded, the campground and swimming beach were where most felt crowded.
- Visitors who did not feel crowded had a significantly higher overall satisfaction compared to visitors who did feel crowded.
- Forty-one percent (41%) of the visitors at WSP did not give park safety an excellent rating.
- Of those visitors responding to the open-ended opportunity to express

- their safety concerns (48% of those visitors not giving the park an excellent safety rating), a large percentage (26%) commented on the lack of lifeguards at the swimming beach.
- Although 38% of the visitors felt that nothing specific could increase their feeling of safety at WSP, 18% did indicate that increased lighting at WSP would increase their feeling of safety.
- Visitors who felt the park was safe were more satisfied overall, less crowded, gave higher satisfaction ratings to the nine park features, and gave higher performance ratings to all eight of the park attributes as well.
- A little over half (58%) of visitors reported that they would support the proposed reservation system.
- A slight majority (56%) of visitors reported they would support a "carry in and carry out" trash removal system.
- Twenty-eight percent (28%) of visitors provided additional comments and suggestions, the majority (34%) of which were positive comments about the park and staff.

Acknowledgements

Conducting and successfully completing a study of this magnitude and complexity could not have been accomplished without the cooperation of many individuals. Almost 2,000 visitors to Missouri State Parks participated in the 1999 Missouri State Parks Visitor Survey. Over 200 visitors to Wakonda State Park voluntarily agreed to provide the information upon which this report is based. It is clear from their input that these visitors care very much for the recreation resources in the Missouri State Park System. Their efforts will provide invaluable input into the planning process and providing for more effective and responsive management of these resources.

Many other individuals provided assistance during the 1999 Missouri State Parks Visitor Survey, without whom the study would not have been a success. The following expressions of gratitude are in acknowledgement of their contributions. Special acknowledgement goes to the staff at Wakonda State Park for their willingness to accommodate the survey crew during the study period, and also for their assistance during sampling. Many thanks also go to the research assistants who assisted in data collection and the students at the University of Missouri who assisted in computer data entry of the questionnaires. They are: Tucker Fredrickson, Dennis Stevenson, Debra Stevenson, Amy Mahon, Chis Thoele, and Laura Marsch.

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Introduction

NEED FOR RECREATION RESEARCH

In 1939, 15 years after Missouri obtained its first state park, 70,000 visitors were recorded visiting Missouri's state parks (Masek, 1974). Today, the increase in demand for outdoor recreation experiences has given rise to over 16 million visitors who, each year, visit the 80 parks and historic sites in Missouri's state park system (Holst & Simms, 1996). Along with this increase in demand for outdoor recreation experiences are other highly significant changes in outdoor recreation. Some of these changes include a change in the nature of vacations with a trend toward shorter, more frequent excursions; an increasing diversity of participation patterns across groups; an increase in more passive activities appropriate for an aging population; an increased concern for the health of the environment; and a realization of the positive contributions the physical environment has on the quality of one's life (Driver, Dustin, Baltic, Elsner, & Peterson, 1996; Tarrant, Bright, Smith, & Cordell, 1999).

Societal factors responsible for these changes in the way Americans recreate in the outdoors include an aging population; a perceived decline in leisure time and a faster pace of life; geographically uneven population growth; increasing immigration; changes in family structures, particularly an increase in single-parent families; increasing levels of education; a growth in minority populations; and an increasing focus on quality "lifestyle management" (Driver et al., 1996;

Tarrant et al, 1999). These factors and their subsequent changes in outdoor recreation participation have important implications for recreation resource managers, who are now faced with recreation resource concerns that are "...people issues and not resource issues alone (McLellan & Siehl, 1988)." This growing social complexity combined with the changes it has created in outdoor recreation participation have given rise to the need for research exploring why and how people recreate in the outdoors as well as how these individuals evaluate the various aspects of their outdoor recreation experiences.

STUDY PURPOSE

Visitor satisfaction tends to be a primary goal of natural resource recreation managers (Peine, Jones, English, & Wallace, 1999) and has been defined as the principal measure of quality in outdoor recreation (Manning, 1986). Visitor satisfaction, however, can be difficult to define because individual visitors are unique. Each visitor may have different characteristics, cultural values, preferences, attitudes, and experiences that influence their perceptions of quality and satisfaction (Manning, 1986).

Because of these differences in visitors, a general "overall satisfaction" question alone could not adequately evaluate the quality of visitors' experiences when they visit Missouri's state parks and historic sites. For this reason, it is necessary to gather additional information about visitor satisfaction through questions regarding: a) visitors'

socio-demographic characteristics; b) visitors' satisfaction with programs, services and facilities; c) visitors' perceptions of safety; and d) visitors' perceptions of crowding. Thus, the purpose of this study is to gain information, through these and other questions, about the use patterns, socio-demographic characteristics, and satisfaction with park programs, facilities, and services, of visitors to ten of Missouri's state parks.

This report examines the results of the visitor survey conducted at Wakonda State Park (WSP), one of the ten parks included in the 1999 Missouri State Parks Visitor Survey. Objectives specific to this report include:

- 1. Describing the use patterns of visitors to WSP during July, August, and September 1999.
- 2. Describing the socio-demographic characteristics of visitors to WSP.
- 3. Determining if there are differences in select groups' ratings of park attributes, satisfaction with park features, overall satisfaction, and perceptions of crowding.
- 4. Determining any differences in select characteristics of visitors who rated park safety high and those who did not.
- 5. Gaining information about selected park-specific issues.

STUDY AREA

Located in northeast Lewis County, Wakonda State Park lies along side the Mississippi River just west of the Illinois border. The park offers many different recreational opportunities, with its several lakes, sand prairies, and large sandy beach. Recreationists are able to fish, bird watch, boat, camp, picnic, swim, and participate in a variety of beach sports. Wakonda also offers some unique amenities not typical of most other state parks, including boat and canoe rentals, a food concession, and RV rentals.



Prairie at Wakonda State Park

SCOPE OF STUDY

The population of the visitor study at WSP consisted of WSP visitors who were 18 years of age or older (adults), and who visited during the study period of July, August, and September 1999.

Methodology

SAMPLING PROCEDURES

A 95% confidence interval was chosen with a plus or minus 5% margin of error. Based upon 1998 visitation data for July, August, and September at WSP, it was estimated that approximately 62,000 visitors would visit WSP during the period between July 1 and September 30, 1999 (DNR, 1998). Therefore, with a 95% confidence interval and a plus or minus 5% margin of error, a sample size of 398 visitors was required (Folz, 1996). A random sample of adult visitors (18 years of age and older) who visited WSP during the study period were the respondents for this study.

To ensure that visitors leaving WSP during various times of the day would have equal opportunity for being surveyed, three time slots were chosen for surveying. The three time slots were as follows: Time Slot 1 = 8:00 a.m. - 12:00 p.m., Time Slot 2 = 12:00 p.m. - 4:00 p.m., and Time Slot 3 = 4:00 p.m. - 8 p.m. A time slot was randomly chosen and assigned to the first of the scheduled survey dates. Thereafter, time slots were assigned in ranking order based upon the first time slot.

QUESTIONNAIRE

The questionnaire used in this study was based on the questionnaire developed by Fink (1997) for the Meramec State Park Visitor Survey. A copy of the questionnaire for this study is provided in Appendix A.

SELECTION OF SUBJECTS

The survey of visitors at WSP was administered on-site, to eliminate the non-response bias of a mail-back survey. An exit survey of visitors leaving the park was conducted through a sample of every vehicle exiting the park.

DATA COLLECTION

The surveyor wore a state park t-shirt and was stationed near the contact station at the park. At the survey station, a "Visitor Survey" sign was used to inform visitors of the survey. During the selected time slot, the surveyor stopped every vehicle and asked every visitor who was 18 years of age and older to voluntarily complete the questionnaire, unless he or she had previously filled one out.



Survey Station at Wakonda State Park

To increase participation rates, respondents were given the opportunity to enter their name and address into a drawing for a prize package and were assured that their responses to the survey questions were anonymous and would

not be attached to their prize entry form. Willing participants were then given a pencil and a clipboard with the questionnaire and prize entry form attached. Once respondents were finished, the surveyor collected the completed forms, clipboards, and pencils. Survey protocol is given in Appendix B and a copy of the prize entry form is provided in Appendix C.

An observation survey was also conducted to obtain additional information about: date, day, time slot, and weather conditions of the survey day; the number of adults and children in each vehicle; and the number of individuals asked to fill out the questionnaire, whether they were respondents, non-respondents, or had already participated in the survey. This number was used to calculate response rate, by dividing the number of surveys collected by the number of adult visitors asked to complete a questionnaire. A copy of the observation survey form is provided in Appendix D.

DATA ANALYSIS

The data obtained for the WSP study was analyzed with the Statistical Packages for the Social Sciences (SPSS) (SPSS, 1996).

Frequency distributions and percentages of responses to the survey questions and the observation data were determined. The responses to the open-ended questions were listed as well as grouped into categories for frequency and percentage calculations. The number of surveys completed by weekday versus weekend and by time slot was also determined.

Comparisons using independent sample t-tests for each group were also made to determine any statistically significant differences (p<.05) in the following selected groups' satisfaction with park features (question 6), ratings of park attributes (question 7), overall satisfaction (question 13), and perceptions of crowding (question 14). The selected groups include:

- 1. First time visitors versus repeat visitors (question 1).
- 2. Campers versus non-campers (question 3). Non-campers include both day-users and the overnight visitors who did not stay overnight in the campground at WSP.
- 3. Weekend visitors versus weekday visitors. Weekend visitors were surveyed on Saturday and Sunday, weekday visitors were surveyed Monday through Friday.

Other comparisons were made using independent sample t-tests to determine any statistically significant differences in visitors who rated the park as excellent on being safe versus visitors who rated the park as good, fair, or poor on being safe, for the following categories:

- 1. First time versus repeat visitors.
- 2. Campers versus non-campers.
- 3. Weekend versus weekday visitors.

Differences between visitors who rated the park as excellent on being safe versus those who did not were also compared on the following questions: differences in socio-demographic characteristics, perceptions of crowding, measures of satisfaction with park features, measures of performance of park attributes, and overall satisfaction. Chi-square tests were conducted comparing responses between select groups regarding support for a reservation system and support for a "carry in and carry out" trash system. The selected groups include:

- 1. First time versus repeat visitors.
- 2. Campers versus non-campers.
- 3. Weekend versus weekday visitors.

Additional comparisons include:

- 1. Multiple linear regression analyses to determine which of the satisfaction variables and which of the performance variables most accounted for variation in overall satisfaction.
- 2. An independent sample t-test comparing overall satisfaction between visitors who felt some degree of crowding and those who were not at all crowded during their visit.

Results

This section describes the results of the Wakonda State Park Visitor Survey. For the percentages of responses to each survey question, see Appendix E. The number of individuals responding to each question is represented as "n=."

SURVEYS COLLECTED & RESPONSE RATES

A total of 212 surveys were collected at WSP during the time period of July, August, and September 1999. Table 1 shows surveys collected by time slot. Of the 212 surveys collected, 145 (68.4%) were collected on weekends (Saturday and Sunday) and 67 (31.6%) were collected on weekdays (Monday through Friday). The overall response rate was 58%.

SAMPLING ERROR

With a sample size of 212 and a confidence interval of 95%, the margin of error increases from plus or minus 5% to plus or minus 7%. For this study, there is a 95% certainty that the true results of the study fall within plus or minus 7% of the findings. For example, from the results that 47.2% of the visitors to WSP during the study period were female, it can be stated that between 40.2% and 54.2% of the WSP visitors were female.

SOCIO-DEMOGRAPHIC CHARACTERISTICS

Age

The average age of adult visitors to WSP was 43.2. When grouped into four age categories, 29.3% of the adult visitors were between the ages of 18-34, 46.5% were between the ages of 35-54, 14.6% were between the ages of 55-64, and 9.6% were 65 or over.

Gender

Visitors to WSP were almost equally male and female. Male visitors comprised 52.8% of all visitors, and female visitors comprised 47.2% of all visitors.

Education

The majority (48%) of the visitors to WSP indicated they had completed grade school or high school as the highest level of education completed. One-third (35.3%) indicated having completed vocational school or some college, while 16.7% indicated having completed a four-year college degree or post-graduate education.

Table 1. Surveys Collected by Time Slot

Time Slot	Frequency	Percent
1. 8 a.m 12 p.m.	67	31.6%
2. 12 p.m 4 p.m.	77	36.3%
3. 4 p.m 8 p.m.	_ 68	32.1%
Total	212	100.0%

Income

Over half (55.4%) of the visitors to WSP reported they had an annual household income of between \$25,000 and \$50,000. Over one-fifth (23.9%) of visitors had an income of less than \$25,000. Less than 20% (16.3%) of visitors had an income of between \$50,001 and \$75,000, and less than 5% (4.3%) had a household income of over \$75,000.

Ethnic Origin

Figure 1 indicates the ethnic origin of WSP visitors. The vast majority (97%) of visitors was Caucasian. One percent (1%) of visitors were African American, and 1% of visitors reported being of Native American descent. Less than one percent (0.5%) of visitors reported being Hispanic, and less than one percent (0.5%) of visitors reported being of an "other" ethnic origin. There were no visitors who reported being of Asian origin.

Visitors with Disabilities

Five percent (5.1%) of the visitors to WSP reported having some type of disability that substantially limited one or more life activities or that required special accommodations. Most of the disabilities reported were mobility-impairing disabilities, but other disabilities included heart and kidney disease.

Residence

Over half (52%) of WSP visitors were from out of state. Missouri accounted for 48% of all visitors, Illinois for 43% of all visitors, and Iowa for 4.5%. One visitor was from Germany. Almost three-fourths (73%) of the visitors to WSP lived within 50 miles of the park. Figure 2 shows the residence of visitors by zip code.

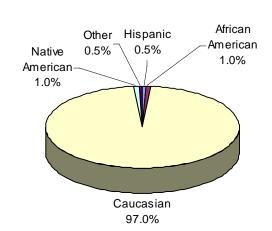


Figure 1. Ethnic Origin of WSP visitors.

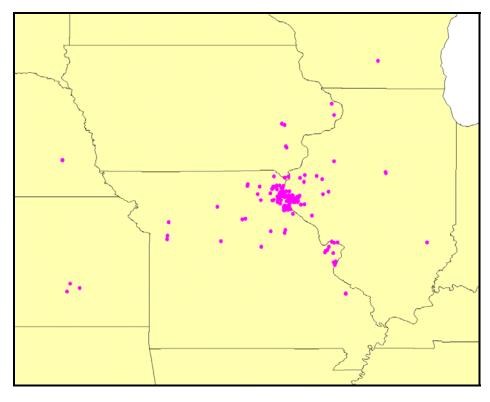


Figure 2. Residence of WSP Visitors by Zip Code

USE PATTERNS

Trip Characteristics

The majority (90%) of visitors to WSP traveled less than a day's drive to visit the park (a day's drive is defined as 150 miles or less, not exceeding 300 miles round trip). Of those traveling less than a day's drive, 65.6% lived within 25 miles of the park, including most (60.2%) of the Illinois visitors. Eighty percent (80.2%) of the Illinois visitors came from Quincy. Within Missouri, 13.5% came from the St. Louis region, 22.9% came from the Hannibal/Palmyra area, and 33.3% lived in the Canton/La Grange area.

Almost three-fourths (70.3%) of visitors either drove cars, vans, jeeps, or sport

utility vehicles. Less than one-third (27.4%) drove pickup trucks. Almost two percent (1.7%) of visitors drove RVs, and less than one percent (0.7%) drove motorcycles. Nine percent (9.1%) of the vehicles towed some type of trailer. The average number of axles per vehicle was 2.1, the average number of adults per vehicle was 1.6, and the average number of children per vehicle was 1.8.

Visit Characteristics

About three-fourths (74%) of the visitors to WSP were repeat visitors, with 26% of the visitors being first time visitors. The average number of times all visitors reported visiting WSP within the past year was 12.7 times.

Most of the visitors (62.1%) to WSP during the study period indicated that they were day-users, with 37.9% indicating that they were staying overnight. Of those staying overnight during their visit, most (98.8%) stayed in the campground at WSP. Of those camping in the campground at WSP, 52.7% reported camping in a personal RV, trailer, or van conversion, 28.4% reported camping in an RV rental, and 18.9% reported camping in a tent.

Of those reporting overnight stays, 32.9% stayed one night, 31.4% stayed two nights, 21.4% stayed three, and 14.3% stayed four or more nights. The average stay for overnight visitors was 2.4 nights. The median number of nights was 2, indicating that half of the overnight visitors stayed less than two nights and half of the overnight visitors stayed more than two nights. The highest percentage of visitors stayed one night.

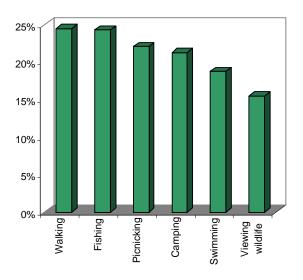
Forty-six percent (46.4%) of the visitors to WSP visited the park with family. Seventeen percent (16.9%) visited with family and friends, while 12.6% visited with friends, and 22.4% visited the park alone. Less than two percent (1.6%) of visitors indicated visiting the park with a club or organized group.

RECREATION ACTIVITY PARTICIPATION

Respondents to the survey were asked what activities they participated in during their visit to WSP. Figure 3 shows the percentage of visitor participation in the six highest activities. Walking was the highest reported (24.5%), fishing was second (24.3%), and picnicking was third (22.1%).

Camping (21.3%), swimming (18.8%), and viewing wildlife (15.5%) were next.

Figure 3. Participation in Recreational Activities at WSP



WSP visitors reported engaging in other activities, including bird watching (9.3%), viewing nature (7.1%), boating (6.5%), innertube rental (3.5%), boat rental (2.7%), canoeing (2.5%), canoe rental (1.4%), attending an interpretive program (1.1%), and attending a special event (0.5%). Only 5.7% of visitors reported engaging in an "other" activity, including driving through the park and sightseeing, bicycling, and playing at the playground.

SATISFACTION MEASURES

Overall Satisfaction

When asked about their overall satisfaction with their visit, only one percent (1.0%) of visitors reported being dissatisfied or very dissatisfied with their visit. Ninety-nine percent (99%) of WSP visitors were either satisfied or

very satisfied. Visitors' mean score for overall satisfaction was 3.66, based on a 4.0 scale with 4 being very satisfied and 1 being very dissatisfied.

No significant difference (p<.05) was found in overall satisfaction between first time and repeat visitors, with mean overall satisfaction scores of 3.65 and 3.66 respectively. Nor was there any significant difference in overall satisfaction between campers and non-campers, with mean overall satisfaction scores of 3.66 and 3.65 respectively. There was also no significant difference between weekend and weekday visitors, with mean overall satisfaction scores of 3.62 and 3.74 respectively.

Satisfaction with Park Features

Respondents were also asked to express how satisfied they were with nine park features. Figure 4 shows the mean scores for the nine features and also for visitors' overall satisfaction. The satisfaction scores for the RV rentals and for the park signs (3.59) were the highest, with the other scores ranging from 3.58 (picnic areas) to the lowest of 3.30 (boat ramps). A multiple linear regression analysis (r^2 =.29) of the nine park features showed that all the variables combined to only marginally account for the overall satisfaction rating.

No significant differences were found in mean satisfaction ratings of park features between first time and repeat visitors and between campers and non-campers. Weekday visitors, however, were significantly (p<.05) more satisfied with the park signs than weekend visitors, with satisfaction scores of 3.72 and 3.53 respectively.

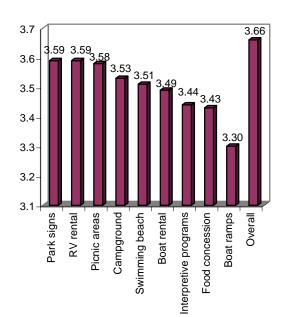


Figure 4. Satisfaction with WSP Features

PERFORMANCE RATING

Visitors were asked to rate the park's performance of eight select park attributes (question 7): being free of litter and trash, having clean restrooms, upkeep of park facilities, having helpful and friendly staff, access for persons with disabilities, care of natural resources, providing interpretive information, and being safe.

Performance scores were based on a 4.0 scale, with 4 being excellent and 1 being poor.

No significant differences were found between campers and non-campers and their performance ratings of the eight park attributes. First-time visitors had a significantly higher (p<.05) performance rating (3.82) regarding the park providing disabled accessibility than had repeat visitors (3.53). Weekday visitors had a significantly higher (p<.05) performance rating (3.67) regarding the park being safe than had weekend visitors (3.46). A multiple linear regression analysis (r²=.40) showed that the eight performance attributes combined to account for about two-fifths

of the variation in the overall satisfaction rating.

IMPORTANCE-PERFORMANCE MEASURES

The Importance-Performance (I-P) Analysis approach was used to analyze questions 7 and 12. Mean scores were calculated for the responses of the two questions regarding visitors' ratings of the performance and importance of the eight select park attributes. Table 2 lists the scores of these attributes, which were based on a 4.0 scale of 4 being excellent and 1 being poor, and 4 being very important and 1 being very unimportant.

Figure 5 shows the Importance-Performance (I-P) Matrix. The mean scores were plotted on the I-P Matrix to illustrate the relative performance and importance rating of the attributes by park visitors.

The I-P Matrix is divided into four quadrants to provide a guide to aid in possible management decisions. For example, the upper right quadrant is labeled "high importance, high

Table 2. Mean Performance and Importance Scores for Park Attributes

	Mean Performance	Mean Importance
Attribute	Score*	Score*
A. Being free of litter/trash	3.72	3.80
B. Having clean restrooms	3.49	3.90
C. Upkeep of park facilities	3.57	3.82
D. Having helpful & friendly staff	3.60	3.76
E ₁ . Access for persons with disabilities	3.58	3.69
E ₂ . Access for persons with disabilities	3.50	3.90
F. Care of natural resources	3.64	3.81
G. Providing interpretive information	3.57	3.63
H. Being safe	3.53	3.86

 E_1 = All visitors

 E_2 = Disabled visitors only

^{* 1 =} Poor performance or low importance rating, 4 = excellent performance or high importance rating

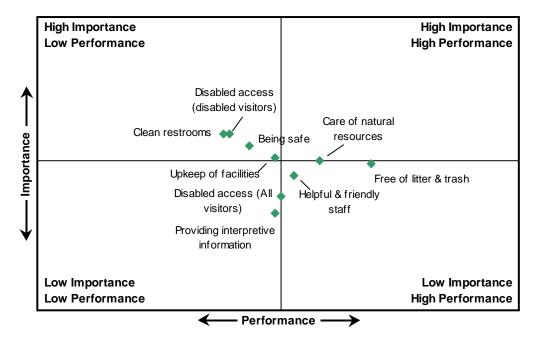


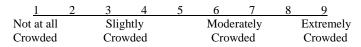
Figure 5. Importance-Performance Matrix of Park Attributes

performance" and indicates the attributes in which visitors feel the park is doing a good job. The upper left quadrant indicates that management may need to focus on these attributes, because they are important to visitors but were given a lower performance rating. The lower left and right quadrants are less of a concern for managers, because they exhibit attributes that are not as important to visitors.

WSP was given high performance and moderate importance ratings for care of the natural resources and being free of litter and trash. Characteristics that visitors felt were important but rated WSP low on performance were having clean restrooms, being safe and upkeep of park facilities. Disabled visitors also gave a lower rating for the park providing disabled accessibility.

CROWDING

Visitors to WSP were asked how crowded they felt during their visit. The following nine-point scale was used to determine visitors' perceptions of crowding:



Visitors' overall mean response to this question was 1.8. Two-thirds (65%) of the visitors to WSP did not feel at all crowded (selected 1 on the scale) during their visit. The rest (35%) felt some degree of crowding (selected 2-9 on the scale) during their visit.

Visitors who indicated they felt crowded during their visit were also asked to specify where they felt crowded (question 15). One-third (35.7%) of the

Table 3. Locations Where WSP Visitors Felt Crowded During
Their Visit

Location	Frequency	Percent
Campground	12	41.4%
Swimming beach	9	31.0%
On one of the lakes	2	6.9%
Picnic areas	2	6.9%
Restrooms/shower houses	2	6.9%
Other	_2	6.9%
Total	9	100.0%

visitors who indicated some degree of crowding answered this open-ended question. Table 3 lists the locations where visitors felt crowded at WSP. Of those who answered the open-ended question, the majority (41.4%) felt crowded in the campground.

No significant differences in perceptions of crowding were found between first time and repeat visitors, and between campers and non-campers. Weekend visitors had significantly higher (p<.01) perceptions of crowding when compared to weekday visitors. Weekend visitors had a mean crowded score of 2.2, while weekday visitors had a mean crowded score of 1.4.

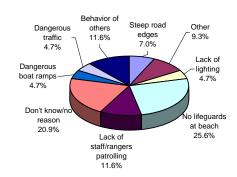
Crowding and satisfaction

A significant difference (p<.001) was found in visitors' mean overall satisfaction with their visit and whether they felt some degree of crowding or not. Visitors who did not feel crowded had a mean overall satisfaction score of 3.75, whereas visitors who felt some degree of crowding had a mean overall satisfaction score of 3.48.

SAFETY CONCERNS OF VISITORS

Two-fifths (41.2%) of the visitors to WSP did not rate the park as excellent for safety. Of those, 47.6% noted what influenced their rating. Their comments were grouped into categories and are shown in Figure 6. Appendix F provides a list of the comments.

Figure 6. Comments from Visitors Not Rating WSP Excellent on Safety



One-fifth (20.9%) of the open-ended responses were from visitors who either had no reason for not rating safety excellent, or who felt that no place was perfect and could always improve. One-fourth (25.6%) of the open-ended responses, however, were from visitors

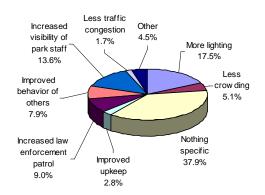
who commented on the lack of lifeguards at the swimming beach.

Visitors were also given a list of nine attributes and were asked to indicate which of the nine would most increase their feeling of safety at WSP. Although instructed to select only one attribute, many visitors selected more than one; consequently, 177 responses were given by 145 visitors. Figure 7 shows the percentage of responses given by visitors. Most (37.9%) felt that nothing specific would increase their feeling of safety, but 17.5% felt that more lighting would increase safety.

Visitors who felt that more lighting in the park would most increase their feeling of safety were asked to indicate where they felt more lighting was necessary. Sixty-eight percent (67.7%) of those visitors answered this openended question. Table 4 shows the frequency and percentages of their responses.

There were no significant differences in the rating of safety by first time visitors versus repeat visitors or by campers versus non-campers. Weekday visitors had a significantly higher (p<.05) safety rating (3.67) than weekend visitors (3.46). There were no differences in safety ratings by socio-demographic characteristics.

Figure 7. Percentage of Safety Attributes
Chosen by Visitors



To determine if there were differences in perceptions of crowding, satisfaction with park features, and overall satisfaction, responses were divided into two groups based on how they rated WSP on being safe. Group 1 included those who rated the park excellent, and Group 2 included those who rated the park as good, fair, or poor.

Group 1 was significantly (p<.05) more satisfied overall and significantly less crowded than Group 2, with an overall satisfaction score of 3.90 and a mean crowded score of 1.6, whereas Group 2 had an overall satisfaction score of 3.32 and a mean crowded score of 2.5. Group 1 also had significantly (p<.01) higher satisfaction ratings for all nine of the

Table 4. Locations Where Visitors Felt More Lighting Would Increase Safety

Location	Frequency	Percent
Campground	9	42.9%
Along park roads	3	14.3%
Restrooms/shower houses	3	14.3%
Boat ramps	2	9.5%
Other	4	<u>19.1%</u>
Total	21	100.0%

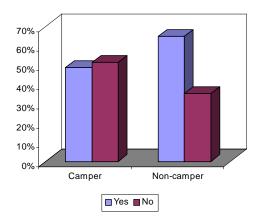
satisfaction features than Group 2, as well as significantly higher (p<.001) performance ratings for all eight of the park attributes.

SUPPORT OF RESERVATION SYSTEM

WSP visitors were asked whether they would support setting aside at least 50% of all campsites in a reservation system, and charging a reservation fee not to exceed \$7.00. Fifty-eight percent (57.8%) of visitors would support such a system, while 42.2% reported that they would not.

There was no significant difference between first time and repeat visitors and the percentage of each that would or would not support a reservation system, nor was there a significant difference between weekday and weekend visitors. There was a significant difference (p<.05), however, between campers and non-campers and the percentage of each that would support or oppose the proposed reservation system (Figure 8). Campers were almost equally divided on this issue, with 48.6% in favor of the

Figure 8. Comparison of Support of Reservation System Between Campers and Non-campers



reservation system and 51.4% opposed to it. Non-campers, on the other hand, were more likely to support (64.9%) the system rather than oppose (35.1%) it.

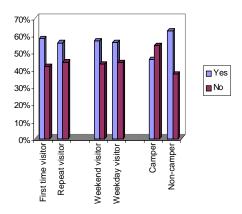
SUPPORT OF "CARRY IN/CARRY OUT" TRASH SYSTEM

WSP visitors were also asked to indicate whether they would be willing for the park to establish a "carry in and carry out" trash removal system, thereby promoting recycling and reducing the burden of handling trash in the park. Visitors were almost equally divided on this issue, with 56.5% who would support such a system and 43.5% who would not support a "carry in and carry out" system.

There were no significant differences between first time and repeat visitors, and whether each group would support this type of trash system. Both first time and repeat visitors were more likely to support the carry in/carry out trash system than oppose it. No significant difference was found between the percentages of weekend and weekday visitors and whether each would support or oppose this type of trash system. Both were more likely to support than oppose the proposed system.

There was, however, a significant difference (p<.05) between whether campers and non-campers would support the carry in/carry out trash system. Campers were more likely to oppose (54.1%) than support (45.9%) the proposed system, while non-campers were more likely to support (62.6%) the system rather than oppose it (37.4%). Figure 9 shows the percentage of support or opposition between each group.

Figure 9. Support for "Carry In/Carry Out" Trash System Between Groups



ADDITIONAL VISITOR COMMENTS

Respondents to the survey were also given the opportunity to write any additional comments or suggestions on how DNR could make their experience at WSP a better one (question 23). Over one-fourth (27.8%) of the total survey participants responded to this question, with 68 responses given by 59

respondents. The comments and suggestions were listed and grouped by similarities into 8 categories for frequency and percentage calculations. The list of comments and suggestions is found in Appendix G. Table 5 lists the frequencies and percentages of the comments and suggestions by category.

The majority (33.8%) of comments were general positive comments, such as: "Great park", "Keep up the good work", and "Love it". The rest of the comments were categorized based on similar suggestions or comments, such as suggestions about the campground, needing improvement to or better maintenance of the boat launches, and other suggestions not falling into any other category.

Table 5. Frequency and Percentage of Comments and Suggestions from WSP Visitors

Category	Frequency	Percent
1. General positive comments	23	33.8%
2. Suggestions about campground/campsites	12	17.6%
3. Improve or better maintain boat ramps	10	16.2%
4. Enforce park rules and provide lifeguards	4	5.9%
5. Comments about concessionaire services	4	5.9%
6. Comments/suggestions about restrooms/shower houses	2	2.9%
7. Comments/suggestions about RV rentals	2	2.9%
8. Other	<u>11</u>	16.2%
Total	59	100.0%

Discussion

MANAGEMENT IMPLICATIONS

The results of this study provide relevant information concerning WSP visitors. However, the results should be interpreted with caution. The surveys were collected only during the study period of July, August, and September 1999; therefore, visitors who visit during other seasons of the year are not represented in the study's sample. The results, however, are still very useful to park managers and planners, because much of the annual visitation occurs during this period.

Satisfaction Implications

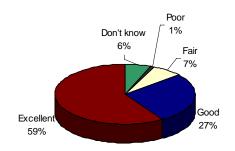
Sixty-seven percent (67%) of WSP visitors reported that they were very satisfied with their visit to the park. Williams (1989) states that visitor satisfaction with previous visits is a key component of repeat visitation. The high percentage of repeat visitation (74%) combined with their positive comments provide evidence that WSP visitors are indeed satisfied with their park experience.

Safety Implications

Visitors' perceptions of safety are a concern for WSP managers. Safety was an attribute visitors identified as being of higher importance, but was given a lower performance rating. In fact, 41% of visitors did not give the park an excellent rating, although most of these visitors did give the park a good rating (Figure 10). Visitors' safety concerns also influenced their overall satisfaction and perceptions of crowding, as overall

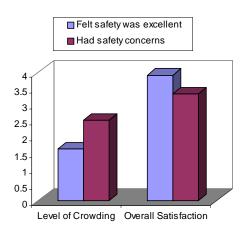
satisfaction was lower and perceptions of crowding were higher for visitors with safety concerns (Figure 11).

Figure 10. Safety Ratings of WSP.



Of particular concern to visitors is the lack of lifeguards at the swimming beach. Also, visitors felt more lighting should be provided in the park, as evidenced by the 17% who chose more lighting as the attribute that would most increase their feeling of safety at WSP.

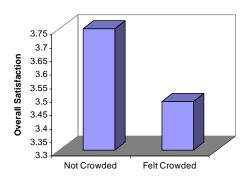
Figure 11. Levels of Crowding and Satisfaction Ratings by Safety Concerns



Crowding Implications

Visitors' perceptions of crowding at WSP were fairly low. Two-thirds (65%) of visitors did not feel at all crowded, and the mean crowded score for visitors was only 1.9. However, visitors' perceptions of crowding did influence their overall satisfaction at WSP, indicating that visitors' perceptions of crowding should be a management concern. Visitors who felt crowded had a significantly lower overall satisfaction than visitors who did not feel crowded (Figure 12).

Figure 12. Overall Satisfaction is Lower for Those Who Felt Crowded



Crowding is a perceptual construct not always explained by the number or density of other visitors. Expectations of visitor numbers, the behavior of other visitors, and visitors' perception of resource degradation all play a significant role in crowding perceptions (Armistead & Ramthun, 1995; Peine et al., 1999). In addressing the issue of crowding, one option is to review comments relating to crowding and consider options that would reduce crowding perceptions. For example, most of the comments from those visitors who felt crowded listed the campground and swimming beach as

where they felt crowded. Further study could determine if crowding perceptions here are due to the number of people or perhaps the behavior of those in the campground or at the swimming beach.

Performance Implications

The performance attributes are an important management concern, as the multiple linear analysis revealed that the eight performance attributes combined to account for more of the variation in overall satisfaction than the nine satisfaction features. Visitors felt that clean restrooms and upkeep of park facilities were very important but rated WSP lower in performance in both these areas. Restroom cleanliness and facility upkeep are often given lower ratings by visitors to state parks (Fredrickson & Moisey, 1999), and in this case could be a result of the large number of visitors experienced by WSP during the peak season.

Disabled visitors gave a lower performance rating regarding WSP providing disabled accessibility. Although only 5% of visitors to WSP reported having some type of disability, providing disabled accessibility is still an important concern for managers. This is particularly important because all of the visitors reporting some type of disability were repeat visitors, visiting the park an average of 7.4 times in the past year.

Implications for WSP's Interpretive Programs and Information

Another area of concern for managers at WSP is the low performance and importance ratings given by visitors regarding WSP providing interpretive information. Only one percent of

visitors indicated attending an interpretive program. Although two-thirds of visitors gave either good or excellent ratings regarding WSP providing interpretive information, about 61% of visitors, when asked how satisfied they were with WSP's interpretive programs, reported that they didn't know. These results suggest that visitors may not be aware of the interpretive programs, and thus do not attend them.

Implementation of Reservation System

Although more than half (58%) of the visitors reported that they would support the proposed reservation system, campers (the users most likely to be affected by such a system) responded with a slight majority (51%) who would not support such a system.

Further analysis of campers was conducted comparing tent and RV campers and the percentage of each in support of or opposed to a reservation system. (WSP is unique in that it offers RV rentals to visitors. Those visitors who rented a RV were already using some type of reservation system, therefore, these visitors were excluded from the comparison.) RV campers (those campers who might be expected to use the reservation system more) were more likely to oppose (62%) than support (38%) the proposed reservation system, while tent campers were more likely to support (57%) than oppose (43%) the system.

Implementation of "Carry In and Carry Out" Trash System

A slight majority (57%) of visitors favored this proposed trash removal system. Further analysis of the users

who might be most affected by this type of trash removal system (picnickers and campers) revealed that a slight majority (51%) of picnickers supported the proposal whereas a slight majority of campers (54%) opposed it.

Conclusion

WSP managers should be commended in that WSP visitors are very satisfied with WSP, as evidenced by the high percentage of visitors who were repeat visitors, and also by their high satisfaction ratings. Visitors' crowding perceptions were also fairly low.

The results of the present study suggest some important management and planning considerations for WSP. Even though WSP visitors rated their visits and the park features relatively high and did not feel very crowded, continued attention to safety, crowding, and facility upkeep and maintenance can positively effect these ratings.

Just as important, on-going monitoring of the effects of management changes will provide immediate feedback into the effectiveness of these changes. On-site surveys provide a cost effective and timely vehicle with which to measure management effectiveness and uncover potential problems.

RESEARCH RECOMMENDATIONS

The results of the present study serve as baseline visitor information of WSP. The frequency and percentage calculations of survey responses provide useful information concerning sociodemographic characteristics, use patterns, and satisfaction of WSP visitors. In addition, the "sub-analysis" of data is important in identifying

implications for management of WSP. (The sub-analysis in the present study included comparisons using Chi-square and ANOVA between selected groups, multiple linear regression, and the Importance-Performance analysis.) Additional relevant information may be determined from further sub-analysis of existing data. Therefore, it is recommended additional sub-analysis be conducted to provide even greater insight to management of the park.

Data collection should be on a continuum (Peine et al., 1999), which is why additional visitor surveys at WSP should also be conducted on a regular basis (e.g., every three, four, or five years). Future WSP studies can identify changes and trends in sociodemographic characteristics, use patterns, and visitors' satisfaction at WSP.

The methodology used in this study serves as a standard survey procedure that the DSP can use in the future. Because consistency should be built into the design of the survey instrument, sampling strategy and analysis (Peine et al., 1999), other Missouri state parks and historic sites should be surveyed similarly to provide valid results for comparisons of visitor information between parks, or to measure change over time in other parks.

The present study was conducted only during the study period of July, August, and September 1999. Therefore, user studies at WSP and other parks and historic sites might be conducted during other seasons for comparison between seasonal visitors.

METHODOLOGY RECOMMENDATIONS AND CONSIDERATIONS FOR WSP AND OTHER PARKS

The on-site questionnaire and the methodology of this study were designed to be applicable to other Missouri state parks. Exit surveys provide the most robust sampling strategy to precisely define the visitor population (Peine et al., 1999); therefore, it is recommended that exit surveys be conducted at other state parks and historic sites if at all possible.

Survey Signage

It is recommended that adequate signage be utilized when collecting surveys onsite. A "Visitor Survey" sign was used in the present study to inform visitors exiting the park that a survey was being conducted. Having the sign for that purpose aided in the workability of the methodology, as many visitors slowed their vehicles and some stopped before being asked to do so. However, the "survey station" often became an "information station" when visitors would stop to ask questions. Many visitors would also engage the surveyor in conversation regarding their feelings about WSP. For these reasons, an assistant to help administer the surveys would be helpful.

Survey Administration

Achieving the highest possible response rate (within the financial constraints) should be a goal of any study. To achieve higher response rates, the following comments are provided.

The prize package drawing and the onepage questionnaire undoubtedly helped attain the response rates in the 1998 Missouri State Parks Visitor Survey as well as in the 1999 Missouri State Parks Visitor Survey. Continued use of the one-page questionnaire and the prize package drawing is suggested.

The most frequent reason that visitors declined to fill out a survey was because they did not have enough time. Most non-respondents were very pleasant and provided positive comments about the park. Some even asked if they could take a survey and mail it back. One

recommendation would be to have self-addressed, stamped envelopes available in future surveys to offer to visitors only after they do not volunteer to fill out the survey on-site. This technique may provide higher response rates, with minimal additional expense. One caution, however, is to always attempt to have visitors complete the survey on-site, and to only use the mail-back approach when it is certain visitors would otherwise be non-respondents.

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1999	Wakondo	State	Park	visitor	Survey

Appendix A. Wakonda State Park Visitor Survey



Wakonda State Park



The Missouri Department of Natural Resources and the University of Missouri are seeking your evaluation of Wakonda State Park. This survey is voluntary and completely anonymous. Your cooperation is important in helping us make decisions about managing this park. Thank you for your time.

1.	Is this you	ur first visi	t to Wakonda State F	Park? (Check only one box.)
	□ yes	□ no	If no, how many ti past year?	mes have you visited this park in the
2.	_	his visit to	the park, are you sta	ying overnight? (Check only one
	box.)	Second less than		
		this visit?	?	ou staying at or near the park during
	□ no	(If no, skip	to question 4.)	
3.	□ campo □ nearby □ nearby □ friends	ground in W tent E y lodging fa y campgrou s/relatives	/akonda State Park □ personal RV/trailer/o cilities	ring? (Check only one box.) camper □ RV rental
4.	With who	om are you	u visiting the park? (Check only one box.)
				☐ club or organized group
				☐ other (Please specify.)
5.				engaged in during this park visit?
	(Check a	ll that apply	/.)	
	□ picnicl	king	☐ innertube rental	□ birdwatching
	☐ fishing	1	□ boating	□ viewing wildlife
			□ boat rental	☐ studying nature
	□ swimn	ning	□ canoeing	□ attending interpretive program
	□ walkin		□ canoe rental	□ attending special event

6.	How satisfied are you with each of the following in W	akonda State Pa	rk?
	(Check one box for each feature.)		

		Very				ery .	Don't		
		AND DESCRIPTION OF THE PERSON NAMED IN	Satisfied	Dissatisfied	Dist	satisfied	Know		
3.	campground				0.03				
).	park signs				_				
	picnic areas								
	swimming beach								
Š.	boat ramps	0		0					
_	RV rental								
	food concession			D	1510				
L.	boat rental								
	interpretive programs								
	How do you rate Wal box for each feature.)		Excellent	Good	Fair	Poor	Don't Know		
	being free of litter/trasl		0		0				
	having clean restroom	Arrive							
	upkeep of park facilitie		0	0					
	having a helpful & frier	MEMORINA DE LA COMPONICIONA DE L							
	access for persons wit								
	care of natural resource	ACCUSATION AND ADDRESS OF THE PARTY OF THE P							
9	providing interpretive i	ntormation		0	0				
*	being safe								
3.	If you did not rate thi rating?	s park as e	excellent o	n being sa	fe, wha	at influe	nced yo		
).	Which of the followin Wakonda State Park				eling o	f being	safe at		
	☐ more lighting where?	Di	 improved behavior of others increased visibility of park staff 						
	☐ improved upkeep or		☐ less traffic congestion						
	☐ less crowding		□ other (Please specify.)						
	□ nothing specific								
	☐ increased law enfor	cement pat	rol						



PLEASE TURN SURVEY OVER.



10. Do you support setting aside at least 50% of all campsites in a reservation system in order to guarantee a site, and charging a reservation fee not to exceed \$7.00? (Check only one box.)					18.	 What is the highest level of education you have completed? (Check only one box.) 									
11.	Do you	u supp	ort establi	shing a	"carry	in and car	ry out" sys	tem as a me			☐ grade sch		□ vocational s □ some college		 □ graduate of 4-year college □ post-graduate education
			k only one		acomg	□ yes		no		19.	What is your ethnic origin? (Check only one box.)				
12.			g any state ox for each			portant are	each of th	ese items to	you?		☐ Asian ☐ Hispanic		can American icasian/White		ive American/American Indian er (Please specify.)
					Very			Very	Don't					-	
			40	li de	mportant	important	100	Unimportant	Know	20.					y limits one or more life activities
			ter/trash	-							or might red	quire sp	ecial accomn	nodation	s?
			estrooms facilities	STORY OF THE PARTY.	0	0		0			- <u></u>				
-	the state of the s	MONTH MADE AND ADDRESS OF THE PARTY OF THE P	al & friendly	etaff	0			0			□ yes	If yes,	what disabil	ity or dis	sabilities do you have?
			sons with di		The state of the s	0	0	0			□ no	-			-
			resources	SOUTH						24	What is you	ur E dinit	nin anda (or	country	of recidence, if you live outside the
-	Del commence de la companya del la companya de la c	COMPANIES STATE	pretive infor	mation	_	D	0	0		21.	 What is your 5-digit zip code (or country of residence, if you live outside the 				il residence, il you live outside the
	being sa										U.S.)?				
13.	Overal only or			re you	with thi	s visit to V	Vakonda St	tate Park? (Check	22.	What is you ☐ less than ☐ \$25,000 -	\$25,000		□ \$50	,001 - \$75,000 r \$75,000
	Very							Very							
Satisfied Satisfied		3	Dissatisfied Dissatisfied			23.	Please write any additional comments about your park visit or suggest on how the Missouri Department of Natural Resources can make your experience in Wakonda State Park a better one.			ral Resources can make your					
14.	During	g this v	risit, now c	rowae	a ala yo	u teel? (C	ircie one nu	mber.)							
	1 at all wded	2	3 Slight Crowd	70.00	5	6 Modera Crowd	ately	8 9 Extremely Crowded							
15.	If you	felt cro	owded on t	his vis	it, where	e did you f	eel crowde	d?	_						
16.	What	is you	r age?		17.	Gender?	☐ female	□ mak	<u> </u>						

THANK YOU FOR YOUR HELP. YOU ARE ALWAYS WELCOME IN MISSOURI STATE PARKS.

10QQ	Wakono	la State	Park	Visitor	Survey

Appendix B. Survey Protocol

Protocol for Wakonda State Park Visitor Survey

Hi, my name is _____, and I am conducting a survey of park visitors for Missouri state parks. The information that I am collecting will be useful for future management of Wakonda State Park.

The survey is one page, front and back side, and only takes about 3-5 minutes to complete. Anyone who is 18 or older may complete the survey, and by completing the survey, you have the opportunity to enter your name in a drawing for a prize package of \$100 worth of concession coupons. Your participation is voluntary, and your responses will be completely anonymous.

Your input is very important to the management of Wakonda State Park. Would you be willing to help by participating in the survey?

[If no,] Thank you for your time. Have a nice day.

[If yes,]

Here is a pencil and clipboard with the survey attached (for each respondent). Please complete the survey on both sides. When finished, return the survey(s), clipboard(s), pencils, and prize entry form(s) to me.

Thank you for taking time to complete the survey. Your help is greatly appreciated. Have a nice day.

10QQ	Wakono	la State	Park	Visitor	Survey

Appendix C. Prize Entry Form

WIN A PRIZE PACKAGE OF CONESSION COUPONS WORTH \$100

Enter a drawing to win \$100 worth of gift certificates! These certificates are good for any concessions at any state park or historic site. Concessions include cabin rentals, canoe rentals, boat rentals, restaurant dining, horseback riding, etc.

You many enter the drawing by simply filling out the back of this entry form and returning it to the surveyor. Your name, address, and telephone number will be used only for this drawing; thus, your survey responses will be anonymous. The drawing will be held November 1, 1999. Winners will be notified by telephone or mail. Redemption of gift certificates is based on dates of availability through August 31, 2000.

Name:				
Address:				
Phone #:	()		

10QQ	Wakono	la State	Park	Visitor	Survey

Appendix D. Observation Survey

Date	Day of Week	Time Slot
Weather	Temperature	Park/Site

	Survey #'s	# of Adults	# of Children	Vehicle	Additional Axles	# of Visits Today
1	#* S	Adults	Ciliaren	Type	Axies	Today
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
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35						

Time Slot Codes: Weather Codes (examples):

Time Slot $1 = 8:00 - 12:00 \text{ p.m.}$	Hot & Sunny	Windy
Time Slot $2 = 12:00 - 4:00$ p.m.	Cold & Rainy	Sunny
Time Slot $3 = 4:00 - 8:00 \text{ p.m.}$	Cloudy	Humid

				_
1999 Wakon	da State	Park	Visitor	Survey

Appendix E. Responses to Survey Questions

Wakonda State Park Visitor Survey

1. Is this your first visit to Wakonda State Park? (n=208)

yes 26.0% no 74.0%

If no, how many times have you visited this park in the past year? (n=128)

The responses from this open-ended question were grouped into the following 8 categories:

0	3.9%
1	16.4%
2	11.7%
3-5	21.1%
6-10	19.5%
11-20	16.4%
21-100	9.4%
101+	1.6%

The average # of times repeat visitors visited the park in the past year was 12.9 times.

2. During this visit to the park, are you staying overnight? (n=206)

yes 37.9% no 62.1%

If yes, how many nights are you staying overnight at or near the park during this visit? (n=70)

The responses from this open-ended question were grouped into the following 6 categories:

1	32.9%
2	31.4%
3	21.4%
4-6	11.5%
7+	2.8%

The average # of nights respondents visiting the park for more than one day stayed was 2.4.

3. If staying overnight, where are you staying? (n=80)

comparound in Wakanda State Park

campground in	wakonda State Park	98.8%
tent	18.9%	
RV	52.7%	
RV rental	28.4%	
nearby lodging	0.0%	
nearby campgro	und	1.3%
friends/relatives		0.0%
other		0.0%

4. With whom are you visiting the park? (n=183)

alone 22.4%	family & friends	16.9%	club or organized group	1.6%
family 46.4%	friends	12.6%	other	0.0%

5. Which recreational activities have you engaged in during this park visit?

	22 10/		2 50/	1 ' 1 ' 1 '	0.00/
picnicking	22.1%	innertube rental	3.5%	birdwatching	9.3%
fishing	24.3%	boating	6.5%	viewing wildlife	15.5%
camping	21.3%	boat rental	2.7%	studying nature	7.1%
swimming	18.8%	canoeing	2.5%	attending interpretive program	1.1%
walking	24.5%	canoe rental	1.4%	attending special event	0.5%
other	5.7%				

21 visitors participated in an "other" activity. Their responses are as follows:

Bicycling. Playground.
Bike. Playground.
Playground.
Playground.

Biking. Playing on playground.
Drive through. Restroom/resting.
Driving through. Sight-seeing.
Driving through. View.

Exercise. Visit to Quincy. Just driving through. Visiting the park.

Looking for campsites. Visiting.

Mushroom hunting.

In addition to percentages of responses, a mean score was calculated for each feature in questions 6, 7, 12, and 13. The score is based on a 4.0 scale with 4 = very satisfied, 3 = satisfied, 2 = dissatisfied, and 1 = very dissatisfied (Q. 6 & 13); 4 = excellent, 3 = good, 2 = fair, and 1 = poor(Q, 7); and 4 = very important, 3 = important, 2 = unimportant, and 1 = very unimportant (Q. 12). The mean score is listed in parenthesis following each feature.

6. How satisfied are you with each of the following in Wakonda State Park?

		Very			Very	Don't	
		Satisfied	Satisfied	Dissatisfied	Dissatisfied	Know	
a.	campgrounds (3.53)	51.9%	31.6%	2.1%	1.6%	12.8%	n=187
b.	park signs (3.59)	59.7%	36.6%	1.0%	0.5%	2.1%	n=191
c.	picnic areas (3.58)	53.7%	34.6%	0.0%	1.1%	10.6%	n=188
d.	swimming beach (3.51)	40.5%	32.6%	2.1%	0.0%	24.7%	n=190
e.	boat ramps (3.30)	36.4%	26.1%	1.7%	6.8%	29.0%	n=176
f.	RV rental (3.59)	31.3%	20.5%	0.6%	0.0%	47.6%	n=166
g.	food concession (3.43)	26.9%	26.3%	1.9%	0.6%	44.4%	n=160
h.	boat rental (3.49)	26.7%	21.7%	1.9%	0.0%	49.7%	n=161
i.	interpretive programs (3.44)	17.9%	20.5%	0.7%	0.0%	60.9%	n=151

7. How do you rate Wakonda State Park on each of the following?

		Excellent	Good	Fair	Poor	Don't Know	
a.	being free of litter/trash (3.72)	73.6%	24.0%	1.9%	0.0%	0.5%	n=208
b.	having clean restrooms (3.49)	54.6%	31.9%	5.8%	1.4%	6.3%	n=207
c.	upkeep of park facilities (3.57)	57.3%	39.8%	0.5%	0.5%	1.9%	n=206
d.	having a helpful/friendly staff (3.60)	59.0%	34.0%	1.0%	0.5%	5.5%	n=200
e.	access for persons with disabilities (3.58)	46.6%	24.9%	3.1%	0.0%	25.4%	n=193
f.	care of natural resources (3.64)	60.6%	32.8%	0.5%	0.0%	6.1%	n=198
g.	providing interpretive information (3.57)	42.6%	26.8%	2.1%	0.0%	28.4%	n=190
h.	being safe (3.53)	58.8%	27.1%	7.0%	1.0%	6.0%	n=199

8. If you did not rate this park as excellent on being safe, what influenced your rating?

39 visitors (47.6% of those who did not rate the park as excellent on being safe) responded to this with 43 comments. The 43 responses were divided into 9 categories. Frequencies and percentages of responses in each category are listed.

		<u>Frequency</u>	Percent
1.	Lack of lifeguards at beach	11	25.6%
2.	Don't know/no reason	9	20.9%
3.	Lack of staff/rangers patrolling the park	5	11.6%
4.	Behavior of others	5	11.6%
5.	Steep road edges/no shoulders	3	7.0%
6.	Dangerous boat ramps	2	4.7%
7.	Dangerous traffic	2	4.7%
8.	Lack of lighting	2	4.7%
9.	Other	_4	9.3%
	Total	43	100.0%

9. Which of the following would most increase your feeling of being safe at Wakonda State Park?

177 responses were given by 145 visitors.

		<u>Frequency</u>	<u>Percent</u>
1.	More lighting	31	17.5%
2.	Improved upkeep of facilities	5	2.8%
3.	Less crowding	9	5.1%
4.	Nothing specific	67	37.9%
5.	Increased law enforcement patrol	16	9.0%
6.	Improved behavior of others	14	7.9%
7.	Increased visibility of park staff	24	13.6%
8.	Less traffic congestion	3	1.7%
9.	Other	8	4.5%
	Total	177	100.0%

21 visitors (67.8% of those who indicated more lighting would most increase their feeling of safety) reported where they felt more lighting was necessary. Their answers were grouped into the following 5 categories. Frequencies and percentages of each category are listed.

		<u>Frequency</u>	Percent
1.	Campground	9	42.9%
2.	Along park roads	3	14.3%
3.	Restrooms/shower houses	3	14.3%
4.	Boat ramps	2	9.5%
5.	Other	4	19.1%
	Total	21	100.0%

Eight visitors (100% of those who indicated that an "other" safety attribute would most increase their feeling of safety) reported what other attribute would increase safety. The following are their responses:

Better beach control.

Deepen launch ramp at old lake.

Fix boat ramps, please.

Improved launch facility--old lake.

Life guards

Lifeguards or more park rangers.

More staff in swimming.

Need some sort of control for music played by people at the swimming area.

Pits are accessible to children.

10. Do you support setting aside at least 50% of all campsites in a reservation system in order to guarantee a site, and charging a reservation fee not to exceed \$7.00? (n=113)

yes 57.8% no 42.2%

11. Do you support a "carry in and carry" out system as a means of promoting recycling and reducing the burden of handling trash in this park? (n=115)

yes 56.5% no 43.5%

12. When visiting any state park, how important are each of these items to you?

		very			Very	Don't	
		Important	Important	Unimportant	Unimportant	Know	
a.	being free of litter/trash (3.80)	81.2%	18.3%	0.0%	0.5%	0.0%	n=202
b.	having clean restrooms (3.90)	90.1%	9.4%	0.5%	0.0%	0.0%	n=202
c.	upkeep of park facilities (3.82)	82.3%	17.7%	0.0%	0.0%	0.0%	n=198
d.	having a helpful/friendly staff (3.76)	75.1%	24.4%	0.0%	0.0%	0.5%	n=201
e.	access for disabled persons (3.69)	65.3%	25.0%	1.5%	0.0%	8.2%	n=196
f.	care of natural resources (3.81)	80.5%	18.0%	0.5%	0.0%	1.0%	n=200
g.	providing interpretive information (3.63)	61.0%	30.8%	2.1%	0.0%	6.2%	n=195
i.	being safe (3.86)	85.9%	14.1%	0.0%	0.0%	0.0%	n=199

13. Overall, how satisfied are you with this visit to Wakonda State Park?

	Very		Very		
	Satisfied	Satisfied	Dissatisfied	Dissatisfied	
(Mean score $= 3.66$)	67.2%	31.8%	0.5%	0.5%	n=201

14. During this visit, how crowded did you feel? (n=200)

On a scale of 1-9, with 1 = Not at all crowded and 9 = Extremely crowded, the mean response was 1.9.

15. If you felt crowded on this visit, where did you feel crowded?

A total of 29 open-ended responses were given. The 29 responses were divided into 6 categories. Frequencies and percentages of responses in each category are listed.

	<u>Frequency</u>	<u>Percent</u>
campground	12	41.4%
swimming beach	9	31.0%
restrooms/shower houses	2	6.9%
on one of the lakes	2	6.9%
picnic areas	2	6.9%
other	_2	6.9%
	Total 29	100.0%

16. What is your age? (n=198)

Responses were divided into the following 4 categories:

18-34 29.3% 35-54 46.5% 55-64 14.6% 65-85 9.6% (Average age = 43.2)

17. Gender? (n=199)

Female 47.2% Male 52.8%

18. What is the highest level of education you have completed? (n=204)

grade school	3.9%	vocational schoo	1 6.4%	graduate of 4-year college	10.8%
high school	44.1%	some college	28.9%	post-graduate education	5.9%

19. What is your ethnic origin? (n=202)

Asian	0.0%	African American 1.0%	Native American/American Indian	1.0%
Hispanic	0.5%	Caucasian/White 97.0%	Other	0.5%

20. Do you have a disability that substantially limits one or more life activities or might require special accommodations? (n=197)

yes 5.1% no 94.9%

If yes, what disability or disabilities do you have? (n=8)

The following is a list of all responses to this open-ended question.

COPD. Leg problems and arthritis.

Have a bad leg. My son has C.P. and deafness.

Kidney transplant. Not able to walk very far.

Knee replacement. Son has wheelchair.

21. What is your 5-digit zip code (or country of residence, if you live outside the U.S.)? (n=201)

The states with the highest percentages of respondents were:

Missouri (48.0%)

Illinois (43.0%)

Iowa (4.5%)

22. What is your annual household income? (n=184)

less than \$25,000	23.9%	\$50,001 - \$75,000	16.3%
\$25,000 - \$50,000	55.4%	over \$75,000	4.3%

23. Please write any additional comments about your park visit or suggestions on how the Missouri Department of Natural Resources can make your experience in Wakonda State Park a better one.

59 of the 212 visitors (27.8%) responded to this question. A total of 68 responses were given, and were divided into 8 categories. Frequencies and percentages of responses in each category are listed.

		<u>Frequency</u>	<u>Percent</u>
1.	General positive comments	23	33.8%
2.	Suggestions about campground/campsites	12	17.6%
3.	Improve or better maintain boat ramps	10	16.2%
4.	Enforce park rules and provide lifeguards	4	5.9%
5.	Comments about concessionaire services	4	5.9%
6.	Comments/suggestions about restrooms/shower houses	2	2.9%
7.	Comments/suggestions about RV rentals	2	2.9%
8.	Other	<u>11</u>	16.2%
	Total	59	100.0%

	1999 Wakonda State Park Visitor Survey
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Appendix F. List of Responses for Saf	tety Concerns (Q 8)

Responses to Question #8

If you did not rate this park as excellent on being safe ($Question\ 7$, letter h.), what influenced your rating?

Lack of lifeguards at swimming beach

- I think they need lifeguards.
- I was only at the beach. There wasn't a lifeguard, but there were lifesaving devices. Other than that I don't know.
- Lifeguarding and more patrolling by park rangers are needed.
- Lifeguards back at the beach.
- Need lifeguard.
- No lifeguards or anchors on boats.
- No lifeguards.
- No lifeguards.
- Swimming area needs lifeguards.
- Taking away the lifeguards.
- The swimming beach I got in a not safe accident.

Don't know/no reason/no place is perfect

- Did not use all of the park facilities to be able to give an excellent rating.
- Don't know it that well (park).
- Haven't stayed so really can't say.
- I was not here long enough to determine safety.
- I was only at the beach. There wasn't a lifeguard, but there were lifesaving devices. Other than that I don't know.
- Not here long enough.
- Not sure. Just a choice made since I never feel totally safe anywhere anymore.
- Only drove thru to look.
- Our stay was so short.

Lack of staff/park rangers patrolling the park

- Cars and trucks being broken into while parked at boat ramps. Need better security.
- Didn't see park rangers until we left the park.
- Haven't seen a patrol by Park Ranger and don't see state employees too much.
- Lack of personnel on hand at entrance at night.
- Lifeguarding and more patrolling by park rangers are needed.

Behavior of others

- Black people in swimming area trying to take over entire area, taking off with other people's items, very loud and inconsiderate.
- Blacks coming in and trying their territory rights, loud and obscene music--Being obsessive on moving in on the beach and wanting or taking other people's stuff.
- Brother's car was broken into while fishing. Window smashed, items stolen.
- Cars and trucks being broken into while parked at boat ramps. Need better security.
- People being rude and threatening remarks.

Steep road edges/no shoulders

- Narrow roads.
- New black top going to Agate Lake has too much of a drop off.
- Steep road edges.

Dangerous traffic/enforce speed limit

- Need to inforce the speed limit.
- Vehicles going too fast.

Dangerous boat ramps

- Boat launching on old lake is very poor. Vehicle gets stuck in shallow water!
- Boat launching on old lake is very poor. Vehicle gets stuck in shallow water. Have to wade in. Dangerous.

Lack of lighting

- Need more lights.
- Not lighted well enough at restroom, can not see the step up.

Other

- Around the shower house, it needs the curb painted. We fell on to it at night.
- Beach is too small.
- No lifeguards or anchors on boats.
- The barbeque pits were too accessible to small children.

	1999 Wakonda State Park Visitor Survey
Appendix G. List of Responses for Addi	tional Comments (O 23)
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Responses to Question #23

Please write any additional comments about your park visit or suggestions on how the Missouri Department of Natural Resources can make your experience in Wakonda State Park a better one.

General positive comments

- All in all, I really enjoy visiting this park. Concession staff is poor.
- Great for walking and bike riding.
- Great looking park!
- Great park. Keep up the good work. State parks are the best.
- Had a very nice swim.
- I came with a friend as a result of an article in the Herald and I was very favorably impressed.
- I did not see the senior's discount sign until me and my husband had paid. I like your park!
- I enjoyed my visit here very much and found the beauty of your park outstanding.
- I read a wonderful letter in the Quincy Herald so I came to see it. Beautiful!
- I think you're doing a great job.
- I'll be back to rent a trailer for 3 or 4 nights. Thanks!
- It's a beautiful park.
- Keep up the good work!
- Love it.
- More electric hook-ups in camping area, and more shower stalls.
- Nice park. Very fun!
- Outstanding ranger!!
- Please improve your launching facility on the old lake and everything will be perfect. Thank you. You have a great park!!
- This park has always been excellent since I was a small child. The concession needs some adult management to look after the kids that work here.
- This park has improved considerably in the last 20 years.
- Very nice site, especially your geese. Take care of the geese.
- We enjoy the swimming beach and come home every weekend. We also like the the concession stand and innertube rentals and picnic area and playgrounds.
- We had a great time, relaxed, and able to go back home refreshed. Thanks!

Suggestions about campground/campsites

- Campsites need more trees, and even bushes. They have little or no privacy, and hardly any shade.
- Campsites need to be leveled from side to side as well as front to rear. Fire places should always be away from the site of trailers. Many trailers have sites that don't have much room. Boat ramps very poor. Had to be pulled out on Wakonda Lake.
- Campsites not level enough for RVs.
- Full hook-ups for waste.
- More electric hook-ups in camping area, and more shower stalls.
- More lighting, running water.
- Need full hook-up for campers.
- Need more electric sites.

- Reserved sites would help and a few more campsites with electric.
- Water hook-up.
- We camped here once and that was the first and last time. I'll walk here everyday though.
- Your campsites need a lot of work on leveling (side to side and front to back). Your boat ramp is very poor. My husband had to be pulled out.

Improve or better maintain boat ramps

- All you really need to improve on is to DEEPEN the launching facility at the old lake.
- Boat ramp is terrible.
- Boat ramp needs a lot of work.
- Boat ramps need repair badly.
- Campsites need to be leveled from side to side as well as front to rear. Fireplaces should always be away from the site of trailers. Many trailers have sites that don't have much room. Boat ramps very poor. Had to be pulled out on Wakonda Lake.
- Fishing ramps need to be black topped.
- Fix boat ramp at Wakonda (ASAP). Improve security patrols for parked vehicles and boat trailers.
- Please improve your launching facility on the old lake and everything will be perfect. Thank you. You have a great park!!
- Somehow fix the boat ramp (dredge, etc.) at Wakonda Lake so you can get a boat in EASILY. It is NOT STEEP or DEEP enough to comfortably put a boat in-This has been a problem since the 60s (my first time here).
- Your campsites need a lot of work on leveling (side to side and front to back). Your boat ramp is very poor. My husband had to be pulled out.

Enforce park rules and provide lifeguards

- Fix boat ramp at Wakonda (ASAP). Improve security patrols for parked vehicles and boat trailers.
- People not staying inside swimming area. Blacks playing loud music and harassing others.
- Regulations should be more closely monitored/enforced about noise levels.
- Should have lifeguards.

Comments about concessionaire services

- All in all, I really enjoy visiting this park. Concession staff is poor.
- Need to put anchors and maybe small motors on rental boats.
- This park has always been excellent since I was a small child. The concession needs some adult management to look after the kids that work here.
- We won't be renting boats anymore until you put anchors back on them.

Comments/suggestions about restrooms/shower houses

- Repair toilet near camping playground.
- The bathroom could be in a lot better condition.

Comments/suggestions about RV rentals

- Campsites need to be leveled from side to side as well as front to rear. Fire places should always be away from the site of trailers. Many trailers have sites that don't have much room. Boat ramps very poor. Had to be pulled out on Wakonda Lake.
- We stayed in RV rental, were upset that we couldn't keep our dog inside. Some people do care about their pets and do make sure they don't destroy anything!!!

Other

- Better fishing for kids.
- Clean out all the garbage fish (like gar) and restock with more game fish like bass and cat.
- Friendlier squirrels with backpacks containing miscellaneous novelty items for disbursement among park visitors.
- I did not see the senior's discount sign until me and my husband had paid. I like your park!
- Keeping the swim buoys in place. I know is tough without lifeguards but it helps set distance limits with children.
- Lake should stay open as long as it's warm.
- Need improved hiking/nature trails.
- Need more signs stating where the RV rentals are.
- Open for fishing 24 hours/ 7 days a week.
- The life jackets smell of urine.
- Would like to be able to reserve a place by phone.