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1997 Meramec State Park Visitor Survey

Project Completion Report

Submitted to

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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 Meramec State Park (MSP). The second purpose of this study was to develop an on-site questionnaire and methodology to gather visitor information in Missouri state parks.

An on-site exit survey of adult visitors to MSP was conducted from June 1, to August 31, 1997. Six-hundred and thirty-eight surveys were collected, with an overall response rate of 71%. Results of the survey have a margin of error of plus or minus 4%. The following information summarizes the results of the study.

Socio-demographic Characteristics

- MSP visitors were comprised of nearly equal numbers of males and females, and the average age of the adult visitors to MSP was 40.
- The highest percentage had completed some college or vocational school education and had an annual household income of \$25,000-\$50,000.
- The majority of visitors (87%) were Caucasian, 11% were Native American, 1% were Hispanic, and 0.8% were Asian.
- Almost 5% of the visitors reported having a disability.

- Four-fifths of the visitors (80%) were from Missouri, 11% were from Illinois, and 9% were from 20 other states.
- Approximately two-thirds of the total visitors lived within a 30 mile radius of the park or lived in the St. Louis area.

Use-Patterns

- Two-thirds of MSP visitors traveled 75 miles or less to MSP.
- The average number of visitors per vehicle was 2.67.
- About three-fourths of MSP visitors had visited the park before.
- MSP visitors had visited the park an average of seven times in the past year.
- Almost two-thirds of the visitors were day-users.
- Of the visitors staying overnight, almost two-thirds stayed in the MSP campground, and over one-half stayed two nights.
- The average stay for overnight visitors was 2.6 nights.
- The majority of MSP visitors visited the park with family and/or friends. Ten percent visited the park alone.
- The most frequent recreation activities in which visitors participated were

swimming, viewing wildlife, picnicking, camping, hiking, rafting/canoeing, exploring wild caves, and fishing.

lack of park personnel presence, lack of rangers patrolling, lack of enforcement, and/or people breaking rules as safety concerns. Over one-half of the responses were factors over which management has no control.

Satisfaction and Other Measures

- Ninety-seven percent of the visitors were either very or somewhat satisfied overall.
 - Respondents visiting MSP for the first time had a significantly higher overall satisfaction rating than repeat visitors.
 - Visitors were most satisfied with the picnic area and least satisfied with river access areas.
 - The majority of visitors gave high ratings on safety, park cleanliness, restroom cleanliness, a helpful and friendly staff, accessibility for disabled persons, upkeep of facilities, and care of natural resources.
 - Clean restrooms were identified as needing the most attention.
 - Twenty-five percent of visitors with safety concerns listed factors such as
- Over one-half of MSP visitors felt crowded on their visits. Half of them felt crowded in the campground and 16% felt crowded on the river.
 - Weekend visitors' perceptions of crowding were significantly higher than weekday visitors', and campers felt significantly more crowded than non-campers.
 - Visitors who felt the park was safe also felt less crowded.
 - Visitors who felt crowded had significantly lower overall satisfaction ratings.
 - Twenty-six percent of the respondents provided additional comments or suggestions, one-third of which were positive comments.

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Introduction

Background

As Missouri's state park system continues to grow, so do the number of visitors. In 1990, more than 14 million people visited Missouri's state parks and historic sites (Holst, 1991), and the total visitation for the park system exceeded 16 million people in 1996 (Missouri Department of Natural Resources [DNR], 1997). Increased attendance and the concept that not all state park visitors have the same preferences for recreational settings, facilities, and services (Donnelly, Vaske, DeRuiter, & King, 1996), challenges park managers and planners in providing adequate facilities, programs, and services.

Information on recreation use and users is essential for planning, designing, and managing recreational facilities (Manning, 1986). Planners and recreation managers may intuitively have some sense of who the users are and what activities the users are participating in; however, these perceptions may not always be consistent with the actual users and activities. Managers will often be misdirected and inefficient, without some grasp of the patterns of recreational use, visitor characteristics, and visitor satisfactions (Lucas, 1985). Attention may be focused on old problems, some of which may have faded away or evolved into different issues. If managers are to respond in a timely fashion to changes in public recreation needs or changing resource conditions, current, accurate, and reliable information on participation trends and satisfactions of recreation

users is needed (Cordell, Bergstrom, Hartmann, & English, 1990).

Information that can help the Missouri state parks staff manage and improve parks, such as visitor profiles and patterns of visitor use, is limited. The extent of Missouri state park user information is primarily data from the Public Area Recreation Visitor Survey (PARVS) collected in the mid-1980s (DNR, 1989), and the 1995 Missouri State Park and Historic Site User Survey conducted by Business Responses, Inc. (BRI) (1995a, 1995b). Information from both studies, however, focuses on the state park system as a whole, and not individual sites. Many parks attract visitors who differ from visitors of other parks, because each site offers different types of attributes (Donnelly et al., 1996). Donnelly et al. found considerable diversity in visitor characteristics across all the state parks in Colorado, and that not all visitors shared the same set of preferences for park attributes, facilities, and services.

The Missouri Division of State Parks (DSP) recognizes the importance of managing a diversity of individual units within the Missouri state park system. The DSP also realizes that with a diversity of parks, diverse groups of visitors are often attracted, as different sites have different resources, and the resources at the site dictate the types of recreational activities that are available (Holst, 1991). Therefore, site-specific research providing current user information is vital in helping the DSP better serve the public.

Study Purpose

The present study had a twofold purpose. First, by surveying visitors at Meramec State Park (MSP), visitor information specific to that park was determined. The results from the survey aid in further planning and management decisions at MSP, and also serve as baseline visitor information of one Missouri state park. As surveys are collected at additional parks, information can be compared from site to site. Second, the on-site questionnaire and methodology were developed to be applicable to other Missouri state parks. Therefore, the study serves as a prototype which the DSP can use to gather site-specific user information in all other Missouri state parks in the future.

Study Objectives

Specific objectives of the study were to:

- 1) determine select socio-demographic characteristics of MSP users (age, gender, education, ethnic origin, place of residence, income, and whether visitors had a disability);
- 2) determine visitors' patterns of use of MSP (characteristics of the trip, characteristics of the visit, levels of use, and types of recreational activities in which visitors participated);
- 3) determine visitors' overall satisfaction with their visits and visitors' satisfaction of MSP facilities, programs, and services;

- 4) explore visitors' safety concerns;
- 5) determine if visitors felt crowded on their visits and where they felt crowded;
- 6) determine the number of visitors per vehicle and compare current visitation estimates with estimates from data collected.

Study Area

MSP is a 6,785-acre state park and is located four miles east of Sullivan, Missouri, along the Meramec River. A map of state park locations is located in Appendix A. The park is one of the 46 state parks operated by the DSP. MSP, one of Missouri's earliest state parks, attracted more than 10,000 visitors at its dedication in 1928 (DNR, 1994). MSP continues to be one of Missouri's most popular state parks, as it provides diverse recreational opportunities for many visitors each year (DNR, 1991). The average annual visitation of MSP for 1992-1996 was approximately 580,000 visitors (DNR, 1997). Current visitor information pertaining specifically to MSP's visitors does not exist.

Scope of Study

The population of the study was all MSP visitors who were 18 years of age or older (adults), and who visited MSP from June 1, to August 31, 1997. Since the study was conducted only during the summer season, the survey results only reflect summer visitors.

Methodology

The following section describes the methods that were used in this study. Sampling procedures, selection and testing of the questionnaire, selection of subjects, data collection, and statistics that were used for data analysis are discussed. For a complete discussion of the survey methodology, see Fink (1997).

Sampling Procedures

Based on MSP's visitation data from 1995 and 1996 (DNR, 1997), total visitation was estimated during the selected study period of June 1, 1997, to August 31, 1997, to be 230,000 visitors. Due to limited financial resources and the objectives of the study, a 95% confidence interval was chosen with a desired precision level of plus or minus 5%. To ensure an error margin not greater than 5%, a minimum sample size of 400 was needed (Folz, 1996). Therefore, a goal of obtaining approximately 500 surveys was set, to acquire the minimum of 400 usable surveys. A random sample of all MSP visitors, who were 18 years of age or older, and who visited MSP during the study period, were selected as the respondents.

The average daily visitation and the average hourly visitation for the study period were projected based on MSP's visitation data from 1995 and 1996 (DNR, 1997). Considering the estimated average number of visitors per hour and the decision to survey in four and one-

half hour time slots, it was determined that 12 days of surveying were needed. Since the study was conducted over a three month time period, and due to travel constraints, the survey days were chosen in blocks of four days. One date for each of the three months of the survey period was randomly chosen. The three random dates were then assigned as the first days of each of the four-day blocks.

Since the front gate of MSP is open from 7:00 a.m. to 10:00 p.m. during the summer season, the sampling times took place during these hours. Each of the 12 survey days were divided into three time slots (1. 7:30 a.m. - 12:00 p.m.; 2. 12:00 p.m.- 4:30 p.m.; 3. 4:30 p.m. - 9:00 p.m.), and only one time slot was used per day. This survey style was based on a style developed by the U. S. Army Corps of Engineers Waterways Experiment Station. A time slot was randomly selected (Time Slot 2), and was assigned to the first day of the 12 survey days. The time slots assigned to the remaining 11 survey days followed in order based on the first selection (Day 1 = Time Slot 2, Day 2 = Time Slot 3, Day 3 = Time Slot 1, etc.). This assignment allowed the three time slots to be sampled equally over the 12 survey days, and allowed each time slot to be used at least once during each block of four days. Table 1 shows the selected survey dates and time slots. This method allowed visitors leaving the park at various times of the day to be sampled equally.

Table 1. Survey Schedule

Date	Day	Time slot
June 19	Thursday	12:00 p.m. - 4:30 p.m.
June 20	Friday	4:30 p.m. - 9:00 p.m.
June 21	Saturday	7:30 a.m. - 12:00 p.m.
June 22	Sunday	12:00 p.m. - 4:30 p.m.
July 25	Friday	4:30 p.m. - 9:00 p.m.
July 26	Saturday	7:30 a.m. - 12:00 p.m.
July 27	Sunday	12:00 p.m. - 4:30 p.m.
July 28	Monday	4:30 p.m. - 9:00 p.m.
August 13	Wednesday	7:30 a.m. - 12:00 p.m.
August 14	Thursday	12:00 p.m. - 4:30 p.m.
August 15	Friday	4:30 p.m. - 9:00 p.m.
August 16	Saturday	7:30 a.m. - 12:00 p.m.

Questionnaire

Since a site-specific survey did not exist for Missouri state parks, the questionnaire was designed for this study to gather descriptive information specified in the study objectives. A copy of the questionnaire is located in Appendix B. The questionnaire was based on the state park and historic site questionnaire (BRI, 1995b), which the DSP used in 1995. The questionnaire from the 1995 user survey was chosen because of its relevancy to this study. The DSP designed the 1995 questionnaire to gather socio-demographic, patterns of use, and satisfaction data, which were the same types of user information desired for this study. The adaptations of the 1995 survey included eliminating several questions to keep the questionnaire brief, reorganizing the survey to increase its ease of completion, and adding two questions. One question was added to further explore visitors' safety concerns, and another was added to determine whether visitors felt overcrowded when visiting MSP.

Pretest and Pilot Study

The questionnaire was pretested with an undergraduate Parks, Recreation, and Tourism class. Responses to the survey questions were examined to determine if the students understood the questions as intended. In addition, a pilot study at MSP was conducted by following the procedures described in "Data Collection."

The purpose of the pilot study was to determine if park visitors understood the questionnaire as intended and if the methods would work as planned. Two survey periods were chosen to test the methodology during a low use period and a high use period. On the two pilot survey dates, 119 surveys were collected for a daily average above the number needed to obtain the goal of 500 surveys using 12 survey days. During the pilot study, respondents were also asked to make comments concerning the wording of the questions and the ease of completing the survey. As a result of the pilot study, the changes to the methodology included revising the observation survey form and slightly

changing the wording of two survey questions.

Selection of Subjects

The DSP requires MSP visitors who stay overnight in the park campground and lodging facilities to fill out registration forms that include their names and addresses. However, since only 15-20% of the summer park visitors stay overnight in the park (DNR, 1997), a random mail survey using registration forms would not have provided an accurate representation of all MSP visitors. The choice was made to administer and collect the questionnaires on-site to minimize delays and non-response bias associated with mail-back surveys. The data was collected on-site by surveying visitors as they exited the park.

Based on traffic counts for MSP in 1995 and 1996 (DNR, 1997), it was determined that it would be impractical to stop each vehicle as it exited the park. Therefore, a systematic sample of visitors in every fifth vehicle was made.

Data Collection

The surveyor wore a park uniform and was stationed near the park entrance, by the visitor center parking lot, during the selected time slots of the chosen survey days. A map of the survey location is found in Appendix C. A temporary "Visitor Survey" sign was positioned at the survey location to inform visitors exiting the park that the survey was being conducted. The driver of every fifth vehicle was stopped as he or she exited the park. Each person in the vehicle, who was 18 years of age or

older, was asked to complete the survey, unless he or she had already responded to the survey. The visitors who had not already responded to the survey were informed of the purpose of the survey and the average length of time to complete the survey. Respondents were also told that by completing the survey they had the opportunity to enter their name in a drawing for a prize package, and that their participation was voluntary and anonymous. A complete protocol is located in Appendix D, and a copy of the prize entry form is found in Appendix E.

An observation survey was also taken to acquire additional information such as number of adults and children in each vehicle, vehicle type, number of axles per vehicle, date, day of the week, time slot, and the weather conditions. A copy of the observation survey form is located in Appendix F. The observation data was collected from all vehicles stopped (every fifth vehicle) whether the visitors were a respondent, non-respondent, or had already participated in the survey.

The number of non-respondents in each vehicle stopped was recorded to determine the response rate. The response rate was calculated by dividing the number of usable surveys collected by the total number of adult visitors (18 years and older) who were asked to complete the survey. Therefore, if four adults in one vehicle did not want to participate in the survey, four non-responses were recorded. The visitors not included in determining the response rate included visitors who had already participated in the survey and visitors under the age of 18. (Some vehicles had no occupants who were 18 years of age and older.)

If visitors agreed to participate, they were handed a DNR pencil and a clipboard with the survey and prize entry form attached. The driver of the vehicle was then instructed to drive his or her vehicle into the visitor center parking lot to complete the survey. The respondents were asked to return the clipboard, the survey, and the prize entry form upon completion of the survey. (On several of the survey dates, a member of the MSP staff or a volunteer assisted in collecting the clipboards and completed questionnaires from the participants, restocking clipboards, and answering visitors' questions.) Survey participants were allowed to keep the DNR pencils if they wished.

Data Analysis

The data obtained in this 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 two open-ended questions were listed as well as grouped into categories for frequency and percentage calculations. In addition, the number of surveys completed by month, by date, by day of week, by weekend versus weekday, and by time slot was also determined.

The Importance-Performance (I-P) approach was also used to analyze questions 7 and 9. The mean score of each performance attribute was matched with the importance attribute and plotted on an I-P matrix or graph. The crosshairs were set at the mean for all the importance attributes and at the mean

for all the performance attributes, which resulted in a relative rating of a given attribute compared to all other attributes. According to Hollenhorst, Olson and Fortney (1992), in most studies using I-P analysis, the crosshairs are placed at the middle point of the scale used. However, if both importance and performance ratings are extremely high, as can result when park visitors have both high affinity for the park and high expectations, then most attributes will fall in the high importance/high performance category.

Comparisons were made to determine any statistically significant differences in selected groups' perceptions of crowding (question 10), ratings of park attributes (question 7), satisfaction with park features (question 6), and overall satisfaction (question 12). The statistical analysis used was one-way analysis of variance (ANOVA). The groups of visitors selected for comparison included:

1. Campers versus non-campers (Visitors camping in the MSP campground compared with visitors not camping in the campground)
2. Weekend visitors versus weekday visitors (Visitors surveyed on Saturday and Sunday compared with visitors who were surveyed on Monday through Friday)
3. First-time visitors versus repeat visitors
4. Visitors who rated the park excellent on safety versus visitors who rated the park good, fair, or poor on safety

Other comparisons included:

1. A comparison of the comments made concerning safety (question 8) between campers and non-campers
2. Chi-square tests to determine any differences in characteristics of visitors who rated the park excellent on safety and those who rated MSP good, fair, or poor on safety
3. A cross tabulation (Chi-square test) of visitors' overall satisfaction with the type of weather conditions during their visits
4. A comparison of overall satisfaction between visitors who felt some degree of crowding and those who were not at all crowded on their visit

Results

The results of the Meramec State Park Visitor Survey are presented in this section. Appendix G contains the percentage of responses for each survey question, and the number of individuals responding to each question is provided as “n= .”

were collected on weekdays (Monday through Friday).

The overall response rate was 71% with daily response rates ranging from 63% to 96%. Response rates varied monthly with a 71% response rate in June, 68% in July, and 75% in August.

Surveys Collected & Response Rates

A total of 638 usable surveys were collected during the three month survey period--247 (38.7%) in June, 200 (31.3%) in July and 191 (29.9%) in August. The number and percentage of questionnaires collected by day of week, by time slot , and by date are shown in Table 2, Table 3, and Table 4 respectively. Of the total usable surveys, 336 (52.7%) were collected on weekends (Saturday or Sunday), and 302 (47.3%)

Sampling Error

The difference between the characteristics of a sample and the characteristics of the population from which the sample was selected is known as sampling error (Folz, 1996). All samples are estimates; therefore, all studies which survey a sample of a particular population have some margin of sampling error. The confidence level and the margin of error determine the

Table 2. Surveys Collected by Day of Week

Day	Frequency	Percent
Sunday	196	30.7%
Monday	34	5.3%
Wednesday	25	3.9%
Thursday	61	9.6%
Friday	182	28.5%
Saturday	<u>140</u>	<u>21.9%</u>
Total	638	100%

Table 3. Surveys Collected by Time Slot

Time Slot	Frequency	Percent
1. 7:30 a.m. - 12:00 p.m.	165	25.9%
2. 12:00 p.m. - 4:30 p.m.	257	40.3%
3. 4:30 p.m. - 9:00 p.m.	<u>216</u>	<u>33.9%</u>
Total	638	100%

Table 4. Surveys Collected by Date

Date	Frequency	Percent
Thursday, June 19	24	3.8%
Friday, June 20	64	10.0%
Saturday, June 21	41	6.4%
*Sunday, June 29	118	18.5%
Friday, July 25	49	7.7%
Saturday, July 26	39	6.1%
Sunday, July 27	78	12.2%
Monday, July 28	34	5.3%
Wednesday, August 13	25	3.9%
Thursday, August 14	37	5.8%
Friday, August 15	69	10.8%
Saturday, August 16	60	9.4%
Total	638	100%

*The survey date of June 29 substituted the scheduled date of June 22, because the park was closed on June 22 due to flooding.

sampling error of a study. A 95% confidence level was chosen for the present study, because of financial and time constraints. In addition, most researchers consider the 95% level acceptable (Folz, 1996).

A sample size of 400 would have ensured an error margin no greater than 5%. However, the 638 total surveys collected produce results with a lower margin for error--plus or minus 4%. Therefore, there is 95% certainty that the true percentages of all results are within plus or minus 4% of the study's findings. For example, with the result that 52% of the visitors were male, one can be 95% certain that between 48% and 56% of the MSP visitor population were male.

Socio-demographic Characteristics of Visitors

Age

The average age of adult visitors to MSP was 39.5. Based on four age groups, 45.8% of the visitors were 35-54, 39.3% were 18-34, 8.1% were 55-64, and only 6.8% were 65 or older.

Gender

MSP visitors were comprised of almost equal numbers of males and females--52.3% and 47.7% respectively.

Education

When visitors were asked for the highest level of education they had completed, 36.6% had a high school education or less, 38.2% had some college or vocational school education, and 25.1% had a four-year college or a post-graduate degree.

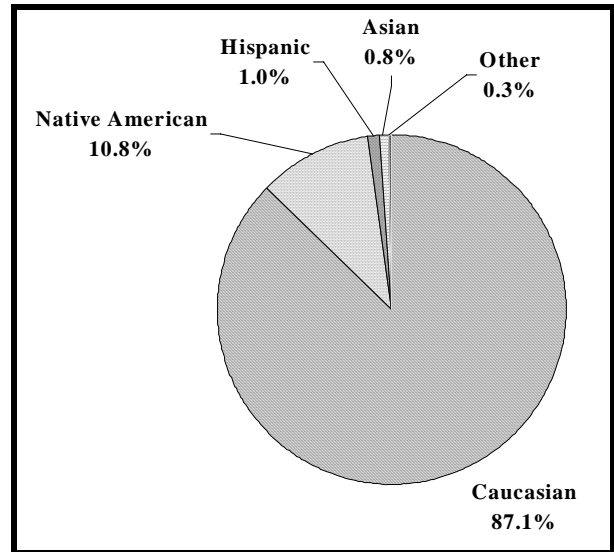
Income

The largest percentage of MSP visitors (46.8%) had an annual household income of \$25,000-\$50,000; 21.3% had an annual income in the range of \$50,001-\$75,000; 18.4% had an annual income less than \$25,000; and only 13.4% had an annual income over \$75,000.

Ethnic Origin

Figure 1 shows the ethnic origin of MSP visitors. The majority of visitors (87.1%) were Caucasian, and 10.8% reported their ethnic origin as Native American. Only 1.0% were Hispanic, 0.8% were Asian, and 0.3% were of an ethnic origin not listed on the survey. Even though none of the survey participants were African Americans, some African Americans visiting the park during the survey period. Therefore, with the error margin of the present study, the true population of African American visitors falls within the range of 0% to 4%.

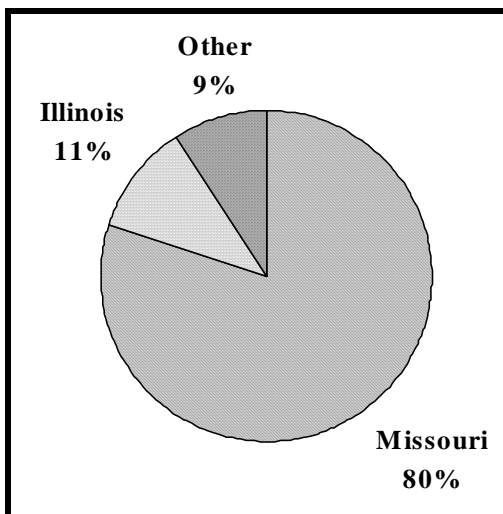
Figure 1. Ethnic Origin of Meramec State Park Visitors



Visitors with Disabilities

Of the total visitors to MSP, 4.8% reported having a disability that substantially limits one or more life activities or that might require special accommodations. Almost all disabilities listed were mobility type disabilities (e.g., leg, back, and hip problems).

Figure 2. Residence of Meramec State Park Visitors

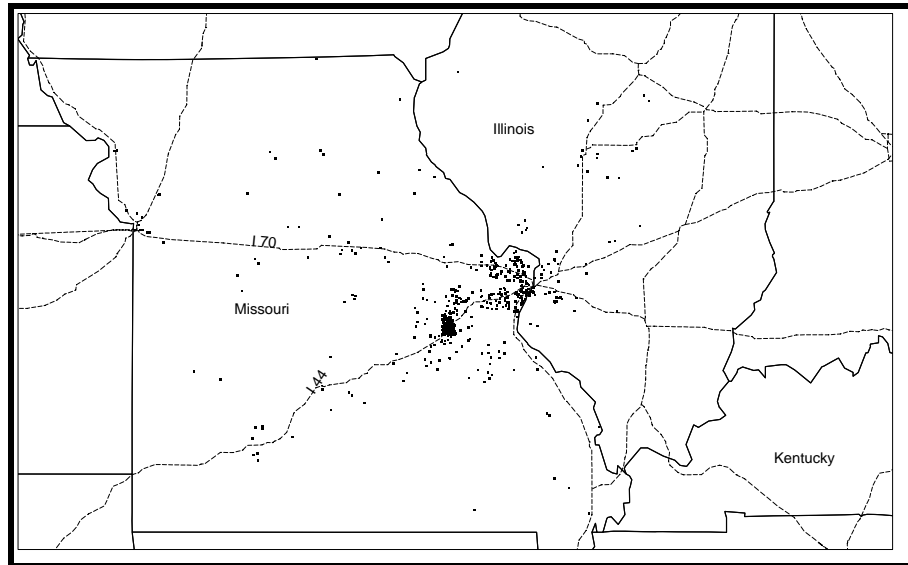


Residence

Figure 2 shows the percentage of MSP visitors from Missouri, Illinois, and other states. Four-fifths of the visitors (80.0%) were from Missouri, 10.8% were from Illinois, and the remaining 9.2% of MSP visitors were from 20 other states. Only one respondent was from a country other than the U.S. (France).

Approximately two-thirds of the total visitors lived within a 30 mile radius of the park or lived in the St. Louis area. One-fifth of the visitors (20.8%) were

Figure 3. Residence of Meramec State Park Visitors by Zip Code



from Sullivan, Missouri; another 16.3% were from other surrounding communities within a 30 mile radius of the park; and 28.5% were from either St. Charles, St. Louis, or Jefferson County (Figure 3).

Use Patterns

Trip Characteristics

Based on the residence of MSP visitors, about two-thirds of the visitors traveled 75 miles or less to MSP. One-fifth of the visitors were from Sullivan, Missouri, and traveled 10 miles or less to the park. Over 90% of the visitors were from Missouri or Illinois and traveled less than a day to arrive at the park.

The majority of vehicles that visitors drove (67.0%) were cars, vans, jeeps, suburbans, or sport utility vehicles. One-fourth of the vehicles that visitors drove (25.8%) were trucks, 6.2% were

vehicles pulling trailers, 0.6% were motorcycles, and 0.4% of the visitors' vehicles were RVs.

Visit Characteristics

About three-fourths of MSP visitors (72.6%) had visited the park before, and approximately one-fourth (27.4%) were first time visitors. The average number of times all respondents had visited the park in the past year was 7.0.

Almost two-thirds of the visitors (62.2%) were day-users, and 37.8% visited the park for more than one day on their visit. Of those staying overnight, almost two-thirds (63.7%) stayed in the MSP campground; 16.2% stayed in a MSP cabin; 7.3% stayed in a nearby campground; 4.6% stayed in nearby lodging facilities; 3.0% stayed in the MSP motel, and 5.3% stayed in other facilities such as a friend's or relative's house or on nearby property.

Most of the visitors who were visiting the park for more than one day (60.7%) stayed two nights, 24.9% stayed three to five nights, 9.5% stayed only one night, and 5.0% stayed six or more nights. Of the visitors staying overnight, the average overnight stay was 2.6 nights.

Most of the MSP visitors visited the park with family and/or friends. Almost one-half of the visitors (45.8%) were with family, 22.4% were with family and friends, and 20.1% were with friends. Only 9.8% of the visitors visited the park alone, 1.0% visited with a club or organized group, and 0.8% selected “other” as with whom they visited the park.

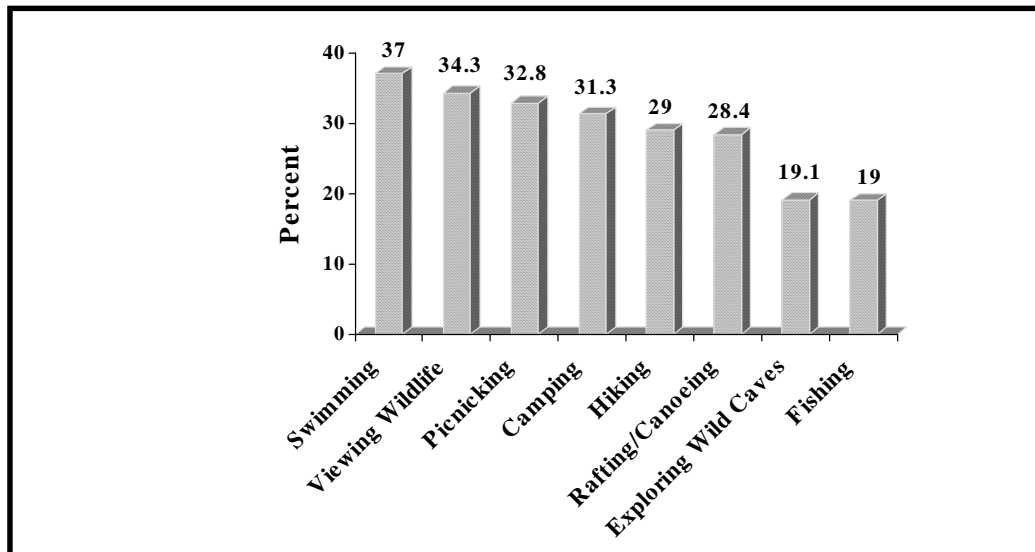
Recreation Activity Participation

Visitors were asked which recreational activities they engaged in during their visit, and they were prompted to check all applicable activities. Figure 4 shows the percentage of visitor participation in the

eight recreational activities receiving the highest participation. Swimming was participated in most (37.0%), followed by viewing wildlife (34.3%), picnicking (32.8%), camping (31.3%), hiking (29.0%), rafting/canoeing (28.4%), exploring wild caves (19.1%), and fishing (19.0%).

Other activities that MSP visitors engaged in included viewing visitor center exhibits (16.8%), studying nature (14.9%), touring Fisher Cave (14.9%), biking (9.7%), boating (9.2%), amphitheater programs (6.1%), special events (5.6%), guided nature hikes (1.7%), backpacking (0.8%), and “other” activities (18.2%). The visitors who responded to “other” were asked to specify the type of activity in which they participated. Over one-half of the responses were “dining at the MSP Dining Lodge” (9.9% of visitors). Only one other activity listed as “other” received more than one percent participation by visitors (1.4% participated in family reunions). All other activities listed received a less than one percent of visitor participation.

Figure 4. Percentage of Participation in Recreational Activities



Satisfaction Measures

Visitors were asked how satisfied they were with their visit to Meramec and their level of satisfaction with select park features.

Overall Satisfaction

Only 2.8% of visitors were somewhat or very dissatisfied with their visit while 97.1% were either very or somewhat satisfied. The mean score for visitors' overall satisfaction was 3.78 (based on a 4.0 scale with 4 = very satisfied and 1 = very dissatisfied).

Respondents who were visiting MSP for the first time had a significantly higher overall satisfaction rating (3.85) than repeat visitors (3.75) ($p < .05$). No significant difference was found in overall satisfaction with visits between campers and non-campers and between weekend and weekday visitors. Also, no significant difference was found in how satisfied visitors were with their visits overall based on the type of weather conditions during their visits.

Satisfaction with Features

Respondents were also asked how satisfied they were with five park features. Figure 5 shows the mean scores for each of the features and for visitors' overall satisfaction. The scores for satisfaction with the campground (3.72), with trails (3.72), with park signs (3.76), and with the picnic area (3.79) were very close to visitors' overall satisfaction score (3.78). Satisfaction with river access areas, however, received a lower rating (3.49) compared to other features.

Figure 6 shows the mean satisfaction scores for river access areas by type of river user compared with the score for all visitors. Boaters and rafters/canoers rated satisfaction with river access areas higher (3.49 and 3.51 respectively); and fishers and swimmers had a lower satisfaction rating for river access areas (3.37 and 3.36 respectively).

Mean satisfaction scores of the campground, the picnic area, and of trails were also determined by specific users; however, no statistical significant differences were found in the scores.

Figure 5. Mean Satisfaction Scores for Park Features

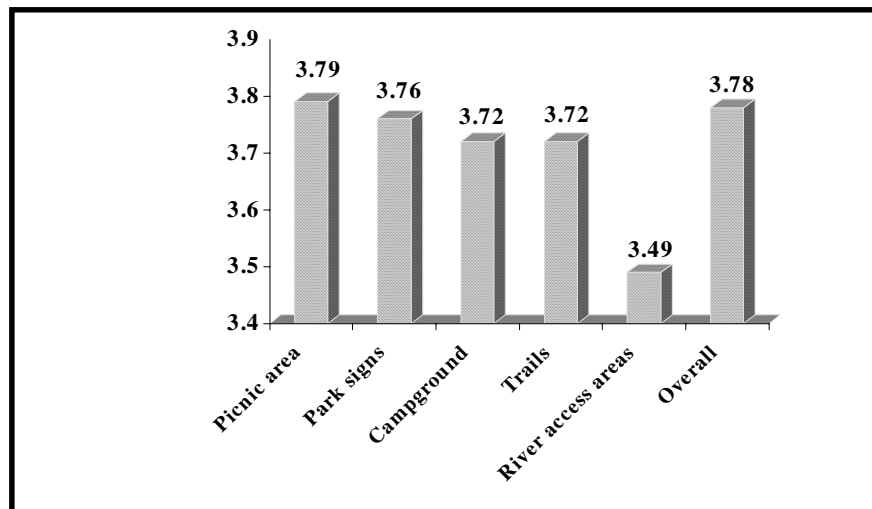
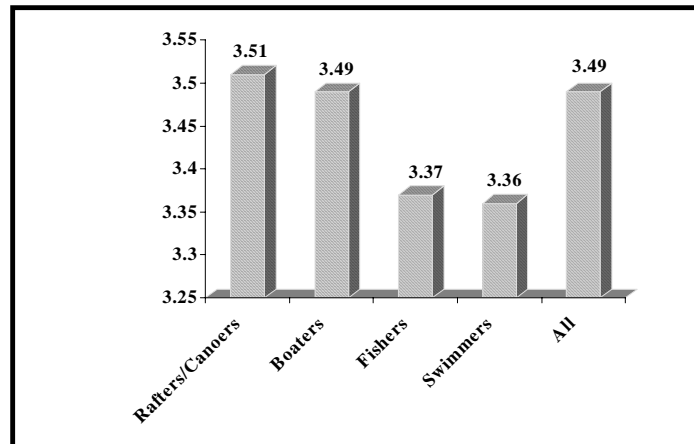


Figure 6. Mean Satisfaction Scores for River Access Areas by Type of User



Importance-Performance Measures

Mean scores were calculated for responses to two survey questions (questions 7 & 9) concerning visitors’ rating and importance of seven park attributes. The scores are shown in Table 5 and are based on a 4.0 scale with 4 = excellent and 1 = poor for the rating score, and 4 = very important and 1 = very unimportant for the importance score. Two scores are listed for Attribute E: E₁ is all visitors’ rating and importance for access for persons with disabilities, and E₂ is the rating and

importance by disabled respondents only.

The mean scores were plotted on an Importance-Performance (I-P) Matrix (Figure 7) to illustrate the relative rating and importance of the attributes by park visitors. E₂ was used instead of E₁ in the calculation and positioning of the crosshairs. (See “Data Analysis” in Methodology for a description of how the I-P Matrix was constructed.)

The I-P Matrix is divided into four quadrants providing an easy guide for possible management actions. The

Table 5. Mean Rating and Importance Scores for Park Attributes

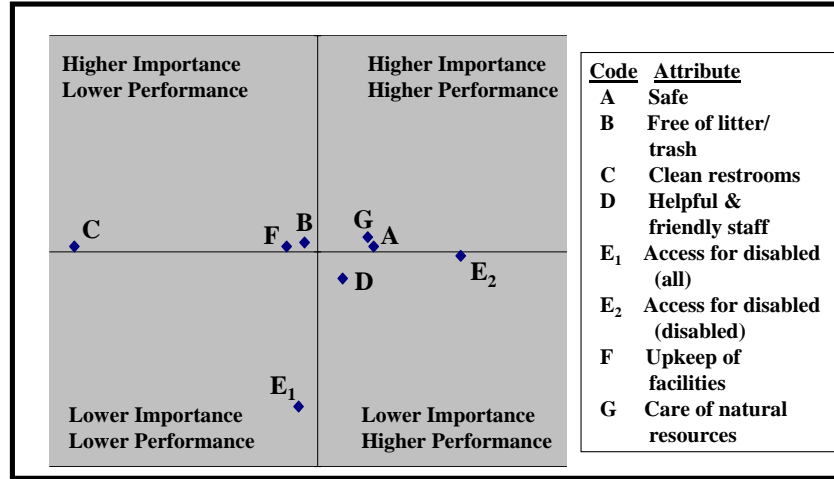
Attribute	Mean Performance Score*	Mean Importance Score *
A. Being safe	3.72	3.88
B. Being free of litter/trash	3.61	3.89
C. Having clean restrooms	3.24	3.88
D. Having a helpful & friendly staff	3.67	3.81
E ₁ . Access for persons with disabilities	3.60	3.53
E ₂ . Access for persons with disabilities	3.86	3.86
F. Upkeep of park facilities	3.58	3.88
G. Care of natural resources	3.71	3.90

E₁ = All visitors

E₂ = Disabled visitors only

* 1=Poor rating or low importance, 4=Excellent rating or high importance

Figure 7. Importance-Performance Matrix of Park Attributes

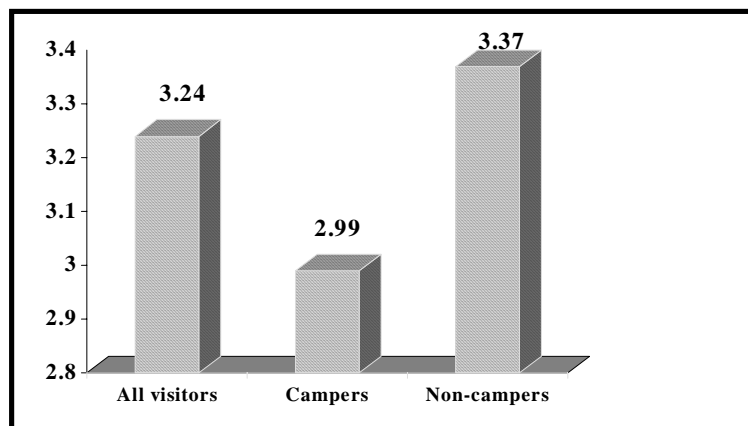


upper right quadrant indicates park attributes of higher importance and higher performance, suggesting that the park did a good job of managing these attributes. The attributes in the upper left section should receive priority attention, because these attributes are of high importance but were rated low in performance. Less management attention is needed for the lower two quadrants, because both are rated lower in importance.

Visitors rated the park lowest on having clean restrooms but felt this was important. To determine if visitors were

rating specific areas of the park lower on having clean restrooms, the data was analyzed by campers and non-campers. Figure 8 shows the mean rating scores for the park having clean restrooms by all visitors, campers, and non-campers. Visitors camping in the MSP camp-ground rated the park significantly lower (2.99) on having clean restrooms than the visitors who used other areas of the park (3.37) ($p < .001$). A statistical significant difference ($p = 0.003$) was also found between weekday visitors' rating of clean restrooms (3.35) and weekend visitors' rating of clean restrooms (3.14).

Figure 8. Mean Rating Scores for Having Clean Restrooms



Crowding

Visitors were asked how crowded they felt on their visits to MSP. The following nine-point scale was used to measure visitors' perception of crowding:

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

The overall mean response based on this scale was 2.81. About one-half of the respondents (46.1%) felt that they were not at all crowded (chose 1 on the scale), and 53.9% felt some degree of being crowded (chose 2-9 on the scale). Visitors who felt crowded on their visits were also asked where they felt crowded. About one-half of the visitors (46.3%), who felt some degree of being crowded, responded to this open-ended question. Table 6 lists locations where visitors felt crowded in MSP. The majority of visitors who felt crowded (52.3%), reported feeling crowded in the campground, followed by 15.9% who felt crowded on the river. The other 31.8% who felt crowded listed the restrooms, showerhouses, picnic area, dining lodge, park store, boat launch area, parking lots at cabins, cabins, and

the roads as places where they felt crowded.

A significant difference ($p < .001$) was found in weekend visitors' versus weekday visitors' perceptions of crowding and campers' versus non-campers' perceptions of crowding. The mean crowding score for weekend visitors was 3.31 and for weekday visitors was 2.26. The mean crowding score for campers was 3.92 and for non-campers was 2.32.

A significant difference ($p < .05$) was also found in visitors' mean overall satisfaction with their visits based on whether they felt some degree of crowding or were not at all crowded. Visitors who were not crowded had a mean overall satisfaction score of 3.84, while visitors who felt some degree of crowding had a mean score of 3.74.

Safety Concerns of Visitors

The park attribute of safety fell in the high importance/high performance quadrant on the I-P Matrix; however, 28.3% of the respondents did not rate the park excellent on safety. Visitors not rating the park excellent on safety were

Table 6. Locations Where MSP Visitors Felt Crowded on Their Visits

Location	Frequency	Percent
Campground	89	52.3%
River	27	15.9%
Restrooms or showerhouses	15	8.8%
Picnic area	13	7.6%
Dining lodge	9	5.3%
Park store/boat launch area	8	4.7%
Parking lots at cabins/cabins	4	2.4%
On roads	3	1.8%
Other	2	1.2%
Total	170	100%

Table 7. Percentage of Safety Comments by Campers and Non-Campers

Category	Campers	Non-campers
Lack of rangers patrolling, lack of enforcement, etc.	31.4%	22.0%
Uncontrollable factors (e.g., river, don't trust others)	37.2%	54.2%
Unsafe facilities & trails, poor maintenance, lack of signs	11.4%	15.3%
Other	<u>20.0%</u>	<u>8.5%</u>
Total	100%	100%

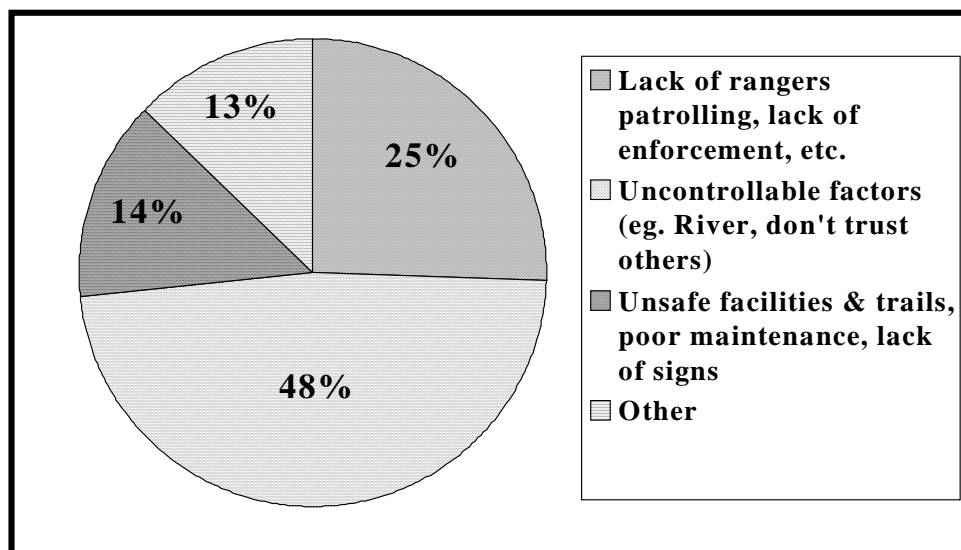
asked what influenced their ratings in order to explore any safety concerns that they may have had. About one-half of these visitors (48.3%), provided comments and are listed and grouped into categories for frequency and percentage calculations (Appendix H, and Figure 9).

About one-half of the responses were factors over which management has no control (e.g., the river being unsafe; visitors not trusting other people; and comments such as “no reason,” “not here long enough to know how safe,” “no place is perfect,” or “few places are excellent”). One-fourth of the responses (25%) were related to lack of park personnel being present, lack of rangers patrolling, lack of enforcement, and/or people breaking rules. Fourteen percent

of the visitors responding to this question reported facilities or trails being unsafe, poor maintenance, poor care of resources, or lack of signage as the reasons for not rating the park excellent on safety. The remaining 13% of comments did not fall into any specific category.

No significant differences were found in the rating of safety by campers versus non-campers, weekend versus weekday visitors, or first-time versus repeat visitors. The comments made concerning why visitors did not rate the park excellent on safety were compared between campers and non-campers to determine if visitors using specific areas of the park had different safety concerns. Table 7 shows the percentage of comments given by campers versus non-

Figure 9. Comments from Visitors Not Rating MSP Excellent on Safety (n=86)



campers based on the four categories in Figure 9. Campers made a higher percentage of comments in the first category (lack of rangers & enforcement) and the fourth category (other) than non-campers, while non-campers made more comments in the second category (uncontrollable factors) and the third category (unsafe facilities & trails).

In addition, visitors were divided into two groups based on how they rated the park on safety to determine any differences in their characteristics and how they rated other attributes of the park. Group 1 included those that rated the park excellent on safety, and Group 2 included those that rated the park good, fair, or poor on safety. No significant differences were found in any of the socio-demographic characteristics of the two groups; however there was a significant difference ($p < .001$) in how crowded the two groups felt on their visit. The mean crowding score was 2.59 for Group 1 and 3.41 for Group 2. Therefore, those that felt the park was safe also felt less crowded, and those that did not rate the park high on safety felt more crowded. Group 1 also significantly rated ($p < .05$) the other six park attributes higher, were more satisfied overall, and were more satisfied with park features than Group 2. This

may be an indication that visitors who rated one attribute high tended to rate all others high.

Additional Comments & Suggestions From Visitors

Respondents were provided the option to write additional comments about their visits or suggestions on how DNR can make their experiences in MSP better. One-fourth (25.9%) of the total survey participants responded to this question. A total of 200 responses were given by 165 visitors. The comments and suggestions were listed and grouped into 11 categories for frequency and percentage calculations. The list of comments and suggestions is found in Appendix I. Table 8 shows the frequency and percentages of the comments by category.

Over one-third of the comments given (35.5%) were positive comments. Examples include: "It's a great place," "Very nice park," and "Keep up the great job." About one-half of the comments (47.5%) included complaints and suggestions (categories 2-10 in Table 8), and 17.0% of the comments or suggestions were categorized as "other."

Appendix J includes an additional list of comments from surveys collected in the pilot study and other surveys not included in data analysis (e.g., comments from respondents under 18 and from visitors who wanted to participate in the

survey, but were not in one of the every fifth vehicles selected). These comments include safety concerns (responses from question 8) and additional comments and suggestions (responses from question 19).

Table 8. Frequency and Percentage of Comments and Suggestions from MSP Visitors

Category	Frequency	Percent
1. General positive comments	71	35.5%
2. Need more campsites, trails, facilities, picnic areas or activities	27	13.5%
3. Need better/more river access, fishing areas, or swimming areas	13	6.5%
4. Need newer facilities or better maintenance/care of facilities and park grounds	13	6.5%
5. Problems with concessionaire services (cabins, dining lodge, canoe trips)	13	6.5%
6. Restrooms not clean and other problems with restrooms	9	4.5%
7. Better signage needed	7	3.5%
8. Need better enforcement	5	2.5%
9. Park personnel not helpful/friendly, or not providing safety	5	2.5%
10. Problems with reservation system	3	1.5%
11. Other	<u>34</u>	<u>17.0%</u>
Total	200	100%

Visitation Estimates

From the observation data, it was determined that the average number of visitors per vehicle was 2.67. Since the traffic counter counts by axle, the number of visitors per axle was calculated to take into account vehicles with trailers. In addition, not all vehicles crossing the traffic counter were visitors' vehicles. Therefore, the percentage of park related vehicle axles crossing the traffic counter was also calculated. Park related vehicles (PRV) included park vehicles, personal vehicles of park employees on duty, concessionaire vehicles including shuttle buses and trucks with canoe trailers, and delivery vehicles. PRV were not counted in the systematic sample of every fifth vehicle.

The average number of axles per visitor vehicle (VV) was 2.09. The total number of VVs was then multiplied by 2.09 to determine the total number of VV axles. The average number of axles per park related vehicle (PRV) was 2.54.

The total number of PRVs was multiplied by 2.54 to determine the total number of PRV axles.

The percentage of PRV axles was 10.07% and was determined by the equation of PRV axles ÷ total axles (PRV axles + VV axles). The number of visitors per axle was 1.28 and was determined by the calculation of 2.67 visitors per vehicle ÷ 2.09 axles per vehicle.

The estimation number for the number of visitors per axle currently being used at Meramec State Park is 1.50 (3 visitors per 2 axles). An equation to estimate attendance with the observation results of this study is [total number of axles crossing traffic counter less 10% multiplied by 1.28].

The following is an example using this equation based on 1000 axles crossing the traffic counter.

$$\begin{aligned} 1000 \text{ axles} - 100 (10\%) &= 900 \\ 900 \times 1.28 &= 1152 \text{ visitors} \end{aligned}$$

Discussion

The following discussion focuses on implications for management, visitation estimates, research and methodology recommendations, and considerations for other parks.

Management Implications

The results of this study provide relevant information concerning MSP visitors. However, the results should be interpreted with caution. The surveys were collected only during the summer months of June, July, and August; 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 nearly one-half of the annual visitation occurs during these three months. In addition, the MSP campground had no vacancies on the majority of the weekends during the survey period and research shows that management problems frequently occur during these peak use times (Manning, 1986).

Over 80% of Meramec State Park (MSP) 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 (73%) combined with their positive comments provide evidence that MSP visitors are indeed satisfied with their park experience. Over one-third of the visitors who gave comments or suggestions provided positive comments concerning MSP and its staff.

Interestingly, first-time visitors were significantly more satisfied with their visits than repeat visitors. First time visitors were also more likely to be day users and visit on weekdays.

Even though visitors reported high levels of satisfaction for MSP and park facilities, some park features and attributes as indicated by survey respondents, were rated lower. Among five park features, visitors were least satisfied with river access areas. Visitors participating in swimming and fishing rated river access areas lower than did other river users. Visitors also noted a need for more or better river access, fishing, or swimming areas. This should be a concern to managers, since MSP's primary recreation resource is the Meramec River -- swimming and fishing were the primary recreation activities.

Visitors felt that clean restrooms were very important but rated Meramec's as needing attention. Weekend visitors' rating of clean restrooms was significantly lower than that of weekday visitors. Also, campers rated the park lower on having clean restrooms than non-campers. Since non-campers typically do not use the restroom facilities in the campground, this finding suggests more time could be spent cleaning campground restrooms.

While many visitors commented on a need for more restroom cleaning or the odor, they also acknowledged that the restrooms are cleaned regularly, but are heavily used. This presents a dilemma

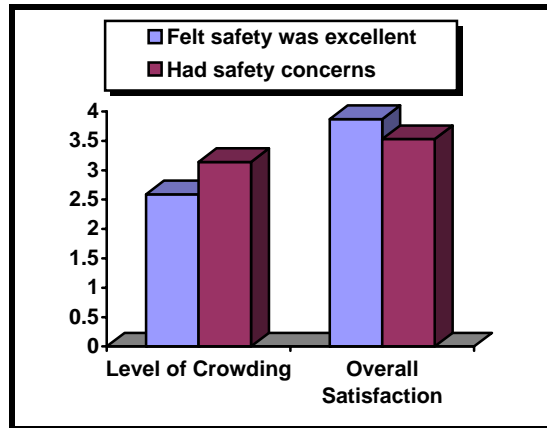
to park managers as no matter how often restrooms are cleaned, visitors will still feel they are not clean enough.

Meramec is not unique in this respect, as research shows that state park visitors elsewhere also tend to rate restrooms lower than other park facilities (Burns, Graefe, & Titre 1997; Moisey, McCool, & Schultz 1996).

Safety perceptions of MSP visitors are also an important management concern as over 28% of visitors did not report an excellent rating of the park as being safe. While visitors have a variety of reasons for not rating the park as excellent, the majority of the comments given are beyond the control of management. However, a significant percentage of the visitors' responses (25%) were related to a lack of rangers patrolling or park personnel presence, a lack of enforcement, and/or people breaking rules. Campers reported an even higher percentage of responses (31%) in this category. To address the safety concerns of MSP visitors, one solution would be a greater park personnel presence which could be accomplished by increasing ranger patrols and more enforcement of park rules and regulations, especially in the campgrounds.

To put the issue of park safety into perspective, 72% rated the park excellent while less than 1% of visitors felt the park rated poor and only 2% gave the park a fair rating. Visitor comments indicate that safety is largely a perceptual issue. Those with safety concerns also felt more crowded and less satisfied than those that rated safety as excellent (Figure 10). Additional research could focus on the effectiveness of approaches that address visitor safety

Figure 10. Levels of Crowding and Satisfaction Ratings by Safety Concerns



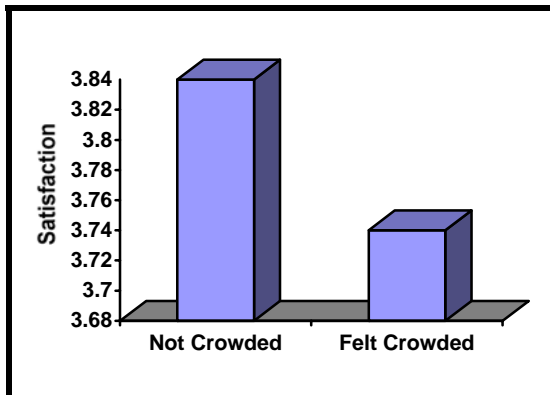
perceptions (e.g., personnel uniform policies, regularly scheduled patrols, increased signage, neighborhood watch program, or campground hosts)

Crowding is also an issue identified by many MSP visitors. Crowding is a perceptual construct not always explained by the number or density of other visitors. Expectations of visitor numbers and the behavior of other visitors also play a significant role in crowding perceptions.

MSP visitors who felt crowded had significantly lower satisfaction ratings than visitors who did not feel crowded (Figure 11). Weekend visitors also felt significantly more crowded than weekday visitors, and campers felt significantly more crowded than non-campers.

As perceptions of crowding are inversely correlated to overall satisfaction, park managers should address the issue of crowding. One option is to review comments relating to crowding and consider options that would reduce crowding perceptions. For

Figure 11. Overall Satisfaction is Lower For Those Who Felt More Crowded



example, visitors state that more campsites are needed, and, specifically, more secluded campsites are desired. Managers might consider adding more secluded campsites and/or reducing existing campsites in the MSP campground.

One additional finding from the survey is the low rate of minority visitation to the park. Minority visitation is lower at Meramec than other parks within the Missouri State Park system. This could be a function of the location of the park, traditional visitation patterns, or minority activity participation.

A Final Note on Management Implications

Glen Alexander, Chief of the Division of State Parks in Ohio, (1993) stated “Customer surveys are a dime a dozen in the private sector and are beginning to get that way in the public sector” (p. 168). Alexander pointed out that having a customer survey system is not what counts--what is important is how the data is analyzed and used. Upon exploring previous surveys conducted, Alexander found many

instances in which surveys were filed and forgotten.

The potential to increase visitors’ satisfaction is existent, only if managers consider visitors’ concerns and suggestions and respond to matters needing attention. In the Ohio State Park system, Alexander (1993) found that front line employees had a favorable response to survey feedback and customers’ ideas. When a visitor survey was conducted in a park, the entire park staff sat down as a team and reviewed the survey results. Appropriate changes to improve visitor satisfaction were collectively made by the park staff team. Ensuring that front line managers play a role in reviewing and responding to MSP survey results would likely increase MSP visitor satisfaction.

The results of the present study suggest some important management and planning considerations for MSP. Even though MSP visitors rated their visits and the park features relatively high, attention to crowding, safety, and facility 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.

Visitation Estimates

To estimate visitation, MSP currently uses a traffic counter to estimate the number of vehicles entering the park. The number of vehicles is

multiplied by 3.0 people per vehicle (determined from a previous in-house study) to estimate visitation. The observation data from the present study provided a rate of 2.67 visitors per vehicle. Also, park estimates do not take into account vehicles pulling trailers and non-visitor vehicles entering and exiting the park. As part of the current study, this data was collected to determine a new equation for estimating visitation. The equation is "Total number of axles less 10% multiplied by 1.28." (The equation uses a rate of number of visitors per axle versus per vehicle-- calculations are provided in the "Visitation Estimates" section of Results.)

Visitation estimates using MSP's current equation (Total number of vehicles multiplied by 3) are 30% higher than estimates with the equation determined in the present study. This 30% difference may not be the same during other seasons of the year. Therefore, visitor per vehicle rates should be determined in other seasons of the year. The rates determined for each season could then be used to estimate visitation during that season, or a yearly average of the visitor per vehicle rate could be determined and used throughout the year. The data collected in the present study provide a reliable estimate of visitation during the summer; however, data collected in other seasons would provide a more accurate annual estimate of MSP's visitation.

In addition, it is not unreasonable to expect the visitor per vehicle rates to vary with changes in fuel prices, vehicle sizes, recreation trends, and societal trends (Lord, Strauss, & Burns, 1993). Therefore, visitor per vehicle (axle) rates

should not only be determined for other seasons of the year, but should be monitored on a regular basis (e.g., every three, four, or five years).

Estimates of visitation are central to the management of parks (Lord et al. 1993). Since visitation estimates serve as one measure of park service, reliable estimates provide an accurate picture of a park's output. The accuracy of visitation estimates also may be crucial in contractual dealings involving subcontracting various park operations. Concessionaires might rely upon visitation estimates in developing profit and loss estimates when bidding for park contracts. Accurate visitation estimates are also necessary for the establishment of a fee system.

Research Recommendations

The results of the present study serve as baseline visitor information of MSP. The frequency and percentage calculations of survey responses provide useful information concerning socio-demographic characteristics, use patterns, and satisfaction of MSP visitors. In addition, the "sub-analysis" of data is important in identifying implications for management of MSP. (The sub-analysis in the present study included comparisons using Chi-square and ANOVA between selected groups 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.

Additional visitor surveys at MSP should also be conducted on a regular

basis (e.g., every three, four, or five years). Future MSP studies can identify changes and trends in socio-demographic characteristics, use patterns, and visitors' satisfaction at MSP.

The methodology used in this study serves as a standard survey procedure that the DSP can use in the future. Other Missouri state parks should be surveyed similarly to provide valid results for comparisons of visitor information between parks, or to measure change over time in other parks.

Visitor information pertaining to Missouri historic sites is also limited. The DSP operates 33 historic sites in addition to its 46 state parks. A standard survey procedure for historic sites should be developed to survey visitors at Missouri state historic sites. The procedure should be based on the methodology and questionnaire of the present study, and future historic site surveys should be conducted regularly. Therefore, comparisons could be made between sites, and trends could be identified at each site.

The present study was conducted only during the summer season. Therefore, user studies in parks and historic sites might be conducted during other seasons for comparison between summer visitors and visitors during other seasons.

Future research should also include collecting additional observation data on the number of visitors per vehicle. The visitor estimation equation developed in the present study is only representative of MSP in the summer season. Averages of the number of visitors per vehicle

from all seasons would provide more accurate visitor estimates. If it is not feasible to conduct a complete visitor survey more than once in a year because of costs, then at a minimum, observations on the number of visitors per vehicle should be recorded at least one additional time of the year. Data should also be collected concerning the number of times vehicles enter and exit a park on their visits. It was observed that visitors entered and exited the park more than once during their visits to MSP; however, no data concerning this observation was collected. This information could have a substantial effect on visitation estimates. Collecting this data can be accomplished as parks are surveyed or attendance studies are conducted. The additional data would provide even more accurate visitation estimates for each park.

Methodology Recommendations and Considerations for Other Parks

The on-site questionnaire and the methodology of this study were designed to be applicable to other Missouri state parks. Therefore, the study serves as a prototype which the DSP can use to gather site-specific user information in other Missouri state parks. A few additions or changes, however, are recommended for future survey collections.

Survey Signage

It is recommended that adequate signage be utilized when collecting surveys on-site. A "Visitor Survey" sign was used in the present study to inform visitors exiting the park that the survey was being conducted. Having the sign for that purpose aided in the workability

of the methodology, as many visitors slowed down or came to a stop before being motioned to do so. However, the use of an additional sign to inform visitors entering the park of the exit survey in progress would have been helpful. The “survey station” became an “information station” when many visitors arriving in the park saw the surveyor and the table with clipboards and surveys. Having an assistant to help answer the entering visitors’ questions was helpful; however, without an assistant or on the survey days with high visitation, it became difficult to count and stop exiting vehicles when entering visitors were stopping. If the entering visitors had been informed by a sign of the survey in progress, they may have been less likely to stop.

Response Rates

Striving for the highest possible response rates in future surveys is recommended. Response rates can seriously affect both the validity and reliability of samples to represent the population under study. Dolsen and Machlis (1991) recommend rejecting study results with rates lower than 65%. Surveys that return a lower than 65% response rate can still be used as long as non-response bias checking procedures are followed.

Dalecki, Whitehead, and Blomquist (1993) report that survey procedures, which reduce the costs and increase the benefits of survey participation, increase the response rates. In the present study, the questionnaire was designed to take only three to five minutes of the visitors’ time to complete, thereby reducing the respondents’ “costs.” The drawing for a prize package (provided by the DSP)

was used as the benefit for respondents’ completion of the questionnaire.

The prize package drawing and the one-page questionnaire undoubtedly helped attain the response rate in the present study. Achieving the highest possible response rate (within the financial restraints) should be a goal of any study. To achieve higher response rates, the following comments are provided.

The two most frequent reasons that visitors declined to participate in the survey were because of the high temperature during some of the survey dates, and because they were in a hurry. The majority of non-respondents were very cooperative and many provided positive comments about the park. Some non-respondents 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 a non-respondent.

Questionnaire Changes

The questionnaire used in the present study underwent numerous revisions during its development. However, a wording change is recommended for the question on ethnic origin to include the word “white” in parentheses following the choice “Caucasian” and adding the

words “/American Indian” following the choice “Native American.”

To use the questionnaire in other Missouri state parks, it is recommended questionnaire include changes which make the questionnaire site-specific. The majority of the questions are “general” park survey questions and need not be changed in order to compare data from site to site in the future. A few questions are site-specific to MSP and should be altered to become specific to the park being surveyed. A protocol for questionnaire changes for other Missouri state parks is found in Appendix K.

Questions pertaining to specific issues or concerns in other parks being surveyed should be added. However, questionnaire length should be kept to a minimum whenever possible.

An additional observation referring to the number of times visitors enter and exit the park during a visit is also recommended and discussed in “Research Recommendations.”

Other Considerations

The exit survey worked well at MSP, because the park has a single entrance and a parking lot near the entrance in which visitors could park while completing the survey. Many Missouri state parks are not designed with a single entrance like MSP. In fact, many parks have two or more entrances and/or do not have a parking area near the park entrance. For parks that have more than one entrance, a survey location should be identified for each park entrance. An exit survey should then be conducted by alternating survey locations. For parks that do not have parking areas near the entrance and for parks without distinct entrances, a modification of the exit survey should be used. Survey locations should be identified at distinct activity areas of the park (e.g., campground, picnic area, river or lake access areas, etc.), and data should be collected as visitors exit activity areas by alternating locations.

References

- Alexander, G. D. (1993). Increasing customer satisfaction while cutting budgets. In G. A. Vander Stoep (Ed.), Proceedings of the 1993 Northeastern Recreation Research Symposium (pp. 167-173). Radnor, PA: Northeastern Forest Experiment Station.
- Burns, R., Graefe, A., & Titre, J. (1997). US Army Corps of Engineers National Customer Satisfaction Initiative: Results and processes of the first year of a three-year effort. In J. Hultsman & M. D. Bialeschki (Compilers), Abstracts of the paper and poster presentations at the 1997 NRPA Leisure Research Symposium, (p. 32). Salt Lake City, UT.
- Business Response, Inc. (1995a). State park and historic site user and non-user telephone survey. Report submitted to the Missouri Department of Natural Resources.
- Business Response, Inc. (1995b). State park and historic site user kiosk study. Report submitted to the Missouri Department of Natural Resources.
- Cordell, H. K., Bergstrom, J. C., Hartmann, L. A., & English, D. B. K. (1990). An analysis of the outdoor recreation and wilderness situation in the United States: 1989-2040. Fort Collins, CO: Rocky Mountain Forest and Range Experiment Station.
- Dalecki, M. G., Whitehead, J. C., & Blomquist, G. C. (1993). Sample non-response bias and aggregate benefits in contingent valuation: An examination of early, late and non-respondents. Journal of Environmental Management, 38, 133-143.
- Dolsen, D. E., & Machlis, G. E. (1991). Response rates and mail recreation survey results: How much is enough? Journal of Leisure Research, 23, 272-277.
- Donnelly, M. P., Vaske, J. J., DeRuiter, D. S., & King, T. B. (1996). Person-occasion segmentation of state park visitors. Journal of Park and Recreation Administration, 14, 95-106.
- Fink, D. A. (1997). Meramec State Park user survey. Unpublished master's research project, University of Missouri, Columbia.
- Folz, D. H. (1996). Survey research for public administration. Thousand Oaks, CA: Sage Publications.
- Hollenhorst, S., Olson, D., & Fortney, R. (1992). Use of Importance-Performance analysis to evaluate state park cabins: The case of the West Virginia state park system. Journal of Park and Recreation Administration, 10, 1-11.
- Holst, S. (1991). Parks in peril. Missouri Resource Review, 8 (3), 2-7.

Lord, B. E., Strauss, C. H., & Burns, G. D. (1993). An arrival rate dependent model for estimating park attendance. In G. A. Vander Stoep (Ed.), Proceedings of the 1992 Northeastern Recreation Research Symposium (pp. 111-114). Radnor, PA: Northeastern Forest Experiment Station.

Lucas, R. C. (1985). Visitor characteristics, attitudes, and use patterns in the Bob Marshall Wilderness Complex, 1970-82 (Research Paper INT-345). Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station.

Manning, R. E. (1986). Studies in outdoor recreation. Corvallis, OR: Oregon State University Press.

Missouri Department of Natural Resources. (1989). Missouri 1985-86 Public Area Recreation Visitor Survey. Jefferson City, MO: Author.

Missouri Department of Natural Resources. (1991). Challenge of the '90s: Our threatened state parks. Jefferson City, MO: Author.

Missouri Department of Natural Resources. (1994). The history of Missouri's state park system. [Brochure]. Jefferson City, MO: Author.

Missouri Department of Natural Resources. (1997). [Missouri state park attendance]. Unpublished raw data.

Moisey, R. N., McCool, S. F., & Schultz, E. (1996). 1994-95 Missouri Madison recreation survey. University of Montana, Missoula, MT: Institute for Tourism and Recreation Research.

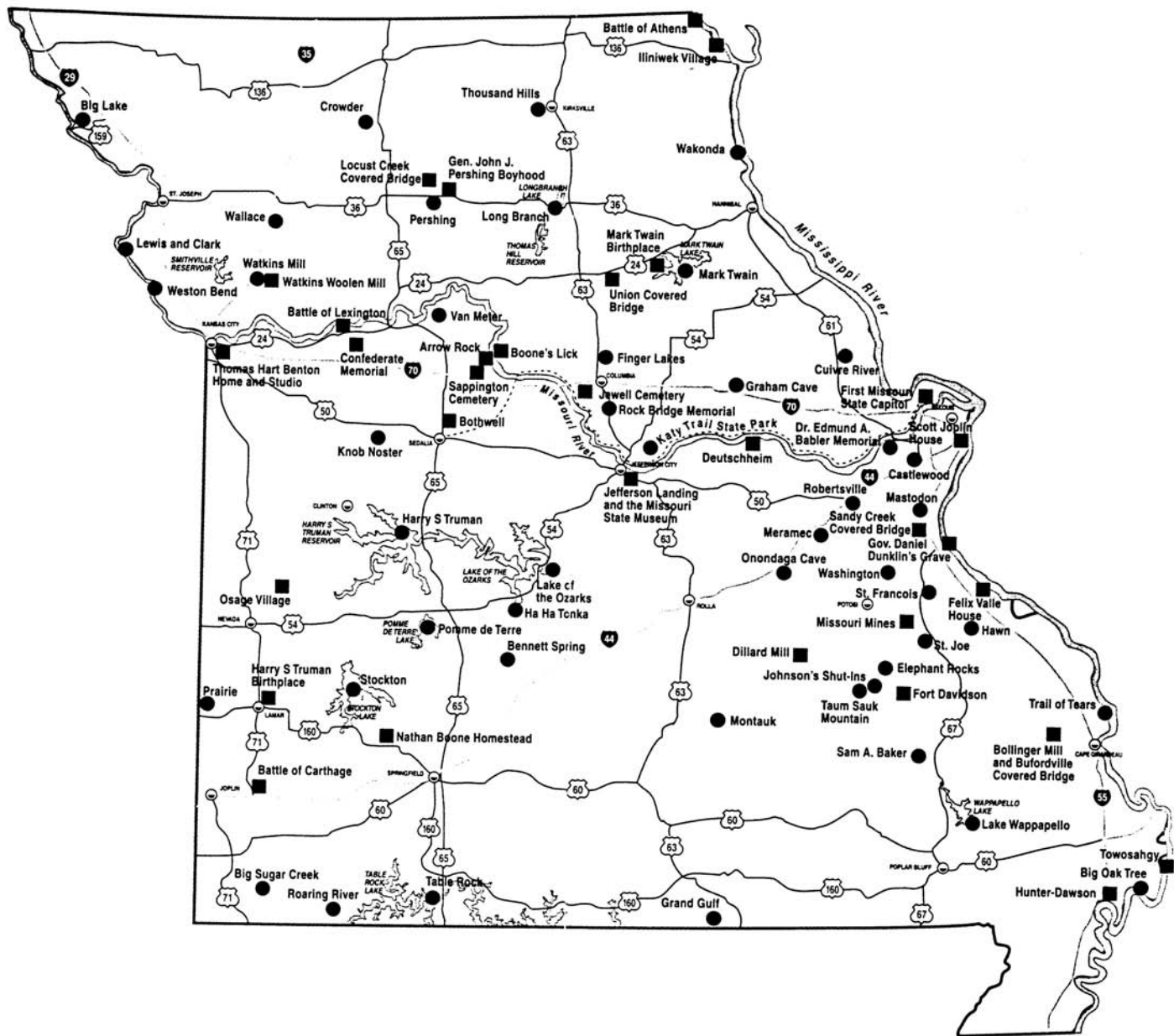
Statistical Package for the Social Sciences (Version 6.1) [Computer software]. Chicago: SPSS.

Williams, D. R. (1989). Great expectations and the limits to satisfactions: A review of recreation and consumer satisfaction research. In A. H. Watson (Compiler), Outdoor Recreation Benchmark 1988: Proceedings of the National Outdoor Recreational Forum (pp. 422-438). Asheville, NC: Southeastern Forest Experiment Station.

Appendix A. Map of Missouri State Park Locations

MISSOURI STATE PARKS & HISTORIC SITES

- State Parks
- State Historic Sites



Appendix B. Meramec State Park User Survey

MERAMEC STATE PARK USER SURVEY

The Missouri Department of Natural Resources is seeking your evaluation of Meramec 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 your first visit to Meramec State Park?

- yes no **If no, about how many times have you visited this park in the past year?_____**

2. Are you visiting the park for more than one day on this visit?

- yes **If yes, how many nights are you staying at or near the park during this visit?_____**
 no

3. If staying overnight, where are you staying? (Check only one box.)

- campground in Meramec State Park nearby campground
 cabin in Meramec State Park nearby lodging facilities
 motel in Meramec State Park other (Please specify.)

4. With whom are you visiting the park? (Check only one box.)

- alone family and friends club or organized group
 family friends other (Please specify.)

5. Which recreational activities have you engaged in during this park visit? (Check all that apply.)

- biking swimming exploring wild caves
 boating backpacking guided nature hike
 camping rafting/canoeing Fisher Cave tour
 fishing studying nature amphitheater program
 hiking viewing wildlife viewing visitor center exhibits
 picnicking special event other (Please specify.)

6. How satisfied are you with each of the following in Meramec State Park? (Check one box for each feature.)

	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	Don't Know
a. campground	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. park signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. picnic area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. river access areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. trails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. How do you rate Meramec State Park on each of the following? (Check one box for each feature.)

	Excellent	Good	Fair	Poor	Don't Know
a. being safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. being free of litter/trash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. having clean restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. having a helpful & friendly staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. access for persons with disabilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. upkeep of park facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. care of natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

9. When visiting any park, how important are each of these items to you? (Check one box for each feature.)

	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Don't Know
a. being safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. being free of litter/trash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. having clean restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. having a helpful & friendly staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. access for persons with disabilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. upkeep of park facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. care of natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MERAMEC STATE PARK USER SURVEY

10. During this visit, how crowded did you feel? (*Circle one number.*)

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

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

12. Overall, how satisfied are you with this visit to Meramec State Park? (*Check only one box.*)

Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. What is your age? _____ **Gender?** female male

14. What is the highest level of education you have completed? (*Check only one box.*)

grade school vocational school graduate of 4-year college
 high school some college post-graduate education

15. What is your ethnic origin? (*Check only one box.*)

Asian African American Native American
 Hispanic Caucasian other (*Please specify.*)

16. Do you have a disability that substantially limits one or more life activities or might require special accommodations?

yes **If yes, what disability or disabilities do you have?**
 no _____

17. What is your 5-digit zip code (*or country of residence, if you live outside the U.S.*)? _____

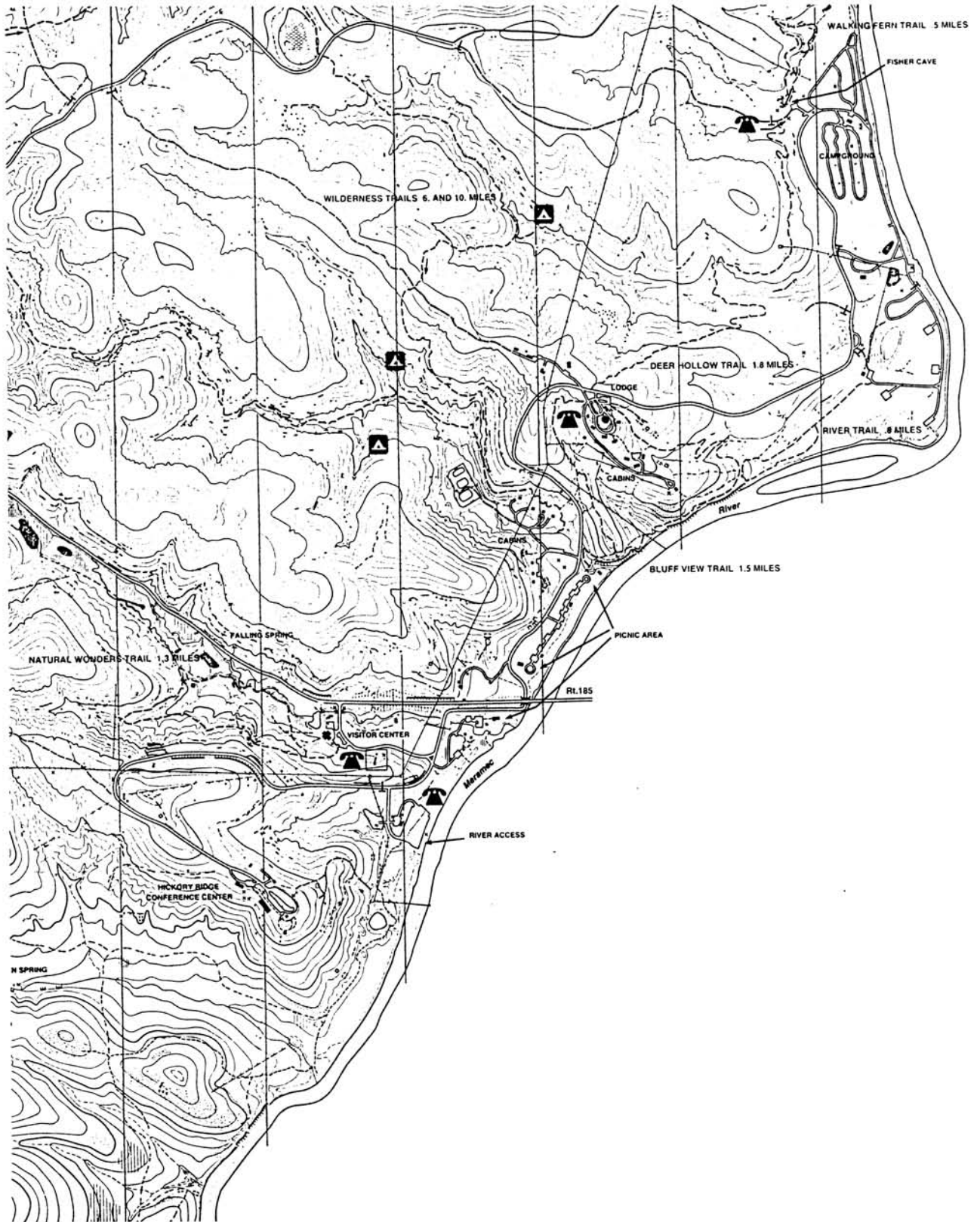
18. What is your annual household income?

less than \$25,000 \$50,001 - \$75,000
 \$25,000 - \$50,000 Over \$75,000

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

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

Appendix C. Survey Location



Appendix D. Survey Protocol

Protocol for Meramec State Park User Survey

The driver of every fifth vehicle was stopped as he or she exited the park and the researcher said:

Hi, my name is Don Fink, 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 Meramec 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 for two at Meramec State Park. Your participation is voluntary, and your responses will be completely anonymous.

Your input is very important to the management of Meramec 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). If you would, please drive your vehicle into the visitor center parking lot to complete the survey(s). When finished, you may keep the pencil and return the survey(s), clipboard(s), and prize entry form(s) to myself or the survey assistant in the parking lot.

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

Appendix E. Prize Entry Form

**WIN A PRIZE PACKAGE FOR TWO AT
MERAMEC STATE PARK**

The package includes two nights lodging at Meramec State Park, a meal at the Meramec State Park Dining Lodge, and a float trip on the Meramec River.

Simply fill out the back of this entry form and return it to the survey assistant. Your name, address, and telephone number will be used only for the drawing; thus, your survey responses will be anonymous. The drawing will be held on September 1, 1997. Redemption of prize certificate is based on dates of availability through August 31, 1998.

Name: _____

Address: _____

Phone #: (_____) _____

Appendix F. Observation Survey

Date _____ Day of Week _____ Time Slot _____
 Weather _____ Temperature _____

Veh. #	Survey #'s	# Adults	# Children	Vehicle Type	Additional Axles
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
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21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Visitor Vehicles

Park Related Vehicles

Appendix G. Responses to Survey Questions

MERAMEC STATE PARK USER SURVEY

1. Is this your first visit to Meramec State Park? (n=638)

yes 27.4%
no 72.6%

If no, about how many times have you visited this park in the past year? (n=384)

The responses from this open-ended question were grouped into the following 5 categories:

0 17.2%
1-2 32.0%
3-10 29.7%
11-50 16.2%
50+ 4.9%

The average # of times repeat visitors visited the park in the past year was 10.2.

The average # of times all respondents visited the park in the past year was 7.0.

2. Are you visiting the park for more than one day on this visit? (n=635)

yes 37.8%
no 62.2%

If yes, how many nights are you staying at or near the park during this visit? (n=201)

The responses from this open-ended question were grouped into the following 4 categories:

1 9.5%
2 60.7%
3-5 24.9%
6+ 5.0%

The average # of nights respondents visiting the park for more than one day stayed was 2.6.

3. If staying overnight, where are you staying? (n=303)

campground in Meramec State Park	63.7%	nearby campground	7.3%
cabin in Meramec State Park	16.2%	nearby lodging facilities	4.6%
motel in Meramec State Park	3.0%	other	5.3%

4. With whom are you visiting the park? (n=611)

alone	9.8%	family and friends	22.4%	club or organized group	1.0%
family	45.8%	friends	20.1%	other	0.8%

5. Which recreational activities have you engaged in during this park visit? (n=638)

biking	9.7%	swimming	37.0%	exploring wild caves	19.1%
boating	9.2%	backpacking	0.8%	guided nature hike	1.7%
camping	31.3%	rafting/canoeing	28.4%	Fisher Cave tour	14.9%
fishing	19.0%	studying nature	14.9%	amphitheater program	6.1%
hiking	29.0%	viewing wildlife	34.3%	viewing visitor center exhibits	16.8%
picnicking	32.8%	special event	5.6%	other	18.2%*

* over one-half of the “other” responses were dining at the dining lodge (9.87% of visitors)

*** In addition to percentages of responses, a mean score was calculated for each feature in questions 6, 7, 9, and 12. The score is based on a 4.0 scale with 4 = very satisfied and 1 = very dissatisfied (Q. 6 & 12); 4 = excellent and 1 = poor (Q. 7); and 4 = very important and 1 = very unimportant (Q. 9). The mean score is listed in parentheses following each feature.*

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

	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	Don't Know	
a. campground (3.72)	61.3%	16.4%	1.5%	0.9%	19.9%	n=584
b. park signs (3.76)	75.9%	18.5%	1.5%	0.7%	3.4%	n=589
c. picnic area (3.79)	70.4%	15.3%	1.2%	0.3%	12.8%	n=587
d. river access areas (3.49)	54.3%	22.6%	8.0%	2.0%	13.1%	n=588
e. trails (3.72)	54.4%	16.6%	1.7%	0.2%	27.1%	n=572

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

	Excellent	Good	Fair	Poor	Don't Know	
a. being safe (3.72)	71.7%	22.1%	2.1%	0.2%	4.0%	n=630
b. being free of litter/trash (3.61)	68.1%	25.2%	5.7%	0.6%	0.3%	n=627
c. having clean restrooms (3.24)	39.9%	30.6%	14.7%	2.1%	12.7%	n=614
d. having a helpful & friendly staff (3.67)	68.9%	23.7%	2.7%	0.8%	3.8%	n=624
e. access for persons with disabilities (3.60)	43.2%	22.1%	2.3%	0.2%	32.2%	n=597
f. upkeep of park facilities (3.58)	61.1%	32.8%	4.2%	0%	1.9%	n=625
g. care of natural resources (3.71)	70.3%	24.5%	1.8%	0.2%	3.2%	n=620

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

86 visitors (48.3% of those who did not rate the park as excellent on being safe) responded to this question. The 86 responses were divided into 10 categories with 8 responses falling into more than one category. Frequencies and percentages of responses in each category are listed.

	Frequency	%
1. Lack of park personnel/rangers patrolling, lack of enforcement, and/or people breaking rules_____	24	25.5%
2. River unsafe_____	18	19.1%
3. No reason/not here long enough to know how safe_____	15	16.0%
4. Few places are perfect or excellent_____	8	8.5%
5. Do not trust others (nothing that park personnel can improve)_____	4	4.3%
6. Facilities unsafe_____	4	4.3%
7. Trails unsafe_____	3	3.2%
8. Poor maintenance/care of resources_____	3	3.2%
9. Lack of signage_____	3	3.2%
10. Other_____	12	12.8%
Total	94	100%

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

	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Don't Know	
a. being safe (3.88)	89.7%	8.7%	1.3%	0.3%	0%	n=632
b. being free of litter/trash (3.89)	89.6%	9.7%	0.3%	0.3%	0%	n=626
c. having clean restrooms (3.88)	89.0%	9.7%	0.8%	0.3%	0.2%	n=626
d. having a helpful & friendly staff (3.81)	82.4%	16.2%	0.8%	0.5%	0.2%	n=625
e. access for persons with disabilities (3.53)	58.4%	19.3%	6.8%	2.6%	12.8%	n=616
f. upkeep of park facilities (3.88)	88.5%	10.7%	0.3%	0.3%	0.2%	n=626
g. care of natural resources (3.90)	91.4%	8.0%	0.3%	0.3%	0%	n=625

10. During this visit, how crowded did you feel? (n=622)

On the scale of 1-9 , with 1=Not at all crowded and 9=Extremely crowded, the mean response was 2.81.

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

A total of 170 open-ended responses were given by 155 visitors. The 170 responses were divided into 9 categories. Frequencies and percentages of responses in each category are listed.

	Frequency	%		Frequency	%
campground	89	52.3%	park store/boat launch area	8	4.7%
river	27	15.9%	parking lots at cabins/cabin area	4	2.4%
restrooms or showerhouses	15	8.8%	on roads	3	1.8%
picnic area	13	7.6%	other	2	1.2%
dining lodge	9	5.3%	Total	170	100%

12. Overall, how satisfied are you with this visit to Meramec State Park? (n=623)

	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied
(Mean score = 3.78)	81.5%	15.6%	2.2%	0.6%

13. What is your age? (n=616)

Responses were divided into the following four categories:

18-34	39.3%
35-54	45.8%
55-64	8.1%
65+	6.8%

(Average age = 39.5)

Gender? (n=616)

female	47.7%
male	52.3%

14. What is the highest level of education you have completed? (n=622)

grade school	2.7%	vocational school	5.9%	graduate of 4-year college	15.1%
high school	33.9%	some college	32.3%	post-graduate education	10.0%

15. What is your ethnic origin? (n=611)

Asian 0.8% African American 0% Native American 10.8%
 Hispanic 1.0% Caucasian 87.1% other 0.3%

16. Do you have a disability that substantially limits one or more life activities or might require special accommodations? (n=610)

yes 4.8%
 no 95.2%

If yes, what disability or disabilities do you have? (n=25)

Frequencies and percentages of the 25 open-ended responses are:

	<u>Frequency</u>	<u>%</u>		<u>Frequency</u>	<u>%</u>
bad legs/trouble walking	12	48.0%	pregnant	1	4.0%
bad back and/or hip	5	20.0%	heart trouble	1	4.0%
seizures, partial paralysis	1	4.0%	multiple sclerosis	1	4.0%
peripheral neuropathy	1	4.0%	old age	1	4.0%
leukemia	1	4.0%	arthritis	<u>1</u>	<u>4.0%</u>
			Total	25	100%

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

Only one respondent was from a country other than the U.S. (France), and the remaining(n=590) were from 22 states. The states with the highest percentages of respondents were:

Missouri 80.0%
 Illinois 10.8%
 Indiana 1.2%
 Texas 1.0%
 Other 7.0%
 Total 100%

Of the total respondents:

37.1% reside within a 30 mile radius of the park [20.8% had the 63080 zip code (Sullivan), and 16.3% were from other surrounding communities]
 28.5% were from the St. Louis area (St. Charles, St. Louis, and Jefferson Counties)
34.4% were from other areas
 100%

18. What is your annual household income? (n=581)

less than \$25,000 18.4% \$50,001 - \$75,000 21.3%
 \$25,000 - \$50,000 46.8% Over \$75,000 13.4%

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

165 of the 638 visitors (25.86%) responded to this question. A total of 200 responses were given by the 165 visitors. The 200 responses were divided into 11 categories. Frequencies and percentages of responses in each category are listed.

	<u>Frequency</u>	<u>%</u>
1. General positive comment_____	71	35.5%
2. Need more campsites, trails, facilities, picnic areas or activities_____	27	13.5%
3. Need better/more river access, fishing areas, or swimming areas_____	13	6.5%
4. Need newer facilities or better maintenance/care of facilities and park grounds_____	13	6.5%
5. Problems with concessionaire services (cabins, dining lodge, canoe trips)_____	13	6.5%
6. Restrooms not clean and other problems with restrooms_____	9	4.5%
7. Better signage needed_____	7	3.5%
8. Need better enforcement_____	5	2.5%
9. Park personnel not helpful/friendly, or not providing safety_____	5	2.5%
10. Problems with reservation system_____	3	1.5%
11. Other_____	34	17.0%
Total	200	100%

Appendix H. List of Responses for Question 8

Responses to Question # 8

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

Lack of park personnel/rangers patrolling, lack of enforcement, and/or people breaking rules

- I didn't see the Rangers around
- Lack of a visible security presence
- Recent flooding with late evacuation notice (6/22)
- Recent flooding with late evacuation on 6/22
- No lifeguards
- No lifeguards
- No security/police officers evident. No emergency phones/lights
- I didn't see any park personnel while swimming under the bridge for 3 hours.
- Never see a Ranger when I visit or anyone of any authority
- Traffic - driving too fast, need bicycle trails, walking trails along side of main road.
- Didn't see many patrols
- People speeding on the road
- River and the cars of drunks and drugged people
- Canoe renters being drunk
- Inconsiderate canoe people on river way
- The speed of vehicles
- Too much noise at night
- I camped here one night, and a wild bunch of drunks played music until 2 am
- Can't be totally safe with Meramec River and alcohol
- Not enough being done to enforce speed limit and obeying one way signs which both could cause serious accidents.
- Drunk boaters
- Never seen anything done about peoples driving
- Too much late crowd noise
- Lack of supervision with lifejackets for children. The bus driver from canoe pickup - no muffler, balled tires, too fast.

River unsafe

- The river was high and fast
- River when up
- No signs warning out of town visitors of undercurrents, etc.
- River safety
- Recent flooding with late evacuation notice (6/22)
- Recent flooding with late evacuation on 6/22
- High banks on the river
- River and the cars of drunks and drugged people
- Trash on rivers edge
- I have small children and the river is a big attraction for them - wish there was an area along the riverside out of main water current.
- Can't be totally safe with Meramec River and alcohol

- Someone can cut themselves on rocks in the river
- We weren't sure how deep the water was and if it would drop off fast.
- Boats (power) in canoe paths
- Too many motor boats
- The river
- The number of drownings each year but that is not the fault of park staff
- Swimmers need more info about how the river affects them.

No reason/not here long enough to know how safe

- Was here very short time
- Don't know how safe
- With a short visit, I really couldn't be that observant
- I'm not too familiar with this park
- Nothing in particular
- Nothing really, we were only here for a little while. I can't really say
- Not here long enough
- Only came to make reservations and see what is here
- First visit- limited park exposure
- Not here long enough to evaluate
- It appears safe but I haven't been here long
- Was not here long enough to make judgement
- Not here long enough
- No reason
- We haven't been here long enough to know, but there didn't seem to be any unsafe things.

Few places are perfect or excellent

- No place is perfect
- Very few places are excellent
- Nothing is excellent
- Hard to be perfect
- I rated nothing as excellent
- There is always room for improvement
- Nothing is excellent
- Hard grader

Do not trust others (Nothing that park personnel can improve)

- The way individuals are in today's world
- The park can only take safety so far. The remaining responsibility rests on the visitor's shoulders.
- You can't be everywhere at once!
- There is no way of knowing what strangers will do - we all have to use common sense safety measures - lock cars, etc.

Facilities unsafe

- Slippery shower floors
- No security/police officers evident. No emergency phones/lights
- Fire extinguishers in cabins
- More lighting near cabin and in parking lot

Trails unsafe

- Bluff view trail needed word of caution for young as one area of trail right next to drop off
- Bluffs should have some kind of rails for safety for small children
- Trails are thin and somewhat eroded at parts

Poor maintenance/care of resources

- The upkeep is very poor around the cabins
- It seems grown up
- Weeds near river

Lack of signage

- Signs in swimming areas warning of flood conditions
- Bluff view trail needed word of caution for young as one area of trail right next to drop off
- No signs warning out of town visitors of undercurrents, etc.

Other

- Boating
- Lots of "little ones" walking/riding bikes on driving path at campground
- Width of road for bicycles/cars
- Not enough camping spots
- Too crowded
- Broken glass all over!
- Anyone could hide in park so they were there later
- Speed limits, no bicycling at night, playgrounds close at dark
- Confusion at gate with vehicles due to permit filling out.
- Traffic - driving too fast, need bicycle trails, walking trails along side of main road.
- Securing possessions was not a problem
- Lot of people in parking lot

Appendix I. List of Responses for Question 19

Responses to Question #19

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

General positive comments

- We had a great time
- This is a very nice and quiet, peaceful park. We look forward to visiting again real soon.
- Beautiful park.
- It's a great place Im come back soon.
- We enjoy being here at the park. My kids love it.
- Clean & well manicured & friendly & professional staff.
- Beautiful park (Meramec State Park)
- This place is great in fact, one day I may get married here! If I can find a good guy!
- We really like to come here. Everything was great. Thanks to all that makes it that way.
- I enjoy the park & the availability to use it as a non-camper. I would like to come & camp again
- This is a beautiful park. Thanks.
- Enjoyed the park very much.
- Thank you for a great time and a nice staff.
- Keep up the great job!
- Very nice park.
- It is impressive to see a clean & nice park.
- We really enjoyed are visit with the State Park
- Keep up the good work! Send me more info on the state parks
- Kevin and Matt were very knowlegable and helpful and nice. The naturalist programs were a real bonus for our weekend. Keep up the good work!
- I love this park! River access for our floats with our own rafts makes this the perfect weekend get-away spot.
- This park has everything! I love it!!
- I found it to be an enjoyable trip.
- We had a great time.
- I grew up here more or less. Our family rented cabins here every year for over 20 years. I come still, every chance I get. It's like home here for me.
- State parks are very useful & easy to enjoy
- We have been coming to Meramec StPk for almost 12 years for a family reunion. We have always felt very accomodated.
- Everything else was great. Thanx
- Great parks (we stayed at Trail of Tears 7/22)
- Fisher Cave tour guide very good and tolerant of children. We liked this tour better then Meramec Cave! Good job.
- The tour guide at Fisher Cave was great. We liked this tour much better than Meramec Caverns because it was so much more natural
- We come here often (camping). Like the family atmosphere. Staff always helpful and has a smile for us.
- I feel the park is a great asset to the county

- I always find the Missouri State Park System to be quite superior.
- Everyone in this park has been exceptionally nice to me
- I appreciate the reserved campsite option - and the noise restriction after 10:00 pm. Well patrolled park - Thanks!
- We camped here last week and were very impressed. The park was very well patrolled and the noise level was very low considering so many people. Liked Fisher Cave much more than the Caverns. Our guide was very informative.
- I really enjoy coming to the park it is so beautiful down here.
- One of the nicest laid out and kept state parks we have ever stayed in.
- We had a great time!
- Your welcome center is very excellent. Thank You
- Overall I felt the park to be very nice, we have stayed at a lot of campgrounds and found this one to be one of the nicest.
- Beautiful park! Helpful people!
- Great job!
- Overall lovely atmosphere and most were professional. Thanks
- Found state park quite by accident. Find all aspects very satisfactory, we will keep returning to one of the cabins every summer. Good isolation. Cabins very clean. Thank you.
- Always enjoy seeing the deer roaming in the evening. Visitors Center is one of the very best.
- Good park to be in
- We thought it was great. We will be back
- I enjoy this park and have been coming every year since my younger years
- Keep up the great work!
- Very beautiful setting well cared for thank you
- My family and I camp alot and have enjoyed are stays here. It is one of the nicest kept parks around this area.
- This is one of the best campgrounds I've been to.
- I'm very satisfied with your park.
- I really like the nature programs
- Very enjoyable day trip
- We feel that this park is very well supervised and maintained.
- This is the third time we've been here; first at the private campground, second in the cabins, third in your campground. Beautiful park!
- We are traveling and haven't been able to take time to get involved in park offerings - it looks great. The campground was very quiet last night.
- The staff here was excellent, and we will come back.
- We have been coming to Meramec Park for 30 years. We have always felt comfortable and safe.
- I enjoy coming here because it is always clean and all your friends and kids are all safe here
- Beautiful Park and great facilities and staff
- The canoe trip we went on was very fun. I would say that is the best part of this trip.
- We had a family reunion in April 1997 Great time
- Family reunion in April 97 Wonderful time and the area we had was great

- I would like to come back and visit the park again
- Excellent staff. Thank You!
- It's the best park I have been to.
- It's a great park Thanks!
- Keep up the good work guys! Thanks!!

Need more campsites, trails, facilities, picnic areas, or activities

- Wild cave tours of other than Fishers Cave.
- Need basketball court with tennis net on the other side. Bring more tourist & familys. Maybe a little arcade room etc. I've been to resorts, campgrounds, they've seen more people for their activities.
- Put in more full hookups
- Nothing to do for teenagers, but playgrounds.
- Offer more frequent cave tours
- Add bike trails and/or bike access on roads (marked for bikes)
- Anything to do for bikes would be appreciated.
- A pool, maybe
- Wish there were more full hook-up sites.
- Need more playgrounds
- Need more electric sites
- Have more electrical campsites available.
- More activities such as volleyball and basketball.
- More camp sites with electrical hook-ups and an additional camping area
- Golf would be a great addition
- You do need more elec. and water hook-ups.
- Need more electric sites
- Picnic area is sometimes crowded on weekends.
- Picnic area is crowded on weekends.
- More pay phones
- Please make more full hook-up sites or at least reserve the ones you have available.
- More full hook-up sites
- Needs more campsite site.
- Needs more campsites Turn group back into campsites. Time we get off work and get here, they are full.
- More laundry facilities!
- Need more showers.
- More electrical campsites.

Need better/more river access, fishing areas, or swimming areas

- Need better fishing areas.
- There wasn't any good flat fishing areas to take the kids.
- I'd like to have better swimming access areas marked.
- Need more river access for swimming.
- More river access areas
- Ramp is too steep and in too swift a current area. Put in and eddie area would be great.
- We would like easier access off the banks to the river (for kids)

- Could use more swimming areas.
- Need a rail or steps for access down to river. It was muddy & steep. Several people fell down it.
- More beach type accesses to river
- We would really like to see more access for fishing. The real reason we haven't stayed here again is because of the lack of river access for fishing.
- Design more swimming areas that are suitable for family use. I was disappointed that a park named for a prominent river does not have more access to families who want to swim.
- Easier access to the river for the handicapped.

Need newer facilities or better maintenance/care of facilities and park grounds

- The park needs better Bar-B-Q grills on 1-20 full hook-ups
- I'd like to see new picnic tables in campground
- Grass need cutting in some areas.
- Water fountain need to be better Water was hot and too much chlorine
- Grass need to be better taken care of in picnic area.
- The area seems over taken with weeds The trails to river are grown over.
- Improvement on the trails
- As a family we enjoy the state parks for camping. At Meramec we have noticed over the past two years not only do we pay for the campsite, but we have to clean it first.
- As you come out of the picnic area - under the bridge the visibility is blocked by brush and weeds. This needs to be cleared for better visibility
- Little less weeds near river access at picnic areas. Otherwise fine Thank you
- Would like tile on the shower floor
- Your maintenance crew was out mowing the grass by my site by 7 am. I felt that was too early.
- You need to clear the weeds off the paths better and make better trails to the river

Problems with concessionaire services (cabins, Dining Lodge, canoe trips)

- We arrived early for our cabins and all but one of six were ready. When we got in cabin #12 & #13 the air cond. was broke. We were told it would be fixed but finally at 5:30 we were assigned for a different cabin. It was disgusting! The floors were filthy with cigarette butts in the floor. Mice droppings were in the kitchen. The lady at the cabin rentals was very rude. We have had our family reunions here for 7 years & we may never come back.
- Would not look at non-working A.C. yesterday. Restaurant waitress not very good.
- 10 mile canoeing trip wasn't long enough
- I think that if you had a two-day canoe rental with the second a little cheaper than the first, without camping on the river, it would be nice. Most places charge between \$35 to \$45 to canoe for 2 days. Usually a 10-12 mile trip on Saturday then 6-8 on Sunday. We would have canoed two days if you had this service.
- I believe that you should offer a 2 day float trip as does every place I've ever canoed. The bus usually drops off the people 10-12 miles from their campsite & you float back to your campsite. The following day you canoe from your campsite to another location 8-10 miles downstream. I was very disappointed that you didn't offer this service.

- The tube trips seem a little expensive.
- Have canoe users use litter bags. less bad language.
- We stayed in a cabin 2 years ago and felt that it really needed new mattresses and more supplies in the kitchen.
- Need door mats inside door in case it's raining (Need also a radio) for weather and storm alerts
- Cabin needs rug or doormat inside on tile floor - especially when it's raining and your feet are wet. All vents in ceiling are quite dusty.
- Restaurant open for breakfast and all day long. 24 hrs. would be nice.
- Have buses run more often. I had to wait over an hour for a bus to pick me up, 10 miles away from my vehicle.
- The Restaurant left us waiting and waited on 4 or 5 other tables while we were the 2nd group in to eat!

Restrooms not clean and other problems with restrooms

- Restrooms need to be a little bit cleaner.
- Clean bathrooms
- My only problem was that the restrooms ran out of toilet paper each day & there are no soap dispensers.
- My son felt very uncomfortable in the bathroom due to smell. Other than that your doing a great job.
- Cleaning bathrooms in early morning (7:00-9:00 am) is very inappropriate. This is the time when most people are showering/using facilities. Early afternoon when people are floating or very early in morning would be more suitable for most people.
- Clean bathrooms more often
- Cleaner restrooms. (I visited during extremely busy time and restrooms looked liked they were regularly cleaned just extreme usage.)
- The showers and bathroom sinks and shower curtains are dirty and moldy, and a good scrubbing and spray with pure Clorox will whiten, remove mold, and leave a clean smell. Please do something soon about the showers! Thank You
- We have noticed a decline in cleanliness in the bath houses over the last 2-3 years.

Better signage needed

- Last Saturday night (6/21) when the park started flooding, we left the campground on our own as no one came around to tell us the park was flooding. When we left about midnight, there was a lot of water over the road, with no warning signs that the water was there.
- Need deer crossing sign half way down hill between lodge and campground
- Better signage
- Need better directions on hiking trails.
- We came into the park at 5:20 pm and the visitor center was closed. We panicked a little because we had never been here before and there were no signs to tell us where to go for cabin rental. Could you put a sign by the entrance to show us where to go for cabins and camping?

-For camping first-timers, you might need to place a sign or notice on visitor center that directs people to cabin rental - we arrived at 5:30 pm and were frightened we couldn't get our cabin that first night.

-Signage could be more helpful.

Need better enforcement

-Need to enforce quiet times

-There needs to be some type of enforcement of the speed limit especially through the campground. I myself have witnessed several people on this visit exceeding the speed limit quite a bit and drinking while operating a motor vehicle. Being a parent of 3 this bothers me. Have also noticed people going the wrong way on one way roads. This includes campground hosts even when tickets are collected.

-People in our campsite were very noisy at 3:00 am. Is there some sort of monitoring system?

-Noise in park during quiet hours.

-Some people were talking and yelling until 3:00 in the morning and not being considerate of others. I know that's not the park's problem as much as the individuals but perhaps some night patrolling and expelling trouble makers could improve the problem. We did enjoy ourselves in spite of the problem.

Park personnel not helpful/friendly, or not providing safety

-Last Saturday night (6/21) when the park started flooding, we left the campground on our own as no one came around to tell us the park was flooding. When we left about midnight, there was a lot of water over the road, with no warning signs that the water was there.

-We also would appreciate Camp Host without bad attitudes and hateful communication.

-Have more knowledge about what campsites are open or occupied.

-I felt most people were quite helpful and friendly. However, it seemed to me that the attendants in the entry booth didn't know some camp areas were available. We had to cruise around to find an electric hook up.

-Bear Cave did not seem to be located where the visitor center staff told it was.

Problems with reservation system

-The only problem we have ever had is in reserving a group camp site. Luckily this visit there was a cancellation and we were able to get a group site! Thank you!

-We feel that the campground reservation system could be improved. Two week lead time is excessive!

-I don't like the 2 week dead line on reserving a campsite

Other

-We have been here several times. Things this time have not been well at all. We probably won't be back.

-We had problems but we have survived

-Campsites 20 feet to close together at the end we were camping on. #126

-I feel that people should feel free to come here without worrying about what they can and can't do. I understand that there are certain rules that must be followed in order to

have a clean and safe time here. but gates on the caves and not getting off the paths are ridiculous to me.

-Hot water in 1st shower stall

-Would like to have more time to visit next time; have an appt. so in a rush

-Peace

-Arrived to late for cave tour. We'll have to come back Thanks

-Say high to ranger Tom for me.

-It was a nice evening and tomorrow will be even better. There aren't really any major things that need improving.

-We have a large family and feel eight people should be acceptable for one campsite and 2 medium tents and 1 small tent should be also acceptable per campsite. We also feel no motor campers or generators should be allowed on Basic Campsites. We would also like to see the rental of tubes for floats (instead of purchase) return.

-Thank you!

-Possibly installing phones in motel

-Too many motor craft on river!!

-Separate areas for motor boats & jet skis from rafters & canoers or posted speeds.

-We will have to take advantage of your trail systems when it gets cooler. They are highly recommended

-When the power went out, it wasn't as fun but the river was really fun.

-You need to have a 1 week bow hunting season to keep the deer population down so they will stay out of the roads. No rifles because there is too many crazy people out there

-Interuption of guests while driving through the state park.

-Beautiful country

-Some members didn't like the water pressure but I had no problem Water gets colds when toilets flush Muskegan State Park offers tram rides to town and back Some family members arrived late and couldn't get in. So had to return to town and call down.

-We will more than likely be back. Thanx.

-More instructions about ticks!

-We will be returning to Missouri State Parks.

-Shut off the rain. (Don't you guys have a faucet for that or something.)

-No boaters (or motorized) will canoeing or rafting!! Very unsafe

-No boaters (motorized) on river

-Why do you care what my annual household income is?

-I think the park during the summer hours should open at 6:00 am for morning walkers. Thanks!

-I would like for the lake to have been build in the 1980

-No rooms available!

-Make more parks

-Just a better system of checking in and out. Also couldn't pay for more than one nite caused more gate congestion. One person trying to handle all that traffic was bad for us but especially for the gate keepers. They were swamped

-A computer system for check in or a better control of knowing what sites are available. Payment of multiple nights rather than one night at a time.

**Appendix J. List of Comments From Pilot Study and Other Comments
Not Included in Analysis**

Responses to Question # 8 from Pilot Study (June 6 & June 8, 1997)

If you rated this park as good, fair, or poor on being safe (*Question 7, letter a.*), what influenced your rating?

Lack of park personnel/rangers patrolling, lack of enforcement, and/or people breaking rules

- The way the ranger handle problems
- Park personnel don't come by very often
- To easy for kids to be run over or hit on roads. Cars too fast.
- In my opinion the park isn't patrolled enough.
- No patrols noticed
- Loud & rude campers (mostly male) after 10 pm

River unsafe

- The river
- River unsafe in places

No reason/not here long enough to know how safe

- Not enough time to see why it is excellent

Facilities unsafe

- Fire pits dangerous at night

Other

- All expectations of park facilities for safety are met but it is the out of doors.
- Something can always go wrong
- Cause the surrounding
- Fencing, lighting, signs (clear)
- Security wise excellent Risk of injury with small children is always of importance to me.
- The surroundings
- Everyone was friendly & gave you the impression you were safe
- Cleanliness
- My kids use playground occasionally

Question #19 comments from Pilot Study (June 6 & 8, 1997) and from other surveys not included in analysis (respondents under 18 and non-random participants)

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

General positive comments

- Thank you for the good time we did have.
- A great place to visit
- Proud to have this park at Sullivan.
- This is our favorite place to camp. We always have a good time here. We consider this park our "Home away from home." Thank you
- A well trained staff enabled to realize an excellent hike and tour of the park & facilities
Thank you!
- Lovely park. Thoroughly enjoy it!
- I am glad that I leave here with such a good place to go anytime I like.
- Enjoyed this park very much & I can't think of anything to make it any better except for maybe adding a few more secluded campsites. But we had a great time!
- Can't think of no bad points. The park is very enjoyable & I like it a whole lot. Plan to be back a lot! Just wish there were more secluded camp sights!
- I love it here, it's where I got engaged to be married to the greatest man alive!
- I'm glad to have access to the natural sites, caverns, river etc.
- We will definitely come back!
- Nice job
- Great place. We come here at least once a year. Some years more.
- I have been to several state parks here in MO and other states. I think your visitor center exhibits are some of the finest I've seen, and activities in the park are very enjoyable for both children and adults.
- Meramec State Park is an overall great family environment
- Whatever is being done to control the mosquito population is great! I have not got one bite so far, and I can sit outside and enjoy myself. Good work, keep it up.

Need more campsites, trails, facilities, picnic areas, or activities

- Have a few more full-hook-ups available
- Need to add more toddler activities in the playground area.
- Need more picnic areas through the park. Also a restroom over by the playground.
- More bathrooms.
- You need some more recreational areas for people who play frisbee or other large area activities
- More showers

Need better/more river access, fishing areas, or swimming areas

- That there were more paths to good fishing spots.

Need newer facilities or better maintenance/care of facilities and park grounds

- Clean out fire pits
- The cabins need to be upgraded.
- Our fire pit was very full of ashes & needed to be cleaned out.
- The park is beautiful but sometimes the grass gets a little tall by the river where the picnic areas are and also the steps to the river
- Overhead limbs drag on top of camper, bent one of my vents.
- Electric box is too far from camping pad. Trees hang over road so that they drag on top and sides of camper.

Problems with concessionaire services (cabins, Dining Lodge, canoe trips)

- I was disappointed with the availability of firewood for campers (Wood lot locked?)
- Cabins need cleaner carpets
- That the restaurant was better and that the wood shed at the store stayed open all night long.

Restrooms not clean and other problems with restrooms

- Restrooms need to be larger to accommodate more people.
- Clean restrooms daily (small outhouses also) clean them at times other than peak usage times
- Toilet paper is too thin.
- Cleaning the rest rooms on Sun. morning is a bad idea (people need to use them the most in the morning).
- Only problem: I think they should clean restroom/shower area around noon when most have already showered.
- I prefer toilet paper to roll off of the dispenser

Better signage needed

- Need a sign telling you where the exit to the park is. I saw several people pass it and have to turn around.
- Need warning under bridge for boaters to slow down due to swimmers
- Campground roads are very narrow, crooked and poorly marked.

Need better enforcement

- Enforce quiet hours a little more, not too strict, but quiet at least by 12:00
- We had a poor experience on Saturday night with very loud & obnoxious neighbors across field in the basic campground. Need more info. or signs as to how to handle these types of people. I didn't know what to do until I was confronted with the situation from 1 am until 3:45 am. Maybe a phone located several places in the campground to notify the host or superintendent. I couldn't leave my campsite at that hour being the only adult.
- Patrol more often.
- Quiet time 200 loop to noisy.

Park personnel not helpful/friendly, or not providing safety

- Supply people with jumper cables & permission to use them so people don't have to walk to Walmart 3 to 5 miles to town Luckily I got a ride
- I felt that the staff was to be helpful but when asked for help when needing a jump start we were told they can not help. and we should call a tow truck out of Sullivan, I believe the was a real bumner to end a great vacation.

Other

- Possibly have more seclusion in the campsites.
- I think quite hour is to the extreem. I understand being considerate to your neighbor but, you go to far at night sitting by the fire
- I think late hour should be moved to 11:00 p.m.
- I think it was inconsiderate that the people conducting this survey did not have the courtesy to tell the employees of this park why they were here.
- We encountered a lot of dog feces. Perhaps more emphasis on picking up by campers could be used.
- More spacious camp sites.
- The only thing that would be better is if the main park area (boat ramp, picnic area) was open 24 hours. I sometimes want to come down at night and its closed.
- More info on fishing where to go for what
- People should not try to reserve areas unless payed for
- I would like it if you let us hunt in here 1 time a year.
- Roads through electric area narrow and crooked. Preference given to non electric area. Campsites are larger and driveways are longer and wider, Also non electric area has several pull-thru sites
- We have visited many of Mo. State Parks. Most are very nice. Sorry I can't include this park in this statement.

**Appendix K. Protocol for Questionnaire Changes for Other Missouri
State Parks**

Protocol for Questionnaire Changes for Other Missouri State Parks

(A copy of the Meramec State Park questionnaire is located in Appendix B)

1. Questions 1-5 can be used in any park that is not a day use only park, with only the choices changed in questions 3 and 5 to apply to each park. Questions 2 and 3 should be reworded or deleted if the park is day use only.
2. Questions 6-12 can be used in all parks. However, the choices on question 6 should be addressed for use in other parks.
3. On questions 13-19, only question 15 should be altered by adding the word “white” after the choice “Caucasian,” and the words “American Indian” should be added after the choice “Native American,” as discussed in Chapter 5--“Questionnaire Changes.”
4. Finally, the words “Meramec State Park” should be deleted wherever present, and the appropriate park name should be inserted.