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2000 Castlewood State Park Visitor Survey

Project Completion Report

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**Missouri Department of Natural Resources
Division of State Parks**

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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 Castlewood State Park (CSP).

An on-site exit survey of adult visitors to CSP was conducted July, August, September, and October 2000. Four hundred two (402) surveys were collected, with an overall response rate of 56%. Results of the survey have a margin of error of plus or minus 5%. The following information summarizes the results of the study.

Socio-demographic Characteristics

- CSP visitors were comprised of more males (64%) than females (36%), and the average age of the adult visitor to CSP was 37.
- The largest percentage (31%) of visitors indicated a service-based occupation.
- The largest percentage (32%) of visitors reported an annual household income of over \$75,000, and most (36%) were single with no children.
- Over half (54%) of CSP visitors indicated having completed a four-year college degree or an advanced graduate degree.
- The majority (94%) of visitors were White, 2% were Hispanic, less than 2% were African American (1.6%)

and Native American (1.3%), and less than 1% were Asian (0.5%).

- The majority (97%) of CSP visitors were from Missouri, most (84%) of whom lived within 25 miles of the park.

Use-Patterns

- Most (98%) visitors drove less than a day's drive (a day's drive is defined as less than 150 miles one way) to visit CSP. Of those driving 150 miles or less, half (51%) drove ten miles or less to visit CSP.
- Eighty-five percent (85%) of CSP visitors had visited the park before, with an average of 47 visits in the past year.
- The majority (67%) of CSP visitors visited the park with family and/or friends, but over one-fourth (27%) visited the park alone. Average group size was 3.1 people.
- Twenty-one percent (21%) of visitors reported bringing a pet with them during their visit.
- The most frequent recreation activities in which visitors participated were bicycling, hiking, walking, viewing wildlife, picnicking, running or jogging, and studying nature.

Satisfaction and Other Measures

- Ninety-nine percent (99%) of CSP visitors were either satisfied or very satisfied overall.
- Of the four park features, the trails were given the highest satisfaction rating and the boat launches were given the lowest satisfaction rating.
- Visitors gave higher performance ratings to the following park attributes: being free of litter and trash, care of the natural resources, being safe, and upkeep of the facilities.
- Visitors gave lower performance ratings to the park having clean restrooms.
- About 56% of visitors to CSP felt some degree of crowding during their visit. Of those who felt crowded, most felt crowded during the bike event or while on the trails.
- Visitors who did not feel crowded had a significantly higher overall satisfaction rating compared to visitors who did feel crowded.
- Over half (54%) of the visitors at CSP did not give park safety an excellent rating.
- Of those visitors responding to the open-ended opportunity to express their safety concerns (80% of those visitors not giving the park an excellent safety rating), 30% commented on dangerous trail conditions.
- Although 26% of all visitors felt that nothing specific could increase their feeling of safety at CSP, 22% of all visitors did indicate that an increased visibility of park staff at CSP would most increase their feeling of safety.
- Visitors who felt the park was safe were more satisfied overall, felt less crowded, gave higher satisfaction ratings to the four park features, and gave higher performance ratings to the eight park attributes as well.
- Over half (54%) of CSP visitors did not encounter a domestic animal during their visit and, of those who did, the majority (71%) described their encounters as positive or neutral experiences.
- The majority of visitors reported that word of mouth from friends and relatives is their primary source of information about CSP and other Missouri state parks.
- The majority of visitors placed a value of \$3.00 per day on a recreational opportunity offered in a visit to CSP. The researchers believe that our initial attempt at attributing an economic value perspective did not prove beneficial. A number of visitors were confused as to the interpretation of the question, preventing confidence in the reliability of the question.
- Forty-two percent (42%) of visitors provided additional comments and suggestions, 24% of which were comments regarding the previously mentioned value question. Twenty percent (20%) were positive comments about the park and staff.

Acknowledgements

Conducting and successfully completing a study of this magnitude and complexity could not have been accomplished without the cooperation of many individuals. Over 400 visitors to Castlewood State Park voluntarily agreed to provide the information upon which this report is based. It is clear from their input that these visitors care very much for the recreation resources in the Missouri State Park System. Their efforts will provide invaluable input into the planning process and providing for more effective and responsive management of these resources.

Many other individuals provided assistance during the 2000 Missouri State Parks Visitor Survey, without whom the study would not have been a success. The following expressions of gratitude are in acknowledgement of their contributions. Special acknowledgement goes to the staff at Castlewood State Park for their willingness to accommodate the survey crew during the study period. Many thanks also go to the park staff, research assistants and volunteers who assisted in data collection and the students at the University of Missouri who assisted in computer data entry of the questionnaires. They are: Beatriz Burgos, Dennis Stevenson, Debra Stevenson, Betty Grossi, and Licheng Lin.

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Introduction

NEED FOR RECREATION RESEARCH

With an estimated annual visitation of 18 million recreationists to Missouri's state parks and historic sites, research addressing such issues as recreation demand, visitor satisfaction, and resource degradation becomes an urgent necessity for natural resource recreation managers seeking to provide quality recreational experiences to their customers while at the same time protecting the natural environment. The task of providing quality visitor experiences and meeting recreation demand while maintaining an ecological equilibrium becomes even more difficult when combined with the complexities associated with measuring quality in outdoor experiences.

Quality in outdoor recreation has often been measured in terms of visitor satisfaction (Manning, 1999), making visitor satisfaction a primary goal of natural resource recreation managers (Peine, Jones, English, & Wallace, 1999). Visitor satisfaction, however, can be difficult to define because satisfaction is a multidimensional concept affected by a number of potential variables, some under the control of management but many not (Manning, 1999). Visitor satisfaction is also subject to the varying socio-demographic characteristics of the visitor, their cultural preferences and levels of experience, as well as their widely ranging attitudes and motivations (Manning, 1999). This study attempts to overcome the difficulty in defining visitor satisfaction by gathering additional information about visitor satisfaction through questions regarding:

a) visitors' socio-demographic characteristics; b) visitors' satisfaction with programs, services and facilities; c) visitors' perceptions of safety; and d) visitors' perceptions of crowding.

STUDY PURPOSE

In 1973, a research paper entitled "Recreation Research – So What?" criticized recreation research for not addressing "real problems" and for not being applicable to practical situations (Brown, Dyer, & Whaley, 1973). Twenty years later, this criticism was echoed by Glen Alexander, chief of the Ohio Department of Natural Resources, when he wrote, "Customer surveys are a dime a dozen in the private sector and are beginning to get that way in the public sector (Alexander, 1993, p. 168)." Alexander's complaint was that survey data was being filed away and not being utilized, particularly by the front line management and operating people who could most benefit from such information.

A primary goal of this report is to provide practical and applicable customer data to those front line managers who most need this information during their daily operations. This report examines the results of the visitor survey conducted at Castlewood State Park (CSP), one of the seven parks and historic sites included in the 2000 Missouri State Parks Visitor Survey. Objectives specific to this report include:

1. Describing the use patterns of visitors to CSP during July, August, September, and October 2000.

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

STUDY AREA

Located in St. Louis County, Castlewood State Park is a day-use park

providing almost 1,800 acres of beautiful greenspace in a growing suburb of metropolitan St. Louis. Offering picnic areas, several trails, and access to the Meramec River, Castlewood is extremely popular with bicyclists, hikers, and equestrian users alike.

SCOPE OF STUDY

The population of the visitor study at CSP consisted of CSP visitors who were 18 years of age or older (adults), and who visited CSP during the study period of July through October 2000.

Methodology

SAMPLING PROCEDURES

A 95% confidence interval was chosen with a plus or minus 5% margin of error. Based upon 1999 visitation data for July, August, September, and October at CSP, it was estimated that approximately 142,000 visitors would visit CSP during the period between July 1 and October 31, 2000 (DNR, 2000). Therefore, with a 95% confidence interval and a plus or minus 5% margin of error, a sample size of 400 visitors was required (Folz, 1996). A random sample of adult visitors (18 years of age and older) who visited CSP during the study period were the respondents for this study.

To ensure that visitors leaving CSP during various times of the day would have equal opportunity for being surveyed, four time slots were chosen for surveying. The four time slots were as follows: Time Slot 1 = 7:00 - 10:15 a.m., Time Slot 2 = 10:15 a.m. - 1:30 p.m., Time Slot 3 = 1:30 - 4:45 p.m., and Time Slot 4 = 4:45 - 8:00 p.m. A time slot was randomly chosen and assigned to the first of the scheduled survey dates. Thereafter, time slots were assigned in ranking order based upon the first time slot. Two time slots were surveyed during each survey day.

QUESTIONNAIRE

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

SELECTION OF SUBJECTS

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

DATA COLLECTION

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

To increase participation rates, respondents were given the opportunity to enter their name and address into a drawing for a prize package and were assured that their responses to the survey questions were anonymous and would not be attached to their prize entry form. Willing participants were then given a pencil and a clipboard with the questionnaire and prize entry form attached. Once respondents were finished, the surveyor collected the completed forms, clipboards, and pencils. Survey protocol is given in Appendix B and a copy of the prize entry form is provided in Appendix C.

An observation survey was also conducted to obtain additional information about: date, day, time slot,

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

DATA ANALYSIS

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

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

Comparisons using independent sample t-tests for each group were also made to determine any statistically significant differences ($p < .05$) in the following selected groups' satisfaction with park features (question 5), ratings of park attributes (question 8), overall satisfaction (question 13), and perceptions of crowding (question 11). The selected groups include:

1. First time visitors versus repeat visitors (question 1).

2. Weekend visitors versus weekday visitors. Weekend visitors were surveyed on Saturday and Sunday, weekday visitors were surveyed Monday through Friday.

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

1. First time versus repeat visitors.
2. Weekend versus weekday visitors.

Differences between visitors who rated the park as excellent on being safe versus those who did not were also compared on the following questions: differences in socio-demographic characteristics, perceptions of crowding, measures of satisfaction with park features, measures of performance of park attributes, and overall satisfaction.

Additional comparisons include:

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

Results

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

SURVEYS COLLECTED & RESPONSE RATES

A total of 402 surveys were collected at CSP during the time period of July, August, September, and October 2000, with 195 collected in July (48.5%), 90 collected in August (22.4%), 49 collected in September (12.2%), and 68 collected in October (16.9%). Tables 1, 2, and 3 show surveys collected by day of week, by time slot, and by date respectively. Of the 402 surveys collected, 273 (67.9%) were collected on weekends (Sunday) and 129 (32.1%)

were collected on weekdays (Tuesday and Friday). The overall response rate was 56%, with daily response rates ranging from a low of 40.9% to a high of 79.5%.

SAMPLING ERROR

With a sample size of 402 and a confidence interval of 95%, the margin of error is plus or minus 5%. For this study, there is a 95% certainty that the true results of the study fall within plus or minus 5% of the findings. For example, from the results that 36.2% of the visitors to CSP during the study period were female, it can be stated that between 31.2% and 41.2% of the CSP visitors were female.

Table 1. Surveys Collected by Day of Week

Day of Week	Frequency	Percent
Sunday	273	67.9%
Tuesday	73	18.2%
Friday	56	13.9%
Total	402	100%

Table 2. Surveys Collected by Time Slot

Time Slot	Frequency	Percent
1. 7 - 10:15 a.m.	28	7.0%
2. 10:15 a.m. - 1:30 p.m.	153	38.1%
2. 1:30 - 4:45 p.m.	125	31.1%
3. 4:45 - 8 p.m.	96	23.9%
Total	402	100.0%

Table 3. Surveys Collected by Date

Date	Frequency	Percent
Sunday, July 23	128*	31.8%
Tuesday, July 25	67	16.7%
Friday, August 18	39	9.7%
Sunday, August 20	51	12.7%
Friday, September 22	17	4.2%
Sunday, September 24	32	8.0%
Sunday, October 15	62	15.4%
Tuesday, October 17	6	1.5%
Total	402	100.0%

*A bike race was being held in the park during this survey date.

SOCIO-DEMOGRAPHIC CHARACTERISTICS

Age

The average age of adult visitors to CSP was 36.5. When grouped into four age categories, 52.5 % of the adult visitors were between the ages of 18-34, 37.7% were between the ages of 35-54, 5.6% were between the ages of 55-64, and 4.2% were 65 or over.

Gender

Visitors to CSP were more male than female. Male visitors comprised 63.8% of all visitors, and female visitors comprised 36.2% of all visitors.

Education

The majority (53.6%) of visitors to CSP indicated they had completed a four-year college degree or an advanced graduate degree. About one-third (31.8%) of visitors indicated having vocational school or some college, while less than 20% (14.5%) indicated completing high school or less.

Occupation

The largest percentage (30.6%) of visitors to CSP indicated a service-based occupation, while another large percentage (17.5%) of visitors to CSP indicated a professional or technical occupation. Fourteen percent (14%) of visitors to CSP indicated they were students, while 13.4% indicated a manufacturing-based occupation. Twelve percent (11.8%) were self-employed, 6.2% were retired, 5.1% were homemakers, and 1.3% indicated an other occupation.

Household Composition

CSP visitors were asked to describe their household composition. The largest percentage (36.2%) of visitors were single with no children. About one-third (31.1%) of visitors indicated being married with children living at home, while 13.6% were married with no children. Less than 10% of visitors were married with children grown (8.8%), and less than 10% were single with children (6.1%). Four percent (4.3%) indicated having other types of household arrangements.

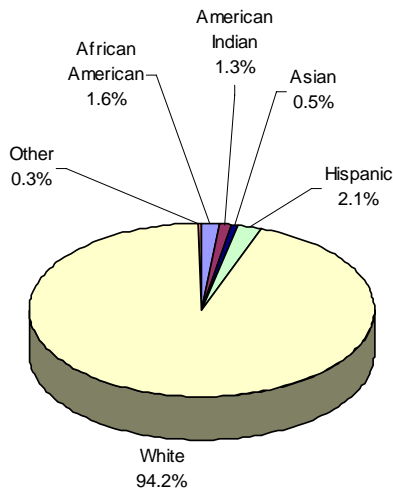
Income

The largest percentage (31.5%) of visitors to CSP reported an annual household income of over \$75,000. The second largest percentage (30.4%) of visitors had an income of between \$25,000 and \$50,000. Twenty-five percent (25.2%) of visitors indicated an annual household income of between \$50,001 and \$75,000, while less than 15% (12.9%) of visitors indicated an income of less than \$25,000.

Ethnic Origin

Figure 1 indicates the ethnic origin of CSP visitors. The vast majority (94.2%) of visitors was White. Two percent (2.1%) of visitors were of Hispanic descent, less than 2% (1.6%) of visitors were African American, less than 1% (0.5%) were Asian, and less than 2% reported being of American Indian descent (1.3%).

Figure 1. Ethnic Origin of CSP visitors.



Residence

The majority (96.5%) of the visitors to CSP were from Missouri with less than 5% (3.5%) of visitors coming from other states, including Illinois (2.4%). One visitor was from Great Britain. Of the Missouri visitors, the majority (96.7%) were from the St. Louis Metropolitan Statistical Area (MSA), while 1.6% were from non-metropolitan areas. Most (84.1%) of the visitors to CSP lived within 25 miles of the park. Figure 2 shows the residence of visitors by zip code.

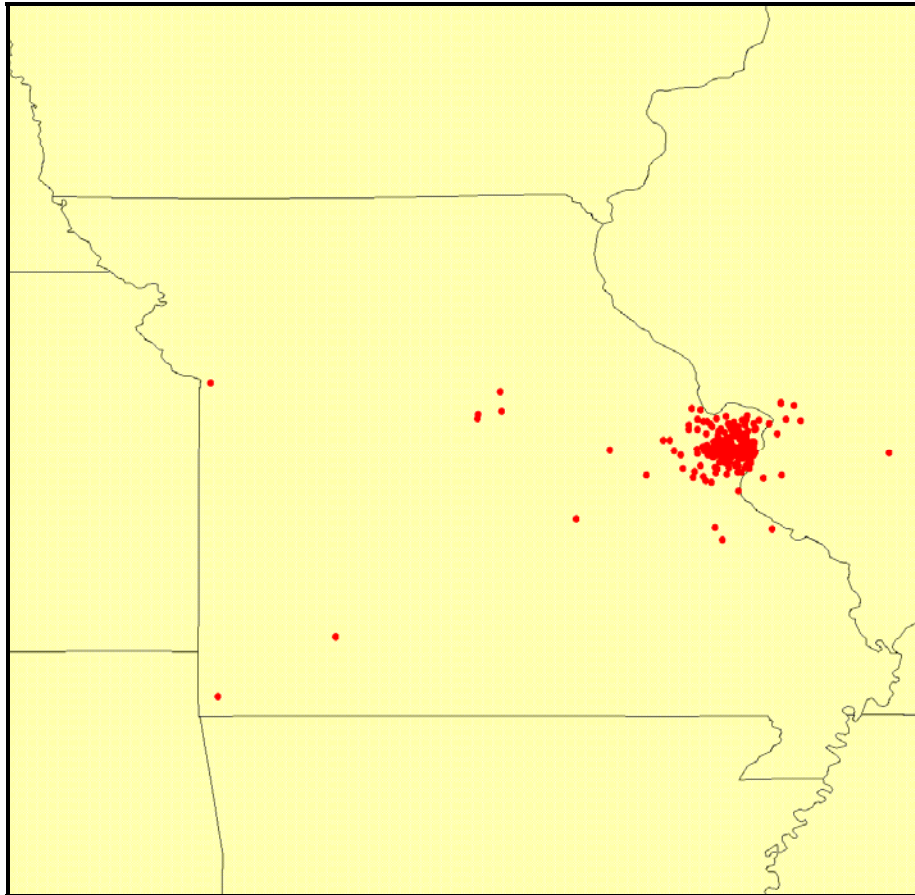
USE PATTERNS

Trip Characteristics

Based on zip code data, the majority (98.1%) of visitors to CSP traveled less than a day’s drive to visit the park (a day’s drive is defined as 150 miles or less, not exceeding 300 miles round trip). Half (50.8%) of CSP visitors traveled 10 miles or less to visit CSP. Most of the visitors traveling 10 miles or less were from Ballwin (61.9%) and Manchester (13.2%). The average number of miles visitors traveled to visit CSP was 24.1 miles while the median number of miles visitors traveled was 10, indicating that half of the visitors traveled more than 10 miles and half traveled less than 10 miles.

Over half (58.3%) of CSP visitors drove cars or vans, 17.5% drove sport utility vehicles or jeeps, and 17.1% drove pickup trucks. Four percent (4.2%) of visitors traveled to the park by bicycle. The average number of axles per vehicle was 2.01.

Figure 2. Residence of CSP Visitors by Zip Code



Visit Characteristics

Eighty-five percent (85.1%) of the visitors to CSP were repeat visitors, with 14.9% of the visitors being first time visitors. The average number of times all visitors reported visiting CSP within the past year was 47.3 times.

Twenty-one percent (21.3%) of visitors reported bringing a pet with them during their visit. The average number of adults per vehicle was 1.5 and the average number of children per vehicle was 1.7, for an average group size of 3.1 people.

Thirty percent (30%) of the visitors to CSP visited the park with family, but 26.9% of visitors indicated visiting the park alone. Twenty-one percent (21.4%) visited with friends, while 16.3% visited with family and friends, and 4.7% visited the park with a club or organized group.

RECREATION ACTIVITY PARTICIPATION

Respondents to the survey were asked what activities they participated in during their visit to CSP. Figure 3 shows the percentage of visitor participation in the seven most participated in activities. Bicycling was the highest reported (45%), hiking was second (43%), and walking was third (35.6%). Viewing wildlife (27.9%), picnicking (19.7%), running or jogging (15.2%), and studying nature (13.9%) were next.

CSP visitors reported engaging in other activities, including attending a special event (6.5%), fishing (5.5%), and canoeing or boating (2.5%). Ten percent (10.2%) of visitors reported engaging in an "other" activity, including driving through the park and wading or swimming.

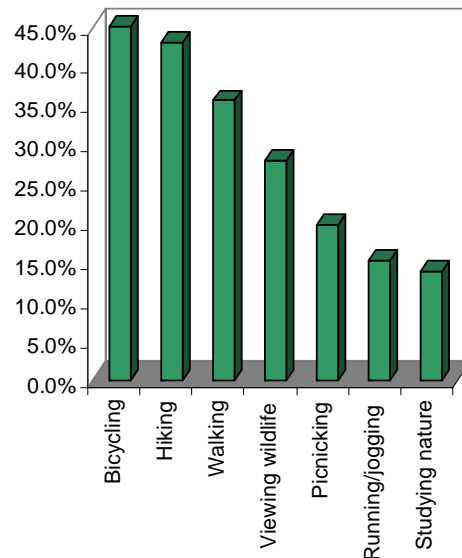
SATISFACTION MEASURES

Overall Satisfaction

When asked about their overall satisfaction with their visit, only 1.3% of visitors were dissatisfied, whereas 98.7% of visitors were either satisfied or very satisfied. Visitors' mean score for overall satisfaction was 3.60, based on a 4.0 scale with 4 being very satisfied and 1 being very dissatisfied.

No significant difference ($p < .05$) was found in overall satisfaction between first time and repeat visitors. Nor was there any significant difference in overall satisfaction between weekend and weekday visitors.

Figure 3. Participation in Recreational Activities at CSP

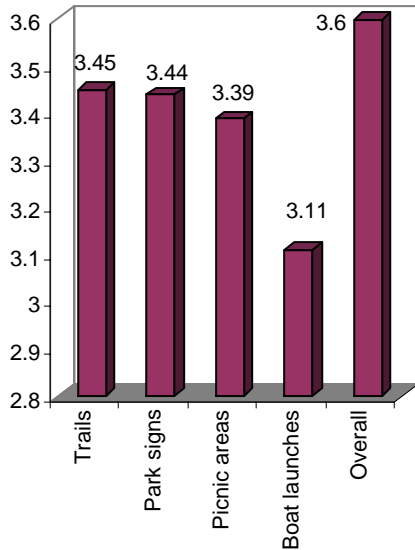


Satisfaction with Park Features

Respondents were also asked to express how satisfied they were with four park features. Figure 4 shows the mean scores for the four features and also for visitors' overall satisfaction. The satisfaction score for the trails (3.45) was the highest, with the other scores ranging from 3.44 (park signs) to the lowest of 3.11 (boat launches). A multiple linear regression analysis ($r^2 = .19$) of the four park features showed that all the variables combined to account for only 19% of the overall satisfaction rating.

No significant differences were found in mean satisfaction ratings of park features between first time and repeat visitors. Nor were there any differences in satisfaction ratings between weekend and weekday visitors.

Figure 4. Satisfaction with CSP Features



PERFORMANCE RATING

Visitors were asked to rate the park’s performance of eight select park attributes: being free of litter and trash, having clean restrooms, upkeep of park facilities, having helpful and friendly staff, access for persons with disabilities, care of natural resources, providing nature displays, and being safe. Performance scores were based on a 4.0 scale, with 4 being excellent and 1 being poor.

There were no differences between weekend and weekday visitors and their performance ratings. First time visitors gave significantly higher ($p < .05$) performance ratings than repeat visitors regarding the park being free of litter and trash (3.50 and 3.24 respectively), having clean restrooms (3.14 and 2.70 respectively), maintaining upkeep of the facilities (3.46 and 3.18 respectively), having helpful and friendly staff (3.59 and 3.35 respectively), caring for the natural resources (3.44 and 3.22 respectively), and providing nature displays (3.43 and 2.86 respectively). A multiple linear regression analysis ($r^2 = .17$) showed that the eight performance attributes combined to account for only 17% of the variation in overall satisfaction.

IMPORTANCE-PERFORMANCE MEASURES

The Importance-Performance (I-P) Analysis approach was used to analyze questions 8 and 14. Mean scores were calculated for the responses of the two questions regarding visitors’ ratings of the performance and importance of the eight select park attributes. Table 4 lists

Table 4. Mean Performance and Importance Scores for Park Attributes

Attribute	Mean Performance Score*	Mean Importance Score*
A. Being free of litter/trash	3.28	3.80
B. Having clean restrooms	2.76	3.47
C. Upkeep of park facilities	3.21	3.58
D. Having helpful & friendly staff	3.38	3.32
E. Access for persons with disabilities	3.17	3.14
F. Care of natural resources	3.25	3.74
G. Providing nature displays	2.92	2.99
H. Being safe	3.32	3.60

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

the scores of these attributes, which were based on a 4.0 scale of 4 being excellent and 1 being poor, and 4 being very important and 1 being very unimportant.

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

The I-P Matrix is divided into four quadrants to provide a guide to aid in possible management decisions. For example, the upper right quadrant is labeled “high importance, high performance” and indicates the attributes in which visitors feel the park is doing a good job. The upper left quadrant indicates that management may need to focus on these attributes, because they are important to visitors but were given a lower performance rating. The lower left and right quadrants are less of a concern for managers, because they

exhibit attributes that are not as important to visitors.

CSP was given high importance and performance ratings for being free of litter and trash, caring for the natural resources, providing upkeep of the facilities, and being safe. The characteristic that visitors felt was important but rated CSP low on performance was having clean restrooms.

CROWDING

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

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

Visitors’ overall mean response to this question was 2.8. Forty-four percent

Figure 5. Importance-Performance Matrix of Park Attributes

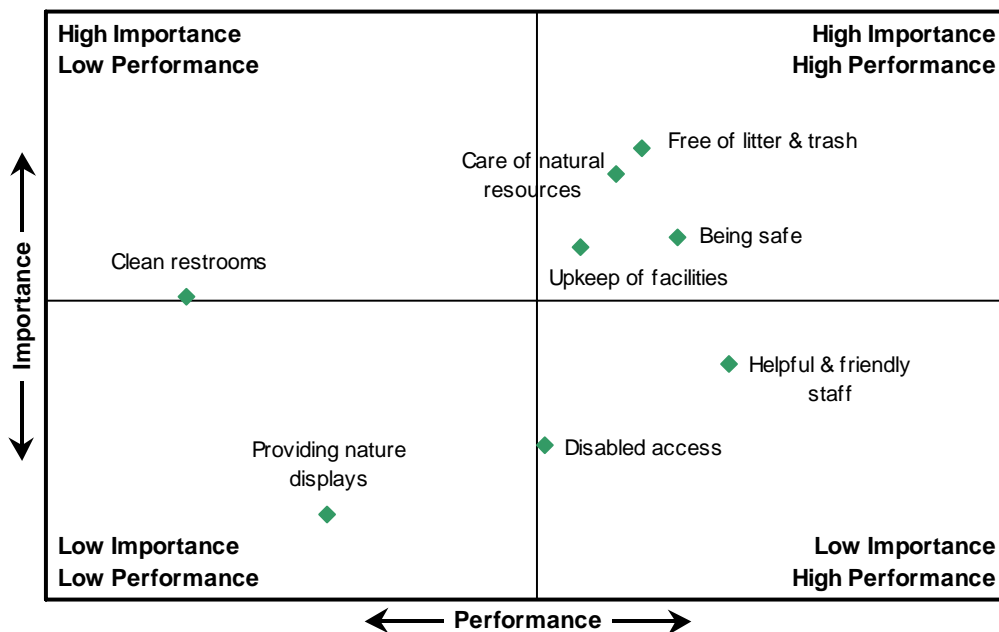


Table 5. Locations Where CSP Visitors Felt Crowded During Their Visit

Location	Frequency	Percent
Crowded because of bike race	35	30.2%
Trails	35	30.2%
Park roads and/or parking lots	26	22.4%
Picnic areas and pavilions	6	5.2%
Everywhere	5	4.3%
Crowded because of weekend	3	2.6%
Boat launch	2	1.7%
Other	4	3.4%
Total	116	100.0%

(44.3%) of the visitors to CSP did not feel at all crowded (selected 1 on the scale) during their visit. The rest (55.7%) felt some degree of crowding (selected 2-9 on the scale) during their visit.

Visitors who indicated they felt crowded during their visit were also asked to specify where they felt crowded (question 12). Almost half (48.9%) of the visitors who indicated some degree of crowding answered this open-ended question. Table 5 lists the locations where visitors felt crowded at CSP. Of those who answered the open-ended question, thirty percent (30.2%) felt crowded during the special bike race, and another 30.2% felt crowded on the trails.

No significant differences were found between first time and repeat visitors and their perceptions of crowding. Weekend visitors had significantly ($p < .001$) higher perceptions of crowding when compared to weekday visitors. Weekend visitors had a mean crowded score of 3.2, while weekday visitors had a mean crowded score of 1.8.

Crowding and satisfaction

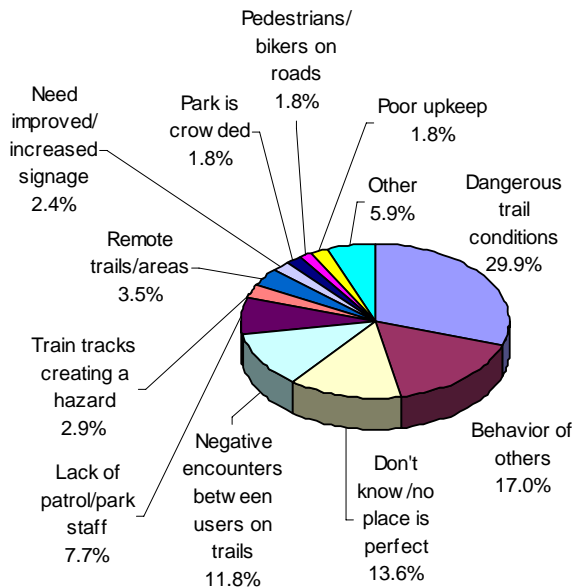
A significant difference ($p < .001$) was found in visitors' mean overall satisfaction with their visit and whether they felt some degree of crowding or not. Visitors who did not feel crowded had a mean overall satisfaction score of 3.71, whereas visitors who felt some degree of crowding had a mean overall satisfaction score of 3.53.

SAFETY CONCERNS OF VISITORS

Over half (54.2%) of the visitors to CSP did not rate the park as excellent for safety. Of those, 79.9% noted what influenced their rating. Their comments were grouped into categories and are shown in Figure 6. Appendix F provides a list of the comments.

Almost one-third (30%) of the open-ended responses were from visitors who commented on dangerous trail conditions. Seventeen percent (17.1%) of the open-ended responses were from visitors who commented on the behavior of others, particularly speeders. About 12% (11.8%) of visitors commented on the negative encounters they had with other users on the trail.

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



Visitors were also given a list of nine attributes and were asked which of the nine would most increase their feeling of safety at CSP. Although instructed to select only one attribute, many visitors selected more than one; consequently, 415 responses were given by 321 visitors. Figure 7 shows the percentage of responses given by visitors. Most (26.3%) felt that nothing specific would increase their feeling of safety, but 22.7% felt that increased visibility of park staff would increase safety.

Of those visitors who indicated that an "other" safety attribute would most increase safety, 44.4% suggested improvement of or better maintenance to the trails and 18.5% suggested reducing user conflicts on the trails. Table 6 shows the frequency and percentage of responses from visitors who felt that an "other" safety attribute would most increase safety.

There were no significant differences in the rating of safety by first time visitors versus repeat visitors or by weekend versus weekday visitors. There were no differences in safety ratings by age, gender, education, occupation, ethnicity, or income. A significant difference ($p < .01$) in safety ratings did occur, however, between visitors with differing household compositions. Visitors who reported being married with children had a significantly lower safety rating than visitors with other household compositions.

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

Group 1 was significantly ($p < .001$) more satisfied overall than Group 2, with an

Figure 7. Percentage of Safety Attributes Chosen by Visitors

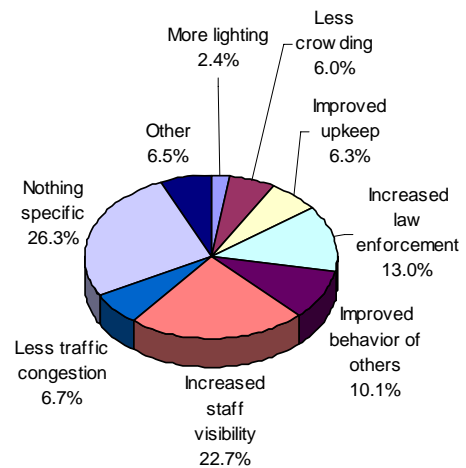


Table 6. Other Safety Attributes Chosen by Visitors

Comments	Frequency	Percent
Improve/better maintain trails	12	44.4%
Reduce user conflicts on trails	5	18.5%
Better enforcement of park rules	3	11.1%
Improved/additional signage	3	11.1%
Better maintenance/upkeep of park facilities	2	7.5%
Other	<u>2</u>	<u>7.5%</u>
Total	27	100.0%

overall satisfaction score of 3.84 whereas Group 2 had an overall satisfaction score of 3.44. Group 1 was also significantly ($p < .001$) less crowded than Group 2, with an overall crowded score of 2.3 compared to 3.2. Group 1 also had significantly ($p < .01$) higher satisfaction ratings for the four park features than Group 2, as well as significantly higher ($p < .001$) performance ratings for all eight of the park attributes.

VISITORS' DOMESTIC ANIMAL EXPERIENCES WITHIN THE PARK

Visitors were asked to report whether they encountered a domestic animal while visiting CSP, and whether the encounter was positive or negative. Over half (53.6%) of visitors reported no encounter with a domestic animal. Forty percent (39.5%) reported experiencing a

positive encounter with a domestic animal, while 6.9% reported a negative experience. Visitors were also asked to describe their encounters. Table 7 lists the frequency and percentages of visitors' encounter descriptions.

VISITORS' SOURCES OF INFORMATION ABOUT MISSOURI STATE PARKS

CSP visitors were also asked to indicate how much information they receive from nine information sources regarding Castlewood or other Missouri state parks. Word of mouth from friends or relatives was the most frequently cited source of information, with 81.3% of the visitors responding to this question reporting they receive some or lots of information through this medium. The second most frequent source of information from which visitors receive information about Castlewood or other

Table 7. Visitors' Descriptions of Their Encounters of Domestic Animals

Category	Frequency	Percent
Positive/neutral comments	98	71.0%
Dogs off leashes	24	17.4%
Other negative encounters with dogs	8	5.8%
Negative comments about horses	6	4.3%
Other general comments about pets	<u>2</u>	<u>1.4%</u>
Total	138	100.0%

Missouri state parks is from brochures, pamphlets or other printed material. Over half (51.6%) of visitors answering this question indicated receiving some or lots of information from this source. Newspapers were the third most frequently cited source of information, with 41.4% of the visitors responding to this question indicating they receive some or lots of information from newspapers.

Visitors were also asked how often they use the Internet when planning a trip or vacation. Only eighteen percent (17.8%) indicated always using the Internet when planning a trip or vacation. Forty-two percent (41.9%) of visitors frequently use the Internet, while 22.4% rarely use it, and 17.8% never use it when planning a trip or vacation.

HOW MUCH VISITORS VALUE CASTLEWOOD STATE PARK

For the first time, the researchers have attempted to investigate the value that visitors attribute to a site visit. Literature has stated that the value a visitor places on a recreational opportunity is often difficult to measure with confidence and accuracy (Bergstrom & Loomis, 1999; Manning, 1999), and this difficulty is evidenced in the following results.

Visitors were asked to place a value on the overall recreation opportunity offered in a visit to CSP (question 17), and were given four choices: \$3.00 a day, \$5.00 a day, \$7.00 a day, or any other value. There was some confusion as to the interpretation of this question with many visitors interpreting the question to mean how much they would be willing to pay a day to visit CSP.

The majority (41.7%) of visitors responding to this question indicated a value of \$3.00 a day, while 29.3% indicated \$5.00 a day, 4.5% indicated \$7.00 a day, and 24.5% indicated some other value. Half (50%) of the visitors indicating some other value reported a value of \$0.00, while over one-fifth (22.4%) indicated a value of \$1.00 a day and another one-fifth (20.7%) indicated a value of \$2.00 a day. Interestingly, almost one-fourth (23.9%) of the additional comments from visitors were made in response to this question, with the majority of visitors concerned that CSP would no longer be free and would begin to charge an entrance fee.

ADDITIONAL VISITOR COMMENTS

Respondents to the survey were also given the opportunity to write any additional comments or suggestions on how DNR could make their experience at CSP a better one (question 26). Forty-two percent (41.8%) of the total survey participants responded to this question, with 222 responses given by 168 respondents. The comments and suggestions were listed and grouped by similarities into 13 categories for frequency and percentage calculations. The list of comments and suggestions is found in Appendix G. Table 8 lists the frequencies and percentages of the comments and suggestions by category.

The majority (23.9%) of comments were comments regarding question 17. One-fifth (20.7%) of the comments were suggestions about the trails. Twenty percent (19.8%) were general positive comments, such as: "Great park", "Love the trails", and "We love Castlewood". The rest of the comments were categorized based on similar suggestions or comments, such as needing better

maintenance and improved facilities, and other suggestions not falling into any other category.

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

Category	Frequency	Percent
1. Comments regarding question 17	53	23.9%
2. Comments/suggestions about the trails	46	20.7%
3. General positive comments	44	19.8%
4. Better maintenance/upkeep	18	8.1%
5. Need additional/improved facilities/services	17	7.7%
6. Improved/additional signage	8	3.6%
7. Park is too crowded	4	1.8%
8. Allow camping in park	3	1.4%
9. Enforce leash law	3	1.4%
10. Comments about bikers/hikers on park roads	3	1.4%
11. Comments about use restrictions	3	1.4%
12. Comments about boats/personal water craft	3	1.4%
13. Other	17	7.7%
Total	222	100.0%

Discussion

MANAGEMENT IMPLICATIONS

The results of this study provide relevant information concerning CSP visitors. However, the results should be interpreted with caution. The surveys were collected only during the study period of July, August, September, and October 2000; therefore, visitors who visit during other seasons of the year are not represented in the study's sample. The results, however, are still very useful to park managers and planners, because much of the annual visitation occurs during this period.

Satisfaction Implications

Sixty-two percent (61.6%) of CSP 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 (85.1%) combined with their positive comments provide evidence that CSP visitors are indeed satisfied with their park experience. The overall satisfaction score also provides a benchmark in which to compare overall satisfaction of CSP visitors over a period of time.

One cautionary note, however. It has been suggested that uniformly high levels of overall satisfaction can be of limited usefulness to recreation managers in understanding relationships between outdoor recreation opportunities and experiences, particularly because most visitors choose recreation opportunities in keeping with their tastes and preferences (Manning, 1999). In

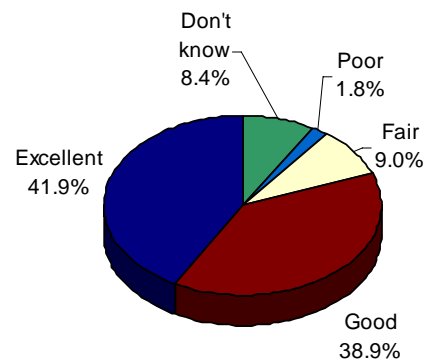
other words, visitors to CSP may be recreating at CSP because it is the type of park they prefer, offering amenities and services that correspond with their taste in recreational opportunities, consequently contributing to high overall satisfaction ratings. For this reason, the following comments are provided in order to furnish further insight into visitor satisfaction with services, facilities, and opportunities provided at CSP.

Safety Implications

CSP managers should be commended for providing a park in which visitors feel relatively safe. Safety was given a "high importance, high performance" rating on the I-P Matrix. In fact, one-fourth (26.3%) of visitors indicated that nothing specific would increase their feeling of safety at CSP.

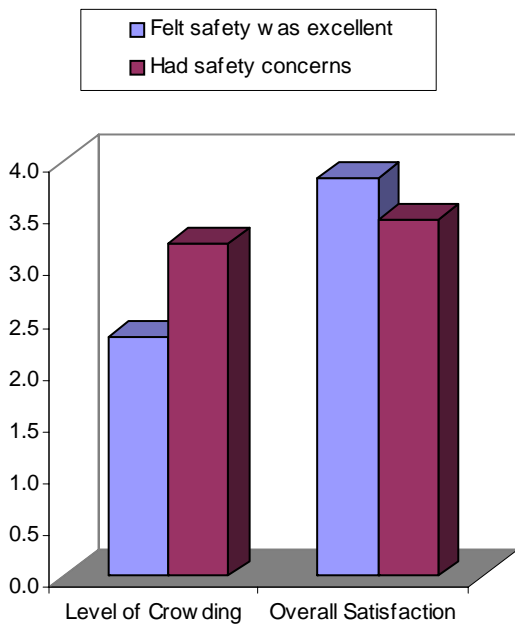
However, over half (54.2%) of visitors did not give an excellent rating regarding safety (Figure 8), indicating that visitors'

Figure 8. Visitors' Safety Ratings of CSP.



perceptions of safety at Castlewood should be of concern to managers. This is particularly true since visitors' perception of safety did affect their overall satisfaction and perceptions of crowding at CSP (Figure 9). Thirty percent (30%) of visitors with safety concerns responded to an open-ended question with comments regarding dangerous trail conditions. Out of a list of nine safety attributes, 23% of visitors selected an increased visibility of park staff as the attribute that would most increase their feeling of safety at CSP.

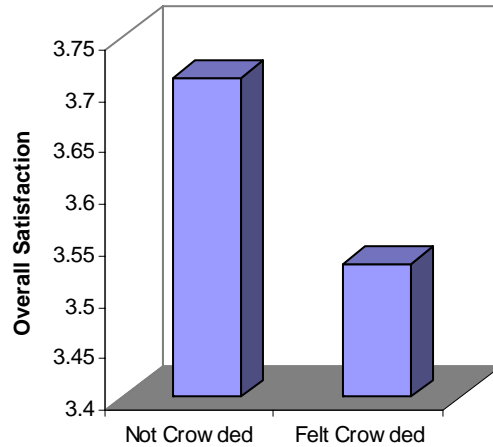
Figure 9. Levels of Crowding and Satisfaction Ratings by Safety Concerns



Crowding Implications

Surprisingly, visitors' perceptions of crowding were not very high considering the amount of use CSP experiences. About 44% of visitors did not feel at all crowded, and the mean crowded score for visitors was only 2.8. However, visitors' perceptions of crowding did influence their overall satisfaction at

Figure 10. Overall Satisfaction is Lower for Those Who Felt Crowded



CSP, indicating that visitors' perceptions of crowding should be a management concern.

Crowding is a perceptual construct not always explained by the number or density of other visitors. Expectations of visitor numbers, the behavior of other visitors, and visitors' perception of resource degradation all play a significant role in crowding perceptions (Armistead & Ramthun, 1995; Peine et al., 1999). Not surprisingly, weekend visitors felt significantly more crowded than weekday visitors. Visitors who felt crowded had a significantly lower overall satisfaction than visitors who did not feel crowded (Figure 10).

In addressing the issue of crowding, one option is to review comments relating to crowding and consider options that would reduce crowding perceptions. For example, most visitors commented they felt crowded during the bike event or while they were on the trails. Further study could determine if crowding perceptions during these instances are due to the number of people or perhaps

the behavior of those participating in the special bike events or using the trails.

Performance Implications

Visitors felt that clean restrooms were very important but rated CSP's as needing attention. Restroom cleanliness is often given a lower rating by visitors to state parks (Fredrickson & Vessell, 1999), and in this case could be a result of the large number of daily visitors CSP experiences during peak season. However, specific comments regarding facility upkeep include comments regarding the physical maintenance of the restrooms (see Appendix H). These comments provide helpful insight into areas needing improvement.

First time visitors gave significantly higher performance ratings than repeat visitors regarding facility upkeep, clean restrooms, being free of litter and trash, and care for the natural resources, suggesting that repeat visitors may be perceiving a decline in quality care when compared to previous experiences. Again, however, these lower ratings may be due in part to the large number of daily visitors to CSP during peak season.

Conclusion

CSP visitors are very satisfied with CSP, as evidenced by the high percentage of visitors who were repeat visitors, and also by their high satisfaction ratings. CSP visitors also gave high performance ratings to the park being free of litter and trash, caring for its natural resources, being safe, and maintaining upkeep of facilities.

The results of the present study suggest some important management and planning considerations for CSP. Even

though CSP visitors rated their visits and the park features relatively high and felt fairly safe, continued attention to safety, crowding, and facility upkeep and maintenance can positively effect these ratings.

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

RESEARCH RECOMMENDATIONS

The results of the present study serve as baseline visitor information of CSP. The frequency and percentage calculations of survey responses provide useful information concerning socio-demographic characteristics, use patterns, and satisfaction of CSP visitors. In addition, the "sub-analysis" of data is important in identifying implications for management of CSP. (The sub-analysis in the present study included comparisons using Chi-square and ANOVA between selected groups, multiple linear regression, and the Importance-Performance analysis.) Additional relevant information may be determined from further sub-analysis of existing data. Therefore, it is recommended additional sub-analysis be conducted to provide even greater insight to management of the park.

Data collection should be on a continuum (Peine et al., 1999), which is why additional visitor surveys at CSP should also be conducted on a regular basis (e.g., every three, four, or five years). Future CSP studies can identify changes and trends in socio-

demographic characteristics, use patterns, and visitors' satisfaction at CSP.

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

The present study was conducted only during the study period of July, August, September, and October 2000. Therefore, user studies at CSP and other parks and historic sites might be conducted during other seasons for comparison between seasonal visitors.

METHODOLOGY RECOMMENDATIONS AND CONSIDERATIONS FOR CSP AND OTHER PARKS

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

Survey Signage

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

conducted. Having a sign for that purpose aided in the workability of the methodology, as many visitors slowed their vehicles and some stopped before being asked to do so.

However, the "survey station" often became an "information station" when visitors would stop to ask questions. Many visitors would also engage the surveyor in conversation regarding their feelings about CSP. The park staff who assisted the surveyors were very helpful in answering visitors' questions and collecting the surveys. Without their assistance, it would have been difficult to conduct the survey during busy survey days. For these reasons, an assistant to help administer surveys at other parks and sites would be helpful.

Survey Administration

The prize package drawing and the one-page questionnaire undoubtedly helped attain the high response rate in the present study. Continued use of the one-page questionnaire and the prize package drawing is suggested.

Achieving the highest possible response rate (within the financial constraints) should be a goal of any study. To achieve higher response rates, the following comments are provided. The most frequent reasons that visitors declined to fill out a survey were because they did not have enough time or because of the heat. Most non-respondents were very pleasant and provided positive comments about the park. Some even asked if they could take a survey and mail it back. One recommendation would be to have self-addressed, stamped envelopes available in future surveys to offer to visitors only after they do not volunteer to fill out the

survey on-site. This technique may provide higher response rates, with minimal additional expense. One caution, however, is to always attempt to have visitors complete the survey on-

site, and to only use the mail-back approach when it is certain visitors would otherwise be non-respondents.

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Appendix A. Castlewood State Park Visitor Survey



Castlewood State Park



The Missouri Department of Natural Resources and the University of Missouri are seeking your evaluation of Castlewood 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 Castlewood State Park? (Check only one box.)

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

2. Who did you come to Castlewood State Park with during this visit? (Check only one box.)

- I came alone
- family
- family & friends
- friends
- club or organized group
- other (Please specify.) _____

3. Did you bring a pet with you during this visit? yes no

4. Which recreational activities are you engaging in during your visit to Castlewood State Park? (Check all that apply.)

- picnicking
- bicycling
- horseback riding
- fishing
- running/jogging
- attending a special event
- hiking
- viewing wildlife
- other (Please specify.) _____
- walking
- studying nature
- rollerblading
- canoeing or boating

5. How satisfied are you with each of the following at Castlewood State Park? (Check one box for each feature.)

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know
a. park signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. picnic areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. boat launches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. trails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Have you had a positive or a negative experience with a domestic animal (dog, cat, horse, etc.) during your visit at Castlewood State Park?

- positive
- negative
- no experience

7. If you encountered a domestic animal during your visit, please describe your experience. _____

8. How do you rate Castlewood State Park on each of the following?

(Check one box for each feature.)

	Excellent	Good	Fair	Poor	Don't Know
a. being free of litter & trash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. having clean restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. upkeep of park facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. having 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. caring for the natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. providing nature displays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. being safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. If you did not rate the park as excellent on being safe, what influenced your rating? _____

10. Which of the following would most increase your feeling of being safe at Castlewood State Park? (Check only one box.)

- more lighting where? _____
- less crowding
- improved upkeep of facilities
- increased law enforcement patrol
- improved behavior of others
- increased visibility of park staff
- less traffic congestion
- nothing specific
- other (Please specify.) _____

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

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

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

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

- Very Satisfied
- Satisfied
- Dissatisfied
- Very Dissatisfied



PLEASE TURN SURVEY OVER.



14. When visiting any state park, how important is each of these items to you? (Check only one box for each feature.)

	Very Important	Important	Unimportant	Very Unimportant	Don't Know
a. being free of litter & trash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. having clean restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. upkeep of park facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. having 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. caring for the natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. providing nature displays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. being safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. How do you typically receive information about Castlewood State Park or other Missouri state parks? Please indicate how much information you receive from the following sources:

	None	Some	Lots	Don't Know
a. Internet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. magazines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. newspapers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. direct mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. brochures, pamphlets, or other printed material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. radio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. television	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. word of mouth, relatives, friends, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. other (Please specify.) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. If you have access to the Internet, how often do you use the Internet when planning a trip or vacation? (Check only one box.)

- never frequently
 rarely always

17. What is the value of Missouri state parks and historic sites? We are often asked this question. As you know, Missouri state parks and historic sites are funded through a one-tenth cent Parks and Soils sales tax approved by the voters. We are interested in what you think. What value would you place on the overall recreation opportunity offered in a visit to this park?

- \$3 per day \$5 per day \$7 per day other \$ _____

18. What is your age? _____ 19. Gender? female male

20. 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 advanced graduate degree

21. What is your primary occupation? (Check only one box.)

- homemaker retired
 self-employed student
 service-based employee other (Please specify.) _____
 manufacturing-based employee _____

22. What is your household composition? (Check only one box.)

- single with no children married with children living at home
 single with children married with children grown
 married with no children other (Please specify.) _____

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

- African American Asian White
 American Indian Hispanic other (Please specify.) _____

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

25. What is your annual household income? (Check only one box.)

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

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

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

Appendix B. Survey Protocol

Protocol for Castlewood State Park Visitor Survey

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

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

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

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

[If yes,]

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

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

Appendix C. Prize Entry Form

**WIN A PRIZE PACKAGE OF CONCESSION COUPONS
WORTH \$100**

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

You may enter the drawing by simply filling out the back of this entry form and returning it to the surveyor. Your name, address, and telephone number will be used only for this drawing; your survey responses will be anonymous. The drawing will be held January 1, 2001. Winners will be notified by telephone or by mail. Redemption of gift certificates is based on dates of availability through August 31, 2001.

Name: _____

Address: _____

Phone #: () _____

Would you be interested in receiving a subscription to *Missouri Resources* magazine, a quarterly magazine free to Missouri residents? yes no

Appendix D. Observation Survey

Date _____ Day of Week _____ Time Slot _____
 Weather _____ Starting Temp. _____ Ending Temp. _____

	Survey #	# of Adults	# of Children	Vehicle Category*	Vehicle Type**	Number of Axles
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

***Vehicle Category:**

VV = Visitor Vehicle
 PRV = Park Related Vehicle (includes park vehicles, employee vehicles, delivery vehicles, etc.)

Time Slot Codes:

1 = 7:00 - 10:15 a.m.
 2 = 10:15 a.m. - 1:30 p.m.
 3 = 1:30 - 4:45 p.m.
 4 = 4:45 - 8:00 p.m.

****Vehicle Type:**

Car	SUV	Bus
Van	PU	Bicycle
Jeep	RV	Motorcycle

Appendix E. Responses to Survey Questions

Castlewood State Park Visitor Survey

1. Is this your first visit to Castlewood State Park? (n=402)

yes 14.9%
no 85.1%

If no, how many times have you visited this park in the past year? (n=303)

The responses from this open-ended question were grouped into the following 7 categories:

0 3.3%
1-5 28.5%
6-10 13.5%
11-20 12.9%
21-50 20.1%
51-100 10.8%
100+ 10.8%

The average # of times visitors visited the park in the past year was 47.3 times.

2. Who did you come to Castlewood State Park with during this visit? (n=387)

alone	26.9%	family & friends	16.3%	club or organized group	4.7%
family	30.0%	friends	21.4%	other	0.8%

3. Did you bring a pet with you during this visit? (n=394)

yes 21.3%
no 78.7%

4. Which recreational activities are you engaging in during your visit to Castlewood State Park? (n=402)

picnicking	19.7%	bicycling	45.0%	horseback riding	0.5%
fishing	5.5%	running/jogging	15.2%	attending special event	6.5%
hiking	43.0%	viewing wildlife	27.9%	other	10.2%
walking	35.6%	studying nature	13.9%		
rollerblading	0.7%	canoeing or boating	2.5%		

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

Baby shower.	I was meeting some friends but I usually go biking here.
Baby shower.	Lay on beach, water.
Beach.	Mountain bike race.
Bike race.	Park.
Bluffs.	Photography.
Checking to see if I can launch boat.	Playground.
Company picnic.	Playground.
Creek.	Playing on beach.
Creeking.	Reading.
Creek wading, catching crawfish.	Reading.
Day exercise.	Relaxing.
Driving.	Seeing what you have.
Driving.	Spending quality family time.

- | | |
|-------------------------------------|--------------------------------------|
| Driving through. | Survey river after rainfall. |
| Exercising and training water dog. | Swim. |
| Fall course. | Swimming in Kiefer Creek. |
| Family reunion. | View river depth. |
| Family reunion. | Walking dogs. |
| Fetch with dogs. | Walking my dogs on leashes. |
| Gathering information for floating. | Worshipping Jesus/enjoying creation. |
| Having baby shower. | |

In addition to percentages of responses, a mean score was calculated for each feature in questions 5, 8, 13, and 14. The score is based on a 4.0 scale with 4 = very satisfied, 3 = satisfied, 2 = dissatisfied, and 1 = very dissatisfied (Q. 5 & 13); 4 = excellent, 3 = good, 2 = fair, and 1 = poor (Q. 8); and 4 = very important, 3 = important, 2 = unimportant, and 1 = very unimportant (Q. 14). The mean score is listed in parenthesis following each feature.

5. How satisfied are you with each of the following in Castlewood State Park?

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know	
a. park signs (3.44)	44.8%	48.9%	2.0%	0.3%	4.1%	n=393
b. picnic areas (3.39)	37.3%	43.7%	3.2%	0.5%	15.3%	n=378
c. boat launches (3.11)	15.2%	19.4%	4.2%	3.1%	58.0%	n=355
d. trails (3.45)	47.9%	37.1%	5.4%	0.8%	8.8%	n=388

6. Have you had a positive or a negative experience with a domestic animal (dog, cat, horse, etc.) during your visit at Castlewood State Park? (n=390)

- positive 39.5%
- negative 6.9%
- no experience 53.6%

7. If you encountered a domestic animal during your visit, please describe your experience.

138 visitors answered this open-ended question. Their responses were grouped into the following 5 categories.

	<u>Frequency</u>	<u>Percent</u>
1. Positive/neutral comments	98	71.0%
2. Dogs off leashes	24	17.4%
3. Other negative encounters with dogs	8	5.8%
4. Negative comments about horses	6	4.3%
5. Other general comments about pets	<u>2</u>	<u>1.4%</u>
Total	138	100.0%

8. How do you rate Castlewood State Park on each of the following?

	Excellent	Good	Fair	Poor	Don't Know	
a. being free of litter/trash (3.28)	43.3%	42.1%	11.3%	2.3%	1.0%	n=397
b. having clean restrooms (2.76)	14.8%	23.5%	16.6%	6.6%	38.5%	n=392
c. upkeep of park facilities (3.21)	33.0%	48.7%	11.4%	0.8%	6.1%	n=394
d. having a helpful/friendly staff (3.38)	29.0%	31.6%	3.1%	0.8%	35.6%	n=393
e. access for persons with disabilities (3.17)	11.7%	12.8%	4.4%	1.0%	70.0%	n=383
f. care of natural resources (3.25)	33.3%	49.9%	8.1%	1.0%	7.6%	n=393
g. providing nature displays (2.92)	19.3%	22.4%	11.9%	6.2%	40.2%	n=388
h. being safe (3.32)	41.9%	38.9%	9.0%	1.8%	8.4%	n=391

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

155 visitors (79.9% of those who did not rate the park as excellent on being safe) responded to this question with 170 responses. The 170 responses were divided into 12 categories. Frequencies and percentages of responses in each category are listed.

	<u>Frequency</u>	<u>Percent</u>
1. Dangerous trail conditions	51	30.0%
2. Behavior of others, particularly speeders	29	17.1%
3. Don't know/no place is perfect	23	13.6%
4. Negative encounters between users on trails	20	11.8%
5. Lack of patrol/park staff	13	7.7%
6. Remote/isolated trails/areas	6	3.5%
7. Train tracks create a hazard	5	2.9%
8. Need improved/increased signage	3	1.8%
9. Park is crowded	3	1.8%
10. Pedestrians/bikers on roads	3	1.8%
11. Poor maintenance/upkeep	3	1.8%
12. Other	<u>10</u>	<u>5.9%</u>
Total	170	100.0%

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

415 responses were given by 321 visitors.

	<u>Frequency</u>	<u>Percent</u>
1. More lighting	10	2.4%
2. Less crowding	25	6.0%
3. Improved upkeep of facilities	26	6.3%
4. Increased law enforcement patrol	54	13.0%
5. Improved behavior of others	42	10.0%
6. Increased visibility of park staff	94	22.7%
7. Less traffic congestion	28	6.7%
8. Nothing specific	109	26.3%
9. Other	<u>27</u>	<u>6.5%</u>
Total	415	100.0%

8 visitors reported where they felt more lighting was necessary. Their answers are as follows:

- | | |
|---------------------|--------------|
| Back. | Picnic area. |
| By river. | Playground. |
| On the near trails. | Restrooms. |
| Parking lot. | Trails. |

27 visitors (100% of those who indicated that an “other” safety attribute would most increase their feeling of safety) reported what other attribute would increase safety. The following lists the frequency and percentages of their responses.

	<u>Frequency</u>	<u>Percent</u>
Improve/better maintain trails	12	44.4%
Reduce user conflicts on trails	5	18.5%
Better enforcement of park rules	3	11.1%
Improved/additional signage	3	11.1%
Better maintenance/upkeep of park facilities	2	7.5%
Other	<u>2</u>	<u>7.5%</u>
Total	27	100.0%

11. During this visit, how crowded did you feel? (n=397)

On a scale of 1-9, with 1 = Not at all crowded and 9 = Extremely crowded, the mean response was 2.8.

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

A total of 116 open-ended responses were given by 108 visitors. The 116 responses were divided into 8 categories. Frequencies and percentages of responses in each category are listed.

	<u>Frequency</u>	<u>Percent</u>
Crowded because of bike race	35	30.2%
Trails	35	30.2%
Park roads and/or parking lots	26	22.4%
Picnic areas and pavilions	6	5.2%
Everywhere	5	4.3%
Crowded because of weekend	3	2.6%
Boat launch	2	1.7%
Other	<u>4</u>	<u>3.4%</u>
Total	116	100.0%

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

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	
(Mean score = 3.60)	61.6%	37.2%	1.3%	0.0%	n=398

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

	Very Important	Important	Unimportant	Very Unimportant	Don't Know	
a. being free of litter/trash (3.80)	80.3%	19.2%	0.3%	0.0%	0.3%	n=386
b. having clean restrooms (3.47)	54.1%	38.8%	5.5%	1.0%	0.5%	n=381
c. upkeep of park facilities (3.58)	58.4%	39.7%	1.1%	0.0%	0.8%	n=380
d. having a helpful/friendly staff (3.32)	42.0%	48.0%	7.9%	1.3%	0.8%	n=379
e. access for disabled persons (3.14)	31.7%	29.8%	15.1%	3.0%	20.4%	n=372
f. care of natural resources (3.74)	74.3%	24.4%	0.5%	0.3%	0.5%	n=377
g. providing nature displays (2.99)	29.4%	38.5%	20.2%	5.0%	6.9%	n=377
i. being safe (3.60)	65.3%	30.0%	3.7%	0.8%	0.3%	n=380

15. How do you typically receive information about Castlewood State Park or other Missouri state parks? Please indicate how much information you receive from the following sources:

	None	Some	Lots	Don't know	
a. Internet	56.5%	21.0%	10.2%	12.3%	n=324
b. magazines	50.0%	34.5%	4.1%	11.4%	n=316
c. newspapers	48.4%	35.7%	5.4%	10.5%	n=314
d. direct mail	74.6%	12.1%	1.6%	11.7%	n=307
e. brochures, pamphlets, or other printed material	39.0%	39.3%	12.3%	9.4%	n=318
f. radio	76.0%	12.7%	0.3%	11.0%	n=308
g. television	75.3%	13.2%	0.7%	10.9%	n=304
h. word of mouth, relatives, friends, etc.	13.9%	34.6%	46.7%	4.8%	n=353
i. other (<i>Please specify.</i>)	0.0%	19.0%	66.7%	14.3%	n=21

18 respondents indicated an other source from which they receive information about Castlewood or other Missouri State Parks, and their responses are as follows:

- | | |
|---------------------------|--------------------------------------|
| AAA book. | Map of area. |
| Bike shops. | Maps. |
| Book. | Missouri Passport Program. |
| By going to them. | Missouri Visitor Center. |
| Cross country team. | Proximity. |
| Driving. | Show Me Missouri mountain bike book. |
| Driving around. | St. Louis Orienteering Club. |
| Know this park for years. | Visiting. |
| Look myself. | Visits. |

16. If you have access to the Internet, how often do you use the Internet when planning a trip or vacation? (n=353)

never	17.8%	frequently	41.9%
rarely	22.4%	always	17.8%

17. What is the value of Missouri state parks and historic sites? We are often asked this question. As you know, Missouri state parks and historic sites are funded through a one-tenth cent Parks and Soils sales tax approved by the voters. We are interested in what you think. What value would you place on the overall recreation opportunity offered in a visit to this park? (n=314)

\$3 per day	41.7%	\$7 per day	4.5%
\$5 per day	29.3%	other	24.5%

58 visitors indicated an other value on the overall recreation opportunity offered at CSP. The following is the frequency and percent of their responses.

	<u>Frequency</u>	<u>Percent</u>
\$0	29	50.0%
\$.50	1	1.7%
\$1	13	22.4%
\$1.50	1	1.7%
\$2	12	20.7%
\$4	1	1.7%
\$10	<u>1</u>	<u>1.7%</u>
Total	58	100.0%

18. What is your age? (n=379)

Responses were divided into the following 4 categories:

18-34	52.5%
35-54	37.7%
55-64	5.6%
65-85	4.2%

(Average age = 36.5)

19. Gender? (n=376)

Female	63.8%
Male	36.2%

20. What is the highest level of education you have completed? (n=386)

grade school	1.3%	vocational school	4.1%	graduate of 4-year college	34.2%
high school	13.2%	some college	27.7%	advanced graduate degree	19.4%

21. What is your primary occupation? (n=372)

homemaker	5.1%	professional/technical	17.5%
self-employed	11.8%	retired	6.2%
service-based	30.6%	student	14.0%
manufacturing-based	13.4%	other	1.3%

22. What is your household composition? (n=376)

single with no children	36.2%	married with children living at home	31.1%
single with children	6.1%	married with children grown	8.8%
married with no children	13.6%	other	4.3%

23. What is your ethnic origin? (n=378)

African American	1.6%	Asian	0.5%	White	94.2%
American Indian	1.3%	Hispanic	2.1%	Other	0.3%

24. What is your 5-digit zip code (or country of residence, if you live outside the U.S.)? (n=373)

The states with the highest percentages of respondents were:

Missouri	(96.5%)
Illinois	(2.4%)

25. What is your annual household income? (n=349)

less than \$25,000	12.9%	\$50,001 - \$75,000	25.2%
\$25,000 - \$50,000	30.4%	over \$75,000	21.5%

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

168 of the 402 visitors (41.8%) responded to this question. A total of 222 responses were given, and were divided into 13 categories. Frequencies and percentages of responses in each category are listed.

	<u>Frequency</u>	<u>Percent</u>
1. Comments regarding question 17	53	23.9%
2. Comments/suggestions about the trails	46	20.7%
3. General positive comments	44	19.8%
4. Better maintenance/upkeep	18	8.1%
5. Need additional/improved facilities/services	17	7.7%
6. Improved/additional signage	8	3.6%
7. Park is too crowded	4	1.8%
8. Allow camping in park	3	1.4%
9. Enforce leash law	3	1.4%
10. Comments about bikers/hikers on park roads	3	1.4%
11. Comments about use restrictions	3	1.4%
12. Comments about boats/personal water craft	3	1.4%
13. Other	<u>17</u>	<u>7.7%</u>
Total	222	100.0%

Appendix F. List of Responses for Safety Concerns (Q 9)

Responses to Question #9

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

Dangerous trail conditions

- A lot of times it takes too long for debris to be removed from trails after storms.
- Back trail is closed; upper part too crowded.
- Bike riders sharing the trails with walkers and runners. Trail cross roads. Cars travel too fast.
- Bike trails washed out, not repaired or blocked by trees.
- Bluff hazards.
- Cliffs are scary -- need fence.
- Condition of trail, no paths for pedestrians/bikes other than roads for cars.
- Don't know what's coming around the next corner.
- Drop off and stones on trails. Bikers riding too fast.
- Eroded trails.
- Eroded trails. Poachers.
- Even though is not designated bike trail, some of the paths around the river should be marked and labeled safe to pass, not safe.
- Excess mud on trails and pavement can cause slips.
- Fix the path that adjoins from trussel to bottomlands. You know -- "the jumps".
- Fix the washed out trail by the river and train tracks.
- Flood problem on trails.
- It had rained the night before and the trails were muddy.
- Litter on trail like glass. Having restrooms open more.
- Lots of trail erosion from bike overuse, too many high speed mountain bikes.
- No apparent effort to fix washed out part of trail.
- Poor condition of riverside trail after flooding.
- River scenic trail is hazardous, but could be marked as such.
- Rock trails, easy slippage for children, easy access to bluff.
- Rough hiking trails.
- Signs at road crossing between trails.
- Slow repair of trail gone bad from rain.
- Some of trails are very hazardous and should be clearly marked.
- Some of trails too close to river; trails should go one way.
- Some trails are rough.
- Some trails have deep ruts and loose gravel which could cause a fall by pedestrians or cyclists.
- Some trails steep and slippery, but that's appropriate; I wouldn't like them totally safe -- they would be "unnatural".
- Some trails very loose rocks, need to cut new trails.
- Some washed out trails although signs do carry people away.
- State of trails -- mud ruts from bikes, tree across paths not removed for months. Bikers not always courteous.
- The bluffs -- nothing you can/should do about it. Train.
- The trails go on that have orange tape across them and signs that say not trespassing aren't very safe.

- There are dangerous trails (however, I like it that way).
- There is a washed out trail by the river.
- There is always risk on unattended trails.
- There is no signs on the road for trail crossings.
- Tough trails.
- Trail can be very crowded on the weekends
- Trail erosion.
- Trail erosion. Reckless jet skiers and speed boaters.
- Trail maintenance.
- Trails are very rocky.
- Trails that are closed are still ridden. Been here for 10 years, only saw a ranger twice.
- Trees on trails too grown up with weeds to see if anybody is around the next corner and trees fall on trails.
- Upkeep of trails near water.
- Washed out trail along river.
- You must be careful on some trails and bluffs. The dangers are around. I wouldn't try to change them.

Behavior of others, particularly speeders

- Although I have had many excellent mornings, I sometimes find a group of three boys hanging out -- they look suspicious. It's always same three boys.
- Autos driving too fast in the park.
- Bad drivers.
- Bike riders sharing the trails with walkers and runners. Trail cross roads. Cars travel too fast.
- Careless hikers and bikers.
- Careless hikers.
- Close to river, too frequent gatherings of druggies.
- Don't always see a ranger or police on duty. Kids driving too fast.
- Eroded trails. Poachers.
- Fast drivers.
- Individuals who do not obey signage.
- Just some of the strange people I've seen.
- Lots of kids skipping school and migrating in cars.
- Low life gathering near river.
- No one to control pets on hiking and cycling trails.
- Not your fault, but reckless behavior of other visitors, e.g. rock climbing/falling.
- People drive too fast.
- People get killed on the RR tracks; occasionally people drive too fast; occasionally cyclists drive too fast.
- People getting high in park.
- Seems to be a lot of kids doing drugs -- smell pot frequently.
- Some areas are remote, gangs of kids hanging around.
- Sometimes people smoke pot.
- Strange people on trails. A man whistled at me and made me feel very unsafe.
- Stupid pet owners -- not the park.
- Too many people biking, too many people drunk on weekends high speed driving.

- Too many teenagers -- unsupervised.
- Too many young boys with loud stereos and fast, loud motors in their highly expensive parents' car.
- Trail erosion. Reckless jet skiers and speed boaters.
- Vandalism.

Don't know/no place is perfect

- Did not know.
- Don't know from media or personal experience.
- I don't know, I guess its hard to be totally safe in a natural environment.
- I have never had safety concerns but I do not have a way to know if others do or have in past.
- I have no information to make opinion about safety.
- I haven't had any safety issue.
- I was referring to natural dangers like the bluffs.
- It's either safe or not, and good means it's safe.
- Lack of experience here.
- Lack of experience with park.
- Mountain biking comes with its inherent risks.
- No experience with a safety problem.
- No place is safe beyond a doubt.
- Not enough experience, being a first time visitor.
- Not sure if drunken parties ever take place that could potentially be dangerous.
- Not sure if or if not safe.
- Organized group, no experience otherwise.
- Safety is usually a personal choice, I don't know what a park could do to encourage it other than posting low speed limit and caution signs where necessary.
- Seems OK, but I usually think my safety is up to me.
- The park cannot completely control the safety of the people in it.
- The path system only has so much control. The rest falls to the person using the facilities.
- This park by its natural state is unsafe if not used properly, but that's what makes this park better than most -- natural beauty.
- We didn't have any reason to be concerned with safety. It was a quick drive through.

Negative encounters between trail users

- Bicycles going too fast on trails without warning you.
- Bicyclists and walkers sharing trails -- can be dangerous for both.
- Bike racers do not slow down for hikers. Perhaps separate paths should be made.
- Bike riders sharing the trails with walkers and runners. Trail cross roads. Cars travel too fast.
- Bike traffic sometimes fast and frightening.
- Bike traffic. Occasionally frightens kids.
- Dogs and bicyclists.
- Drop off and stones on trails. Bikers riding too fast.
- Had encounters with people on bike trail.
- Lots of trail erosion from bike overuse, too many high speed mountain bikes.

- Mountain biking extreme.
- Not enough communication between riders and runners and horseback riders.
- Other users -- unsafe/unpredictable bike habits.
- Paths could be wider, walkers aren't smart enough to not stay in middle of path. Hard on cyclists to get around them.
- People get killed on the RR tracks; occasionally people drive too fast; occasionally cyclists drive too fast.
- People on bicycles going too fast and don't give warning; railroad running through park is hazardous.
- State of trails -- mud ruts from bikes, tree across paths not removed for months. Bikers not always courteous.
- There is a lot of mountain biking.
- Too many overlap points with bike event.
- Too many people biking, too many people drunk on weekends high speed driving.

Lack of patrol/park staff

- Don't always see a ranger or police on duty. Kids driving too fast.
- Don't know. Don't see a lot of park staff.
- I have not seen a park ranger here for while.
- Increase park staff and security.
- Lack of park rangers.
- Lack of security and phone.
- More security around.
- Needs police protection when open.
- No park rangers visible.
- No park rangers.
- Only thing that could make excellent would be addition of armed guards. Everything else is cool.
- Park rangers could be more visible.
- Trails that are closed are still ridden. Been here for 10 years, only saw a ranger twice.

Remote/isolated trails/areas

- Although I have never had a bad encounter, I have seen some creepy looking men back in the trails. It somewhat spooked me to realize how far I was from anyone to protect me.
- Need a buddy with me.
- Nothing other than the remote areas.
- The trails go back pretty deep; you cannot patrol them all the time.
- Very secluded areas, which is normal.
- Worried when being along on a trail because it can, at times, be isolated.

Train tracks create a hazard in park

- I think it has to do with the train tracks, but I believe "survival of the fittest".
- People get killed on the RR tracks; occasionally people drive too fast; occasionally cyclists drive too fast.
- People on bicycles going too fast and don't give warning; railroad running through park is hazardous.

- The bluffs -- nothing you can/should do about it. Train.
- Train.

Need improved/increased signage

- Biking -- should list trails as beginner, moderate or advance at beginning of the trail heads.
- Need to mark dangerous areas and difficulty of trails.
- Trail signage could be better, we inadvertently took the wrong trail.
- Trail signage could be improved.

Park is crowded

- Congested.
- Crowds.
- Lots of traffic.

Pedestrians/bikers on roads

- Biking on road.
- They should have a sidewalk; instead cars, bikes, and people with strollers are all on the same road.
- Trail for rollerblading, bike riding, walking that aren't in the street would be safer.

Poor upkeep

- Broken beer bottles on beach.
- Litter on trail like glass. Having restrooms open more.
- Restrooms can't be locked, not very clean.

Other

- Graffiti on trail.
- Have not run into many disruptive people during visit here.
- History -- safety has improved in recent years.
- More fenced look outs.
- Mountain bike trails are different for all riders.
- No access along river tempts people to go down steep graded riverbanks.
- Not enough communication.
- The public does not care a whole lot about it.
- Too much cover.
- Too much poison ivy.

Appendix G. List of Responses for Additional Comments (Q 26)

Responses to Question #26

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

Comments regarding question 17

- "Penny for parks" new logo for you, 1 cent sale tax.
- \$5 per day, if it was not so crowded with bike racers and dogs. The park should be for family recreation and hiking.
- 1 cent sales tax -- "Penny for parks".
- 25-50 cents/per day -- lots of kids.
- Annual fee.
- As often as I come here, I would need a "season pass".
- Depends on the park.
- Does this make sense?
- Don't charge for it.
- Don't want to pay.
- For non-Missouri residents, \$3.50.
- Free state park.
- Free.
- Free.
- Free.
- Free.
- Free. I pay taxes.
- I am opposed strongly to the idea of paying a fee to enter the park. Some sort of fund raising event in the park would provide community awareness and provide additional funds.
- I am strongly opposed to paying a fee to enter the park.
- I do not believe in paying for enjoyment. We already pay taxes. I would still consider coming occasionally if there was a charge for entry, but would come much less.
- I don't place a "value" because nature is priceless. We shouldn't even think of charging to visit the park, by the way.
- I feel it should not have a charge levied as we pay taxes.
- I hope never to see a fee to enter this or other MO state parks.
- I like free.
- I pay tax.
- If a charge was assessed at Castlewood, we'd find another park to hike weekly and biweekly.
- It should be free.
- Keep free of charge -- I pay enough taxes already.
- Keep this place free to all.
- Love this park, but I'm not sure I would always pay it. It is priceless but I still want it to be free.
- No charge.
- No fee is good.
- None -- I pay taxes. Only non-Missouri residents should have to pay.
- None additional.

- Prefer to keep it tax funded.
- Priceless.
- Priceless.
- Priceless.
- Raise the tax.
- Should be free, paid for by taxes.
- Should come out of taxes.
- Should remain free.
- Stay with tax so local people can come every day.
- Taxes.
- Taxes.
- The value is families being able to enjoy God's creation.
- Unless trails are better maintained.
- Would not visit if fee charged.
- Yearly donations, not fees. \$10 -\$25 yearly.
- Yearly fee.
- Yearly permit.
- Yearly permit.
- You shouldn't pay for a state park.

Comments/suggestions about trails

- Aside from improved signage on trail, you guys are doing great job. I hope you aren't considering getting rid of pets because all pets I saw (including my own) were well behaved.
- Better access to cliff outlook.
- Better marking and upkeep of bike and walking trails.
- Better marking of the bike trails would be helpful. Otherwise, it's a great park.
- Better trail maintenance -- get a 4-wheel and drag the trail daily. Spray for bugs. Post intermediate signs for distance on trail. Put in a recirculating fountain and water shoot that everyone can use to hose off the dirt, etc. Update maps. Increase number of foot trails. Make the park open for year around use. Hook up trail to Eureka along river and from Valley Park.
- Bicyclists are causing too much erosion of trails. They should organize trail maintenance and they should not ride when the trails are muddy.
- Bike trails could be marked better.
- Clean up the trash on the trails.
- Concerned about the severe erosion of the trails due to heavy bicycle traffic.
- Cut some of the high weeds at least around blind corners. I've seen many people run into each other. Wash-out by the railroad near the river -- and lots of trees on trail after that point.
- Display trail technicality in numeric rating: 1) easy, 2) moderate, 3) technical. Develop more trails that are difficult to bring more excitement to the park.
- Fix the erosion problem along river to re-open trail on SW end.
- Fix the trail between the river and the train tracks. Don't start putting restrictions on the park, like hiking only days and no pets. Keep this place free to all.
- Fix the washed out trail along the river.
- Have more clean restrooms. Fix damaged trails/rain.

- I am very concerned about the river trail where the flood has washed away most of it up to railroad tracks. Do you think they will cut a deal with the railroad and shore it up and fill it in? That section used to be a lot of fun to ride -- now it's gone. Good job overall. Thanks.
- I both run and mountain bike here. I have been coming here for about 20 years. The popularity of this park has soared. It is good to see, but trail system is in dire need of expansion. I am certain a new group called GORC (Gateway Off Road Cyclists) would be more than willing to help.
- I just love the trails. My boxer and I visit twice a weekend. Weekend bikers ride the trails too fast. Sometimes hard to get out of the way.
- I think horses should be allowed on all trails. It would also be nice to have a bigger horse trailer parking area or a place suited to camping overnight with horses.
- I think the trail system is the primary attraction for many of the visitors. I have never had any party here so I cannot comment on crowding of sites. There are many possibilities for dealing with trail overcrowding by expanding system. IMBA and other groups will do this for nothing.
- I was here at a mountain bike race -- very fun. A great way to both promote the park and get people outside. The trails are great but could use some more attention. Keep up the good work. Stop littering on trail. More trash cans, too.
- I wish there were more trails open to bicycles, and they were better marked with mileage markers incrementally.
- I would like to see the Blue Ribbon trail reopened.
- I'd be happy to volunteer for trail maintenance (and repair). Just leave volunteer info on bulletin board.
- Keep trail open between the railroad tracks and the flats -- western most part, flood damage. Close the dump (eastern part)!
- Less bike races or make bike race trails out of way of hikers.
- Make more trails available to mountain biking. Currently there only a few places for mountain biking in the St. Louis area and this leads to heavy use of those few trails. Having more trails open to bikes would lessen the crowding and impact on each individual trail.
- More mountain bike trails.
- More trails and bike events and signing of trails and advertising.
- More trails through the park, like cutting one large loop around the boundaries of the park.
- More trails, less cars.
- Open back trail.
- Organize a volunteer trail maintenance program.
- Repair washed out sections of bike trail.
- Solve the eroding trails with aid of volunteers.
- Some new bike trails would be nice.
- There are a lot of people willing to help with trail maintenance -- would like to see some help. Organize groups to create new trails as well as upkeep existing ones.
- Trails could use some better signage. Great place.
- Trails get muddy after it rains and we can't walk.
- Trails need to be better maintained, glass, trash, ruts, mud. Restrooms a little dismal.
- Very satisfied, possible trimming of area growth on trails.

- Wash out areas on Stinging Nettle trail are becoming dangerous.
- We walked the bluff trail and at bottom of trail to right of railroad culvert. There was one wooden sign saying "Scenic River Loop 3mi." There was orange and yellow streamers. We didn't go in. We were not sure if the loop trail was closed or not.
- Why are some trails cut off by the river trail?
- Wider/cleaner trails.
- Wishing something could be done about the destruction of the River Scenic trail.
- Organize groups to clean up trash on trails.

General positive comments

- Aside from improved signage on trail, you guys are doing great job. I hope you aren't considering getting rid of pets because all pets I saw (including my own) were well behaved.
- Castlewood is good.
- Excellent park -- a haven for mountain bikers (middle-aged skills especially. As stated, concerned about kids and drugs and feel helmets should be mandatory/ticketed if not worn.
- Excellent.
- Glad for the trails available to mountain bikers and hiking. Could use better bathroom facilities (broken lock, one toilet, dank and no soap available in the women's). I do not visit Rockwoods because dogs are not allowed. We do need more education and/or mutt mitts for some owners.
- Good for mountain biking.
- Good job so far. Very enjoyable experience.
- Great park and always clean -- love the mountain bike and running trails.
- Great park, better than gym for workout.
- Great park, trail looks very fun.
- Great park.
- Great park.
- Great. How about available camping for special events only?
- Had a good day.
- I always enjoy this park.
- I am very concerned about the river trail where the flood has washed away most of it up to railroad tracks. Do you think they will cut a deal with the railroad and shore it up and fill it in? That section used to be a lot of fun to ride -- now it's gone. Good job overall. Thanks.
- I have never had a bad experience at Castlewood. Only once I was biking around the trails and I saw a large pile of plastics and other things (trash) by the river, but that is to be expected with all of the trash washing down the river and collecting here. Castlewood is a nice place and it is one of the main parks that I go to.
- I just love the trails. My boxer and I visit twice a weekend. Weekend bikers ride the trails too fast. Sometimes hard to get out of the way.
- I like this place.
- I liked my experience at the park very much. I will come back again.
- I think the park is somewhat dangerous because it doesn't have a sidewalk and cars drive so fast on the one road. But we love this park.

- I was here at a mountain bike race -- very fun. A great way to both promote the park and get people outside. The trails are great but could use some more attention. Keep up the good work. Stop littering on trail. More trash cans, too.
- I'm a horse owner but use Forest 44 for riding almost exclusively. I'm happy for the bikers to have Castlewood -- it's a beautiful park and it keeps them out of Forest 44.
- I'm new in the area and only live 10 minutes from here. It's convenient for me as well as challenging in my biking.
- It is the best park.
- It was great.
- Leave as is, keep good help in key positions.
- Love the park for bike trails. Blue Ribbon the best.
- Lovely.
- My first impression of the park was very favorable. I will be back.
- Nice park, no litter on trails. Needs a little work on restrooms.
- Overall, very nice place to visit.
- Pleasant scene at the boat landing beach abruptly interrupted by individual motor boat device (forget what they are called). Loud, stinky, too bad but this was a pleasant day here.
- Staff was very polite and helpful.
- Thanks for this survey.
- The most beautiful park I have ever seen in Missouri and the survey girl is so friendly -- really.
- This is a great park.
- Trails could use some better signage. Great place.
- Very satisfied, possible trimming of area growth on trails.
- We enjoy driving through parks.
- We have been visiting Castlewood for 13 years and are very impressed with the improvements and upkeep of the park.
- We love Castlewood.
- We love this place. My dogs couldn't live without it.
- Well kept park.

Better maintenance/upkeep

- Bees were really bad around shelter #1. And bathrooms were dark and kind of dirty.
- Clean up trash that has been here for years.
- Glad for the trails available to mountain bikers and hiking. Could use better bathroom facilities (broken lock, one toilet, dank and no soap available in the women's). I do not visit Rockwoods because dogs are not allowed. We do need more education and/or mutt mitts for some owners.
- Have more clean restrooms. Fix damaged trails/rain.
- Have someone clean the bathroom everyday, not once a month. Have more activities and a baseball field or volleyball net away from shelters. Snack and soda machines would be nice.
- I was disappointed by how littered the shelter was where we had our picnic. There was also raw sewage smell right by the shelter, we were at shelter #2.
- Keep trail open between the railroad tracks and the flats -- western most part, flood damage. Close the dump (eastern part)!

- Latches on bathroom doors. They did not work.
- Many times I've seen trash on the trails. It would be nice if Castlewood was litter free but I know that is difficult. Also, it would be nice if parks could have a fenced off area where dogs could run leash free, as everyone knows dogs need exercise too.
- Nice park, no litter on trails. Needs a little work on restrooms.
- No lock on women's restroom and picnic area has no trash can close by.
- On the river front walk -- in from the river there is a great degree of large debris that should be removed to improve the appearance of the park.
- Removal of trash that's washed up after flooding. Park rangers on foot paths.
- The boat ramp needs some attention while the water is low.
- There are a lot of tires and other debris in the wooded areas of the park. I like free.
- Trails need to be better maintained, glass, trash, ruts, mud. Restrooms a little dismal.
- Water the field near bike paths.
- When cutting grass, have the cutters shoot the grass back into the grass, instead of road.

Need additional/improved facilities/services

- Better trail maintenance -- get a 4-wheel and drag the trail daily. Spray for bugs. Post intermediate signs for distance on trail. Put in a recirculating fountain and water shoot that everyone can use to hose off the dirt, etc. Update maps. Increase number of foot trails. Make the park open for year around use. Hook up trail to Eureka along river and from Valley Park.
- Have a frisbee golf course.
- Have someone clean the bathroom everyday, not once a month. Have more activities and a baseball field or volleyball net away from shelters. Snack and soda machines would be nice.
- I think horses should be allowed on all trails. It would also be nice to have a bigger horse trailer parking area or a place suited to camping overnight with horses.
- I think the park is somewhat dangerous because it doesn't have a sidewalk and cars drive so fast on the one road. But we love this park.
- I was here at a mountain bike race -- very fun. A great way to both promote the park and get people outside. The trails are great but could use some more attention. Keep up the good work. Stop littering on trail. More trash cans, too.
- I would like to see more trash cans so we can help keep the park clean.
- Many times I've seen trash on the trails. It would be nice if Castlewood was litter free but I know that is difficult. Also, it would be nice if parks could have a fenced off area where dogs could run leash free, as everyone knows dogs need exercise too.
- More water fountains.
- Need more trash containers closer to shelter.
- Need park bridge to park on other side of river.
- Please locate a port-a-potty at the main entrance ranger station. When the facility is closed and after the summer season, there are no restroom facilities available for those of us who use the park year round. This would be a great help.
- Provide a off-leash area for dogs.
- Want a boat ramp soon.
- Water fountains.
- Would like more easy access to beaches for swimming and playing suitable for young children. Quiet setting -- no motor boats would be great.

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Improved/additional signage

- Better trail maintenance -- get a 4-wheel and drag the trail daily. Spray for bugs. Post intermediate signs for distance on trail. Put in a recirculating fountain and water shoot that everyone can use to hose off the dirt, etc. Update maps. Increase number of foot trails. Make the park open for year around use. Hook up trail to Eureka along river and from Valley Park.
- Clearly marked trail maps at the trail head.
- Display trail technicality in numeric rating: 1) easy, 2) moderate, 3) technical. Develop more trails that are difficult to bring more excitement to the park.
- More detailed maps and signs.
- More trails and bike events and signing of trails and advertising.
- Needs more nature signs to interpret area, trees, creeks, etc.
- Poison ivy warning on trail would be nice.
- Poor signs on main road to find park.

Park is too crowded

- I feel like every year it gets more crowded. Increased sprawl in area. Lots of biking, even when trails are wet -- I worry about the quality of the trails remaining as good as they have been in the past couple of years.
- Limit number of people into the park. Set times restricted for certain activities. I like to bike and like to know that there are certain times for each and not worry about my activity being disrupted by either.
- Overall, very pleasant but crowded.
- Sometimes it gets too crowded with special events and bikers.

Allow camping in park

- Great. How about available camping for special events only?
- I think horses should be allowed on all trails. It would also be nice to have a bigger horse trailer parking area or a place suited to camping overnight with horses.
- Need campgrounds.

Enforce leash law

- Enforce dogs on leash! They are dangerous for everyone including the dogs!
- Enforce leash law.
- The only problem I and friends have with this park is dogs off leashes. It can be very dangerous for us and the pets out on the trails. Needs to be enforced!!

Comments about bikers/hikers on roads

- Bike riders need own path so cars aren't in danger of hurting someone.
- Bikes need their own paths very -- difficult to drive in park, even at idle speed.
- Your survey takers shouldn't stand in middle of road. It's a pain for drivers. And people don't get out of the way when you're driving on road. You have to wait for them to walk across street. That's very irritating.

Comments about use restrictions

- Fix the trail between the river and the train tracks. Don't start putting restrictions on the park, like hiking only days and no pets.
- Less bike races or make bike race trails out of way of hikers.
- Limit number of people into the park. Set times restricted for certain activities. I like to bike and like to know that there are certain times for each and not worry about my activity being disrupted by either.

Comments about boats/personal water craft

- Needs to be more law influencing personal water craft. The operators of personal water craft have no respect for anglers and are ruining fish habitat.
- Pleasant scene at the boat landing beach abruptly interrupted by individual motor boat device (forget what they are called). Loud, stinky, too bad but this was a pleasant day here.
- Would like more easy access to beaches for swimming and playing suitable for young children. Quiet setting -- no motor boats would be great.

Other

- Aside from improved signage on trail, you guys are doing great job. I hope you aren't considering getting rid of pets because all pets I saw (including my own) were well behaved.
- Bad bee problem at the pavilions.
- Bees were really bad around shelter #1. And bathrooms were dark and kind of dirty.
- Bring Ranger Cindy back.
- Do not let the landfill expand into park land. Specifically over ridge at east end of park where survey markers are. How to stop vandalism of signs?
- Excellent park -- a haven for mountain bikers (middle-aged skills especially. As stated, concerned about kids and drugs and feel helmets should be mandatory/ticketed if not worn.
- Glad for the trails available to mountain bikers and hiking. Could use better bathroom facilities (broken lock, one toilet, dank and no soap available in the women's). I do not visit Rockwoods because dogs are not allowed. We do need more education and/or mutt mitts for some owners.
- I am a visitor and only come briefly for quite time.
- I think commercialization of state parks or any natural resource is wrong. The less people know about them, the less people will come. They don't need to be built up. Just keep them clean.
- It would be nice to see more publicity about trail clean up events, etc.
- Keep park dog friendly.
- No more development in the park.
- On a June visit. Now vehicles drive in the river. Highly illegal and destructive to environment. Make it harder for 4x4s and ATVs to drive in river.
- Removal of trash that's washed up after flooding. Park rangers on foot paths.
- Warning -- car could get stuck on boat launch. Mine did, requiring tow.
- Watch for the under-age drinkers that throw their beer cans and bottles off the cliffs -- they are there many afternoons on real nice days after school.
- You need to replace Dutch and Mr. Love.