

A SURVEY OF VACATION CAMPING IN
IRON COUNTY, MICHIGAN

Thesis for the Degree of M. S.
MICHIGAN STATE UNIVERSITY
Alphonse Henry Gilbert
1963

THESIS



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ABSTRACT

A SURVEY OF VACATION CAMPING IN IRON COUNTY, MICHIGAN

by Alphonse Henry Gilbert

The determination of visitor needs is one of the most pressing problems facing park and recreation administrators in Michigan's Upper Peninsula. The existence of this problem, however, is not limited solely to the Upper Peninsula of Michigan; it is a problem which exists throughout the state and extends over our entire Nation.

In this study an attempt was made to examine visitor needs and preferences by conducting a user preference survey in the various campgrounds found in Iron County, Michigan. Its primary objective being the collection of pertinent information on the sociological characteristics and the activity, facility and equipment preferences of the Iron County camper so that a plan of action could be initiated to attract more campers to the area. Since the results of this type of study were felt to be of statewide significance, careful consideration was given to its design so that its results could be applied to other areas of the state and also serve as a pilot study for larger, more intensive state and national studies.

The data obtained from this survey was analyzed and is discussed under three major headings: (1) Characteristics of Respondents, (2)

Preferences of Respondents, and (3) Correlations Between User Preferences and Socio-Economic Characteristics of Both Male and Female Respondents.

The section entitled "Characteristics of Respondents" deals with socio-economic characteristics such as composition and size of group, sex and age composition, educational level, occupation of male leader, family income, etc. Also included are use characteristics such as kind of campground used, percentage of campers by campground and type of group, kind of housing used, ownership of equipment, activity participation while camping, etc.

The second section entitled "Preferences of Respondents" serves two important functions. It enables comparisons to be made between actual use and preferred activities, facilities and equipment related to camping and also describes the actual desires of the camping public concerning these three factors.

In order to achieve a more comprehensive understanding of the Iron County camper, correlations were made between certain socio-economic characteristics and facility, equipment and activity characteristics.

Since this study was limited to the confines of Iron County, no claims are made regarding its representative nature to all camping in Michigan. It does, however, present a reasonably accurate description of camping in Iron County, a County which attracts campers from the entire state as well as many of the adjacent states.

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IN

IRON COUNTY, MICHIGAN

By

Alphonse Henry Gilbert

A THESIS

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

MASTER OF SCIENCE

Department of Resource Development

1963

26968
12/10/63

ACKNOWLEDGMENTS

I would like to express my deep appreciation to Dr. Leslie M. Reid of the Park Management Section, Department of Resource Development, for his conscientious assistance and guidance throughout this study. Also, I would like to thank Dr. Raleigh Barlowe, Mr. Louis F. Twardzik, Dr. Milton H. Steinmueller, Dr. Sheldon G. Lowry, and Dr. Charles W. Barr, members of my graduate committee, for their wise direction and constructive criticism.

Credit is also due to the various city, county and federal park officials in Iron County who assisted me by supplying pertinent information for this study.

Finally, I wish to show my appreciation to my parents for their continued guidance and encouragement in promoting my education.

Alphonse Henry Gilbert

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CHAPTER I

INTRODUCTION

During the past few decades, family camping has evolved from a rather obscure existence to its present position as one of the most rapidly expanding outdoor recreational activities in the United States.

Prior to the end of World War I camping was an activity engaged in by a few hardy individuals and it was not until the early 1920's, with the advent of the automobile, that family camping gained widespread acceptance as a family activity. During this post war period there emerged a considerable boom in automobile camping and many towns began maintaining municipal campgrounds to meet the needs of this new breed of highway traveler. A further service to the newly arrived automobile camper was provided by a national organization known as the Tin Can Tourist Association. This association sprang up to provide its members with the latest news on current campsite development and other information pertinent to camping.¹

By the late 1920's it became evident that something had to be done to direct the tide of random camping with its resultant littering, fire hazard and destruction to private property. In an attempt to partially meet this need, the various state park systems gradually emerged and grew. The National Conference on State Parks, formed in 1921, had as its motto "A

¹Franklin M. Reck and William Moss, Station Wagon Living, Volume 2 (New York: Simon and Schuster, 1958), p. 15.

State Park Every Hundred Miles."¹ It was also during this period that the U. S. Forest Service established its widespread system of campgrounds. This development continued until late in 1941 when the onslaught of World War II brought campground development to a standstill.

Since the postwar years, a number of important changes have taken place, changes which have had an appreciable affect upon the growth of camping in the United States. Our population has increased at a tremendous rate, and from all indications it appears that our present population of 180 million will be increased to 310 million by the year 2000.² Furthermore, there is a growing tendency toward higher percentages of old and young people, who, being largely unproductive, require outlets for their leisure time. Increased leisure time, however, is not confined only to the young and old segments of our population. The change in occupations from a basically active to a sedentary nature, the resultant rise in the standard of living, and the shorter work week, etc., have all contributed substantially toward the great increase in the amount of leisure time which is being experienced by almost every segment of the population. Another similarly important change concerns the mobility of the population. Today, automobile ownership is the rule, even among low income groups; the new super-highway systems which now traverse the entire country permit fast,

¹Robert Shankland, Steve Mather of the National Parks, Second Edition (New York: Alfred A. Knopf Co., 1954), p. 185.

²U. S. Bureau of the Census, Eighty-third Census of the United States: 1960, p. 6.

long distance travel; and, as C. Frank Brockman pointed out, "the automobile and other forms of transportation have become faster, more diversified, and more dependable; making it possible for us to reach places far beyond the dreams of our fathers, and to do so easily, in comparative comfort, and within a shorter span of time."¹ In the future, the mode of transportation may experience changes even more radical than those which have taken place in the past few decades. Such things as air crafts, which ride on a cushion of air, over land and water, may further revolutionize the mobility of the people.

In analyzing the above mentioned changes it must be remembered that these are not the products of an overnight occurrence but rather the recent offspring of tortoise-speed trends which have evolved since the time our forefathers established themselves along the Atlantic seaboard.

Along with these changes there came the rebirth, on a much larger scale, of a problem which began to show itself in the late 1920's, that of providing camping space for the influx of campers being generated by growth in population, increased leisure, higher standard of living, greater mobility, etc. Campgrounds, having largely been established during the 1930's with C.C.C. manpower, were in poor repair, due to a lack of maintenance; were inadequate in size, and had insufficient facilities to meet the demands being put upon them. As a result of this recurrent demand and the urging of interested individuals, a gradual awakening occurred at all levels of

¹C. Frank Brockman, Recreational Use of Wild Lands (New York: McGraw-Hill Book Co., Inc., 1959), p. 3.

government and among the general population as to the growing need for rapid and extensive development in providing camping facilities and other forms of outdoor recreation.

Today, adequate provisions for camping and other outdoor recreational activities is a topic of much concern. Use of the Nation's campgrounds is increasing by "leaps and bounds" but campground development has fallen far short in its attempt to meet this need. "Sorry, full camp" is an all too frequent response to the Nation's campers, and crowded conditions are rampant in certain sections of the country. Yosemite National Park, for instance, can comfortably accommodate approximately 10,000 campers but on certain weekends compassionate rangers, unable to turn anyone away, have "packed" 17,000 campers in Yosemite Valley alone.¹ State campgrounds are experiencing similar problems. In the five years from 1955 to 1960 the states increased their camping facilities by 60 percent only to find that campers were increasing at the rate of 18 percent in a single year.² In Michigan, where this study was conducted, over forty thousand camping parties were turned away from state park campgrounds in 1961 and thousands of others obviously passed-by without seeking admittance upon seeing the long waiting lines and crowded conditions.³

¹Reck and Moss, op. cit., p. 214.

²John O'Reilly, "The Crowded Land of Hiawatha," Sports Illustrated, XVI, No. 24 (June 18, 1962), p. 63.

³Reynold E. Carlson, "Changing Patterns in Camping," Recreation Magazine, LIV, No. 3 (March 1961), p. 115.

To help meet this need for more campgrounds and alleviate the crowded conditions which exist in campgrounds across the entire nation, campground development programs are being undertaken at all levels of government and by private entrepreneurs. Most prominent among these are the programs undertaken by the U. S. Forest Service and the National Park Service. These are designed to update all areas under their control so that present and future demands for outdoor recreation can be met. The National Park Service, through its Mission 66 program is doing its part in supplying camping space. In 1956, when the program was initiated, there were 12,000 campsites in the National Park System with use exceeding 3.6 million camper days; by 1966 there will be 30,000 campsites, with 6.6 million camper days.¹ In like manner, the Forest Service, with its 5-year Operation Outdoors program (1957-1962) increased its 1957 total of 41,000 individual campsites to 125,000 by 1960² and, a new development program for the National Forests, put out in 1961, includes plans to increase this number by an additional 283,000 units.³

Nature of the Problem

In the midst of this nationwide explosion in campground development, there has arisen an urgent question regarding the adequacy of present and

¹O'Reilly, loc. cit.

²Reck and Moss, op. cit., p. 216.

³U. S. Department of Agriculture, Development Program for the National Forests, Publication No. 896, November 1961.

proposed campgrounds to fulfill the needs and desires of the modern-day camper. Camping is no longer limited to the experienced woodsman, skilled in the art of camp lore, it has become a universal pastime enjoyed by people from all walks of life. With this widespread acceptance of camping has come drastic changes in the character and demands being put upon camping and campground development. Perhaps the greatest single factor responsible for the changing character of camping, is the feminine influence. Women have invaded the campground and, being a dominant member of the family group, are demanding - and receiving - comforts similar to those experienced in their own homes. Manufacturers of camping equipment have taken up this challenge of meeting feminine demand, and in so doing, have given birth to a totally new concept in camping. Equipment is now both practical and attractive; the standard olive-drab wall tent has been replaced by multi-colored tents of every imaginable size and shape, campfire cooking has been generally taken over by compact, portable gas and electric stoves, and modern camp sleeping facilities make "sleeping on a cloud" a reality. Other available items include such things as folding toasters, portable toilets, gas operated refrigerators, electric fans powered by flashlight batteries, and tents with nylon screens and picture windows.

Campgrounds have also gone modern. In many national parks campers can now find hot and cold running water, city-style plumbing, cocktail lounges, automatic laundries, hairdressers, TV, and enough

electric power to light a modern city. Today there are campgrounds to meet the needs of every type of camping enthusiast and equipment to make camp life as comfortable and enjoyable as living in one's own home. John O'Reilly, in a recent article for Sports Illustrated Magazine, characterized this situation when he wrote, "Gay and gabby, carefree but comfort-loving, a brand new type of American camper is invading the wilderness of sacred Indian lore and poet's song. Equipped with gadgets beyond counting and traveling in mechanized caravans, the new campers numbers are increasing beyond the ability of the planners to provide campgrounds for him."¹

It is because of this change from a hunter-fisherman-boyscout type camper to the modern, family type, automobile camper, that fulfillment of purpose must hold an equal position with speed of development. Along with this new breed of camper then must come the realization that rapid campground development is not the whole solution. That which was considered adequate for the camper of the 1920's may be totally inadequate for the camper of the 1960's. Observation has proved this to be true on numerous occasions but until more emphasis is placed on meeting the present needs and preferences of the camper, campground development will most likely remain a hit-and-miss proposition. It becomes obvious from examination of statistics on the trends in population, disposable income, amount of

¹O'Reilly, op. cit., p. 61.

leisure time, mobility, urbanization, etc. that present rates of campground use will continue for a great many years into the future. This means that unless standards of adequacy are soon developed the crisis in camping and other forms of outdoor recreation described by Marion Clawson¹ will have to be referred to as the catastrophe in camping and other forms of outdoor recreation.

This shift in emphasis, tremendous increase in use, and rapid development of our campgrounds has created numerous other problems directly related and coexistent with the problem of adequacy. Effective management is one such problem. Unlike many other fields where managerial problem solving is aided by the availability of vast storehouses of reference material - books, studies, university courses, workshops, personal experience, etc. - the field of park and campground administration, due to its spontaneous growth and the pressure of new demands, is plagued by a decisive lack in the availability of park and campground-oriented managerial aids. Historically, men and women in the field of park and campground administration have had to rely almost entirely upon personal experience as the basis for managerial decisions. This was by far not an ideal method of administration but, until the recent "boom" in camping proved to be generally satisfactory in meeting the needs of the relatively few individuals using the nation's parks and campgrounds.

¹Marion Clawson, "The Crisis in Outdoor Recreation: Parts I and II," *American Forests*, LXV (March and April 1959), pp. 22-31 and 28-35, respectively.

Today, this situation has been drastically altered. The monumental increase in park and campground use along with its changed character - new needs and ever increasing demands - has rendered as impracticable and illogical the strict adherence to the time honored method of learning by experience. Now our administrators are confronted with problems never before experienced, problems which have forfeited gradual evolution for spontaneous birth, and in doing so, has brought about the dire need for intensive and extensive study to determine present and future trends in the field of park and campground administration. The value of these studies being determined by the rapidity with which usable information can be gathered and disseminated to the men and women in the field.

It was due to the existence of the above mentioned need, for comprehensive study in the area of park and campground administration, that this study was conducted.

Justification for the Study

The need for pertinent park and campground-oriented research has been one of the most underrated components in the field of park and campground administration. Recent demands for camping and increased park use have been of such great magnitude that park men are now clamoring for assistance so that they will be able to meet the present and future demands being put upon their areas. Research, by qualified personnel, is the only logical answer to this desperate situation. Today many advances are being made along these lines, however, a number of past and present problems are making park and campground research a slow and

expensive proposition. Of leading importance among these are the following:

(1) park men generally lack the time and skill necessary to carry on a program of effective research, (2) there are, at present, too few professionally trained park men who could carry on such research, (3) too much emphasis is being placed on solving current park problems by the professional organizations, (4) there are only a limited number of colleges and universities taking on the challenge of meeting this problem, even though these are the most qualified to carry on research of this type and, (5) there is, as yet, very little pressure being exerted for park research by the men in the field. Due to this lack of stimulation and the lack of time and knowledge concerning park research, it becomes increasingly important that colleges and universities, as well as professional park and recreation organizations, take the initiative in conducting park-oriented research and promoting its value. And it is doubly important that the initial studies, of which this is one, be informative enough to prove their worth and, in so doing, stimulate continued intensive park research.

In order to achieve a high degree of accuracy, this particular study followed an avenue of approach which appears to be the most logical, and yet, is an approach frequently overlooked; that of asking the people who actually use parks and campgrounds what they prefer to have provided to make their stay more enjoyable. Through the years agencies like the National Park Service and the U. S. Forest Service, along with state, county and city park departments, have been providing camping activities, facilities and equipment which have undergone only minor change since the

time camping was first provided by these agencies. Activities, facilities and equipment which may have been accepted at the time of their conception only because they were provided and available, and not because they most adequately suited the purpose for which they were intended. It is now time to re-evaluate those services which the public receives so that the present time and money expended for individual experimentation can be channeled along more productive lines.

Besides the broad reasons mentioned above, this study can also be justified on the basis of two essential local factors present in Iron County. These include location and local interest.

Location-wise, Iron County is uniquely situated. It is transgressed by an excellent system of paved highways which allow easy statewide and out-state access, it has a full complex of parks and campgrounds from the federal to the city level, it has very attractive natural scenery, a landscape studded with numerous crystal-clear lakes and streams, and it affords numerous opportunities for the pursuance of almost every phase of natural outdoor recreation. These above mentioned assets are very important considerations when conducting a study of this limited size and scope because all of these are conducive toward attracting large numbers of people, people with diversified interests and backgrounds. And, having this mixture of people-types allows for a more accurate representation of the preferences of the majority of park users. This is particularly important when a small number of people are being interviewed, in this case one-hundred camping parties, because the chance for a

biased result usually becomes greater as the number interviewed becomes smaller.

In considering local interest, it was found that the Iron County citizenry are very concerned over the economic instability which is presently plaguing their county; consequently, they are very interested in promoting anything which may bolster their economy. Interest in tourism, as a hope for re-establishing the economy, heightened after the results of a limited tourist survey, conducted by the County Extension Director, revealed that tourists presently spend 9 million dollars annually in the County.¹

It was the realization of this discovery that prompted the County Extension Director and other interested citizens to seek assistance from Michigan State University. After close evaluation of the area, it was decided that a complete study be initiated because of the possible state-wide significance involved. Almost every county in the Upper Peninsula, not to mention areas in the Lower Peninsula and other parts of the Nation, are experiencing economic decline. If this and similar studies can shed some light on how to make their parks and campgrounds function more efficiently and be more attractive to the people using these areas, then this alone would justify the conducting of this study.

In evaluating the above reasons for the selection of Iron County as the study site, two points stand out in setting it apart from the majority

¹ Roland H. Kaven, Understanding the Iron County Visitors, a report of the tourist survey made in Iron County in August 1958, conducted in cooperation with the Chambers of Commerce in Iron River and Crystal Falls and the tourist and resort operators of Iron County.

of other areas in the Upper Peninsula: (1) it is an area frequented by large numbers of out-state tourists, this due to its close proximity to Wisconsin and its being in line with the major north-south, east-west highway routes, (2) its citizens and County Extension Director were very aware of the need for such a study and made the initial moves which prompted the University to carry out the project.

Importance of the Study

The importance of this study and studies of a similar nature, is dependent first upon the accuracy of the results and then upon the rapidity with which this information is accepted and used by those for whom it was obtained. With this having been accomplished, studies of this type may provide the key for answering the present gamut of park and campground problems facing the nation's planners and administrators.

One important contribution of this particular study has already been expressed: the use of this limited study as the foundation for the launching of a larger, more comprehensive study. Just recently, Leslie M. Reid of the Department of Resource Development (Park Management section), Michigan State University, who was mainly responsible for the conducting of this survey, completed a doctoral dissertation dealing with user preferences on a nation-wide basis.¹ This should prove to be of tremendous benefit in furthering the park cause and a great asset toward promoting a better under-

¹Leslie M. Reid, "Outdoor Recreation Preferences: A Nationwide Study of User Desires." Unpublished Ph.D. dissertation, Department of Conservation, University of Michigan, 1963.

standing of the park visitor. It is hoped that others will also be stimulated to expand and verify present findings as well as open new areas of investigation.

This and similar studies are particularly important at this time because park and campground development is on the verge of "explosive" expansion; expansion which will determine the fate of camping and park use for a great many years in the future. The limited funds which are available fall far short of the anticipated cost of providing the needed facilities, therefore, it is doubly important that the funds which are expended be channeled along the most productive lines. Preference studies, use studies, etc., will be of tremendous benefit to the success of this purpose because they can show what is lacking in present systems and, more important, what is essential for most adequately meeting the needs and desires of the park and campground visitor. For instance, in this study it was discovered that campground stoves were considered by the great majority of the respondents to be a relatively unimportant facility. Now, if this feeling is universal among campers, the savings resulting from the omission of the presently accepted campground stove from the nation's campgrounds could mean an increase in funds to provide more camping space and thus alleviate some of the present crowding. Operating on chance is not acceptable, present demand is too great and funds too small; that which is done must be correct, correct the first time.

The adequate provision for camper needs and desires also provides many local benefits. Through knowing the preferences of those people

who camp in the area, a more effective park and campground system can be developed and, in so doing, attract more people who in turn stay longer and spend more money.

Iron County, for instance, has been in a state of economic decline for some time. The two major industries, mining and forestry, are presently operating on low value raw materials, and by all indications, it appears that these industries have little chance for recovery in the future.

The only salvation for the economy, therefore, seems to be centered around the potential growth of the tourist business. At present most of the parks, with the exception of several Forest Service areas, are unattractive to the majority of tourists. Over-use, along with the abandonment of sound park planning and management techniques, has been responsible for the deterioration of facilities and natural resources in the parks, as well as the existence of poor sanitary conditions in some areas. The benefits derived from protection and sound use of a park's natural resources, and the practice of sound planning and management of its facilities, was forcefully illustrated by W. P. Strassman of Michigan State University in his publication entitled, "Economic Growth in Northern Michigan."¹ Dr. Strassman wrote:

"Above all, people do not travel to Northern Michigan to eat cherry pies, to sleep in motels, or to buy salt and pepper shakers. They do not go there primarily to buy what the people of Northern Michigan have to sell. They mainly come to enjoy

¹W. P. Strassman, Economic Growth in Northern Michigan (Institute for Community Development and Services, Michigan State University, 1958), p. 32.

what is freely available: cool air, forest scenery, blue water. It is the supply of these, in terms of conservation and access, that must be maintained if sales of other goods are to rise. Restaurants, filling stations, bowling alleys, theaters, resort motels, and retail stores must keep pace with the expansion of tourism. Few tourists will venture to areas beyond such conveniences. But these things are supplementary to Northern Michigan's main attraction: relief from the noise and tensions of city life at a cool expanse of forest and water. This main attraction is not a man-made commodity; nevertheless it requires maintenance."

The amount of economic benefit derived is directly related to the number of people coming to the area and the length of time they stay. Iron County, and other similar areas, must have attractive, well-planned and well-managed parks if they are to derive economic benefit from the camping section of the tourist population. Studies such as this can provide many of the answers on how to make campgrounds more appealing to the present and the potential camper. Studies can point out problems and make recommendations; it is up to those in charge of parks and campgrounds to carry them out.

Scope of the Study

The scope of this study was intentionally limited in two major areas: geographic distribution and questionnaire distribution.

At the request for technical assistance by the County Extension Director, a park management specialist from Michigan State University was given the task of conducting a visitor preference study within the confines of Iron County. The purpose of the study being the collection of pertinent information on the sociological characteristics and the activity, facility

and equipment preferences of the Iron County camper, so that a plan of action could be initiated to attract more campers to the area. Since the results of this type of study were felt to be of statewide significance, careful consideration was given to its design so that its results could be applied to other areas of the state and so that it could serve as a pilot study for larger, more intensive state and national studies.

It was indeed fortunate that circumstances allowed the campgrounds of Iron County to be chosen for the conducting of this study because this county has the necessary attributes for making this type of study effective while still maintaining a limited expenditure of time and money (one man spending twelve weeks in the area), and a limited distribution of questionnaires (questionnaires to the male and female leaders of one-hundred camping parties). It is situated in line with the major east-west, north-south highway routes which bring large volumes of state and out-state visitors to the area (Appendix A) and has a good complex of campground types to meet the needs of all campers.

In recapping, this study was limited to the confines of Iron County, requested information on sociological characteristics and activity, facility and equipment preferences, was distributed to only 100 randomly chosen camping parties and was designed to be an effective contribution to Iron County, Michigan, and to the Nation.

CHAPTER II

THE STUDY AREA

Before considering the methodology involved in conducting this study, it may prove beneficial to briefly examine Iron County in the light of its geography, economy, population, and parks. This is done so that a clearer perspective can be gained on why this particular county was chosen for the study, and also, to nurture a "feeling" for the area and its people; being then better able to understand and appreciate the studied campers preferences and the recreational attitudes of the Iron County resident.

In the ensuing sections of this chapter an attempt will be made to develop the above mentioned "feeling" by historically annotating the geographic, economic, recreational and population characteristics of the County.

Geography and Land Use

Location and Land Contour

Iron County, so named for the extensive iron deposits which once existed in the area, is located in the western part of the Upper Peninsula of Michigan, bordering the State of Wisconsin. It comprises a total land area of 1,174 square miles or 751,360 acres and has an average elevation of about 1,550 feet above sea level with variations ranging between 1,200 and 1,840 feet.

The land features, being a product of glaciation, consists of a thin layer of glacial drift - ranging from less than 100 feet in the east to slightly over 600 feet in the west - which overlies the preglacial rock formations. This glacial drift results in the formation of a high-plain type of topography interspersed with broadly rolling hills, depressions and valleys. In certain local situations this topography is interrupted by sharply rounded hills, rock outcrops and a scattered variety of lakes and swamps.¹

Lakes, Rivers and Streams

The county presently has 528 inland lakes comprising a total surface area of 19,448 acres. These range in size from small circular ponds of one acre or less, to large lakes ranging up to 7,200 acres. The ten largest lakes along with their acreage is listed in Table 1.²

TABLE 1. Listing of Iron County's Ten Largest Lakes

	Name	Acres
1.	Michigamme Reservoir	7,200
2.	Chicaugon Lake	1,100
3.	Perch Lake	944
4.	Hagerman Lake	585
5.	Golden Lake	580
6.	Smokey Lake	557
7.	Ottawa Lake	551
8.	Sunset Lake	530
9.	Iron Lake	396
10.	Emily Lake	312
Total -		12,755

¹A Progress Report on Land Use for Iron County. A report prepared by the Iron County Land Use Committee (Iron County, Michigan, 1941), p. 11.

²County Water Resource Data. A report prepared by the Michigan

From Table 1 it becomes evident that better than 65 percent of all inland lake area is found within the boundaries of these ten lakes. Of the remaining 518 lakes, only ten are over 200 acres in size, the remaining 508 lakes having under 200 acres of surface area. The majority of the lakes in Iron County have sandy or stony beds, often surrounded by high banks upon which hardwood timber grows. Other lakes, mainly those of small area, have muck bottoms and are surrounded by swamps and marshes.

There are relatively few rivers and streams found in the County, however, those which do exist are quite attractive. This attractiveness stems from the fact that the main streams and most of the tributaries are fast-flowing. Rapids and waterfalls occur at frequent intervals where the streams flow through rockcliff valleys. The aesthetic quality of these rapids and falls is maintained by the high water levels which exist throughout the summer months.

Besides the scenic value, Iron County's three main rivers - Brule, Paint and Michigamme - provide hydro-electric power and serve as water drains for the land. Four power dams are now operating and 1,103 square miles of land is being drained.¹

Climate

An examination of the climatic conditions of Iron County for the past twenty-two years reveals an average annual snowfall of 66.2 inches and an annual rainfall of 28.46 inches. The temperature for January averages

¹ Ibid.

14.7° F. and for July averages 66.7° F. Extremes in temperature over this same time period registers a low of -47° F and a temperature high of 103° F. Other climate characteristics consist of low humidity, low evaporation, low wind movement - usually from the northwest - and a relatively low percentage of sunshine (mainly during winter months). The winters are long and cold and the summers are fairly short with an average moderate temperature of 62.8° F. during the period May 15 to September 15.¹

Land Use

The major uses of the land in Iron County are indicated on the map in Figure 1.² Approximately 90 percent of the land area of Iron County is forested. This being mainly cutover land upon which aspen has generally replaced the vast stands of white and red pine which existed during the early logging days. Even though aspen is by far the most dominant specie of tree, many hardwoods such as maple, beech, oak, etc. can be found on the hills and ridges. Bogs, lowlands and areas around many of the lakes contain spruce, tamarack, red and white pine as well as some wetland hardwoods.

Of the remaining 10 percent of the land, 6.5 percent is cleared land set aside for farming. This being concentrated mainly around the cities of Iron River, Crystal Falls and Amasa. The main uses of these farm lands being for dairy and potatoes.

¹A Progress Report on Land Use for Iron County, op. cit., p. 29.

²Ibid.

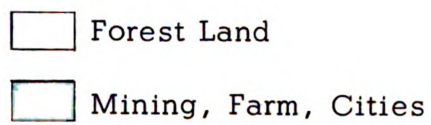


Figure 1. Land Use in Iron County

Cities and villages occupy 1.5 percent of the land, with the remainder of the land being distributed between mining interests and other miscellaneous uses.

Recreation Resources

This section, in describing the recreation resources, will deal only with the natural land and water features which are of value to those people seeking outdoor recreation.

As was mentioned in an earlier section, the County has 90 percent of its land surface covered by forests, of which over half is in public ownership and available to the public for camping, hunting, hiking, nature study, etc. For those interested primarily in scenery, the forests of the county provide a canopy of green during the summer, brilliant color in the fall and snow-laden pine and spruce during the winter.

The County's 528 lakes and 902 miles of streams afford excellent opportunities for fishing, swimming, boating and sightseeing.

Winters are cold with an abundance of snow for all types of winter sports. Summers are brisk, having mild days and cool nights.

Probably the best way to describe this County is to say that it is typical of Michigan's beautiful north country.

Economy of the County

The economy of Iron County can be broken down into three major classifications: mining, tourism and forestry.

Mining

Since the earliest days of the County's existence mining has occupied

the most prominent position in its economy. Today mining is still the major source of basic income, however, it has substantially decreased in importance over the past few decades.

Mining as an active industry had its beginnings in the Crystal Falls area around 1881. From this period mining flourished at scattered points throughout the County and by 1885, approximately seventeen mines were in operation. During the panic of 1893 mining was drastically curtailed and it was not until the turn of the century that mining interests were revived. Operations increased rapidly from this point and by 1923, twenty-five different mines were in operation, employing 3,300 men.¹ Since this "peak," mining decreased steadily so that today there are only six mines in operation with an employment figure of 1,240 men - a 75 percent decrease in the number of mines and a 62 percent decrease in employment.²

The reason for this drastic reduction can be contributed to a number of factors; foremost among these was the increasing competition exerted by beneficiated taconites and jaspers and from the large imports of foreign ores. The remaining ore, being primarily of low grade, is another depressing factor due to the large expense incurred by operating shaft-type mines.

¹Ibid., pp. 5-10.

²Overall Economic Development Plan for County of Iron. A report prepared by Iron County Preliminary Overall Economic Development Committee (August 14, 1961), p. 7.

The future of mining looks equally bleak. A prediction made by the Industrial Survey Committee of the Iron County Chamber of Commerce indicates that by 1975 mining jobs will be reduced by another 600, with the resulting effect--other things being equal -- of a population decrease of 2,500 people.¹ From this and what has been said above, it becomes clearly evident that other sectors of the economy must be developed to counter this decline in the mining economy.

Tourism

Iron County, with its vast array of public forest lands, multitude of lakes and streams, cool climate and Indian history, has long been the favorite vacation spot for many Michigan, Wisconsin and Illinois tourists. The importance of this tourist industry becomes vividly apparent upon examination of the statistics presented in a recent analysis of the tourist and resort business for the counties of the Upper Peninsula of Michigan.² In this report it was stated that the tourist and resort business for Iron County totaled nine million dollars annually.

The tourist business in Iron County can be divided into two classifications: transient tourist and tourists coming to the area as their main destination. The transient tourist remains in the County for very short periods of time, stopping only for such things as gas, food, rest and

¹Ibid. Reference made to a paper prepared by the Industrial Survey Committee of the Iron County Chamber of Commerce from data collected in 1955-56.

²Kaven, op. cit., p. 1.

perhaps overnight lodging. Income received from this type of tourist is not very great, however, this person is a potential "tourist resident" and future tourist business is determined by how impressed this person is with the recreation facilities of the County.

The "tourist resident" - a person coming to the County as his main destination - is the greatest contributor to the economy of the area since all of this person's time is spent in the County.

In attempting to analyze the economic value of this tourist industry, many problems are encountered due to the fact that there is no accurate way of determining the number of tourists or how much each tourist spends. For this reason, the economic value of the tourist business is frequently determined by closely examining the increase in retail sales during the tourist season and by noting the number of people employed in services. This increase in sales during the tourist season along with the increased use of services is dramatically illustrated by Figures 2 and 3. These were constructed by Leslie M. Reid of the Department of Resource Development, Michigan State University, during a hunter study of the area in 1959.¹

During the 1959-60 fiscal year, Iron County's total retail sales were \$19,366,650. Of this amount, using a 10 percent figure, approximately two million dollars was accredited to purchases made by tourists. This

¹Leslie M. Reid, A Study of Hunting Use in Iron County, Michigan. An unpublished supplemental study to this study conducted to determine the importance of fall recreational use.

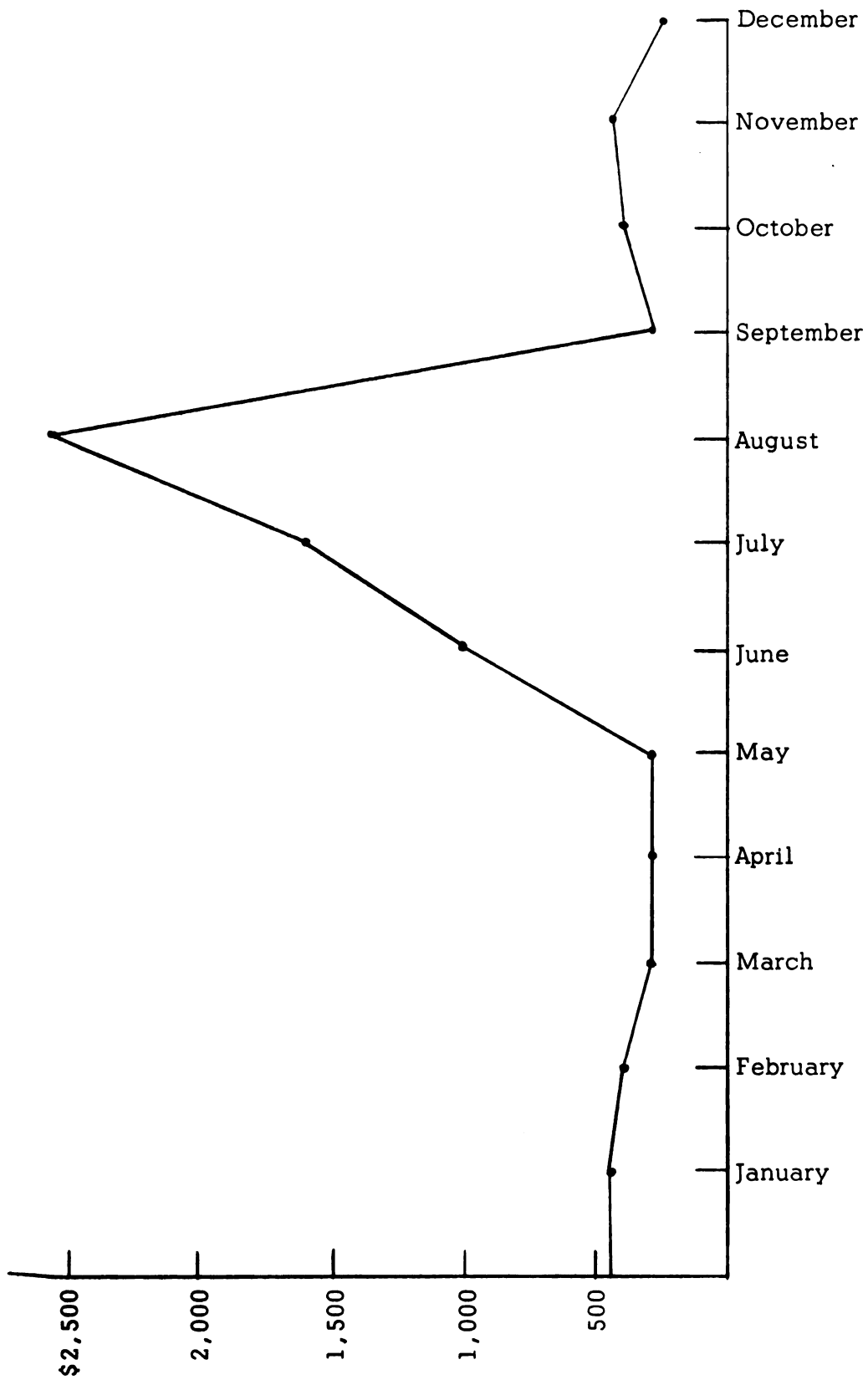


Figure 2. Monthly Gross Revenue for Iron River Laundromat - Iron River

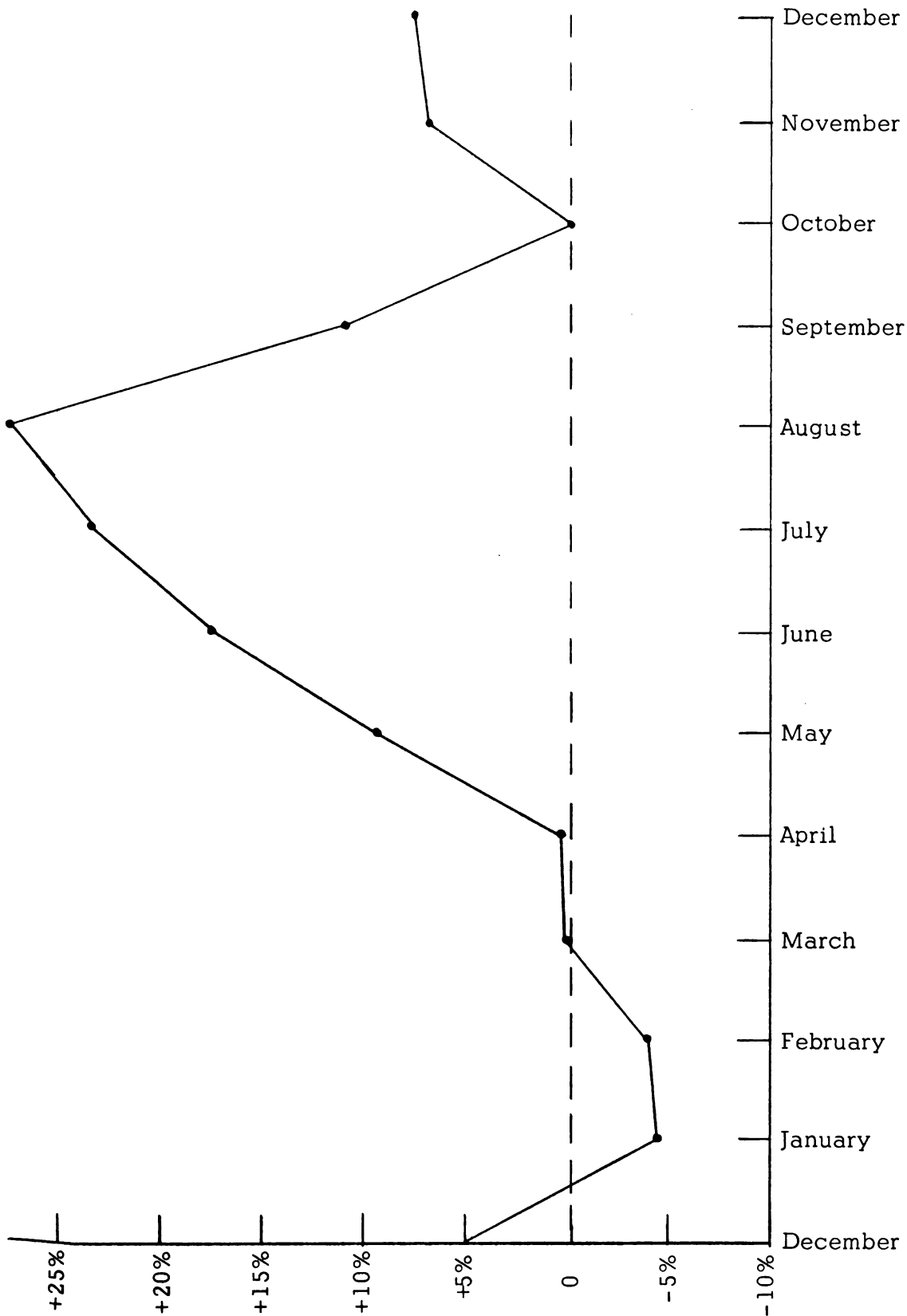


Figure 3. Percentage of Monthly Gross Retail Sales for Schinell's Grocery - Goastra

10 percent figure was arrived at as the result of economic studies made in several Upper Peninsula counties by Brueckheimer.¹ Since the total tourist expenditure is figured at nine million dollars, this retail figure may be a low estimate.

Service employment is equally impressive, with 316 people providing services in 1959. This is quite an impressive figure for a county primarily rural in nature.²

Presently retail sales and the services are the only economies in the county which show a major year to year increase. Since this is indicative of tourist trade, the present and future importance of tourism becomes readily apparent.

Forestry

Even though the seemingly endless plains of red and white pine have long since disappeared, forestry is still considered to be one of Iron County's major industries. Farming presently rates a fairly close second, however, lack of capital, short growing season and lack of application of sound farming techniques has caused farming to decrease by over seven hundred farms in the past forty years. For the above reasons, farming will be omitted from this section on major sectors of the economy.

Lumbering, the first industry in the County, began as soon as the

¹W. R. Brueckheimer, "The Significance of the Recreation Industry in Alger County, Michigan." Unpublished Ph.D. dissertation, University of Michigan, 19 , p. 52.

²Iron County Economic Data Sheet. A report compiled by the Research Division, Michigan Economic Development Department (September 1961).

first white settlers entered the County in 1843. Seven years later, in 1850, a sizable number of logging concerns were operating in the area. Like most areas in the Upper Peninsula, at this time, pine was in great abundance and a substantial number of men were employed in logging. By 1900 the pine forests had all but disappeared and the hardwoods were largely depleted by 1920.

Mining was in full swing by this time so no substantial lumbering was undertaken until comparatively recent times. No figures are available on the value of timber cut during the logging "boom" or the value since that time, however, it must have been quite sizable because logging has been rated the second major sector of the economy up until recent years when tourism took over this position.¹

The future of forestry does not look very bright. Even though 90 percent of the land is covered by forests, the timber available is not of the high value type. Aspen is the dominant species, representing 59 percent of all the cord wood and 7 percent of the saw timber available. Efforts are presently underway by the Iron County Wood Associates to establish a flake board plant using aspen as the raw material; it is the success of such ventures in the use of aspen that will determine the future of forestry in Iron County.²

¹A Progress Report on Land Use for Iron County, op. cit., pp. 8-9.

²Overall Economic Development Plan for County of Iron, op. cit., p. 10.

Population Trends and Characteristics

During recent years Iron County has experienced substantial out-migration of its population, so much so, that the County presently lags far behind both Michigan and the United States in population growth. The significance of this decline is expressed more clearly by realization of the fact that there are now 5,000 less people living in the County than was the case forty years ago.

Economic activity has played a major role in this downward population trend as can be illustrated by examination of the data contained in Table 2.¹

TABLE 2. Population of Iron County
by Decades from 1890-1960

Year	Population
1890	4,432
1900	8,990
1910	15,164
1920	22,107
1930	20,805
1940	20,243
1950	17,692
1960	17,184

For instance, the discovery of iron ore in paying quantities brought about a tremendous increase in population from 1890 to 1920. In fact, the population nearly doubled itself three times during this relatively short span

¹ Michigan Manual: 1961-62 (State of Michigan), p. 376.

of years. Declining productivity of the mines, along with the increased attractiveness of the large industrial centers in the southern part of the state, caused significant out-migration between 1920 and 1930. This was curtailed somewhat from 1930 to 1940 when the nation-wide depression of the early 30's caused most potential migrant labor to remain at home, dependent upon public work programs and part-time jobs for their livelihood. Also during this period there was a noticeable increase in the rural population and a subsequent decrease in the population of cities and villages, indicating the need for the greater security and lower expenses of farm and township living.¹

Since 1940, the population of Iron County has continued to decrease at a substantial rate: a total of 3,062 persons over the past twenty years. The out-migration from cities and villages continues its downward trend, and a relatively large portion of these people are still moving to the townships, as is evident from examination of Table 3.²

From this table it can be seen that only two municipalities have registered a population increase, Iron River and Mansfield Townships, for total in-migration of 542 persons. This is, however, rather impressive a figure for it represents almost one-fifth of the out-migration from the County's cities and villages.

¹ A Progress Report on Land Use for Iron County, op. cit., p. 14.

² Overall Economic Development Plan for County of Iron, op. cit., p. 5.

TABLE 3. The Population of the Various Cities, Villages and Townships and the Total Population Change Between 1930 and 1960

	Population				% of Change
	1930	1940	1950	1960	
<u>Cities</u>					
Caspian	1,888	1,801	1,608	1,493	-20
Crystal Falls	2,936	2,639	2,316	2,203	-24
Gaastra	755	773	575	582	-23
Iron River	4,665	4,421	4,048	3,754	-19
Stambaugh	2,399	2,079	1,969	1,876	-21
<u>Villages</u>					
Alpha	560	344	378	317	-43
Mineral Hills	432	344	333	311	-28
<u>Townships</u>					
Bates	1,263	1,279	1,109	1,224	-03
Crystal Falls	1,806	1,794	1,437	1,443	-20
Hematite	985	890	625	523	-46
Iron River	1,883	1,880	2,017	2,336	+19
Mansfield	195	216	211	302	+35
Mastodon	484	699	400	663	+27
Stambaugh	973	1,468	990	1,092	+10
Total County % change					<u>-156</u>

A look at the most recent trends in the County's population shows no appreciable change from that which has occurred over the past four decades. All of the cities and villages and most of the townships continue to decline. The rural population, which is almost five times that of the urban population, proceeds in a slightly upwards direction; the two "growth" townships, Iron River and Mansfield, are beginning to show signs of a gradual leveling-off of the population.

Recent statistics show that the birth rate has decreased at a rate of approximately forty births per year over the past twenty-five years. This means that there are now 1,200 less children in the County than there were in 1932. The reason for this, as was brought out in a preceeding paragraph, is the lack of opportunity in the County; young people are moving away to areas which offer a more productive economy.

A clear perspective of Iron County's population decline can be obtained by referring to Figure 4. During the period between 1920 and 1960 the population of Michigan increased by over 62 percent and the United States population increased by some 50 percent. During this same period, the population of Iron County decreased by 22 percent. In essence, the County declined by some 80 percent when compared to the growth of Michigan and the United States.¹

Up to this point, only the trends and characteristics of the year around or permanent population has been discussed. A broad survey of the County during the summer and fall months, however, indicates that there is a very sizable increase in population during these periods. The majority of the people just pass through the County on their way to other destinations, but a good percentage remain. Some of these may be campers who stay from one night to a month or longer in one of the County or Forest Service campgrounds. Still others stay for variable

¹U. S. Bureau of the Census, United States Census of Population: 1960, pp. 1-17.

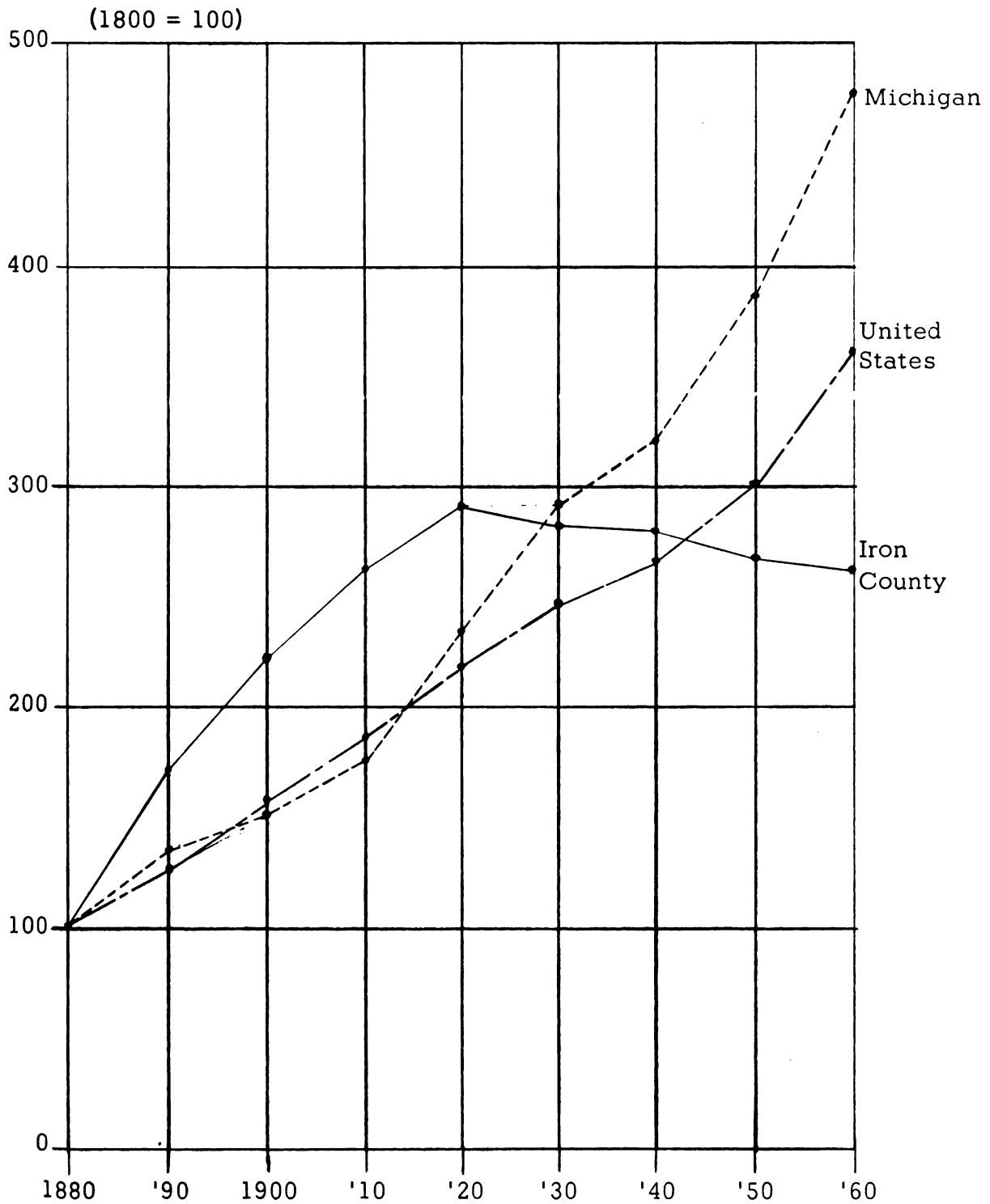


Figure 4. Population Growth Index - Iron County, Michigan and United States

lengths of time in summer cottages, motels, hotels, etc. Even though there are no statistics available on the extent of this seasonal population, it is believed that the summer population far exceeds the number of permanent residents.

Parks in the County

The parks found in Iron County can be broken down into four main classifications: county parks, U. S. Forest Service campground and picnic areas, township parks, and city parks. (Information on these parks was obtained from the individual administrative agencies.)

County Parks

Iron County was one of the originators of the County Park Trustee System of park administration, as is provided for by the State Legislature, and is also noted for having the first county-administered park in Michigan. All of the four parks, with the exception of Holmes Park, are highly developed - providing a great variety of recreation facilities - and receive intensive use during the tourist season.

The parks, along with a description of their location, size, facilities and use, are listed below:

Bewabic Park

Location - Sections 27 & 28, T 43N, R 34W, on U.S. 2, four miles west of Crystal Falls on the Fortune Lake chain of lakes.

Size - 148 acres.

Facilities - Campground, trailer park (\$1.50 daily charge, residents 50¢), a swimming beach, bathhouse, life guard, picnic area, two tennis courts, shuffleboard courts, horseshoe courts, soft-

ball diamond, childrens play equipment and a full-time caretaker who lives in the park.

- Use - Park receives intensive use during the entire tourist season.

Pentoga Park

Location - Sections 14 & 15, T 42N, R 34W, located on Chicaugon Lake, the park can be reached by County Roads 424 and 639 which lead off from U.S. 141 and U.S. 2 respectively.

Size - 119 acres.

Facilities - Campground (trailers and tents), a swimming beach, modern bathhouse, life guard, picnic area, shuffleboard, horseshoe courts, childrens play equipment, Indian burial ground, and a full-time caretaker who lives in the park.

- Use - Park receives intensive use during the entire tourist season.

Gibson Park

Location - Section 21, T 44N, R 33W, on U.S. 141, 12 miles north of Crystal Falls on Gibson Lake.

Size - 15.4 acres.

Facilities - Picnic area, boat launching sites, a swimming beach, bathhouse, life guard, and a fairly large shelter building.

- Use - No data available.

Holmes Park

Location - Section 33, T 43N, R 37W, 16 miles from Iron River on Smokey Lake, can be reached by taking County Road 436 from the turn-off on U.S. 2.

Size - 35 acres.

Facilities - Picnic area.

- Use - This park receives very light use due mainly to the great distance from Iron River.

U. S. Forest Service Campground and Picnic Areas

Since over 30 percent of Iron County is in federal ownership, parks on these lands play a very important part in the County's overall park and recreation program.

The Forest Service, which is an agency of the U. S. Department of Agriculture, maintains six combination campground and picnic areas, one picnic area only, and one organizational camp in Iron County. Three of these areas are within the Iron River District of the Ottawa National Forest and the remaining areas are in the Kenton District. A brief description of each area, with regard to location, facilities, use and history, is listed below:

Ottawa Lake - Campground and Picnic Area

- Location - Sections 30 & 35, T 43N, R 36W, 6 miles west of Iron River on Ottawa Lake.
- Facilities - 20 campsites, 25 picnic sites, a swimming beach, combination bathhouse and shelter, flush-type toilets, a boat landing, a playground, and a caretaker. Campsites are to be increased to 32 within next 5 years.
- Use - In 1961 there were about 770 camper visits for a total of 4,857 man days and 23,600 picnickers for a total of 5,900 man days.
- History - This area was originally developed by the Forest Service in 1935 and was rehabilitated in the spring of 1961 to increase capacity and to improve conditions as part of Operation Outdoors 5-year improvement program.

Golden Lake - Campground

- Location - Section 36, T 44N, R 37W, 14 miles northwest of Iron River on Golden Lake.
- Facilities - 9 campsites and a boat landing, both are presently under rehabilitation.
- Use - Very little use in 1961 due to rehabilitation, however, this area had about 225 camper visits and 700 picnicker visits in 1960 before site rehabilitation was started.
- History - The site was originally donated to the County by the Von Platten Fox Lumber Company to be used as a campground and picnic area. The County turned the area over to the Forest Service in 1935 and the site is now in the process of being changed so as to increase the capacity to 22 campsites.

Hagerman Lake - Picnic Area

- Location - Section 11, T 42N, R 36W, 9 miles southwest of Iron River on Hagerman Lake.
- Facilities - 16 picnic sites, bathhouse, swimming beach and boat landing.
- Use - About 7,000 visits in 1961, using 1/4 day per visit gives a total of 1,750 man-days.
- History - Originally developed as a township park in 1930, it was turned over to the Forest Service in 1941. Recently, rehabilitation has been carried on to improve both capacity and conditions. Initial development by the Forest Service was accomplished in 1954 at which time a parking area, 6 tables and stoves and sanitary facilities were developed.

Perch Lake - Campground and Picnic Area

- Location - Section 22, T 46N, R 35W, 20 miles north of Iron River on Perch Lake.
- Facilities - 15 campsites, 5 picnic sites and a boat landing.

- Use - Receives heavy camper use during the summer season. No exact figures available.
- History - Originally developed by the Forest Service in 1935 for 3 campsites and 5 picnic sites. Now, after rehabilitation in 1960 and 1961, the area has 12 more campsites. Ultimately this area will have 20 campsites.

Norway Lake - Campground and Picnic Area

- Location - Section 4, T 46N, R 35W, 6 miles south and 2 miles east of Sidnaw on Norway Lake.
- Facilities - 10 campsites, 9 picnic sites, a boat dock, swimming beach, bathhouse, shelter and playground.
- Use - This is very popular but does not get as much use as other sites because it is further from towns and main highways.
- History - This site was originally developed in 1935 as a CCC project of the Forest Service, at which time there were 3 campsites and 19 picnic sites. Now through rehabilitation there are 10 campsites and 9 picnic sites.

Tepee Lake - Campground and Picnic Area

- Location - Section 13, T 46N, R 37W, 8 miles south of Kenton on Tepee Lake.
- Facilities - 6 campsites, 4 picnic sites, swimming beach, boat landing and sanitary facilities.
- Use - A new development which is not as yet ready for use.
- History - This is a new development set up within the last year to supply the needs of the Kenton and Trout Creek communities as well as the needs of the tourist.

Kidney Lake - Campground and Picnic Area

- Location - Sections 7 & 8, T 46N, R 35W, 8 miles south of Sidnaw on Kidney Lake.

- Facilities - 10 campsites and 3 picnic sites by the end of 1962.
- Use - Very little use at present due to its undeveloped condition.
- History - This site was originally developed in 1935 as a CCC project of the Forest Service. At that time there were 3 campsites and 3 picnic sites.

Besides all of the rehabilitation taking place in these various sites, the Forest Service has plans for campground development on Lake Five, Winslow Lake, Brule Lake and James Lake within the next fifteen years.

Township Parks

Township parks, being somewhat population oriented, receive fairly heavy local use during the summer season. The establishment of these parks is brought about when fifty residents of the township request the development of such a park. When this fifty-resident request is met, a park board is appointed by the township government to acquire, develop and operate these township parks.

At present, Iron County has four such parks with more planned for the near future. The four township parks, along with their location, facilities and statement of use, are listed below:

Bates Township Park

- Location - Section 17, T 43N, R 34W, 3 miles northeast of Iron River on Sunset Lake.
- Facilities - Campsites, picnic sites, swimming beach, bathhouse and shelter.
- Use - Intensive use by local people.

Mastodon Township Park

- Location - Section 5, T 41N, R 32W, 7 miles south of Crystal Falls and 1/2 mile west of U.S. 141.
- Facilities - Campsites, picnic sites, swimming beach, bathhouse and sanitary facilities.
- Use - Moderately heavy local use all summer.

Mastodon Township Park

- Location - Section 15, T 42N, R 33W, 6 miles southwest of Crystal Falls on Buck Lake.
- Facilities - None.
- Use - Practically no use because there are no facilities.

Mansfield Township Park

- Location - Section 33, T 43N, R 31W, 6 miles east of Crystal Falls on Dawson Lake.
- Facilities - Improved bathing beach.
- Use - Very low, mainly because the area presently lacks modern facilities.

City Parks

Iron County's two city parks at Runkle Lake and Ice Lake are administered by a city council and city manager respectively. These parks were developed mainly for the recreation use of the inhabitants of the city, however, tourists staying in the area also frequent these parks.

A description of these two city parks are listed below:

Runkle Lake Park

- Location - Section 22, T 43N, R 32W, 1 mile east of Crystal Falls on the southwest shore of Runkle Lake.

Facilities - Modern camping and picnic sites, shuffle-board courts, swimming beach, bathhouse, life guard and caretaker.

Use - Capacity use all summer.

Ice Lake Park

Location - Section 25, T 43N, R 35W, 1 mile northeast of Iron River on Ice Lake.

Facilities - 6 picnic sites, small swimming beach, bathhouse, and a swing set.

Use - Some picnicking, beach is used quite heavily by local children.

CHAPTER III

BACKGROUND INFORMATION

Rationale for Preference Study

The adoption of user preference polls, surveys and studies, as a means of determining certain needs and desires of people, has received widespread acceptance by many private and public agencies. Only in fairly recent times has the user preference study been used to determine the needs and desires of the camper.

The Gallup Poll uses a survey of public preferences in predicting the outcome of political elections. Manufacturers conduct surveys on public preferences for the establishment of consumer preference ratings, this in order to make better decisions on what products should be introduced, who should introduce them, and what diffusion process should be employed. Congressmen use the results of public preference studies as aids in making voting decisions on certain bills, and even the President of the United States must use the results of a great many of these people-oriented surveys as a partial basis for his numerous national policy decisions.

Along with this widespread use and acceptance of user preference studies, there has evolved an increased proficiency in their construction, administration and accuracy. Many manufacturing firms now have so much faith in the accuracy of preference studies that they invest millions

of dollars annually on the basis of survey findings alone.

User preference studies have repeatedly proven their worth in a multitude of different situations; there is no reason to believe that they would not be equally effective in determining the preferences of campers. In the ensuing section of this chapter an attempt will be made to describe some of the user-oriented camper studies which have been completed and also to show how these relate to this particular study.

Review of Preference Studies

The Michigan Tourist Council was one of the first organizations to adapt the user preference study as an approach to better providing for the needs of the tourist. Their study, known as the Michigan Tourist Survey,¹ was conducted between January 1 and October 1, 1952. Questionnaires were sent, randomly to 25 percent of the persons who requested literature from the Michigan Tourist Council during the above mentioned time period. Returns were obtained from 22.2 percent of the 7,725 people to whom questionnaires were mailed.

Basically this study was designed to obtain information on such things as where people come from, how long they stay, how much they spend, activities preferred, transportation used, accommodations preferred, etc. From the results it was found that the questions were generally too basic and answers too broad, to make any real decisions on

¹David J. Luck, Michigan Tourist Survey. Research report 8 (Michigan State University: Bureau of Business Research, June 1953).

how to better provide for the tourist. One of the main shortcomings centered around the lack of information on the sociological characteristics of the respondents; there was no way of determining what segment of the population was responsible for the answers received.

The first major contribution, toward achieving an understanding of the sociological characteristics of the respondents and the motivating factors which are responsible for their desire to go camping, was made in 1956 by Stone and Taves¹ of the University of Minnesota in the Quetico-Superior Wilderness Area of Minnesota. In their study entitled, "Research into the Human Elements of Wilderness Use," they attempted to "present a view of man in the wilderness and an agenda of research problems that concern sociology."²

To achieve this purpose, the interview was conducted in three parts: (1) short schedules to report the socio-economic characteristics - character of trip, composition of party, etc. - of thirty-six persons in twenty different wilderness parties - was administered in the wilderness area, (2) nine schedules were mailed to members of the American Forestry Association's "Trail Riders of the Wilderness" who were in the area during July, and (3) informal interviews were conducted with lodge guests, guides and other personnel in the vicinity of the wilderness area.

Although this study had a number of limitations, two of which were

¹Gregory P. Stone and Marvin J. Taves, "Research into the Human Elements of Wilderness Use," Proceedings of the Society of American Foresters (Memphis, Tennessee: 1956), pp. 26-32.

²Ibid., p. 26.

lack of random sampling and insufficient consultation time with the respondent, it did point out the value which can be gained by linking socioeconomic characteristics with the more common questions on activity preference, camping equipment used, length of stay, etc. It also shed some interesting side lights on the motives behind the pursuance of wilderness camping and did an excellent job of applying sociological theory to the expressed actions of the different groups.

As a result of the findings obtained in the above mentioned study, Taves joined with Hathaway and Bultena - also from the University of Minnesota - in 1958, to conduct the study from which this Iron County study was adapted. Their study entitled, Canoe Country Vacationers,¹ was a joint project of the Agricultural Experiment Station, the Lake States Forest Experiment Station, and the Quetico-Superior Wilderness Research Center. The purpose of the study was to build upon and improve the previous study of Stone and Taves, by obtaining data on "who vacations 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."² To accomplish this, 286 camper and canoe parties were interviewed during the months of June, July, and August.

A major improvement incorporated into this study, was the use of a

¹Marvin J. Taves, William Hathaway and Gordon Bultena, Canoe Country Vacationers, Miscellaneous Report 39 (University of Minnesota: Agricultural Experiment Station, June 1960).

²Ibid., p. 6.

before-and-after cycle of interviewing. Two separate questionnaires, "A" and "B", were developed to obtain the desired information. "A" was administered at six of the major portage crossings and "B", which contained selected items repeated from schedule "A" as well as additional questions, was also given at the portage stops to the respondent, along with a stamped, addressed envelope, with the request that it be completed at the end of their present trip. This was done to determine whether motivations, appeals and preferences were altered after actual participation in the camping and/or canoeing experience.

It was mainly this use of more than one questionnaire and the use of questions pertaining to age, income, education, occupation and type of group that stimulated Reid and Lowry to use the Minnesota Study as a guide for developing this study. It was felt that added knowledge could be gained on visitor preference by correlating these sociological characteristics with the expressed preferences for activities, facilities and equipment.

Since the completion of the field work for this Iron County study, three other closely related studies have taken place, two of these in the Great Lakes area: "Camping in State Parks and Forests in Wisconsin," by Fine and Werner; "Characteristics of the Family Camper," by Loren S. Woerpel; and a study by Leslie M. Reid entitled, "Outdoor Recreation Preferences: A Nationwide Study of User Preferences."

The Wisconsin study conducted in 1959 by Fine and Werner,¹ con-

¹Irving V. Fine and E. E. Werner, "Camping in State Parks and Forests," Wisconsin Vacation-Recreation Papers: I, II (University of Wisconsin: Bureau of Business Research, 1960).

sisted of a personal-interview study in which questionnaires were administered, by interviewing teams, in twelve campgrounds distributed throughout the State. These teams were instructed to "secure as many interviews as possible at their respective camp sites within the limitations of time and the number of interviewers and camper-interviewees available."¹ The results of this effort accounted for the securing of 385 usable questionnaires. The questions asked of the respondents can generally be grouped into four classifications: (1) socio-economic characteristics, (2) activity preferences, (3) facility preferences, and (4) opinions on improvements. From the response to these questions, it was then felt that usable information could be obtained regarding not only the economic importance of the camper but also information which may be of value in planning expansion or improvement of camping facilities.

The following summer, 1960, Loren Woerpel, who was then a senior in forestry at the Michigan College of Mining and Technology, undertook the task of conducting a camper study using a different approach.² A questionnaire was devised which would answer key questions about family camper's general background and experience, methods of camping and types of campground facilities preferred, and statements relating to

¹Ibid., p. 3.

²Loren 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).

past and present preferences, with emphasis on their relation to socioeconomic characteristics. The purpose behind the asking of these questions was "to investigate the nature of family campers and to determine the feasibility of measuring change in their methods and ideas as they gain experience."¹ Although the methods used in data collection were not in accord with sound data collection techniques, the results were, nevertheless, very interesting and worthy of more intensive study. It is this author's contention that the results of this study are very representative of the Great Lakes camper since many of this author's findings tend to be verified by the findings in Mr. Woerpel's study.

Undoubtedly the greatest contribution to date, concerning the study of user preferences, was made by Leslie M. Reid in his recently completed dissertation dealing with the whole complex of outdoor recreation preferences.² Under the auspices of the Outdoor Recreation Resources Review Commission, Dr. Reid and James H. Hall (East Michigan Tourist Association) distributed self-administered user questionnaires to twenty-four predetermined recreation areas scattered throughout the United States, and then made on-site inspections at each of these areas. From the 49,094 questionnaires distributed and the 26,425 returned, 10,982 were found to be usable. Since the major objective of this study was the "evaluation of user preferences and satisfactions as measures of

¹Ibid., p. 3.

²Reid, "Outdoor Recreation Preferences: A Nationwide Study of User Desires," loc. cit.

providing recreational opportunities and to seek to identify those factors that figure importantly in forming visitor preferences;"¹ great emphasis was placed upon the careful analysis of the characteristics of the visitor being questioned. Here again, is seen the importance of identifying the respondent.²

In this chapter an attempt was made to present a broad view of those studies which the author feels are most compatible with the objectives and scope of this study. A complete description of the development and conducting of this study is given in the following chapter.

¹Ibid., p. 44.

²Stones and Taves, loc. cit.

CHAPTER IV

CONDUCTING THE STUDY

The study from which this dissertation was developed was a joint project of the Departments of Resource Development and Sociology and Anthropology at Michigan State University, under the direction of Dr. Leslie M. Reid and Dr. Sheldon C. Lowry. Its purpose was to implement a cooperative research effort dealing with sociological values and motivations and the activity, facility and equipment preferences of the people who camp in Iron County.

In this dissertation the author paid particular attention to the activity, facility and equipment uses and preferences of the respondent, however, socio-economic characteristics were also included as a means of identifying the respondent, and also for making correlations between these socio-economic characteristics and the activity, facility and equipment preferences expressed by the respondent.

Nature of the Study

The determination of user preferences, with regard to camping activities, facilities and equipment, is a very difficult and time consuming thing to measure. Even more difficult is the matter of translating these preferences into a form which is usable to park planners and administrators. For this reason, a method of sampling had to be developed which would be representative of the camper interest in the study area and

still be accurate and unbiased in its approach.

Realizing that firsthand contacts with a wide range of users were necessary, it was decided that the study could best be accomplished by personal on-the-site contacts with the selected campers. The initial steps of the survey were developed in the following manner:¹

- * Establishment of the areas of information desired.
- * Compilation of an interview-questionnaire checklist.
- * Determination of what field sites were to be surveyed, whether a statistically sound sampling was to be taken in preference to a total use survey.
- * Determination of what commercial and/or non-forest facilities were to be included as comparison checks.
- * Determination of the standard summer use season.
- * Decision on whether benefits would accrue from pre- or post-season interview samplings.
- * Pre-testing of the survey questionnaire.
- * Establishment of temporary residence in the study area.

Upon completion of the above listed methodology a personal interview-questionnaire survey was conducted throughout the seven selected campgrounds with the resultant distribution of questionnaires to 100 camping parties. Since the questionnaires were filled out under the

¹Will be elaborated upon in the proceeding sections of this chapter.

supervision of the survey-taker, all of the replies were usable for processing and analysis.

Besides the above mentioned phase of the study, there was a second phase which involved an on-site evaluation of the utilities, facilities, and recreational features at each of the seven campgrounds, as well as a complete description of the physical layout. These evaluations were made by Dr. Reid, who has had many years of experience in park and recreation area research. From these on-site evaluations has come the basis for the area descriptions which are covered in a later section of this chapter.

In the proceeding sections of this chapter all of the methodology involved in the preparation, conducting and analysis of this survey will be thoroughly scrutinized with the results being presented in Chapter V, "Analysis of Data."

Design for the Study

Having decided upon the general type of questionnaire best suited for meeting the needs of this study, a survey was made of all known studies of a similar nature in order to develop the basic format for a questionnaire which would meet the needs of this particular study. Each of these were carefully analyzed and, after much deliberation, it was decided that the Canoe Country Vacationers study, by Taves, Hathaway and Bultena, was the most compatible with the preconceived notions on the essential points to be covered.¹

¹Taves, Hathaway and Bultena, loc. cit.

Its selection, as the basic pattern for this Iron County preference study, was based on its attributable contribution in the answering of questions pertinent to those which were being sought in this study and its general form was also to the liking of the interviewer. Some of these acceptable qualities include the following: (1) the use of two different questionnaires in order to get a more complete insight into the persons camping activity, (2) personal contact and supervision of questionnaire completion, (3) questions on the socio-economic characteristics of age, sex, education, occupation, income, size and composition of the party, home state, etc., (4) information on past camping experience, (5) relatively complete set of questions dealing with the sociological values and motivations of the campers (6) positive and negative qualities with regard to the equipment used and, (7) attitudes toward management, facilities, and other campers.

From the above was derived the basic components of the Iron County camper preference questionnaire. In addition to the above mentioned qualities, a number of other acceptable qualities were also extracted from the numerous other studies examined as part of the background for this undertaking. Only after complete evaluation of the Canoe Country Vacationers study, other background studies and materials and personal knowledge of acceptable qualities, was the first usable draft of this questionnaire developed. In the following sections of this chapter, a description of the questionnaire - its design, distribution and limitations - as well as the checking of its worth in an actual camping situation, will be given.

Element of Analysis

The reliability and effectiveness of this camper preference study was primarily dependent upon the following: (1) how precisely the questionnaire was constructed and worded, (2) how unbiasedly the individual campsite used for the administering of the questionnaire was selected, (3) how effectively and unbiasedly the questionnaire was distributed, (4) how efficient the interviewer was in the public relations aspect of administering a personal interview-questionnaire, and (5) how well acquainted the interviewer was with the inherent limitations of the questionnaire and how carefully he worked to keep these limitations from lessening the accuracy and cohesiveness of the study.

In the proceeding parts of this section an attempt will be made to show how the above mentioned prerequisites were undertaken as well as the reasons behind the use of the particular method involved.

Questionnaire Description

Two distinct questionnaires were used in the conducting of this user preference study. The first questionnaire dealt strictly with user preference data relating to sociological characteristics and the facilities, activities and equipment preferred by the camper. The second questionnaire dealt solely with factual data on the personal characteristics of the users and the facilities, activities and equipment used by the particular camping party.

The user preference questionnaire (Appendix B) was color coded,

green for men and pink for women, to enable accurate tabulation and separation of the camping preference data of both the male and female heads of the camping party. This issuance of separate but identical questionnaires was initiated because it was felt that significant information might be derived by contrasting the views of the male and female leaders of the camping party. This proved to be the case and is thoroughly covered in Chapter V, "Analysis of Data."

The questionnaire itself was eight pages long and was divided into three main sections. The first section, entitled "Personal Background and Past Experience with Camping," was included to determine whether correlations existed between a person's background and the amount and type of camping preferred, also correlations with regard to the camping facilities, activities and equipment preferred by the camper. The second section, entitled "Values, Opinions, Motivations and Preferences," was concerned with such things as value of the camping experience as compared to other activities, opinions on the reasons for camping, opinions about other campers, motivations which stimulate a person to go camping, and preferences concerning facilities, activities and equipment. The third section, entitled "Current Trip," deals with a series of questions on particular aspects of the present trip, including such things as how the trip was enjoyed, attitudes on the facilities and equipment used, annoyances, etc.¹

¹ In describing the three sections of this user preference questionnaire no attempt was made to limit the discussion to the confines of this report, however, in this report, only those parts of the questionnaire which pertain to this particular study will be used. The remainder will be covered in a subsequent report.

The factual data questionnaire (Appendix C) as the name implies, is concerned solely with factual data about the camping party; no preference data is included, therefore either head of the camping party - usually the person most available - could complete the questionnaire.

The questionnaire was five pages long and was divided into the following five major sections: (1) an introductory section which discussed the reason for the study and also obtained such specific information as campground location, person's name and address, date of interview, etc., (2) a second section, entitled "Characteristics of Campers," was concerned with the composition of the group and obtained data on the names of all members of the party and their relation to the head of the party; their sex, age, education level, occupation, etc. Also, similar information was requested on those members of family groups who remained at home or who were no longer at home. These questions were requested, with reference to this report, so that comparisons could be made between the type of group - family with children, married couple with no children, single person, etc. - and the type of facilities, activities and equipment preferred by the male and female heads of the camping party, (3) a third section, entitled "Current Trip," was concerned with such things as how and why this particular campground was selected, length and frequency of this type of trip, other campgrounds that the group has used, and similar questions. All of this information being gathered so that correlations could be made between the basic type of camper and the facilities, activities and equipment preferred, (4) the fourth section, entitled

"Equipment Inventory," requested data on the type of equipment being used, whether it was owned, borrowed or rented, data on the amount spent on camping equipment and the amount of use equipment receives. Information of this type is used primarily to determine what effect the camping public has on the economy of the County and what effect income, occupation, age, education and type of group have on equipment preferences, (5) the last group, entitled "Income," merely classifies the heads of the camping party into one of six income groups, these then being used in this report to draw correlations between income and the facilities, activities and equipment preferred by the male and female leaders of the camping party.

All of the above mentioned correlations, along with an examination of the more pertinent questions relating directly to the report, will be thoroughly analyzed in the ensuing chapter.

Selection of Campsites

The campsite sampling procedure used in this study is based on the predetermined selection of the occupants of a given campsite at a given time. This campsite and approximate time of day was determined prior to the actual in-the-field sampling. This was done on the basis of a random sample using a table of random numbers. A sampling is "random" when every individual in the population has an equal and independent chance of being chosen for the sample.¹

¹Wilfred J. Dixon and John R. Clark, Introduction to Statistical Analysis (New York: McGraw-Hill Book Company, Inc., 1957), p. 33.

A table of random numbers consists of a statistically prepared set of numbers which are chosen in a fashion similar to drawing numbered tags out of a box. This table of random numbers is developed in such a manner that all numbers 0, 1, . . . 9, appear with approximately the same frequency. If double or triple figure numbers are desired, it becomes merely a matter of combining numbers in two's and three's which gives numbers of 00 to 99 and 000 to 999 respectively.¹ In the following paragraphs an attempt will be made to clarify the random sampling method used in this study by showing how it is incorporated into the analysis of the actual procedure involved in campsite selection.

Having selected the campgrounds to be used in this study - selection procedure is discussed in the proceeding section, entitled "Selection and Description of Study Sites," - the interviewer was allowed to begin his sampling at any one of the predetermined seven campgrounds. The only stipulation was that all seven campgrounds had to be sampled before the first campground was sampled for the second time (each campground was visited twice during the study with half of the preselected sites being sampled at each visit).

Upon entering a campground for the first time, the interviewer was required to make a rough map of the area and locate each campsite on this map, whether it is occupied at the time or not. These sites were consecutively numbered. Next, by referring to a list of odd and even

¹Ibid.

numbers, which had been previously arrived at on the basis of a table of random numbers,¹ the interviewer would interview the parties at one-half of the campsites in a given campground before moving on to the next campground.² A flip of a coin was the determining factor as to whether the odd-numbered or the even-numbered campsites would be sampled first. After this initial decision, the alternate set of numbers would be selected when the campground was sampled for the second time. For example, if the campground being sampled had twenty-six campsites and a flip of the coin indicated that the even-numbered sites would be sampled, it can be seen by referring to the derived list of random numbers in Appendix D that 2, 14, 20, 26, 10, 12, 8, 18, 24, 4, 6, 16 and 22 would be the sampled campsites in this particular campground. During the second visit to this campground, the odd-numbered campsites, having numbers below twenty-six would be selected for sampling.

In order to avoid partiality with regard to the time of the week a particular campground is sampled, the interviewer was required, on his second time around, to randomize his selection of campgrounds with the table of random numbers, thereby randomizing the time of the week at which he arrived at each campground.

¹Appendix D.

²This was the procedure in all but the three Forest Service campgrounds at Perch Lake, Kidney Lake and Norway Lake. In these areas all of the occupied campsites were sampled because there were too few campers to justify the use of the random sample technique.

Method of Obtaining Interviews

The method of obtaining interviews involves a technique which is very similar to that used in site selection. This similarity being the use of a table of random numbers for selection of the person from whom opinion information will be requested. This random sampling, however, applies only to non-family type parties. In family parties the questionnaire is filled out by the male and female leaders of the party - in most cases these being the husband and wife.¹ The following is a listing of the five major types of camping parties along with a statement on how each was handled with regard to questionnaire distribution.

One Family or Married Couple. In this case, an opinion schedule was obtained from both the husband and the wife. The husband was handed a green copy and the wife a pink copy. These were then filled out in the presence of the interviewer and it was the responsibility of the interviewer to exercise skill in keeping the interview moving, to keep interaction between husband and wife to a minimum, to watch for blocks where a misunderstanding would result in unusable data, and to answer any questions which might arise. It was also the duty of the interviewer to see that all questions were answered.

Two Families or Couples. In this case opinion schedules were obtained from only one couple. The couple asked to fill out the

¹ Group could have been made up of brothers and sisters and, in this case, the male and/or female leader would be requested to complete the questionnaire.

opinion schedules were selected alternately by choosing the couple in which the husband is the oldest one time and the youngest the next. A coin was flipped to determine which of the two age levels would be first.

Other Adults - with Families or Couples. Due to the time and expense involved in conducting this study, opinion schedules were not taken for adults who accompanied families or married couples. Children from these parties were also excluded.

Non-Family Type Parties - Teenage or Adult. In this situation, only one member of the group was selected to give opinion information. The selection of this person was performed by first listing all of the party members on the white schedule by age from oldest to youngest, assigning a consecutive number to each, and then, on the basis of the number of persons in the party, selecting the person to be interviewed through the use of a table of random numbers. A sample of the random number table used in the above mentioned selection process is listed on the following page.

TABLE 4. Random Numbers

Column I	Column II	Column III
09188	77515	38001
90054	19502	37402
73189	21818	97125
75768	51474	21826
54016	99559	73135
08358	35715	07658
28306	85274	60528
53804	84155	83596
91757	56732	10850
89415	65138	39820

In using these numbers to compute which individual would be interviewed, the number of persons in the party was divided into the first two digits of the first five-digit random number in column I of the above table. The remainder obtained from this division was then used as the "number" of the person to be interviewed; all persons in the party having previously been given a number when they were listed on the white form. For the following party, the second random number in column I would be selected and then the person computed as before.

For example, in interviewing a four-man party, the interviewer would list the names of each person on the white form from oldest to youngest, consecutively number these from 1 to 4, divide 4 into 09 which is the first two digits of the first random number in column I and, obtaining a remainder of 1 from this division, would interview the first person listed on the white form.

If, in performance of this division, it was found that the number divides evenly, and therefore giving no remainder, the interviewer was instructed to interview the last person. For example, if in interviewing a ten-man party the first two digits happen to be 90, as is the case for the second random number in column I, there would be no remainder. Therefore, person number 10 would be interviewed.

If, on the other hand, the first two digits of the random number was smaller than the number of persons in the party, the two digit number was the number of the person interviewed. For example, if in interviewing a nine-man party it happened that the first two digits of the random number were 08, the interviewer would interview person number 8.

Parties of Children, with Adult Supervisor. For this type of party, the adult in charge was requested to fill out an opinion schedule. If both a man and a woman were heading the group, both were requested to fill out an opinion schedule. More than three adults or two members of the same sex, resulted in the use of the random sample technique described above.

If a campsite was unoccupied on the day it was scheduled for an interview, the interviewer was instructed to keep a record of the date, the number of the campsite and indicate that it was unoccupied. This campsite was then eliminated from the study and was not used, even if occupied at a later date.

On the other hand, if the interviewer returned to a campground later in the summer to complete the second phase of the study and found that a previously interviewed campsite was still occupied by the same party, he was instructed to make a note of this fact, listing the name of the party and the schedule number of the original interview.

Limitations

No matter how complete the preliminary research may be, or how much time and effort was put into the development of a questionnaire, or how statistically accurate was the functioning of the survey, or how thoroughly the test study was administered, there exists in every study certain inherent limitations and problems which in one way or another limit the effectiveness of a questionnaire-type survey. These limitations and problems may be small with a relatively insignificant effect upon the accuracy and cohesiveness of the study or they may be large with a very significant effect.

In this particular interview-questionnaire study there were no major limitations or problems; malfunctions consisted mainly of uncontrollable camper problems. Along with these were certain questionnaire inaccuracies resulting from improper wording of several of the questions in the questionnaire. The following is a listing of the limitations and problems found in this study.

Study Problems and Limitations

Questionnaire

1. A great deal of time had to be spent by the interviewer

interpreting the meanings of certain questions for the respondent.

2. The use of open-end questions - those which allowed the person to answer the question without using a predetermined set of answers - resulted in an aggregate of unrelated answers which proved to be too varied for adoption as usable data.
3. The accuracy of questionnaire opinions is hindered by the verbal interaction between two people simultaneously completing the questionnaire. Often a dominant or authoritative person will, through mutual discussion of a question, influence the answer of the other.
4. Obtaining complete answers requires a great deal of explanation by the interviewer.
5. Questions with regard to people's past were very inaccurate because few people had accurate recollections about their childhood.
6. Some questions took for granted certain skills, such as judging distance, which many people did not possess.

Non-Questionnaire

1. Oftentimes an occupied campsite, slated for an interview, would be unoccupied by the time the interviewer could get around to it.
2. It was often very difficult to complete all three question-

naires with one visit to a campsite because frequently one of the members would be absent. It was then necessary to return to the campsite when the person would be present.

3. People generally were in a receptive mood, with regard to answering questions and filling out the questionnaire, only during certain times of the day - usually after the breakfast dishes were done in the morning and in the evening after supper. This fact greatly increased the amount of time necessary to complete the sampling in any one area.
4. It was difficult to interview transient campers because these people were usually in a hurry to reach their destination and did not appreciate being delayed to fill out a questionnaire. No problem existed with the permanent camper since his time was generally not limited.

Aside from these relatively minor problems and limitations, the questionnaire proved to be very comprehensive and highly successful. The campers, in like manner, were judged by the interviewer to be extremely cooperative and apparently very honest and sincere in their responses.

Selection and Description of the Study Sites

The seven campgrounds selected for use in this field study were judiciously examined and chosen from among the twenty-one park areas in the County. These seven were found to be generally representative

of the camping interest in the County. An attempt was made to include in the study as much of the County's camping as possible while still maintaining a reasonable number of study areas. The seven areas selected were considered by Leslie M. Reid to encompass approximately 98 per cent of all camping in Iron County.

More specifically, these particular campgrounds were chosen because they met the following requirements: (1) each of the areas had to receive a sufficient amount of camper use to permit the use of the random sample technique of analysis,¹ (2) there had to be a representation of the various levels of government: federal, state, county and city - a state park would have been used but none existed in the County, (3) relationship between parks to enable the interviewer to visit all the areas on schedule and, (4) the campgrounds selected had to represent a range of facilities from the most modern urban type to the most primitive. The city campground at Runkle Lake and two County parks, Pentoya and Bewabic had the modern facilities; Ottawa Lake, a Forest Service area, had a little of both and the remaining three Forest Service areas, Perch Lake, Kidney Lake and Norway Lake, had the minimum facilities. An examination of Figure 5, which shows the location of all of these areas, reveals that the three minimum facility areas are in very close proximity to each other. This was purposely done so that all three areas could be checked on the same day, because there were not enough people in the area to justify three separate trips.

¹The three Forest Service campgrounds at Perch Lake, Kidney Lake and Norway Lake did not meet this requirement but were used because they represented the only true minimum facility areas in the study.

IRON COUNTY

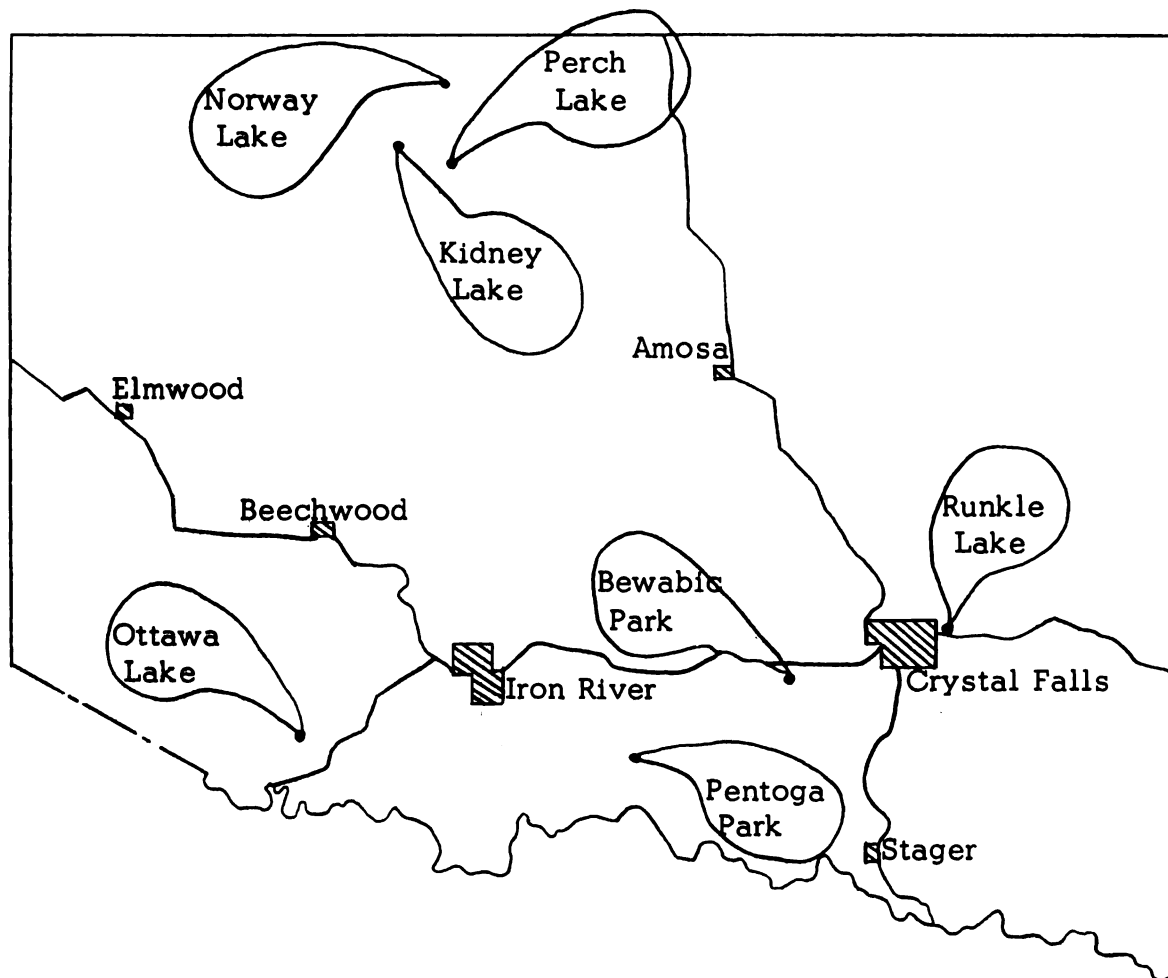


Figure 5. Location of Study Sites

Since frequent reference will be made to individual area types throughout the remainder of this report, a brief description of the governmental level, along with a thorough description of its campground(s), is given on the following pages of this section for each of the areas studied. Information on these areas was compiled during the time the survey was being conducted and was noted on a prepared "Preliminary Campground Inventory Sheet" - a sample sheet can be observed in Appendix E of this thesis.

City Level Areas

Iron County's two city parks at Runkle Lake and Ice Lake are administered by a city council and city manager respectively. These parks were developed mainly for the recreational use of the inhabitants of the city, however, tourists staying in the area also frequent these parks. This is especially true with regard to Runkle Lake because this is the only one of the two city parks that has a campground and hence the only one used in the survey. A description of this area is listed below.

Runkle Lake City Park

Location: Runkle Lake City Park is situated on the southwest shore of Runkle Lake, just off state highway M-69, 1-1/2 miles east of Crystal Falls (Figure 5).

Being a resource-oriented park in such close proximity to the second largest city (2,203 population) in the County and a natural overnight stopping point for transient campers, accounts for its constant over-

crowded condition through the summer months.

Description: The popularity of this park and its adjoining campground can further be attributed to the fact that it is located in an attractive stand of mature red pine, has an adjoining clear pot-hole lake with a sandy beach, good ventilation through the entire area and has a flat, dry, grass-covered topography. Main problems consist of excessive dust, due to dirt roads in the campground, abundance of insects and the previously mentioned problem of overcrowding.

An examination of the campground layout (Figure 6) shows a "loop and spur" pattern of design with sufficient space provided at each campsite for parking a car and trailer and a plot for setting up a tent. The main short-coming is the lack of auto barriers for site protection.

Utilities, which consist of flush toilets, tap water and electricity, are adequate to meet camper needs. However, their distribution is not in the best interest of the camper.

Facilities, which consist of masonry stoves, portable lumber tables (picture, Appendix F) and can-type garbage receptacles, are, as is the case with utilities, sadly lacking with regard to distribution.

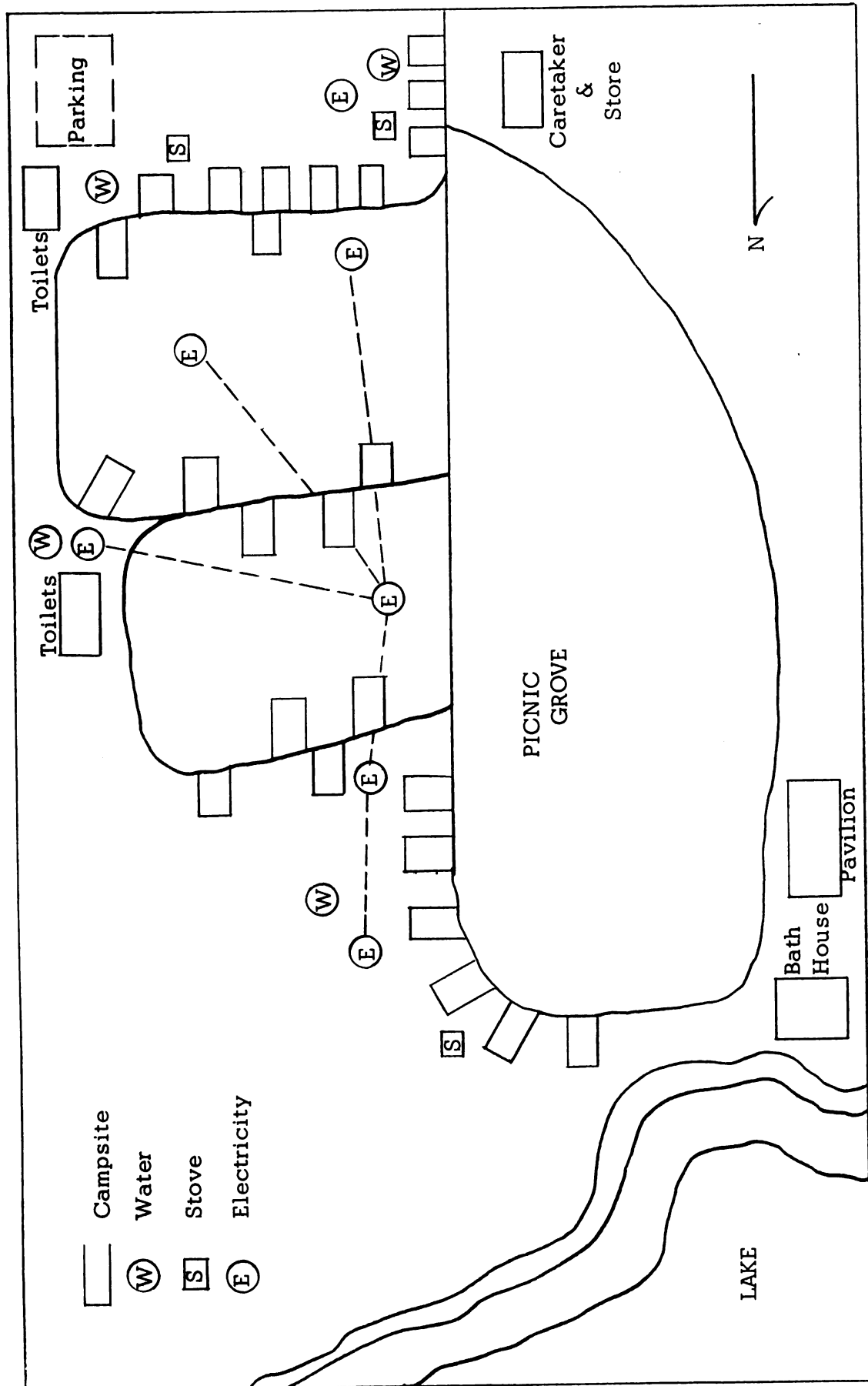


Figure 6. Campground Layout Sketch for Runkle Lake City Park

Only one-third of the sites have tables, one-fifth have stoves, one-third have electric outlets and only one-sixth have water outlets.

Recreational Features: The main recreational features include good swimming, boating - lacks good boat launching facilities, fishing, play equipment and an attractive bluff overlooking the lake. The main shortcomings consist of a lack of adjoining forest land and lack of privacy.

Administration: Administration of the park and campground is under the direction of a resident caretaker who is responsible to the city council, and whose main duties include levying the fifty-cent tent fee and the one dollar trailer fee, running a snack stand, policing and general maintenance of the grounds, roads and facilities. All maintenance was good and facilities were in good repair.

County Level Areas

Iron County was one of the originators of the County Park Trustee System of park administration, as is provided for by the State Legislature, and is noted for having the first county administered park in Michigan, and is recognized for its attractive park signs (picture, Appendix F).

A description of the two county parks used in this study is listed below.

Pentoga County Park

Location: Pentoga County Park is located on the south end of Chicaugon Lake on County Road 424, ten miles southwest of Crystal Falls. Access is possible on C.R. 424 from U.S. 141 and M-189 and also by Scenic Road 639 which intercepts U.S. 2 5-1/2 miles west of Crystal Falls (Figure 5).

Due to the fact that this park is located halfway between Crystal Falls and Iron River - Iron County's two largest cities - is easily accessible from three major highways, and is a resource-oriented park having full facilities are perhaps the main reasons for intensive use which this park receives throughout the summer months.

Description: The campground is situated on high land, above the main park complex, in a closed stand of mature hardwood. Some of the main features include a fair amount of ventilation, a sparse understory having fern-type ground cover, a flat topography, damp soil and a lake with an excellent sand beach.

An examination of the campground layout (Figure 7) shows a "loop" pattern of design with a 30' x 30' campsite provided at scattered intervals along the hard surfaced loop. A space is provided for parking

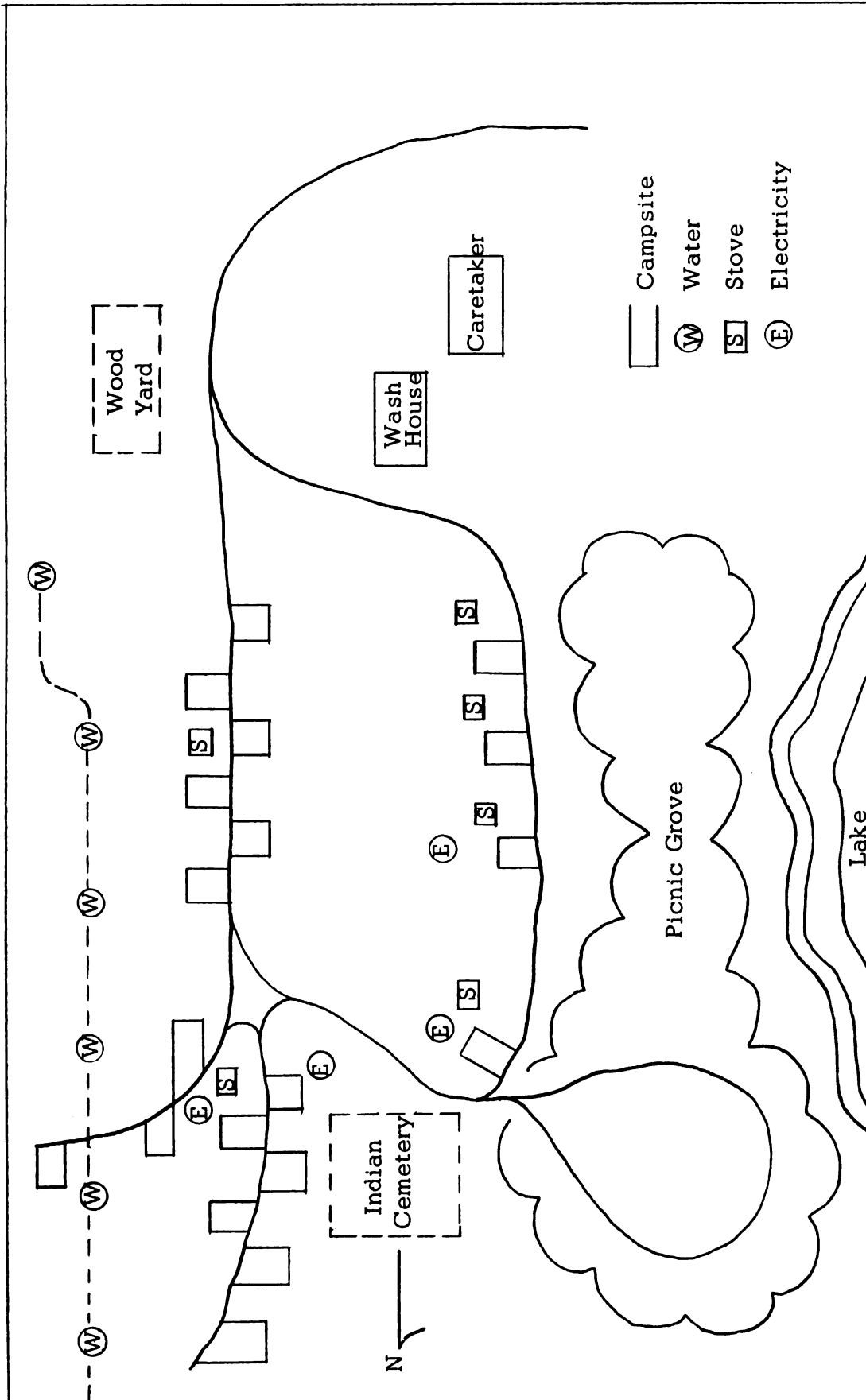


Figure 7. Campground Layout Sketch for Pentoga County Park

a car and/or trailer and for setting up a tent. Auto barriers are lacking and, for this reason, much site deterioration from haphazard parking is in evidence.

Utilities, which include flush toilets, tap water and electricity, are, with the possible exception of electricity, inadequate to meet camper needs. The single toilet building, which in itself cannot handle the twenty campsites, is located at the far end of the campground out of convenient reach of the majority of the campers. Perhaps the primary reason for the continued existence of this condition is the fact that counties are exempt from the Michigan Trailer Coach Park Act of 1959, which among other things, has stringent rules regarding toilet facilities.¹ Water outlets are also inadequate in that water outlets are located only along the west side of the campground where they are out of convenient reach of most campers.

Facilities, which include metal waist-high stoves, portable log tables and can-type garbage receptacles, are all adequate and well distributed among the campsites.

Recreational Features: This area is ideal with regard to recreational features. It has excellent fishing, boating,

¹Michigan, Enrolled Senate Bill No. 1174 (1959).

swimming, and natural scenery. It adjoins a large forest having well-developed nature trails and open game areas and has a good complex of play equipment.

Administration: Administration of the park and campground is under the direction of a resident caretaker who is responsible to the Iron County Road Commission. His duties include levying the seventy-five cent daily camper fee (twenty-five cents extra for electricity) policing and general maintenance of the grounds, facilities, and utilities. Maintenance was generally poor and most of the facilities were only in fair condition.

Bewabic County Park

Location: Bewabic County Park is located along the north shore of Fortune Lake, five miles west of Crystal Falls on U.S. 2 (Figure 5).

Like Pentoga County Park, Bewabic is a resource-oriented park with full facilities, is located on a major highway and is within easy access of Crystal Falls and Iron River. Consequently, this park also receives intensive use throughout the summer months.

Description: The campground is situated on the east edge of the park in a mixed stand of closed hardwoods and young conifers. It has good ventilation, sparse hard-

wood ground cover, flat topography, a dry sandy soil, and a clear lake with an excellent sand beach.

An examination of the campground map (Figure 8) reveals an uncontrolled pattern of campsite location. Campers are allowed to camp anywhere in the campground and, since auto barriers are lacking, parking and driving of cars is attempted as close as possible to the selected campsite. One area, consisting of two acres of bare gravel with electric outlets (picture, Appendix F), is provided in the center of the campground for trailer camping. Due to the fact that this area is completely devoid of shade, has a bare gravel base, lacks privacy and in no way gives a feeling of being in a park, probably accounts for its great lack of popularity among trailer campers. As a result, trailer campers merely locate their trailers wherever space is available in the surrounding wooded area. All of these above practices being largely responsible for the great amount of site deterioration evident throughout the campground.

Utilities, which include only tap water and electricity are totally inadequate and toilet facilities are non-existent in the campground. Electricity is provided only on the graveled area so only the few who

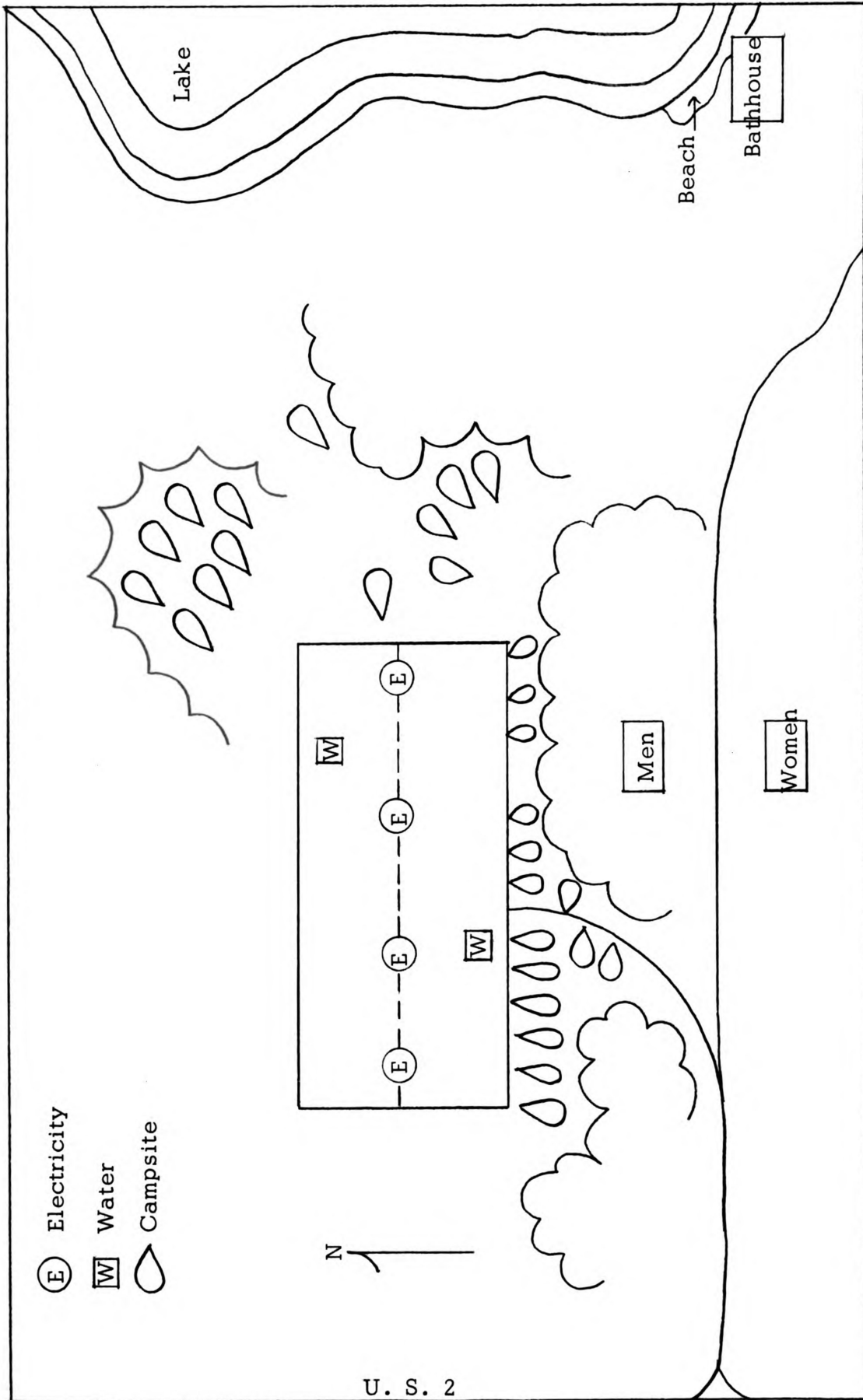


Figure 8. Campground Layout Sketch for Bewabic County Park

use this area have electricity. Water, in like manner, is also found only on the graveled area, and therefore is out of reach of the majority of the campers. The only toilet facilities available are located six-hundred feet from the campground in the picnic area. As a result of this, defecation from the use of bed pans is deposited in the woods, causing a sanitation and odor problem. One of the reasons why this condition is allowed to exist is because counties are exempt from the Michigan Trailer Coach Park Act of 1959.¹

Facilities are also sadly lacking in the area. Only a few portable lumber tables are provided and there are too few garbage receptacles to meet reasonable sanitary standards. Stoves are not provided in the campground.

Recreational Features: The popularity of this area appears to be the result of the excellent recreational features of the park and surrounding area. Some of those for which the park excels are fishing, boating (good boat launching and dock), swimming, play equipment, natural scenery, sand beach and open game area.

Administration: Administration of the park and campground

¹Ibid.

is under the direction of a resident caretaker who is responsible to the Iron County Road Commission. His attitude toward the survey taker was of an unfriendly and non-helpful nature. Duties include collection of the fifty-cent daily tenter fee and one-dollar trailer fee - flat rate of fifty cents for County residents, policing, and general maintenance of the grounds, facilities and utilities. Maintenance was generally poor in the campground, though good for the balance of the park, and facilities were only in fair condition.

Federal Land Areas

Since over 30 per cent of Iron County is in Federal ownership, parks on these lands play a very important part in the County's overall park and recreation program.

The Forest Service, which is an agency of the U. S. Department of Agriculture, maintains five combination campground and picnic areas, two picnic areas and one organization camp in Iron County.

Of the five campground areas, four were selected, with the remaining one - Hagerman Lake Campground - being omitted because it was a very poor area and received almost no camper use. The four areas studied are described below.

Ottawa Lake Campground

Location: Ottawa Lake Campground is located on the south-east side of Ottawa Lake, six miles southwest of Iron

River (Figure 5). Access is gained by way of M-73 and Ottawa Lake Road; five miles of the distance is good paved highway with the remaining mile being a well-graded gravel road.

This area, of all the areas studied, had the least amount of site deterioration. The reason behind this being the existence of a resident caretaker who would not allow any campers in the campground after the nine established sites were filled.

Description: This campground is situated in a medium-aged stand of mixed hardwoods. It has a moderate understory, fair ventilation, rolling topography, dry clay soil, grass and fern ground cover, and a clear lake with a rocky beach and scenic bluffs.

This campground (Figure 9), has a "loop" pattern of design with present campsites developed only along the shore portion of the "loop." Each campsite has sufficient space for a car, trailer and tent and there is enough space between campsites (about 100 feet) to give a good deal of privacy to the users. Auto barriers are not provided but parking areas are well defined and site protection has not, as yet, become a problem.

The utilities in Ottawa Lake Campground are

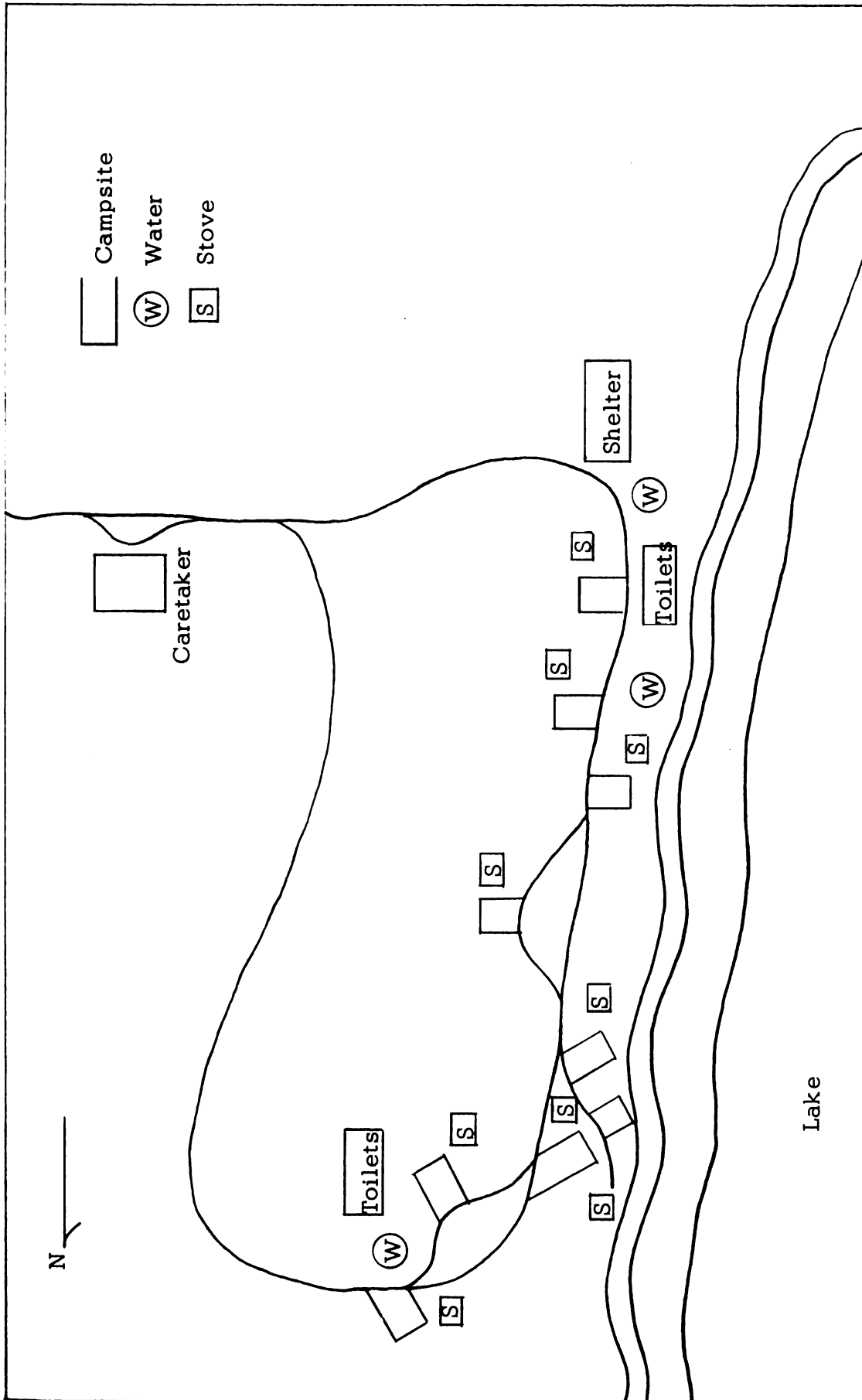


Figure 9. Campground Layout Sketch for Ottawa Lake Forest Service Campground

indicative of the Forest Service's recent move toward modernizing their forest recreation areas. This campground has flush toilets and tap water, in place of the standard pit toilets and hand pumps found in the other three Forest Service areas used in this study.

Basic facilities, on the other hand, have not changed to any appreciable degree. Each site is equipped with two portable lumber tables, a low steel stove and a can-type garbage receptacle for which there is regular pick-up and disposal. Other facilities include a group shelter (picture, Appendix G), play equipment, and a picnic complex. All facilities are adequate to meet camper needs and within easy access of all campsites.

Recreational Features: The main recreational features of this area consist of excellent adjoining forest land, natural scenery, good isolation, play equipment and open game area, and an excellent fishing, swimming and boating lake. The main problem concerns the beach which, besides being located too far from the campground, is very rocky, root covered, and lacks lifeguard protection (picture, Appendix G).

Administration: Administration of the campground is under the direction of a resident caretaker who is responsible

to the Iron River District Ranger. His duties include regulation of campground use, policing and general maintenance of the ground, utilities and facilities. He was friendly and helpful to the survey-taker and his duties were well performed.

Perch Lake Campground

Location: Perch Lake Campground is located on the west side of Perch Lake, twelve miles south of Sidnaw (Figure 5). Access is gained from Sidnaw and by way of Forest Service Road 137 to the Perch Lake Road. The roads are poor and of a gravel washboard nature, but are very scenic.

This area receives heavy camper use throughout the summer season and is used primarily by people coming to this campground as their main point of destination.

Description: This campground is situated in a mixed stand of mature hardwoods and conifers. It has good ventilation, a sparse understory of grass and maple, flat topography, damp sandy soil, and a clear lake with a sandy beach and rock bottom. An insect problem exists throughout the summer months.

An examination of the campground layout (Figure 10), shows the area to have a "loop and spur" pattern

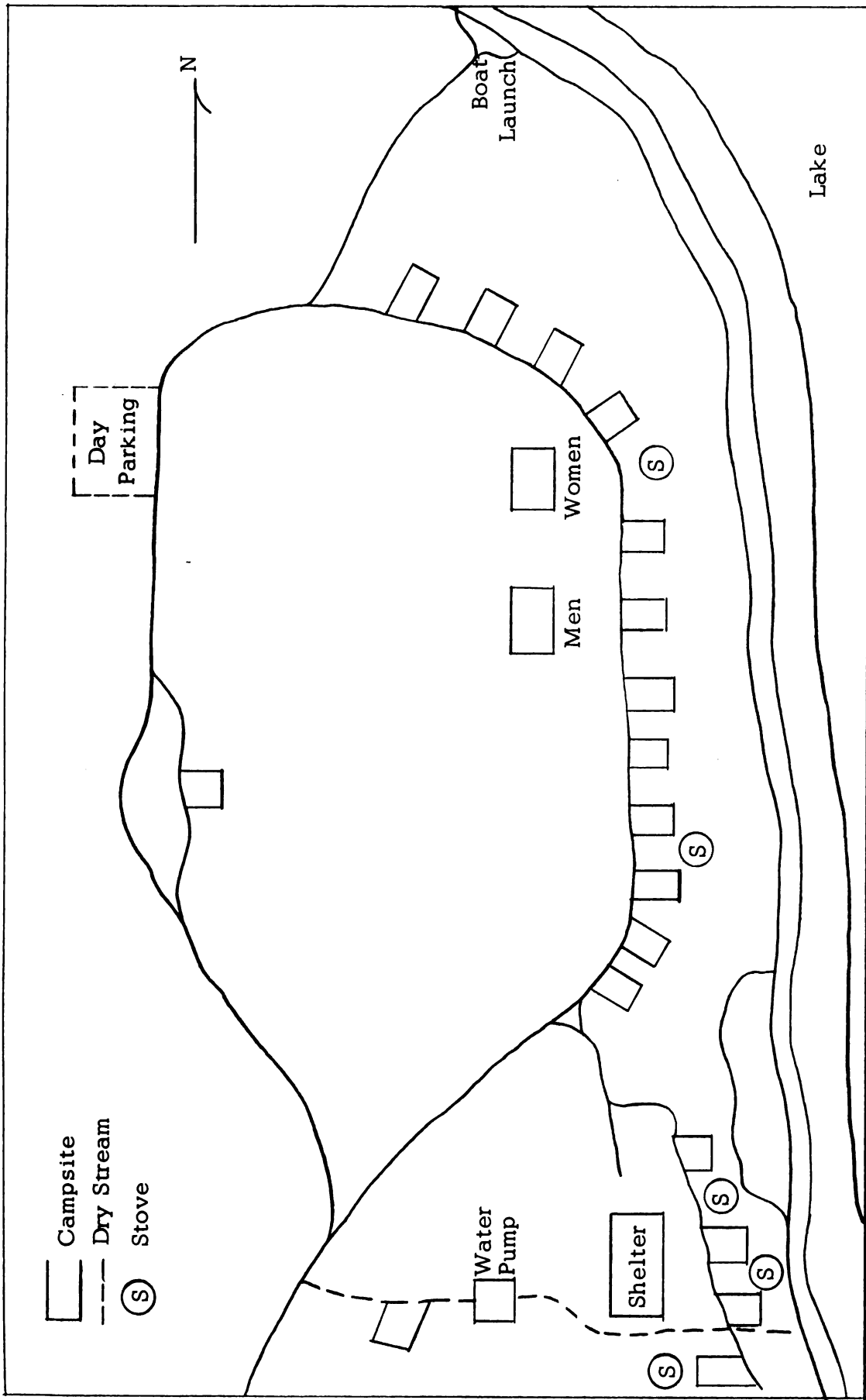


Figure 10. Campground Layout Sketch for Perch Lake Forest Service Campground

of design with roads consisting of a combination of dirt and gravel. The campsites are adequate and well located along the "loop," however, there is insufficient space to park a car and the area lacks auto barriers - two factors which contribute greatly to site deterioration.

Utilities consist of a hand-pump for water and pit toilets. The main problem with these concerns access; the single hand pump is located well over 100 yards from the majority of the campers and the pit toilets, of which there are two, are over-used and at too great a distance from all campers to be convenient.

In regard to facilities, the area had portable lumber tables, low steel stoves, can-pit garbage receptacles and a group type C.C.C. shelter. Here again there was a distribution problem; only one-third of the sites had stoves, only one-sixth had tables, and the shelter building was not centrally located.

Recreational Features: This area is more than adequately endowed with natural recreational features. It has excellent fishing, boating with good launching facilities, swimming, adjoining forest and excellent natural scenery (picture, Appendix G).

Administration: This area is administered by the District Ranger of the Kenton District and is maintained by a roving maintenance crew. The maintenance crew was friendly and helpful to the interviewer and their duties were well performed. All areas were free of litter and all facilities were in good repair.

Kidney Lake Campground

Location: Kidney Lake Campground is located on the east side of Kidney Lake, eight miles south of Sidnaw. Access is gained from Sidnaw and from the Iron River area by way of Forest Service Road 137 and Kidney Lake Road (Figure 5). Both routes have fair to poor gravel roads but the excellent scenery more than makes up for the inconvenience.

Due to its undeveloped condition, this area receives very little use. It has, nevertheless, an abundance of natural recreation potential which should greatly enhance the attractiveness of this campground when development is complete.

Description: This campground is situated in a mixed stand of mature hardwoods. It has poor ventilation, flat topography, dry sandy soil, grass and seedling ground cover and a clear lake with a sandy beach and rock bottom. An insect problem exists throughout the summer months.

An examination of the campground (Figure 11) reveals a "loop" pattern of design. However, as yet there is no real layout of campsites. For this reason, campers distribute themselves in a haphazard manner and site deterioration is greatly in evidence, especially along the portion of the "loop" nearest the lake.

Utilities, which consist of hand pumps for water and pit toilets, are located in relation to the lake portion of the "loop" and are sufficient to meet present needs. Increased use of the remainder of the "loop" will necessitate the need for a more comprehensive utility layout.

In regard to facilities, it was noted that only a few portable lumber tables and low steel stoves were provided in this campground, these being randomly distributed through the lake portion of the loop. Garbage disposal consists of the can-pit method. No auto barriers or other facilities were provided.

Recreational Features: As was previously mentioned, this area has tremendous outdoor recreation potential. It has excellent fishing, boating, and swimming; it is midst of a large forest and has good isolation and natural scenery. Increasing the size of the beach and providing boat launching facilities is all that is

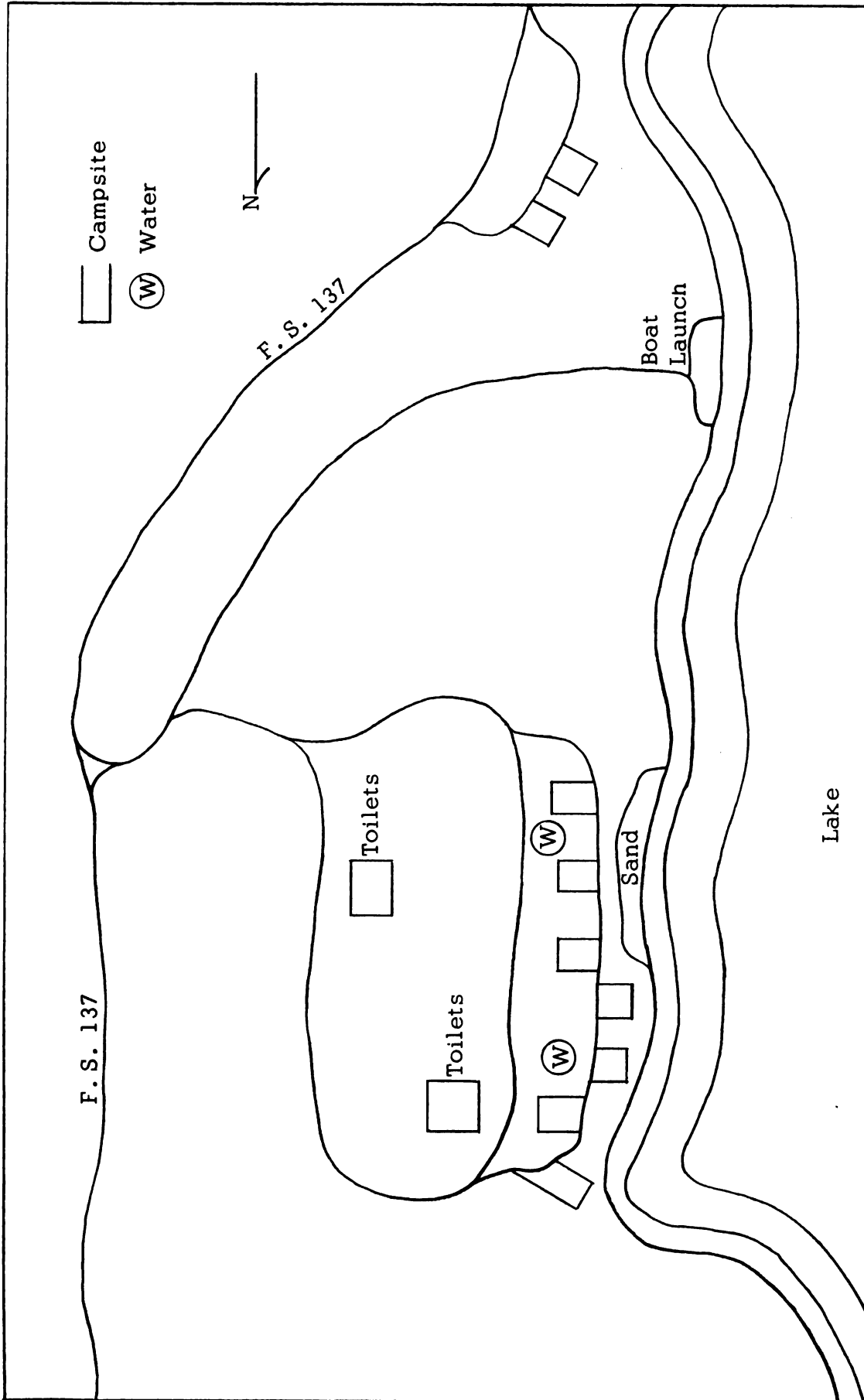


Figure 11. Campground Layout Sketch for Kidney Lake Forest Service Campground

really necessary to make this a truly fine area from a recreational standpoint.

Administration: The area is administered by the District Ranger of the Kenton District and is maintained by a roving maintenance crew. The area was free of litter and all facilities were in good repair.

Norway Lake Campground

Location: Norway Lake Campground is located on the east side of Norway Lake, six miles southwest of Sidnaw. Access is gained from both Sidnaw and the Iron River area by taking Forest Service Road 137 to the Norway Lake Road (Figure 5).

This is the most popular of the three minimum-facility campgrounds used in this study and was considered by the survey taker as the most well equipped of the three areas.

Description: The unusual scenic beauty of this campground stems from the fact that it is located in the largest mature red pine stand in the State and is bordering on one of the State's most attractive lakes. Other features of the area include a moderate understory, good ventilation, flat topography, dry sandy soil, a fern ground cover and a sandy beach. There is also no dust or insect problem.

Another important feature of this area concerns its layout. It has a "loop and spur" arrangement, as can be seen by reviewing its layout (Figure 12). However, the loop is narrow and surrounds a great deal of the shoreline. Consequently, this arrangement puts all campsites in close proximity to the lake and in this way makes every campsite a desirable one. The desirability of lake-side campsites is based on the observation of this preference in every park in the study area.

The utilities are the standard Forest Service pit toilets and hand pumps for water. All are well located with regard to ease of camper use and all are adequate to meet camper needs.

Facilities are equally good in the campground. Each site is provided with a portable lumber table, low steel stove and a can-pit garbage receptacle. Other facilities include bulletin boards, boat dock, C.C.C. group shelter and a bathhouse located adjacent to the beach.

Recreational Features: This area, as was the case with the two other minimum-facility areas, is more than adequately endowed with natural recreational features. It has excellent fishing, boating with fair launching

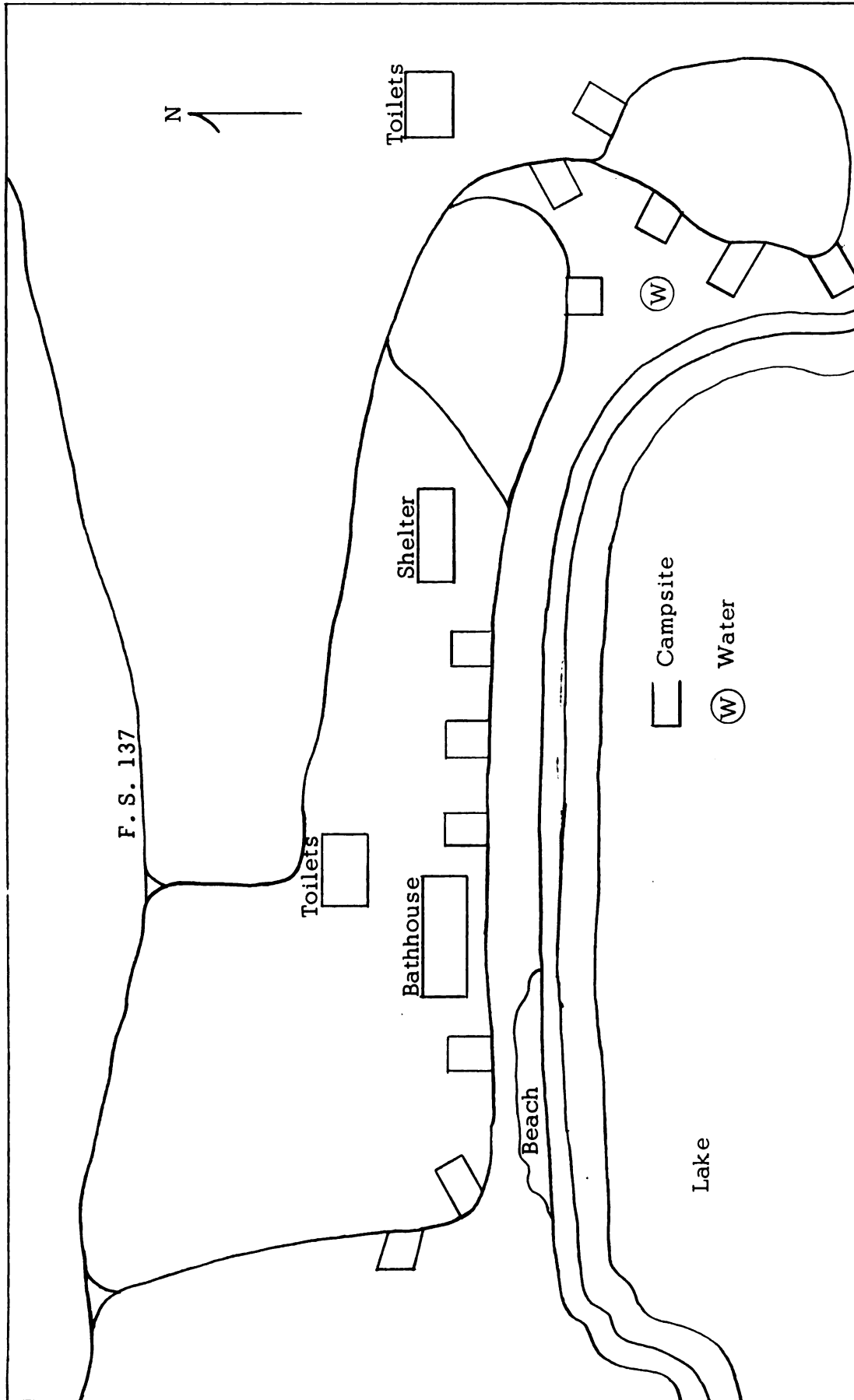


Figure 12. Campground Layout Sketch for Norway Lake Forest Service Campground

facilities, swimming, isolation, adjoining forest, and the previously mentioned natural scenery. The area also has a few swings for the children.

Administration: This area is administered by the District Ranger of the Kenton District and is maintained by a roving maintenance crew. The campground had some litter, roads were fair, and all facilities were in good repair.

Pilot Study

In order to test the validity and effectiveness of the proposed questionnaire, a pilot study was conducted in Higgins Lake State Forest Campground in June of 1959. This campground was selected primarily because it met the qualifications of being a heavily used forest-type campground while still being in relatively close proximity to Lansing, Michigan. Because of these qualities, Dr. Reid was able to make frequent trips to the area for questionnaire testing while still performing his duties as an instructor in park management at Michigan State University.

Over the two week study period, approximately sixty campers were interviewed, these being selected by using a table of random numbers which indicated whether the man or woman head of the party would be asked to complete the questionnaire.

As a result of this pilot study, a number of shortcomings were dis-

covered and, as a result, numerous minor and a few major changes were made both in questionnaire form and in distribution procedure. Prominent among the major changes was division of the questionnaire into two major parts - identical color coded forms to enable the administering of identical preference questions to both the male and female heads of the camping party and a separate white form on factual user data which could be completed by either head of the party.

Procedure wise, there was included the elimination of the table of random numbers for camper selection and the adoption of the policy of having the male and female head of the party each fill out an identical questionnaire. The minor revisions consisted merely of slight changes in question wording or the addition or subtraction of certain questions.

The data secured during this pilot study was tabulated and analyzed for use in questionnaire and procedure improvement only and was not, in any way, used as actual research data for this dissertation.

CHAPTER V

ANALYSIS OF DATA

The determination of visitor preference with regard to activities, facilities and equipment is of vital importance in the overall planning of present and future campground development. In this chapter, therefore, an attempt was made to carefully select and analyze all pertinent questionnaire data relating to activities, facilities and equipment in an effort to develop a set of partial guide lines which could then be used by those planning campground development.

Characteristics of Respondents

In conducting a user-preference study it is essential that a thorough knowledge be gained on all pertinent data relating to those people in the study. This is necessary because such knowledge serves as a basis for understanding the preferences expressed and serves as a starting point for the development of hypotheses to explain the reasons behind the preferences which are expressed. This section will attempt to accomplish this through the following discussions dealing with the socio-economic and use characteristics.

Socio-Economic Characteristics

In analyzing the activity, facility and equipment preferences discussed in the proceeding sections of this chapter, it is essential for better understanding and deeper insight into the reasons behind the

preferences expressed, that the reader become thoroughly familiar with the type of people interviewed for this study. For this reason, this section will concern itself with creating an "image" of the people involved through the analysis of such personal data as: the type of group, age distribution, income level, amount of formal education, etc. It should be noted, however, that primary emphasis will be placed on the responses of the male head of each camping party since he is considered to be the dominant force in motivating the actions of the group.

Composition and Size of Group. The vast majority of the camping parties in Iron County consisted of family groups and the grouping which occurred most frequently was that of parents accompanied by two or three children (Table 5). This latter group accounted for 54 percent of all camping parties and the remaining family-oriented groups such as husband and wife alone, family with relatives or friends, two or more families together, and father and son parties, accounted for an additional 41 percent. In total, 95 percent of all parties were family groups of one type or another. The remaining 5 percent consisted of three single individuals, a group of four men and a troop of twenty-six boyscouts.

The average size of all groups was 4.5 persons and there was an almost equal distribution between men and women (118 men and 102 women). Children were equally distributed with 114 boys and 111 girls.

It should also be noted that 25 percent of all families with children had a total of four to six children. This may be indication of a trend toward longer and cheaper vacations through camping by the larger family

groups. In questioning some of the larger family groups as to the reason for camping, a frequent answer was that the total cost for a three-week camping vacation was less or comparable to a one-week vacation at a motel and that the children greatly preferred camping to motel living.

TABLE 5. Composition of Camping Parties

Composition of Party	Percentage of all Parties N=100*
Family Parties	95
Husband and wife alone	16
Husband and wife with children present	54
Father(s) and son(s)	2
Family group with relatives or friends	13
Two or more families together	10
Single individuals	3
Group of men	1
Boy Scouts	1
Total	100

*"N" means the number interviewed. Since the sample covered only 100 parties, the percentage and actual number are the same.

Sex and Age Composition of Groups. Camping is no longer dominated by men; it is unquestionably a family activity. Of the 231 adults included in this study, 54.5 percent were men and 45.5 percent were women. The reason for this close distribution between men and women can be found in the preceeding section entitled "Composition and Size of Group."

In regard to age composition, it was found that women party heads

ranged in age from 24 to 70 and men party heads from 27 to 70 (Figure 13). The most dominant age group being in the 34-44 year old range, where 52 percent of all adult heads of party are found. The average age for all adults was 40.1 years of age for women and 43.3 for men, setting the average adult camping age for Iron County at 41.7 years.

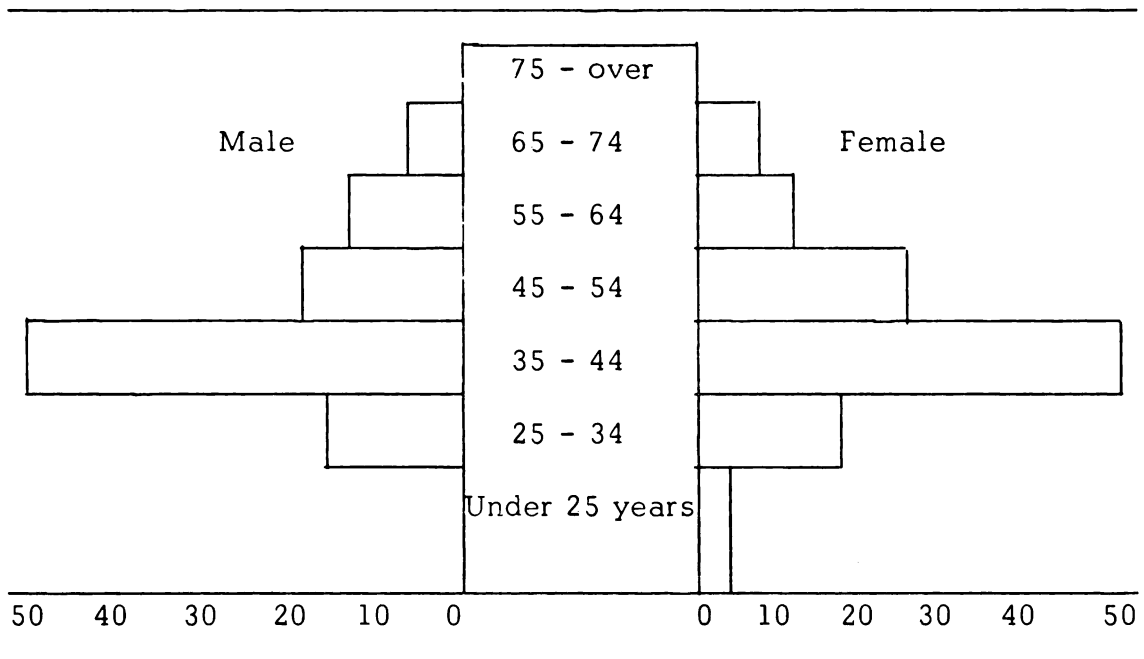


Figure 13. Age Distribution of Male and Female Heads of Party

Also significant was the high percentage of children and their varied age distribution (Table 6). There were 217 children, excluding the twenty-six Boy Scouts, of which 112 were boys and 105 were girls. These had a combined average of 10.3 years of age. Concerning age distribution, it should be noted that 43.8 percent of the children were found in the 12-19 year age bracket and that 13.8 of these were in the 16-19 bracket, an age where most young men and women have jobs and

other commitments in their home towns. The reason for this large number of children may be due to the fact that the majority of groups interviewed were either on extended vacations of two weeks or longer and did not want to leave their children alone for such a long period of time, or were local residents spending part of the summer in the campground, in which case, their older children would be living with them.

TABLE 6. Number and Age Composition of Children

Age	Number of children	Percent
Under 1 year	5	2.3
1 - 3	17	7.8
4 - 7	44	20.2
8 - 11	56	25.9
12 - 15	65	30.0
16 - 19	<u>30</u>	<u>13.8</u>
Total	217	100.0%

Education of Male Respondent. The educational level of the male heads interviewed in this study proved to be fairly high (Figure 14). Approximately 83 percent of all male party heads reported having a high school education or better. Of these, 49 percent had a high school education, 13 percent some college, and 21 percent reported four or more years of college. This becomes rather significant when compared to the level of education for males, 25 years and older, in Michigan. According to the 1960 U. S. Census of Population for Michigan, 37 percent of the male population 25 years or older had a high school education or better.¹

¹U.S. Bureau of the Census, U.S. Census of Population: 1960. General Social and Economic Characteristics, Michigan. Final Report PC(1)-24C (Washington: U.S. Government Printing Office, 1962), pp. 24-192.

This means that the male camping heads, interviewed for this study, had a 46 percent higher education level - high school and above - than the average for similar aged males throughout Michigan.

These findings are by no means limited to this study. Similarly high education levels among campers were found by Taves, Hathaway and Bultena in the canoe country study,¹ by Leslie M. Reid in his nationwide user preference study² and in many other studies too numerous to mention. All reported above average education levels among campers.

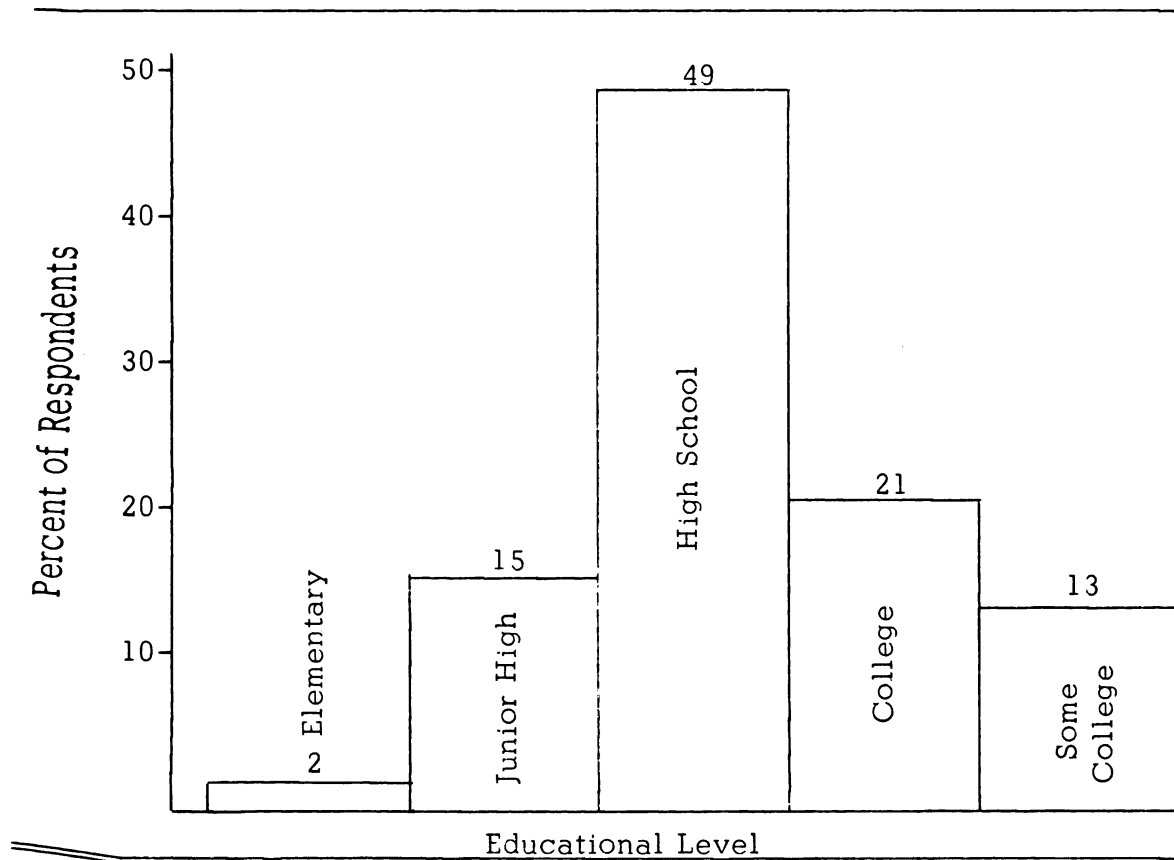


Figure 14. Education of Male Head

¹Taves, Hathaway and Bultena, loc. cit.

²Reid, "Outdoor Recreation Preferences: A Nationwide Study of User Preferences," loc. cit.

Occupation of Male Respondent. Even though the general consensus among many people is that camping provides an inexpensive way to spend a vacation, it was surprising to find that almost three-fourths of the male respondents in this study were found to be high-income professionals or skilled and semi-skilled workers (Table 7), men who apparently can afford more expensive vacations if they so desire. Professionals, skilled, and semi-skilled workers constituted 74 percent of the male respondents but this same group represent only 39.2 percent of the male labor force for Michigan, Indiana, Illinois and Wisconsin, where 85 percent of the respondents reside.¹

TABLE 7. Occupations of Male Head

Occupational Category	Percent of Male Campers N=100
Professional persons	34
Skilled and semi-skilled persons	40
Clerical and sales persons	11
Laborers	5
Farmers	1
Students	3
Unemployed	1
Total	96*

*The other 4 percent left this question blank so their occupations are unknown.

Clerical and sales persons represented the next largest group with

¹U. S. Bureau of the Census, County and City Data Book, 1962. A Statistical Abstract Supplement (Washington: U. S. Government Printing Office, 1962), pp. 94, 104, 174.

11 percent reporting in this class as compared to 6 percent for the four-state area mentioned above. Retired persons accounted for another 3 percent, with the remaining 7 percent being distributed between a farmer, a student, an unemployed worker and four unknowns.

From the above data and the educational characteristics in the preceeding section it becomes clearly evident that camping holds a definite appeal among the better educated and those wage-earners employed in the higher-income brackets.

Income of Male Respondent. The income level of the respondents tends to verify the previous assumption that camping is by no means a "poor man's vacation activity." Of the respondents answering the income section of the questionnaire, 65 percent reported having an income of \$6,000 or over. Of this amount, 36 percent were in the \$6,000 - \$7,999 category and 29 percent in the \$8,000 or over category, as compared to 17.5 percent and 26 percent respectively for the male labor force in Michigan, Indiana, Illinois and Wisconsin.¹

The next highest level was in the \$4,000 - \$5,999 category where 27 percent of the respondents were classified, as compared to 21 percent for the four state area mentioned above. The remaining 6 percent was distributed 5 percent and 1 percent respectively in the \$2,000 - \$3,999 and less than \$2,000 categories (Table 8).

¹ Ibid., pp. 93, 103, 173.

TABLE 8. Family Income of Camping Parties

Income	Percent of camping parties
Less than \$2,000	1
\$2,000 - \$3,999	5
\$4,000 - \$5,999	27
\$6,000 - \$7,999	36
\$8,000 - \$10,999	17
\$11,000 and over	12
Total	98*

*The remaining 2 percent was not ascertained because of respondents refusing to divulge this information

After examining the relatively high levels of income, education, and occupation of the male respondents in this study, it becomes readily apparent that the inexpensiveness of camping cannot be the only dominant or perhaps the most dominant reason for camping. In a similar study by Fine and Werner in Wisconsin they found that, "many of the respondents indicated that they chose camping for a vacation activity not because it would provide a particular cheap form of vacation but rather because this was the type of activity they preferred with young and growing children."¹

Money Spent in Area. In order to evaluate the importance of camper spending with regard to its affect upon the economy of Iron County, all party spokesmen were requested to state how much money his or her group expected to spend in the area - exclusive of expenses incurred enroute to and from the area - during the present camping trip.

¹Fine and Werner, op. cit., p. 8.

From this reported data (Table 9) it was found that the median expenditure, by each individual group, amounted to ninety-one dollars and seventy-five cents (\$91.75) or, in considering the total for all groups, an approximate expenditure of nine thousand one hundred and seventy-five dollars (\$9,175.00), by the hundred camping parties.

TABLE 9. Money Spent in Iron County

Expenditure	Number of Respondents	Expenditure	Number of Respondents
\$ 0-10	7	\$121-130	1
11-20	4	131-140	2
21-30	8	141-150	1
31-40	6	151-160	1
41-50	11	161-170	1
51-60	3	171-180	3
61-70	3	181-190	0
71-80	5	191-200	4
81-90	0	201-210	1
91-100	16	Unknown as yet	1
101-110	14	" " "	<u>1</u>
111-120	7	Total	100
		Median expenditure \$91.75	

In relating these expenditure figures to size of group (page 98) and length of stay (below), for the purpose of determining median weekly expenditure, it was found that a five-member family camping party spends approximately eighty-eight dollars and fifty-eight cents (\$88.58) per week while camping in the County's campgrounds.

Length of Stay in Campground. Since a thorough knowledge of length of stay is essential for both the determination of campground needs and the economic contribution to the area by the camper, the respondents in this

study were requested to indicate the total number of days they would spend camping in their present location. The 100 camping parties indicated a total stay of 1,123 days, or a median stay of approximately 7.25 days per party.

Distribution of Campers by City and State. From this study it was found that the majority of the Iron County campers were not residents of Michigan. However, Michigan residents did represent the single largest group from any one state. Of the 100 camping parties interviewed, 38 were Michigan residents, 21 were from Indiana, another 21 from Illinois and the remaining 20 parties were distributed between eight states and two Canadian provinces (Table 10).

TABLE 10. Home State of Camping Parties

State	Rank	Percent of total campers
Michigan	1	38
Indiana	2	21
Illinois	3	21
Wisconsin	5	10
Minnesota	5	3
Ohio	6	<u>2</u>
Total		95*

*The other 5 percent was divided equally between Iowa, Ontario, Quebec, Wyoming and Florida

An examination of the actual distribution of campers according to

their home communities (Figure 15) brought to light a number of interesting observations. First, the largest group of campers from any one section came from the highly populated Chicago area. Secondly, there were five distinct groupings of campers other than the groupings around the highly populated areas of Chicago and Detroit; of these, two were in the vicinity of Iron County, one is South Bend, Indiana area, one in the Hammond, Indiana area, and one in the Milwaukee, Wisconsin area. In checking back through the questionnaires of the parties included in these groupings and by personal conversation with the interviewer, it was discovered that the two groupings in the vicinity of Iron County - one from the Iron River-Stambough area in Michigan and one in the Niagara, Wisconsin area - were made up largely of families who would park their trailer in one of the campgrounds and then remain there for a month or longer. The family head would then either commute to work each morning or would stay at home and spend the weekends with his family. During the regular vacation period of the family head, these families would usually take their vacations in areas far removed from Iron County. However, they would still camp during this regular vacation period.

With regard to the groupings in the South Bend, Hammond and Milwaukee areas, it was found that the individual parties making up each grouping were acquainted in one way or another. Apparently a family would camp in Iron County and then conversation with hometown friends would stimulate these friends to spend their vacations camping in Iron County. Gradually, a number of families from the same community would be spending their vacations together in the same Iron County campground.



Figure 15. Distribution of Campers

A third point worth noting is that the distribution of campers from Indiana is quite widely scattered while the campers from Illinois are clustered almost exclusively in the Chicago area. There is also a scattered pattern in Michigan but the parties are found only in the lower half of the Lower Peninsula and the western half of the Upper Peninsula. The reason for the scattered pattern in Indiana and the clustering in Illinois cannot be adequately theorized. It can, however, with reasonable surety, be hypothesized that the reason for the absence of campers from the upper half of the Lower Peninsula and the eastern half of the Upper Peninsula, may be due to the fact that the scenery, topography, climate and opportunities for camping are so similar between the Iron County area and the rest of northern Michigan that campers from these locations feel it unnecessary to travel hundreds of miles to camp in an area similar to that in which they reside.

Use Characteristics

The previous section served to introduce the socio-economic characteristics of the respondents, this section will attempt to present a deeper understanding of these respondents by presenting a detailed discussion of their use-characteristics with reference to campground use, equipment use and activity participation. This information should also prove useful in making comparisons between actual use or participation and the preferred use or participation discussed in ensuing sections of this chapter.

Kind of Campground Used. The purpose of this analysis is to see if any

relationships exists between the type of camping party and the campground used by the party. In another section of this chapter a similar analysis will be made substituting campground preferred for campground actually used. This will be done to determine whether certain external factors such as easy access, full camp, lack of knowledge with regard to location of desired campground, etc., may cause a party of campers to use a campground other than the type they generally prefer. It should be noted, however, that correlations can be made only between use of full and minimum facility campgrounds since all of the campgrounds included in this study fall into one of these two categories.

The discrepancies which do exist between the campground actually used and the campground preferred, along with possible explanations for these discrepancies, are discussed in the following subsection entitled "Correlations Between Campground Preference and User Characteristics." For this reason, this section will concern itself only with an examination of the percentage of each of the party types contained in the two categories of full and minimum facilities.

The findings presented in Table 11 indicate that there is a wide variation in the percentage of use between the full and minimum facility campgrounds. Slightly under one-third of both the one family and one family with children groups were found in the minimum facility campgrounds, and less than one-fourth of the one family groups with friends or relatives. The only group which showed a definite trend toward the minimum facility areas, were those composed of two families with children.

The remaining groups showed an almost complete use of the full facility areas, the only exception being one group of four men who camped in a minimum facility campground.

TABLE 11. Percentage of Campers by Campground and Type of Group

Type of group	<u>Type of Campground</u>		Total percentage
	Full	Minimum	
One family	68.8	31.2	100
One family with children	73.2	26.8	100
One family with friends or children	76.9	23.1	100
Two families with children	37.5	62.5	100
Three or more families	100.0	0	100
Single person	100.0	0	100
Other*	50.0	50.0	100

*Represents two groups: a troop of boy scouts and a four man party respectively.

In analyzing the above data we should bear in mind that some of the percentages, such as those for the one family with children groups, represent a large portion of the respondents, and therefore may be even more significant than they appear.

Use of Equipment. In this section an attempt will be made to accomplish two objectives: (1) present a rather broad view of some of the more important items of equipment used by the respondents in this study and,

(2) to discuss the related factors of ownership of equipment, expenditure for equipment, and use of equipment. Further discussion on equipment is presented in the section entitled "Equipment Preferences."

Kind of Housing. The tent and house trailer were by far the most prevalent kinds of housing used by the respondents in this study. Tents occupied the most prominent position with 44 percent of the respondents reporting their use. House trailers were second with 33 percent use, and a combination of these accounted for another 3 percent, bringing the total use to 80 percent for the tent and/or house trailer. The housing used by the remaining 20 percent of the camping parties can be seen by referring to Table 12.

TABLE 12. Kind of Housing Used by Respondents

Kind of housing	Percent of parties
1 - Tent	44
2 - House trailer	33
3 - Tent and house trailer	3
5 - Tent and station wagon	3
8 - Tent trailer, camp trailer	2
9 - Tent trailer, camp trailer, tent	1
16 - Higgins trailer	8
17 - Higgins trailer - tent	2
32 - Other	2
33 - Other and tent	<u>2</u>
Total	100

Two things become apparent in examining the above data: (1) the relatively inexpensive tent is still the most popular means of housing and, (2) the high percentage of house and tent trailers is apparently indicative of the recent trend toward the more convenient (modern) type of camping.¹

Sleeping Facilities. The sleeping facilities used by the respondents were generally of three types: sleeping bags, beds built in trailers, and blankets. As might be expected, sleeping bags used in conjunction with air mattresses, cots, bare ground or a combination of these, were the most popular with 44 percent of the groups reporting their use. The high percentage of groups using house trailers accounts for the second most important sleeping facility, that of beds built in trailers, 34 percent. Blankets, like sleeping bags, were used in conjunction with air mattresses, cots, bare ground or combinations of these, bringing the total percent of use for the three types of facilities to 92 percent. The remaining 8 percent were made up of widely divergent types, and therefore were not considered of sufficient importance to warrant an enumeration of them.

Cooking Facilities. As was the case with the sleeping facilities, there exists a definite relationship between the type of housing and the type of cooking facilities used by the respondents. Approximately 44 percent of the respondents used tents and 33 percent used house trailers. Now,

¹O'Reilly, op. cit., p. 63.

comparing this to the cooking facilities, it was found that a 44 and 32 percent relationship existed between the use of the pump-type gas stove - Coleman Stove - and bottle-type gas stoves of the kind generally supplied with trailers.

The remaining methods involved the use of fireplaces, campground stove, open ground fire, electric plates, stoves and pans, or a combination of one or more of these.

Refrigeration Facilities. Refrigeration facilities used by the respondents consisted entirely of three types: ice chest, electric refrigerator and compressed gas refrigerator. Seventy-five percent of the respondents used the ice chest, 17 percent used the electric refrigerator and 6 percent the compressed gas refrigerator. The remaining 2 percent had no type of refrigeration.

The apparent reason for the high percentage of ice chest users may be due to the fact that these chests are inexpensive, very effective, and easy to keep stocked with ice anywhere in the State.

Toilet Facilities. Since all of the campgrounds included in this study had toilet facilities, it was found, through an examination of the user responses, that the campers relied entirely upon these provided facilities.

A number of the house trailers had toilet facilities, however, these were not used due to the lack of campground sewer connections.

Ownership of Equipment. For this section, the respondent was asked to state whether he owned, borrowed, or rented the equipment he was using.

An overwhelming 91 percent stated that they owned all of the equipment, 5 percent stated that they had borrowed it, 3 percent had owned some and borrowed some and 1 percent indicated that they had rented their equipment.

These findings of high personal ownership tend to be in line with the recent advancements being made in the sale of camping equipment.¹

Use of Camping Equipment. The average camping party in this study has had approximately three years of camping experience and tend to go camping three to four weeks a year.

An examination of the use data (Table 13) brings to mind a number of interesting observations: (1) there is an almost equal distribution of use between the two week to three week, three week to four week, and four week to five week groups, (2) 94.8 percent of all campers spend two or more weeks a year camping; 21.9 percent of these spending six or more weeks, (3) a sizable number of the camping parties (11.5 percent) camp between six and ten weeks a year and, (4) 5.2 percent of the groups go camping twenty-one or more weeks a year.

From the above observations we can conclude that the respondents contained in this study are, as a whole, quite avid campers. It should also be noted that the relatively large number of campers in the six week and over group are predominantly made up of local area residents who spend the greater part of the summer "trailer camping at the lake." One

¹ _____. "Ah Wilderness," Time Magazine, LXXVII, No. 2 (July 14, 1961), pp. 46-53.

of the parties in the twenty-one week and over group even reported that they carry on continuous, year around camping activity on a nationwide basis.

TABLE 13. Use of Camping Equipment

	Percent of use
0 - Less than one week	0
1 - 1 week and up to 2 weeks	5.2
2 - 2 weeks and up to 3 weeks	22.9
3 - 3 weeks and up to 4 weeks	20.8
4 - 4 weeks and up to 5 weeks	21.9
5 - 5 weeks and up to 6 weeks	7.3
6 - 6 to 10 weeks	11.5
7 - 10 to 15 weeks	5.2
9 - 21 weeks and over	5.2
Total	100.0

Cost of Equipment. Very little can be said, in regard to the amount of money that was spent for camping equipment by the campers in this study. The only noticeable fact was that there was an almost equal distribution of respondents between the group who spent nothing and those who spent up to \$3,000 on equipment. The median amount spent for camping equipment was approximately \$1,000.

Activity Participation. Very little information is available regarding the actual participation in activities by the respondents in this study due to an error in the design of the questionnaire. This section, therefore, will deal with an evaluation of data obtained under the question, "Looking back over this camping trip, what would you say were the one or two things you enjoyed most." Although the responses derived from this

question were not limited to a strict favoritism for activities, there was sufficient mention of activity types to warrant the use of the data for this discussion on activity participation.

Men and women were generally in quite close agreement concerning activities in which they participated. The only two major discrepancies which did exist, were centered around participation in fishing and enjoyment of scenery. Men outnumbered women by an almost four to one margin with regard to fishing and women outnumbered men by an over two to one margin with regard to an enjoyment of scenery (Table 14).

Swimming was enjoyed equally by both men and women, with 12 percent of each reporting this as a favorite activity. The remaining water-oriented activity mentioned by the respondents was boating, with 2 percent of the men and 1 percent of the women indicating the greatest enjoyment from this activity. In all, 40 percent of the men and 20 percent of the women considered participation in water-oriented activities, of one sort or another, to be the most enjoyable aspect of their trip.

The remaining activities, in which a definite interest was shown, were those of a generally non-strenuous nature; such things as relaxing and resting, visiting with people, being outdoors, and sightseeing. Men tended to attach a somewhat lesser importance to these activities than did women, but it can be safely assumed that these types of activities occupy a dominant position in camp life.

TABLE 14. Activity Participation of Respondents

Activity	Percentage of Respondents	
	Men	Women
Fishing	26	7
Swimming	12	12
Scenery	6	13
Resting, relaxing	9	7
Visiting people	6	8
Being outdoors	3	3
Sightseeing	1	4
Boating	<u>2</u>	<u>1</u>
Totals:*	65%	55%

*The remaining percentage of people indicated a liking for things which cannot be considered activities.

In preceding sections of this chapter, a more thorough examination of camping activities is brought about, through a discussion of preferences for the types of activities most desired while camping.

Preferences of Respondents

The expression of preferences concerning the most desirable campground, the most useful equipment and the most enjoyable activities, are of far greater importance in the determination of campground need, than is data obtained on actual use. The reason for this is that actual use is subject to modifications by external factors. For instance, a party may be staying at a certain type of campground only because the

preferred campground was full, or they may be using a certain price of equipment only because the necessary funds are not available to buy a preferred price of equipment.

For this reason, particular attention should be paid to this section and the following section dealing with correlations between socio-economic characteristics and user preferences.

Campground Preferences

In this section an attempt will be made to present a comprehensive view of the facility preferences of the Iron County camper through the analysis of the general preference of the male and female party heads with regard to the essential attributes of a campground.

Campgrounds can generally be classified into three major categories on the basis of the facilities which they contain. Therefore, in this section, all reference to the kind and number of facilities present in a campground will be made by referring to one of these categories. The three categories in question are full facilities, minimum facility and isolated; the facility content of each of these can be obtained by referral to the listing of definitions in Appendix H.

This subsection, then, will attempt to present a rather broad picture of the general but essential components of a campground as expressed by the respondents in this user preference study. From this discussion comparisons can be made between use characteristics described in the preceding section and correlations between socio-economic characteristics and activity, facility and equipment preferences discussed in the proceeding section.

Campground Preference. All male and female respondents were requested to answer the question, "What kind of campground do you personally like best for camping," and were given the choice of selecting full, minimum, or isolated facility campgrounds or a combination of any two of these. By far the most frequent response was for the full facility campground. Table 15 shows that 58.1 percent of the male respondents and 65.9 percent of the female respondents indicated their preference for the full facility-type of campground. This percentage is almost twice as great as the percentage of male respondents, 36.5 percent, indicating a preference for minimum facility campgrounds and more than twice as great as the percentage of female respondents, 31.7 percent, indicating a preference for minimum facility campgrounds. Only 3.2 percent of the male respondents and 1.2 percent of the female respondents showed a preference for the isolated (no facility) campground.

TABLE 15. Kind of Campground Preferred While Camping

Campground type	Percent of men N=93*	Percent of women N=85
Full facility	58.1	63.9
Minimum facility	36.5	31.7
Isolated	3.2	1.2
Full or minimum facility	<u>2.2</u>	<u>1.2</u>
Total**	100.0%	100.0%

*Number of respondents answering the question.

**Percent was tabulated on the basis of the number of respondents answering the question.

From the above campground-preference percentages it can be inferred that, while men and women share an approximate two to one preference for the full facility over the minimum facility campground, there does exist a definite tendency toward greater percentages of women favoring full facility areas and greater percentages of men favoring the minimum facility and isolated areas. One possible reason for the almost equal percentage of men favoring full facilities may be due to the fact that 95 percent of the male respondents were head of a family group and, as such, tended to modify their preference for minimum facility and isolated areas and favor instead the more convenient full facility campgrounds. It would be interesting to study the campground preferences of these same men if they were camping alone or with other men.

Campground Overstory. In requesting information from the respondents concerning their preference for open camps, tree-overhead camps and partially protected camps, an overwhelming majority of both men and women indicated a preference for tree-overhead camps. An examination of these preferences reveals that 95.7 percent of the male respondents and 96.6 percent of the female respondents favored tree-overhead camps. While only 4.3 percent of the male and 2.3 percent of the female respondents favored open camps.

These responses were to be expected, however, for two primary reasons: (1) camping has traditionally been associated with a forested-type of environment, and (2) the natural forest scenery of northern

Michigan is undoubtedly one of the main drawing forces in attracting campers to the area, so it is only natural that they would prefer to camp under an overstory of trees.

Frontage Preferences. Iron County campers hold a definite appeal for waterfront camps. Respondents were requested to state whether they preferred lake-front camps, stream-front camps, lake or stream-front camps, no-water-frontage camps, or had no preference. An overwhelming 96.8 percent of the male respondents and 96.5 percent of the female respondents indicated a preference for either lake or stream frontage, with the greater portion of these - 81.9 and 82.6 - being in favor of lake frontage. The remaining three odd percent were, in each case, about equally divided between preferring no water frontage or having no preference (Table 16).

TABLE 16. Frontage Preferences

Frontage	Percent of male N=94	Percent of female N=86
Lake front	81.9	82.6
Stream front	2.1	1.2
No water frontage	1.1	2.3
Lake or stream front	12.8	12.7
No preference	<u>2.1</u>	<u>1.2</u>
Total	100.0%	100.0%

This high preference for water-oriented campgrounds is not at all surprising. A recent nationwide study conducted by the Survey Research Center of the University of Michigan on the demand for outdoor recreation, found that the three top ranking outdoor recreation activities in the United States were the three water-oriented activities of swimming, boating and fishing.¹ An almost identical ranking was found with regard to the activity preferences of the Iron County camper (see page 129).

Campground Facility Preferences. In order to obtain pertinent information concerning the degree of facility provision needed in our campgrounds, respondents were requested to rank a series of facilities with regard to how important each would be in choosing a place to camp.

An examination of the percentage totals in each facility group, of all male and female respondents (Appendix I), disclosed a number of interesting response patterns: (1) there was a close approximation between the rankings of men and women, (2) women generally showed a greater preference for safety facilities such as the presence of life guards and first-aid stations, (3) men generally favored recreation facilities such as boat launching ramps, and (4) very definite stands were made by both men and women on the facilities deemed important and those deemed unimportant.

¹Eva Mueller and Gerald Gurin. Participation in Outdoor Recreation: Factors Affecting Demand Among American Adults, Study Report 20, Outdoor Recreation Resources Review Commission (Washington: U. S. Government Printing Office, 1962), p. 52.

An evaluation of the combined responses of all respondents in order of importance is given in Table 17.

TABLE 17. Evaluation of Facility Preferences

-
-
1. Very Important Facilities
 - a. Safe drinking water
 - b. Toilet facilities
 - c. Garbage disposal places
 - d. Picnic tables
 - e. Preserving area in its natural state
 - f. No crowding at camps
 2. Important Facilities
 - a. Clearance of brush and windfalls
 - b. Well-marked trails, directional signs
 - c. Electricity in campground
 - d. Life guard
 - e. Launching ramps for boats
 3. Not Too Important
 - a. Laundry facilities
 - b. Campground showers
 - c. Fireplaces
 - d. First-aid stations
 - e. Smooth trails and filled wet spots
 - f. Boat docks
 4. Not At All Important
 - a. Child care facilities
 - b. Planned recreation
 - c. Library facilities
 - d. Cafe or restaurant available
 - e. Boat rental
-

Several factors are worth noting in evaluating the importance of the above facility listing:

"Preserving the area in its natural state" and "no crowding at camps" were considered to be very important criteria for a campground. These responses were undoubtedly motivated by the constant crowded condition

and evident site deterioration which existed in campgrounds frequented by 85 percent of the respondents.¹

Several of the facilities which are presently deemed very important by campground managers and slated as integral components of practically every new or redeveloped full facility type campground were considered by the majority of respondents in this study to be "not too important." These include such things as fireplaces, campground showers, and laundry facilities. The probable reason for the lack of preference for stoves is the fact that the vast majority of the respondents were equipped with portable or built-in trailer stoves.

There is, at present, much concern by the National Park Service, U. S. Forest Service, state park agencies, and others regarding the need for planned recreation programs to help people pass the time while camping. Yet in this study, planned recreation was considered to be "not at all important."

Equipment Preferences

In the development of the preference questionnaire a definite limitation was placed on the number of equipment items for which preferences could be given. It was felt that equipment preferences should be limited to those items which the majority of the campers possess. Consequently, this discussion will deal only with the three most frequently used pieces of equipment: shelter, sleeping equipment and cooking equipment.

¹ Approximately 85 percent of the campers were found in campgrounds which were crowded or showed evidence of site deterioration.

Living Accommodations. The preferences expressed by the women respondents in this study showed a definite trend toward convenience and comfort in camping. This trend was also expressed by the male respondents, however, to a much lesser degree. Women preferred house trailers to tents by almost 2 to 1, while the male preference for house trailers to tents was only slightly larger than a 1 to 1 ratio.

In considering actual percentages, 42.7 percent of the male respondents and 55.8 percent of the female respondents favored house trailers while 39.3 percent of the male and 29.1 percent of the female respondents favored tents. The total for tents and/or trailers accounted for 86.6 percent of the male and 88.4 percent of the female respondents (Table 18).

TABLE 18. Living Accommodations Preferred by the Respondents

Living Accommodations	Percentage Preference	
	*N=89 Men	N=86 Women
House trailer	42.7	55.8
Tent	39.3	29.1
House trailer or tent	4.6	3.5
Tent trailer	11.2	4.6
Tent trailer or house trailer	1.1	3.4
Tent trailer and kitchen tent	0	1.2
Trailer for long periods	1.1	1.2
Cabin	0	1.2
Total	100.0%	100.0%

*N refers to the number of respondents answering this question.

The remaining percentages were almost exclusively dominated by preferences for tent trailers or a combination of tent trailers and house trailers.

Sleeping Facilities. The sleeping facilities preferred by the respondents in this study were of the same type as those actually used by the respondents (page 114), the only difference being in the amount of preference shown for each type.

Sleeping bags, used in conjunction with air mattresses, cots, bare ground or a combination of these, were preferred by the majority of the respondents. Fifty-five and four-tenths percent of the men and 45.3 percent of the women respondents listed sleeping bags as their most preferred campground sleeping facility.

Beds, which were built into a house trailer, were ranked second in importance; 35.8 percent of the men and 47.9 percent of the women indicated this preference.

Blankets, used in conjunction with air mattresses, cots, bare ground or a combination of these, were considered to be the least desirable. Only 8.8 percent of the men and 6.8 percent of the women indicated a preference for this type of sleeping facility.

From the above percentages, it becomes apparent that the male respondent attaches much less importance to comfort and convenience in camping than do women. Men indicated a 19.6 percent preference for sleeping bags over beds built into house trailers, while women indicated an opposite 2.6 percent preference for beds built into house trailers over sleeping bags.

Cooking Facilities. An almost equal preference for types of cooking facilities was expressed by both the male and female respondents. Use of portable gas stoves were by far the most preferred means of camp cooking. Sixty-four and five-tenths percent of the men and 62.3 percent of the women indicated a preference for these portable gas stoves.

The remaining preferences were distributed between stoves (gas and electricity) in trailers, charcoal grills, portable electric stoves, portable oil stoves and cooking over an open fire. The percentage distribution of each of these can be seen by referral to Table 19.

TABLE 19. Cooking Equipment Preferred by the Respondents

Cooking Equipment	Percentage Preference	
	*N=93 Men	N=85 Women
Portable gas stoves	64.5	62.3
Open fire	9.7	14.0
Trailer stove	6.5	7.1
Portable oil stove	11.8	2.4
Charcoal grill	4.3	7.1
Portable electric stove	<u>3.2</u>	<u>7.1</u>
Total	100.0%	100.0%

*N refers to the number of respondents answering this question.

Activity Preferences

One of the greatest concerns among campground managers is the constantly reoccurring problem of adequately providing planned recreational

activities for the people staying in their campgrounds. At present, such things as guided nature walks, self-guiding nature trails, slide talks, movies, nature demonstrations and other educating activities are dominating the scene in most campgrounds and are experiencing continued widespread acceptance by campground managers across the nation. Now the question arises as to whether these activities are really desired and needed or whether the camper is desirous of other types of activities or, still further, whether the camper would rather seek out and develop his own individual form of leisure time activity. The purpose of this section is to try to provide a partial answer to these questions through an analysis of the activity preferences of the respondents in this study.

In order to obtain the desired amount of information with regard to the activities enjoyed most by the campers in Iron County, two distinct activity-orientated questions were included in the questionnaire under the activity preferred section. One of the questions asked the respondent how he (she) liked to spend his (her) time while camping, and the other question asked the respondent to rank a series of activities with emphasis on the extent to which each of the activities appealed to him (her) when he (she) was camping.

In examining the data (Table 20) obtained from the first question dealing with how people prefer to spend their time while camping, two interesting hypotheses can be made: (1) a great importance is attached to water-oriented activities, especially fishing and swimming and, (2) the preference for non-strenuous activity is an inherent characteristic of the average camper in this study.

TABLE 20. Preference for Spending Time While Camping

Activity	Percentage Preference	
	Men	Women
Fishing	48	21
Swimming	15	22
Relaxing	11	11
Hiking	2	7
Sightseeing	3	5
Sunning	0	3
Photography	<u>2</u>	<u>0</u>
Total	*81%	*69%

*The remaining percentages were either unanswered questions (10 percent men and 19 percent women) or were divided into 1 or 2 percent interest in such things as waterskiing, reading, sewing, eating, sleeping, visiting, playing cards, etc. for this study can be obtained by referring to the compiled facility ranking list in Table 21.

It was found that 48 percent of the men and 21 percent of the women preferred to spend their time fishing and another 15 percent of the men and 22 percent of the women enjoyed swimming; indicating a men and women total, for water-oriented activity, at 63 and 43 percent respectively.

The remaining non-strenuous, non-water-oriented activities of relaxing, sightseeing, photography and sunning accounted for the activity preferences of the remaining people with the exception of those few who preferred hiking and those mentioned in the "starred" portion of Table 20.

A more comprehensive insight into the activity preferences of campers interviewed for this study can be obtained by referring to the compiled facility ranking list in Table 21.

TABLE 21. Ranking of Activity Preferences*

-
-
1. Very Much Appeal
 - a. Eating Outdoors
 - b. Sightseeing
 - c. Fishing
 - d. Swimming
 2. Much Appeal
 - a. Cooking
 3. A Little Appeal
 - a. Visiting
 - b. Boating
 - c. Doing nothing in particular
 - d. Nature study
 - e. Reading
 - f. Photography
 - g. Hiking
 - i. Fire building
 - j. Sunning
 4. No Appeal At All
 - a. Waterskiing
 - b. Hunting
 - c. Bird watching
-

*Further reference to percentage totals, for each of the above mentioned activities, can be obtained from Appendix H.

From this activity ranking table, it should be noted that the water-oriented activities of fishing and swimming were among the four most appealing activities of the campers in this study; and that the non-strenuous activities of eating outdoors and sightseeing were also in this group.

This once again points out the preference for the availability of good water frontage in campgrounds and the lack of need for planned activity programs (refer to Appendix J for actual percentages).

Also worth noting is that only one activity, cooking, was listed under the "Much Appeal" section and that there were ten activities listed under "A Little Appeal" and three under the "No Appeal At All" section. From this we can generalize that the activities in the lower two sections are, to the average camper, only incidental activities which contribute very little to the enjoyment obtained from camping. Activity-wise, the average camper apparently camps in Iron County for the purpose of fishing and swimming and/or relaxing in the pleasant environment.

Correlations Between User Preferences and Socio-Economic Characteristics of Both Female and Male Respondents

The following correlations between user preferences and socio-economic characteristics are based upon preference data which was obtained from both the male and female leaders of each of the camping parties included in this study. These correlations were made for the purpose of determining whether the socio-economic status of a group has any bearing on the preferences expressed by the group. In the process of cross-checking all of the possible relationships, it was discovered that definite correlations exist only in a few cases, therefore, this discussion will deal with only those "crossings" of preferences and socio-economic characteristics, which show a definite correlation to exist between the two factors.

Campground and Socio-Economic Characteristics

Type of Group and Campground. This section will concern itself with the presentation of campground preference data, for male and female leaders of all the camper party types found in this study, so that relationships can be established between type of group and campground preference. A number of these relationships are expressed by the data presented in Figure 16.

Non-family groups - Boy Scout troop, single men, groups of men, etc. - tended to show an almost equal preference between full and minimum facility campgrounds. Of interest, was the fact that the leader of the Boy Scout troop showed a preference for full-facility areas.

One-family groups showed a definite preference for the full facility over the minimum facility campground. The male respondents in these groups preferred full facilities by a two to one margin but women raised this preference to an almost three to one margin, indicating a much stronger desire for full facilities by the women. This is probably indicative of recent attitudes among married women to refrain from becoming "camping widows."¹ These women will go along with the idea of family camping but they want comforts similar to those received in their own home. The high preference for full facility areas among men may be motivated by a desire to shield their families from the greater hardships involved with camping in a minimum facility area.

¹ _____. "Ah Wilderness," loc. cit.

Type of Group

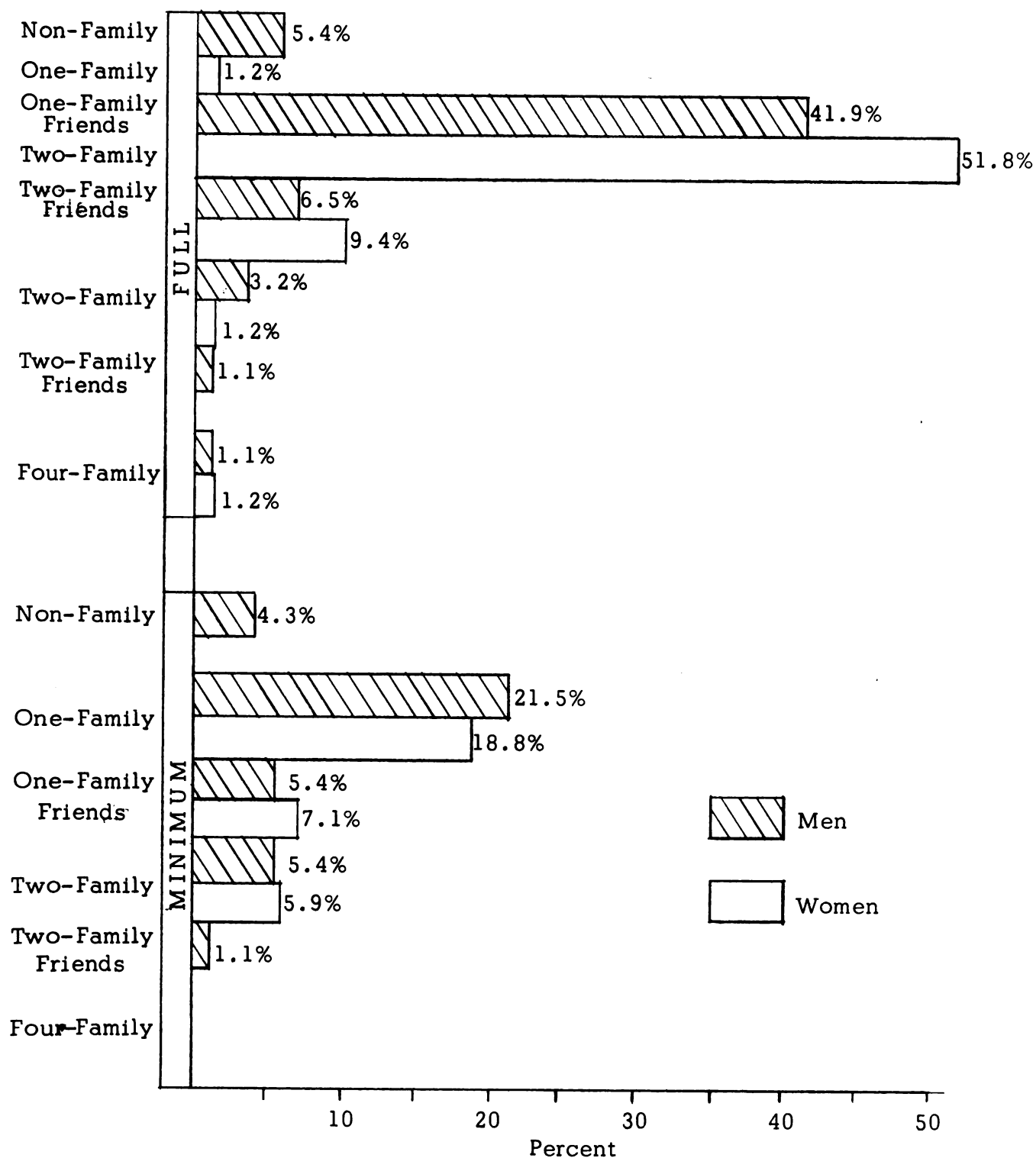


Figure 16. Type of Group and Campground Preference

When friends or relatives joined the one-family groups, there tended to be less discrepancy between the preference for full and minimum facility areas.

Two-family groups, unlike any other group, expressed a preference for the minimum facility type of campground. Surprisingly, women in two-family groups showed a greater preference (four to one) than men (two to one) for the minimum facility areas. The reason behind this preference may be one of space, more space being available in minimum facility campgrounds for camping together as a group.

A preference for isolated facilities was shown by only three groups and these groups were all different types, therefore no correlation was shown to exist between type of group and the preferences for isolated campgrounds.

Age and Campground. This section will attempt to present and explain the relationships which exist between the age of the male party head and the campground preferred by this male head and the accompanying female party head. Several of these relationships are expressed by the data presented in Figure 17.

The 35-44 age classification contained the greatest number of respondents and these showed an approximate one and one-half to one preference for the full facility over the minimum facility campground. Also worth noting is the close relationship which exists between the preferences of men and those of women in this age classification. A highly probable reason for the greater preference for full facility areas

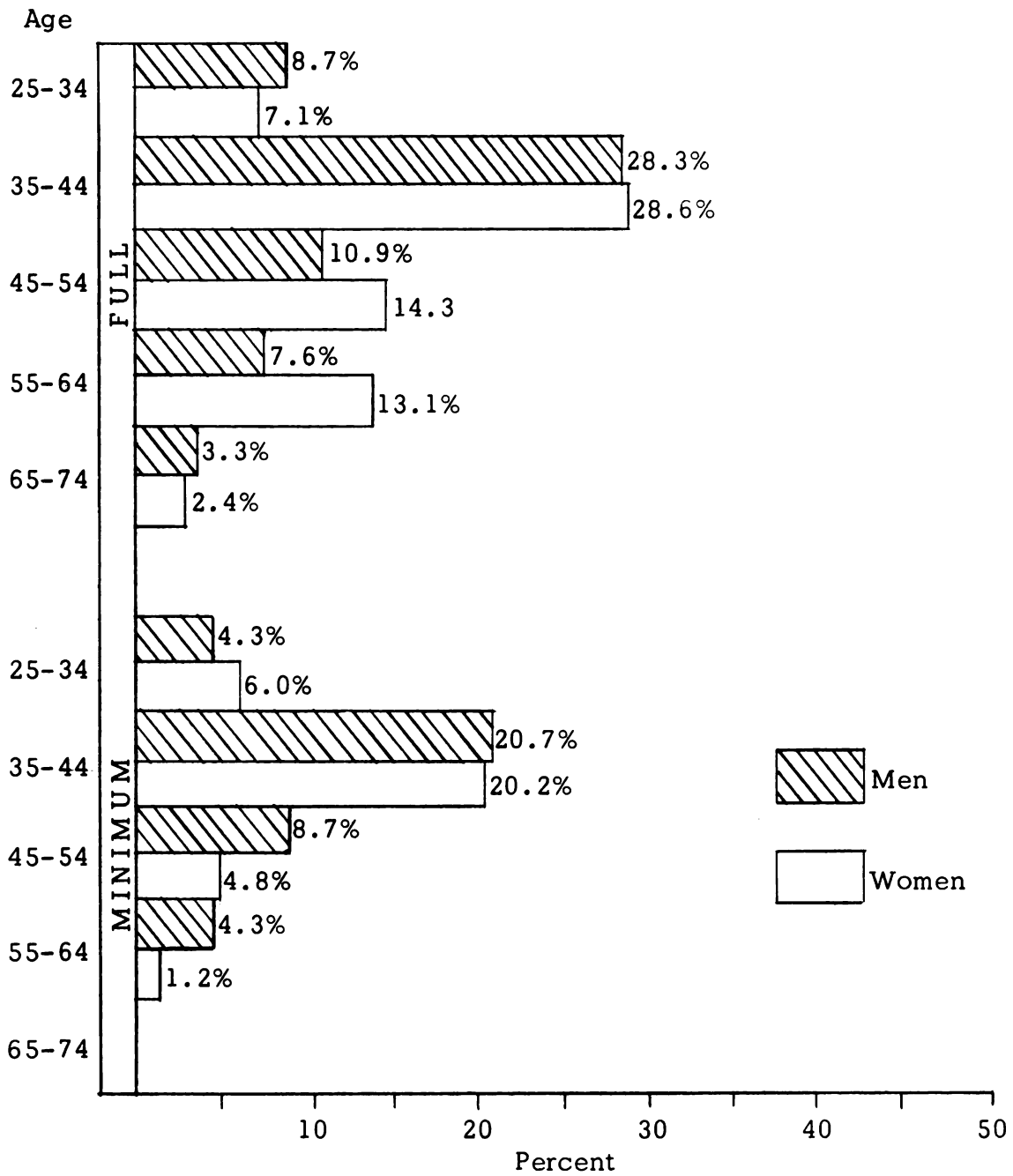


Figure 17. Age of Male Head and Campground Preference

among this age classification may be due to the fact that this age group contained the largest number of children below the age of five years - 45 percent of the people in this age classification had children whose age was five years or younger. Having children in this age group means they require greater care and a better access to laundry facilities, therefore, the parents of these children may have indicated a preference for the full facility area. If their children were older, they may have indicated a greater preference for the minimum facility areas. This theory is verified somewhat by the fact that slightly over 72 percent of the respondents in the 35-44 age classification, who indicated a preference for the minimum facility campground, had children above the age of five years.

The only other notable relationship apparent from this age-oriented data is that there remains a high percentage of women in the 45-64 age classification who show a preference for the full facility areas, while men in this same age group tended toward a slightly greater preference for the minimum facility areas.

A preference for isolated facilities was shown by 3.2 percent of the male respondents and 2.3 percent of the female respondents. All of these respondents were in the 35-44 age group.

Education and Campground. In this section the various educational levels attained by the male respondents will be correlated with the preference shown by these male respondents and the accompanying female respondent, for the full facility, minimum facility and isolated-type

campgrounds. A number of the relationships resulting from these correlations are expressed by the data in Figure 18.

The nine to twelve years of formal education classification contains the largest number of respondents. Men in this group show an almost two to one preference for full over minimum facility campgrounds while women show a definite two to one preference. Here again we see the constantly reoccurring trend toward greater preference for minimum facility campgrounds by the male respondents.

A close examination of the bar graph in Figure 18 reveals that the minimum facility set is almost a reduced equal to the full facility set. The percentage of reduction in bar length is approximately equal among the various bars. This fact tends to indicate that, in this study, the level of formal education plays a very insignificant role in influencing the selection of a full or minimum facility campground.

One minor relationship which did show itself was the fact that 4.3 percent of the male respondents, having thirteen or more years of formal education, reported a preference for the isolated-type areas. This may indicate a tendency toward a desire for fewer facilities by people in the higher educational levels.¹

Equipment and Socio-Economic Characteristics

In an attempt to discover any correlations which may exist between the socio-economic characteristics of age, education, occupation, income,

¹Taves, Hathaway and Bultena, op. cit., p. 7.

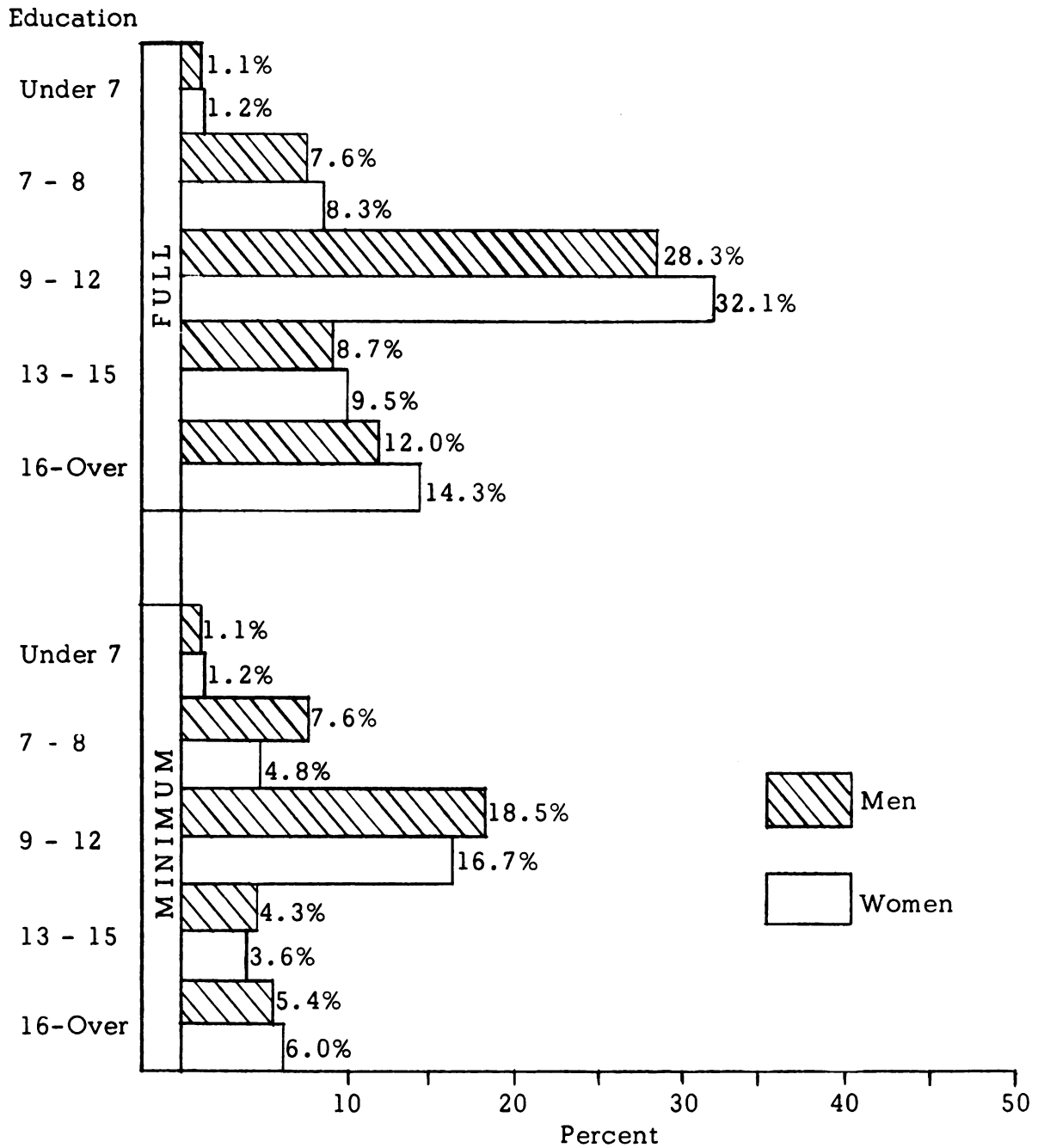


Figure 18. Education of Male Head and Campground Preference

and type of group, and the preference shown for cooking, sleeping and living equipment, it was discovered that correlations were apparent only between the socio-economic characteristics of age, education, occupation and type of group and the living equipment (housing) preferred by the respondents.

The reason for the lack of correlation between cooking and sleeping equipment apparently stems from the fact that cooking and sleeping equipment are fairly well standardized, that is, all are similarly priced, of the same basic design, easily available, convenient to use, and with reference to sleeping bags - little difference with regard to comfort. It should be remembered that, as an earlier discussion pointed out (page 128), men show a definite preference for sleeping bags while women show a similar preference for beds built into trailers. Socio-economic characteristics, however, do not have a bearing on these preferences.

For the above mentioned reasons, the following discussion will be concerned only with the correlations existing between socio-economic characteristics of age, education, occupation and type of group and the living equipment (housing) preferred by the respondents.

Group and Living Accommodation. The existent correlation in this group is centered around the preference of male respondents who are leaders of one-family groups containing friends. It can be seen in referring to Table 22 that these men showed a fairly substantial increase in their preference for tents over that shown by men who were leaders of one-family groups without having friends along. Since this latter group shows

a 50 percent preference for trailers and the former (one family and friends) a 50 percent preference for tents, there is therefore a 100 percent preference for tents by the male leaders of one-family groups with friends in accompaniment.

Two possible explanations for this may be the desire for more space through the use of tents or a desire to expose the guests to a more "rustic" form of camping.

TABLE 22. Type of Group and Living Accommodations Preferred

Group	House Trailer	Tent	House Trailer or Tent	Tent Trailer	Tent Trailer - House Trailer	House Trailer and Tent	Other	
Non-Family	1	6	1	1				
One Family	31	16	2	7	1	1	2	1
Two Families	1	3	1	2				
Four Families		1						
One Family plus Friends	4	8					1	
Two Families plus Friends	1	1						

Age and Living Accommodation. A very apparent correlation exists in this group between the extent of a woman's age and her preference for

house trailers. From Table 23 it can be seen that women respondents, whose husbands were in the 55-64 age class, showed a definite increased preference for house trailers from that shown by women in the younger age classifications. In comparing percentages it was found that there exists a 25 percent preference for trailers over tents by those women in the 35-44 age class, a 45 percent preference by those in the 45-54 age class and a 100 percent preference by those women in the 55-64 and 65-74 class. Men in this same age classification showed no proportionate change in their preferences.

The obvious reason for this increased preference for house trailers, as age increases, is that the older women feel the increased need for comfort - they feel they are too old to rough it!

TABLE 23. Age and Living Accommodations Preferred

Age	House Trailer	Tent	House Trailer or Tent	Tent Trailer	Tent Trailer - House Trailer	House Trailer and Tent	Other	
25 - 34	6	4			1			
35 - 44	20	15	2	2	2	1	1	1
45 - 54	9	5		2				
55 - 64	11		1					
65 - 74	6							

Education-Occupation and Living Accommodation. The two socio-economic characteristics of education and occupation are linked together in this section because both of these express a similar correlation - that of substantially altering the common male preference for tents (Tables 24 and 25).

Education-wise, it was found that in the nine-twelve years of education group, there was a 22.2 percent higher preference for tents over house trailers, an equal preference in the thirteen to fifteen group and a 50 percent opposite increase for house trailers in the sixteen-and-over group. In all, a 72.2 percent increase for trailers over tents in advancing from those male respondents with nine to twelve years of formal education to those with sixteen or more years of formal education.

Type of occupation showed a very similar increased preference for house trailers. Clerical workers indicated a 40 percent preference for house trailers over tents, skilled and semi-skilled an opposite 26.3 percent preference for tents, and professionals a 35.7 percent preference for house trailers. Here again, like high education level, male respondents in the professional job level showed a definite preference for house trailers.

Of interest was the fact that income level showed no correlations; apparently high level of education and high occupational status do not have their preferences linked to an income motive. Being able to afford house trailers obviously does not have any appreciable effect upon what a respondent prefers.

TABLE 24. Occupation and Living Accommodations Preferred

Occupation	House Trailer	Tent	House Trailer or Tent	Tent Trailer	Tent Trailer - House Trailer	House Trailer and Tent	Other	
Professional	14	9	1	2		1		2
Skilled - Semi	14	19		4	1			1
Clerical	5	3	2	1				
Laborer	2	1		1				
Farmer	1							
Retired	2		1					

TABLE 25. Education and Living Accommodations Preferred

Grades Completed	House Trailer	Tent	House Trailer or Tent	Tent Trailer	Tent Trailer - House Trailer	House Trailer and Tent	Other	
Under 7	1	1						
7 - 8	7	5		2				1
9 - 12	17	19	3	5	1			
13 - 15	5	5		2				
16 and Over	8	4	1	1			1	2

In both of the above cases, education and occupation, the women respondents preference for house trailers remained proportional to the

number in each group. For instance, the ratio between the number of people in a certain occupation classification and their preference for trailers was proportionally the same for every occupation classification.

Activities and Socio-Economic Characteristics

After a thorough analysis of all comparisons between the activities preferred by the respondents and their socio-economic characteristics, it was found that correlations were evident only with regard to the socio-economic characteristics of age, occupation and type of group.

Group and Activity. In this section there appears to be a correlation between the type of group and the preference for fishing over swimming (Table 26). Male respondents of one-family groups indicated an almost three and one-half to one preference for fishing over swimming. This preference, however, was increased to four and one-half to one when friends or relatives accompanied a single family group. The reason for the existence of this correlation is unknown. It may be coincidence or factual - only further study can answer this question.

Age and Activity. In this section a definite and logical correlation exists between age level and the preference for fishing over swimming. From Tables 27 and 28 it can be seen that the preference for swimming decreases and the preference for fishing increases as a person grows older. This is even true for women who normally rank swimming above fishing.

TABLE 26. Type of Group and Activity Preference

Group	Fishing	Boating	Swimming	Hiking	Water Skiing	Sightseeing	Relaxing	Photography	Reading	Sunning	Eating	Sleeping	Games
Non-Family	3						2					2	1
One Family	31		9	1	1	3	7	2	1	1			
Two Families	3		3	1							1		
Four Families			1										
One Family Plus Friends	9		2				2						
Two Families Plus Friends	2												

TABLE 27. Age and Activity Preference - Male

Age	Fishing	Boating	Swimming	Hiking	Water Skiing	Sightseeing	Relaxing	Photography	Reading	Sunning	Eating	Sleeping	Games
25 - 34	6		4	1			1						
35 - 44	21		9	1	1	2	8	1	1		1	2	
45 - 54	13		1				1						
55 - 64	8		1					1		1			
65 - 74						1							1

TABLE 28. Age and Activity Preference - Female

Age	Fishing	Boating	Swimming	Hiking	Water Skiing	Sightseeing	Relaxing	Visiting	Reading	Sunning	Looking for Things	Card Playing	Sleeping
25 - 34	1		6	1						1		1	1
35 - 44	9		13	4	1	4	7	1	1	1			
45 - 54	6	1	1	2			2	1	1				
55 - 64	5		1				1			1		1	
65 - 74			1			1							

This correlation becomes even more evident in an examination of percentages. Men in the 35-44 age group expressed a 57.1 percent preference for fishing over swimming, those in the 45-54 group a 99.9 percent preference and those in the 55-64 group a 99.7 percent preference. Women preferences consisted of a 30.8 percent preference for swimming in the 35-44 age group, a 99.8 preference for fishing in the 45-54 age group and an 80 percent preference for fishing in the 55-64 age group.

The reason for the existence of these correlations probably stems from a desire for less strenuous activity by the older people.

Occupation and Activity. Occupational level, as expressed in this study, has little effect upon activity preference. Only one occupational group showed a correlation which was non-existent in the other groups; skilled and semi-skilled workers expressed a very definite preference for fishing over swimming. This group indicated a six to one preference for fishing

over swimming, while the other three major occupational groups (professional, clerical and laborer) showed only a two to one preference for fishing over swimming (Table 29). No explanation can be given for this occurrence.

TABLE 29. Occupation and Activity Preference

Occupation	Fishing	Boating	Swimming	Hiking	Water Skiing	Sightseeing	Relaxing	Photography	Reading	Sunning	Eating	Sleeping	Games
Professional	13		7				5	2		1			
Skilled - Semi	23		4			1	4		1			2	1
Clerical	5		3	2	1								
Laborer	2		1		1	1							
Farmer	1												
Retired	1					1						1	

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Family camping has experienced tremendous growth in recent years and from all sources of information it appears that this trend will continue to increase at an even greater rate in the next few decades. Along with this nationwide acceptance and participation in family camping, there has also evolved a change in the character of camping and a substantial increase in the demand being put upon existing facilities. To meet this demand situation, public agencies and private entrepreneurs are presently undertaking accelerated programs of campground expansion and development. The problem of providing for the changed character of camping, however, has not been solved because of a lack of research in the area of user preferences.

To partially meet this need, a study was conducted in Iron County, Michigan during the summer of 1959, to determine: (1) the motivations and values generating campground use, and (2) the activity, facility and equipment preferences resulting from this use. This report deals only with the second of these objectives.

The purpose of this report was to evaluate the activity, facility and equipment uses and preferences of the Iron County camper and to determine the economic impact of the camper upon the local economy. To

accomplish this, questionnaires were randomly distributed to the male and female leaders of 100 camper parties, camping in seven carefully selected campgrounds. The tabulated data obtained from these completed questionnaires disclosed some important findings.

The most frequent occupant in the campgrounds of Iron County is the one-family camper party composed of husband, wife and three children. They have approximately three years of camping experience and camp from three to four weeks a year. They reside either in the vicinity of the County or somewhere in the lower half of the Lower Peninsula and are on a one week camping trip.

The male leader of this group (husband) is 43 years old, has a high school education, is a skilled or semi-skilled worker and earns seven thousand dollars a year. His wife is 40 years old, has a high school education, and performs the duties of a housewife. Their children, aged 13, 9 and 8, consist of two boys and one girl respectively and are in junior high and elementary school.

In selecting a place to camp, this group chose one of the full facility campgrounds which was adjacent to a lake, accessible by major highway routes, and in the vicinity of one of the County's major cities. Their major items of equipment consisted of a tent(s), sleeping bags - used in conjunction with air mattresses, cots or bare ground, portable gas stoves and portable ice chests. All of this and other items of equipment amounted to an approximate investment of one thousand dollars and

was the personal property of the camping party.¹ While in this campground this party spent most of their time fishing, swimming and enjoying the scenery. The man spent most of his time fishing and the woman and children spent their time swimming. An equal amount of time was spent by all in enjoying the scenery.

A consideration of the economic impact of the camper upon the local area disclosed that this camping family spent ninety-one dollars and seventy-five cents in the area during their one week stay. By projecting this amount to the number of campers who camped in only the three full facility campgrounds and considering the length of time they stayed, it was found that these summer campers benefit the economy of the area by approximately 124 thousand dollars.²

In requesting information from this typical camping party regarding their facility, equipment and activity preferences, it was found that the majority of the expressed preferences were in strict accord with actual use and participation, however, there were a few discrepancies. Also obtained from these expressed preferences were a number of insights into what this typical one family group felt was important in the complete development of a campground.

¹This figure may be slightly high for the strict tent camper, but is low for those people camping in trailers. The thousand dollar figure is the tabulated mean expenditure for equipment.

²Use data was available only for these three areas and even this use data is considered to be a low estimate because the camping season was not completely over when this data was obtained.

This group preferred to camp in a full facility campground having good usable lake frontage and an overstory of mature trees. Other highly preferred attributes in order of importance included: (1) safe drinking water within easy access of every site, (2) flush-type toilets also within easy access, (3) regular garbage collection and conveniently located receptacles, (4) picnic table at every site, (5) preservation of the area in its natural state, (6) no crowding in the campground, (7) clearance of brush in the campground, (8) well-marked trails, (9) availability of electricity at each site, and (10) lifeguard protection at the beach area.

In considering the equipment preferences of this one family group it was found that a definite preference was shown for house-trailers over tents, by both the husband and the wife. Sleeping bags were still preferred by the husband, but his wife preferred to sleep on a bed built into a house-trailer. The preferences for gas stoves and ice chests complement the use of these items.

Activity preferences can be grouped into two broad categories: water-oriented activities and relaxation. The five most preferred activities in order of enjoyment are as follows: (1) eating outdoors, (2) sightseeing, (3) fishing, (4) swimming, and (5) outdoor cooking.

In order to gain a better understanding of the expressed preferences, correlations were made between the sociological characteristics of age, education, occupation, income and type of group. The more important results of these correlations are as follows: (1) one family groups with

friends and/or relatives and two family groups indicated a preference for minimum facility campgrounds - this is especially true for the latter group, (2) family groups with very young children showed a definite preference for the full facility campground, (3) one family groups with friends and/or relatives indicated a very strong preference for tents over house-trailers, (4) as the women respondents increased in age their preference for house-trailers increased substantially, (5) although there was a definite preference for house-trailers by both professionals and clerical workers, skilled and semi-skilled workers showed an equally definite preference for tents, (6) one family groups with friends and/or relatives expressed a much greater preference for fishing than did any other group, (7) as the respondents increased in age their preference for swimming decreased and their preference for fishing increased, and (8) skilled and semi-skilled workers preferred fishing over swimming by a six to one margin, all other occupations by only a two to one margin.

Conclusions and Recommendations

In examining this report, it becomes readily apparent that camping is a very important factor in attracting people to Iron County and that the people who come desire to camp in attractive, uncrowded, full facility campgrounds.

Iron County has for some time been in a state of rapid economic decline, and from all indications there seems to be little chance that mining, forestry, farming, and the other minor industries will show any

sizable increase in production in the foreseeable future. The economy therefore, will probably be oriented toward greater emphasis in promoting the tourist business, and since camping in Iron County is a major part of this tourist business, promotion of camping.

At present, the County's three full facility campgrounds, while excelling in recreational features and natural surrounding scenery, are sadly lacking with regard to administration, design, facility provision and size. Most of the problem stems from the fact that none of these areas are administered by trained parks personnel. The two county parks are administered by caretakers who are responsible to the County Road Commission and the city park is administered by a caretaker who is appointed by the mayor. In both of these cases, neither the caretaker nor the administrative agency have the park-oriented skills necessary for sound design and administration of these areas. Due to the existence of these above mentioned campground problems, certain improvements will have to be made so that Iron County can not only increase the number of campers coming to the area but also maintain their present level of camping activity. In the following paragraphs a number of recommendations will be made based on the findings of this study. It is hoped that these will prove beneficial to those people for whom this study was conducted.

Of foremost importance is the need for further, more intensive studies of user preferences so that the validity of these findings can be determined, and in so doing, prove useful to the County, the State, and

the Nation. It is extremely important in this age of increased demand and changed character of camping that more emphasis be placed on the use and value of user preference studies. The limited time, scarcity of funds for campground planning, development, and administration, has brought about the need for a supplement to the time honored process of learning by experience. It is necessary that more consideration be given to the needs and desires of our modern-day camper; this can be accomplished, in the limited time available, through the use of user preference studies. Studies which can present data on user preferences to the campground planners and administrators who, in turn, can transform these findings into an acceptable and usable program of campground development and administration.

In considering specific recommendations for the campgrounds in the County, one prominent finding is evident - the county and city parks need professional parks leadership. It is the considered opinion of this author, that all of the present problems, with the possible exception of providing more parks, can be solved by placing these parks under the direction of professionally trained park and campground administrators - providing funds are available. The major needs, such as the establishment of definite campsites, the adequate and convenient provision of facilities (water, flush toilets, garbage disposal, electricity, and tables), provisions for site protection and proper layout of campground area, would be immediately apparent to this administrator and with proper funds he could rectify these current problems.

One finding of this study which was not apparent beforehand was the lack of need shown for certain presently accepted campground facilities.¹ The majority of the respondents considered campground showers and stoves to be unimportant facilities. It is therefore recommended that further study be made on the need for these two facilities and if these findings are verified, then these two items should be omitted in further expansion and development of the County's full facility campgrounds.

Regarding the minimum facility areas under the administration of the U. S. Forest Service, it is recommended that these areas be gradually increased in size as demand warrants and that the present high maintenance standards be continued.

The last, and perhaps the most important, recommendation is that a large (50 or more campsites) full facility campground, preferably a state park campground, be established on an appropriate site between the cities of Iron River and Crystal Falls.

Perhaps the single most important reason for establishing a full facility campground in Iron County, is the lack of adequate park and recreation facilities in and around the County. By scanning the "use" figures in the "Parks in the County" section of this report, it becomes clearly evident that all parks, at all levels, with the exception of a few undeveloped and remote sites, receive an excessive amount of use during

¹ Campground showers and stoves are provided in the majority of Michigan's state parks and the National Parks of the Nation.

the summer season. This use is so great, in some areas, that the qualities which make the area attractive are being sacrificed in order to meet the demand.

Use to a deterioration degree is not generally the case in Forest Service Campgrounds and Picnic Areas due to the fact that these areas are designed for a more primitive type of use, with minimum facilities being provided. The burden of use, therefore, is predominantly concentrated in the few well known county and city parks, where full facilities are provided. A full facility campground in the area would lessen the burden upon these over-loaded parks and would provide the type of service demanded by the average tourist.

Another very important justification for the need of this park is the economic benefit which the County would derive. From data obtained in this study it was discovered that 87.3 percent of all campers who presently use full facility areas are out-of-the-County or out-of-State residents. The provision of numerous full facility campsites would then mean that a great amount of additional capital would be channeled into the County. (Refer to page 105, "Money Spent in Area.") This need for a full facility campground was frequently expressed by the respondents in this study.

Even though these above mentioned advantages exist and the need for a full facility campground in this area is clearly evident, it must be remembered that the establishment of one full facility campground is not, by itself, going to bring about a revision in Iron County's economic

slump, nor will there be any noticeable lessening of park pressure.

The establishment of this proposed campground is, in effect, a "stepping stone" from which Iron County can launch its tourist business.

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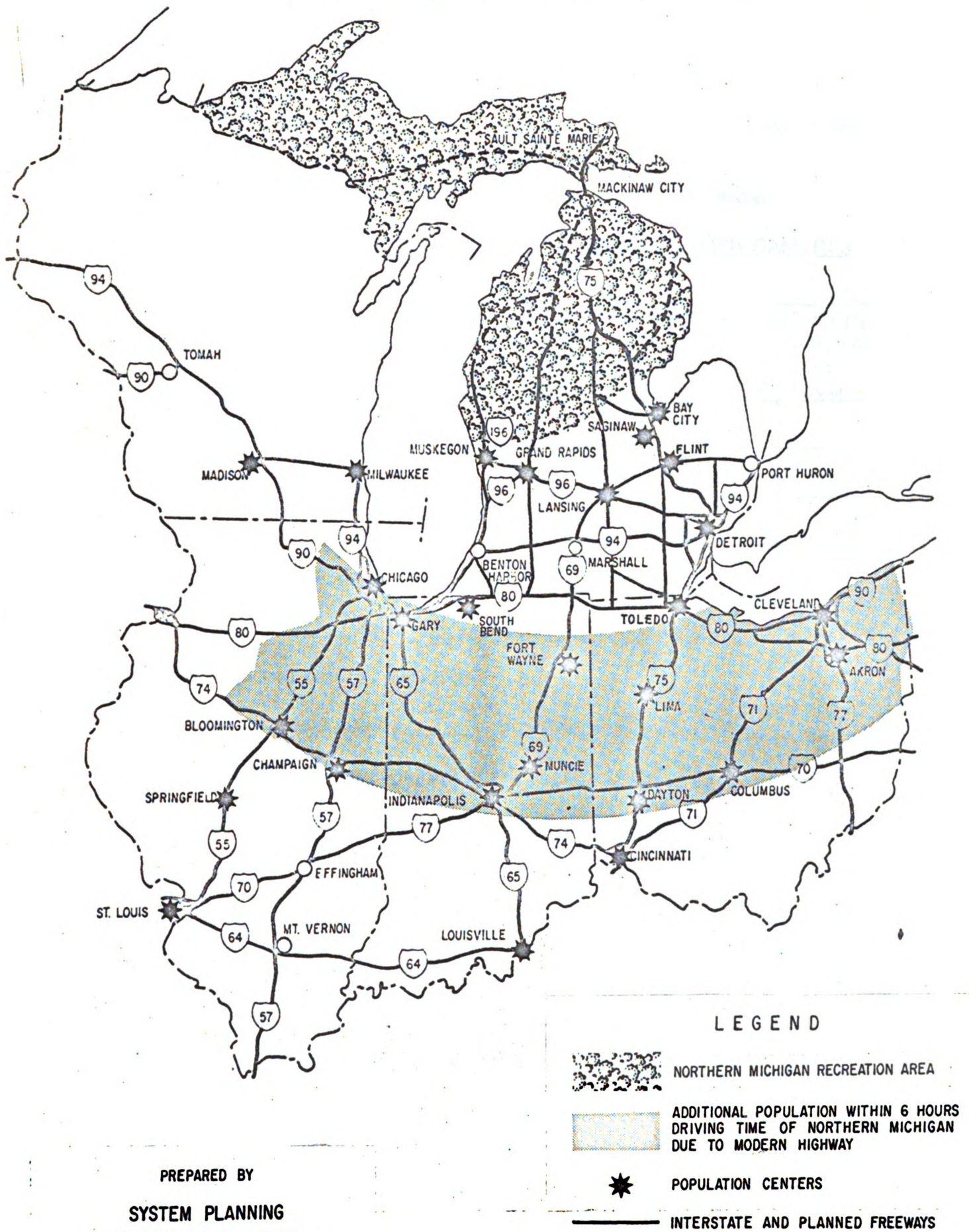
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APPENDICES

MICHIGAN RECREATION AND MODERN HIGHWAYS



APPENDIX B

Michigan State University
Sociology and Anthropology
Resource Development

July 1, 1959

A Study of Camper Opinion in Iron County, Michigan

A. PERSONAL BACKGROUND AND PAST EXPERIENCE WITH CAMPING

1. Personal Background.

	On a Farm	Rural non-farm or Suburb	Village or city 2500 to 10,000	In a city 10,000 to 99,999	In a city 100,000 or over
a. <u>Where did you live during most of your childhood?</u>					
b. <u>Where have you lived during most of your adult life?</u>					
c. <u>Where do you live now?</u>					

2. Did you do any camping during your childhood?

_____Much _____Some _____None

3. When did you first go camping?

a. How old were you? _____ b. What year was this? _____

4. How often do you go camping now? _____

5. Have you ever served actively in the Armed Forces? ____Yes ____No

6. If yes:

a. How many years did you serve? _____

b. During what period of time (what years)? _____

c. What branch were you in? _____

d. How much of this time was spent in the field? _____

B. VALUES, OPINIONS, MOTIVATIONS, AND PREFERENCES

1. What are the major reasons you go camping--instead of some other activity? _____

2. What do you like least about camping? _____

3. How would you rather spend your vacation?
 - a. _____Resort, hotel, or lodge
 - b. _____Cabin with meals available
 - c. _____Housekeeping cabin or motel
 - d. _____Camping with a house trailer, tent, etc.
 - e. _____Other (Specify) _____
4. Why? _____

5. How important would you rate each of the following as your reasons for camping? Please check the box that best expresses your opinion.

	NOT AT ALL IMPOR- TANT	NOT TOO IMPOR- TANT	IMPOR- TANT	VERY IMPOR- TANT
a. Gives one a chance to do some real thinking about what life is all about.				
b. Gets one away from the family or the people one sees everyday.				
c. It provides physical rest and "reconditioning."				
d. It is something new and different.				
e. It is really rugged and it makes you feel good to have roughed it.				
f. It provides an opportunity to leave all of the cares of the work-a-day world behind.				

5. continued

	NOT AT ALL IMPOR- TANT	NOT TOO IMPOR- TANT	IMPOR- TANT	VERY IMPOR- TANT
It provides mental rest and				
g. <u>relaxation</u>				
Helps one to gain experience in				
h. <u>doing things by oneself.</u>				
Shows how conflicts can occur when				
i. <u>people live so close together.</u>				
It cements old friendships and helps				
j. <u>create new life-long friends.</u>				
Helps one to get close to the				
Creator, opportunity for desirable				
k. <u>spiritual experience.</u>				
It takes one back to the life of early				
l. <u>pioneers and explorers.</u>				
It helps one to realize how nice				
m. <u>home really is.</u>				
It gives one something to talk about				
n. <u>when you return home.</u>				
o. <u>It is inexpensive.</u>				
It helps one to understand people				
p. <u>better.</u>				
q. <u>Other (Specify).</u>				

6. What is your attitude about the most desirable number of campers in a campground:

- a. _____ No other campers
- b. _____ Some other campers--but not many
- c. _____ Many other campers

7. How much distance do you think there should be from your camp unit to the next camp site? _____

8. How close do you like to camp to town? _____

9. How often do you need a store? _____

10. If traveling the next day, what time of day do you like to stop and set up camp? _____

11. Do you enjoy "exploring" in the woods and trails? ____Yes ____No
12. Do you prefer: ____Open or ____tree-overhead camps?
13. Do you prefer: ____Lake front, ____stream front,
____no water frontage camps?
14. In your opinion, for how many campers are each of the following true?

True of:	NONE	FEW	MANY	MOST
a. Litter campsites				
b. Steal or pilfer				
c. Too noisy				
d. Intrude on privacy				
e. Lack outdoor skills				
f. Careless with fires				
g. Make friends readily				
h. Careless with boat				
i. Lack knowledge of the area				
j. Careless with property (vandalism)				
k. Act in unsafe manner				
l. Helpful and cooperative				

Activities Preferred

1. How do you like to spend your time while camping? _____
- _____
- _____
- _____

2. By checking the proper column, indicate the extent to which the following activities appeal to you when you are camping.

	Not At All	A Little	Much	Very Much
a. Fishing				
b. Boating				
c. Swimming				
d. Hiking				
e. Eating outdoors				
f. Bird watching				
g. Water skiing				
h. Fire building				
i. Cooking				
j. Sightseeing				
k. Hunting				
l. Doing nothing in particular				
m. Nature study				
n. Photography				
o. Visiting				
p. Reading				
q. Sunning				
Looking for things				
r. (rocks, birdnests, etc.)				
s. Other (Specify)				

Facilities Desired

1. What kind of campground do you personally like best for camping?
 - a. _____ Full facilities (Example: toilet, showers, laundry facilities, electricity, garbage disposal, water spickets, etc.)
 - b. _____ Minimum facilities (Example: water pump, pit toilet, stove)
 - c. _____ Isolated surroundings (None of above)
2. What do you feel are the essential facilities that you like to have provided at a campground?

3. What kind of cooking facilities do you prefer while camping? _____

4. What kind of sleeping facilities do you prefer while camping? _____

5. What kind of recreational facilities do you prefer while camping?

6. What kind of living accommodations do you prefer while camping?
(Example: tent, house trailer, etc.) _____

7. How important would you rank each of the following facilities as far as determining your choice of a place to camp? (Please check the box best expressing your attitude.)

	NOT AT ALL IMPOR- TANT	NOT TOO IMPOR- TANT	IMPOR- TANT	VERY IMPOR- TANT
a. Fireplaces				
b. Tables				
c. Garbage disposal places				
d. Toilet facilities				
e. Launching ramps for boats				
f. Boat docks				
g. First aid stations				
h. Clearance of brush and windfalls				
i. Smooth trails & filled in wet spots				
j. Boat rental				
k. No crowding at camps				
l. Laundry facilities				
m. Life guard				
n. Preserving area in its natural state				
o. Well-marked trails, directional signs				
p. Safe drinking water provided				
q. Campground showers				
r. Electricity at campgrounds				
s. Cafe or restaurant available				
t. Child care facilities				
u. Planned recreation				
v. Library facilities				
w. Other (Specify)				

C. CURRENT TRIP

1. What do you usually do for a vacation? _____

2. What improvements do you feel should be made in this campground? _____

3. How does this campground compare with other campgrounds that you have visited? _____

4. What do you want to know about a campground and the surrounding area before you go there to camp for the first time? _____

5. Looking back over this camping trip, what would you say were:
- a. The one or two things that annoyed you most? _____

 - b. The one or two things you enjoyed most? _____

 - c. Equipment you would have liked, but didn't have? _____

 - d. Particularly useless items of equipment? _____

 - e. The things you most wish you had done but didn't do? _____

6. In general, how satisfied are you with your camping trip this year?
- a. _____ Completely satisfied
 - b. _____ More satisfied than dissatisfied
 - c. _____ About half and half
 - d. _____ More dissatisfied than satisfied
 - e. _____ Completely dissatisfied

7. If you were to plan another such trip for next year, what kind of group would you prefer?

a. _____ Family members only

b. _____ Group of men

c. _____ Group of women

d. _____ More than one family

e. _____ More than one couple

f. _____ Large organized group

g. _____ Other (Specify) _____

8. Do you plan another camping trip next year?

_____ Yes _____ No _____ Don't know

9. If no, why? _____

APPENDIX C

Michigan State University
Sociology and Anthropology
Resource Development

July 1, 1959

A Study of Campers in Iron County, Michigan

I am _____ from Michigan State University. We are doing a study of what people look for and do when vacationing and camping in this area. The study is designed to provide many important facts and information for the people who work in conservation, forestry, and recreation. May I have a few minutes of your time?

1. Campground location _____ 2. Camp No. _____
3. Interview No. _____ 4. Interviewer _____
5. Date of interview _____
6. Name of person being interviewed _____
7. Residence address _____
8. Color: _____ White _____ Nonwhite

A. CHARACTERISTICS OF CAMPERS

1. I would like to make a list of all of the persons here at camp with you. (List all of those who are sharing a common camp. With family parties start with the husband, then the wife, then the children from oldest to youngest, then other relatives, and then non-relatives. Be sure to indicate the relationship in the appropriate column.)

If there are two family groups sharing the same accommodations, list one complete family and then the other.

If the camping party is a non-family situation, indicate the nature of the party in the column entitled "Relation to Head."

Obtain once for each camp.

Name (First & Last)	Relation to Head	Sex M- F	Age	Highest Grade Completed	Major Occupation	Industry
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						

2. For Married Couples and Family-Type Camping Parties

A. Members of Family Left at Home.

Name (First & Last)	Relation to Head	Sex M- F	Age	Highest Grade Completed	Major Reason They Did Not Come
1.					
2.					
3.					
4.					
5.					

B. Members of Family No Longer at Home.

1. What are the ages of your children who no longer live at home?

First Family

Boys: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Girls: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Second Family

Boys: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Girls: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

B. CURRENT TRIP

1. How did your party first come to learn of this campground? _____

2. What are the major reasons your party came to this particular campground? _____

3. Do you feel that satisfactory information about campgrounds is readily available to you and your party? _____

4. Please check each of the following sources from which your party received information on this area or received aid in planning this trip.

- | | |
|---|--|
| a. <input type="checkbox"/> Parents | g. <input type="checkbox"/> Government publications |
| b. <input type="checkbox"/> Family members | h. <input type="checkbox"/> Advertising at travel show |
| c. <input type="checkbox"/> Neighbors or friends | i. <input type="checkbox"/> Advertising from tourist bureau |
| d. <input type="checkbox"/> Work associates | or Chamber of Commerce |
| e. <input type="checkbox"/> Casual acquaintances | j. <input type="checkbox"/> Advertising from resorts in area |
| f. <input type="checkbox"/> Newspapers, magazines | k. <input type="checkbox"/> Maps of the area |
| | l. <input type="checkbox"/> Other (Specify) _____ |

5. Is the trip you now are on:
- a. ___ Part or all of annual vacation
 - b. ___ One day trip
 - c. ___ Weekend
 - d. ___ Holiday
 - e. ___ Other (Specify) _____
6. Is this trip:
- a. ___ One of several this year, but the major one
 - b. ___ One of several this year, but a minor one
 - c. ___ The only vacation trip this year
7. On what date did you begin this trip? _____
8. On what date do you expect to end this trip? _____
9. How many days (total) will you spend at this campground? _____
10. At what other campground have you stayed or will you stay during this year (1959)?
- | | | | | |
|---------------------------------|----------|----------|----------|----------|
| Name | 1. _____ | 2. _____ | 3. _____ | 4. _____ |
| Location | 1. _____ | 2. _____ | 3. _____ | 4. _____ |
| Dates there (Arrival & Leaving) | 1. _____ | 2. _____ | 3. _____ | 4. _____ |
11. Is the present campground:
- a. ___ The destination of this trip
 - b. ___ A stop on a tour-type trip
 - c. ___ Other (Specify) _____
12. How many previous camping trips have you made to this campground?
- _____ Years they were made: _____

13. Has anyone in your party had any accidents of any kind on this trip?

_____Yes _____No

14. If yes, what happened? (Also which members)_____

15. About how much money does your party expect to spend in THIS AREA on this camping trip?_____

16. In addition to question 15, about how much does your party expect to spend for this particular trip. (That is, for meals, lodging, car expenses, and recreation before arriving and after leaving this campground.)?_____

17. Does anyone in your party have any fears or apprehensions about camping?

_____Yes _____No _____Don't know

If yes, which member(s) and what are their fears or apprehensions?

18. Does being away from doctor's care cause any concern with any member of the party?

_____Yes _____No _____Don't know

C. EQUIPMENT INVENTORY

Check below the kind of equipment the camping party is using on this trip.

1. What kind of housing is camper using?

a. _____Tent

b. _____House trailer

c. _____Other (Specify)_____

2. Cooking facilities:

a. _____Gasoline stove

b. _____Bottle gas stove

- c. ____ Open fire on ground
 - d. ____ Fireplace or stove provided at the camp
 - e. ____ Electric plate or stove
 - f. ____ Other (Specify) _____
3. Sleeping facilities:
- a. ____ Beds built in trailer
 - b. ____ Cots
 - c. ____ Air mattresses
 - d. ____ Sleeping bags
 - e. ____ Other (Specify) _____
4. Refrigeration:
- a. ____ Ice box
 - b. ____ Electric
 - c. ____ Gas
 - d. ____ Other (Specify) _____
5. Toilet facilities:
- a. ____ Toilet in house trailer connected with sewer or a chemical toilet
 - b. ____ Campground toilet
 - c. ____ Other (Specify) _____
6. Do you own this camping equipment or are you borrowing it?
- ____ Own ____ Borrowed ____ Rent ____ Other (Specify) _____
7. How many years have you (owned, borrowed, etc.) this equipment? ____
8. How many weeks a year do you use camping equipment? _____
9. How much would you say you have spent for your own camping equipment (Include fishing tackle, boat, boat motor, trailer, tent, stoves, etc.)? _____

10. Where did you get information on the kind of equipment to use? _____

D. INCOME

1. So we can compare your replies with others like yourselves, would you please indicate which range your total net family income falls in?

a. _____ Less than \$2,000

b. _____ \$2,000 - \$3,999

c. _____ \$4,000 - \$5,999

d. _____ \$6,000 - \$7,999

e. _____ \$8,000 - \$10,999

f. _____ \$11,000 - over

APPENDIX D

ORDER OF PROCEDURE FOR INTERVIEWING CAMPSITES (Derived from a table of random numbers)

<u>Even Numbered Campsites</u>	<u>Odd Numbered Campsites</u>
40	27
38	7
2	15
14	21
44	29
20	35
50	39
26	19
42	31
10	47
12	5
8	9
36	37
18	13
46	43
48	11
30	17
24	41
4	33
6	45
28	25
16	3
34	23
32	49
22	1

APPENDIX E

PRELIMINARY CAMPGROUND INVENTORY SHEET

I. Location

Vicinity: _____

Exact: Twp. _____ Range _____ Sec. _____

Ownership: _____

II. Access

Paved highway: _____ miles (good, fair, poor)

Secondary: _____ miles

Store facilities: _____ in area _____ miles away

III. Campground Characteristics

Cover type: _____ hardwood _____ conifer _____ mixed _____ open

Age: _____ young _____ standards _____ mature

Canopy height: _____ low _____ medium _____ high

Understory: _____ sparse _____ moderate _____ dense

Percent of cover: _____ open _____ normal _____ closed

Ventilation: _____ good _____ fair _____ poor

Topography: _____ flat _____ rolling _____ rough

Water: _____ creek _____ lake _____ river

Soil: _____ clay _____ sand

Beach: _____ sand _____ rocky _____ bluff _____ organic

Ground cover: _____ bare _____ grass _____ other (_____)

Ground moisture: _____ dry _____ damp _____ standing water

Insects: _____ problem _____ no problem

Dust problem: _____ none _____ some _____ bad

IV. Campground Information

Pattern: _____ loop _____ spur _____ other _____ none

Roads: _____ earth _____ sand _____ gravel _____ hard surfaced

Utilities: water - _____ hand pump _____ spigot _____ none _____ access

toilets - _____ pit _____ dry vault _____ wet vault _____ chemical

_____ flush _____ none _____ access

central wash house -

electricity _____ road _____ site outlets _____ none

laundry -

Facilities: stove _____ waist high _____ masonry _____ low steel _____ none

tables _____ none _____ fixed _____ portable _____ log _____ lumber

bulletin board _____ at entrance _____ none _____ other

group shelter -

garbage _____ can _____ pit _____ basket

Campsite: space for car, trailer and/or tent?

tables:

stoves?

garbage disposal?

electric outlet

car barrier?

water outlet?

sewer connection?

number in campground_____

Privacy_____little_____some_____much

V. Recreational Features

Forest

Water:_____lake_____creek_____river

Natural scenery

Isolation

Fishing

Boating

Swimming

Open game area

Play equipment

Boat launching

Sand beach

VI. Administration

Fees:_____day_____extra, for_____

Personnel:_____good_____fair_____poor (friendly, helpful)

Resident supervision:_____yes_____none

VII. Maintenance

Litter:_____none_____some_____much

Road conditions:_____good_____fair_____poor

Facility repair:_____good_____fair_____poor

APPENDIX F

AREA PICTURES



Runkle Lake City Park



Park Sign Example



Bewabic County Park

APPENDIX G

AREA PICTURES



Ottawa Lake Campground



Ottawa Lake Campground



Perch Lake Campground

APPENDIX H

CAMPGROUND DEFINITIONS

1. Full Facility Campground - a campground having all of the following: tap water, flush toilets, electricity, picnic tables and stoves. Many areas have additional facilities, however, only the five mentioned facilities are necessary to constitute a full facility area.
2. Minimum Facility Campground - a campground having all or part of the following: pumped well water or spring, pit toilets, picnic tables, and stoves. There are many forms of pit toilets; the one mentioned above refers to all non-flush toilets.
3. Isolated Campground - no facilities are provided. Area may or may not have an access road.

APPENDIX I

PERCENTAGE TOTALS FOR FACILITY RANKING (Men)

	NOT AT ALL IMPOR- TANT	NOT TOO IMPOR- TANT	IMPOR- TANT	VERY IMPOR- TANT
a. Fireplaces	22.4	36.5	24.6	16.5
b. Tables	1.1	5.7	27.6	65.6
c. Garbage disposal places	1.2	4.7	20.8	73.3
d. Toilet facilities	0	0	9.4	90.6
e. Launching ramps for boats	27.1	27.1	28.2	17.6
f. Boat docks	28.9	24.1	27.7	19.3
g. First aid stations	12.0	36.1	37.4	14.5
h. Clearance of brush and windfalls	11.6	17.4	53.5	17.5
i. Smooth trails and filled in wet spots	16.3	33.7	32.6	17.4
j. Boat rental	38.6	31.3	22.9	7.2
k. No crowding at camps	1.1	14.9	36.8	47.2
l. Laundry facilities	23.3	41.9	23.3	11.5
m. Life guard	14.0	17.4	29.1	39.5
n. Preserving area in its natural state	2.3	9.3	34.9	53.5
o. Well-marked trails, directional signs	9.4	21.2	40.0	29.4
p. Safe drinking water provided	0	0	8.1	91.9
q. Campground showers	23.5	35.3	27.1	14.1
r. Electricity at campgrounds	19.5	29.9	25.3	25.3
s. Cafe or restaurant available	55.8	39.6	2.3	2.3
t. Child care facilities	79.8	17.9	1.2	1.1
u. Planned recreation	69.4	23.5	5.9	1.2
v. Library facilities	63.1	23.8	11.9	1.2
w. Other (Specify)				

PERCENTAGE TOTALS FOR FACILITY RANKING (Women)

	NOT AT ALL IMPOR- TANT	NOT TOO IMPOR- TANT	IMPOR- TANT	IMPOR- TANT
a. Fireplaces	13.0	38.1	33.7	15.2
b. Tables	4.3	4.3	25.4	66.0
c. Garbage disposal places	1.1	3.1	24.5	71.3
d. Toilet facilities	1.1	2.1	11.7	85.1
e. Launching ramps for boats	23.3	24.5	27.7	24.5
f. Boat docks	26.6	27.6	24.5	21.3
g. First aid stations	22.0	38.4	23.1	16.5
h. Clearance of brush and windfalls	14.0	25.8	39.8	20.4
i. Smooth trails and filled in wet spots	24.8	34.4	30.1	10.7
j. Boat rental	41.3	23.9	21.7	13.1
k. No crowding at camps	2.2	9.8	38.0	50.0
l. Laundry facilities	29.1	46.2	18.3	6.4
m. Life guard	24.7	25.9	29.0	20.4
n. Preserving area in its natural state	1.1	8.5	23.7	66.7
o. Well-marked trails, directional signs	15.1	23.7	33.2	28.0
p. Safe drinking water provided	0	1.1	11.8	87.1
q. Campground showers	25.8	42.0	16.1	16.1
r. Electricity at campgrounds	24.0	25.0	17.3	33.7
s. Cafe or restaurant available	70.7	25.0	4.3	0
t. Child care facilities	76.3	19.4	3.2	1.1
u. Planned recreation	70.7	22.8	5.4	1.1
v. Library facilities	75.8	19.8	4.4	0
w. Other (Specify)				

APPENDIX J

PERCENTAGE TOTALS FOR ACTIVITY RANKING - WOMEN

	Not At All	A Little	Much	Very Much
a. Fishing	21.9	31.0	20.7	26.4
b. Boating	7.0	50.0	22.1	20.9
c. Swimming	8.0	31.0	24.2	36.8
d. Hiking	13.8	34.5	33.3	18.4
e. Eating outdoors	1.2	4.7	32.6	61.5
f. Bird watching	31.4	41.9	15.1	11.6
g. Water skiing	77.9	10.5	5.8	5.8
h. Fire building	24.3	32.6	23.3	19.8
i. Cooking	8.1	23.3	41.9	26.7
j. Sightseeing	1.2	16.3	30.2	52.3
k. Hunting	91.7	4.8	2.4	1.1
l. Doing nothing in particular	19.0	35.7	22.7	22.6
m. Nature study	31.7	42.4	15.3	10.6
n. Photography	21.2	40.0	24.7	14.1
o. Visiting	14.0	44.1	27.9	14.0
p. Reading	10.6	34.1	28.2	27.1
q. Sunning	9.5	31.0	31.0	28.7
r. Looking for things (rocks, birdnests, etc.)	36.1	34.9	16.9	12.1
s. Other (Specify)				

PERCENTAGE TOTALS FOR ACTIVITY RANKING - MEN

	Not At All	A Little	Much	Very Much
a. Fishing	2.1	16.0	21.3	60.6
b. Boating	2.1	38.3	29.8	29.8
c. Swimming	8.6	33.3	28.0	30.1
d. Hiking	17.6	39.5	29.7	13.2
e. Eating outdoors	0	12.7	30.9	56.4
f. Bird watching	50.0	29.8	17.0	3.2
g. Water skiing	68.8	15.1	4.3	11.8
h. Fire building	20.2	39.4	34.0	6.4
i. Cooking	11.8	35.5	33.3	19.4
j. Sightseeing	3.2	19.1	39.4	38.3
k. Hunting	45.1	15.1	9.7	30.1
l. Doing nothing in particular	20.7	47.8	20.7	10.8
m. Nature study	31.2	40.9	16.1	11.8
n. Photography	21.3	36.2	24.4	18.1
o. Visiting	11.6	54.3	27.7	6.4
p. Reading	33.7	43.5	18.5	4.3
q. Sunning	21.5	38.7	32.3	7.5
r. Looking for things (rocks, birdnests, etc.)	30.1	37.7	16.1	16.1
s. Other (Specify)				

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