

AN ANALYSIS OF FAMILY CAMPER
SOCIO-ECONOMIC CHARACTERISTICS,
PREFERENCES, AND ATTITUDES TOWARD
FEES IN THE HURON NATIONAL FOREST

Thesis for the Degree of M. S.
MICHIGAN STATE UNIVERSITY
DON EARL KREJCAREK
1967

~~_____ 6~~
~~JUN 23 1969 154~~

~~JUL 24 1969 210~~

~~AUG 6 1969 124~~

~~_____ 12~~

~~JUN 13 1970 1252~~

~~MAR 8 1971 85~~

~~JUL 1 1971 2069~~

~~MAY 16 1973 12~~
~~08068~~

~~FEB 2 1980 58~~
~~CC 106~~

~~APR 07 1985 11~~

~~NOV 2 1992 326~~

DEC 08 2000

011601

ABSTRACT

AN ANALYSIS OF FAMILY CAMPER SOCIO-ECONOMIC CHARACTERISTICS, PREFERENCES, AND ATTITUDES TOWARD FEES IN THE HURON NATIONAL FOREST

by Don Earl Krejcarek

The use of land for outdoor recreation is growing rapidly due to increasing demand. Since the Huron National Forest is located comparatively near Michigan's major population centers, the Forest Service is feeling the effects of this demand and must meet the challenge with carefully planned facilities and administrative programs if the valuable recreational resources within the forests are to be enhanced and properly managed. The socio-economic characteristics and preferences of the users are highly significant in determining trends in use patterns and deciding probable future needs.

This study was carried out to determine the average camper's preferences toward provided or desired facilities, and his attitudes toward fees. Also, it was intended to discover if the average family camper's characteristics had changed in the last four years. The investigation of these factors is necessary periodically in order to keep abreast of changes in the types of users and their desires.

Data was collected at Huron National Forest campgrounds from June 17 to August 11, 1966. The inventory was by means of personal interviews using a prepared questionnaire. Four hundred and twelve camping parties were interviewed, of which three hundred and forty were family campers. Before the actual analysis was carried out, a weighting procedure was used to correct for an inherent bias in the sampling technique. The data was compiled by means of a computer program and analysis was completed in the early months of 1967. The data analysis is presented in three separate chapters.

Chapter 4 contains comparisons with a previous study in 1962 and shows certain changes in characteristics and use patterns. The average length of stay per trip decreased from 5 days to approximately 3 days. The average family income increased \$750 in the last four years. The predominant type of shelter changed from tents to some type of wheeled shelter (trailer house, tent trailer, or camper truck).

Chapter 5 on the attitudes and preferences for provided or desired facilities also revealed some interesting results. All the campers preferred a more primitive type of camping experience to one at more highly developed facilities. But at certain high attraction campgrounds with extremely heavy use, the campers preferred flush toilets and running water. They also indicated they did not want the type of facilities found in Michigan State Parks to be

installed in national forest campgrounds. They liked the wider spacing and more screening between the sites that exists at national forest campgrounds. The typical camper seemed to be a different type of camper than the typical camper at Michigan State Park campgrounds.

In Chapter 6 on the acceptance of the Land and Water Conservation fees, the discussion arrives at two major conclusions. First, the acceptance by the campers of the \$7.00 entrance fee was very high considering 1965 was the first year for any type of camping charges on the Forest. Second, the campers did not accept the additional \$1.00 user fee with enthusiasm. Some 60 percent indicated they did not feel the additional user fee was justified.

Since this investigation was limited to the Huron National Forest during the summer, the findings are not claimed to be representative of all National Forest campers nor of early spring and late fall campers. However, it does represent an accurate description of the characteristics and desires of the average camper who used the Forest during the summer months of 1966.

AN ANALYSIS OF FAMILY CAMPER SOCIO-ECONOMIC
CHARACTERISTICS, PREFERENCES, AND ATTITUDES
TOWARD FEES IN THE HURON NATIONAL FOREST

by

Don Earl Krejcarek

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Department of Resource Development

1967

146113
6 297 11

ACKNOWLEDGMENTS

I would like to express my appreciation to Dr. Michael Chubb, my thesis advisor, for his conscientious guidance in completion of this study. I would like to thank Dr. Raleigh Barlowe, Professor Louis F. Twardzik, and Dr. George Petrides, members of my graduate committee, for their constructive criticism.

Special credit is also due to the U. S. Forest Service for their financial aid and cooperation in making the completion of this investigation possible. I would like to thank Mr. Thomas Isley for the photography work.

I wish to show my appreciation to my parents and sisters for their continued guidance in promoting my education. Finally, as an expression of sincere appreciation to my wife for her patience and cooperative support in the completion of this research study, I dedicate this thesis to her.

Don Earl Krejcarek

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
LIST OF TABLES.	v
LIST OF ILLUSTRATIONS	vii
LIST OF APPENDICES.	ix
INTRODUCTION.	x

Chapter

I.	OBJECTIVES, SIGNIFICANCE, REVIEW OF LITERATURE AND DEFINITIONS	1
	Objectives Significance Review of Literature Definitions	
II.	THE STUDY AREA	11
	Location History Geography The Campground	
III.	PROCEDURE.	27
	Basic Methodology Employed Methodology Used to Determine Sample Structure	
IV.	CHARACTERISTICS OF FAMILY CAMPERS.	37
	Bias Correction Weighting Deviations from the 1962 Study Procedures Analysis of Camper Characteristics The Origin of Family Campers Distance Traveled	

TABLE OF CONTENTS (Continued)

Chapter		Page
	Campground Use	
	Stated Objective of Trip	
	Income	
	Occupation of Family Camping Heads	
	Education of Family Group Heads	
	Family Structure	
	Camping Experience of Family Campers	
	Type of Shelter Used by Family Campers	
	Ways in Which Campers Became Aware of Campgrounds	
	Summary and Conclusions	
V.	ANALYSIS OF THE AVERAGE CAMPER'S ATTITUDES TOWARD FACILITIES AND SERVICES	57
	Combined Camper Attitudes	
	Attitudes Concerning Individual Campgrounds	
	Wagner Lake Campground	
	Mack Lake Campground	
	Horseshoe Lake Campground	
	Silver Valley Campground	
	Corsair Campground	
	Round Lake Campground	
	Pine River Campground	
	Kneff Lake Campground	
	Monument Campground	
	Rollways Campground	
	Island Lake Campground	
	Gorden Creek Campground	
	Conclusions	
VI.	INVESTIGATION OF THE ACCEPTANCE OF LAND AND WATER CONSERVATION FUND FEES BY CAMPER'S	82
	Analysis of Data	
	Summary and Conclusions	
VII.	SUMMARY, RECOMMENDATIONS & IMPLICATIONS. . .	90
	Summary	
	Implications and Recommendations	
	BIBLIOGRAPHY	97
	APPENDICES	101

LIST OF TABLES

Table	Page
1. Number of Designated Camping Units per Campground	29
2. Allotment of Huron National Forest Camp- ground Groups to Particular Days for Sampling Purposes.	32
3. Order of Travel to the Campgrounds Within the Assigned Groups.	34
4. Calculations of Weights Used to Correct Bias in Sample Data for the Total Huron National Forest Sample, 1966	38
5. Distance Traveled by Camping Groups.	44
6. Length of Stay of Family Camper in 1966.	45
7. Comparison of Length of Stay in 1962 and 1966 Studies	45
8. Income of Camping Families	47
9. Structure of Camping Families and Distribution of Children.	51
10. Camping Experience of Family Heads	52
11. Type of Shelter Used by Family Campers	53
12. Ways in Which Campers Became Aware of Campgrounds.	54
13. Percentages of Campers Favoring Various Types of Facilities on the Huron National Forest Should Provide.	58
14. Percentage of Campers Favoring Modern and Primitive Facilities by Campground	59

LIST OF TABLES (Continued)

Table	Page
15. Percent of Samples from Individual Campgrounds	62
16. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Wagner Lake Campground	63
17. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Mack Lake Campground	65
18. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Horseshoe Lake Campground.	67
19. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Silver Lake Campground	68
20. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Corsair Campground	70
21. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Round Lake Campground.	71
22. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Pine River Campground.	73
23. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Kneff Lake Campground	74
24. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Monument Campground.	76
25. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Rollways Campground	77
26. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Island Lake Campground	78
27. Various Means of Providing Public Recreation Areas.	84

LIST OF ILLUSTRATIONS

Figure	Page
1. Map Showing Huron National Forest in Relation to Population Centers and Transportation Routes	2
2. Typical Scenery at the Horseshoe Lake Campground.	15
3. The Highway Sign at the Turn-off to the Horseshoe Lake Campground	15
4. The Land and Water Conservation Fund Act Sign at the Entrance to the Monument Campground.	16
5. A Typical Highly Developed Campsite at Monument Campground	16
6. A Typical Campsite with Limited Development at the Pine River Campground.	17
7. A Typical Garbage Can Installation at the Monument Campground	17
8. A Typical Hand Pump at the Horseshoe Lake Campground.	18
9. Piped Water Faucet at the Monument Campground .	18
10. Typical Vault Toilet at the Horseshoe Lake Campground	19
11. Firewood Storage and Tools at the Horseshoe Lake Campground	19
12. The Swimming Beach at the Island Lake Campground.	20
13. Pine River Campground Shelter	20
14. A Trail at the Pine River Campground.	21

LIST OF ILLUSTRATIONS (Continued)

Figure	Page
15. A Trail Sign at the Island Lake Campground.	22
16. A View of the Ausable River from Michigan State Highway 65	23
17. Map Showing Location of Campgrounds on the Huron National Forest	30
18. Map of the Lower Peninsula of Michigan Showing the Percent of 1966 Huron National Forest Camping Families by Michigan County of Residence.	42
19. Comparison of Family Campers Origins in 1962 and 1966	43
20. Bar-graph Showing the Occupations of Family Heads Using the Huron National Forest in 1962 and 1966	48
21. Bar-graph Showing the Educational Level of Heads of Families Using the Huron National Forest in 1962 and 1966.	50

LIST OF APPENDICES

Appendix		Page
A	Questionnaire	98
B	Pamphlet Given to Campers Explaining the Land and Water Conservation Fees. . . .	112

INTRODUCTION

In planning the use of natural resources for recreational purposes, it is essential that all those factors which influence growth in recreation demand be taken into consideration. Two of the most significant groups of influencing factors are the socio-economic characteristics of the users and the attitudes of the users toward the facilities and management. In order to detect changes in these two groups of factors it is necessary to study these phenomena periodically by interviewing recreation users. Information gathered in this manner is useful to recreation planners and also to those who are charged with recreation area management. As Wagar has pointed out, "If outdoor recreation is to be managed with effectiveness in proportion to its apparent importance, then simple, readily employed comparisons and outlines are needed to guide both managers and participants."¹

This present investigation is an inventory and analysis of the socio-economic characteristics, attitudes toward facilities provided and desired facilities, and

¹J. V. K. Wagar, "Some Fundamental Characteristics of Outdoor Recreation," Journal of Forestry, LXIV, 10 (October 1966), p. 667.

reaction to fees charged, of campers using developed national forest campgrounds in the Huron National Forest, Michigan. It is divided into two major parts. The first section describes the background of the study including a description of the methodology employed. The second part analyzes the camper characteristics and attitudes and includes a discussion of the conclusions reached and their implications. Since this investigation almost replicates a study undertaken in the same forest in 1962, it has been possible to make comparisons with the camper characteristics and attitudes existing at that time.

The present study was undertaken with the cooperation and financial assistance of the U. S. Forest Service and the Department of Resource Development at Michigan State University. The field work was carried out by the author during the summer of 1966 with the cooperation of Forest Service personnel. Analysis of the data was completed in the early months of 1967.

CHAPTER I

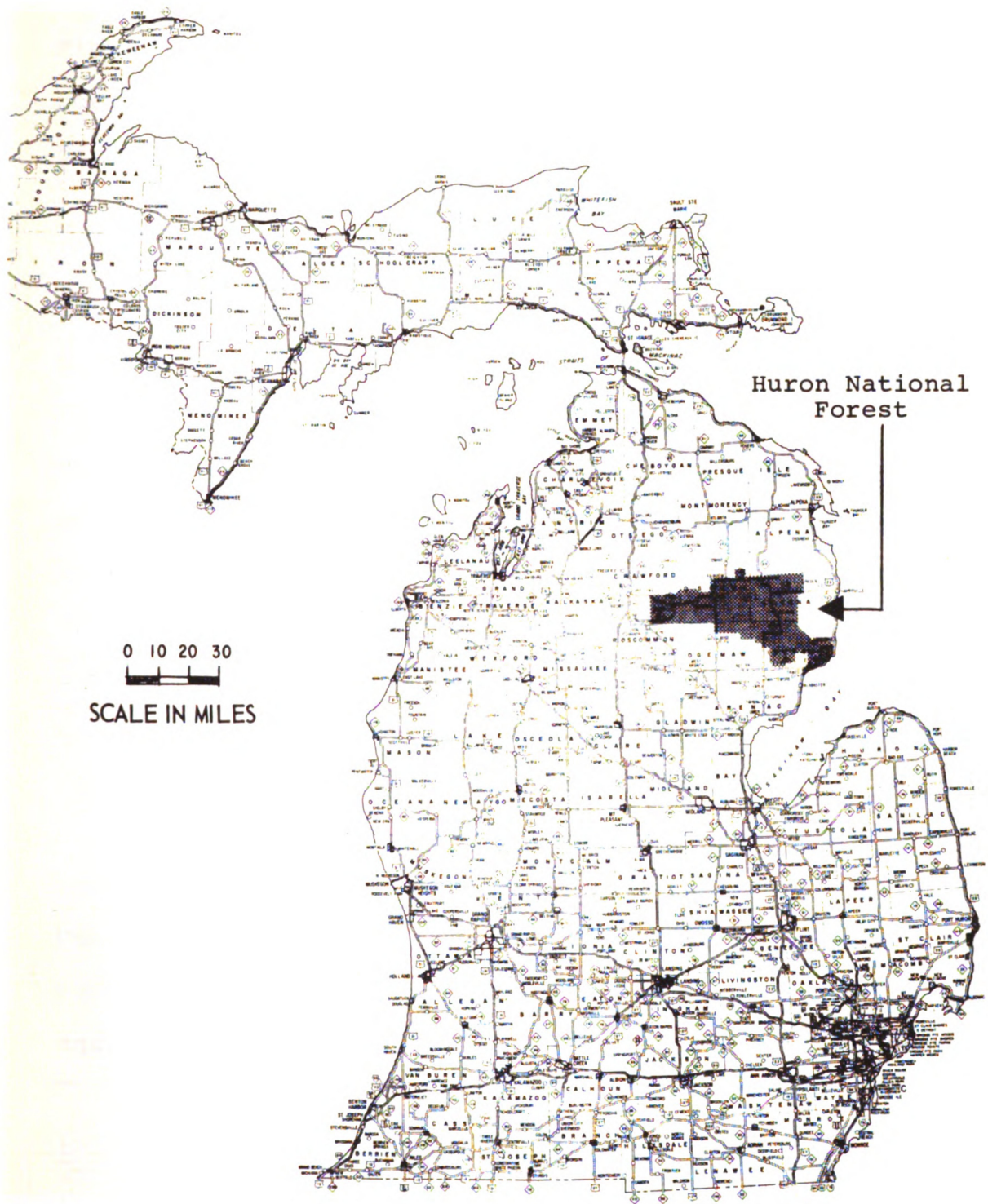
OBJECTIVES, SIGNIFICANCE, REVIEW OF LITERATURE AND DEFINITIONS

Objectives

The study had three main objectives. The first was to determine the nature and extent of any changes between 1962 in the socio-economic characteristics of campers in the Huron National Forest. The second was to discover if any significant differences existed between the preferences of campers for various types of camp ground facilities and the facilities actually present in the campgrounds. The third objective was to measure camper acceptance of fees under the Land and Water Conservation Fund Act at National Forest campgrounds.

Significance

The Huron National Forest (see Figure 1) was selected for several reasons. First, the forest is relatively compact which reduced traveling time and made possible the sampling of various campgrounds more frequently than if the forest sections were more dispersed. Second, the previous study of campers using the Huron National Forest in 1962 offered a unique opportunity to determine whether or not the characteristics and attitudes of campers are changing. Third, the



CONR 2317 - Transmitted to Jan. 1963, M.S.H.O

Fig. 1--Map Showing Huron National Forest in Relation to Population Centers and Transportation Routes.

forest is comparatively close to the investigator's base of operations at Michigan State University and this was significant in view of the limited time and financial resources available. Finally, the selection of the Huron National Forest made it possible to obtain financial assistance from the U. S. Forest Service.

Studies involving the socio-economic characteristics of campers are important to recreation resource planners both in the development of plans for recreation systems and in the designing of individual sites. Analysis of such data enables the planner to detect changes in the types of people using recreational facilities. This makes it possible to predict with more accuracy the kinds of people who are likely to use facilities in the future. Recreation resource planners can then adjust their plans to provide the best possible facilities for the anticipated clientele. As King has stated, "At the present time descriptive studies of recreationists are most useful as benchmarks for comparisons over time."¹

The questions concerning camper preferences and attitudes toward camping facilities provided in the Huron National Forest developed campgrounds were intended to show if the U. S. Forest Service is satisfying the desires and needs of the average camper. The questionnaire also contained questions on

¹David A. King, Characteristics of Family Campers Using the Huron-Manistee National Forests, Research Paper L.S.-19, (St. Paul, Minn.: Lake States Forest Experiment Station, 1965), p. 11.

facilities that the campers felt were omitted from developed campgrounds. It is hoped that the responses to these questions will be of assistance to the Forest Service in providing facilities that are presently lacking in existing campgrounds and in designing new camps.

Finally, it is hoped that the results of this study will provide the basis for further investigation of camper characteristics and preferences. To this end, some problem areas will be identified and recommended for further attention.

Review of Literature

The following review of selected literature includes only those reports and articles that the author feels are pertinent to the main areas of investigation in this study. Particular emphasis has been given to reports concerning recreation on national and state forest lands.

One of the first studies that probed the field of camper characteristics and preferences was the report by Taves, Hathaway, and Bultens, entitled, Canoe Country Vacationers.² The purpose of the project was to obtain data on "Who vacationed in the area, for what reasons, and with what effects; what these vacationers think of the area; and what they would like done with it."³ It was undertaken following a previous smaller study which attempted to investigate the human elements

²Marvin J. Taves, William Hathaway and Gordon Bultens, Canoe Country Vacationers (Miscellaneous Report 39, University of Minnesota Agricultural Experiment Station), June 1960.

³Ibid., p. 6.

of wilderness use.⁴ An interesting feature of this investigation was the use of two questionnaires. The first questionnaire was completed before or during the camping experience, while the second was to be filled out after the camping experience had been completed. From analysis of the two questionnaires the authors were able to determine whether or not camper motivations, perception of attractions and preferences had changed due to participation in the camping experience.

Another relevant research project was carried out in 1959 by Fine and Werner.⁵ Personal interviews were conducted to investigate camper characteristics, preferences, and attitudes. The authors felt that the information obtained would be of value in planning future camping facilities. Ideas for suitable questions for use in the present study were obtained from this source.

In 1960, a survey of family campers in Northern Wisconsin and the Upper Peninsula of Michigan was made by Loren Woerpel of Michigan Technological University.⁶ Data was collected by means of a questionnaire distributed among campers of which some 357 were completed and returned. The selection of the sample did not comply with accepted sampling procedures

⁴Gregory F. Stone and Marvin J. Taves, "Research into the Human Element of Wilderness Use," Proceedings of the Society of American Foresters (Memphis, Tennessee: 1956), pp. 26-32.

⁵I. V. Fine and E. E. Werner, "Camping in State Parks and Forests in Wisconsin," Wisconsin Vacation Recreation Papers, Vol. 1, No. 3 (University of Wisconsin, Bureau of Business Research, 1960).

⁶Loren S. Woerpel, Characteristics of the Family Camper in Northern Wisconsin and the Upper Peninsula of Michigan (Stevens Point: Wisconsin Federation of Conservation Clubs June 1961).

so a bias was probably introduced into the results. One interesting finding was that campers did appear to change their preferences for facilities after they have gained camping experience with family campers tending to desire less developed facilities.⁷ However, this finding may have been only true for the particular type of camper encountered in that area at that time. There is strong evidence that campers as a whole generally prefer fairly well developed facilities.

An unpublished M.S. thesis by Alphonse Gilbert examines camper needs and preferences in Iron County, Michigan.⁸ The data was collected by a personal interview type of questionnaire. One interesting aspect of the analysis was the separation of male and female responses. This was done in order to detect any differences in preferences and attitudes and revealed that differences did exist in a number of areas.

Visitor characteristics and recreation activities on two National Forest areas were investigated by Wagar in 1963.⁹ A questionnaire was given to campers to fill in at their convenience and some 60 per cent were returned. No follow-up was made on those who did not return questionnaires. Analysis

⁷Ibid., p. 20.

⁸Alphonse H. Gilbert, "A Survey of Vacation Camping in Iron County, Michigan," (unpublished Master's thesis, Department of Resource Development, Michigan State University, 1963).

⁹J. A. Wagar, "Relationships Between Visitor Characteristics and Recreation Activities on Two National Forest Areas," USFS Research Paper EE-7 (Upper Darby, a.: Northwestern Forest Experiment Station, 1963).

of the results indicated that participation in camping at the areas concerned was not independent of distances from the place of residence. It was also demonstrated that many differences existed between visitors to the two areas. These areas were basically similar except that fees were charged at one and not at the other.

The Outdoor Recreation Resources Review Commission (ORRRC) reports provide an important source of camping information.¹⁰ Study Report No. 5, The Quality of Outdoor Recreation: As Evidenced by User Satisfaction, presents a nationwide user survey which tests the usefulness of user satisfaction as a measure of recreation area quality. Study Reports Nos. 19 and 20 include discussion of the recreation preferences and habits of the American people. Camping is one of the activities discussed. The report indicates that ease of access to recreation areas from centers of population is an important variable affecting the amount of participation.¹¹

Finally, there is the study by King in cooperation with Lucas on camper characteristics and attitudes in the Huron-Manistee National Forests. King has authored two articles concerning this study, both of which have been published. In the Academy of Science paper he compares certain socio-economic characteristics of family campers with the general

¹⁰U. S., Outdoor Recreation Resources Review Commission, Outdoor Recreation for America (Washington, D.C.: U. S. Government Printing Office, 1962).

¹¹Ibid., pp. 26-27.

socio-economic characteristics of the population in the area where the camper resided. The characteristics compared included family income, occupation, and education.¹² Analysis of the results showed that the campers in the sample were generally in a higher socio-economic class than was the average in that area of residence. He also confirmed that once the effect of population size was removed, the number of campers was inversely proportional to the distance between the campground and the camper's place of residence.¹³

King's other study on the characteristics of family campers was of a more descriptive nature.¹⁴ It showed that the average length of stay of family campers was not very great and that the campers using the National Forest campgrounds generally had some camping experience.

Definitions

The following list of definitions is included since at present there is no commonly accepted glossary of terms in the recreation field. These definitions are given in order to clarify the author's meaning in using the terms in this thesis.

¹²David A. King, Some Socio-Economic Comparisons of the Huron and Manistee National Forest Family Campers With Market Populations. (published paper presented at Michigan Academy of Science, Arts, and Letters, East Lansing, Michigan, March 27, 1964).

¹³Ibid., p. 51.

¹⁴Ibid., p. 53.

Camper characteristics are those characteristics of campers which were inventoried for this investigation. They were, family personal income, occupation, origin and destination, family composition, educational levels, place of residence, camping equipment used and previous camping experience.

Camper attitudes are those attitudes and preferences of campers that were inventoried. These included the campers' attitudes and preferences concerning types of campsites and the facilities that were available or were lacking.

Camping equipment is defined as all equipment directly related to the actual act of camping. It does not include boats, fishing equipment, other sports equipment, or vehicles except when they are used for living or for sleeping purposes.

A campground is an area specifically designed for camping or an area that is made available and plainly marked for use by campers. Both modern and undeveloped campsites are included.

A campsite is an area used by one family or small group for camping purposes. It is usually equipped with a table and a fireplace.

A family group is a group related by marriage, blood, or adoption, in which the father and mother, if living, are present.

A group spokesman for a family is the father or any adult member, if the father is not at the campsite.

A group spokesman for an unrelated group is whoever speaks for the group. The group may choose him or he may be self-chosen.

An organized group is any unrelated group consisting of several camping units and belonging to an organization such as the Boy Scouts or Y.M.C.A.

An unrelated group is any group not classified as a family.

A survey week runs from Friday through to the next Thursday.

CHAPTER II

THE STUDY AREA

Before discussing the methodology used in this study, it is felt that a general description of the Huron National Forest will give the reader a better understanding of the area involved. In the following sections of this chapter, the general characteristics of the Forest and the actual campgrounds are discussed.

Location

The Huron National Forest is one of the closest National Forests to the major population centers of the Midwest being located in the northeastern part of lower Michigan. Detroit, Flint, Saginaw, and Lansing are some of the nearby cities which supply a large number of the campers. All these cities are within half a day's traveling time by automobile.

Some of the major transportation routes that intersect the Forest are Interstate 75, M-33, U.S.-23, M-72, and M-65. These main arteries make the Huron National Forest readily accessible to the residents of both the southern and northern parts of lower Michigan.

The Huron National Forest has two other National Forests located near it. They are the Manistee National Forest

on the northwestern side of lower Michigan, and the Hiawatha National Forest located in the eastern half of the Upper Peninsula of Michigan. There are also Michigan State Forests adjacent to the southern and northern boundaries of the Forest.

History

This National Forest was created in 1909 when federal lands were set aside for watershed protection and timber production.¹ The area had been considered a paradise for lumbermen during the high tide of the lumber industry, mainly in the period from 1860 to 1890. In 1929 the area was named the Huron National Forest after the Huron Indian Tribe which had previously inhabited the area.² Under the supervision of the Forest Service, the burned and logged over lands were reforested principally with various pine species. Soil erosion was checked and the Forest Service provided protection from fires, insects, and disease. There are some 415,000 acres of federally owned land within the present boundaries of the forest. The policy of the U. S. Forest Service is "to develop all the renewable resources for the use and benefit of all people."³

¹U. S., Department of Agriculture, Forest Service, "Huron National Forest," Section on Historical Notes, NF-4R.9 (U. S. Government Printing Office, 1933), p. 2.

²Ibid., p. 2.

³U. S., Department of Agriculture, Forest Service, Huron National Forest "Recreation Map" (Delmer Lithograph Company, Waukesha, Wisconsin, 1963) map side.

Geography

The Huron National Forest is located in a glaciated area which explains the topography and variety of soil types in certain sections. Many marshes and lakes dot the terrain. The Forest lies in the heart of what was once the virgin "forest primeval" of Michigan. Much of the area was subjected to repeated burning during the famous lumbering era and a relatively low organic content in many of the soils has resulted. Most of the major soil types are of a generally sandy nature, Grayling, Rabricon, and Emmet, being a few of the more common ones. Due to previous forest fires, the soils in public ownership are usually of low fertility and a large percentage of the forest cover is jackpine, scrub oak, and aspen. The area is covered predominantly with second and third growth forest, and approximately 90% of federal timber sales are pulpwood sales.⁴

The area is noted for its two famous trout rivers, the Ausable and Big Creek. The Ausable transects the Forest from west to east. This river is one of the major factors that contributes to the area's great recreation potential.

The climate of the area is nearly ideal for recreation. During the year the temperature varies from 30°F below zero to over 100°F but the mean monthly temperature for

⁴Iosco County Planning Commission, Overall Economic Development Plan Revision (Iosco County, Michigan) 1966, Section on Forest Industry, p. 1.

July, the heaviest tourist month, is 67°F.⁵ The area has also approximately 50 inches of snow each year which contributes to its uses as a winter recreation area particularly with the increased popularity of the snowmobile.

One limiting factor for recreation in this region is its susceptibility to drought. Since the soils are mostly sands and a large portion of the forest cover is jackpine, the fire hazard is often dangerously high during the summer season. The author particularly noticed this to be the case during the data collection period in 1966. Forest Service personnel indicated that high fire hazard during the recreation season is one of the major problems with which they must contend.

The Campgrounds

The areas provided by the Forest Service for camping are generally quite scenic. Figure 2 shows some of the typical campground scenery which attracts campers to this Forest. Fair-sized trees, water in the form of a lake or a stream, and the general tranquility of a forest environment are common characteristics of U. S. Forest Service campgrounds in this region.

⁵Ogemaw County Redevelopment Area Organization, Overall Economic Development Plan Ogemaw County (Ogemaw County, Michigan) 1963, Section on Redevelopment Area and Its Economy, p. 1.



Fig. 2.--Typical scenery at the Horseshoe Lake Campground



Fig. 3.--The highway sign at the turn-off to the Horseshoe Lake Campground



Fig. 6.--A typical campsite with limited development at the Pine River Campground



Fig. 7.--A typical garbage can installation at the Monument Campground



Fig. 8.--A typical hand pump at the Horseshoe Lake Campground



Fig. 9.--Piped water faucet at the Monument Campground



Fig. 10.--Typical vault toilet at the Horseshoe Lake Campground



Fig. 11.--Firewood storage and tools at the Horseshoe Lake Campground



Fig. 12.--The swimming beach at the Island Lake Campground



Fig. 13.--Pine River Campground shelter



Fig. 14.--A trail at the Pine River Campground



Fig. 15.--A trail sign at the Island Lake Campground



Fig. 16.--A view of the Ausable River from Michigan State
Highway 65

Entrances to National Forest campgrounds from main highways are generally well marked. An example of the typical turn-off sign is shown in Figure 3. The camper usually sees only one such sign as he approaches a Forest campground turn-off and they are normally located quite close to the point where the turn has to be made. The sign shown is the standard type erected by the Michigan Department of State Highways.

On entering the campground the camper will see a sign such as is shown in Figure 4, if Land and Water Fund Act Fees are being charged for the campground. Such fees are required of campers who stay at areas with improved facilities. Entrance fees are payable on entry into the designated areas, and user fees are required for special facilities such as flush toilets or where the recreation attraction is of high quality. At a few of the campgrounds no fees were charged and a further discussion is included in Chapter 7.

The facilities provided at the various campgrounds differed to some extent. Some of the facilities commonly found at the campground are shown in the illustrations. Figure 5 shows a typical campsite at a developed campground. Such sites normally have creosoted posts inserted along their open sides in order to prevent vehicles from leaving the roadways and parking spurs and thus encouraging orderly use of the campground. At a few of the campgrounds which serve principally as overflow areas, the boundaries of campsites are not clearly designated. A typical example of this type

of site is shown in Figure 6. Only the bare necessities are provided such as a table, garbage can, and sometimes a fireplace.

The garbage can shown in Figure 7 is typical of those provided by the Forest Service. The cover is usually attached by a chain to some immovable object such as a pipe or tree. At a few of the campgrounds the garbage cans are buried in the ground so that the lid is flush with the surface. Plastic liners are put inside the cans to facilitate cleaning.

Water is provided either from a hand pump as shown in Figure 8 or by a piped pressure system as shown in Figure 9. The toilets provided are all similar to the one shown in Figure 10 except at Kneff Lake Campground where flush toilets have been installed. The vault toilets are simple but are well ventilated and frequently cleaned.

At some of the campgrounds "do it yourself firewood kits" are provided for the use of campers. This makes firewood readily available to campers without resulting in unnecessarily high consumption of wood due to excessive burning or theft. A theft problem does exist with the tools so they are chained to the wood rack as a precautionary measure. Another problem is porcupine damage to certain wooded facilities and in an effort to prevent this, the bases of posts are covered with tin. These points are illustrated in Figure 11.

Swimming beaches are at a premium at the campgrounds in the Huron National Forest. Only four of them have good

beaches. Figure 12 shows a typical example. Swimming is one of the many activities at these campgrounds particularly for families with children. Shelters are provided at some of the campgrounds. They usually contain tables and are well ventilated. A typical example is shown in Figure 13. Scenic trails have been constructed at a few of the campgrounds. They are well marked and well maintained. Figure 14 shows a trail leading down to the river at the Pine River campground. Figure 15 shows the beginning of a trail at the Island Lake campground.

No description of the area would be complete without mention of the aesthetic values of the scenery along the Ausable River. Two of the campgrounds included in the study are located on the ridge overlooking this famous river. Figure 16 shows a typical view of the river scenery.

CHAPTER III

PROCEDURE

Basic Methodology Employed

Only those campgrounds in the Huron National Forest that were open to the public during the summer of 1966 were included in this study. The necessary field work was begun on June 15, 1966 and lasted until August 11, 1966. During this time, data was collected using a prepared personal interview technique with the interviewer asking the questions and recording the answers. A copy of the questionnaire (see Appendix A) was given to all the campers interviewed. The interviewer retained this blank questionnaire after the interview. When the questionnaire was being field tested, it was found that respondents were much quicker in answering questions if they had been given a copy of the questionnaire to follow as the interviewer went through it.

The time it took to interview a particular camper depended upon a number of factors. One of the most important factors was the educational level of the camper. It was generally found that those with a higher level of education responded more quickly than those with a lower educational level. Other factors that caused differences in the time

required for interviewing were: the general emotional condition of the camper regarding management practices such as fees, motorcycles, and other problems, the weather conditions at the time, and the activity the camper was doing or about to do. It took from ten minutes to as much as one hour to conduct a single interview, the average time being close to 15 minutes.

It was quickly discovered that it would take more than one person to complete the number of interviews required at each campground. It was therefore necessary to obtain the assistance of two other people to keep up with the sampling schedule.

Methodology Used to Determine Sample

All the campgrounds of the Huron National Forest were included in the sample. These campgrounds are all clearly marked as areas to be used for camping purposes. During the summer of 1966 they ranged in size from a maximum of 34 developed campsites to a minimum of six developed family units. Table 1 lists these campgrounds with the number of family units in each in June 1966.

The methodology used to determine how the sampling would be done was basically the same as that used by King during his 1962 study. This was done in order to make it possible to compare the results of the current study with the 1962 values. The author also felt that King's technique

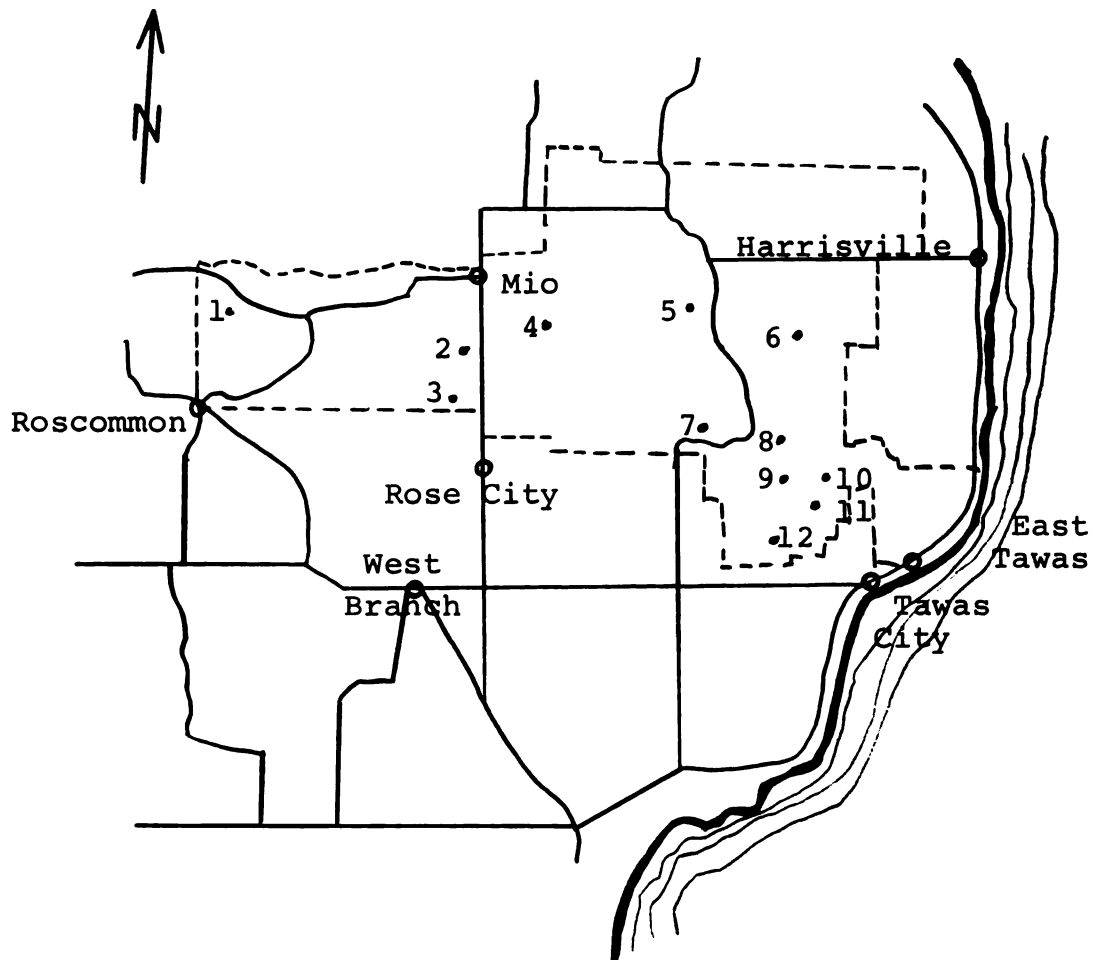
TABLE 1. Number of Designated Camping Units Per Campground¹

Campground	Designated Units
Mio District	
1. Island Lake	17
2. Kneff Lake	18
3. Mack Lake	26
4. Wagner Lake	12
Tawas District	
1. Corsair Campground	12
2. Corden Creek	10
3. Lumbermans Monument	20
4. Rollaways Campground	19
5. Round Lake	34
6. Silver Valley	6 (no designated spurs)
Harrisville District	
1. Horseshoe Lake	6
2. Pine River	6
3. Jewel Lake	Not Complete

¹From a personal interview with Wayne Worthington, Landscape Architect, Huron National Forest, Cadillac, Michigan, June 2, 1966.

effectively eliminated bias and yet was still relatively easy to put into practice.

The twelve campgrounds in the forest were first grouped for sampling purposes into three groups in order to keep travel time between campgrounds to a minimum (see Figure 17). All the campgrounds in a particular group were sampled on the days selected for that group. After consideration of the time available and distances involved, it was decided that each campground would be sampled six times on each day



List of Campgrounds

A. Group 1

1. Kneff Lake
2. Wagner Lake
3. Island Lake
4. Mack Lake

B. Group 2

5. Horseshoe Lake
6. Pine River
7. Rollways
8. Monument

C. Group 3

9. Gorden Creek
10. Silver Valley
11. Corsair
12. Round Lake

LEGEND

- H.N.F. Boundary
 ————— State & Federal Hwys.
 ° Campground Locations

FIGURE 17.--Map showing location of campgrounds on the Huron National Forest.

of the week, that is, on six Sundays, six Mondays, six Tuesdays, etc. The sample period was eight weeks in length. To make sure that sampling at any given campground would be distributed to some extent through the season, the sample period was put into two segments. The same sampling technique for assigning campground groups to particular days was carried out separately for each four-week segment. Therefore, only the procedure for sampling one four-week segment will be described.

In the first four-week segment, the three campground groups were sampled on separate days with each group being visited one day of each day of the week for the four-week segment. For example, in the first four-week segment, campground group 2 was sampled on the first Sunday, campground group 1 was sampled on the third Sunday, and campground group 3 was sampled on the fourth Sunday. The Sunday when no sampling was to be done was selected randomly (see Table 2). Thus, there were 21 sampling days in the first four-week segment. In order to select on a reasonable random basis the seven days when no sampling would be done, the days in the four-week segment were numbered from 1 to 28 and a table of random numbers was then used to select the particular days within the four Mondays, four Tuesdays, etc., when no sampling was to take place. Only one restriction was imposed and that was that there would be at least one but not more than two days in any survey week when no sampling would take place. A survey week was considered to begin on Friday and end on the following Thursday.

TABLE 2. Allotment of Huron National Forest Campground Groups to Particular Days for Sampling Purposes

Week No.	Dates	Days of the Week						
		F	S	S	M	T	W	T
1)	June 17- June 23	1	X	2	1	X	2	3
2)	June 24- June 30	2	1	X	3	1	3	X
3)	July 1- July 7	3	3	1	2	2	X	1
4)	July 8- July 14	X	2	3	X	3	1	2
5)	July 15- July 21	X	X	1	3	1	2	3
6)	July 22- July 28	1	1	3	2	X	3	2
7)	July 29- Aug. 4	3	2	X	X	2	1	1
8)	Aug. 5- Aug. 11	2	3	2	1	3	X	X

The assignment of the three campground groups to particular days was also done on a restricted random basis. The days selected were chosen by using a table of random numbers. After each day was selected, the random numbered table was again consulted and the appearance of a number 1, 2 or 3 was used to determine which group would be assigned to the day in question. Each group was sampled at least once and no more than twice in each survey week.

At each campground the sample size was set at 25% of the occupied campsites or one interview in cases when less than four campsites were occupied. Therefore, the sampling rate was slightly higher than 25% of occupied campsites for the entire study.

The camping parties to be interviewed were also selected on a random basis. Some restrictions were necessary to meet the various circumstances encountered. In order that no campground was sampled more than once at the same time of day during the sample period, the order in which campgrounds were visited was rotated for each campground group (see Table 3). For example, campgrounds in group 1 were numbered consecutively, and the order in which they were to be visited for the first sample was set at 1, 2, 3, 4. For the second visit the order was set at 2, 3, 4, 1 and so on for the fourteen times each group was sampled.

The interviewing of campers was conducted during the period from 1:30 p.m. to 10:00 p.m. on each sample day. The interviewer used a rough map of the campground to determine which sites would be sampled. As the interviewer went through the campground, he numbered the occupied sites. Where two sites lay directly opposite one another, the site on the right side of the road was always numbered first. If the campground was filled to over capacity and there were camping parties in non-designated areas near or within the campground, they were numbered in the same manner as the developed sites. After all the occupied sites were numbered, the interviewer

TABLE 3. Order of Travel to the Campgrounds Within the Assigned Groups

Campground	Sample	Order	Sample	Order
A. <u>Group 1</u>				
1. Kneff Lake	1	1,2,3,4	12	2,3,4,1
2. Wagner Lake	2	4,1,2,3	13	1,2,3,4
3. Island Lake	3	3,4,1,2	14	4,1,2,3
4. Mack Lake	4	2,3,4,1		
	5	1,2,3,4		
	6	4,1,2,3		
	7	3,4,1,2		
	8	2,3,4,1		
	9	1,2,3,4		
	10	4,1,2,3		
	11	3,4,1,2		
B. <u>Group 2</u>				
1. Horseshoe Lake	1	1,2,3,4	12	2,3,4,1
2. Pine River	2	4,1,2,3	13	1,2,3,4
3. Rollways	3	3,4,1,2	14	4,1,2,3
4. Monument	4	2,3,4,1		
	5	1,2,3,4		
	6	4,1,2,3		
	7	3,4,1,2		
	8	2,3,4,1		
	9	1,2,3,4		
	10	4,1,2,3		
	11	3,4,1,2		
C. <u>Group 3</u>				
1. Gorden Creek	1	1,2,3,4	12	2,3,4,1
2. Trail Camp	2	4,1,2,3	13	1,2,3,4
Silver Valley	3	3,4,1,2	14	4,1,2,3
3. Corsair Camp	4	2,3,4,1		
4. Round Lake	5	1,2,3,4		
	6	4,1,2,3		
	7	3,4,1,2		
	8	2,3,4,1		
	9	1,2,3,4		
	10	4,1,2,3		
	11	3,4,1,2		

consulted a table of random numbers to determine which sites would comprise the 25% sample to be interviewed.

Campers who were already in the process of breaking camp were not included in the determination of which sites would be interviewed. If a situation occurred where a camping party would have been included in a sample more than once (i.e. if the party was in the same campground when it was sampled again or if it had moved to another campground that was being sampled), only the information on length of stay and family name was recorded. This meant that only the last page of the questionnaire (see Appendix A) was filled out for campers that had been previously interviewed. If more than one party was occupying a site, all of the parties using the campsite were interviewed.

A number of problems were encountered during the actual interviewing. The large number of campers that used certain campgrounds on the July 4th weekend resulted in the number of interviews for those days being much larger than had been anticipated. For example, although the largest campground had only 36 designated sites, one campground was occupied by over 70 camping families when it was visited for sampling purposes. However, with three people interviewing it was possible to complete the sampling on the day to which it had been assigned. Another problem was that some campers refused to answer the questions. In all, only three people refused to answer all questions and in these three cases, other campers were selected by similar methods. Finding people at their campsites was also a problem. If some of the camping parties selected were not home when they were to be

interviewed, they were by-passed and the rest of the selected units were interviewed. If after one hour they were still not at their campsite, new campers were selected. Only once did campers not return to the only occupied site within the hour. In this case, the campground was dropped from the sample.

There was also some difficulty concerning certain questions on the questionnaire. Some of them were not applicable at particular campgrounds. For example, when the camper being interviewed was not occupying a developed campsite, the questions on his reaction to facilities did not apply. To compensate for this, the interviewer told the camper of the facilities that were normally available on a developed site and the camper was then asked to answer the question as if he had such facilities available to him.

These then were the main problems that confronted the interviewer while attempting to complete the sampling. The fact that more difficulties were not experienced with the questionnaire indicates that its structure was generally quite satisfactory.

CHAPTER IV

CHARACTERISTICS OF FAMILY CAMPERS

Bias Correction Weighting

Before actually proceeding with the analysis of data, it was necessary to make a correction for a bias in the data by using a method devised by Lucas.¹ This bias is due to the fact that the probability of a family being in the sample is a function of the number of days they spent camping within the Forest during the study period. Those campers who stayed for longer periods are over-represented compared to campers who only stayed a short time.

This bias is a problem when an estimate of average length of stay or analysis of other related variables are needed. A simple weighting process can be used to correct for the bias. The calculations used to determine the weights are shown in Table 4 and the procedure used was as follows.

The first step was to divide the number of sample families (n) in each length-of-stay class by the length of stay (i). For example:

¹Robert C. Lucas, "Bias in Estimating Recreationists' Length of Stay from Sample Interviews." Journal of Forestry, Vol. LXI, 12, 1961, pp. 912-914.

TABLE 4. Calculation of Weights to Correct Bias in Sample Data for Total Huron National Forest Sample, 1966

Questionnaire Coding	Length of Stay in Days i	Sample Frequency n	$\frac{n}{i}$	Percentage Distribution p	Weighted Sample Frequency n'	Weights w
2	1	53	53.000	38.69	159.40	3.007
3	2	58	29.000	21.17	87.22	1.504
4	3	64	21.333	15.57	64.15	1.002
5	5.5	142	25.818	18.85	77.66	.547
6	8.5	14	1.647	1.20	4.95	.354
7	11.5	29	2.435	1.78	7.33	.262
8	14	45	3.214	2.35	9.68	.215
9	15+	8	.533	.39	1.61	.201
TOTALS		412	136.980	100.00	412.00	

$$\frac{n}{i} = \frac{53}{1} = 53.000$$

Then, to arrive at the figures for the percentage distribution (P) in the fifth column, each value in the third column was divided by the sums of the values in that column, for example

$$P = \frac{\frac{n}{i}}{\frac{n}{i}} = \frac{53.000}{136.980} = 38.69$$

The weighted frequency in each length-of-stay class (n') was found by first converting the values in the "Percentage Distribution" columns to decimals and then multiplying these values by the total sample size (N), for example:

$$n' = P \times N = .3869 \times 412 = 159.40$$

Finally, the weights (W) were calculated by dividing the weighted frequencies (n') by the unweighted frequencies (n), for example:

$$W = \frac{n'}{n} = \frac{159.40}{53} = 3.007$$

A good explanation of the above procedure is given by David A. King in a supplement to Research Paper L.S.-19.²

Deviations From the 1962 Study Procedures

In order to fulfill the first objective of this study, the data were collected and analyzed in basically

²David A. King, "Sampling and Length-of-Stay Bias Adjustment Supplement to Research Paper L.S.-19," Lakes States Forest Experiment Station, St. Paul, Minnesota, December 6, 1965. p.8 (Mimeographed)

the same fashion as was done in the 1962 study. However, there was some deviation from the previous procedure which should be mentioned at this time.

First, the data collection period of the present study was shortened due to the available time and financial resources being limited. Second, some new campgrounds were added to the sample while one campground, which was changed to a day use area, was removed from the sample. Campgrounds are typical and should not cause any significant differences in analysis. Finally, the length of stay question asked of campers grouped the number of days stayed after 3 as follows: 4 to 7 days, 8 to 9 days, 10 to 13 days, and 15 or more days. The 1962 study recorded length of stay by the actual number of days. Since length of stay was the factor used to determine the weights which corrected the sampling bias, the use of length of stay groupings may be a possible source of error. The reason for grouping the length of stay was to keep the questionnaire coding for that question to numbers less than 10. Also, the author believes that this source of error is negligible because the data collected in 1962 showed sample frequencies that were very similar for the days included in the groupings.

Analysis of Camper Characteristics

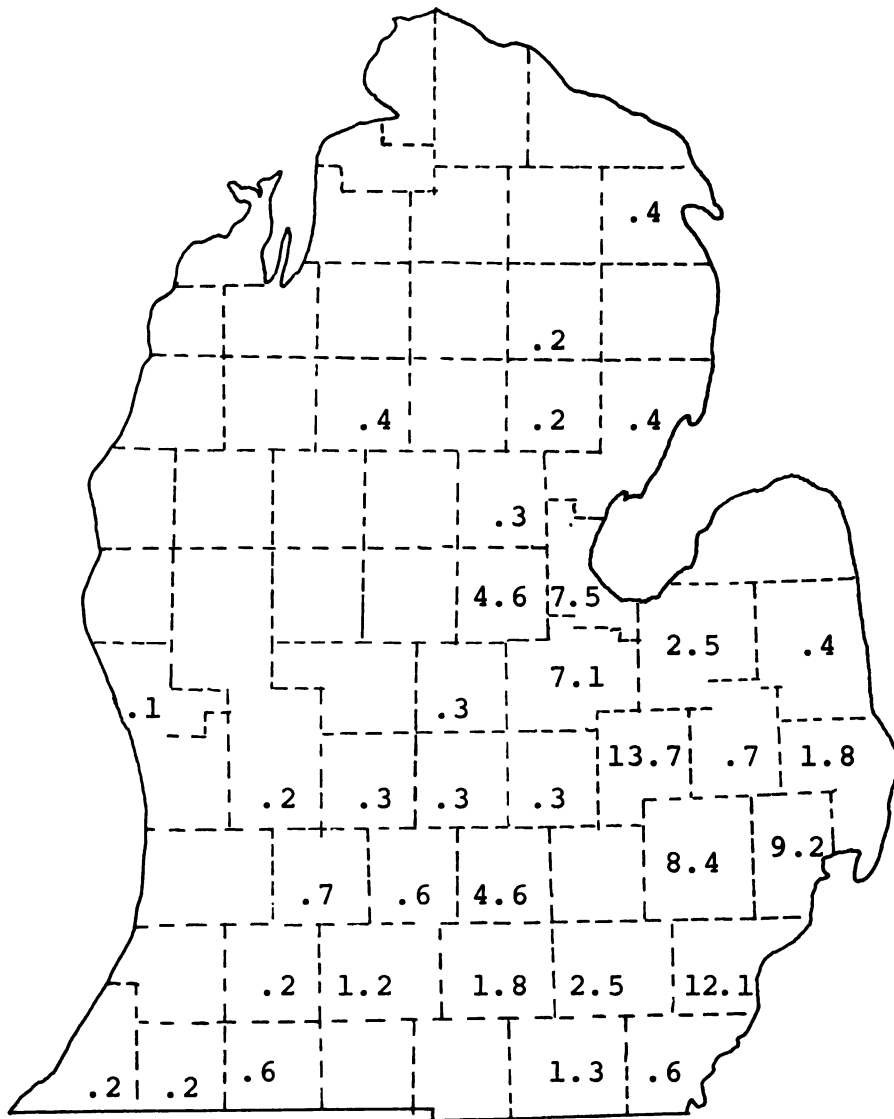
The types of camping groups that visited the campgrounds were predominantly families. Eighty-two and a half percent were families, 10.4 percent were families

and friends, 4.0 percent were groups of unrelated friends, 2.1 percent were organized groups and 1.1 percent were individuals. Of the 412 camping groups interviewed, 340 were families. Since the 1962 study analyzed only family campers, this portion of the investigation also used family campers. If data for other camper groups is included in the analysis, an explanation is given.

The Origin of Family Campers

Most of the campers came from a comparatively small area in the southeastern corner of lower Michigan. Figure 18 shows in detail the percentage of family campers by origin county. Some 50 percent of all the family campers who visited the Forest came from the area lying east of a line drawn from Bay through Wayne counties. Ohio is the highest out-of-state origin area with 6.7 percent coming from that state.

When the 1966 data was compared to the 1962 study, it was discovered that little change in the origins of the campers had occurred. Figure 19 shows a direct comparison of the origins for the two years. It appears that an increasing number of campers is coming from outside the North Central region of the United States. Approximately 5 percent came to the Forest from outside the North Central Region in 1966 compared to less than 3 percent in 1962.



Percent of camping families from out state origins
in 1966

Illinois	.9	New York	.9
Indiana	1.9	Ohio	6.7
Kentucky	2.0	Ontario, Can.	.9
Nebraska	.9	<u>TOTAL</u>	<u>14.2</u>

FIGURE 18.--Map of the lower peninsula of Michigan showing the percent of 1966 Huron National Forest camping families by Michigan county of residence.

Distance Traveled

This analysis of the distance traveled by family campers from their place of residence to the campground is based on data that was not weighted. The computer program designed by the Forest Service for the 1962 study, and also used for this study, could not weigh the distance traveled. The analysis is also based on the total sample. The investigation showed that 75.2% of the campers traveled a distance of 50-200 miles. This indicates distances that would fit the average weekend camper. No data was readily available to make comparisons with the 1962 study.

TABLE 5. Distance Traveled by Camping Groups

Miles Traveled From Origin	Number of Camping Groups	Percent
0- 50	10	2.4
51-100	85	20.6
101-150	103	25.0
151-200	122	29.6
201-250	36	8.7
251-400	22	5.3
401	34	8.4
	412	100.0

Campground Use

The mean days camped per family per trip (assuming each sample taken represents one trip) in 1966 was 3.1 days while in 1962 it was 5.0 days. A reason for the decrease in the mean days camped per trip in 1966 might be due to different methods of computation. The 1962 investigation

sent a post card to each family in the fall requesting number of trips, length of stays, etc. The average length of stay in 1966 of close to 3 days and the fact that 75 percent stayed less than 3 days suggests high weekend use. In analyzing this data an opportunity existed to compare weighted and unweighted data. The table shows great differences between the two sets of data.

TABLE 6. Length of Stay of Family Camper in 1966

Length of Stay in Days	Unweighted Frequency	Weighted Frequency	Unweighted Percentage	Weighted Percentage
1	49	147.34	12.56	38.48
2	51	76.70	13.08	20.03
3	61	61.12	15.64	15.97
5.5 (4-7)	137	74.94	35.13	19.58
8.5 (8-9)	13	4.60	3.33	1.20
11.5 (10-13)	28	7.34	7.18	1.92
14	43	9.24	11.03	2.38
15	8	1.61	2.05	.41

When the length of stay in 1966 is compared to the 1962 values the percentages show an increase in 1 to 3 day camping by approximately 30 percent. This is probably explained by the high weekend use which occurs at many of the campgrounds.

TABLE 7. Comparison of Length of Stay in 1962 and 1966 Studies

Trip Length in Days	1962	1966
1-3	45	74.5
4-9	45	20.8
10-	10	4.7

Stated Objective of Trip

Approximately half of the family campers interviewed gave one of the following three basic reasons for their visit. "Stopping overnight" or "temporarily camping" was given as a main reason by 7.7 percent, 34.3 percent said it was "one of a number of primary places" they were to visit, and 3.6 percent stated they were "camping only for the sake of lodging while visiting other areas nearby." However, the majority of the campers (54.4 percent) gave "visiting the Forest" as the primary purpose of the trip. In comparing these figures with those of 1962, a large drop (27.6 percent) occurred in the percentage of campers who gave visiting the Forest as the primary purpose of the trip.

Income

Comparison of the mean incomes from the two studies is not particularly reliable because they may have been computed differently and extreme values may have distorted the mean income values. A better value to use for comparison is the median income. The 1966 median income shows an increase of some 750 dollars over the 1962 value. In comparing the distribution of camping families among income classes, it is evident that there were fewer low income families and more high income families. Some noticeable increases occurred in the \$7,000 to \$9,999 class (13 percent)

and in the \$10,000 to \$14,999 class (8 percent). In general, respondents' attitudes toward this question was receptive with only 8 percent refusing to give answers about their income.

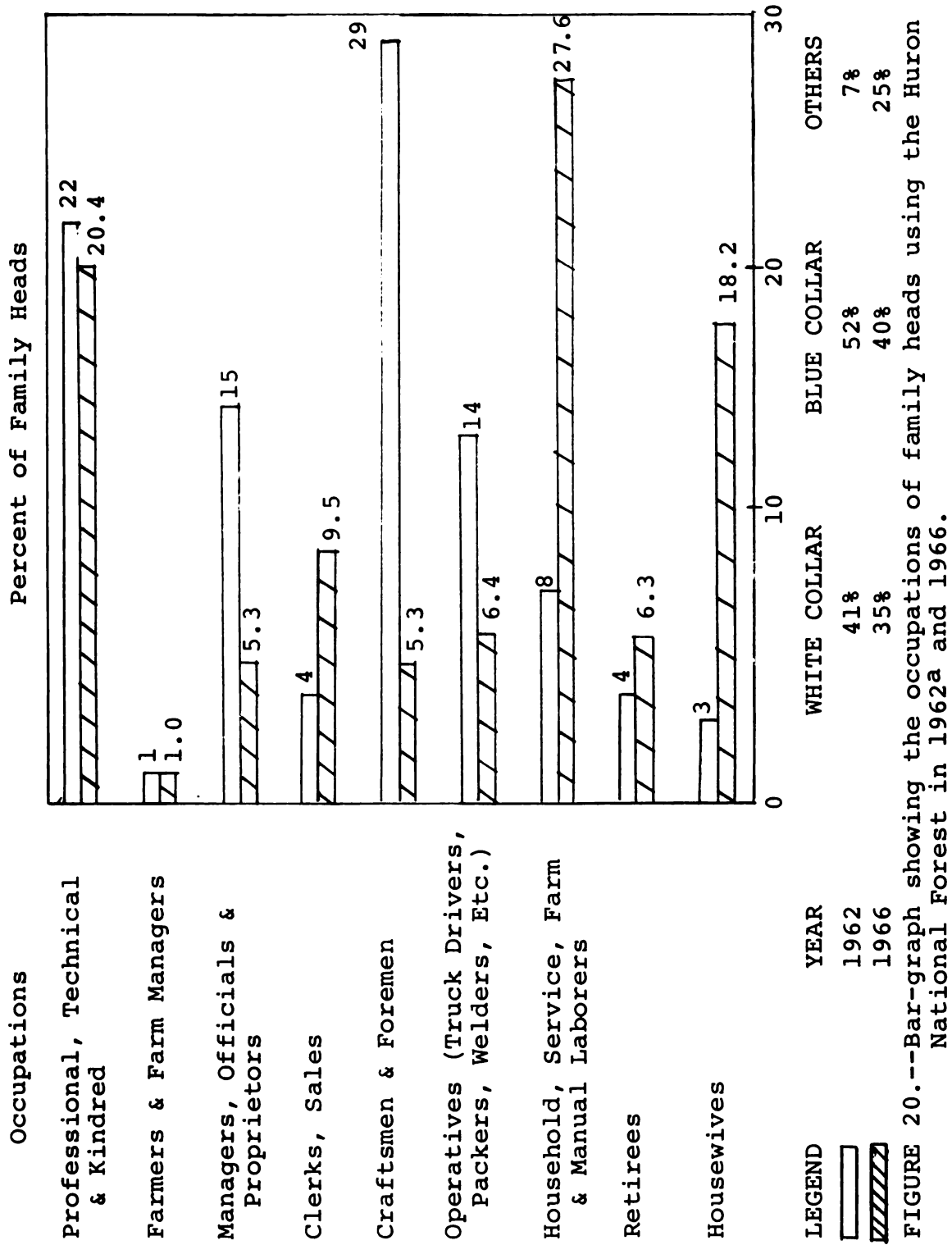
TABLE 8. Income of Camping Families

Income Class	Percents in 1962 ³	Percents in 1966
Less than 2,999	App. 5	4.2
3,000 to 4,999	App. 9	3.1
5,000 to 6,999	39	19.2
7,000 to 9,999	26	39.3
10,000 to 14,999	14	21.9
15,000	7	4.3
	100	100.0
Mean Income	8100	7440
Median Income	6500	7250

Occupations of Family Camping Heads

The bar-graphs in Figure 20 show the occupation classes used in the investigation and the percent of family heads in each class. A number of changes from the situation of 1962 are noticeable. One reason for the changes is the fact that campers were allowed to select their own occupations from classes that were difficult to differentiate between, for example, the classification separating craftsman and manual laborers. Another reason was that

³King, Characteristics of Family Campers Using the Huron-Manistee National Forests, p. 6.



^aKing, Characteristics of Family Campers Using the Huron-Manistee National Forests, p. 7.

the camper interviewed was asked to give his or her own occupation, whereas the 1962 study asked the interviewed camper to give the occupation of the family head. Often the family head was not at the campsite, and this may have accounted for the larger percent of housewives interviewed. In classifying the family heads as blue or white collar workers both classes dropped because of 18 percent being housewives and classified as "other."

Education of Family Group Heads

Slightly over two-thirds of the family heads had at least a high school education, being close to the value obtained in 1962. Forty-three point four percent were high school graduates. Figure 21 shows a comparison of the findings.

Family Structure

No weighting of data was used in the analysis, which includes two groups of campers; families and families with friends. The addition of families with friends should not affect the family structure, since friends were disregarded when questions were asked concerning number and age of children. Eighty-four percent of the camping families were families with children and there was an average of 4.8 members to a family. The number of families in the various size classes is shown in Table 9. The average age of the

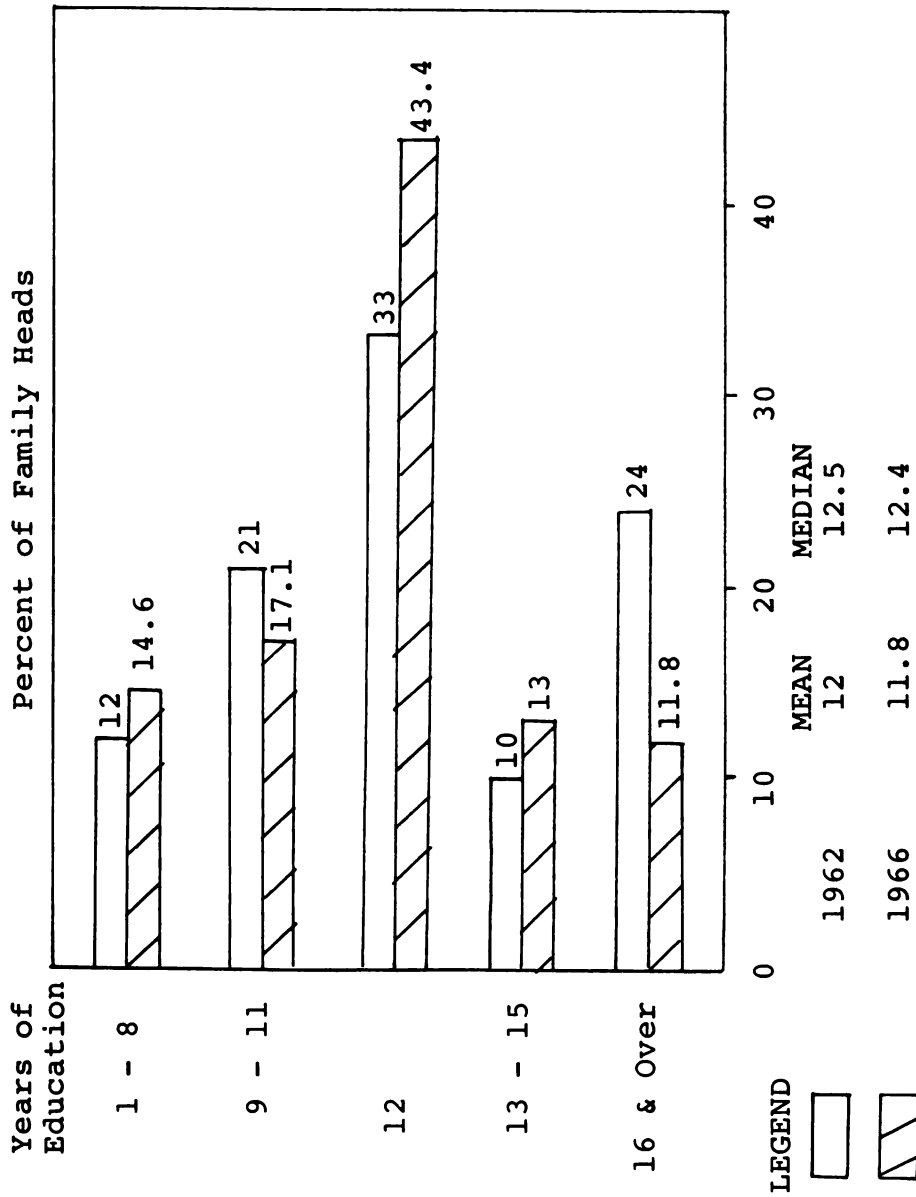


FIGURE 21.--Bar-graph showing the education level of heads of families using the Huron National Forest in 1962^a and 1966.

^aDavid A. King, Characteristics of Family Camping using the Huron-Manistee National Forests, p. 8.

family head was 40 years. Unfortunately no average age was given for the family head in the 1962 study.

TABLE 9. Structure of Camping Families

Family Size 1966	Percent	Family Size 1962 ⁴	Percent
2	15.64	1	1
3	11.79	2	17
4	21.79	3	20
5	20.26	4	24
6	16.15	5	16
7	6.41	6	12
8	2.82	7	7
<u>Above 8</u>	<u>3.85</u>	8	1
Average 4.79	100.0	<u>Above 8</u>	<u>2</u>
		Average 4	100

Distribution of Children

Age	1966 Percent	1962 Percent ⁵
1-5	31.2	25
6-12	43.2	49
13-18	25.6	26

⁴King, Characteristics of Family Campers Using the Huron-Manistee National Forest, p. 8.

⁵King, Characteristics of Family Campers Using the Huron-Manistee National Forest, p. 6.

Camping Experience of Family Campers

Camping experience was measured in years of camping at any location, years of camping in Michigan State Parks, and years of camping in the Huron National Forest. Only 5.8 percent of the family campers had no previous camping

experience. However, for 33.6 percent it was their first experience in the Huron National Forest, whereas in 1962 approximately 8 percent had no camping experience and 50 percent had not camped in either the Huron or Manistee National Forests. Twenty-three point seven percent had not had camping experience at state parks, though as previously mentioned, only 5.8 percent had no camping experience. This probably confirms that many campers gained much of their experience in state parks as King suggested.⁶ Table 10 summarizes the data on the camping experience of family heads.

TABLE 10. Camping Experience of Family Heads

Camping Experience Anywhere		Camping Experience on Michigan State Parks		Camping Experience on Huron National Forest	
Years	Percent	Years	Percent	Years	Percent
1st time	5.8	None	23.7	1st time	33.6
1	2.2	1	11.6	1	5.6
2	9.1	2	10.6	2	17.2
3-4	21.6	3	9.9	3-4	18.3
5-6	11.2	4	8.2	5-6	7.9
7	1.9	5-7	9.6	7	1.6
8-12	8.8	8-10	6.2	8-12	5.8
13	39.4	10-15	5.6	13	10.0
		15	14.6		

⁶King, Characteristics of Family Campers Using the Huron-Manistee National Forest, p. 2.

Type of Shelter Used by Family Campers

Fifty-five point seven percent of the campers used some type of wheeled shelter. Tents were used by 44.2 percent compared to 56 percent in 1962. This is a reflection of the effect of our affluent society on outdoor recreation. The cost of camping equipment ranged from nearly nothing to over \$5,000, with 66.2 percent of the equipment costing less than \$1,000. Table 11 shows the distribution of shelter types and the percentage occurring in each cost group.

TABLE 11. Type of Shelter Used by Family Campers

Type of Shelter	Percent	Cost of Shelter	Percent
Tent	44.2	N.A.	2.7
House Trailer	28.7	0-500	42.0
Tent Trailer	14.7	501-1000	24.2
Camper Truck	8.6	1001-2000	16.1
Station Wagon	2.0	2001-3000	8.5
Other (Bus, etc.)	1.7	3001-4000	3.4
		4001-5000	1.8
		5000	1.3

Ways in Which Campers Become Aware of Campgrounds

The camper was questioned as to how he first heard about the particular campground in which he was camping. The largest percentage (32.6) indicated that it was through friends or acquaintances. This proves "word of mouth" is still one of the best means of advertising campgrounds. If the campers are pleased with their National Forest campgrounds, they will be certain to let others know about it. The distribution of ways in which campers became aware of

the campground in which they were camped is shown in Table 12.

TABLE 12. Ways in Which Campers Became Aware of Campgrounds

Source	Percent
Don't remember	1.2
Forest Service Recreation Maps	2.3
Road Maps	14.4
Newspapers or magazines	9.2
Local tourist information centers	2.6
Local businessmen	1.3
Friends or acquaintances	32.6
Drove by	18.4
Live nearby, familiar with area	11.4
Other	6.6

Campers were also questioned as to what they thought of the Forest Service's methods of advertising the location of campgrounds in the Huron National Forest. Some 8.9 percent thought it was excellent, 56.4 percent thought it was adequate, and 34.7 percent thought it was inadequate. During the interviews many of the campers who felt the methods were sufficient or excellent, added statements to the effect that "We like it as it is - quiet and uncrowded - the more they advertise the more people will come." The general forest environment of quietness and calmness apparently pleased many campers and they wished it to remain so.

Summary and Conclusions

1. The origin areas of the family campers generally followed the same pattern as in 1962. The results were

similar, with the majority of campers coming from the southeastern corner of lower Michigan. However, a point that should be considered is that the major population center of Michigan is also located in the southeastern corner of lower Michigan. Therefore, the large number of campers who came from that area has reduced meaning because of the larger population in the area.

2. A median income increase of \$750 per family per 4 years follows the general pattern of rising incomes.⁷ Expectation of the income increase was justified. The relatively high mean or median income indicates that campers should be able to pay the fees charged without hardship.

3. The majority of campers traveled from 50-200 miles to reach the Forest. A large increase in the percent of weekend campers (75 percent in 1966 compared to 45 percent in 1962) resulted in over-use at the campgrounds on weekends. The Forest itself still remains the primary trip objective, but 30 percent fewer family heads indicated this was the case than in the 1962 study.

4. The distribution of campers among the various occupation classes in the two studies cannot be readily compared. This is because of the large increase in the number of housewives interviewed in 1966. Another reason

⁷Bureau of Business and Economic Research, Michigan Statistical Abstract, Graduate School of Business Administration, Michigan State University (2nd ed., 1966) pp. 97-98.

was the difficulty in differentiating between certain occupation classifications. The differences in values between the two studies when classified as either blue or white collar workers equals the increase in housewives interviewed (18 percent) in 1966.

5. As in the previous study, slightly over two-thirds of the family heads had at least a high school education. Eleven point eight percent of the campers indicated having 16 or more years of education.

6. The average family size was 4.79 persons, while the average in 1962 was just a little over 4 persons. The average age of the family head was 40 years. The general family structure has hardly changed since 1962.

7. In 1966, 34 percent of the campers had never before camped in the Forest, whereas some 50 percent had no previous experience in the Forest in the 1962 study. Only 8 percent in 1962 and 5.8 percent in 1966 had no previous camping experience. Some 76 percent indicated they had obtained previous camping experience in the Michigan State Parks.

8. The typical type of shelter used by family campers in the Huron National Forest campgrounds is changing rapidly from tents to various types of wheeled shelters.

9. The majority of campers first became aware of campgrounds through friends and acquaintances. The majority also desired no further advertisement of the Forest's recreational features, preferring its quietness and calmness at the present level of use.

CHAPTER V

ANALYSIS OF THE AVERAGE CAMPERS ATTITUDES TOWARD FACILITIES AND SERVICES

All the analyses in this chapter are based upon responses received from family campers and families with friends. Ninety-two point eight percent of the campers were in these two classes. Since one of the objectives of the study was to find out if adequate facilities are being provided by the Forest Service, it was decided that family groups and family with friends groups were the typical or average camping groups using the Forest Service campgrounds. The other 7.2 percent of the campers were groups of unrelated friends, organized groups, or single individuals. In these groups the majority of campers were under 18 or elderly bachelors. Since it is probably desirable that Forest Service policy should be to provide facilities for average family campers, the analysis is based upon data from all family campers.

Campers' attitudes are combined in the analysis of certain questions and separately by campground for other questions. The purpose of separate campground analysis was to find if certain facilities at a specific campground were considered to be inadequate. Combining camper attitudes

for all campgrounds should indicate general camper attitudes and reactions and help in determining present and future policies.

Combined Camper Attitudes

A number of questions were asked concerning present and future campground development. The first question is shown in Table 13.

TABLE 13. Percentages of Campers Favoring Various Types of Facilities the Huron National Forest Should Provide

Do you think the Huron National Forest should provide:	Answers in Percent
1. High quality modern camping facilities (flush toilets, electricity, etc.)	8.9
2. Primitive camping facilities (pit toilets, hand water pumps, etc.)	58.6
3. Both high quality modern camping facilities and primitive camping facilities	31.6
4. No opinion	.9

Over half of the campers interviewed said they preferred primitive campground facilities - similar to those provided at the majority of campgrounds in the Huron National Forest. However, there was considerable differences in attitudes between campers at the various type of campgrounds as shown in Table 14.

TABLE 14. Percentage of Campers Favoring Modern and Primitive Facilities by Campground

Campground	Modern Facilities	Primitive Facilities	Both	No Opinion
Kneff Lake	9.7	41.4	46.5	2.4
Wagner Lake	7.5	58.8	33.7	
Island Lake	5.6	59.0	29.8	5.6
Mack Lake	1.3	68.3	30.4	
Horseshoe Lake	4.3	83.9	11.8	
Pine River		90.1	9.9	
Rollways	8.3	53.9	37.8	
Monument	23.5	40.4	36.1	
Garden Creek		67.2	32.8	
Silver Valley	9.6	33.4	57.0	
Corsair	5.1	69.5	25.4	
Round Lake	12.7	59.6	27.7	

Kneff Lake campground (56.2 percent), Monument Campground (59.6 percent), and Silver Valley Campground (66.6 percent) were the only areas where over 50 percent of the campers indicated they wanted either modern or both modern and primitive facilities. Only Kneff Lake Campground had modern facilities - namely flush toilets, and a pressure water supply.

The second question was, "Do you think National Forest Campgrounds should be comparable to the facilities (flush toilets, pressure water, electricity, etc.) of the Michigan State Parks?" Of the answers given, 22.3 percent indicated yes, 71.3 percent indicated no, 1.3 percent indicated no opinion, and 5.1 percent indicated they were not familiar with Michigan State Parks. The majority of the campers (71.3 percent against 22.3 percent) indicated they did not want the Forest Service Campgrounds to be similar

to Michigan State Park facilities. Another question closely related to this question was, "Do you think the National Forest should have the same spacing (distance between family units) as Michigan State Park Campgrounds?" Three point two percent were in favor, 4.8 percent indicated no opinion, and 92.0 percent were not in favor. The results confirm that the average camper on the Huron National Forest does not want facilities comparable with those in Michigan State Parks and suggests they like the forest campground environment and the seclusion of wider spacing. The results indicate strongly that the average Huron National Forest camper is a different kind of camper compared to those using the typical Michigan State Park.

Two other questions were also asked of campers. The first question tried to find what general reasons the campers had for coming to the Forest. Fourteen point one percent selected, "Get away from the grind of life;" 7.4 percent selected "Be alone with family;" 63.7 percent selected "Camping outdoors;" and 14.8 gave "Other" as the general reasons for coming to the Forest. The classification "Other" usually included all the classifications combined as the reason for coming to the Forest. The results show what would normally be expected from campers at a Forest type campground.

The last question dealt with the type of fishing preferred by campers. This question was asked to discover if it is desirable to continue the system whereby the

Michigan Conservation Department plants trout in lakes within federal ownership, particularly in lakes located adjacent to Forest Campgrounds. The answers of campers were as follows: 11.2 percent preferred cold water trout fishing; 15.9 percent preferred warm water pan fish such as bluegills; 13.7 percent preferred warm water game fish such as bass and pike; 40.6 percent preferred both warm water game fish and pan fish - bass, pike, bluegills, perch, etc.; 5.37 percent preferred "other;" and 13.2 percent gave no opinion. The question was worded so that it related to fishing in lakes only.

The campers' preference for various types of fishing was also analyzed by campgrounds. Only Kneff Lake campers indicated a high preference for fishing trout (46.6 percent). This lake was planted with trout and probably was the major reason why such a high percentage of campers preferred trout fishing. At the rest of the campgrounds, campers preferred game or pan fishing or combinations of both game and pan fishing. One point of interest is that Horseshoe Lake was also planted with trout but only 7.7 percent of its campers indicated interest in trout fishing in lakes. Since the sample period was during the time of peak camper use, it is probable that families with children were over-represented. Usually family campers with children wanted to catch fish, not caring if they were trout or pan fish. It was therefore natural that more campers preferred either game or pan fishing because of the greater chances for successful fishing.

Attitudes Concerning Individual Campgrounds

This section is concerned with attitudes toward the individual campgrounds. Table 15 shows what percent of the samples are obtained from each campground.

TABLE 15. Percent of Samples from Individual Campgrounds

Campground	Percent of Groups in Sample
Kneff Lake	5.7
Wagner Lake	10.5
Island Lake	14.2
Mack Lake	11.1
Horseshoe Lake	3.4
Pine River	4.1
Rollways	10.1
Monument	10.2
Gordon Creek	.8
Silver Valley	4.3
Corsair	5.2
Round Lake	20.4

Wagner Lake Campground

Table 16 indicates camper attitudes toward facilities and services at Wagner Lake Campground. The campers there desired primitive camping and were generally satisfied with the facilities provided. The majority obviously felt the hand pump water supply was adequate and the pit toilets were satisfactory. Concerning size of the campground, 89.8 percent felt it was about the right size, with 10.2 percent stating it was too small. Fifty-three point nine percent of the campers felt the spacing between the campsites was about right, 38.6 percent thought it was excellent and only

TABLE 16. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Wagner Lake Campground

Facilities & Services	Very Poor	Unsatisfactory	Indifferent	Satisfactory	Very Good	Not Interested	Not Acceptable	Desire	No Desire
Pressure Water Supply		2.3		95.2	2.5			22.8	77.2
Hand Pump Water Supply		8.2		75.5	10.2	4.8		35.9	64.1
Flush Toilets	1.3	7.5		64.3	10.6	14.0	1.4		
Pit Toilets		1.2	2.5	58.8		21.5	1.4	3.9	
Fireplaces	8.0	.5		99.5					
Firewood									
Table									
Boat Launching Area			25.4			56.3		5.8	12.5
Bulletin Board		3.8	6.2	67.9	7.5	14.6			
Information		20.5		77.5	2.5				
Signs				24.1	1.6	37.4		25.6	11.3
Hiking Trails				66.5	33.5				
Garbage Cans									
Campground									
Parking	.5	3.8		90.7	5.0				
Tent & Trailer				27.4	2.5			18.9	51.2
Sites Separated				81.9	18.1				
Size of Campsite		6.0		73.1	20.9				
Campground Roads									

7.5 percent felt the campsites were too close. The amount of screening between campsites was considered about right, with only 11.7 percent of campers feeling there was too little. Over half of the campers interviewed at Wagner Lake generally liked everything about the campground. Eighteen point seven percent particularly liked it because of being uncrowded, and 11 percent especially enjoyed the scenery. Seventy percent of the campers felt the campground could be doubled in size. Nearly half the campers were at Wagner Lake especially for camping, while 29.1 percent were there for general leisure.

Mack Lake Campground

Attitudes concerning the Mack Lake Campground are shown in Table 17. In general, primitive camping was desired by the majority interviewed at this campground. Because certain areas at Mack Lake Campground used for camping are not specifically designated as campsites, a variety of answers under such headings as fireplaces, tables, etc., was received. Those campers who did not have facilities on the site where they were camped (due to overflow on crowded days) usually did desire them. The responses indicating that the pressure water supply was satisfactory (Mack Lake did not have a pressure water system) were those campers who felt the supply was adequate no matter what system was used. In answering the question on trails, many campers still felt there were enough satisfactory paths to

TABLE 17. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Mack Lake Campground

Facilities & Services	Very Poor	Unsatisfactory	Indifferent	Satisfactory	Very Good	Not Interested	Not Acceptable	Desire	No Answer
Pressure Water Supply				2.6				25.0	62.4
Hand Pump Water Supply	5.6	3.9	1.3	62.6	11.0	9.5			
Flush Toilets		9.3		1.2				43.3	2.6
Pit Toilets		5.4	1.3	87.0		2.4			55.5
Fireplaces	4.7	1.3		35.5	1.3	12.2	8.5	25.9	1.3
Firewood	8.9	3.5		31.5	1.3	36.9	8.5	11.6	5.2
Table				62.8	17.0		1.3	15.4	
Boat Launching Area		1.3	1.3	12.0		22.8		27.0	35.6
Bulletin Board		3.5		75.5		21.0			
Information	6.2	7.4		82.6	3.8				
Signs			1.3	20.1		46.4		21.5	10.7
Hiking Trails		16.2	2.6	55.0	11.9	13.0			
Garbage Cans	1.3								
Campground				89.0	11.0				
Parking									
Tent & Trailer									
Sites Separated				27.0	1.3			9.5	62.2
Size of Campsite		12.2	2.4	94.8	5.2				
Campground Roads				74.9	10.5				

follow even if there were no specifically marked trails. Nine point six percent still felt Mack Lake campground was too small, while 3.7 percent felt the campsites were too close together and 3 percent felt they were too far apart. Eighty percent thought the amount of screening was good while 0.6 percent felt that there was too much. Campers were drawn to Mack Lake for a number of reasons, among them camping, general leisure, boating or fishing, swimming, and bird watching, particularly the Kirtland's Warbler which is unique to this area. One thing which upset many of the campers here (with perhaps the exception of the bird-watchers) was the large number of insects in the campground.

Horseshoe Lake Campground

Attitudes concerning the Horseshoe Lake Campground are shown on Table 18. Flush toilets were desired by 70.1 percent of the campers interviewed here, although only 27 percent desired pressure water. Fifty-nine point two percent indicated a desire for a boat launching area. All the campers interviewed felt this campground was about the right size and had the right amount of screening. Eleven point eight percent stated that the campsites were too far apart.

Silver Valley Campground

Table 19 summarizes campground attitudes toward Silver Valley Campground. The campsites are not designated

TABLE 18. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Horseshoe Lake Campground

Facilities & Services	Very Poor	Unsatisfactory	Indifferent	Satisfactory	Very Good	Not Interested	Not Acceptable	Desire	No Desire
Pressure Water Supply				74.3	2.1			27.0	73.0
Hand Pump Water Supply		23.6							
Flush Toilets		3.4		84.8	11.8			70.1	29.9
Pit Toilets				96.6	3.4				
Fireplaces		2.0		81.8	11.8			4.4	
Firewood				86.2	13.8				
Table									
Boat Launching Area				23.6		17.2		59.2	
Bulletin Board			23.6	64.6	11.8				
Information		4.4		95.6					
Signs				35.4		38.8		9.7	16.1
Hiking Trails				38.8	61.2				
Garbage Cans									
Campground									
Parking				98.0	2.0				
Tent & Trailer									
Sites Separated				51.6	17.2	4.3		26.9	17.2
Size of Campsite				82.8					
Campground Roads				100.0					

TABLE 19. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Silver Valley Campground

Facilities & Services	Very Poor	Unsatisfactory	Indifferent	Satisfactory	Very Good	Not Interested	Not Acceptable	Desire	No Answer
Pressure Water Supply		15.5		84.5				34.4	65.6
Hand Pump Water Supply			3.4						
Flush Toilets				81.4		18.6		47.9	48.7
Pit Toilets		7.8		29.3	18.6	9.6		34.7	
Fireplaces				18.1	18.6	21.9		41.4	
Firewood				56.3		6.2		34.1	
Table		3.4							6.8
Boat Launching Area						28.8			
Bulletin Board								39.0	32.2
Information		18.6	9.3	63.7		8.4			
Signs		15.5		78.3	6.2				
Hiking Trails			6.2	50.1	6.2	28.2			
Garbage Cans				43.9	56.1				
Campground									
Parking				90.7	9.3				
Tent & Trailer									
Sites Separated				21.9	3.4			40.6	
Size of Campsite				96.6					
Campground Roads		13.5	9.3	77.2					

there, so more campers than the number for which the area is designed often stay there. This is one reason for the large number desiring fireplaces and tables. Ninety-three point eight percent interviewed felt this campground was the right size, with 6.2 percent indicating campers were too close together. Three point four percent desired more screening, while the rest felt the existing screening was sufficient.

Corsair Campground

Attitudes concerning the Corsair Campground are presented in Table 20. In general the campers seemed satisfied with the campground. Five point one percent felt the campground was too small and two point eight percent indicated the campsites were too far apart. Ten point two percent felt there was not enough screening. Campers stated they were drawn there mainly for camping itself.

Round Lake Campground

Table 21 shows attitudes concerning Round Lake Campground. Opinions were almost equally divided on the desirability of modern or primitive facilities. Campers seemed pleased with the campground, the majority coming for the swimming beach. Nearly 75 percent indicated it was a satisfactory size with the right amount of screening and proper spacing. Sixty-two point one felt the campground could be doubled in size if necessary.

TABLE 20. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Corsair Campground

Facilities & Services	Very Poor	Unsatisfactory	Indifferent	Satisfactory	Very Good	Not Interested	Not Acceptable	Desire	No Answer
Pressure Water Supply			5.1	15.3				16.2	63.4
Hand Pump Water Supply		17.8	7.6	61.8	1.8				18.6
Flush Toilets				97.2	2.8			23.6	68.8
Pit Toilets				60.7	39.3				
Fireplaces				52.6					
Firewood		10.6		79.0	21.0	17.8		19.0	
Table									
Boat Launching Area						18.0		30.5	32.0
Bulletin Board									
Information				69.2	12.7	15.3			
Signs				78.6	5.1				
Hiking Trails		16.3		47.4		31.2		13.5	7.9
Garbage Cans				58.1	41.9				
Campground									
Parking				92.1	7.9				
Tent & Trailer									
Sites Separated				42.6		2.8		5.1	49.5
Size of Campsite				79.0	21.0				
Campground Roads				94.9	5.1				

TABLE 21. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Round Lake Campground

Facilities & Services	Very Poor	Unsatisfactory	Indifferent	Satisfactory	Very Good	Not Interested	Not Acceptable	Desire	No Desire
Pressure Water Supply				.7				46.7	52.6
Hand Pump Water Supply	6.8	8.4	4.5	74.0	1.0	9.7			.7
Flush Toilets	.7	13.0	.7	82.3	2.6	.7		48.0	46.8
Pit Toilets				64.8	25.0	6.1		3.4	.7
Fireplaces	7.2	4.1	3.9	57.2	2.0	9.9		10.6	5.1
Firewood				85.3	6.7	.7		7.3	
Table									
Boat Launching Area		.3		37.9	23.3	38.5			
Bulletin Board									
Information	.3	7.5	2.0	61.5	1.4	27.3			
Signs	7.9	26.3		63.0	2.7			23.2	.7
Hiking Trails				35.5		40.6		.7	
Garbage Cans		.4		56.4	38.7	3.8			
Campground									
Parking		7.3		82.8	9.9				
Tent & Trailer Sites Separated		1.3		20.8	1.3	3.9		7.3	65.4
Size of Campsite			1.0	74.3	24.7				
Campground Roads		6.2	.7	81.0	12.1				

Pine River Campground

Attitudes toward Pine River campground are presented in Table 22. Primitive camping is apparently preferred by the majority who camp there. One point which may be noticed is that 28.8 percent felt the road signs could be improved. Nineteen point three felt the campground was too small, however 100 percent indicated the spacing between campsites was about right and there was the proper amount of screening. Fifty-four point five percent of the campers were drawn to the area strictly for camping itself.

Kneff Lake Campground

Table 23 shows those attitudes concerning Kneff Lake. This campground ground was the only one in the sample which provided flush toilets. It also had a pressure water supply. The majority of campers here indicated the flush toilets and pressure water supply were satisfactory. At the beginning of the season the flush toilets were closed which accounts for the answers concerning pit toilets. One hundred percent of the campers interviewed here stated this campground was the right size and had proper spacing between campsites. Sixty-five point two percent felt it could be doubled in size.

TABLE 23. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Kneff Lake Campground

Facilities & Services	Very Poor	Unsatisfactory	Indifferent	Satisfactory	Very Good	Not Interested	Not Acceptable	Desire	No Desire
Pressure Water Supply				76.7	23.3				
Hand Pump Water Supply				41.9	37.2	13.8		6.9	93.1
Flush Toilets				9.4	4.6				
Pit Toilets				37.1	16.6	44.0	2.3		86.0
Fireplaces				27.6		53.7	2.4	7.1	
Firewood				85.8	14.2				
Table									
Boat Launching Area		2.5	23.0			41.7		7.1	25.7
Bulletin Board	4.6	7.1		67.4	4.6	16.3			
Information		5.0		87.9	7.1				
Signs				41.6		44.0	2.5	9.4	2.5
Hiking Trails				51.1	35.1	13.8			
Garbage Cans									
Campground									
Parking	4.6	4.6		64.9	25.9				
Tent & Trailer									
Sites Separated			1.0	14.0	4.6			18.9	51.2
Size of Campsite		23.0		74.3	24.7				
Campground Roads				60.4	16.6				

Monument Campground

Attitudes toward Monument Campground are presented in Table 24. The pressure water supply was indicated as satisfactory, and flush toilets were desired by 67 percent of the campers. Twenty six percent of the campers also indicated a desire for a marked hiking trail. Eighty-six point eight percent felt this campground was the right size while eleven point two percent felt it was too small. Ninety-eight percent felt the spacing between campsites was about right while 100 percent felt there was the proper amount of screening.

Rollways Campground

Attitudes concerning Rollways Campground are shown in Table 25. Campers there indicated the pressure water supply was satisfactory, with only 37.9 percent indicating a desire for flush toilets. In general, the campground was satisfactory to the majority. Ten point one percent felt it could be larger and 7.8 percent felt there could be more screening. Either boating or fishing or both activities were the main attraction for nearly half of the campers there.

Island Lake Campground

Table 26 presents attitudes concerning Island Lake Campground. Over half of the interviewed campers here

TABLE 24. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Monument Campground

Facilities & Services	Very Poor	Unsatisfactory	Indifferent	Satisfactory	Very Good	Not Interested	Not Acceptable	Desire	No Answer
Pressure Water Supply				90.8				9.2	
Hand Pump Water Supply			3.4	9.2				87.4	
Flush Toilets		3.0		94.1	2.9			67.0	
Pit Toilets				78.4	1.4	20.2			
Fireplaces				46.4	1.6	35.8		8.4	
Firewood	7.8			90.4	9.4				
Table									
Boat Launching Area				3.9		53.3	8.4	17.1	76
Bulletin Board				75.4	15.7	3.4		13.4	3.9
Information	1.6	3.9		87.7					
Signs	7.8	4.5		25.5	7.3	41.2		26.0	
Hiking Trails				76.0	24.0				
Garbage Cans									
Campground									
Parking				79.9	20.1				
Tent & Trailer									
Sites Separated				20.1		.6		17.7	7.8
Size of Campsite		9.8		79.3	20.7			53.8	
Campground Roads				85.8	4.4				

TABLE 25. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Rollways Campground

Facilities & Services	Very Poor	Unsatisfactory	Indifferent	Satisfactory	Very Good	Not Interested	Not Acceptable	Desire	No Answer
Pressure Water Supply				80.9	11.3	7.8			
Hand Pump Water Supply			3.9			.7			
Flush Toilets		1.4	7.8			.5			
Pit Toilets			2.6	82.0	13.4	.6		37.9	95.4
Fireplaces	1.4			68.2	22.1	8.3			53.8
Firewood	1.4			66.1	4.7	16.1		11.7	
Table				91.4	7.7	.9			
Boat Launching Area	7.3			19.4		57.8		1.4	6.8
Bulletin Board									
Information		8.6		68.1	3.9	19.4			
Signs	4.5	1.6	3.9	90.0					
Hiking Trails			5.3	38.5		38.1		15.5	2.6
Garbage Cans				76.1	23.9				
Campground									
Parking				92.4	7.6				
Tent & Trailer									
Sites Separated				9.8					
Size of Campsite				79.3	20.7			23.9	
Campground Roads				89.3	10.7				

TABLE 26. Percent of Campers Indicating Various Attitudes Toward Facilities and Services at Island Lake Campground

Facilities & Services	Very Poor	Unsatisfactory	Indifferent	Satisfactory	Very Good	Not Interested	Not Acceptable	Desire	No Desire
Pressure Water Supply				2.7				54.0	43.3
Hand Pump Water Supply	25.9	41.0	1.0	26.8	2.5				
Flush Toilets		3.4	5.5		2.8			59.5	2.8
Pit Toilets	14.6		1.0	68.8	2.9	6.5			32.2
Fireplaces	1.8	1.7		39.8	14.9	39.2	.8		2.8
Firewood	7.4	14.1	1.0	27.4	5.5	38.7	.8	5.1	1.8
Table		1.8		87.8	3.9	6.5			
Boat Launching Area	5.6	.4	10.2	4.8	.6	31.8		23.4	23.2
Bulletin Board									
Information		21.4	1.0	58.8	1.8	17.0			
Signs	6.5	3.7		82.0	1.8				
Hiking Trails		1.0		45.1	3.3	49.6		1.0	
Garbage Cans		2.9		49.5	42.0	5.6			
Campground									
Parking	6.5	9.7	1.0	73.1	9.7				
Tent & Trailer									
Sites Separated		2.8	13.0	19.7	1.8				
Size of Campsite			1.0	68.4	30.6				
Campground Roads	1.0	8.0	1.0	76.9	13.1				

expressed a desire for pressure water and flush toilets. A large percentage (67.9) were not pleased with the hand pump water supply at this particular campground. Thirty six point nine percent felt this campground was too small, with 9.1 percent stating there was too little screening and 11.6 percent stating the campsites could be closer together. The swimming area at Island Lake was the attraction for many campers, with some of them suggesting ideas such as providing a raft for swimmers and also having a lifeguard on duty.

Gordon Creek Campground

Gordon Creek was not included in this grouping since only 0.8 percent of the total sample were interviewed there. Gordon Creek Campground was unique in the fact that it was mainly for horseback riders and was also used as an overflow area. Three riding groups were seen using the facilities, however, one of these groups was not interviewed because it was a day on which no interviewing had been scheduled for that campground. The riding groups interviewed seemed well pleased with the facilities provided at the campground.

Conclusions

1. Primitive camping is preferred at many of the campgrounds. Island Lake campers, however, seemed to desire modern facilities, with both flush toilets and pressure

water. At Horseshoe Lake and Monument Campgrounds, indications were made that flush toilets were desired. At Round Lake and Silver Valley, opinions were rather evenly divided concerning the desirability of flush toilets. At most of these campgrounds the campers considered the pit toilets satisfactory, even though they preferred to have flush toilets.

2. The average camper did not want Michigan State Park standards introduced in National Forest Campgrounds. They preferred the spacing and screening common to most of the National Forest campgrounds. This preference for a more primitive type of camping suggests a different type of camper uses the National Forests compared to those using the typical Michigan State Park campground.

3. The average summer camper preferred to fish in lakes for game and pan fish. Only at Kneff Lake, which has been planted with trout, did the campers prefer to fish in lakes for trout. Campers at Horseshoe Lake, which also had trout, did not prefer that type of fishing.

4. Campers preferred flush toilets and pressure water supplies at some of the high attraction campgrounds with the heaviest use. Two examples were Island Lake and Monument Campgrounds. Where use is heavy and major sanitation problems are common, flush toilets should be specified without exception.

5. Many campers indicated that although most of the present facilities provided were satisfactory and maintenance was adequate, more of the same type of facilities were required in many cases. For example, a number of people mentioned signs. They felt the existing signs were good but many more could be added. In general the Forest Service seems to be providing most of the desired facilities.

CHAPTER VI

INVESTIGATION OF THE ACCEPTANCE OF LAND AND WATER CONSERVATION FUND FEES BY CAMPERS

The Land and Water Conservation Fund Act was created by Congress to appropriate money for public recreation area acquisition and development. It became effective on January 1, 1965 and is to last 25 years.¹ The sources of revenue for the Fund would be: entrance and user fees at certain federal recreation areas; net proceeds from the sale of surplus federal real property; existing taxes on motorboat fuels; and repayable advance appropriations by Congress.² The only source of revenue that is of concern to this study is the entrance and user fees.

Five conditions must be met at an area if fees are to be charged. They are that the area must:

1. Be designated and posted as areas where fees are collected.
2. Be administered by a federal agency. This excludes Federal areas leased to state, local or private agencies.
3. Contain recreation facilities or offer recreation services provided at federal expense.

¹Department of the Interior, Bureau of Outdoor Recreation, "Fact Sheet on the Land and Water Conservation Fund Program," (Washington, D.C., May 1965), p. 1.

²Ibid.

4. Be administered primarily for scenic, scientific, historical, cultural, or other recreation purposes.
5. Be of such nature that fee collection is administratively and economically practical.³

The program applied to most of the campgrounds that were sampled in the Huron National Forest in 1966. Those where no fees were charged were Corsair Campground, Mack Lake Campground, Gordon Creek Trail Campground, and the Pine River Campground. Only a few of the campgrounds had the extra one dollar per day user fee for above average facilities. Those campgrounds where no fees were charged could be considered as less attractive areas. Of those, only Mack Lake Campground had a large body of water next to it, and it has a number of poor qualities, including a muck bottom, shallow water, and poor fishing.

A pamphlet explaining the \$7.00 fee (see Appendix II) was available to campers. To give the program color, the term "Golden Passport" was used for the annual \$7.00 entrance permit. This permit runs from April 1 to March 31 of the next year; and could be purchased from the campground administrator.

Analysis of Data

The entrance and camping fees charged under the Land and Water Conservation Fund Act are the first recreational

³Ibid., p. 2.

user fees ever to be charged on the Forest. Negative reactions were received from many campers, particularly those who had used the Forest for many years. In this portion of the study, the campers were asked about their feelings on the acceptance of the fees. The questions were kept simple in order to reduce the likelihood of the camper giving biased answers. Each question will be presented and discussed in turn. Analysis is based on all campers interviewed.

The first question asked was, "Do you think public recreation areas should be provided through general public funds or by fees charged to the users?" Five answers were available on the questionnaire for the camper to select from. The question and responses are shown in Table 27.

TABLE 27. Various Means of Providing Public Recreation Areas

Various Answers	Percent
General Public Funds (taxes to all people)	10.9
Only have users charged for use of a facility	27.6
Only have entrance fees charged	25.8
Combination of both entrance and user fees charged	27.5
Other--specify	8.2
	100.0

It was explained verbally that "public recreation areas" was meant to include all National Parks, State Parks, National Forest Campgrounds, etc. Some 80.9 percent of the group heads definitely indicated that they wanted a fee to

be charged to the people who use the recreation area. This indicates that those who generally use the facility are willing to pay for its development. This question set the pace for the questions to follow. The author was glad the questionnaire had not first asked the campers if they accepted the new fees. The question helped to prevent many long statements on the campers' viewpoint on the matter. As it was, much time was spent trying to obtain answers to the few questions asked on the subject.

The second question was, "How do you feel about the \$7.00 recreation fee for entrance to improved campgrounds on the National Forests with primitive facilities (pit toilets)?" Some 24 percent of respondents were against the fee in this case, 3.8 percent were undecided, and 72.3 percent were in favor of the entrance fee charged. From these figures it can plainly be seen that the "Golden Passport" was generally being accepted by campers using Huron National Forest Campgrounds. Such a high acceptance of the entrance fee during its second year of use shows that campers appear to be very willing to cooperate in recreation area acquisition and development through the new Land and Water Conservation Fund \$7.00 entrance fee.

The third question asked was, "How do you feel about this entrance fee on modern campground facilities (flush toilets)?" Eighteen and a half percent were against the fee, 2.7 percent were undecided, and 78.8 percent were in favor of the entrance fee. Since no great change occurred

in the responses to the two questions, it appears that campers at these campgrounds do not expect deluxe facilities in return for the payment of entrance fees. Only 23.9 percent were against the entrance fee at campgrounds with primitive facilities compared to 18.5 percent against in the case of modern facilities.

The fourth question asked was, "How do you feel about the user fees paid by campers for the use of modern facilities on high recreation attraction areas (\$1.00 user fee per day)?" Some 30 percent were against this additional fee, 2.6 percent were undecided, and 68.5 percent were in favor of it if modern facilities were available. It is significant that a 10 percent increase occurred in those who were against fees.

The fifth and final question asked was, "How do you feel about the user fees paid by campers for the use of primitive facilities on high recreation attraction areas? (\$1.00 per day user fee)." Some 58 percent were against a fee in this case, 2.3 percent were undecided, and 39.7 percent were in favor of it. A large change occurred in this case. The attitude of the campers in this regard is particularly significant in that all of the campgrounds had only primitive facilities, with the exception of Kneff Lake. With about two-thirds of the campers expressing opposition to the user fee under these circumstances, it appears a change in policy may be considered.

Many campers said they would not object to the \$1.00 a day user fee if the annual fee was less than \$7.00, or they would not object to an annual fee of about \$10.00, if that was the only fee. They did not like the feeling of paying twice. However, it must still be remembered that close to 40 percent indicated being in favor of the additional user fee and this is a surprisingly high proportion considering 1965 was the year fees were introduced.

Summary and Conclusions

A number of findings emerged from this portion of the study; with each point being presented with a brief discussion.

1. The results definitely show that most campers accept the annual entrance permit fee. Some 75 percent of all campers indicated acceptance.

2. The user fee in addition to the entrance fee was not accepted with enthusiasm. It seems that the campers' main reason for objecting to the user fee was the feeling they were being charged twice. Since 1965 was the first year of fee collection, many campers would be particularly conscious of the additional cost.

Since the origin areas of approximately 85 percent of the campers were in Michigan, the author decided to make a comparison with the cost of camping in Michigan State Parks and Recreation Areas. The cost would vary depending upon the situations. The annual entrance fees are \$7.00

for a National entrance permit, and \$2.00 for a Michigan State Park entrance permit. The daily entrance fee, if no annual permit is purchased, is \$1.00 for a National permit and \$.50 for a Michigan State Park permit. The user fee is \$1.00 for a National permit and \$2.00 or \$1.50 for a Michigan State Park permit. The variation in the Michigan State Park user fee is dependent upon the facilities provided. Assume an average weekend of two days. If a camper has no entrance permit but buys the annual entrance permits, his cost would be \$9.00 at some National Forest campgrounds and \$5.00 at a Michigan State Park with primitive facilities or \$6.00 at a Michigan State Park with modern facilities. If a camper has no entrance permit and doesn't buy any, his cost would be \$4.00 at some National Forest campgrounds and \$4.00 at a Michigan State Park with primitive facilities or \$5.00 at a Michigan State Park with modern facilities. But, the facilities provided at national forest and state parks differ considerably. The Michigan State parks usually provide flush toilets, running water and electricity, whereas the Huron National Forest only had one small campground with a flush toilet and the rest had pit toilets and no electricity. This may be a good reason for a re-evaluation of the user fees presently charged by the Forest Service.

3. Another common complaint of the campers was that day users often took up parking space in campgrounds and used campsite facilities but were not charged as campers

would have been. This is one administrative problem that will probably be resolved as experience is gained in fee collection techniques.

CHAPTER VII

SUMMARY, RECOMMENDATIONS & IMPLICATIONS

Summary

This study was conducted to determine the average camper's preferences toward provided or desired facilities, attitudes toward fees, and generally, to find out the average family campers' characteristics. An examination of these factors is periodically necessary in order to keep up with changes in users and the way they use the Forest.

The average Huron National Forest family in 1966 consisted of a family with three children, one between 1-3 years, another between 4-12 years and the third between 12-18 years. The father was about 40 years old and had at least a high school education with many also having a college education. He was probably a blue collar worker but possibly a white collar worker. His approximate yearly income, including his wife's salary was \$7250.

The family had probably gained some camping experience at Michigan State Parks, however, they had also had about 3-4 years of camping experience in the Huron National Forest. The distance they traveled to arrive at the Forest was from 50 to 200 miles, usually having come from the

southeastern corner of Michigan's lower peninsula. They came to the Forest particularly for camping and stayed about three days - a little longer than an average weekend. Generally, the chances were twice as good that they would go there to camp on a weekend than on week days.

Some form of wheeled shelter, generally a tent trailer or housetrailer, was most popular with the family. Chances are that the family would have stayed at Island Lake, Round Lake or Monument Campground in particular because of nearby attractions such as swimming, fishing, etc. These campgrounds are all located in the southern part of the Forest.

Primitive facilities were preferred by the average family. However, at Island Lake, they desired flush toilets and a pressure water supply, if they could be provided without major damage to the area's scenery. They also wished to have more firewood provided at the campgrounds, and to have the campgrounds expanded where possible, creating more campsites.

The family did not mind buying the \$7.00 "Golden Passport," but they did mind paying the additional user fee. They did not like being "charged twice," especially when they saw others stay overnight and then leave before having to pay. They felt there should be more consistency in the method of fee collection in order to create fairness. The family was also rather disturbed by day users who parked in camping spurs thereby forcing new campers to select different sites or possibly a different campground.

The facilities provided by the Forest Service were generally satisfactory to the average camping family. They liked the table, fireplace, garbage cans, hiking trails, roads and signs; and chances are they will be back again next year.

Implications & Recommendations

The author would like to make a few statements concerning the reliability of this study. In fulfilling the first objective of the investigation, it became quite apparent that making comparisons over a length of time is very difficult. In comparing the two studies, changes such as: more campers, more campgrounds, more money per camper, and inflation may have influenced results and may be the cause of possible sources of error. Other sources of possible error that may have affected the results were the different lengths of time involved in sample collection, different personnel used in data collection, and different but similar techniques used in weighting data in the analysis. These errors may be affecting the results to some extent, but in all cases they have been held to the minimum.

Another problem that may have occurred was the interpretation of the questions asked the campers. Certainly people get different meanings from similar questions due to personality differences, educational differences, etc. One reason for people being biased in their answers showed itself in the answers to the question about advertisement.

The majority of the campers indicated "sufficient" or "excellent" in their response to the question about Forest Service's method of advertisement. It appears that the reason they gave for these answers was that they liked it as it was - quiet and uncrowded and if the areas were better advertised they were afraid they would become noisy and crowded - something which they certainly wished to prevent.

There are a number of conclusions and recommendations which may be made from this 1966 study, when compared to King's 1962 study. The Huron National Forest seems to be gaining in popularity as an increased number of people hear about it, and certain facilities may have to be increased and improved in order to maintain both an adequate level of satisfaction among the campers and to preserve the high quality of areas concerned.

The administrative staff of the campground areas should be increased, thereby allowing for stricter enforcement and management of the areas. If the campgrounds are not better protected, everything which has attracted the campers will be eventually destroyed. The Forest Service would lose a most important characteristic in these areas - environmental quality, which is certainly one of the important reasons for the campers coming to such primitive but pleasing campgrounds. A particular problem in this regard is the motorcycles. There were many justified complaints about motorcycles being overly noisy and traveling off the roadways causing depreciation of site quality. Increased

administrative staff and controls may be the only way to solve this and similar problems.

On those campgrounds which are considered high recreation attraction areas, Island Lake and Round Lake Campgrounds in particular, flush toilets and pressure water supplies should be considered essential. These facilities are not as important from the viewpoint of convenience of the camper as they are from the viewpoint of providing adequate sanitation which will protect the site. It should be noted that either half or a greater percentage of campers indicated they preferred flush toilets and pressure water supply at these campgrounds. The installation of these facilities need not effect the over-all natural design of the campgrounds but should be integrated as unobtrusively as possible into the present campground design. More campsites could be carefully added to these high attraction areas thereby justifying the increased expenses of these additional facilities. Sanitation problems should then be reduced to a minimum.

Another problem of concern at the high recreation attraction campgrounds is overuse. How long will the present lakes remain unpolluted and how much more use can the campgrounds stand? If swimming is such a high attraction on these areas today, what will become of it in the future? Use at this type of campground is sure to increase with increasing population and mobility. What will happen to the "quality" aspect of recreation at these campgrounds? The

author strongly recommends that a research project be undertaken which would investigate all aspects of use at such campgrounds. Design standards for how much water is needed per campsite (i.e. 1 foot acre of water per campsite) or how much use can a certain amount of water sustain and not become polluted are desperately needed. Some more adequate system is needed to calculate the capacity of various sites and then the number of campsites should be designated according to an area's ability to withstand use. The preservation of quality is becoming a most important problem in the field of outdoor recreation administration today.

Day users of campground facilities are a source of much irritation to campers. Swimming beaches at campgrounds are one example in connection with this. Day users park on a camping spur and often utilize a table and fireplace as well as the beach. Campers who would have used the campsites have to go elsewhere to find camping space. This situation can and should be rectified by increased administrative staff and more controls.

Re-evaluation of user fees should be considered. The majority of campers felt there should be a charge for camping and agreed on the \$7.00 entrance fee but were against the additional user fee. With the limited facilities provided, the campers felt the amounts they paid were too high. Campers indicated they didn't care if they paid the dollar extra if they were given flush toilets, etc., but if facilities remain as they are, then the author recommends a

re-evaluation of the user fee. If flush toilets are installed then fees should remain as they are.

Having spent much time in the Huron National Forest completing this study, the author feels the Forest Service provides many very valuable recreational areas within the Forest. It is hoped that this study and its recommendations will assist the Forest Service in maintaining and improving its management of the campgrounds concerned.

B I B L I O G R A P H Y

BIBLIOGRAPHY

Reports and Bulletins

- Bultens, Gorden, Hathaway, William and Taves, Marvin J., Canoe Country Vacationers. Miscellaneous Report 39. University of Minnesota: Agricultural Experiment Station, June 1960.
- Bureau of Business and Economic Research, Michigan Statistical Abstract. Graduate School of Business Administration, Michigan State University: 2nd ed., 1966. pp. 97-98.
- Fine, Irving V. and Werner, E. E., "Camping in State Parks and Forests in Wisconsin; Wisconsin Vacation-Recreation Papers I. University of Wisconsin, March 1960.
- Iosco County Planning Commission, Overall Economic Development Plan Revision. Iosco County, Michigan, 1966.
- King, David A. Characteristics of Family Campers Using the Huron-Manistee National Forest, Research Paper, L.S.-19. St. Paul, Minnesota: Lake States Forest Experiment Station, 1965.
- Ogemaw County Redevelopment Area Organization. Overall Economic Development Plan Ogemaw County. Ogemaw County, Michigan, 1963.
- Outdoor Recreation Resources Review Commission. Outdoor Recreation for America. A report to the President and to the Congress. Washington: U. S. Government Printing Office, January 1962.
- U. S. Department of Agriculture, Forest Service. "Huron National Forest Recreation Map" Waukesha, Wisconsin: Delzer Lithograph Company, 1963.
- U. S. Department of Agriculture, Forest Service. Huron National Forest. N.F. 4R.-9. Washington: U. S. Government Printing Office, 1933.

Wagar, J. Alan, Relationships Between Visitor Characteristics and Recreation Activities on Two National Forest Areas: Research Paper N.E.-7. Upper Darby, Penn.: Northeast Forest Experiment Station, 1963.

Woerpel, Loren S., "Characteristics of the Family Camper in Northern Wisconsin and the Upper Peninsula of Michigan." Wisconsin Federation of Conservation Clubs. Stevens Point, Wis.: June, 1961.

Articles and Periodicals

King, David A. Some Socio-Economic Comparisons of the Huron and Manistee National Forest Family Campers with Market Populations. Paper presented at Michigan Academy of Science, Arts and Letters, East Lansing, Michigan (March 27, 1964).

Stone, Gregory P., and Taves, Marvin J. "Research Into the Human Elements of Wilderness Use," Proceedings of the Society of American Foresters. Memphis, Tennessee, 1956.

U. S. Department of Interior, Bureau of Outdoor Recreation. "Fact Sheet on the Land and Water Conservation Fund Program," Washington: U. S. Government Printing Office (May 1965).

Wagar, J. Alan. "Some Fundamental Characteristics of Outdoor Recreation." Journal of Forestry, LXIV, No. 10 (October 1966). pp. 666-669.

Unpublished Material

Gilbert, Alphonse H. "A Survey of Vacation Camping in Iron County, Michigan." Unpublished Master's Thesis, College of Agriculture and Applied Science, Michigan State University, 1963.

Hannahs, Lyle W. "Investigation of the Vehicle Entrance Fee in Michigan State Parks." Unpublished Master's Thesis, College of Agriculture and Applied Science, Michigan State University, 1963.

King, David A. "Sampling and Length-of-Stay Bias Adjustment Supplement to Research Paper L.S.-19." Lake States Forest Experiment Station, St. Paul, Minn.: December 6, 1965 (Mimeographed).

Reed, David J. "Origins and Destinations of Michigan Fishermen and Their Attendance Distribution - 1964." Unpublished Master's Thesis, College of Agriculture and Applied Science, Michigan State University, 1966.

Reid, Leslie M. "Utilizing User Preferences in Predicting Outdoor Recreation Demand." Speech given at National Recreation Research Conference at Pennsylvania State University, November 7-10, 1965 (Mimeographed).

Other Sources

Worthington, Wayne. Personal interview with Landscape Architect of Huron-Manistee National Forest Administration, Cadillac, Michigan. June, 1966.

A P P E N D I C E S

APPENDIX A

Campground Questionnaire

The Department of Resource Development of Michigan State University is making a recreation survey. We have the co-operation of the U. S. Forest Service. The Forest Service is interested in the results we obtain. We are making this survey to find if the National Forests are serving you with what you want. You can help us a great deal if you will answer some questions. The information you provide will be kept confidential.

A. Description of family users.

1. Who is in your party?

1

1 Family

4 Organized group

2 Family and friends

5 Alone

3 Group of friends (unrelated)

2. When did you arrive at this campground?

Day _____ Month _____

2,3,4

3. How long are you going to camp here?

1 Day use only

6 8 thru 9 days

5

2 1 day

7 10 thru 13 days

3 2 days

8 14 days

4 3 days

9 More than 14 days

5 4 thru 7 days

4. Was this trip planned for the primary purpose of visiting this National Forest?

1 Primary purpose

6

2 One of a number of primary places to visit

3 Stopping overnight or temporarily camping

4 Camping only for sake of lodging while visiting

5 Other areas nearby

5. Are you on your vacation?

1 Yes

3 Retiree

7

2 No

6. What is the greatest number of years any members of your group has been on camping trips?

8

- | | |
|--------------------|---------------------|
| <u>1</u> 1st time | <u>5</u> 5-6 years |
| <u>2</u> 1 year | <u>6</u> 7 years |
| <u>3</u> 2 years | <u>7</u> 8-12 years |
| <u>4</u> 3-4 years | <u>8</u> 13+ years |

7. What is the number of years any member (you) of your group has been camping in Michigan State Parks?

9

- | | |
|------------------|----------------------|
| <u>1</u> None | <u>6</u> 5-7 years |
| <u>2</u> 1 year | <u>7</u> 8-10 years |
| <u>3</u> 2 years | <u>8</u> 10-15 years |
| <u>4</u> 3 years | <u>9</u> 15+ years |
| <u>5</u> 4 years | |

8. What is the greatest number of years any member of your group has camped on the Huron National Forest

10

- | | |
|--------------------|---------------------|
| <u>1</u> 1st time | <u>5</u> 5-6 years |
| <u>2</u> 1 year | <u>6</u> 7 years |
| <u>3</u> 2 years | <u>7</u> 8-12 years |
| <u>4</u> 3-4 years | <u>8</u> 13+ years |

9. What is the greatest number of times any member of your family has camped on this National Forest this year? (If over 8 times, put 9)

11

No. of times _____ Where _____

Month Date Length of Stay Campground

1. _____
2. _____
3. _____

- B. We Would like your opinion on facilities, preferences, etc. The following questions pertain to this.

10. How do you feel about the size of this campground?

12

- | | |
|-------------------------------|---------------------|
| <u>1</u> Too large | <u>3</u> Too small |
| <u>2</u> About the right size | <u>4</u> No opinion |

11. What do you think about the spacing
(distance) between the campsites? 13 ☐
- 1 Excellent 3 Too close 5 No opinion
2 About right 4 Too far apart
12. What do you think about the amount of
screening (trees, bushes, etc.)
between the campsites? 14 ☐
- 1 Excellent 4 Too much
2 About right 5 No opinion
3 Too little
13. Is there anything about this place you
particularly dislike? 15 ☐
- 1 Nothing 6 Poor facilities
2 General everything 7 Crowded
3 Scenery 8 Hard to reach
4 Uncrowded, private 9 Other, specify
5 Debris on the beach, _____
dirty and unclean
campgrounds
14. Is there anything about this place you
particularly like? 16 ☐
- 1 Nothing 6 Cleanliness
2 General everything 7 Hard to reach
3 Scenery 8 Crowded
4 Uncrowded 9 Other, specify
5 Facilities _____
provided
15. Do you think this campground could be
doubled in size? 17 ☐
- 1 Yes 2 No 3 No opinion
16. What recreation attraction caused you
to come here? 18 ☐
- 1 None 5 Camping
2 Boating or 6 General leisure
fishing
3 Swimming 7 Facilities
provided
4 Forest environ- 8 Other, specify
ment (scenic
characteristics) _____

Here is a list of facilities that are available on many recreation areas. This campground has some of them. If this place does not have some of the facilities, would you like to have them added? Circle desired answers.

Facilities & Services	IF YOU USED					DID NOT USE		NOT AVAILABLE		
	Very Poor	Unsatis- factory	Indif ferent	Satis- factory	Very Good	No in- terest	Not accept- able	De- sired	Not de- sired	
17 Pressure water supply	1	2	3	4	5	6	7	8	9	19
18 Hand pump water supply	1	2	3	4	5	6	7	8	9	20
19 Flush toilets	1	2	3	4	5	6	7	8	9	21
20 Pit toilets	1	2	3	4	5	6	7	8	9	22
21 Fire- place	1	2	3	4	5	6	7	8	9	23
22 Firewood	1	2	3	4	5	6	7	8	9	24
23 Table	1	2	3	4	5	6	7	8	9	25
24 Boat launch- ing area	1	2	3	4	5	6	7	8	9	26
25 Bulletin board informa- tion	1	2	3	4	5	6	7	8	9	27
26 Signs	1	2	3	4	5	6	7	8	9	28
27 Hiking trails	1	2	3	4	5	6	7	8	9	29
28 Garbage cans	1	2	3	4	5	6	7	8	9	30
29 Campgr. roads	1	2	3	4	5	6	7	8	9	31
30 Campgr. parking	1	2	3	4	5	6	7	8	9	32
31 Tent & trailer sites separated	1	2	3	4	5	6	7	8	9	33
32 Size of campsite	1	2	3	4	5	6	7	8	9	34

33. Why did you come to this campground?

35 ☐

- 1 Get away from the grind of life
- 2 Improve physical health
- 3 Re-evaluate and think about life
- 4 Be alone with family
- 5 Camping outdoors
- 6 Other, specify _____

34. When you fish in lakes, what kind of fishing do you prefer?

36 ☐

- 1 Cold water trout fishing
- 2 Warm water pan fish such as bluegills, etc.
- 3 Warm water game fish such as bass, pike, etc.
- 4 Both warm water game fish and pan fish--
bass, pike, bluegills, perch, etc.
- 5 Other, specify _____
- 6 No opinion

35. Do you think the Huron National Forest should provide:

37 ☐

- 1 High quality modern camping facilities (flush toilets, electricity, etc.)
- 2 Primitive camping facilities (pit toilets, hand water pump, etc.)
- 3 Both high quality modern camping facilities and primitive camping facilities
- 4 No opinion

36. What is the length of vacation you receive each year? Weeks _____

38 ☐

37. What is the longest vacation you were on or will take this summer (1966)?
Weeks _____

39 ☐

38. Do you think you will come back to this National Forest next year?

40 ☐

- 1 Yes
- 2 No
- 3 Undecided

39. Do you think national forest campgrounds should be comparable to the facilities (flush toilets, pressure water, electricity, etc.) of the Michigan State Parks? 41 ☐
- 1 Yes 2 No
3 No opinion 4 Aren't familiar with Michigan State Parks
40. Do you think the National Forest should have the same spacing (distance between family units) as Michigan State campgrounds? 42 ☐
- 1 Yes 2 No 3 No opinion
41. Does your group own all of the camping equipment normally used on a camping trip such as this one? 43 ☐
- 1 Yes 2 No 3 No opinion
42. What is the approximate total cost of equipment (not vehicle)? 44 ☐
- 1 Not applicable 5 \$2,001-3,000
2 0-\$500 6 \$3,001-4,000
3 \$501-1,000 7 \$4,001-5,000
4 \$1,001-2,000 8 \$5,001 +
43. If your family is staying overnight at this location, are you using: 45 ☐
- 1 not staying overnight 5 camper truck
2 tent 6 station wagon
3 house trailer 7 nothing (outdoors)
4 tent trailer 8 other, specify _____
44. Would you mind telling me your approximate gross annual income before taxes and payroll deductions in 1965? What group are you in? Of course, this will be kept confidential. 46 ☐
- 1 Less than \$2,999/yr. 4 \$7,000 to 9,999/yr.
2 \$3,000 to 4,999/yr. 5 \$10,000 to 14,999/yr.
3 \$5,000 to 6,999/yr. 6 \$15,000 and over/yr.

45. What is the occupation of the head of your family?

47, 48

--	--

1 Professional, technical, and kindred

2 Farmer, farm manager

3 Clerk, sales

4 Craftsmen and foremen

5 Managers, officials and proprietors

6 Operatives (truck drivers, packers, welders, etc.)

7 Household, service, farm, and manual laborers

8 Retirees

9 Students

10 Housewife

46. Indicate family (group) structure

49

--

_____ number in family (group)
(over 8, code 9)

47. What is the age of the family head (you)? _____

50, 51

--	--

48. What is the number of children in each age class?

52

--

_____ 1 - 5 years

_____ 6 - 12 years

53

--

_____ 13 - 18 years

54

--

49. How many years of formal education has the family head had? _____ Years

55, 56

--	--

50. What is your family's place of residence?

57

--

1 Urban (incorporated or unincorporated places of 2,500 inhabitants or more, and the towns, townships, and counties classified as urban.

2 Suburban

4 Rural farm

3 Rural non farm

5 Central city

51. What distance did you travel for this camping trip? In miles _____.

58, 59, 60

--	--	--

Attitudes toward fees

52. Do you think public recreation areas should be provided through general public funds or by fees charged to the users?

61

☐

- 1 General public funds (taxes to all people)
- 2 Only have users charged for use of a facility
- 3 Only have entrance fees charged
- 4 Combination of both entrance fees and user fees charged
- 5 Other, specify _____

53. How do you feel about the \$7.00 "Recreation Fee" for entrance to improved campgrounds on the national forests with primitive facilities (pit toilets)

62

☐

- 1 Against 3 In favor of
- 2 Undecided

54. How do you feel about this entrance fee on modern campground facilities (flush toilets, etc.)?

63

☐

- 1 Against 3 In favor of
- 2 Undecided

55. How do you feel about the user fees paid by campers for the use of modern facilities on high recreation attraction areas? (\$1.00 user fee per day)

64

☐

- 1 Against 3 In favor of
- 2 Undecided

56. How do you feel about the user fees paid by campers for the use of primitive facilities on high recreation attraction areas? (\$1.00 user fee per day)

65

☐

- 1 Against 3 In favor of
- 2 Undecided

57. How did you first find out about this campground?

66,67

☐

- 1 Don't remember
- 2 From Forest Service Recreation Maps
- 3 From road maps
- 4 From newspapers or magazines
- 5 From local tourist information centers
- 6 From local businessmen
- 7 From friends or acquaintances
- 8 Drove by
- 9 Live nearby, familiar with area
- 10 Other, specify _____

58. What do you think about the Forest Service's methods of advertising the location of campgrounds on the Huron National Forest?

68

☐

- 1 Lacking 3 Excellent
- 2 Sufficient

59. In order to be able to contact you later, may I have your name and address?

69,70

☐

Name _____

Street _____

City & State _____

County _____

In order to find out the number and lengths of stay on National Forest campgrounds, we would like to mail you a postcard this coming fall. Would you be willing to answer such a postcard?

THANK YOU VERY MUCH.

DO NOT ANSWER THE FOLLOWING QUESTIONS

61. Name of location

71,72

--	--

1 Kneff Lake7 Pine River2 Wagner Lake8 Rollways3 Island Lake9 Monuments4 Mack Lake10 Gorden Creek Trail Camp5 Horseshoe Lake11 Silver Valley6 Jewel Lake12 Corsair Camp13 Round Lake

62. Month _____ Date _____

73,74,75

--	--	--

63. Sample period

76

--

1 1st period2 2nd period3 3rd period

64. Day of week

77

--

1 Sunday4 Wednesday2 Monday5 Thursday3 Tuesday6 Friday7 Saturday

If any group has been interviewed before,
record only length of stay and name of family.

65. Questionnaire number

78,79,80

--	--	--

APPENDIX B

Pamphlet Available to Campers Explaining the Fees



**DESIGNATED RECREATION AREAS
IN THE
NATIONAL FORESTS OF THE EASTERN REGION
UNDER THE
LAND AND WATER CONSERVATION FUND ACT OF 1965**

More and more people are seeking the great outdoors and a scenic spot in which to relax. More public recreational areas are needed, not only for Americans today, but also for tomorrow's generations. Public-land managers are doing something about it, but your support is needed too! You needn't be a professional conservationist to help.

This pamphlet lists recreational areas within 15 of the 17 National Forests in the Eastern Region of the Forest Service, U. S. Department of Agriculture. These areas, under the provisions of the Land and Water Conservation Fund Act of 1965, require an entrance permit, either annual or daily. The fees collected from the sales of the entrance permits go into the Land and Water Conservation Fund to help Federal and State agencies acquire or develop more public recreational areas.

Not all recreational areas within the National Forests need a permit to enter, but those listed here offer improved facilities.

You can help provide a more beautiful, more spacious outdoors! Here's how:

Seven dollars purchases an **annual** entrance permit that slips into a billfold. It is called a "Golden Passport" because it is gold-colored and is a passport to 7,000 Federal recreation areas across the Nation, any number of times from April 1 of this year to March 31 of next year. With it, the purchaser and his car passengers will be admitted, if entry is by a noncommercial vehicle.

OR:

One dollar buys a **daily** entrance permit to any of the recreational areas listed in this pamphlet. Again, the purchaser and his car passengers can enter, if entry is by a noncommercial vehicle. For those who enter by other means, there is an individual daily entrance fee of 50 cents.

Children under 16 years are admitted free.

The Act also provides for an additional charge for use of above-average facilities. These are shown and explained in the listings.

Your Golden Passport can be bought from any Federal agency that administers recreational areas. They can be purchased at any Forest Service office or from the attendant at the designated area. Daily permit fees, and use fees also, can be paid to the attendant, or where provided, deposited in machines. Each recreation area has instructions and information posted.

In the Eastern Region, the charge season varies on individual National Forest recreation areas, depending upon climatic conditions. Entrance and use fees are normally needed from about mid-May through mid-September.

MICHIGAN STATE UNIV. LIBRARIES



31293100930639