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Characteristics of campers in forest recreation areas in East Tennessee

Tim W. McCall

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I am submitting herewith a thesis written by Tim W. McCall entitled "Characteristics of campers in forest recreation areas in East Tennessee." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Forestry.

Kerry F. Schell, Major Professor

We have read this thesis and recommend its acceptance:

John C. Rennie, Sam Venable

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

187
May 9, 1972

To the Graduate Council:

I am submitting herewith a thesis written by Tim W. McCall entitled "Characteristics of Campers in Forest Recreation Areas in East Tennessee." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Forestry.

Kenneth F. Schell
Major Professor

We have read this thesis and
recommend its acceptance:

James A. Teuably
John C. Tennie

Accepted for the Council:

Hilton A. Smith
Vice Chancellor for
Graduate Studies and Research



CHARACTERISTICS OF CAMPERS IN FOREST RECREATION
AREAS IN EAST TENNESSEE

A Thesis
Presented to
the Graduate Council of
The University of Tennessee

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Tim W. McCall

June 1972

CRANES CREST

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He also wishes to thank Dr. John C. Rennie of the Department of Forestry and Mr. Sam Venable of the Department of Health, Physical Education, and Recreation who served on his committee. Appreciation is also extended to Mr. Roger L. Hankins for his help and guidance in working with tables and figures included in the study.

Special appreciation is expressed to my wife, Karen, to whom this thesis is dedicated.

ABSTRACT

The main objective of this study was to discover why campers select certain heavily used campgrounds, when other, apparently similar types are available. Prior explanations for this phenomenon included status motives which are associated with visits to certain campgrounds, preferences which are based on elements other than the characteristics and facilities of the campground itself, and a lack of knowledge about other campgrounds.

Data for this study were obtained by a questionnaire and a personal interview with recreation users in the campgrounds of selected areas. A list of questions was developed that would provide the desired data.

Four different types of recreation areas were selected to get observations. These were in The Great Smoky Mountains National Park, The Cherokee National Forest, the State Park system in east Tennessee, and private campgrounds. A total of 628 interviews were completed during 72 visits to the campgrounds in the study.

Chi-squared tests, the Newman-Keuls procedure, and analysis of variance were used to test various relationships of socioeconomic data with attitudes and use patterns. In most cases simple frequency distributions and percentages sufficed. In all statistical analysis, each observation was statistically weighted by the number of occupied sites in the area at the time of the observation.

The study findings supported the expected reasons for the popularity of campgrounds. However, the study revealed other possible

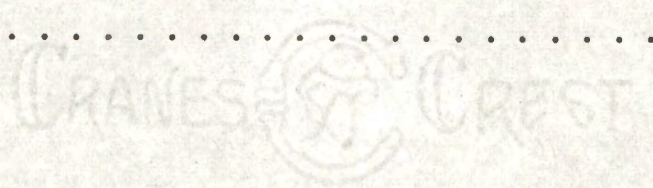
reasons. One of these was that many campers indicated they selected a certain area because they had confidence in recommendations made by friends and other campers. Another reason that could cause the overcrowded conditions in some parks is the general information available to campers which tends to guide them to these areas. It was also found that what many administrators and some campers considered as overcrowding was simply the ideal number for other users. Finally, many campers gave the answer of the kinds and number of facilities provided in an area as a reason for picking a certain campground. With the right kind of information available it should be easier to encourage campers to stay away from the more crowded campgrounds during the busier seasons.

In conclusion, this study did not reveal any other reasons for overcrowding in the Smoky Mountains National Park other than those already expected before the study, i.e., the status motive preferences, per se, to stay in certain areas, and the confidence placed in personal recommendations. Apparent inconsistencies in some responses about preferences suggest that sociological and psychological investigations are needed that could give some insight as to the basic motivations of recreation users.

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CHAPTER I

INTRODUCTION

Increasing user pressure on campgrounds supplied by Federal and state agencies has become an important problem for planners and administrators responsible for these areas. Limitations for individual areas can be set, i.e., when a campground is full close the gate. This might appear to be a solution. However, if the agencies involved assume the responsibility to provide for all who would come to their lands seeking recreation experiences the problem is not solved, and is probably compounded. If the assumption is accepted then that the public agencies have an obligation to supply given recreation demands, specifically those for campgrounds, alternatives to simply closing the gates must be found.

The two classical economic solutions of increasing the supply or price of a good or service to approach a supply-demand equilibrium presents significant complications for some public agencies. The price alternative is limited because already the present token fees charged in some areas is resisted by some segments of the population and legislative bodies. Likewise the expansion of recreation facilities in many areas is contradictory to existent policies for these areas. More influential perhaps in some cases is a lack of financing for expansion.

The alternative of diverting users from areas of high use to other areas with similar facilities and attractions seems to be an

efficient and possible method of alleviating the problem. These kinds of areas are in many cases proximate to the problem areas, within 50 to 100 miles, and are within both the public and private sector.

This study attempted to identify the user associated factors which would influence the implementation of a decision to alleviate the user pressure in some areas by diverting it, i.e., by distributing use more uniformly over available facilities. The East Tennessee area with The Great Smoky Mountains National Park, The Cherokee National Forest, and a number of state and private areas available, approaches an ideal situation for such an investigation. The study was limited to a study of users, their socioeconomic characteristics, attitudes, and preferences.

CHAPTER II

REVIEW OF LITERATURE

I. IMPORTANCE OF OUTDOOR RECREATION

Beazley (1961) reported that outdoor recreation was important because of its initial, direct effects on individuals. It was important also because of its subsequent, indirect effects on our society as a whole.

The direct effects of recreation, according to Beazley may be considered as:

1. Better physical health.
2. Better mental hygiene, i.e., inspiration, hope, optimism.
3. Educational and cultural effects, i.e., greater understanding of one's environment and a better ability to enjoy it.
4. The immediate satisfaction of consumption, i.e., the immediate fun of participation.

Also, besides the fun of participation in recreation, the individual receives directly the benefits of better health, better mental outlook, and a deeper education.

Already in 1958, Morse reported that this age is the first time in history that man's leisure time has increased and this has become one of the most important social problems of today. Intelligently used, it is a social and cultural asset; misused it is a liability. The fact that many of this nation's parks and recreation areas are overcrowded is in

part a result of this increased leisure time. Whether one may call this overcrowding misuse raises questions. It may be poor planning on the part of agencies involved in providing recreation opportunities. Leisure time for the nation might be misused in the sense that, because of apparent overuse, the social benefits of visitor experience might be less than maximum and conditions of natural areas are deteriorating. If this problem is not alleviated and if people persist in present recreation use patterns which result in concentrations of aggregate use on certain campgrounds there will be a definite drop in the social and cultural benefits that are now enhanced by camping.

II. MAJOR TYPES OF ACTIVITIES

The Tennessee Statewide Comprehensive Outdoor Recreation Plan (1969) shows that an adult in Tennessee takes part in one or more recreational activities an average of 96 times per year.

The ten most popular activities for adults are shown in Table I.

Outdoor Recreation for Americans (1962) shows the general tendency is toward simple activities. Wagar (1963) found that in Pennsylvania and West Virginia, visitors in forest recreation areas were attracted by what is offered at the area; they used what was available. Picnicking, swimming, sightseeing, sitting and watching, and hiking were the major activities in which these visitors participated.

It could be concluded from these findings that most outdoor recreation users want some type of simple activity when they venture out and that local habits and the attractions in the surrounding environment are important factors in these activities.



TABLE I

TEN MOST POPULAR ACTIVITIES FOR ADULTS

Activity	Participation Rate (Percent)
1. Driving	21
2. Urban Walking	10
3. Sightseeing	8
4. Fishing	6.5
5. Playing Outdoor Games	6
6. Bird Watching	5.5
7. Picnicking	5
8. Viewing Outdoor Games	5
9. Nature Walking	4.7
10. Swimming	4.6

Gregerson (1965) suggested that, "Recreation planners should make a clear distinction between 'open air mass recreation,' and 'natural outdoor recreation'"; he further suggests that planners should stop trying to mix the nature-oriented environment with a high volume, social recreation environment which creates problems and unnecessary expense. A large percentage of the camping public is only interested in activity, not necessarily nature observation.

Wagar (1963) supports this idea by pointing out that for many people camping is an essential ingredient of outdoor recreation--either as a worthwhile experience in itself or as a means of reaching and remaining near other recreational opportunities. But all campers do not seek the same types of experiences and do not want to use the same kinds of camping areas or facilities. Some prefer to be surrounded by all the conveniences of home and by the sociability and security of other people. Others pack their equipment across miles of rugged country in search of solitude and truly wild surroundings. Still others want as much wilderness as they can reach by automobile.

III. PRINCIPLE FACTORS INFLUENCING OUTDOOR RECREATION PARTICIPATION

Why is outdoor recreation participation increasing at such a fast rate? Beazley (1961) suggested that some of the reasons included population growth itself, changes in work environment, changes in hours of work and in vacations, changes in the distribution of income, increasing urbanization, and the general increase in the ease of travel. The

consistent rate of family formation also has a positive effect, since outdoor recreation is compatible with small groups and children.

The Outdoor Recreation Resources Review Commission (1962) lists age as an influential factor in determining why people choose different types of recreation activities. Lucas (1964) observed that "With passing years, our scope of leisure changes, as does our capacity." Friedman and Havighurst (1954) noted that persons born before 1920 have a different ideology from those born since that period. These people must adjust from their "stick to work" ideas of pre-1920 to the increased leisure time, paid vacation ideology of today. It could be expected, as Mead (1962) reported, that the outdoor recreation habits being formed today will continue into retirement age with increasing use of outdoor recreation areas by older people.

Income has been recognized as an influential factor in outdoor recreation participation. Present trends indicate that income will continue to increase while average hours worked will decline. Hence more leisure time and more money to spend, an excellent combination for increasing one's activity in the outdoors. According to the Outdoor Recreation Resources Review Commission Report (1962), 14 percent of Americans had an income that was greater than \$10,000 and persons in this group averaged nearly 50 days of recreation participation. Families with incomes from \$3,000 to \$6,000 averaged below 34 days of participation each year. By 1976, 40 percent of the families will be earning more than \$10,000 per year. This great increase in affluence projects a great increase in participation and might indicate an increase

in the use of the more costly forms of recreation. Presently, personal income strongly controls participation in outdoor recreation and influences the form and intensity that the participation will take (Outdoor Recreation Resources Review Commission Report, 1962). However, participation and income may not remain correlated if values of our society change.

According to Beazley (1961):

The desire to participate and to make use of the increasing outdoor recreation opportunities, instead of doing something else, appeared to be caused by the psychological urge "to participate generally," and particularly in an outdoor environment. Apparently there is more to life than fleeting glimpses of the spectacular from a tail-finned automobile, and a house in the suburbs stocked with a TV and home appliances.

Douglas (1970) pointed out that beyond the motivating forces behind outdoor recreation use lies the fact that people must know that outdoor recreation exists, that it is available to them, and that they would enjoy it.

All these factors point to the fact that recreation use will continue to rise in the future. Thus, planning will have to give increasing attention to the problem of overcrowding. Innovation in site preparation is not the complete answer, nor are increased user fees. A way must be found to reroute users to areas that would give them a similar camping experience. The facilities and resources are available if only the user could be made aware of their whereabouts and be persuaded to use them.

CHAPTER III

DESCRIPTION OF STUDY AREA

I. LOCATION

The study area of east Tennessee includes that part of Tennessee east of the Cumberland Plateau. It includes the Unaka Mountains, which constitute the western front of the Blue Ridge physiographic province, and the Great Valley of Tennessee, a segment of the Appalachian Valley. The elevation of the mountains ranges from 4,000 to 6,000 feet while the average elevation in the great valley is about 1,000 feet.

Knoxville, which lies in the mideastern part, is considered to be the social, commercial, and trading center for the area in east Tennessee. Other major cities of the area are Bristol, Johnson City, and Kingsport in the northeastern part of east Tennessee and Chattanooga and Cleveland in the southeastern part. Other than these population centers, the area is mostly rural in nature with many small towns. (See map, Figure 1).

II. TOPOGRAPHY

The eastern border of Tennessee follows the crest of the Unaka Range. The Unakas consist of a chain of irregular ridges and small coves. The mountains vary in width from 2 to 15 miles and range in elevation from 4,000 to 6,000 feet.

West of the Unakas is the Great Valley, a region of ridges and

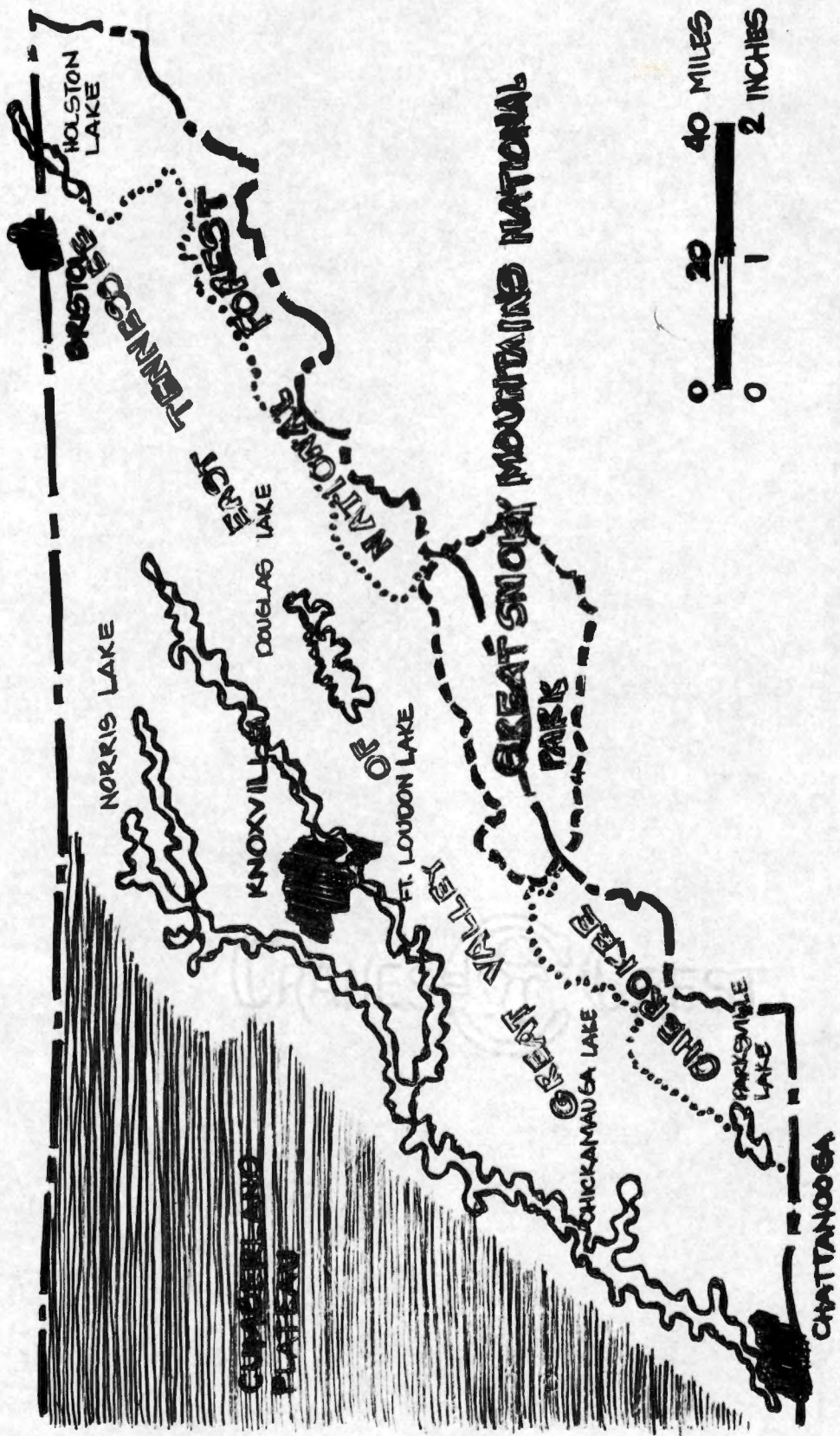


Figure 1. Map of East Tennessee

broad valleys. The most important river is the Tennessee, with its series of manmade lakes. Varying from 30 to 60 miles in width, this valley is a series of parallel low ridges rising up to 800 feet above the intervening valleys. (See map, Figure 2).

III. CLIMATE

The climate is mild and relatively free from extreme or sudden changes. Nevertheless, there is a wide annual range of temperature, and seasons are pronounced. The average annual temperature in east Tennessee is 58.3°F, ranging from 40.2° in January to 77.0° in July. The annual precipitation is about 50 inches. On the average March is the wettest month (5 inches average) and September the driest (3 inches average). However, in The Great Smoky Mountains National Park, the total precipitation is much higher, approaching 80-100 inches at the higher elevations (Climatological Data, Tennessee Annual Summary, 1971).

IV. POPULATION

There were about 1,484,000 people in east Tennessee in 1971. This constitutes about 38 percent of the people in the state. Most of this population is living in or near the large metropolitan urban areas such as Knoxville (400,337) and Chattanooga (304,927). In addition, east Tennessee has 16 urban centers with population over 10,000 and a density of 110.6 people per square mile (Tennessee Statistical Abstract, 1971).

V. CHARACTERISTICS OF INHABITANTS

In 1971, the median years of school completed by persons 25 years old or older was 8.8 and 11 percent of the population had completed less than five years of school. However, 39 percent had completed high school. The median number of years of school completed was 12.

The per capita personal income of east Tennessee was about \$3,500 per year in 1969. However, the median income per household was \$7,000. Most of the earnings came from nonfarm sources such as manufacturing, wholesale and retail trade, and services (Tennessee Statistical Abstract, 1971).

VI. OUT-OF-STATE VISITATION

Tennessee's location has the advantage of the north-south flow of traffic. Most travelers from Illinois, Ohio, Indiana, and Michigan pass through Tennessee to reach points to the south. The interstate highway network aids tremendously in transporting tourists throughout the state and has cut down on the time required to move through the state.

The Tennessee State Outdoor Recreation Plan (1969) reports that 25 states account for 95 percent of the out-of-state visitation in east Tennessee. About half of the total out-of-state visitation is accounted for by seven states: North Carolina, 12 percent; Georgia, 8 percent; Virginia, 7 percent; Florida, 7 percent; Illinois, 5 percent; Indiana, 5 percent; and Kentucky, 5 percent.

VII. IDENTIFICATION AND OBJECTIVES OF AGENCIES

INCLUDED IN THE STUDY

The Great Smoky Mountains National Park and The Cherokee National Forest located in the Appalachian Mountains at the extreme eastern end of the state offer a wide range of outdoor recreation experiences including hiking, camping, picnicking, pleasure driving, fishing and other activities. Tennessee Valley Authority reservoirs and their shorelines in east Tennessee also provide recreation opportunities for hunting, fishing, boating, water skiing, camping, nature walks, and many other activities. State Parks and private recreation areas scattered throughout the area mainly provide camping experiences. East Tennessee is a somewhat unique area because it has these various types of recreation facilities.

United States Forest Service

According to the Forest Service Handbook (1971), one of the objectives of the U.S. Forest Service is

. . . to develop and administer the use of the lands of the National Forest System so that they shall meet their full share of the Nation's existing and anticipated needs in opportunities for outdoor recreation, consistent with other uses which these lands must also support.

The recreation resources of the forests are made available for public use and enjoyment. But, more important, is the fact that public recreation opportunities and facilities must be appropriate to the forest environment; incompatible uses such as overcrowding and deterioration of the scenic and recreation resources will be prevented. Only

facilities for forest type recreation, such as camping, picnicking, skiing, swimming, hiking, and riding will be allowed (Forest Service Handbook, 1971).

National Park Service

According to the National Park Service Publication, Compilation of Administrative Policies for Recreation Areas (1968), the management of campgrounds within a National Park shall be for the dominant or primary resource objective of outdoor recreational pursuits. Managing an area to emphasize its recreational values, however, does not mean that its natural and historical values are to be ignored. Management must provide for the conservation of natural features when they are of such value as to enhance the recreational opportunities of the area.

A wide range of recreational uses, helped by varying kinds of development and management techniques, will be encouraged. These uses include activities which are usually nonconsumptive (hiking, sightseeing, boating) resources. As a rule, every recreation area will be planned, developed, and managed so as to accommodate varying intensities and kinds of use.

Tennessee State Parks

The main objective of Tennessee State Parks, according to the Tennessee Statewide Comprehensive Outdoor Recreation Plan (1969), is to satisfy the outdoor recreation needs for Tennessee recreation users. Also, the state planners must take into account the vast number of out-of-state recreation users that visit the state parks.

The states first concern is preservation of the natural environment of the parks. However, state parks, including Tennessee State Parks, must be responsive to user preferences and desires. In this investigation, the three state parks visited were all of the developed variety. All contained electrical hookups, showers, and paved pull-ins.

Private Campgrounds

The basic objective of private campgrounds is economic gain. To accomplish this it must meet desires of a large number of campers. Failure to satisfy the majority of their clients will jeopardize the success of their business. The campground must be able to earn a profit fairly quickly, but it also should have a future, i.e., the design must be planned so that there will be minimum of site deterioration.

CHAPTER IV

STUDY METHODS

I. THE RESEARCH INSTRUMENT

Data for this study were obtained by a questionnaire and a personal interview with recreation users in the campgrounds of selected areas. This personal interview allowed some minimum evaluation of responses and reduced certain sources of sample bias. Also, the interviewer could explain questions and could better interpret the meaning of the respondents' answers. Faced with an interviewer, the respondent was psychologically forced to provide answers whether or not interested in the topic or thought he had the time to spend (Hutchins and Trecker, 1961). Thus the advantages of personal interview seemed to outweigh the greater cost of conducting such a survey.

A list of questions was developed that would provide the desired data. Many of the questions were unstructured, i.e., "open-end or free response." This type of question was used because a great range of responses was anticipated and there was interest in what the respondent would volunteer on a subject without prompting.

II. SAMPLING

Four different types of recreation areas were selected to get observations. These were areas in The Great Smoky Mountains National Park, The Cherokee National Forest, the State Park system in east

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II. SAMPLING

Four different types of recreation areas were selected to get observations. These were areas in The Great Smoky Mountains National Park, The Cherokee National Forest, the State Park system in east

Tennessee, and private campgrounds. The criteria for selection of the areas were a use level which would insure a reasonable number of observations per visit and wide geographic distribution of campgrounds in east Tennessee.

The sample design included time stratifications. Two seasonal periods were recognized, June 13 to July 31, 1970, and August 1 to September 13, 1970. In addition, weekend and weekday strata were recognized. Days within these strata were selected randomly; however, an adjustment was made when there were more than two parks to visit in one day or the two parks to be visited were too far apart. There were three visits to each park during each seasonal time period. These time stratifications were used to test for seasonal differences between early summer and late summer campers, e.g., search for differences in populations and their behavior. For example, do most tent campers come in a special season and do most campers who stay in a campground for an extended period of time come early or late in the season. Each area was visited twice on weekdays and once on weekends within each time period to total 72 visits-- $2(1+2) \times 12$ ($12 = 3$ campgrounds visited $\times 4$ ownership types).

Ten observations was the maximum set for each visit to any campground. The considerations in this somewhat arbitrary determination were: measure of variance, time allocations, and difficulty of obtaining a greater number at some locations. A weighting factor in data analysis adjusted for varying sample intensity.

Upon arriving at an area, individual sites were randomly picked using a table of random numbers and campsite numbers. If a randomly

picked site was unoccupied, a coin was flipped to select the site on the right or left of the picked site.

III. ANALYSIS OF DATA

Chi-square tests, the Newman-Keuls procedure, and analysis of variance were used to test various relationships of socioeconomic data with attitudes and use patterns. In most cases simple frequency distributions and percentages sufficed. Open-ended questions were categorized after data collection. These comments given for "open-ended" questions lended themselves to categorizing. In all questions, answers could be grouped into less than 10 categories, and in most cases fewer than five. In some questions (see Appendix) respondents were allowed to give up to four different answers. In the analysis, these were ranked as first answer, second answer, etc. The only questions during the course of the survey that respondents hesitated to answer were the age of the female and the family income. In all statistical analyses, each observation was statistically weighted by the number of occupied sites in the area at the time of observation.

CHAPTER V

RESULTS AND DISCUSSION

It was anticipated that differences in the population using the four major types of campgrounds in east Tennessee might explain or reveal some of the reasons associated with selection of these intensively used campgrounds when other less used similar areas were available. The basic treatment of the data then in the analysis was involved with revealing differences in responses among the four different types of campgrounds studied.

I. A COMPARISON OF USER-GROUPS IN THE FOUR TYPES OF OWNERSHIPS

The information collected in the user-questionnaires deals primarily with user-groups, their activities while in recreation areas, their general satisfactions and dissatisfactions with area facilities and services, their reactions to specific aspects of the areas and general attitudes about outdoor recreation. Consideration is given in this section to the characteristics, activities, and reactions of the user-groups. Analysis of the attributes and responses was focused upon a search for clues to some underlying reasons as to why campers continue to select areas that are already overcrowded, and for factors which could help in making plans to divert people to areas with excess capacity.

Frequency of Destination or Extended Trip Visits

Each respondent was asked the question: "Is this campground your destination or is this stay part of an extended trip?" Figure 3 shows the percentage distribution for the two kinds of trips. There is a significant difference between administering agencies at the .05 level using Chi-square analysis.¹ Most visitors to USFS Recreation Areas were there on a destination visit (80 percent). Almost half of the visitors (47 percent) to the state and private parks were transient campers. State Parks and private parks were usually located along major highways or near established and popular recreation sites, while the USFS Recreation Areas were located in more remote places. In other words, campers usually did not stop at a USFS campground because they saw it from the highway, they must have known about its location already and planned to stop there.

Figure 3 also shows that in each type of campground, a greater percentage of respondents were at their destination. It was learned during post interview periods of conversation with state and private campground users who were transient campers that many times they were on their way to a National Park and stopped at one of these types for an overnight stay. When this did happen, in many of the cases these

¹The Chi-square statistic, X^2 , tells us whether our observations differ from what is expected by chance, when chance is defined according to a particular set of rules. It answers the question, "Do your observations constitute a significant departure from what would be expected by chance?" Chi-square has the disadvantage of being unable to specify where the significant differences between ownerships lie except between at least the smallest and highest.

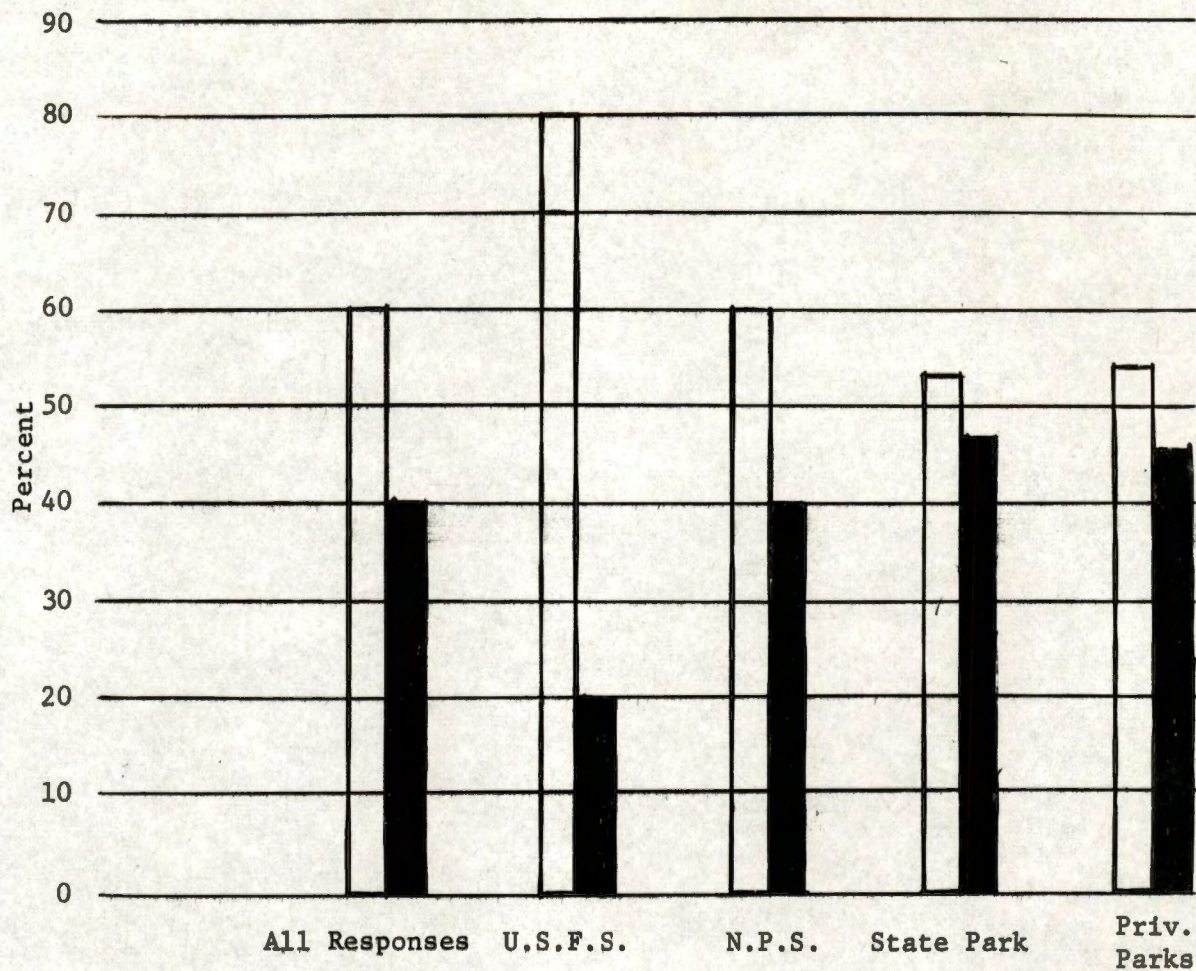
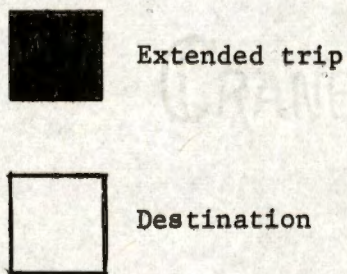


Figure 3. Percent distribution of destination and extended trip respondents by type of area.



users stayed in these types longer than anticipated, especially in the state parks. This might be an indication that users will be content to stay in other areas near a National Park if they know what is available.

The Distance That Respondents Traveled from Home

Only 25 percent of all respondents were within 100 miles of their home (Figure 4). Figure 5 shows that most of the respondents in the USFS areas (71 percent) were within 100 miles of their homes. Also, 40 percent of respondents in State Parks were within 50 miles of their home (Figure 6). There was a significant difference between ownerships at the 0.5 level (Chi-square analysis) for this variable. Figure 4 also shows that most respondents in all ownerships were either less than 100 miles or greater than 300 miles from their homes. The interpretation of this would seem to be that respondents either came relatively short distances to camp or made it a major trip. A look at the National Parks and private parks results show that about 70 percent of the respondents in these areas drove at least 300 miles from home while only about 15 percent were within 100 miles (Figures 7 and 8). This could be a partial explanation of why the campgrounds in the Great Smoky Mountains are overcrowded. Campers from further away, 70 percent in the National Park areas, probably do not have enough information about the east Tennessee area to pick any other type of campground. These people only know about the National Park areas, not that there are other excellent opportunities in the area.

A comparison of Figures 3 and 5 reveals a relationship between distance from home and type of stay. Eighty percent of the USFS

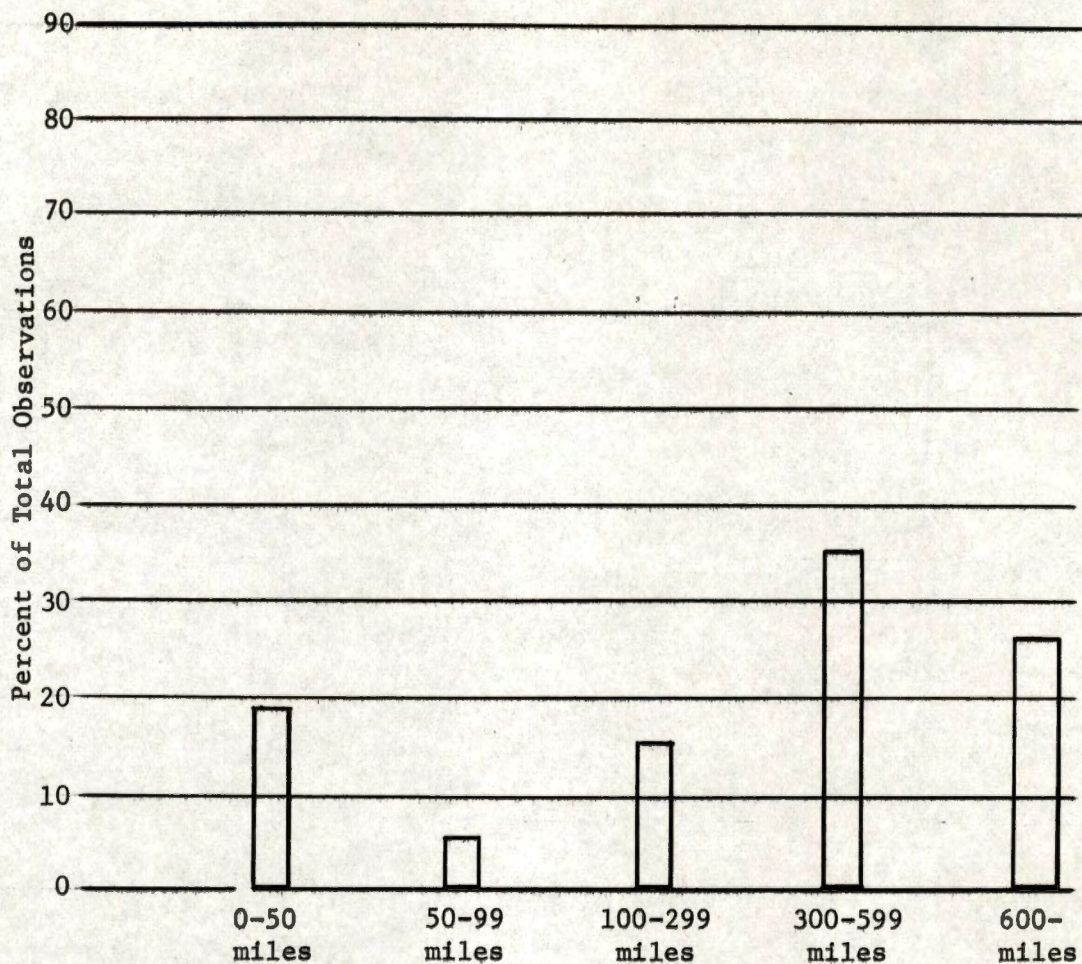


Figure 4. Percent distribution of the distance that respondents for all sites were from their home.

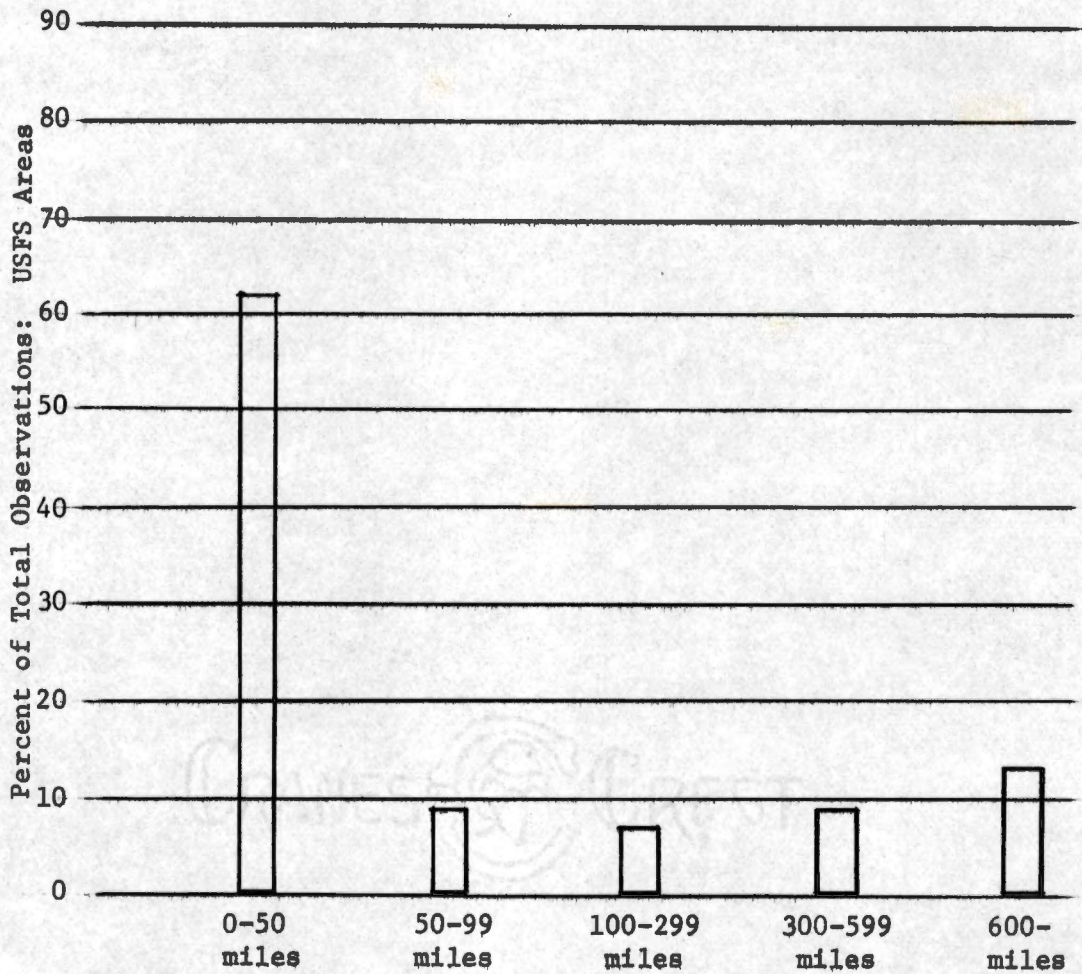


Figure 5. Percent distribution of the distance that respondents in the U.S. Forest Service campgrounds were from their home.

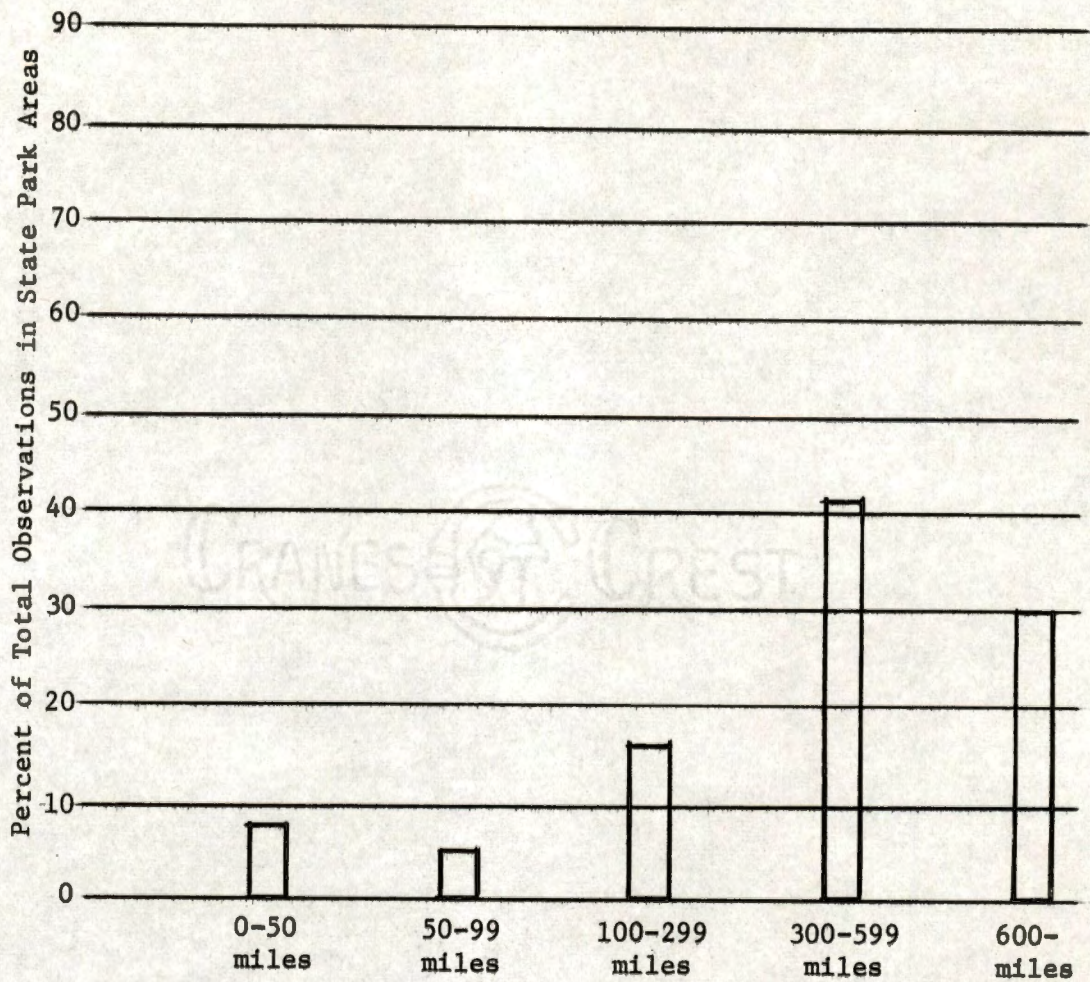


Figure 6. Percent distribution of the distance that respondents in State Park campgrounds were from their home.

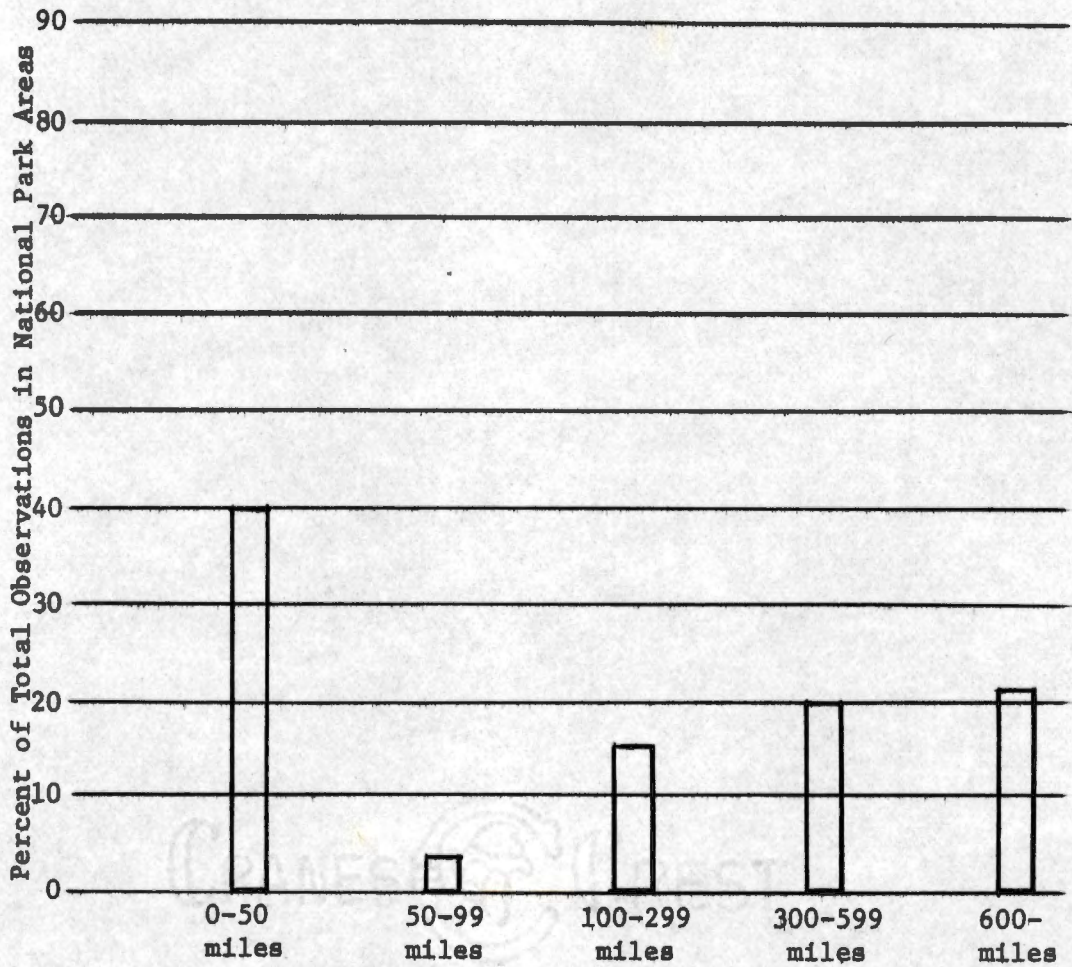


Figure 7. Percent distribution of the distance that respondents in National Park Service campgrounds were from their home.

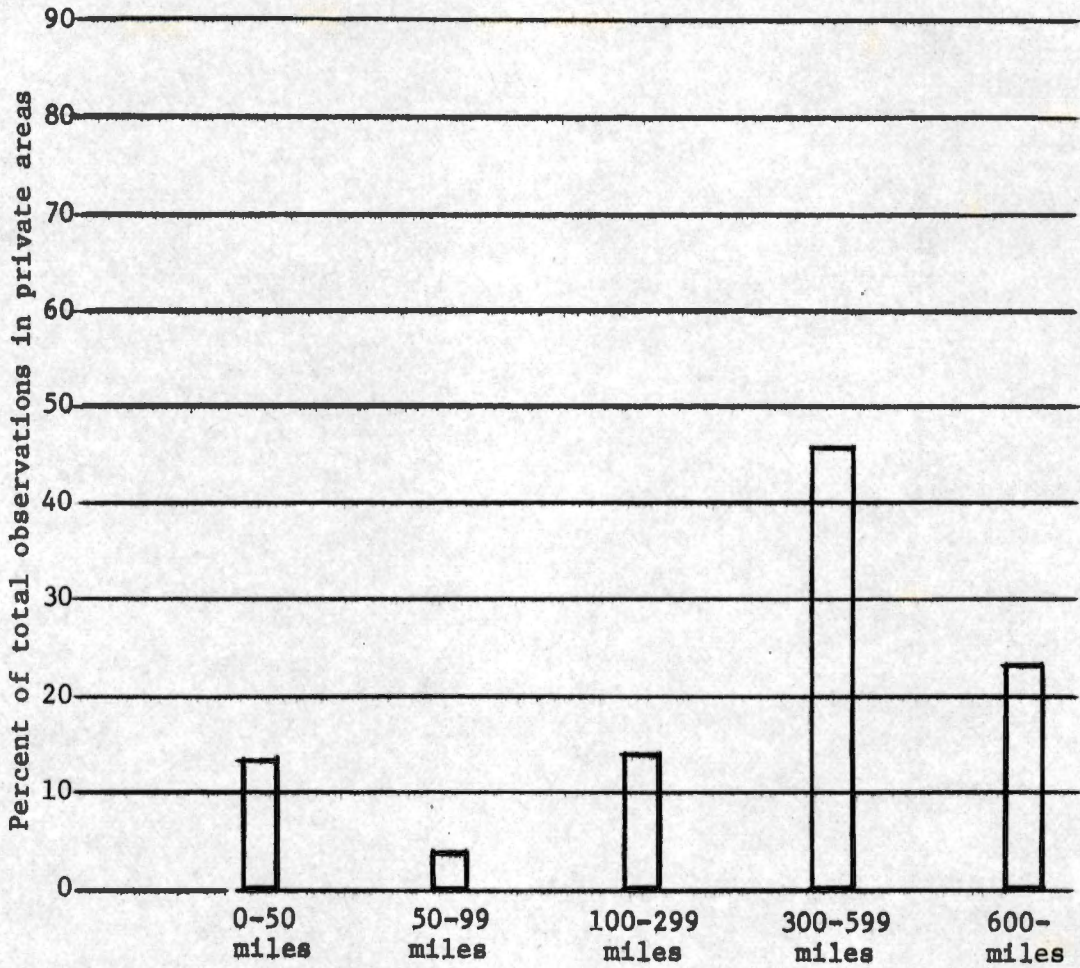


Figure 8. Percent distribution of the distance that respondents in private campgrounds were from their home.



respondents were at their destination and 70 percent were close to home. Also the people in USFS areas stayed an average of one day longer in an area than did respondents in the other types of ownerships.

Second Choice of Type of Campground

The question: "Where would you go if this campground was full when you arrived?" was asked of the respondents. Figures 9 through 13 show the distribution of responses. Nearly 50 percent of the respondents were satisfied with the type of area they were in and would choose the same type ownership if the first one they tried was full or unavailable. Very few (4 percent) would choose to give up the idea of camping and stay in a motel for the night.

A large percentage of respondents that were interviewed in the National Parks and private parks selected a private park as their second choice probably because there are usually many clustered near the borders of the National Parks (Figures 11 and 13). Many respondents, on finding a National Park campground full, stayed in a private park overnight and arose early to be in line for a site in the National Park campground. This phenomenon is common around National Park Areas. Why were people so anxious to get inside the park to camp when they already had a site nearby? Fees seemingly were not the factor because campers indicated a willingness to pay more for camping. It was probably the desire to have the experience of camping inside a National Park even though desired facilities such as electricity and sewer hookups were not provided.

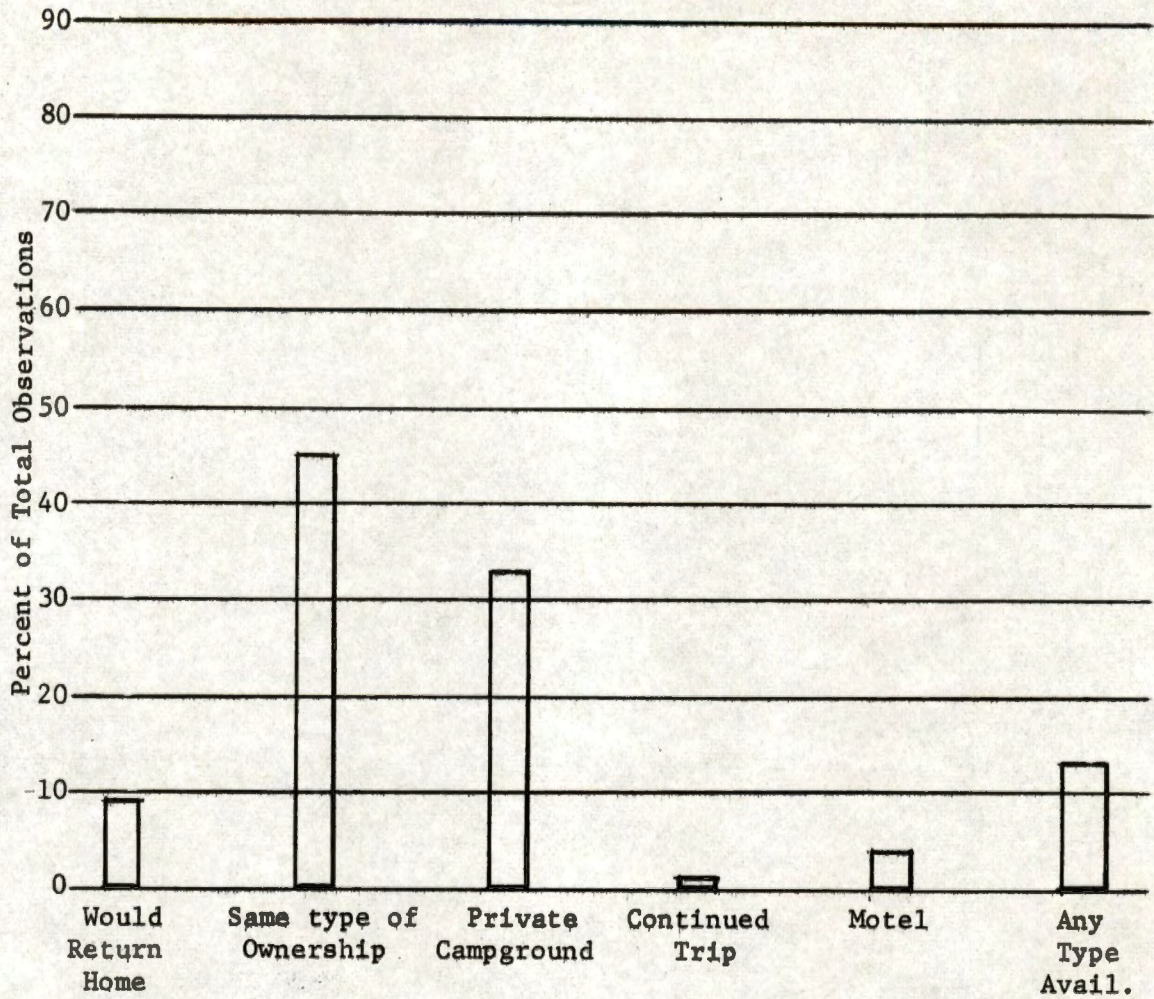


Figure 9. Percent distribution of the second choice of type of overnight campground as reported by all respondents.

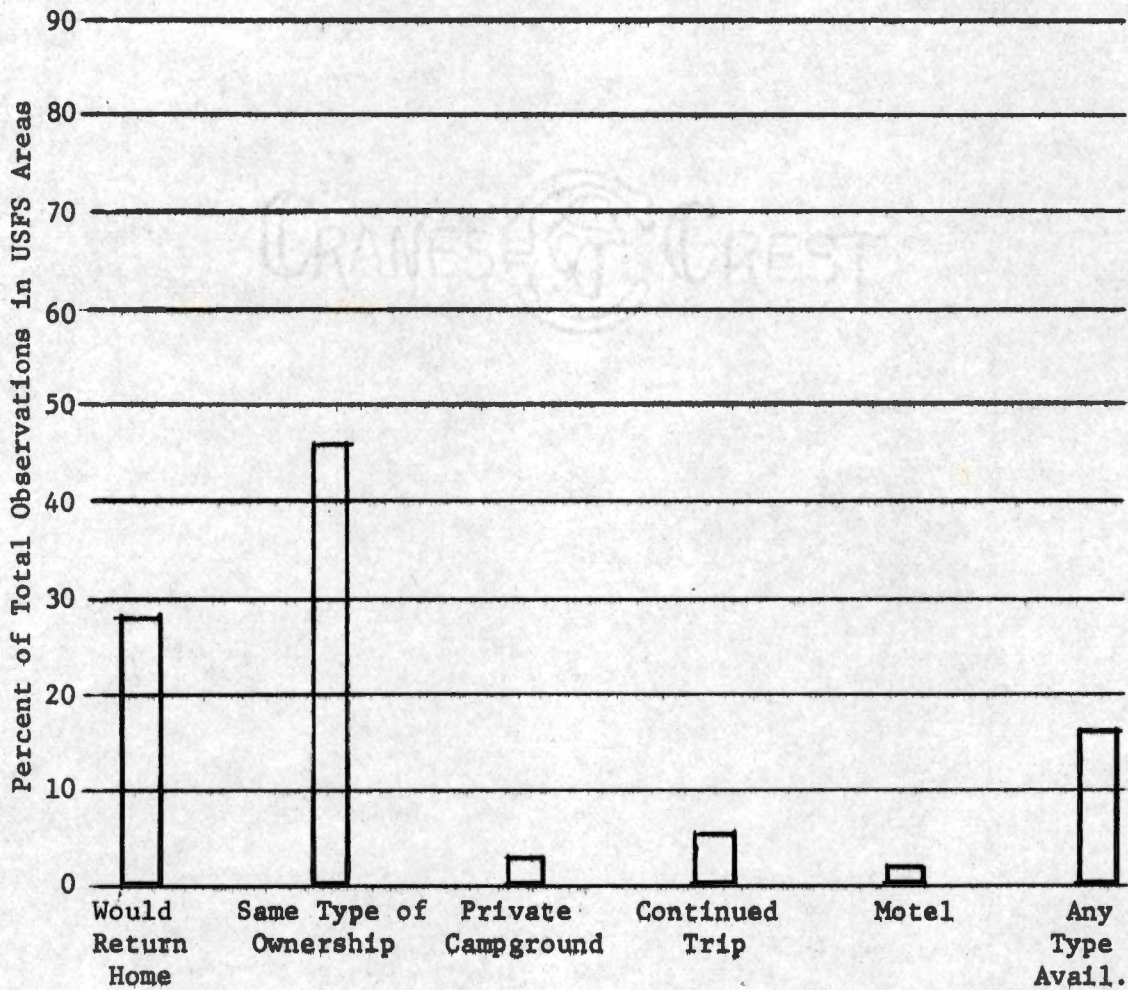


Figure 10. Percent distribution of the second choice of type of overnight campground by U.S. Forest Service respondents.

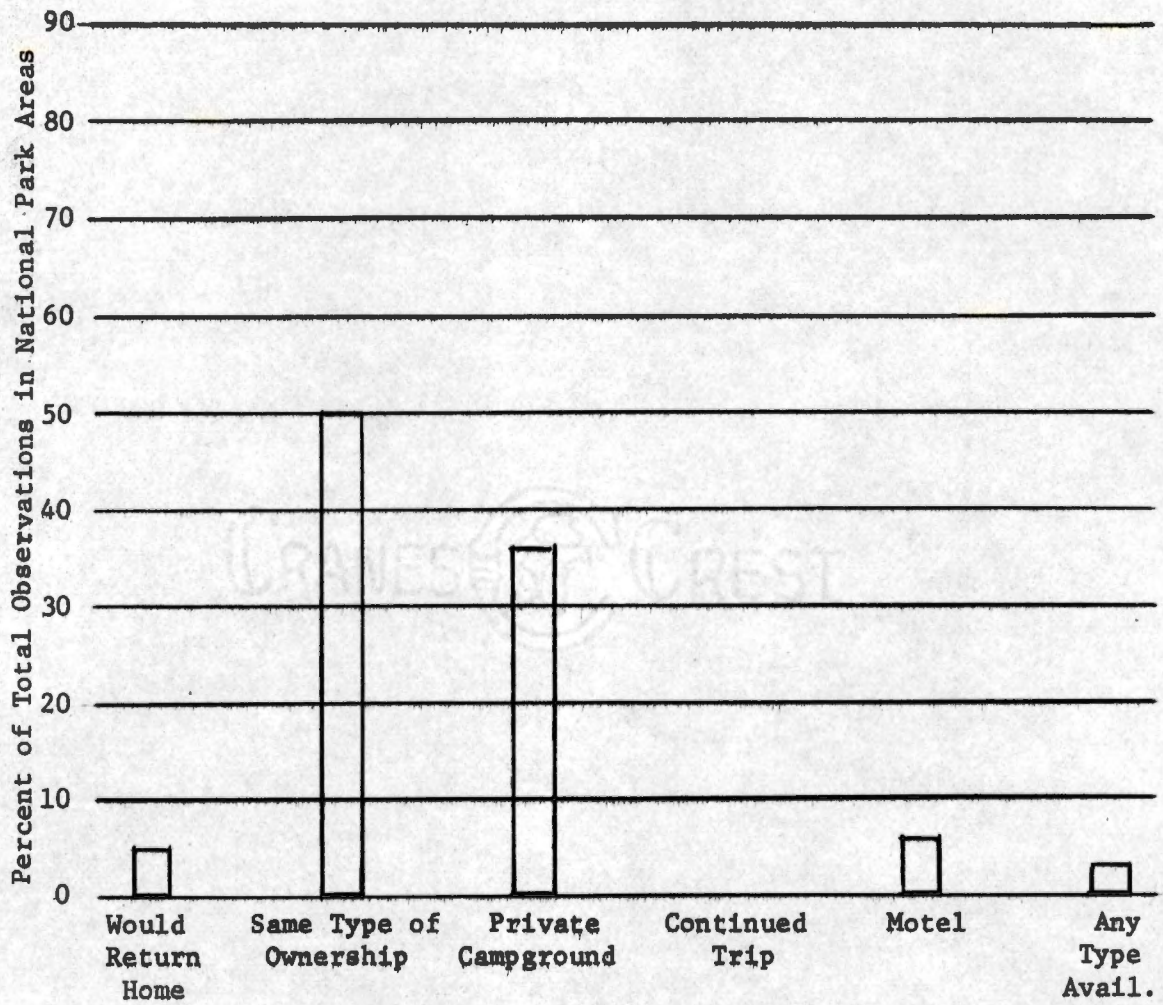


Figure 11. Percent distribution of the second choice of type of overnight campground by National Park respondents.

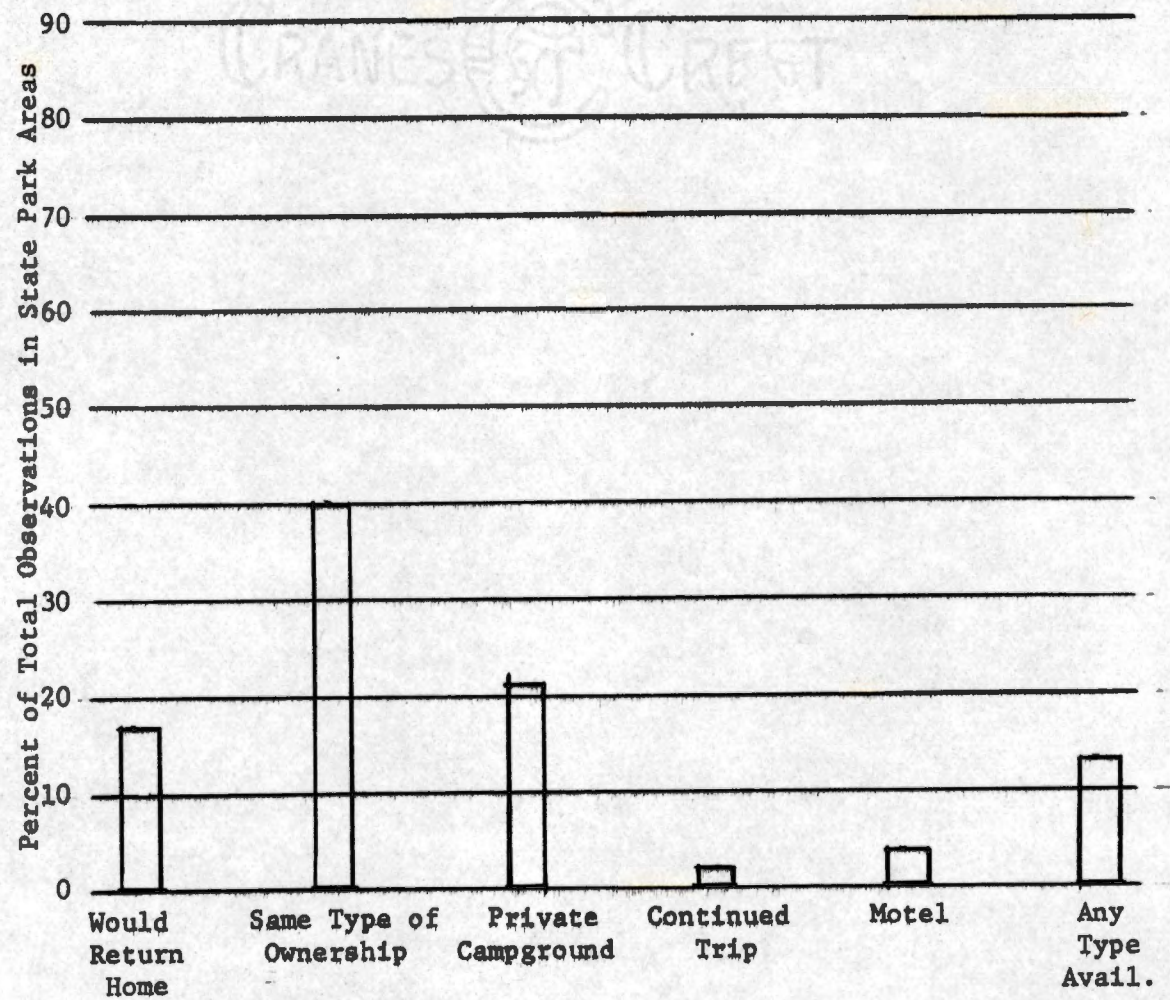


Figure 12. Percent distribution of the second choice of type of overnight campground by State Park respondents.

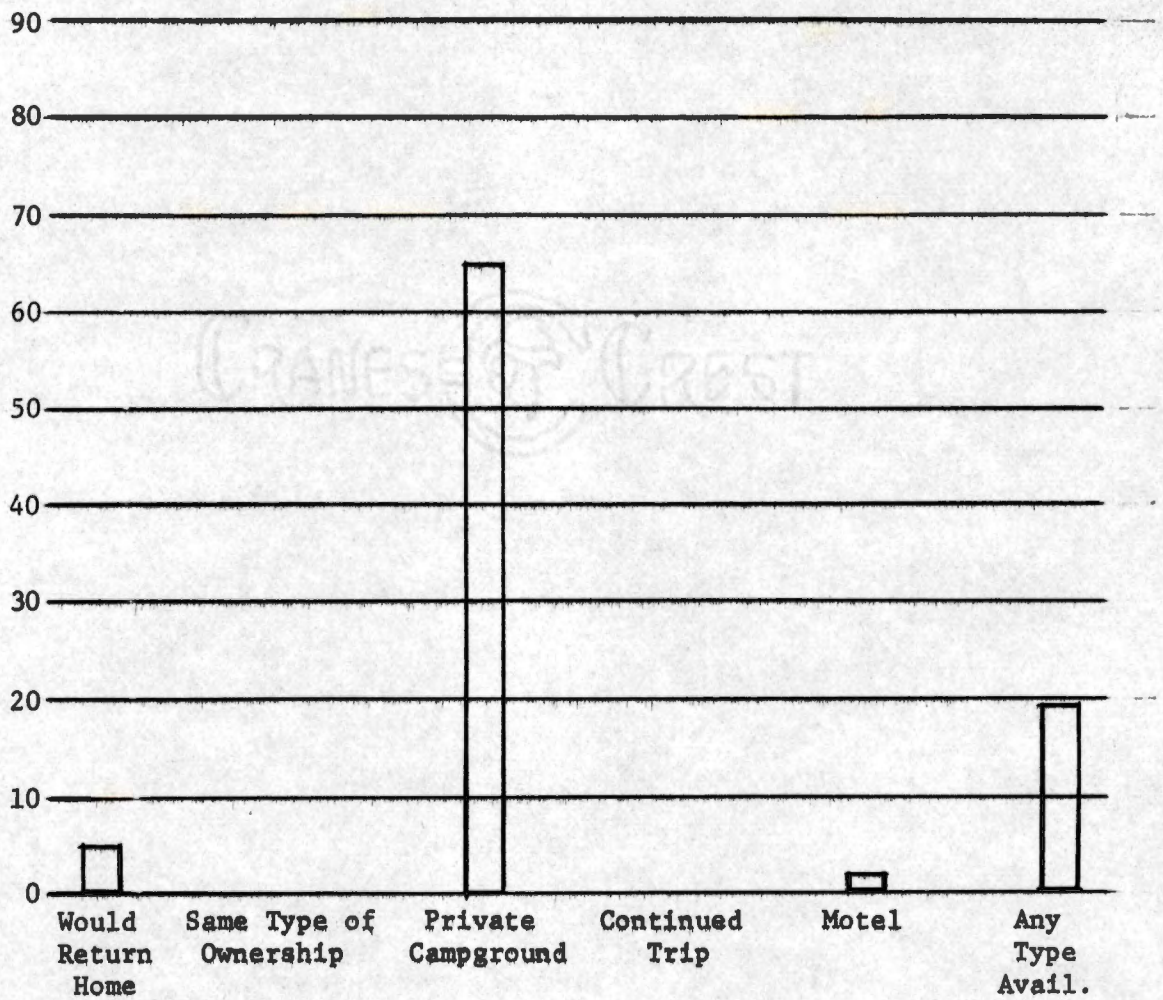


Figure 13. Percent distribution of the second choice of type of overnight campground by private campground users.

Frequency of Camping Visits

Questions were asked of the groups concerning the number of times per year they camped in areas similar to the one they were in at the time of the interview. Table II shows that the "average" camper in the study took about three camping trips per year. The respondents in USFS campgrounds, however, took nearly twice as many similar trips. Also, these respondents drove a shorter distance to the campground and spent a longer period of time there. There was a significant difference at the .05 level between these respondents and the respondents from all other ownerships (Newman-Keuls Procedure). Another question that was asked at this time was "the type of park (ownership) that you visit most frequently." The results showed that respondents visited the type of park they were in at the time of the interview over 50 percent of the time. State Parks had the highest percentage (82 percent) while private and National Parks were somewhat lower (50 percent and 65 percent). One possible explanation for the high rate for the State Parks in general might be that most of these parks are well publicized and located on most road maps so the campers were assured of finding them easily. Also, there are more of these available.

Another aspect of this question was the fact that over 80 percent of the respondents in the survey had visited other types of campgrounds during the last two years. Sixty-seven percent of the USFS respondents had visited other types while 85 percent of the National Parks, 74 percent of the State Parks, and 78 percent of the private park respondents had visited other types. The high percentage of respondents in National

TABLE II

NUMBER OF TIMES PER YEAR THE USER GROUPS CAMPED
IN AREAS SIMILAR TO THE ONE THEY WERE IN
AT THE TIME OF THE INTERVIEW

Classification	Frequency of Visit
All responses	2.7
U.S.F.S.	5.9
N.P.S.	2.2
State Park	3.2
Private Park	2.2

park areas who had visited other types of areas was significantly higher than the others (Newman-Kuels procedure). This reveals another characteristic that was common among National Park users. This group had experienced other ownership types of campgrounds yet they still seemed determined to stay in a National Park area. This suggests the status motive of users in the National Parks, i.e., they wanted to be able to say they camped in the Great Smoky Mountains.

Respondents Best Source of Information About Campgrounds

Figures 14 through 18 show that the most frequent source of information about campgrounds was friends or acquaintances. Not only did most respondents indicate friends as their source, but they also indicated that it was the only source they used with any degree of confidence. Another popular method of discovering campgrounds was to contact the State and Federal government agencies concerned with the management of outdoor resources of the area they wished to visit. Other respondents, especially those on extended trips, used recreation magazines for their source of information.

The users' source of information about campgrounds could be the key to solving the problem of overcrowding in certain parks. As the data shows, campers depend to a large extent on what friends or other campers say about other campgrounds. Also campers increasingly go to camping magazines for information to select campgrounds; more than half the respondents use the publication media as a source of information.

Through the news media some people might be persuaded to visit under-utilized campgrounds in a region and subsequently influence other

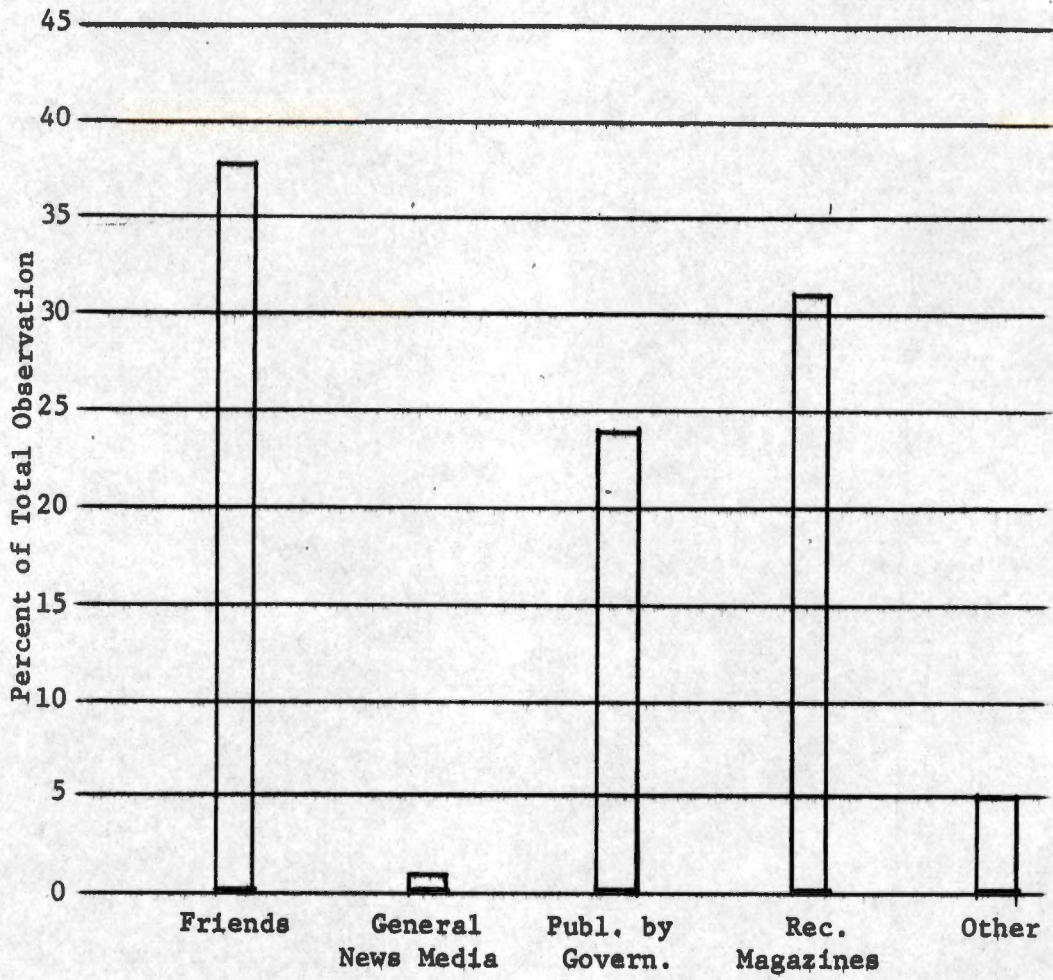


Figure 14. Percent distribution of the source of information about campgrounds and facilities as reported by all respondents.

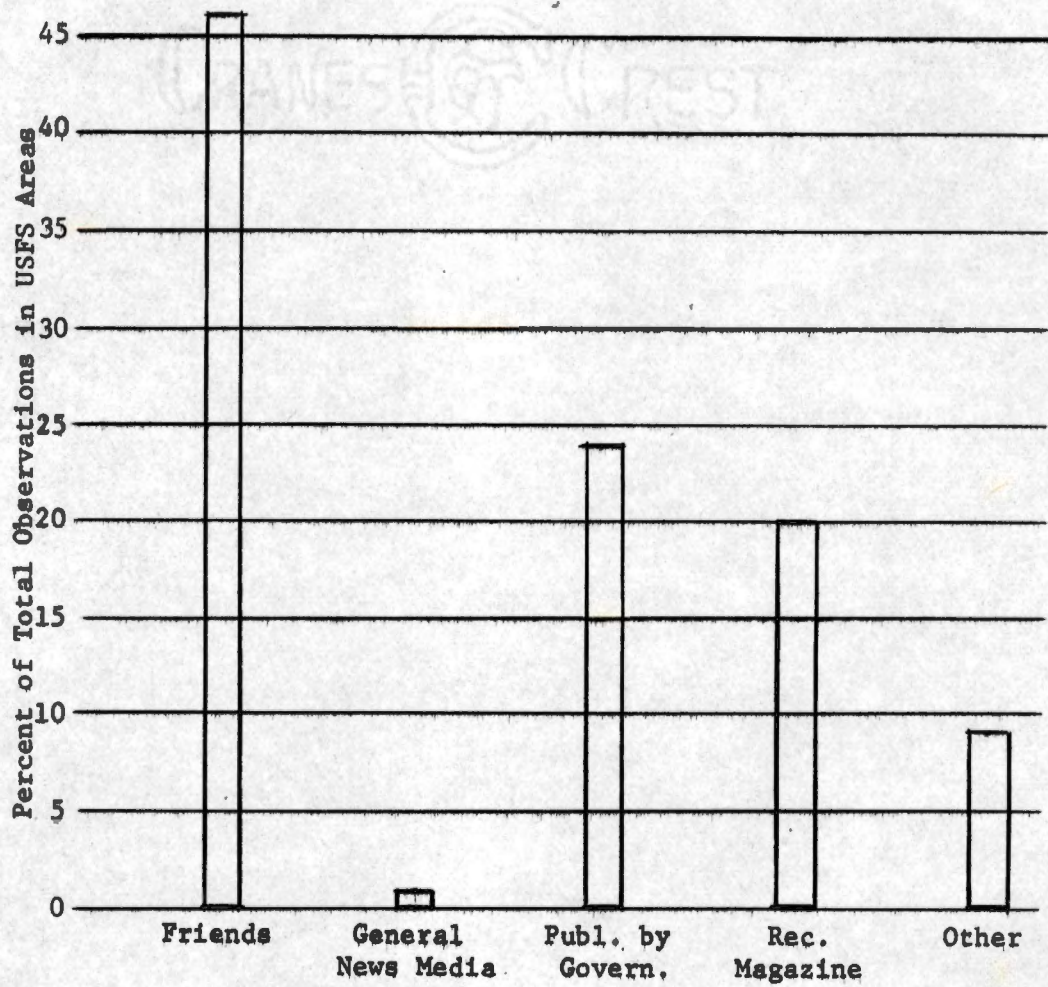


Figure 15. Percent distribution of the source of information about campgrounds and facilities, as reported by users in U.S. Forest Service type campgrounds.

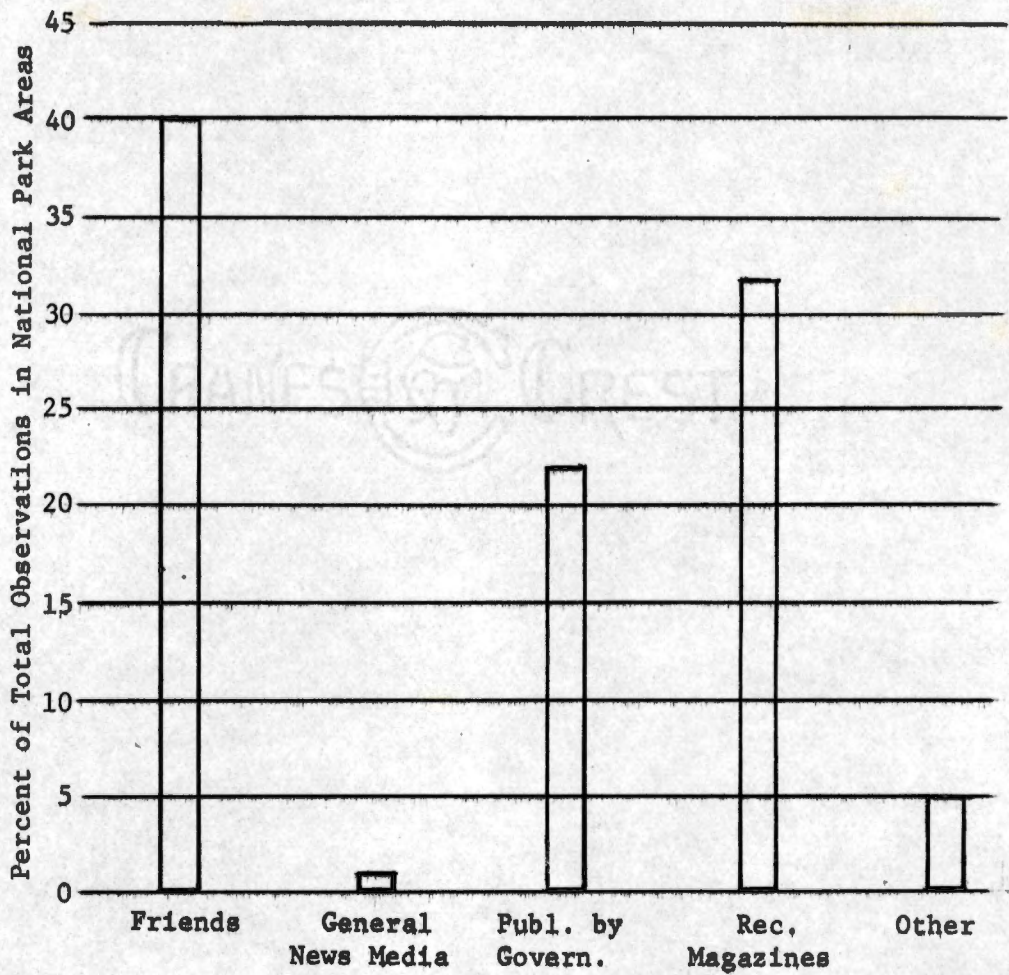


Figure 16. Percent distribution of the users best source of information about campgrounds and facilities as reported by users in National Park Service Campgrounds.

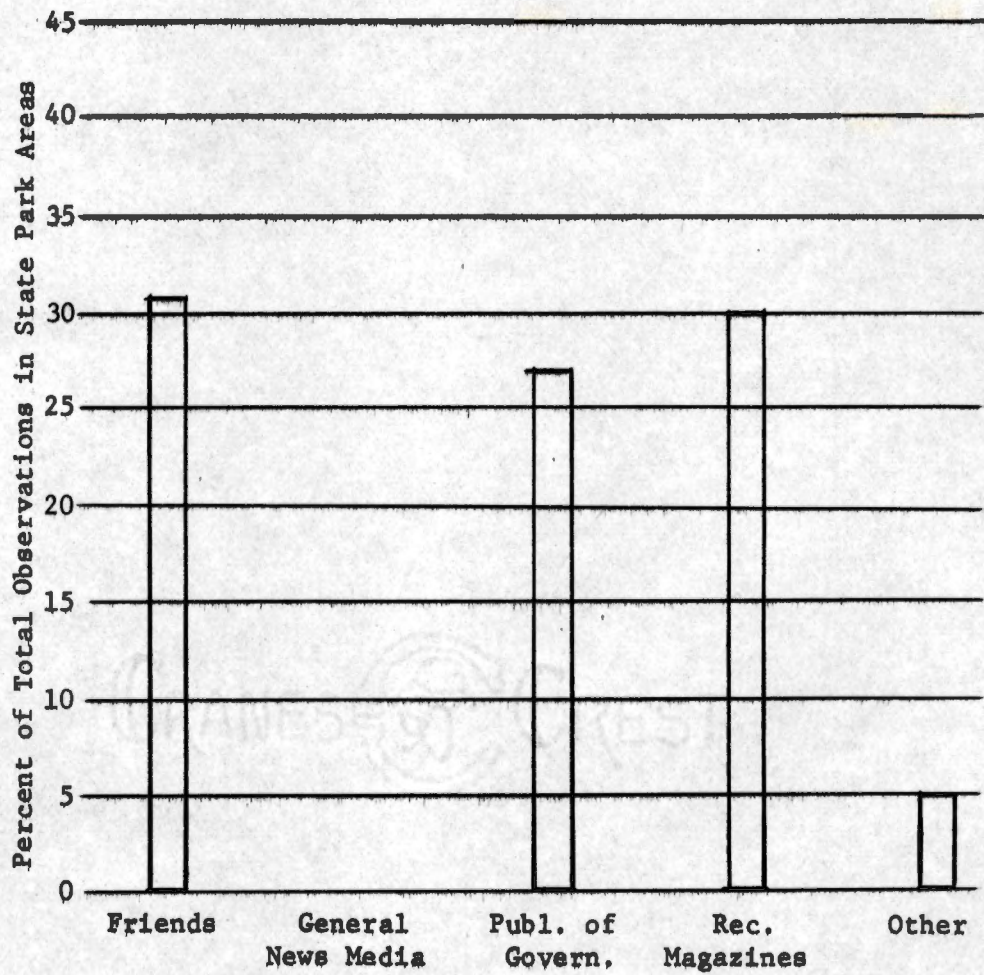


Figure 17. Percent distribution of the users best source of information about campgrounds and facilities as reported by users in State Park campgrounds.

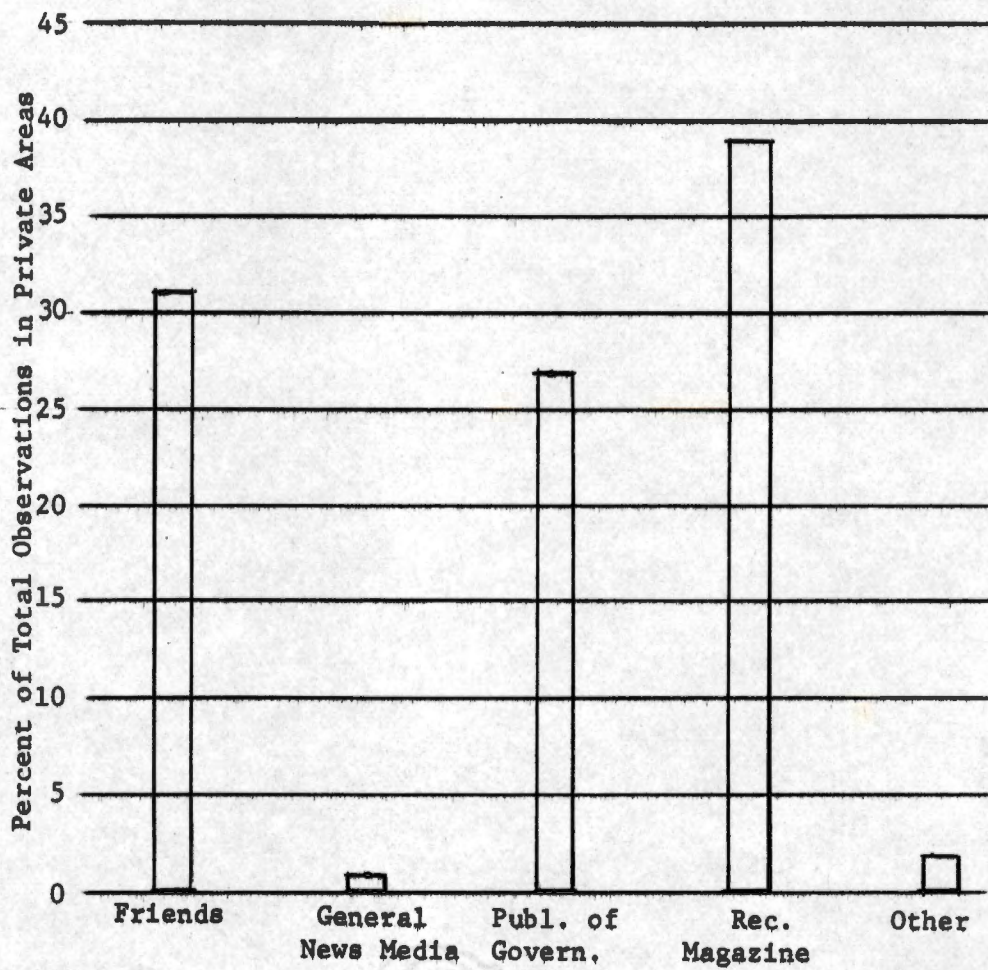


Figure 18. Percent distribution of the users best source of information about campgrounds and facilities as reported by users in private campgrounds.

campers to do likewise. For example, if a family returned from a trip to the Smoky Mountains and told their friends about a good experience in a relatively uncrowded USFS or State Park campground, these friends might consider trying these areas. Federal and State agencies would have to make the appropriate information available when it is requested. In a cooperative effort to solve distribution problems, requested information about all of the camping facilities in an area should be furnished to interested parties, not merely the information about the agency contacted.

II. USER OPINION CONCERNING VISITED AREAS

The question, "Why did you pick this ownership type for camping?" brought a wide area of responses (see Figures 19 through 23). The three responses given most frequently, however, involved esthetics of the area. The difference between ownerships for this response was significantly different at the .05 level (Chi-square analysis).

The three principle reasons for choosing a particular type of campground seemed to be type of facilities (26 percent), scenery available nearby (20 percent), and a rustic atmosphere in the campground (19 percent). Upon further examination of Figures 20 through 23, some interesting characteristics of campers in each type of ownership were distinguished. For instance, a high percentage of the respondents who used the USFS (23 percent) and National Park campgrounds (22 percent) listed rustic atmosphere in the campground as one of their principle reasons for visiting the area (Figures 20 and 21). On the other hand, over 40 percent of the respondents in the state and private areas listed

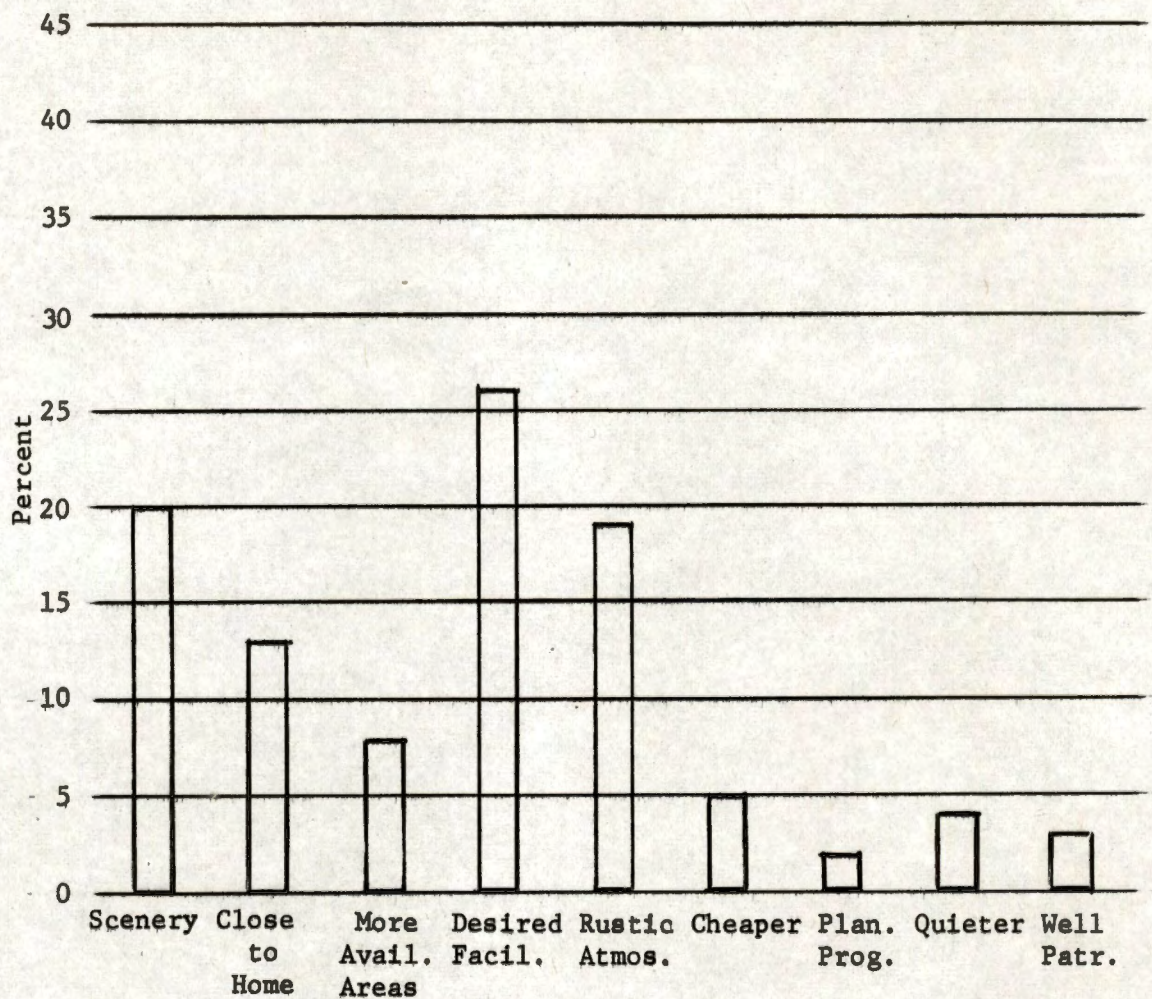


Figure 19. Percent distribution of reasons for selecting the sampled areas as reported by all respondents.

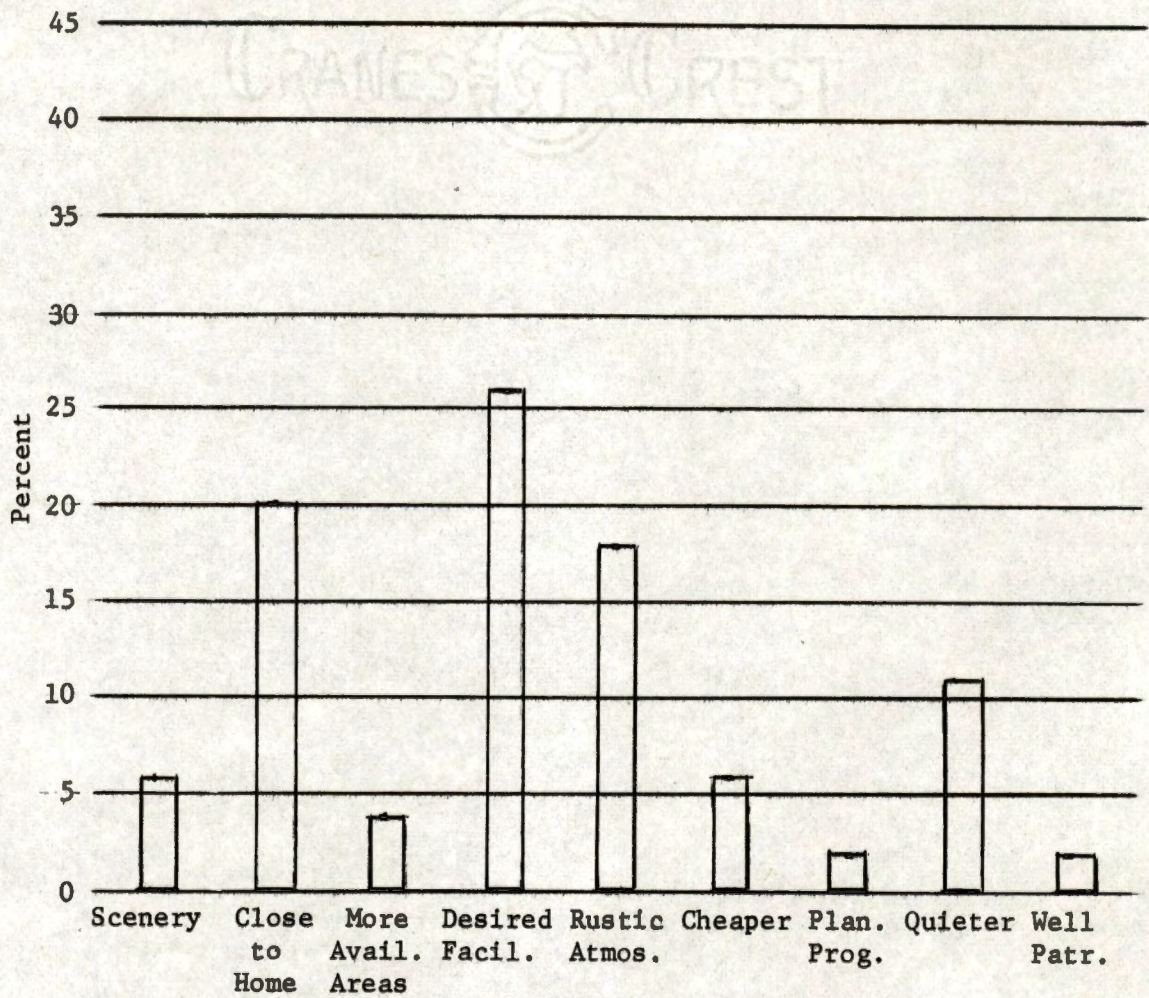


Figure 20. Percent distribution of reasons for selecting the sampled areas as reported by U.S. Forest Service respondents.

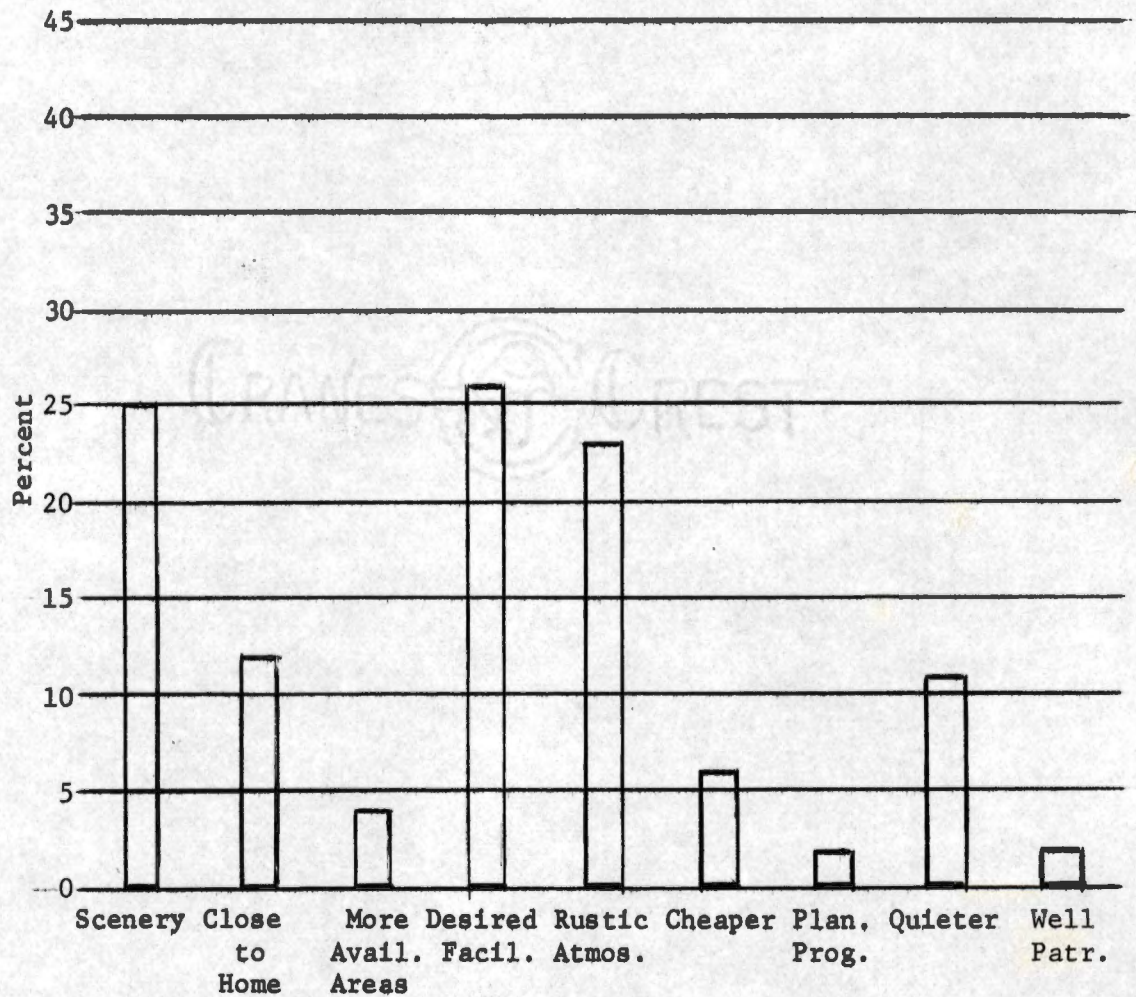


Figure 21. Percent distribution of reasons for selecting the sampled areas as reported by National Park respondents.

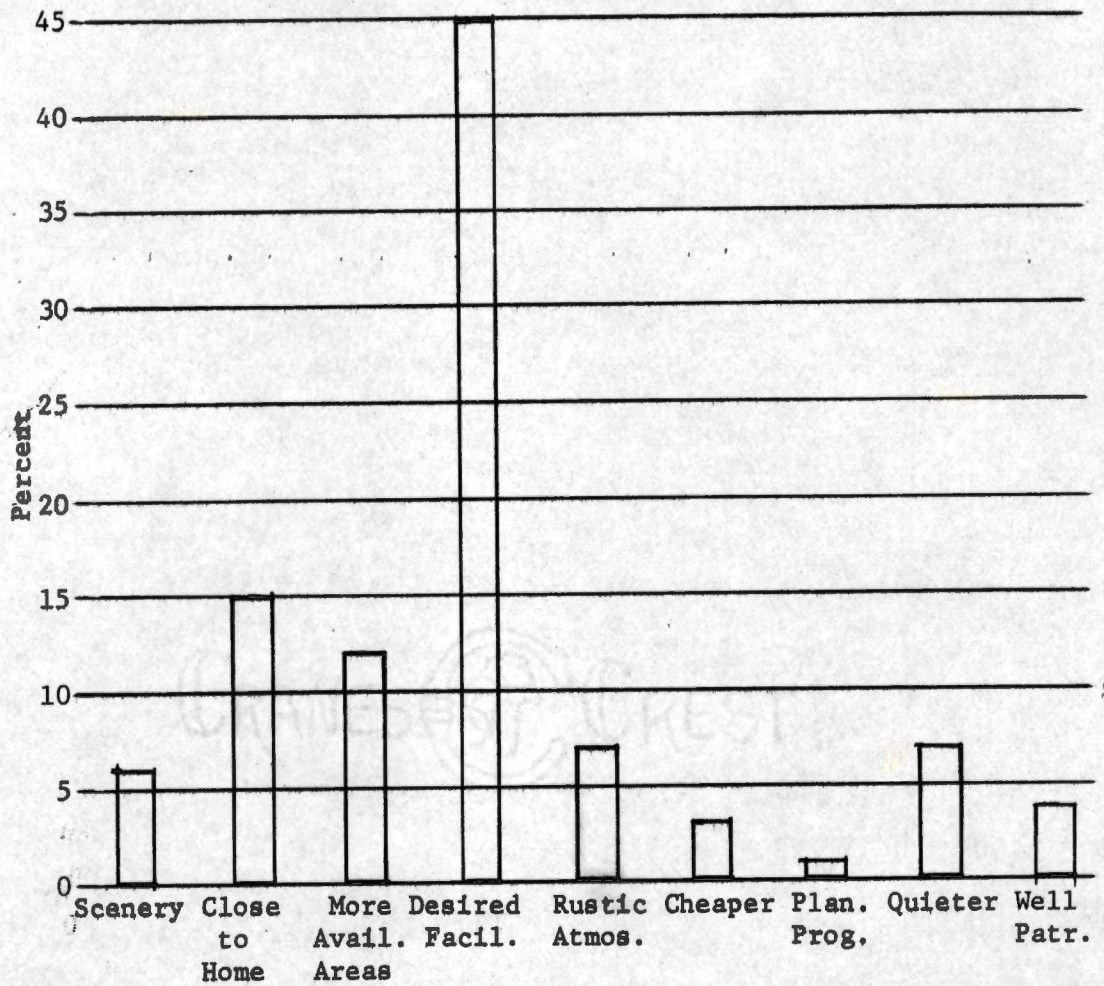


Figure 22. Percent distribution of reasons for selecting the sampled areas as reported by State Park respondents.

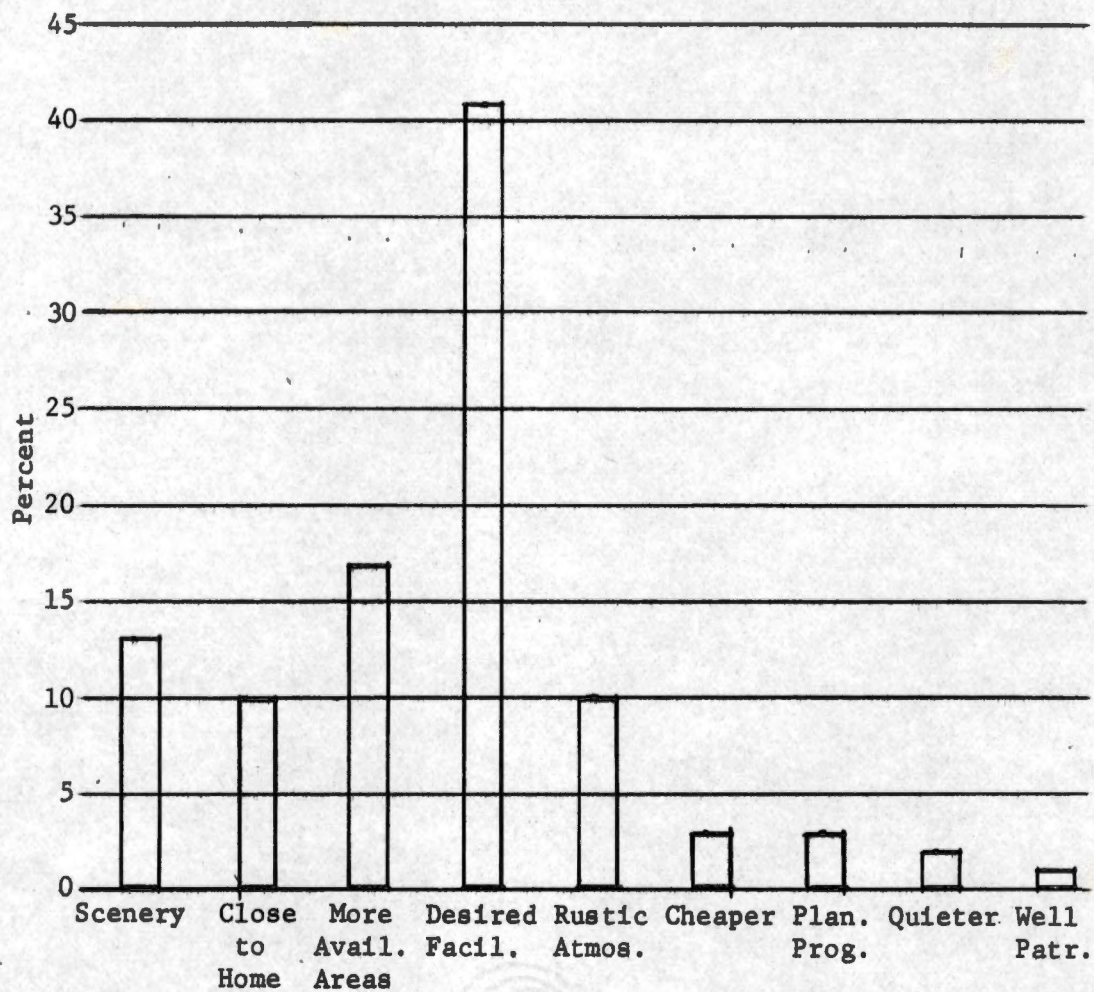


Figure 23. Percent distribution of reasons for selecting the sampled areas as reported by private campground respondents.

desired facilities as their principle reason. (Figures 22 and 23, pages 47 and 48). It could be concluded from Figures 19 through 23, pages 44 through 48, that many campers visit a certain type of campground because of its lack or abundance of facilities with some concern for aesthetics.

These reasons for selecting certain types of campgrounds seems to reveal that campground users do consider their desires before they start on a camping trip. The problem of persuading them to pick lightly used areas rather than overcrowded ones persists, however, it is hypothetical as to whether lack of knowledge and tolerance for crowding are factors. There is strong evidence that campers select areas because of facilities. Why then did many campers who had trailers with all the possible hookup connections (electricity, water, sewer) crowd into the National Park Campgrounds which had none of these facilities? Here again the status or experience motive could be the more influencing factor. These campers wanted to stay inside the National Park, even if it meant giving up some desired facilities such as electricity and sewer connections. Many times, campers in the National Park areas indicated that their stay would be enhanced by the addition of electricity to the area. Almost as often, however, campers noted that they would prefer fewer facilities provided and fewer people in the area. These are the people who might move to a less crowded area with some positive motivation or inducement.

Type of Facilities Desired

Figures 24 through 28 show the percentage distribution of different facilities most wanted by respondents answering the questionnaire.

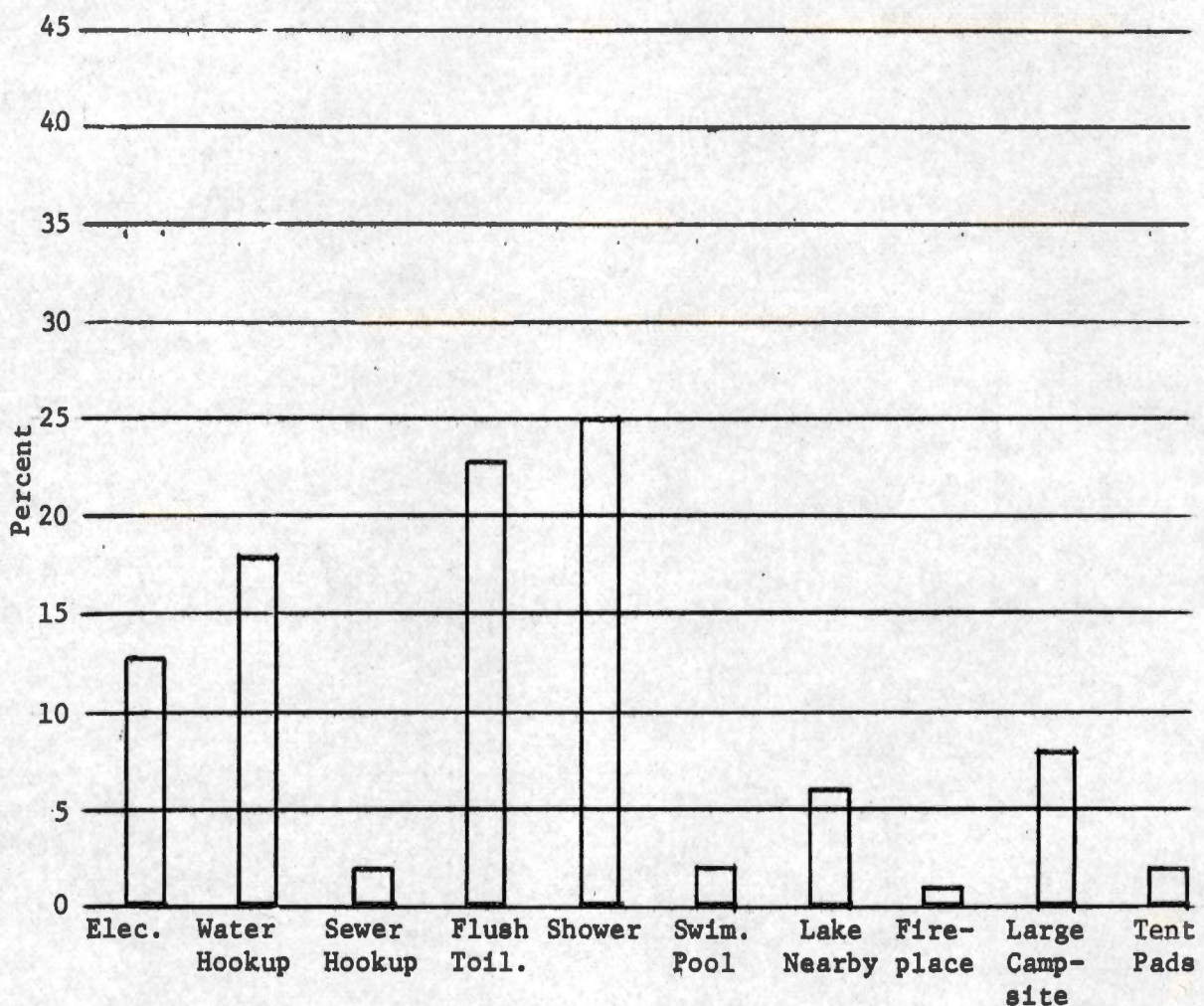


Figure 24. Frequency of responses about desired facilities by all users.

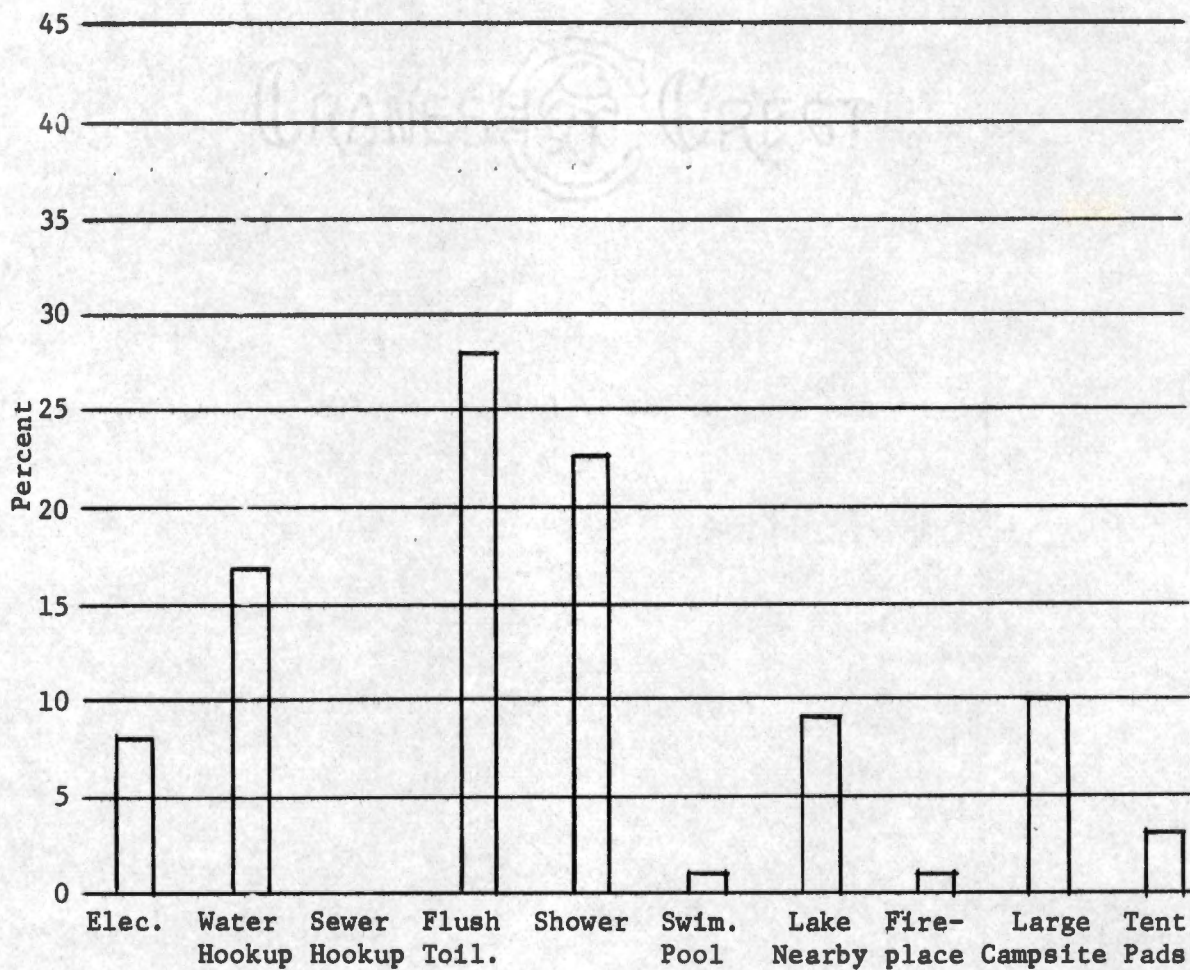


Figure 25. Frequency of responses about desired facilities by users in U.S. Forest Service campgrounds.

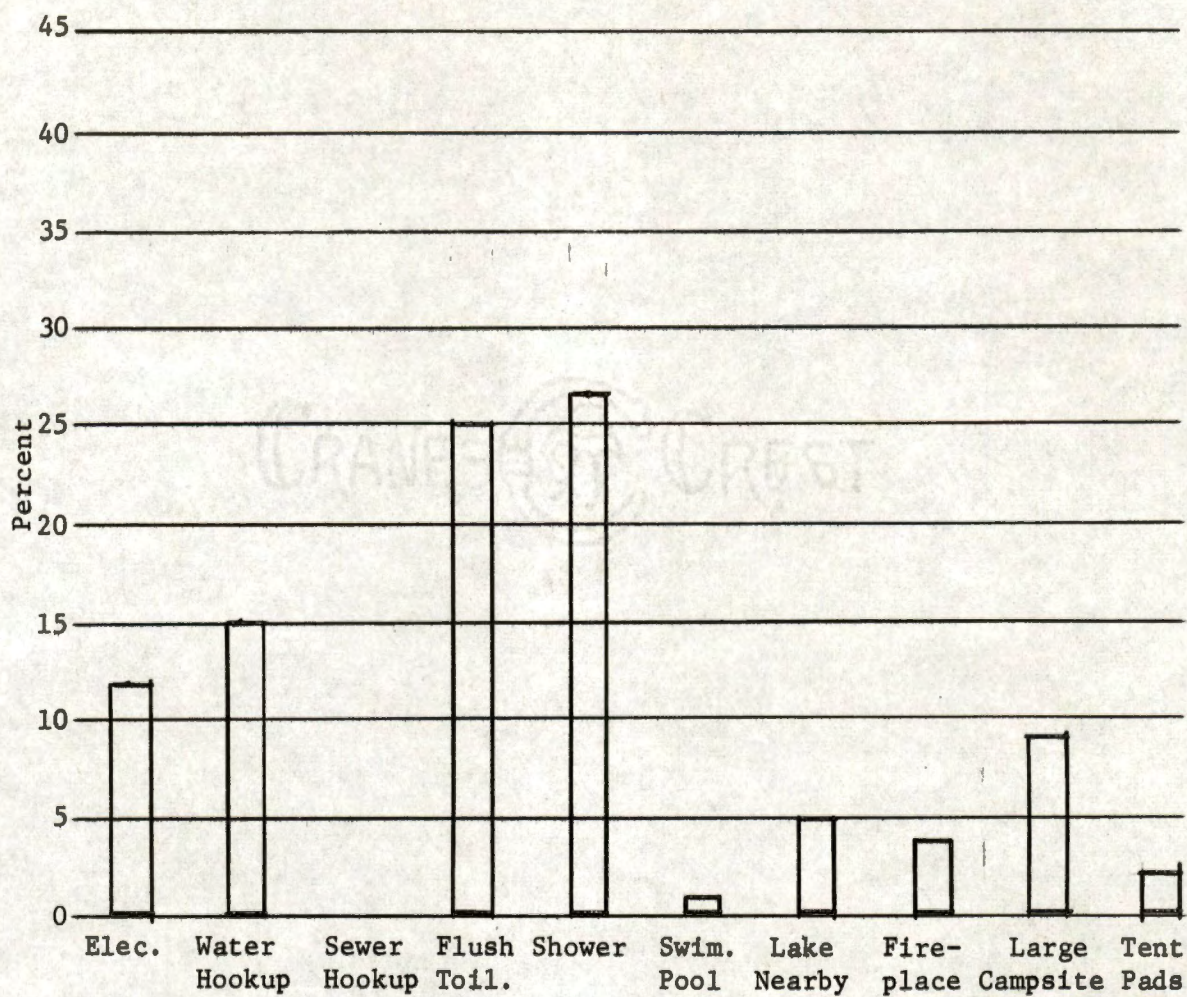


Figure 26. Frequency of responses about desired facilities by users in National Park campgrounds.

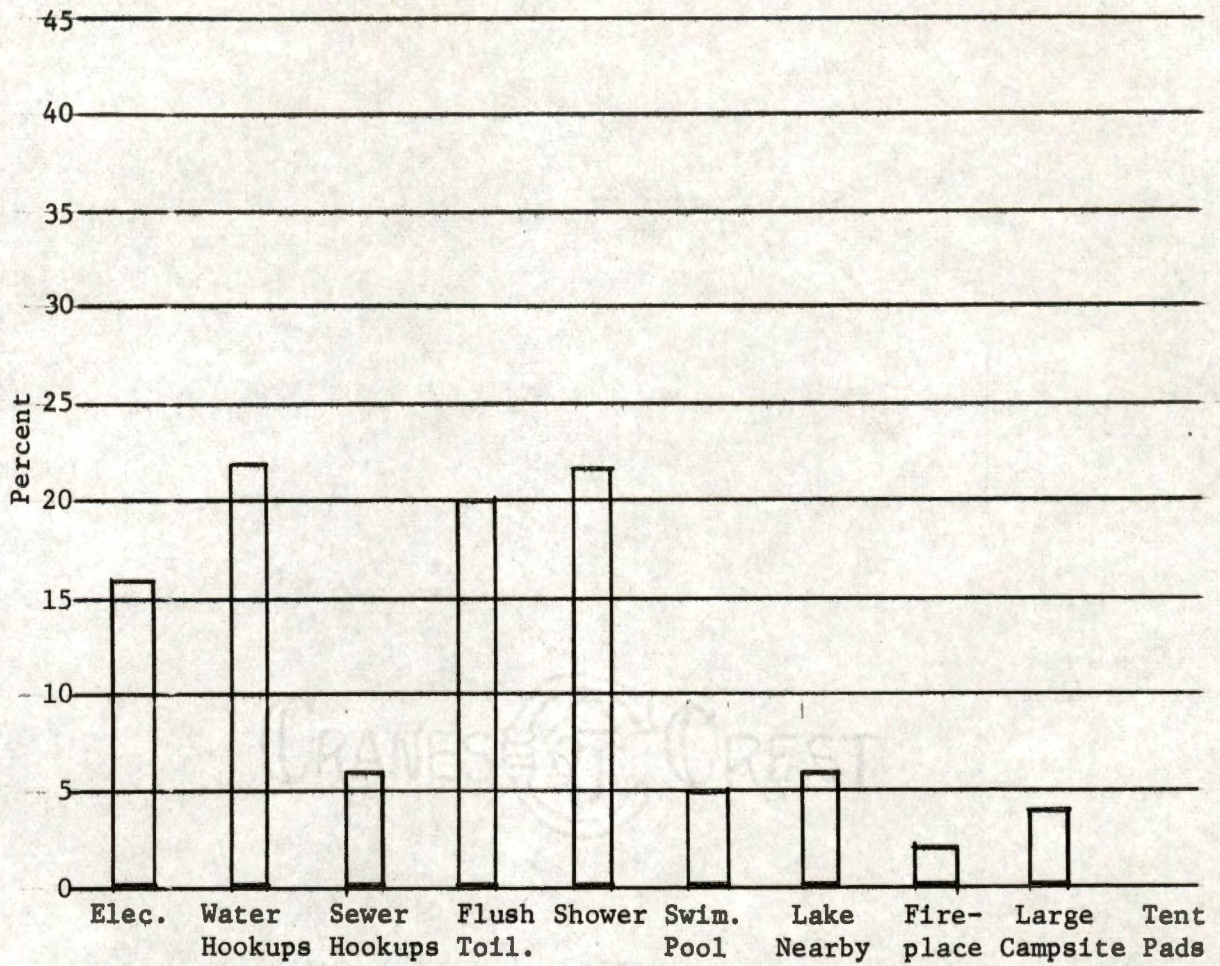


Figure 27. Frequency of responses about desired facilities by users in State Park campgrounds.

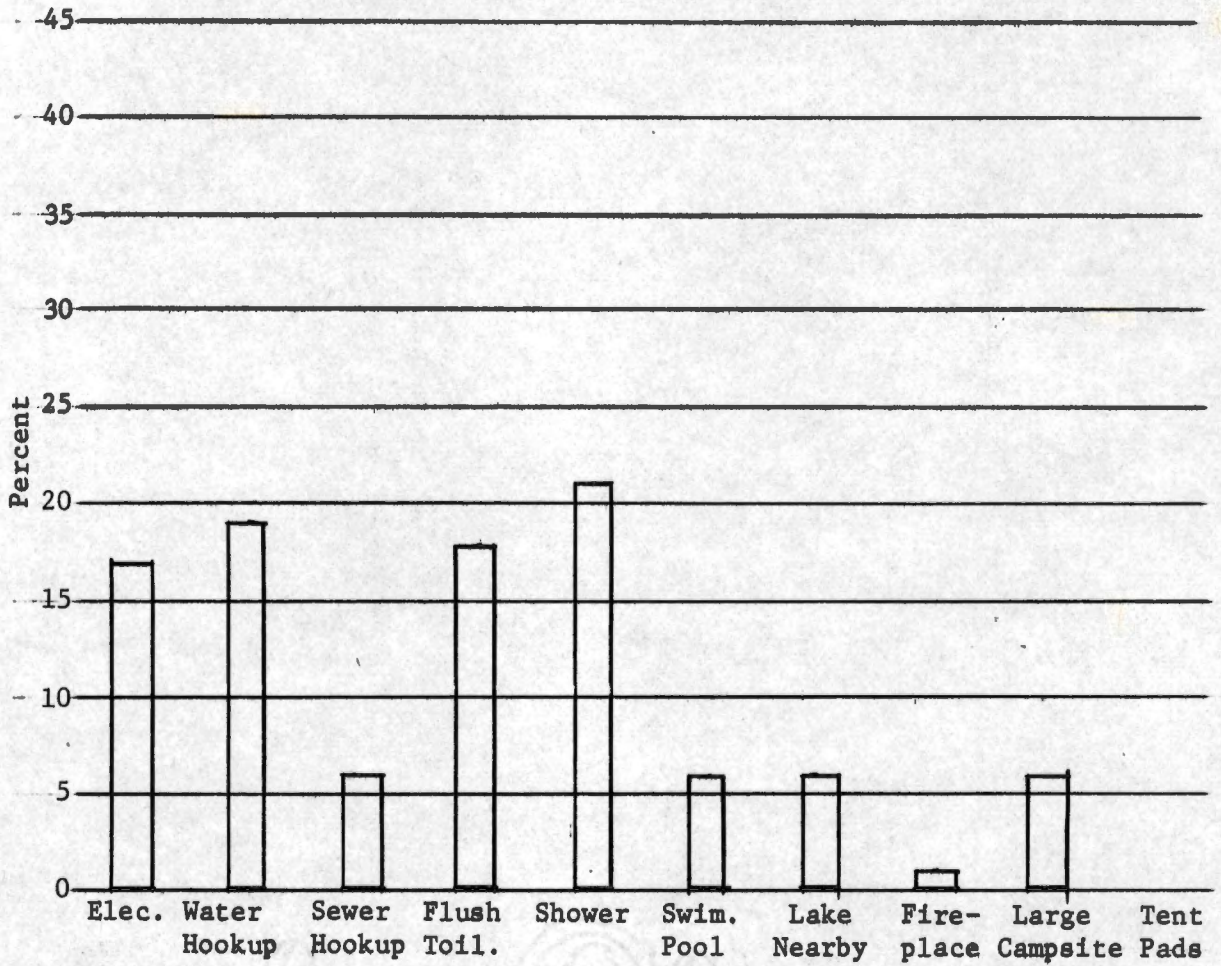


Figure 28. Frequency of responses about desired facilities by users in private campgrounds.

Nearly 25 percent of the respondents interviewed wanted flush toilets and showers included in the campgrounds. Other facilities mentioned most often by respondents included electric and water hookups at each site. A significant difference was noted at the .05 level between responses from the different types of ownerships (Chi-square analysis).

Respondents were then asked if they would pay increased fees for more facilities in the campgrounds. The results are shown in Table III.

TABLE III
RESPONDENTS REACTIONS TO USERS' FEES

Ownership	Percent Indicating Yes
Total Responses	82
U.S. Forest Service	86
National Park Service	80
State Parks	85
Private Parks	92

For the negative responses (about 20 percent), analysis was made to find out why these respondents didn't want to pay more. Over 60 percent indicated they did not want more facilities; 20 percent said the fees were too high already, and 10 percent said that they already pay taxes and this should cover the fees. Other comments were "public areas should be free to the public," and "I need no extra facilities because my rig has all the necessities."

This discussion about facilities suggests that campers will visit the type of area that offers him the kind of facilities that he desires

if he knows the location and availability of facilities. Respondents who wanted more modern facilities were most often found in the State and private areas while the respondents who wanted a more rustic atmosphere were found in the Federal Government campgrounds. For this reason, it might be concluded that campers in the National Parks should be just as happy in USFS campgrounds, which have similar facilities, or certain private campgrounds that provide a more rustic atmosphere.

III. SOCIOECONOMIC CHARACTERISTICS OF RESPONDENTS

Table IV shows socioeconomic characteristics of respondents by ownership type campgrounds. The USFS respondents in the study usually came from smaller communities and had slightly less income and education than respondents using other ownership types. As indicated earlier (Figure 5, page 25) these respondents were also closer to home than other respondents, hence they were more often local campers. During a post interview conversation, many respondents indicated that they preferred a National Park Campground but were content in these USFS areas because of the relatively less crowded conditions. On the other hand some respondents were glad that they found these areas because they enjoyed them as much as National Park areas.

Respondents in the private campgrounds were in general younger, had a higher education level, and more of them spent their youth in large cities. They were also more often either beginner or transient campers, and usually knew less about the area except that they wanted to visit the publicized places.

TABLE IV
 SOCIOECONOMIC CHARACTERISTICS OF RESPONDENTS
 SHOWN AS A PERCENT OF THE TOTAL

Characteristics	Ownership Types				Total
	NPS	USFS	State Parks	Private Parks	
Age					
16-20	3	1	2	2	2
21-40	46	50	43	52	48
41-60	46	40	53	36	45
Over 60	5	9	2	10	5
Group Relationship					
Family	80	84	86	92	83
Peer Group	20	16	14	8	17
Income					
4,000		1	2		1
4,000-6,999	9	23	14	10	11
7,000-10,999	48	42	48	43	47
11,000-14,999	24	20	28	31	25
15,000 or More	15	13	7	14	13
College Student	4	1	1	2	3
Education					
8th Grade	17	24	18	16	17
H.S. Graduate	43	37	48	36	43
Some College	14	14	14	20	14
College Graduate	21	19	16	24	20
Masters Degree	4	4	3	3	3
Doctors Degree	1	2	1	1	1
Childhood Residence (Population)					
5,000	44	51	45	34	44
5,000-9,999	8	13	12	15	9
10,000-24,999	10	16	6	10	10
25,000-49,999	8	8	8	7	8
50,000,99,999	8	5	10	8	8
100,000 or More	22	7	19	26	21

The National Park Service and State Park areas were not significantly different from the other areas in socioeconomic characteristics (Newman-Keuls procedure). This indicates that a broader population uses these areas during the summer camping season, that is, their socioeconomic characteristics are similar to users in other types of campgrounds, hence they may have many of the same motivations for camping.

Implications of User Preferences

In this study user preferences provide some measure of the enjoyment of the visitor, based on many factors of his specific visit. Satisfaction is many times based on personal desires and preconceived ideas about the area. Satisfaction also depends on the activities available and the facilities provided for enjoyment of these activities; as well as the natural setting and the kind of maintenance the area receives.

The results of this study suggest that visitors go to recreation areas for the following reasons:

1. Social status.
2. Recommendations of friends.
3. Acquaintance with an area and satisfaction with its facilities.

These reasons partially explain overcrowded conditions in National Parks and other popular areas throughout the United States. If indeed the managers of some areas wanted to reduce the use levels of their facilities, an information and education program would be appropriate. Public agencies especially, who supposedly cooperate in meeting society's needs, should implement such a program.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The main objective of this study was to discover why campers select certain heavily used campgrounds, when other, apparently similar campgrounds are available. Prior explanations for this phenomenon included status motives which are associated with visits to certain campgrounds, preferences which are based on elements other than the characteristics and facilities of the campground itself, and a lack of knowledge about other campgrounds. The study supported these reasons. However, the study revealed other possible reasons. One of these was that many campers expressed a high level of confidence in information and recommendations of friends and other acquaintances. This reason is associated with the status motive to some extent. However, it could also be that if many of these same campers were told of good experiences in other types of campgrounds they would try them, especially after experiencing the crowded conditions in the recommended and popular areas.

Another reason that could cause the overcrowded conditions is the type of information that is available to campers who write to the Federal or State Agencies. Figure 14, page 38, shows over 50 percent of the respondents in the study used some type of recreation literature to pick certain campgrounds. This literature does not point out that many of the campgrounds are overcrowded nor does it suggest other areas of interest.

The study suggests some ways that this problem might be solved. The results suggest that the ownership types in the study are really not similar in the minds of the campground user. National Park and USFS campgrounds represented in the study are similar in facilities provided, however, some users think the National Park areas provide a better camping experience. The basic difference, overcrowding, was not considered a serious factor by many National Park campground users. These campers did not have a bad experience because of overcrowded conditions; rather they enjoyed it. Some type of orientation program could be carried on within the campgrounds to show these people the effects of overcrowding on the ecology of campground areas.

Another reason that campers gave for selecting certain ownership types of campgrounds was the facilities provided. It seemed that in most cases, campers chose the type of area that provided their preferred type of camping. However, this reason was not asserted in the National Park campgrounds. Users in these areas many times indicated their desire for more facilities yet they were camped in the more primitive or less convenient types of campgrounds represented in the study. This contradiction was not found in any other ownership type. An in-depth sociological study should be made of this particular phenomenon to determine why this particular group did this and if they could be persuaded to camp in areas near the park with more facilities.

In addition, something might be mentioned here about the local campers (within 50-100 miles). These campers usually stayed away from the known crowded campgrounds in the Smoky Mountains in favor of the

similar, but less crowded, USFS campgrounds (Figure 5, page 25). It was found that this local group only visited the more crowded areas in the off-season. Some of these local people did prefer the National Park, but would sacrifice this preference in favor of a less crowded similar experience in a nearby campground. The fact that these local campers chose to stay away from the more overcrowded campgrounds suggests that in the future, with more information available to all campers as to the number and types of campgrounds available in a region, camping use might be better distributed.

With adequate information available it should be easier to encourage campers to stay away from the more crowded campgrounds during the busy season. For example, there has been little experience with using the news media to discourage the camper from coming to certain areas. Why not tell him the facts about the area and what he should expect? This is what the campers seem to like so much about a friend telling them about an area, he tells both the good and bad. Recreation literature could serve the same purpose.

In conclusion, this study did not reveal any other reasons for overcrowding in the Smoky Mountains National Park other than those already expected before the study, i.e., the status motive preferences, per se, to stay in certain areas, and the confidence placed in personal recommendations. Apparent inconsistencies in some responses about preferences suggest that sociological and psychological investigations are needed that could give some insight as to the more basic motivations of recreation users.

The user survey conducted in this study also provides benchmarks of user opinion at one point in time. However, for user opinions to be most useful, provision must be made to periodically reevaluate user preferences to ascertain current visitor attitudes and desires. This suggests the need for recreation agencies and even individual recreation areas to conduct surveys at three to five year intervals to reflect significant shifts in user desires and preferences. Research should be conducted to determine the reasons people camp where they do, what brought them to the area, and would they return or tell others about it. There is no better way to provide for the recreation user than to talk with him and observe him in the actual campground setting. This is the reasoning behind the author's conducting this kind of research.

This present study should contribute to the body of knowledge required for a more complete understanding of user characteristics. Identifications of user-resource relationships is of prime importance in helping recreation administrators cope with development and management alternatives. If this study serves as a basis for future investigations and as one more tool that can be used in improving management efficiency and user enjoyment, then a contribution will have been made to maintaining the quality of the resources upon which user satisfaction depends.

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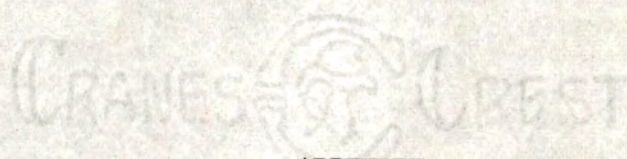
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APPENDIX

8. How many trips of this type did you make last year (i.e. in his present role of camper, etc.) _____
9. How many times did you come here last year? _____
10. How long will this (extended) trip be? _____ days _____ hours
11. How long will you be in this area? _____ days _____ hours
12. How many days will you be camping on this trip (as contrasted to motels or relatives' residence)? _____.
13. Do you visit most frequently in: (Be sure respondent differentiates between National Parks, State Parks, National Forests, etc., perhaps get names of facilities to be certain) (indicate annual frequency).
- A. National Parks _____ C. National Forests _____
- B. State parks _____ D. Private Parks _____
- E. Other Public _____ (specify--city, county, etc.)
14. What is it that makes this type of recreation area (see #13) more attractive to you?
- _____
- _____
- _____
15. (a) Have you visited the other types of areas (see #13) during the last two years? _____ yes _____ no.
- (b) How many times per year? A _____ B _____ C _____
- D _____ E _____
16. Why did you select this place for this visit? _____
- _____
- _____
17. If this place had been full or unavailable where would you have gone? _____
18. What are the activities you and your family or group usually engage in while you are camping or picnicking? _____
- _____
19. (a) Do you hike very often? _____ Yes _____ No
- Annually _____ 3, _____ 4-8, _____ 8.
- (b) Do you take long hikes? _____ Yes _____ No
- Miles: _____ 2, _____ 2-8, _____ 8.
20. Do you do any camping in areas which have only pit toilets and limited water facilities? _____ Yes _____ No. Or do you do primitive camping? _____ Yes _____ No

21. What type of facilities do you desire in the campgrounds and picnic areas you use?

22. (a) Are you willing to pay for additional facilities in the form of increased fees? Yes No
 (b) If not, why not? _____

23. What comments would you like to make about this area? _____

24. Why do you and/or your family (group) camp . . . picnic?
25. (a) May I ask your age? _____
 (b) Education (ask informally and tactfully)? _____
 Eighth grade 8 _____ Master's 17 _____
 High School diploma 12 _____ Ph.D. 18 _____
 College freshman 13 _____
 (c) Occupation? _____
 (d) Income group (total family income)
 _____ 3, _____ 4-7, _____ 8-11, _____ 12-15, _____ 15.
26. What was the size of the community in which you were raised--spent your youth (6-18)? (Flash Card). _____
 A. Under 5000 D. 25,000
 B. 5000 - 10,000 E. 50,000 - 100,000
 C. 10,000 - 25,000 F. Over 100,000
27. What is the best source of information about outdoor recreation, e.g., camping, picnicking, swimming, hiking, etc?
 Friends and other facility users _____
 General news media _____
 Publications by state or federal _____
 Recreation magazines or atlas _____
 Other (specify) _____
28. What kind of recreation equipment do you own which you use on these types of outings?
 Tent _____
 Tent trailer _____
 Camper _____
 Pick-up camper _____
 Motorized camper _____
 Complete fishing gear _____
 Boat and motor _____
 Other (specify) _____

TABLE V

DATES AND OCCUPANCY RATE OF AREAS VISITED DURING THE STUDY

Date and Campground	Sites Occupied (Percent Full)	Time of Day Visited
<u>PERIOD 1</u>		
<u>June</u>		
16. Harrison Bay	113 (39)	1300
20. Cades Cove	124 (50)	1145
21. Chilhowee	48(100)	1230
22. Hickory Star Resort	40 (40)	1430
23. Cosby	70 (33)	1215
24. Chilhowee	48 (94)	1645
26. Smoky Mountain Campground	35 (35)	1535
27. Elkmont	365 (98)	1400
28. Cove Lake	70 (71)	1510
29. Elkmont	370(100)	1210
30. Rock Creek	37(100)	1440
Warrior's Path	50 (67)	1200
<u>July</u>		
1. Little River Village	30 (53)	1400
2. Cades Cove	134 (90)	1110
Cove Lake	75 (76)	1545
4. Smoky Mountain Campground	80 (80)	1200
5. Rock Creek	25 (67)	1700
7. Cades Cove	124 (83)	1140
8. Cosby	175 (83)	1405
10. Harrison Bay	104 (56)	1210
11. Jacobs Creek	30(100)	1640
12. Smoky Mountain Campground	60 (75)	1505
Little River Village	50 (90)	1800
14. Jacobs Creek	16 (50)	1000
15. Warrior's Path	60 (78)	1140
17. Rock Creek	37(100)	1615
18. Warrior's Path	76(100)	1135
19. Cosby	100 (47)	1700
22. Cove Lake	50 (51)	1135
23. Little River Village	17 (30)	1155
24. Jacobs Creek	10 (25)	1815
25. Hickory Star Resort	25 (62)	1615
26. Harrison Bay	100 (54)	1305
28. Elkmont	327 (93)	1115
Chilhowee	30 (75)	1615
29. Smoky Mountain Campground	61 (76)	1830
31. Hickory Star Resort	15 (37)	1510

TABLE V (continued)

Date and Campground	Sites Occupied (Percent Full)	Time of Day Visited
<u>PERIOD 2</u>		
<u>August</u>		
2. Cove Lake	90 (91)	1820
Smoky Mountain Campground	75 (93)	1425
4. Elkmont	335 (95)	1210
Cades Cove	148(100)	1520
5. Cove Lake	45 (45)	1215
6. Harrison Bay	54 (29)	1455
8. Warrior's Path	65 (85)	1445
10. Cosby	150 (71)	1320
11. Jacobs Creek	12 (40)	1100
12. Rock Creek	20 (54)	1700
14. Chilhowee	25 (62)	1735
15. Little River Village	35 (63)	1600
Elkmont	221 (63)	1230
17. Cades Cove	148(100)	1415
19. Cosby	100 (47)	1200
20. Rock Creek	20 (54)	1210
22. Harrison Bay	115 (54)	1100
23. Rock Creek	37(100)	1300
25. Jacobs Creek	9 (30)	1700
27. Warrior's Path	30 (39)	1530
28. Little River Village	11 (20)	1800
29. Hickory Star Resort	7 (17)	1230
31. Smoky Mountain Campground	8 (10)	1440
<u>Sept.</u>		
1. Chilhowee	2(.05)	1600
3. Cove Lake	10 (10)	1545
4. Warrior's Path	25 (32)	1400
5. Jacobs Creek	30(100)	1615
7. Cosby	30 (14)	1440
9. Little River Village	5(.09)	1200
10. Hickory Star Resort	2(.05)	1630
12. Cades Cove	143 (90)	1200
13. Chilhowee	7 (17)	1200
14. Harrison Bay	5(.02)	1200
15. Elkmont	227 (65)	1230
16. Smoky Mountain Campground	8 (10)	1635
17. Hickory Star Resort	3(.07)	1605

IDENTIFICATION OF RECREATIONAL AREAS INCLUDED IN THE
STUDY (SEE FIGURE 1, PAGE 10, FOR LOCATION)¹

I. UNITED STATES FOREST SERVICE RECREATION AREAS

Jacobs Creek Recreation Area

This area is located in Northeastern Tennessee, about 10 miles southeast of Bristol on U.S. 421 in the Cherokee National Forest. Outstanding features include 8,000 acre Holston Lake, a lakefront beach, and a natural Appalachian Forest atmosphere.

Major activities were picnicking, swimming, boating, water skiing, and hunting and fishing. Facilities include 30 camping units, 10 picnic sites, and flush type sanitary facilities. There are no showers, electricity, or other hookups at any site. A tent pad, fire-place, and table are provided at each camping unit.

The camping units are placed in three circles and are well screened from one another to provide for maximum privacy. The area was filled to about 58 percent capacity during the period investigated. A fee of \$1.00 per night is charged during the summer camping season. There were 10,200 visitor days of use on the area in 1970.

Rock Creek Recreation Area

This area is located in northeastern Tennessee six miles east of Erwin on U.S. 19 and 23 in the Cherokee National Forest. Outstanding

¹Parts of these descriptions were obtained from literature distributed by the various agencies included in the study.

features include a typical rustic atmosphere, 1/2 acre creek fed swimming pool, and easy access by paved roads.

Major activities include hiking, swimming, picnicking, and fishing and hunting. Facilities include 37 camping units, 30 picnic units, bathhouse, nature trail, campfire theater, a sand beach around pool, and flush type sanitary facilities.

The camping units provide maximum privacy and include a tent pad, fireplace, and table. The area was filled to 78 percent capacity during the period investigated. There were 34,200 visitor days of use on the area in 1970. A fee of \$1.00 per night is charged during the summer season.

Chilhowee Recreation Area

This area is located in Southeastern Tennessee approximately 18 miles east of Cleveland on U.S. 64 in The Cherokee National Forest. Outstanding features include a 7-acre lake, high elevation, secluded atmosphere, and excellent scenic attractions in addition to well-planned nature trails.

Major activities include camping, picnicking, swimming, hiking, and fishing and hunting. Facilities include 45 camping units, 26 picnicking units, bathhouse, campfire theater, nature walk, group camping and picnicking area, swimming beach, play field, and flush type sanitary facilities.

Each camping unit includes a tent pad, fireplace, and table. Showers are included in one section of the campground. The area was filled to about 59 percent capacity during the period investigated.

There were 127,100 visitor days of use on the area in 1970. A fee of \$1.00 per night is charged during the summer season.

II. NATIONAL PARK SERVICE CAMPGROUNDS

Cades Cove Campground

This area is located in The Great Smoky Mountains National Park in Tennessee, 10 miles from the Townsend entrance at an elevation of 1,807 feet. The outstanding feature of this area is an excellent motor trail around Cades Cove that includes restored pioneer cabins and a grist mill. Abundant wildlife, excellent hiking trails to the upper elevations of the park, and visits by black bears to the campground are added attractions.

Major activities include sightseeing, hiking, and fishing. Facilities include 224 camping units, large picnic area, campfire theater, camp stove, nature walk, and flush type sanitary facilities.

Each camping unit includes a fireplace, table, and pull-in. Electricity and showers are not included in the area. The area was filled to about 60 percent capacity during the investigating period. There were 91,803 camper days of use on the area in 1970. A fee of \$2.00 per night was charged throughout the year during the study period.

Elkmont Campground

This area is located in The Great Smoky Mountains National Park in Tennessee about 14 miles from the Townsend entrance and 8 miles from the Gatlinburg entrance at an elevation of 2,150 feet. This campground

is relatively crowded most of the summer months because of its close proximity to the tourist oriented town of Gatlinburg and U.S. 441, the only road that crosses the mountains through the park.

The facilities include 370 camping units, a large picnic area, amphitheater, and flush type sanitary facilities. Each camping unit contains a fireplace, table, and pull-in. Many of these units are placed near a creek that provides an excellent setting for the campground.

During the summer season from June until school starts in the fall the area is 86 percent full. There were 225,346 camper days of use on the area in 1970. A fee of \$2.00 per night was charged throughout the year during the study period.

Cosby Campground

This area is located in The Great Smoky Mountains National Park in Tennessee about three miles from the Cosby entrance at an elevation of 2,459 feet. It is one of the lesser used campgrounds in the park being only 41 percent filled during the period of investigation. Outstanding features here include excellent hiking trails, visits from black bears, and abundant wildflowers in the spring.

Facilities include 250 campsites, large picnic area, nature trail, and flush type sanitary facilities.

This area is an excellent place for the more avid camper in that he has the opportunity to try out more of his camping skills in this relatively uncrowded setting. Also, some of the higher peaks of the the park are within a day's hiking distance. It is more suitable for tent camping as most of the area is rather steep with few level pull-ins

available. There was a \$2.00 nightly charge throughout the year during the study period. There were 50,140 camper days of use on the area in 1970.

III. TENNESSEE STATE PARK CAMPGROUNDS

Warriors Path State Park

This 1,500 acre park is located on the shore of Fort Patrick Henry Reservoir, on the Holston River between Kingsport and Johnson City, in upper east Tennessee.

For swimmers there is a large pool, bathhouse, and concession stand. Swimming lessons are available during the summer season. A completely new camping area with 50 sites, ultra-modern bathhouse, tables and grills is available while an older area provides 26 sites with fewer facilities. Year-round fishing and boating is popular; and boats are available for rent. A good selection of riding horses is available at the park stables throughout the year. Other forms of recreation include hiking trails, badminton, horseshoes, ping pong, and golf.

This area is almost exclusively designed for the camper and trailer type of camping; there are no tent pads available. The pull-ins are well planned for easy access by vehicles and the area is relatively open so the added protection of a camper roof is needed in the warmer days of summer.

A fee of \$3.00 per night is charge year round on the area. There were 19,345 camping days of use in 1970.

Cove Lake State Park

This park is located in upper east Tennessee near the shore of Norris Lake, 30 miles northwest of Knoxville on U.S. 25-W and Interstate 75.

Facilities include a large modern swimming pool, bathhouse, with hot and cold water, a motel, concession stand, and 140 campsites (many of them near the lake) with electric, water, and sewer hookups. Other attractions include fishing, boating, hiking, restaurant, and picnic area.

This campground is used by many campers as a stopover site as they travel along Interstate 75. A fee of \$3.00 per night is charged year round. A total of 31,799 camping days use occurred during 1970.

Harrison Bay State Park

This 1,277 acre park is located 11 miles north of Chattanooga on U.S. 58. Most of the area is wooded and has 39 miles of shoreline on Lake Chickamauga.

The tent and trailer camping is mostly wooded with conveniently located wash houses with hot and cold water, flush toilet and laundry facilities are also included. There are 115 trailer sites with electric hookup. Tables, grills, and garbage cans are located at each site. A camp store was also available.

This park has a segregated camping situation in effect. One area of 60 sites is restricted to tent camping or small campers and has facilities such as flush toilets, fireplaces, and tables. Three other segments totaling 115 sites have electric, water, and sewer hookups and paved roads

in addition to the facilities in the tent camping area. Both bathhouses have showers. A fee of \$3.00 per night is charged year round and there was a total of 39,445 camping days in 1970.

IV. PRIVATE CAMPGROUNDS

Hickory Star Resort

This area is located about 20 miles northwest of Knoxville two miles off highway 33 near Maynardville. Outstanding features include Norris Lake, excellent fishing, small game hunting, level camping sites (many with shade), boating opportunities, and nearness of attractions such as the Great Smoky Mountains National Park, Oak Ridge Atomic Museum, and Cumberland Gap National Historical Park.

Major activities include fishing, boating, swimming, and nature walks. Facilities include 40 camping units, electric, water, and sewer hookups, picnic tables, washer-dryer facilities, flush toilets, hot showers, swimming pool, boat and motor rentals and boat launching ramp, recreation hall with games, and an excellent marina for boat storage. This area is generally used in connection with some type of lake activity such as boating or fishing, however, it is well designed for a relaxing stay by all interest groups.

A fee of \$4.00 per day for shady sites and \$3.00 per day for pull through sites in the sun is charged year round for a family of six or less. The area was 28 percent full during the period of investigation.

Little River Village

This area is located only 3/10 mile from the Townsend entrance

of The Great Smoky Mountains National Park and 20 miles east of Maryville, Tennessee, on Highway 73. Outstanding features include a mountain stream near the area, riding stables, and its close proximity to the National Park and other major attractions. The area also has an excellent camp store, a reasonably priced restaurant, and miniature golf to serve campers.

Major activities in the area include fishing, sightseeing, hiking, horseback riding, and swimming; with relaxation playing a big part in the activities. Facilities are 50 campsites with tables, fireplace, electric hookups and 21 trailer sites with concrete patios, and sewer hookups included.

This area is generally used as an overflow area for campgrounds inside the park. It is in a good location for vacationers to use the National Park and other attractions in the area and still have a camping experience when the park campgrounds are full. A fee of \$2.50 to \$3.00 per night is charged depending on the hookups desired and number of people in the party. The area was about 45 percent occupied during the investigation period.

Smoky Mountain Campground

This area is located on the border of The Great Smoky Mountains National Park about 12 miles east of Gatlinburg on Highway 73.

Outstanding features of this park include its proximity to the National Park and all its attractions, a mountain stream running through the area, many shaded campsites, and nearness to Gatlinburg, a resort area. Among the facilities available are complete hookups (electric,

water, sewer) at most campsites, showers, laundry, swimming pool, and well equipped camp store.

Major activities in the area are hiking, swimming, fishing, and relaxing. Many people use this area as a base for sightseeing and traveling to the many attractions within a day's drive. This park is for the type of camper who doesn't want the trailer court atmosphere of many private campgrounds.

A fee of \$4.50 per day is charged for a campsite with a complete hookup and \$3.50 for a campsite with water only. These rates are for a family of four. The area was filled to about 50 percent capacity during the period of investigation.

V. CLASSIFICATION OF AREAS BY PHYSICAL CHARACTERISTICS

In addition to a description of the individual areas by facilities, a description of the physical characteristics has been classified in Table VI. This classification is based on the premise that grouping the areas by physical attributes may aid in relating this investigation to others in which the same types of campgrounds were studied. Three classes of natural features are considered in this breakdown. They are:

Topography

The areas are grouped in terms of predominant types of topographic relief. Areas are classed as either flat, rolling or hilly, or mountainous.

Water

The areas are grouped according to the kind of water feature occurring in each area. One group includes those areas located on the shore of a large body of water and those which include a large body of water within their confines. Another class includes those areas located on a moving stream or those which have moving streams within their boundaries. A third class is established for those areas having no significant water features.

Vegetation

Areas in this class are grouped according to the amount of included trees and shade. The first class includes barren areas or those having very little shade on the majority of the campsites. The next group is described as pastoral and includes mixed tree and open space areas. A final class involves forested areas and includes those areas where typical forest cover is a major characteristic even though the area includes developed facilities with open spaces.

TABLE VI
CLASSIFICATION OF AREAS BY PHYSICAL RESOURCES

Class by Topography	Class by H ₂ O Resources	Class by Nature of Vegetation		
		Treeless	Pastoral	Forested
Flat	Inc. Bodies of H ₂ O - Large Lake	None	Harrison Bay ^a	None
	Stream or small lake	None	Little River ^b	None
	No H ₂ O Facilities	None	None	None
Rolling or Hilly	Inc. Bodies of H ₂ O - Large Lake	None	Warriors' Path ^a Cove Lake ^a Hickory Star ^b	None
	Stream or Small Lake	None	Smoky Mountain ^b	Rock Creek ^c Cades Cove ^d Elkmont ^d
	No H ₂ O Facilities	None	None	None
Mountainous	Inc. Bodies of H ₂ O - Large Lake	None	None	Jacobs Creek ^c
	Stream or Small Lake	None	None	Chilhowee ^c Cosby ^d
	No H ₂ O Facilities	None	None	None

^aState parks.

^bPrivate parks.

^cU.S.F.S.

^dNPS.

VITA

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