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ATTITUDINAL VARIANTS OF BACKPACKERS WHO PARTICIPATE  
IN ORGANIZED TRIPS, BACKPACKERS WHO EXCLUDE  
ORGANIZED TRIPS, AND NON-USERS

by

Howard E. Johnson

B. S., University of Montana, 1973

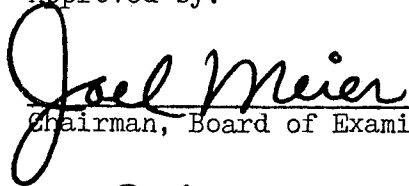
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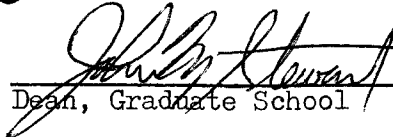
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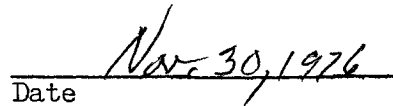
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1976

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ABSTRACT

Johnson, Howard E., M.S., December 1976

Recreation

Attitudinal Variants of Backpackers Who Participate in Organized Trips, Backpackers Who Exclude Organized Trips, and Non-users (83 pp.)

Director: Dr. Joel Meier



The purpose of the study was to identify the difference in the wilderness attitudes between backpackers who participated in the University of Montana's Campus Recreation Department's wilderness trips, backpackers who did not participate in the organized trips, and non-users from the University of Montana. Furthermore, demographic variables as well as previous wilderness backpacking experience of the three groups were determined.

During the Winter Quarter 1976, the subjects were classified as Participants, Non-participants, and Non-users in accordance to the previously stated three groups. The Outdoor Recreation Questionnaire was mailed to subjects in each of the three groups to determine select demographic information and the subjects' orientation to backpacking as well as their attitudes toward wilderness. Statistical analysis was then utilized to determine characteristics of each group and differences in attitudes between groups.

On the basis of this study, several conclusions were drawn:

1. Wilderness experience has a positive influence on attitudes toward wilderness values.
2. The results of the Hendee Wilderness-Urbanism Attitude Test illustrated that participants were significantly different than non-participants in attitudes toward wilderness.
3. The results of the Hendee Wilderness-Urbanism Attitude Test illustrated that non-users were significantly different than non-participants in attitudes toward wilderness.
4. The results of the Hendee Wilderness-Urbanism Attitude Test illustrated that participants were significantly more wilderness oriented than non-users in attitudes toward wilderness.

## ACKNOWLEDGEMENT

The author expresses sincere appreciation to Dr. Thomas R. Whiddon for his guidance, encouragement, and time; to committee members, Dr. Joel Meier and Dr. Maureen Ullrich for their suggestions and encouragement; to his parents, Mr. and Mrs. Howard A. Johnson for their support throughout his college career; to the Campus Recreation Department; and to his wife Theresa, and daughter Kristin, for their understanding, patience, and encouragement in this endeavor.

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## CHAPTER I

### INTRODUCTION

Participation in recreation continues to increase in America. Nowhere is this more evident than on college campuses, where a wide variety of recreation facilities may be found. The use of recreation facilities by students on many campuses has increased two to three fold within the past decade. Never before have campus recreation departments had trouble scheduling intramural activities. Now they must turn teams away (28).

In an attempt to meet this increased demand, directors of campus recreation programs have expanded their services greatly. New activities, sports, and outdoor recreation programs have been added, including men's, women's, and co-recreation categories. Outdoor trips have been promoted and accepted in the programs. The result is that students on many campuses now have the choice to participate in organized outdoor recreation programs with a wide array of activities or independently of the scheduled events.

During the 1974-1975 school year at the University of Montana, the students on campus had the opportunity to sign up for and go on nineteen different overnight backpacking trips to wilderness or "proposed" wilderness areas. The Campus Recreation Department sponsored these trips and charged a small fee to cover a percentage of the transportation costs. The department also made rental backpacking

equipment available for a nominal fee. A total of 182 students went on these trips with only a few of these participants being repeats. However, approximately one-half of the scheduled trips never filled to the established limits (17).

Yet, interest in backpacking appears to be extensive on this campus. Backpacking classes offered in the Department of Health, Physical Education, and Recreation have an average of 16 students per class. Also, 533 students (some of these being repeats) rented backpacks from the Campus Recreation Department to go on backcountry trips. Excluding the 182 students participating in organized trips and the 48 enrolled in HPER classes, over 300 students rented equipment to go on backcountry trips not sponsored by the Campus Recreation Department (17).

What is the difference between backpackers who seek original wilderness experiences and those pursuing wilderness trips independent of organizations? Since no research has been reported on correlates of participants in organized outdoor recreation programs and those who pursue the activity independent of organization, it is difficult to hypothesize as to which variables account for the variance in the behavior.

Some studies, however, give some insight into the situation. The Outdoor Recreation Resources Review Commission report found that "significant" associations existed between such factors as sex, age, race, place of residence, education of head of household, and income and the levels of outdoor recreation activity. However, taken together these factors account for approximately 30% of the variance in the

measure of outdoor recreational activity (19). This indicated that demographic and sociological standard variables account for only a slight explanation of the extremely diverse leisure behavior.

Another variant that has been shown significant between participants and non-participants in outdoor recreation activities is the participation as a child in outdoor recreation. Hendee reported that 70% of the wilderness-campers had taken their first camping trip before they were 15 years old (9). Yoesting and Burkhead found a direct relationship between the total activities participated in as a child and adult participation (36).

The "personal community hypothesis" is another sociological variable that has been reported to influence an individual's participation in recreation. Burch suggested that one's leisure style will, to a large extent, be developed through relationships with and socialization by working partners, friends, parents and spouse (4).

It is possible that these socioeconomic and demographic variables may demarcate the "participants" of organized backpacking trips and "non-participants". However, these variables do not explain the attitudes of "participants" and "non-participants". Hendee developed the Wilderness Attitude Scale and reported that Spartanism was the strongest dimension among wilderness users (9). Weisner and Sharkey, using Kenyon's Attitude Toward Physical Activity Test, found that backpackers scored significantly higher on the Vertigo and Health and Fitness scales than non-backpackers (34).

While information of the variables can be utilized as predictors of the "participants", a campus recreation director, if expected to

meet the needs of "participants" in the programs, also needs to be more cognizant of any attitudinal difference that may exist between those who participate in the departmental sponsored or organized wilderness trips and those that do not. In this way the director can move to ameliorate the backpacking experience of those who participate in the organized backpacking trips by a department.

#### STATEMENT OF THE PROBLEM

Previous studies have reported on demographical and sociological variables that have accounted for the variance between outdoor recreation "participants" and "non-participants" or "low-participants". Using the Hendee Wilderness-Urbanism Attitude test, this study sought to determine the difference in the wilderness attitudes between backpackers who participated in the University of Montana's Campus Recreation Department's wilderness trips, backpackers who did not participate in organized trips, and non-users from the University of Montana. Furthermore, demographic variables as well as previous wilderness backpacking experience of the three groups were determined.

#### HYPOTHESES

The following null-hypotheses were tested in this study:

1. There is no significant difference in wilderness attitudes between "participants" and "non-participants" as measured by the six factors of the Hendee Wilderness-Urbanism Attitude Test.

2. There is no significant difference in wilderness attitudes between the "non-users" and the "non-participants" as measured by the six factors of the Hendee Wilderness-Urbanism Attitude Test.

3. There is no significant difference in wilderness attitudes between the "participants" and the "non-users" as measured by the six factors of the Hendee Wilderness-Urbanism Attitude Test.

#### SIGNIFICANCE OF THE PROBLEM

Backpacking has become a popular activity on college campuses in the past few years. Campus recreation departments have attempted to organize this activity so that more students could enjoy backpacking at a reasonable price. As yet, few backpackers at the University of Montana have taken advantage of such trips. If directors can find out what factors differentiate participants in organized backpacking trips from those who do backpack but do not participate in organized trips sponsored by the University, they can then direct the backpacking trips either to the individuals that are likely to participate or alter the trips to attract more backpackers.

#### DELIMITATIONS OF THE STUDY

The scope of the study was limited in following ways:

1. The groups to be surveyed were limited to "participants" who utilized the University of Montana Campus Recreation trip services during Fall Quarter, 1975; "non-participants" who did not use the trip service but did utilize the Campus Recreation rental service during the same period of time; and "non-users" from the University of Montana.

2. No attempt was made to correlate attitudes on socioeconomic and demographic characteristics.

3. Since the subjects in this study constitute a universe, the findings of this study apply only to the students, faculty, and staff of the University of Montana who utilize either the Campus Recreation sponsored trips or the Campus Recreation equipment rental service or both. No implications were intended for other universities.

#### LIMITATIONS OF THE STUDY

The following limitations are presented to show the unavoidable weaknesses of this study:

1. There was a difficulty in determining those students who backpack but do not utilize the University of Montana Campus Recreation services. The backpacking "non-participants" consisted of those students at the University of Montana who rented backpacks from the Campus Recreation Department. Therefore, those students who had backpacked for a long period of time and had acquired their own equipment were probably omitted, thus causing the study to compare novices who had backpacked yet did not own their own equipment.

2. The above limitations demarcated the study to a small population.

3. It was impossible to locate all of the people desired for inclusion in this study either because of their failure to maintain up-to-date addresses with the University of Montana Registrar's office or because they left school without leaving a forwarding address. Further, because the study included females, marriage may have changed some of the subjects' names.

4. It is possible that not all of the subjects responded to the questionnaire because of the personal nature of some of the questions. The researcher assured all the participants that their names would be held in the strictest confidence to help reduce this possibility.

#### BASIC ASSUMPTIONS

This study was based on the assumptions that:

1. The use of a questionnaire, while having certain limitations, would provide reasonably valid data for the purposes of this study.

2. It was assumed that the information obtained from the questionnaire would be accurate.

3. A high enough percentage (70%) of questionnaires would be returned to draw accurate conclusions.

#### DEFINITIONS

1. Wilderness - refers to the natural, undeveloped areas which have no roads and which remain essentially unchanged by man. This would include areas like the wilderness and backcountry of the National Parks as well as legally designated wilderness and primitive areas (34).

2. Backpacker - one who travels by foot in the wilderness, carrying all food and shelter for survival by himself without the aid of pack animals or machinery (34).

3. Attitude - a latent or non-observable, complex, but relatively stable, behavioral disposition reflecting both direction and intensity of feeling toward a particular object, whether it be concrete or abstract.



4. Participants - those backpackers who participated in at least one organized trip sponsored by the University of Montana Campus Recreation Department.

5. Non-participants - those backpackers who utilized Campus Recreation equipment but have never participated in an organized backpack trip sponsored by the University of Montana Campus Recreation Department.

6. Non-users - those students, faculty, and staff from the University of Montana who had never participated in the University of Montana Campus Recreation trips or rental program.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

A survey of research related to Campus Recreation Outdoor Programs revealed little writing directed specifically to the problem of this study. The bulk of the research was related to studies of wilderness users. Of these studies, Hendee's study of the wilderness users in the Pacific Northwest (9) provided the author with the most material pertinent to this study. However, other studies were reviewed which were also of value to this study.

### WILDERNESS USE

A variety of sources reported that recreational use of wilderness has increased at a dramatic rate and that future use will continue to follow this trend. Forest Service officials estimate that, in 1956, 2,875 persons visited the Glacier Peak Wilderness in Washington. Their estimates for 1958 indicated an increase to 3,200 visitors. In 1965, data collected from self-registration stations at the entrances of the Bob Marshall Wilderness Area indicated that 7,400 people visited this area for a total of 400,000 man hours of use (13). Also, Wenger's (31) study of the Three Sisters Wilderness in Oregon indicated that in 1962, there were 20,000 visitors and approximately 405,000 man hours of use. The National Park System reported that 140 million visitors were recorded in National Park System areas in 1967. The annual attendance

exceeded 200 million in 1971 and is expected to exceed 300 million by 1976 (26). Stankey (25) found that recreational use of wilderness increased at a rate of nearly 10 per cent per annum since 1945.

Lucas (11) reported that wilderness man-days increased about seven-fold while use of all other National Forest land had a four-fold expansion.

Hendee (9) predicted an increase in wilderness use by showing that wilderness users typically have characteristics becoming more common to our society, that is they are educated in professional, technical professions, often with an urban background. Also, users tend to be married, with children, and wilderness visitation seems to be continuation of patterns learned in childhood. In addition, a significant number of users belong to organized conservation groups, outdoor clubs, and are politically active.

#### Characteristics of Wilderness Users

Increased wilderness use has generated interest in research dealing with characteristics of the wilderness user in order to better plan for the needs of the public and to better manage available resources. As a result of increased wilderness use by various groups of people, extensive research efforts have been undertaken to learn more about the characteristics of the wilderness user. Research dealing with attitudes, values and preferences of wilderness users has also been reported in the literature.

From this data, special interest appears to be expressed concerning the wilderness user in reference to his attitudes. Hendee (9) has classified wilderness attitudes into the following seven categories:

1. Spartanism
2. Antiartifactualism
3. Primevalism
4. Humility
5. Outdoorsmanship
6. Aversion to social interaction
7. Escapism

The strongest factor identified by consistent responses shared by wilderness users was Spartanism. The identifying elements contained within Spartanism include: (1) Improve physical health, (2) Adventure, (3) Recapture the pioneer spirit, (4) Physical exercise, (5) Chance to acquire knowledge, (6) Learn to lead a simple life, (7) Relieve tensions, (8) Attain new perspectives, (9) Breathing fresh air, (10) Emotional satisfaction, and (11) Getting physically tired. The implication is that the strongest dimension of shared feelings among wilderness users in Hende's study centered around the emotionally refreshing Spartan-like type of existence implicit in wilderness use.

The second strongest factor was Antiartifactualism. The identifiable items contained in this attitude are identified as: (1) Campsites with plumbing, (2) Equipped bathing beaches, (3) Developed resort facilities, (4) Gravel roads, (5) Camping with car, (6) Automobile touring, (7) Camps for organizations, (8) Private cottages, (9) Power boating, (10) Reservoirs (man-made), (11) Camp sites with outhouses, (12) Cutting Christmas trees, and (13) Viewing natural exhibits. Respondents who strongly endorsed these items seemed to be favoring human "improvements" and the installation of, or provision

for, facilities and artifacts to provide for creature comforts and stimulation. The implication is that wilderness use is strongly based on a rejection of man's permanent presence in the natural environment.

Primevalism was the third strongest factor and was based on the following elements: (1) Waterfalls and rapids, (2) Alpine meadows, (3) Timberline vegetation, (4) Lakes (natural), (5) Virgin forests, (6) Rugged topography, (7) Unchanged natural coast line, (8) Native wild animals, and (9) Vast areas and enormous vistas. The general implication of primevalism is that strongly motivated wilderness users seem devoted to satisfactions obtained from perceiving the undisturbed natural environment.

Humility was the fourth strongest factor and showed a greater tendency to endorse such items which express a wish to assert personal dominance over the natural environment. The wilderness-purists users implied a desire for humility in man's relation to the natural environment. The characteristics used to determine this attitude are as follows: (1) Chance to boast, (2) Sense of personal importance, (3) Chance to stumble into wealth, (4) Picking wildflowers, and (5) Cutting Christmas trees.

Outdoorsmanship ranked as the fifth strongest factor and included the following elements: (1) Camping (backpacking), (2) Hiking, (3) Mountain climbing, (4) Canoeing, and (5) Sleeping outdoors. This group of items suggested that certain craft aspects of wilderness visits and life in the natural environment are valued by users in addition to the endurance of Spartan-like aspects which have been asserted in previous factors. The more urban-oriented persons regarded

these items as onerous and are not as strongly attracted to wilderness use.

Aversion to social interaction was the sixth strongest factor. This factor includes: (1) Absence of people, (2) Remoteness of people, (3) Absence of man-made features, (4) Solitude, (5) Vast areas and enormous vistas, and (6) Tranquility. However, Hendee (9) felt that most wilderness-purists are informed persons and as a result learning does not occur in conjunction with wilderness recreation. Therefore, aversion to social interaction was eliminated as a dimension of wildernessism.

Escapism was the seventh strongest factor of the cluster. This factor does not suggest that wilderness users are actively anti-social, but merely seek temporary respite from human involvement. The elements of this factor include: (1) Absence of people, (2) Remoteness from cities, (3) Absence of man-made features, (4) Solitude, (5) Vast areas and enormous vistas, and (6) Tranquility. The more wilderness-purists respondents endorsed these items, implying that they are averse to involvement with modern, impersonal, human aggregations or evidence thereof.

It is interesting to note that escapism is the seventh factor extracted. It has a lower eigenvalue and accounted for less variance than did the six other clusters of items in the wilderness scale. Escape from civilization has long been cited by observers as a dominant reason for wilderness use.

Hendee (8) also found other statistically significant differences between groups. One important fact was that nearly 70% of all

backpacker wilderness users experienced their first wilderness visitation before age fifteen. This may indicate that backpacking is more likely to be transferred into behavior patterns during adult years. Hendee also found that wilderness users typically desire the company of a few "intimates". Small group interaction seemed relatively important to the wilderness experience.

Other studies have endorsed this concept. Merriam and Ammons (13) study in Glacier National Park found that wilderness respondents emphasized that they enjoyed meeting friendly people in small numbers on their trips. The Outdoor Recreation Resources Review Commission Study Report (19) also found this concept to be important and that attitude and motivation are similar in that they both influence behavior. Neulinger and Miranda (16) found that peers have the greatest influence on the amount of outdoor recreation activity in which engaged. Thus, the greater the number of friends one has who backpack, the more likely he will be inclined to also backpack.

Income was also found to be significant among wilderness users. In collecting data Vaux (29) found that, with one unusual exception, persons with incomes in excess of \$12,000 are predominantly among wilderness users; the exception was students. This seems to be of relative importance to the author's study, as it deals mainly with students.

Peterson (20) found that wilderness trip programs attract a variety of visitors with differing desires, expectations, perceptions, and purposes. There are three options from which a program director can choose to meet these attractions:

1. He can direct his policy toward the satisfaction of other areas for whom the program is best suited.

2. He can change specific characteristics of the program so that the expectations of the dissatisfied users are better met.

3. He can educate the dissatisfied as to the program's intent and purpose.

Of these three options, a combination of all three were the best solution of total involvement. However, the quality of the program must also remain. Lucas (11) stated that, "A recreation program that ignores quality is certain to be a failure, and efforts to better measure quality should have top priority."

Physical condition is another important characteristics of wilderness users. Investigation into attitude and participation has shown that wilderness users had more positive attitudes toward physical activity than did non-users and that they had a more active life-style that seemed to be a result of these positive attitudes (34). In addition, backpacker wilderness users scored significantly higher than weight trainers on Vertigo and Health and Fitness Scales (35).

#### Values of Wilderness Users

In evaluating values a wilderness user has, one might ask, "Can a person ever really evaluate his true feelings about wilderness values?" Most studies only begin to provide a few indications of how important some wilderness values are to backpackers. Black (3) concluded that a wilderness experience has positive influence on attitudes toward wilderness values. He also found that women backpackers were not significantly different than men backpackers in their attitudes toward wilderness values.



One study in particular dealt more specifically with these values. Shafer and Meitz (23) found that aesthetic and emotional experiences were the most important wilderness-recreation values. Aesthetic values were ten times more important to the average respondent than social values. Consistent with these findings, the backpackers felt strongly that trails should be designated to provide maximum scenic enjoyment. Also, emotional experiences were almost as important as aesthetic experiences. However, respondents had to use a large amount of imagination to fulfill this experience but it did provide enjoyment to wilderness users.

#### SAMPLING TECHNIQUES

One very important aspect of research deals with selection of subjects to be used in the study. This is normally done through the use of sampling techniques. Through the instrumentality of samples, the researcher can make statements or generalizations about the population on the basis of information obtained from the study. The extent to which he can do this with any accuracy depends on the adequacy of his sample or samples (6).

Samples can be broken down into two basic types: non-probability and probability. In the non-probability type, there is no way of estimating the probability that each individual or element will be included in a sample. In probability sampling, each individual has an equal chance of becoming a part of the sample (7).

Non-probability sampling is common in much of the research done and can be divided into three types. The first type is called

accidental or incidental samples. This sampling method involves selecting subjects by convenience to the researcher and is not an accurate sample of the total population. A second type of sampling is called quota sampling. In this type of sampling, the proportions of the various subgroups in the population are determined and the sample is drawn to have the same percentages in it. This method does not allow random sampling and therefore cannot be considered accurate for the total population. The third type of non-probability sampling is known as purposive sampling. In this sampling method, predictions are made from the subjects' preferences in the past. The major advantage in the use of samples like those above is that they are convenient and economical. However, they are often found to be biased (?).

The basic type of probability sample is the simple random sample. In a simple random sample, each and every individual has an equal chance of being drawn into the sample. Any sample which is not a random sample is said to be biased and any inferences would be invalid for the population as a whole. A second type of probability sample is the stratified random sample. This is very similar to the quota sample except that after the percentages that are to be in each group are determined, individuals are drawn from each group by random sampling. The main drawback of drawing probability samples is that they are apt to be both expensive and laborious. However, the results are much more valuable to the researcher (?).

The normal procedure of drawing a random sample is through the use of a table of random numbers. The Rand Corporation has published

a table containing one million random digits and suggestions for its use. Any portion of this table may be used for a population size falling within the table to select a random sample.

#### QUESTIONNAIRE TECHNIQUES

The use of surveys as a means of obtaining data has increased in the past several years. More and more researchers at all levels of survey sophistication have chosen the questionnaire as the form of data procurement that best conforms to their needs. Unfortunately though, some of those who undertake a survey project do not realize the nature and extent of the appropriate procedures necessary in order to obtain valid viable data. To some, a survey is viewed as an "anybody knows how to ask questions" venture, and discovery of the fallacy of this attitude can often come at a stage when it is difficult, if not impossible, to rectify past errors (15).

A substantial portion of this study dealt with determining opinions of students from the University of Montana toward the Campus Recreation Department's Outdoor Program and wilderness areas. Due to the nature of this study, it was felt that the questionnaire was the most suitable because of the type of questions and the subjects involved. The author realized the necessity for procedural correctness and completeness in designing and choosing a questionnaire to use in collecting data as well as in selecting methods of coding and analyzing data.

The use of the questionnaire technique was expanded on by Seltiz and others (22). "Questioning is particularly suited to obtaining

information about what a person knows, believes or expects, feels or wants, intends or does or has done, and about his explanations or reasons for any of the preceding."

Another important consideration dealt with the gathering of demographic data. Skater and Weinberg (24) indicated that a questionnaire may indeed procure a substantial amount of information regarding demographic data which would be more accurate than information obtained through other techniques.

The questionnaire is one survey instrument which has had widespread abuse by individuals lacking knowledge of the technique for its development and use. Some of the more common abuses of the questionnaire are:

1. The length and complicated form of construction which leads to a true consuming effort to complete the questionnaire.
2. Requesting information which can more readily be obtained from more readily available sources.
3. Vaguely worded questions.
4. The inclusion of unimportant questions.
5. Promises and commitments left unfulfilled.
6. The asking of ambiguous questions.
7. Questions favoring the respondent.
8. Failure to motivate a response. (18)

In discussion of the advantages and limitations of the questionnaire, Robb and Turney (27) pointed out that the questionnaire is more economical to administer than the interview and also allows the respondents a greater feeling of anonymity. They found the major

limitation of the mailed questionnaire was that of minimal return, and considered twenty percent return of questionnaires as borderline for use in a study. However, Burton (5) suggested that a response rate of between thirty and fifty percent is usual for a self-administered survey. This is compounded if there is reason to believe that the sample of returns show bias.

Other disadvantages of the mailed questionnaire are pointed out by Skager and Weinbery (24). For example:

1. Confusing questions cannot be clarified.
2. The questionnaire is impersonal and may not illicit responses as does a personal interview.
3. The questionnaire can not observe how an individual feels at the time he is filling it out.

Wiersma (33) discussed several criteria helpful to the researcher in constructing a questionnaire. He suggested that questions which are ambiguous or may be misconstrued from the intended meaning, along with those which are personally offensive should be omitted from the questionnaire. In addition, questions should coincide with the subjects' informational background and the questionnaire design should facilitate data tabulation. For open-ended responses, the researcher should leave enough space for the extent of the intended response.

A list of criteria for the construction of the questionnaire was compiled by Turney and Robb (27) which was found to be helpful in this study. The list is as follows:

1. Each question should be relevant and useful.
2. Each question or statement should be written as clearly and as concisely as possible.

3. Qualitative terms that may be interpreted in different ways (such as "good" or "bad", "seldom" or "often") should be avoided.

4. When choices are offered, they should be simple and easy to make.

5. Questions should be asked in such a way that the respondents will not find them offensive or objectionable.

6. The items should be phrased to elicit the required depth of the response.

7. Only enough items should be included to cover all of the important areas of inquiry.

8. Grammar and spelling should be correct.

9. The items should be stated in such a way as to avoid biased responses.

10. Key words in questions should be underlined.

An additional list of criteria was compiled by Rummel (21) which included some important factors not mentioned previously. These factors included:

1. Questions should be constructed so that a response can be ascertained from a simple check mark.

2. The questionnaire should alleviate the respondent of as much complex thinking as possible.

3. Opinion questions should be avoided unless specifically required.

In an attempt to eliminate the major problem of non-response to the questionnaire, certain guidelines should be followed. According to Wiersma (33), an attractive questionnaire will be more appealing to the respondent. It is also mandatory to familiarize the subjects with the

questionnaire through the use of a cover letter. The cover letter should be precise and to the point. The purpose and value to the questionnaire should be outlined, along with an endorsement from someone associated with the subjects to increase the percent of returns. In addition, each subject should have the feeling that his response is significant and that all responses will be confidential (27). Also, the use of stamped, self-addressed return envelopes will yield a higher questionnaire return (21).

Follow-up techniques are also important to insure a greater rate of return on the questionnaires. Rummel (21) stated that, "Unless a researcher uses some type of follow-up techniques to solicit responses, he is often likely to receive an insufficient return of the completed questionnaires." If a follow-up letter is used, a second copy of the questionnaire may be necessary (27). Also, a telephone call or telegram may be used to encourage the return of the questionnaire especially as a second follow-up technique (27).

Timeliness is another major factor that should be considered. Researchers should avoid mailing questionnaires which will arrive during the recipients' busy periods. The timing of the study should also coincide as close as possible to the phenomena being observed in order to generate greater interest (21).

Before the questionnaire is mailed to a selected sample, a pilot study should be conducted in order to alleviate ambiguities and misunderstandings. From the pilot study, necessary adjustments can be made on the final form of the questionnaire.

It can be concluded that the use of the questionnaire technique, despite its weakness and bad reputation, can give reliable and valid data and bring valuable and worthwhile results to the investigator if it is properly constructed and administered (27).



## CHAPTER III

### METHOD AND PROCEDURE

This study was primarily designed to survey via the questionnaire, wilderness attitudes of three groups of subjects:

1. Backpackers who participated in Campus Recreation sponsored backpacking trips.

2. Backpackers who utilized the Campus Recreation backpacking equipment but who never participated in a sponsored backpacking trip.

3. Students, faculty, and staff from the University of Montana who had never participated in either the sponsored backpacking trips or the rental programs.

The Outdoor Recreation Questionnaire was mailed to subjects in each of the three groups to determine selected demographic information and the subjects' orientation to backpacking as well as their attitudes toward wilderness. Statistical analysis was then computed to determine characteristics of each group and differences in attitudes between the groups.

### THE SUBJECTS

The subjects consisted of three groups of students, faculty, and staff from the University of Montana:

1. "Participants" who participated in at least one overnight backpacking trip sponsored by the Campus Recreation Department during Fall Quarter 1975.

2. "Non-participants" who rented backpacks from the Campus Recreation Department during Fall Quarter 1975.

3. "Non-users" who never utilized either the Campus Recreation Department's sponsored backpack trips or the equipment rental service. The number of subjects in the participants, non-participants, and non-users groups were 50, 52, and 54, respectively.

#### THE QUESTIONNAIRE

The Outdoor Recreation Questionnaire (Appendix A) consisted of two parts. Part I was composed of 16 items designed to obtain select demographic data and information related to the subjects orientation to backpacking. Also, several of the questions included in this section were used to determine reasons why these students had or had not participated in Campus Recreation sponsored trips.

Part II of the questionnaire consisted of the Revised Hendee Wilderness-Urbanism Attitude Test. This instrument was designed to categorize the respondents as "urbanists" (non-differentiators) or "wilderness-purists" (differentiators). The more "urbanists" one scores, the more he associates with urban-convenience camping. The more "wilderness-purists" one scores, the more he associates himself with wilderness camping. This instrument consists of 30 questions clustered into six factors. The six factors and their respective titles are as follows:

1. Spartanism (positive response by Wilderness-purists)
2. Antiartifactualism (negative response by Wilderness-purists)
3. Primevalism (positive response by Wilderness-purists)

4. Humility (negative response by Wilderness-purists)
5. Outdoorsmanship (positive response by Wilderness-purists)
6. Escapism (positive response by Wilderness-purists)

The identifying elements contained in these six factors can be reviewed in Appendix J.

The revised Hendee scale, used in this study, was constructed by excluding items which fit all wilderness users and therefore did not differentiate. In other words, the improved scale considered only those items and their purists from the other users. The original questionnaire included 60 items which were broken down into seven factors and was administered to all participants in the original Hendee study (5). However, the 30 item scale was used primarily in categorizing the respondents. A copy of this instrument with all 60 items is found in Appendix B. Further discussion of the original 60 item questionnaire was discussed in Chapter 2.

#### THE PILOT STUDY

A pilot study was conducted during the Winter Quarter, 1976, in which the Outdoor Recreation Questionnaire was sent to 20 randomly selected students attending the University of Montana. One of the purposes of this study was to determine the mailing procedure which would insure the highest rate of questionnaire return. Also, the pilot study served as a means to determine the readability of the questionnaire. A total of seventeen of the questionnaires were returned after follow-up letters and telephone calls were utilized.

## THE SURVEY PROCEDURE

During the Winter Quarter 1976, students, faculty, and staff were classified as Participants, Non-participants, and Non-users in accordance to the definitions stated previously. A letter of inquiry requesting potential participants' willingness to participate in the study (Appendix C) and a self-addressed reply postcard (Appendix D) were sent to 263 individuals from the three groups. Since the total number in the participant group consisted of 74 persons and the non-participant group consisted of 95 persons, letters of inquiry were mailed to the total population of these two groups. Applying a table of random numbers to the names listed in the University of Montana Student, Faculty and Staff Directory, 94 randomly selected students were mailed letters of inquiry. This group represented 10 percent of the University population and was then designated as the non-users group. The total number of reply post cards received from all three groups was 198, of which 196 agreed to participate in the study. The number of respondents in the participants, non-participants, and non-users groups who indicated a willingness to participate in the study consisted of 66, 68, and 62 respectively.

The Outdoor Recreation Questionnaire, accompanied by a stamped, self-addressed return envelope, was mailed to the 196 subjects who agreed to participate in this study. After a waiting period of ten days, a follow-up letter (Appendix E) and another copy of the questionnaire were mailed to those individuals who had failed to return a completed questionnaire. Of the subjects who had still not returned the questionnaire after an elapsed period of five additional days, a telephone call

was made to encourage them to complete and return the questionnaire as soon as possible. These procedures resulted in 80 per cent of the subjects returning a completed questionnaire.

#### STATISTICAL PROCEDURE

The data obtained from the administered questionnaires were coded on 80-column IBM punch cards utilizing an IBM 029 key punch. The cards were then batch processed using the Frequency and ANOVA sub-programs from SPSS: Statistical Package for the Social Sciences (20) on a Decsystem 10 computer. The sub-program frequency determined absolute frequencies, relative frequencies, means, variances, and standard deviations for the different responses.

The F-test was computed to determine any significant difference in attitudes between "participants", "non-participants", and "non-backpackers", as measured by the six factors of the Hende Wilderness-Urbanism Attitude Test. A 3 x 6 analysis of variance was used to formulate an F value. Null hypotheses of equal means were rejected if the calculated value was equal to or less than .05 level of significance. Furthermore, if significant differences existed, the Scheffe Test was computed to determine where the significant difference lies.

## CHAPTER IV

### ANALYSIS OF DATA

The Outdoor Recreation Questionnaire was sent to 196 students, faculty, and staff from the University of Montana who were grouped as either "participants," "non-participants," or "non-users." The number of subjects who returned completed questionnaires was 156: 50 participants, 52 non-participants, and 54 non-users.

The following discussion of the results from the Outdoor Recreation Questionnaire is divided into three parts. Part I consists of the compilation of the demographic characteristics of the subjects, as well as their orientation to backpacking. Part II contains the subjects' assessments of the Campus Recreation Outdoor Program. In Part III, the analysis of variance procedure is applied in order to analyze whether differences in attitudes toward wilderness, as measured by the six factors of the Revised Hendeo Wilderness-Urbanism Test, existed between the participants, non-participants, and non-users.

#### Characteristics of Subjects

The first eight questions of the Outdoor Recreation Questionnaire dealt with specific demographic characteristics of the subjects as well as information related to their orientation to backpacking. The questions on demographic characteristics dealt with age, sex, year in college, and community size where they presently live and where they

resided before age 18. Information on the subjects' orientation to backpacking consisted of age at the time of subjects' first backpacking trip, individuals who accompanied them on the first backpacking trip, number of personal friends who presently enjoy backpacking, and whether or not the subjects were members of conservation organizations or outdoor clubs.

Average age and sex characteristics are found in Table 1. The mean ages of the participants, non-participants, and non-users were respectively 22.1, 22.9, and 20.9, with the mean age of the total sample being 22.0. An explanation of the difference in age between the participants, non-participants, and non-users was that a substantially higher number of senior and graduate students utilized the Campus Recreation Department's sponsored trips and rental services than did non-users (Appendix G).

Table 1  
Average Age and Sex Distribution of Participants,  
Non-participants, and Non-users

Factor	% Male	% Female	Average Age
Participants <sup>a</sup>	62.0	34.0	22.1
Non-participants <sup>b</sup>	67.3	32.7	22.9
Non-users <sup>c</sup>	46.3	51.9	20.9
Total	58.3	39.7	22.0

<sup>a</sup> No response from two subjects

<sup>b</sup> No response from one subject

<sup>c</sup> No response from three subjects

Ninety-one males and 62 females responded to the question on sex identity while two participants and one non-user did not indicate their sex. While females were predominant in the non-user group, the composition of the participant and non-participant groups was predominantly male. In the participant and non-participant groups, the ratio of males to females was approximately 2:1 which reflected the University population, while the ratio of males to females in the non-users group was 1:2.

The domiciliary characteristics of the three groups are presented in Table 2. The greatest relative percent of the participant group (30.0%) and the non-participant group (30.8%) were raised in cities of over 100,000 population. In the non-user group the greatest relative percent (35.2%) lived in small cities of 5,000-49,999 population before age 18. The predominant percent in each of the three groups considered their permanent residence to be in medium sized cities with a population of 50,000-99,000. The participant group was found to have the smallest percent (20.0%) of subjects with a small town (under 4,000 population) or rural background. The non-participant group had the largest percent (28.8%) of subjects from a small town or rural background while the non-users group was composed of 27.7 percent of subjects with a small town or rural background.

The findings regarding initial backpacking experience are presented in Table 3. Forty-six percent of the participants indicated that they experienced their first backpacking trip before age thirteen. In comparison, 28.9 percent of the non-participants had their initial backpacking experience before age thirteen. Not until the age of 22



Table 2

The Domiciliary Distribution Before Age 18 and at Present  
of Participants, Non-participants, and Non-users

Domiciliary	<u>Percent of Participants</u>		<u>Percent of Non-Participants</u>		<u>Percent of Non-users</u>		<u>Percent of Total</u>	
	Before	At	Before	At	Before	At	Before	At
	Age 18	Present	Age 18	Present	Age 18	Present	Age 18	Present
Farm or Ranch	2.0	2.0	3.8	1.9	7.4	3.7	4.5	2.6
Rural or Small Town (under 1,000 pop.)	2.0	12.0	17.3	11.5	3.7	1.9	7.6	8.3
Town (1,000-4,999 pop.)	16.0	0.0	7.7	0.0	16.7	14.8	13.5	5.1
Small City (5,000-49,999 pop.)	22.0	30.0	23.1	26.9	35.2	42.6	26.9	33.3
Medium City (50,000-99,999 pop.)	28.0	48.0	17.3	46.2	33.3	47.0	26.3	43.6
Large City (over 100,000 pop.)	30.0	8.0	30.8	13.5	3.7	0.0	21.2	7.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

or older did the cumulative frequencies of the two groups become similar. The greatest percent of the participants (32.0%) went on their first backpacking trip with a family member while the greatest percent of the non-participants (48.1%) went with a friend on their first trip (Appendix H). Substantial percentages, 80.0 percent of the participants, 67.3 percent of the non-participants, and 75.9 percent of the non-users, had five or more friends who were backpackers (Appendix I). Participants were found to be more active in outdoor clubs or conservation organizations as can be seen by the fact that 58.0 percent of the participants belonged to either an outdoor club or conservation organization as compared to 25.0 percent of the non-participants and 13.0 percent of the non-users.

Table 3

The Percentile Distribution of Age on First Backpacking Trip of Participants, and Non-participants

Group	Age at Time of First Backpacking Trip				
	% 8 or under	% 9-12	% 13-17	% 18-21	% 22 or older
Participants	16.0	30.0	30.0	14.0	10.0
Non-participants	7.7	21.2	28.8	30.8	11.5

Appraisal of the Campus Recreation Outdoor Recreation Program

The second portion of the Outdoor Recreation Questionnaire consisted of questions on the subjects' appraisal of the Campus Recreation Department Outdoor Program. These questions were meaningful to the Campus Recreation Department since the participants were given the opportunity to evaluate the backpacking trips sponsored by that department. Furthermore, the questions provided information as to the reasons why the non-participants and non-users did not go on sponsored backpacking trips.

Several reasons were indicated by the participants as to why they went on a sponsored backpacking trip. The largest percent (42.0%) indicated that "to learn a new area" was the main reason to participate in the organized trips. Other reasons for participation were to "develop skills" (20.0%), "to meet new friends" (14.0%), "first time backpacker who was uncertain of their abilities" (8.0%), and "low cost of trips (8.0%)". A very low percent (2.0%) indicated that "security of a large group" was a reason that they utilized the service. The vast majority of the participants (72.0%) utilized the sponsored trip service only once but 86.0 percent also responded that they would utilize the service again. This was further acknowledged by the fact that 94.0 percent of the participants responding affirmatively to the question concerning whether or not the sponsored backpacking trip on which they went met their expectations.

As reported in Table 4, subjects from all three groups responded to the question concerning their over-all opinion of the Campus Recreation Outdoor Program. Only 2.6 percent of the total respondents indicated

a dislike for the program with all but 5.8 percent of the total subjects forming an opinion. In the participant group, 96.0 percent liked the program while 90.5 percent of the non-participants and 88.9 percent of the non-users indicated their fondness of the program.

Table 4

The Omnibus Opinion Distribution of Participants, Non-participants, and Non-users Toward the Campus Recreation Outdoor Program

Groups	Percent of Responses					
	Very Strongly Like	Strongly Like	Like	Dislike	Strongly Dislike	Very Strongly Dislike
Participants <sup>a</sup>	14.0	36.0	46.0	4.0	0.0	0.0
Non-participants <sup>b</sup>	13.5	30.8	46.2	3.8	0.0	0.0
Non-users <sup>c</sup>	18.5	24.1	46.3	0.0	0.0	0.0
Total	15.4	30.1	46.2	2.6	0.0	0.0

<sup>a</sup> No response from three subjects

<sup>b</sup> No response from six subjects

<sup>c</sup> No response from nine subjects

Reasons for subjects not participating in the Campus Recreation Outdoor Program are reported in Table 5. The explanation receiving the highest percent of responses from the non-participant group (46.2%) was that they went with friends. Other responses with a relatively high percent "were unaware of service" (15.4%) and, "wanted to go alone" (13.5%). Non-users reported their main reasons for not participating were related to conflicts with other activities or work schedules (29.6%),

being unaware of the service (24.1%), or the fact that they went with friends (20.4%). Neither group responded that they did not like where the Campus Recreation trips went.

Table 5

The Percent of Responses of Non-participants and Non-users Reasons for Non-utilization of the Campus Recreation Outdoor Program

Choice of Responses	% Non-participants <sup>a</sup>	% Non-users <sup>b</sup>
Unaware of service	15.4	24.1
Wanted to go alone	13.5	3.7
Went with friends	46.2	20.4
Didn't like area where trip went	0.0	0.0
Do not enjoy group trips	5.8	5.6
Went once, but didn't like it	3.8	0.0
Have skills already and don't need leaders	1.9	11.1
Items not appearing in any factor	11.5	29.6

<sup>a</sup> No response from one subject

<sup>b</sup> No response from three subjects

#### Attitudes Toward Wilderness

The Revised Hendee Wildernism Attitude test was used to categorize individuals as Urbanists, Neutralists, Weak Wildernists, Moderate Wildernists, or Strong Wildernists. The higher the score, the more the individuals associated themselves with attitudes related to the absolute preservation of wilderness with little or no

encroachment of man. The lower the subjects scored the more they were inclined to utilize urban-convenience camping with developed facilities. The wildernist-purists responded with more positive scores on the wildernist attitude scales, Outdoorsmanship, Primevalism, Escapism, and Spartanism; and with lower scores on the urbanist attitude scales, Humility, and Antiartifactualism, than those individuals inclined toward urbanism. Hendee classified subjects into groups based on scores as follows:

10 - 54 = Urbanist

55 - 64 = Neutralist

65 - 74 = Weak Wildernist

75 - 84 = Moderate Wildernist

85 - 90 = Strong Wildernist

Table 6 presents a summary of the data gathered on the three groups and illustrates the distribution of wilderness scores for all the respondents who participated in this study within their respective group. Specifically the table presents a breakdown of the mean scores of the six factors of the Hendee Test. A breakdown of scores for those questions which specifically relate to wilderness attitudes and urbanist attitudes as well as the number of questions falling into each category is also illustrated in Table 6.

The method of scoring the Revised Hendee Wilderness-Urban Attitude test is found in Appendix F. This test may be scored for individuals or groups as well as individual questions or groups of questions.

Table 6

The Score Distribution on the Revised Hendee Wilderness-Urban Attitude  
Test of Participants, Non-participants, and Non-users

Factors	Number of Questions Per Category	Mean Scores Per Group		
		Participants	Non- Participants	Non-users
Outdoorsmanship	3	84.5	77.8	75.4
Humility	1	60.0	50.4	42.8
Primevalism	5	84.3	79.5	84.3
Antiartifactualism	10	61.9	59.8	53.6
Escapism	4	83.7	79.3	76.8
Spartanism	2	85.4	81.0	80.9
Items Not Appearing in Any Factor	5	86.4	83.1	81.5
Wildernist Attitude	19	84.9	80.5	78.2
Urbanist Attitude	11	61.7	59.1	52.7
Total Hendee Test Score	30	76.4	72.6	68.8

Participants' scores on the Hendee scale ranged from a relatively low score of 60.0 on the Humility factor to a high score of 86.4 on those questions which do not fall into any category. The second strongest factor was Spartanism with a score of 85.4. The score on the wilderness portion of the test was 84.9 while a score of 61.7 for the urban portion was recorded in the participant group. The total test score was 76.4 which labels this group as "Moderate Wildernists."

The non-participant group scores were somewhat lower than the participant group on the six factors of the Hendee test. The scores for the non-participant group ranged from low score of 50.4 on the Humility factor to a high score of 83.1 on those questions which do not fall into any category. This group scored 81.0 on the Spartanism factor and 80.5 and 59.1 respectively on the wildernist and urbanist attitudes portion of the test. The total Hendee score on the test was 72.6 for the non-participants which classifies them as "Weak Wildernists."

The non-users group tallied the lowest scores for all the categories. This group recorded scores from an extreme low of 42.8 on the Humility factor to a moderately high score of 84.3 on the Primevalism factor. The non-users group recorded relatively low scores of 78.2 on the wildernist attitude portion of the test and 52.7 on the urbanist attitude portion. Their total score for the Hendee test was 68.8 which narrowly designates this group as "Weak Wildernists."

As expected, most of the scores of the participants were grouped near the top of the scale, indicating that nearly all of the men and women who utilize the University of Montana Campus Recreation



Department's Outdoor Program were wilderness-oriented. However, the interesting observation made here was that none of the three groups scored high enough on the scale to be classified as "Strong Wildernists." With consideration given to the population it is not surprising that none were classified as urbanists, but quite the contrary that none were "Wildernist Purists."

### Testing of Hypotheses

A one factor analysis of variance (Appendix F) was utilized to test the significance of the difference between the means. The null hypotheses tested in this study were:

1. There is no significant difference between "participants" and "non-participants" in wilderness attitudes as measured by the six factors of the Hendee Wilderness-Urbanism Attitude Test.

2. There is no significant difference in wilderness attitudes between the "non-users" and the "non-participants" as measured by the six factors of the Hendee Wilderness-Urbanism Attitude Test.

3. There is no significant difference in wilderness attitudes between the "participants" and the "non-users" as measured by the six factors of the Hendee Wilderness-Urbanism Attitude Test.

The results of the computations are recorded in Table 7. Outdoorsmanship had the highest level of significance among all factors. This factor had an F value of 8.855 and was highly significant at the .001 level. Humility was second highest with an F value of 6.582 and was also highly significant at the .01 level. Primevalism, Antiartificialism, Wildernist Attitudes, Urbanist Attitudes, Escapism, and Spartanism were also all found to be significant at or less than the .05 level of significance.

Table 7

One Factor Analysis of Variance Results of the Revised Hendee Wilderness-Urbanism Attitude  
Test Scores of Participants, Non-participants, and Non-users

Factor	Sum of Squares	df	Mean Square	F Ratio	Level of Significance
Outdoorsmanship	204.870	2	102.435	8.855	0.001***
Humility	77.160	2	38.580	6.582	0.002**
Primevalism	398.788	2	199.394	5.942	0.004**
Antiartifactualism	1961.168	2	980.584	4.749	0.010**
Escapism	201.373	2	100.686	4.170	0.017*
Spartanism	33.178	2	16.589	3.210	0.042*

\* .05 level of significance

\*\* .01 level of significance

\*\*\* .001 level of significance

Once the results were tabulated for the one-factor analysis of variance, the Scheffe method (Appendix F) was calculated on the significant variables to determine between which groups the significant difference existed. Table 8 is a summary of the mean comparisons that were significantly different. For the purpose of identification, the following abbreviations have been used: participants = P, non-participants = NP; non-users = NU.

Table 8

The Significant Differences Between the Means of the Revised  
Hendee Wilderness-Urbanism Attitude Test Scores of the  
Participants, Non-participants, and Non-users  
as Measured by the Scheffe Method

Factor	Groups	F Ratio	Level of Significance
Outdoorsmanship	P-NP	10.96	0.001***
Humility	P-NU	7.62	0.01**
Primevalism	P-NP	3.18	0.05*
	NP-NU	2.76	0.05*
Antiartifactualism	P-NU	8.60	0.01**
	NP-NU	5.17	0.01**
Escapism	P-NP	3.33	0.05*
Spartanism	P-NP	3.96	0.05*
	P-NU	5.62	0.01**

\* .05 level of significance

\*\* .01 level of significance

\*\*\* .001 level of significance

The variations that were significant for Outdoorsmanship ( $F = 8.855$ ,  $P = .001$ ) were found between the participant and non-participant groups. A significant difference for Humility ( $F = 6.482$ ,  $P < .01$ ) was found between the participant group and the non-user group. The significant difference between the participants and the non-participants was found for Escapism ( $F = 4.17$ ,  $P < .05$ ). For the Wildernist Attitude ( $F = 5.53$ ,  $P < .01$ ), a significant difference was found between the participants and the non-participants while the significant difference for Urbanist Attitude ( $F = 5.745$ ,  $P < .01$ ) was found to be between the non-participants and non-users.

The variations that were significant for Primevalism ( $F = 5.942$ ,  $P < .01$ ) were between two pairs of means. One of the significant differences was between the mean of the participants and non-participants while the second was between the non-participant group and the non-user group. Spartanism ( $R = 3.21$ ,  $P < .05$ ) also had significant differences between two pairs of means. The participant and non-participant groups were significantly different at the .05 level while the participant group and non-user group were significantly different at the .01 level of significance.

Based on the statistical analysis presented above, all three of the null hypotheses were rejected. There was found to be a significant difference between the participants and non-participants, participants and non-users, and non-participants and non-users groups as measured by the six factors of the Hendee Wilderness-Urbanism Attitude Test.

### Discussion of the Findings

The primary purpose of this investigation was to ascertain whether students who elected to utilize the University of Montana Campus Recreation Department's Outdoor Program differed in perceived wilderness values from either students who utilized the Campus Recreation Department's Rental Program or from students who do not utilize either program.

It is apparent that those subjects having a prior wilderness experience scored higher on the Hendee scale and that those having little or no experience in backpacking scored near the middle of the scale. What seems to be evidenced here was that some previous wilderness use will change the individual's attitude toward wilderness values. This agrees with data reported by Hendee (6) when he specified that some wilderness experience was apparently necessary to attain a score near the median of the wildernist scale. What seems apparent is that wilderness experience often results in the user becoming progressively more perceptive to wilderness values.

With reference to Table 6, page 38, concerning the Revised Hendee scale, the following observations seem worth mentioning. The participant group ranked the six factors into the following order of importance:

1. Spartanism (85.4)
2. Outdoorsmanship (84.5)
3. Primevalism (84.3)
4. Escapism (83.7)
5. Antiartifactualism (61.9)
6. Humility (60.0)

Hendee (6) stated that escape from civilization has long been cited by observers as a dominant reason for wilderness use, but that by itself it is overshadowed by the many other aspects of wilderness appeal. Escapism is usually given a higher priority by the wilderness user who has a positive attitude toward wilderness values and who gains personal satisfaction from the solitude and tranquility inherent in wilderness travel. Escapism was ranked third by the non-participants group and the non-users group which is somewhat closer to the mean of previous studies.

It was also interesting that the participants scored highest on the wildernist attitude and lowest on the urbanist attitude. The non-users scored significantly lower on the wildernist attitude and higher on the urbanist attitude portions of the Hendee scale.

The implication is that the strongest dimension of shared feelings among participants centered around the emotional refreshing Spartan-like type of existence in wilderness use. This group also endorsed that certain craft aspects of wilderness visits and life in the natural environment are valued in addition to the endurance or Spartan-like aspects. The more urban-oriented persons regarded these items as onerous and are not attracted to wilderness use. The non-users showed a greater tendency to endorse items which express a wish to assert personal dominance over the natural environment. In contrast, the participants implied a desire for humility in man's relation to the natural environment and are devoted to satisfactions obtained from perceiving the undisturbed natural environment.

The secondary purpose of this study was to acquire an appraisal of the Campus Recreation Department's Outdoor Program and to record the demographic data of the subjects. This was compiled to assist the Campus Recreation Department in enhancing their program to attract more of the students who are not utilizing its services as well as to better meet the needs of those who are presently utilizing the services.

Hendee (6) states that "wilderness users reared in urban areas tend to be more wildernist-purist in outlook than do those reared in rural areas." Hendee's statement was supported in this study when the participants reported eighty percent of their backgrounds as urban (see Table 2, page 32). The Hendee study inferred that wilderness use appeared to be about equally as common among persons raised in cities or rural areas but the "differentiator" or more wildernist-purist respondents were more likely to have been raised in urban settings. The Hendee scale was functional in differentiating the respondents of this study in attitudes toward wilderness use by exemplifying the more wildernist purists (wildernist) from other users. Using the Hendee scale in this study corresponds to a tendency of researchers to identify hierarchies of wilderness users along a continuum ranging from wilderness-purists to urban oriented.

## CHAPTER V

### SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

#### SUMMARY

The principal objective of this investigation was to ascertain whether students utilizing the University of Montana Campus Recreation Department's Outdoor Program, students utilizing the same department's rental program, and students electing not to use either of the department's programs, differed in attitudes toward wilderness values. Other objectives were:

1. If a difference did exist in attitude toward wilderness values between the three groups, determine where the difference existed.
2. To compare the respondents appraisal of the Campus Recreation Department's Outdoor Program.
3. To compare the demographic data of the participants, non-participants, and non-users.

The subjects for this study were chosen from three different populations. The participant group was selected from those students, faculty, and staff who participated in at least one over-night backpacking trip sponsored by the University of Montana Campus Recreation Department. The non-participant group was selected from those students, faculty and staff who rented backpacking equipment from the Campus Recreation Department. Neither of these two groups were chosen at random. The third group, the non-users, consisted of randomly



selected students who did not participate in either the Campus Recreation Department trip service or the rental program. All three groups were mailed the Outdoor Recreation Questionnaire (Appendix A) and the Revised Hendee Wilderness-Urbanism Attitude Test (Appendix B).

The data was analyzed using two statistical procedures. The one-factor analysis of variance was calculated to determine significant differences for the separate variables of Outdoorsmanship, Humility, Primevalism, Antiartifactualism, Escapism, Spartanism, Wildernist Attitudes, Urbanist Attitudes, Those Items that do not Fall into any Category, and the Total Hendee Test Score. The variables that had a significant F ratio were subjected to the Scheffe method of mean comparisons to determine where the significant differences among the groups were based. Although there was no significant difference between participants and non-participants, or between non-users and non-participants, or between participants and non-users in attitudes on the total Hendee Wilderness-Urbanism Attitude Test, there were significant differences between the groups on all factors of the Hendee Test (see Table 8).

#### FINDINGS

The findings of the study are summarized in Tables 1-8 and in Appendices G-I. These are discussed in detail in Chapter IV, Analysis of Data. The findings dealt with two separate areas of (1) wilderness attitudes, and (2) appraisal of the Campus Recreation Outdoor Program.

### Wilderness Attitudes

The primary purpose of this investigation was to ascertain whether students who elected to utilize the University of Montana Campus Recreation Department's Outdoor Program differed in perceived wilderness values from either students who utilized the Campus Recreation Department's Rental Program or from students who exclude both programs. In utilizing the Hendee scale, it was found that those students electing to utilize the trip service had a greater perception for wilderness values as measured by the Hendee scale than did the non-participants and non-users. The wildernism scores of the participant group were obviously higher than those scores of the non-participants and non-users. Thus, the participants were found to be more wilderness-purists than were the non-participants and non-users.

### Appraisal of the Campus Recreation Outdoor Program

The secondary purpose of this study was to acquire an appraisal of the Campus Recreation Department's Outdoor Program and to record the demographic data of the subjects. This was compiled to assist the Campus Recreation Department in enhancing their program to attract more of the students who are not utilizing its services as well as to better meet the needs of those who are presently utilizing the services.

### CONCLUSIONS

On the basis of this study, several conclusions can be drawn:

1. Wilderness experience has a positive influence on attitudes toward wilderness values.

2. The results of the Hendee Wilderness-Urbanism Attitude Test illustrated that participants were significantly different than non-participants toward wilderness attitudes.

3. The results of the Hendee Wilderness-Urbanism Attitude Test illustrated that non-users were significantly different than non-participants in attitudes toward wilderness.

4. The results of the Hendee Wilderness-Urbanism Attitude Test illustrated that participants were significantly more wilderness oriented than non-users in attitudes toward wilderness.

#### RECOMMENDATIONS

As a result of this study it appears that further investigation is warranted in the following areas:

1. Studies should be undertaken to develop a wilderness attitude instrument which will enable campus recreation departments to better identify than the Hendee scale, those students who are inclined to participate in organized group backpack trips.

2. An appropriate evaluation instrument should be developed so as to allow campus recreation departments to assess participant's evaluations of the backpack trips.

3. Studies should be undertaken to determine the type and extent of wilderness experience necessary for the development of those wilderness characteristics found among users of organized backpack trips.

4. A major aspect of the Campus Recreation Outdoor Program is to educate the clientele for the worthy use of outdoor recreation

as well as proper use and enjoyment of natural resources. Therefore, a need exists for studies to identify educational processes which will enlighten the clientele as to the optimum benefit from recreational use of the outdoor environment and yet conserve those resources.

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## BIBLIOGRAPHY

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## APPENDICES

APPENDIX A  
OUTDOOR RECREATION QUESTIONNAIRE



4. Where do you live now, and where did you live most of your life before age 18? Answer in terms of your permanent address. If you live or used to live in a suburb, answer in terms of the size of the whole metropolitan area. (Check one box in each column.)

	Where do you live now?	Where did you live most of your life before age 18?
A. On a farm or ranch	<input type="checkbox"/>	<input type="checkbox"/>
B. Rural or small town (under 1,000 pop.)	<input type="checkbox"/>	<input type="checkbox"/>
C. Town (1,000-4,999 pop.)	<input type="checkbox"/>	<input type="checkbox"/>
D. Small city (5,000-49,999 pop.)	<input type="checkbox"/>	<input type="checkbox"/>
E. Medium city (50,000-99,999 pop.)	<input type="checkbox"/>	<input type="checkbox"/>
F. Large city (over 100,000 pop.)	<input type="checkbox"/>	<input type="checkbox"/>

5. How old were you when you went on your first backpacking trip?

1. _____ Have never backpacked	4. _____ 13-17
2. _____ 8 or under	5. _____ 18-21
3. _____ 9-12	6. _____ 22 or older

6. If you have backpacked, with whom did you go on your first backpacking trip?

1. _____ Family Member	4. _____ Campus Recreation
2. _____ Friend	5. _____ Other, specify:
3. _____ Club	_____

7. Number of personal friends who enjoy backpacking and camping?

0 \_\_\_\_\_ 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 or more \_\_\_\_\_

8. Do you belong to any outdoor clubs or conservation organizations?

Yes \_\_\_\_\_ No \_\_\_\_\_

9. Did you participate in an overnight backpacking trip sponsored by the University of Montana Campus Recreation Department during Fall Quarter 1975?

Yes \_\_\_\_\_ No \_\_\_\_\_

10. If yes, indicate the number of overnight backpacking trips sponsored by Campus Recreation in which you participated. (Check appropriate number.)

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ More than 6 \_\_\_\_\_

11. If you have never participated in a Campus Recreation sponsored trip, indicate the primary reason why you have not participated:

1. \_\_\_\_\_ Unaware of service
2. \_\_\_\_\_ Wanted to do alone
3. \_\_\_\_\_ Went with friends
4. \_\_\_\_\_ Didn't like areas where trips went
5. \_\_\_\_\_ Do not enjoy group trips
6. \_\_\_\_\_ Participated once before, but didn't enjoy it
7. \_\_\_\_\_ Have skills already and don't need leaders
8. \_\_\_\_\_ Other, please specify: \_\_\_\_\_  
\_\_\_\_\_

12. If you did participate in one or more Campus Recreation sponsored trips during Fall Quarter 1975, what is the one primary reason why you participated?

- |                                    |  |
|------------------------------------|--|
| 1. _____ To learn area             | 6. _____ Low cost  |
| 2. _____ To develop skills         | 7. _____ First time backpacked and wanted to learn proper ways of participating in this activity |
| 3. _____ To meet new friends       |  |
| 4. _____ Enjoy groups              | 8. _____ Other, please specify: _____  |
| 5. _____ Security of larger groups |  |

13. Do you feel more secure in participating in an organized trip with large groups (more than 10) than by yourself or in small groups?

Yes \_\_\_\_\_ No \_\_\_\_\_

14. If you did participate in the Campus Recreation sponsored trips, would you utilize this service again?

Yes \_\_\_\_\_ No \_\_\_\_\_ If no, why? \_\_\_\_\_

15. What is your over-all opinion of the Campus Recreation Outdoor Recreation program?

1. \_\_\_\_\_ Very strongly like      4. \_\_\_\_\_ Dislike  
2. \_\_\_\_\_ Strongly like              5. \_\_\_\_\_ Strongly dislike  
3. \_\_\_\_\_ Like                        6. \_\_\_\_\_ Very strongly dislike

16. In the previous question, if you have checked categories 4, 5, or 6, then please indicate why you dislike the Campus Recreation Outdoor program.

\_\_\_\_\_  
\_\_\_\_\_

17. Do you feel the Campus Recreation sponsored trip in which you participated met your expectations?

1. \_\_\_\_\_ No  
2. \_\_\_\_\_ Yes, somewhat  
3. \_\_\_\_\_ Yes, totally  
4. If no, why not? \_\_\_\_\_

\_\_\_\_\_

## Part II

## WILDERNESS-URBANISM ATTITUDE TEST

For each item in the following list of possible features, activities or benefits associated with wilderness-type recreation, circle one number that best expresses your attitude--how positive or how negative you feel toward having that feature, participating in that activity or receiving that alleged benefit from such experience.

QUESTIONNAIRE ITEM	STRONGLY DISLIKE			NEUTRAL			STRONGLY FAVOR		
1. Camping (backpacking)	1	2	3	4	5	6	7	8	9
2. Tranquility	1	2	3	4	5	6	7	8	9
3. Sleeping outdoors	1	2	3	4	5	6	7	8	9
4. Hiking	1	2	3	4	5	6	7	8	9
5. Solitude	1	2	3	4	5	6	7	8	9
6. Enjoyment of nature	1	2	3	4	5	6	7	8	9
7. Awareness of beauty	1	2	3	4	5	6	7	8	9
8. Alpine meadows	1	2	3	4	5	6	7	8	9
9. Absence of manmade features	1	2	3	4	5	6	7	8	9
10. Drinking mountain water	1	2	3	4	5	6	7	8	9
11. Virgin forest	1	2	3	4	5	6	7	8	9
12. Lakes (natural)	1	2	3	4	5	6	7	8	9
13. Timberline vegetation	1	2	3	4	5	6	7	8	9
14. Vast area & enormous vistas	1	2	3	4	5	6	7	8	9
15. Physical exercise	1	2	3	4	5	6	7	8	9
16. Rugged topography	1	2	3	4	5	6	7	8	9
17. Native wild animals	1	2	3	4	5	6	7	8	9
18. Looking at scenery	1	2	3	4	5	6	7	8	9
19. Emotional satisfaction	1	2	3	4	5	6	7	8	9
20. Cutting Christmas tree	1	2	3	4	5	6	7	8	9
21. Camps for organizations	1	2	3	4	5	6	7	8	9
22. Gravel roads	1	2	3	4	5	6	7	8	9
23. Private cottages	1	2	3	4	5	6	7	8	9
24. Purchasing souvenirs	1	2	3	4	5	6	7	8	9
25. Camping (with car)	1	2	3	4	5	6	7	8	9
26. Equipped bathing beaches	1	2	3	4	5	6	7	8	9
27. Automobile touring	1	2	3	4	5	6	7	8	9
28. Powerboating	1	2	3	4	5	6	7	8	9
29. Campsites with plumbing	1	2	3	4	5	6	7	8	9
30. Developed resort facilities	1	2	3	4	5	6	7	8	9

APPENDIX B  
WILDERNESS-URBANISM ATTITUDE TEST



## APPENDIX B

## WILDERNESS-URBANISM ATTITUDE TEST

For each item in the following list of possible features, activities or benefits associated with wilderness-type recreation, circle one number that best expresses your attitude--how positive or how negative you feel toward having that feature, participating in that activity or receiving that alleged benefit from such experience.

QUESTIONNAIRE ITEM	STRONGLY DISLIKE	NEUTRAL	STRONGLY FAVOR
1. Camping (backpacking)	1 2 3	4 5 6	7 8 9
2. Tranquility	1 2 3	4 5 6	7 8 9
3. Sleeping outdoors	1 2 3	4 5 6	7 8 9
4. Hiking	1 2 3	4 5 6	7 8 9
5. Solitude	1 2 3	4 5 6	7 8 9
6. Enjoyment of nature	1 2 3	4 5 6	7 8 9
7. Awareness of beauty	1 2 3	4 5 6	7 8 9
8. Alpine meadows	1 2 3	4 5 6	7 8 9
9. Absence of manmade features	1 2 3	4 5 6	7 8 9
10. Drinking mountain water	1 2 3	4 5 6	7 8 9
11. Virgin forest	1 2 3	4 5 6	7 8 9
12. Lakes (natural)	1 2 3	4 5 6	7 8 9
13. Timberline vegetation	1 2 3	4 5 6	7 8 9
14. Vast area & enormous vistas	1 2 3	4 5 6	7 8 9
15. Physical exercise	1 2 3	4 5 6	7 8 9
16. Rugged topography	1 2 3	4 5 6	7 8 9
17. Native wild animals	1 2 3	4 5 6	7 8 9
18. Looking at scenery	1 2 3	4 5 6	7 8 9
19. Emotional satisfaction	1 2 3	4 5 6	7 8 9
20. Cutting Christmas tree	1 2 3	4 5 6	7 8 9
21. Camps for organizations	1 2 3	4 5 6	7 8 9
22. Gravel roads	1 2 3	4 5 6	7 8 9
23. Private cottages	1 2 3	4 5 6	7 8 9
24. Purchasing souvenirs	1 2 3	4 5 6	7 8 9
25. Camping (with car)	1 2 3	4 5 6	7 8 9
26. Equipped bathing beaches	1 2 3	4 5 6	7 8 9
27. Automobile touring	1 2 3	4 5 6	7 8 9
28. Powerboating	1 2 3	4 5 6	7 8 9
29. Campsites with plumbing	1 2 3	4 5 6	7 8 9
30. Developed resort facilities	1 2 3	4 5 6	7 8 9

QUESTIONNAIRE ITEM (continued)	STRONGLY DISLIKE	NEUTRAL	STRONGLY FAVOR
31. Unchanged natural coastlines	1 2 3	4 5 6	7 8 9
32. Reservoirs (manmade)	1 2 3	4 5 6	7 8 9
33. Waterfalls and rapids	1 2 3	4 5 6	7 8 9
34. Campsites with outhouses	1 2 3	4 5 6	7 8 9
35. Remoteness from cities	1 2 3	4 5 6	7 8 9
36. Absence of people	1 2 3	4 5 6	7 8 9
37. Canoeing	1 2 3	4 5 6	7 8 9
38. Picking wild flowers	1 2 3	4 5 6	7 8 9
39. Taking pictures	1 2 3	4 5 6	7 8 9
40. Mountain climbing	1 2 3	4 5 6	7 8 9
41. Hearing naturalist talk	1 2 3	4 5 6	7 8 9
42. Talking with tourists	1 2 3	4 5 6	7 8 9
43. Viewing naturalist exhibits	1 2 3	4 5 6	7 8 9
44. Breathing fresh air	1 2 3	4 5 6	7 8 9
45. Getting physically tired	1 2 3	4 5 6	7 8 9
46. Studying pioneer history	1 2 3	4 5 6	7 8 9
47. Low-cost outdoor recreation	1 2 3	4 5 6	7 8 9
48. Learn to lead simple life	1 2 3	4 5 6	7 8 9
49. Chance to acquire knowledge	1 2 3	4 5 6	7 8 9
50. Chance to stumble onto wealth	1 2 3	4 5 6	7 8 9
51. Adventure	1 2 3	4 5 6	7 8 9
52. Sense of personal importance	1 2 3	4 5 6	7 8 9
53. Improve physical health	1 2 3	4 5 6	7 8 9
54. Recapture pioneer spirit	1 2 3	4 5 6	7 8 9
55. Relieve tensions	1 2 3	4 5 6	7 8 9
56. Attain new perspectives	1 2 3	4 5 6	7 8 9
57. Chance to boast	1 2 3	4 5 6	7 8 9
58. Sense of humility	1 2 3	4 5 6	7 8 9
59. Family solidarity	1 2 3	4 5 6	7 8 9
60. Chance for noble thoughts	1 2 3	4 5 6	7 8 9

APPENDIX C  
LETTER OF INQUIRY

APPENDIX C  
LETTER OF INQUIRY

January 23, 1976

I am conducting a study in order to determine the attitudes of a selected sample of University of Montana students, faculty and staff about Wilderness backpacking. The ultimate results of the findings should be beneficial to the University of Montana Campus Recreation Department.

You can be of significant service to the University by taking part in this study. We need your honest, thoughtful reactions to your reflections about wilderness camping. Won't you please return the enclosed reply card indicating your willingness to participate in the study? If you reply affirmatively, a survey instrument will be sent to you for your attention. Approximately 10 minutes should be required to complete the form since most of the questions can be answered by use of a check mark or a few words. A summary report will be sent to you on completion of the study.

The results of this investigation will be used as part of my masters thesis presently being conducted under the direction of Dr. Joel F. Meier, Chairman of the Department of Health, Physical Education, and Recreation. Other members of my masters committee are Dr. Maureen F. Ullrich and Dr. Thomas R. Whiddon.

A coding system has been developed to assure that your responses to questions will be treated anonymously.

I sincerely hope that you will choose to participate in this study. Thank you for your anticipated cooperation.

Sincerely yours,

Howard E. Johnson  
Assistant Director  
Campus Recreation  
University of Montana

Enclosure

APPENDIX D  
REPLY POST CARD

APPENDIX D  
REPLY POST CARD

Dear Mr. Johnson:

I am \_\_\_\_\_ am not \_\_\_\_\_ willing to participate  
in your study. I presently do \_\_\_\_\_ do not \_\_\_\_\_  
backpack or use the Campus Recreation Outdoor  
Recreation Program.

(Address Label Here)

Please correct address if different from label  
above (please type or print).

Name \_\_\_\_\_

Address \_\_\_\_\_ Zip \_\_\_\_\_

APPENDIX E  
FOLLOW-UP LETTER

APPENDIX E  
FOLLOW-UP LETTER

Recently, you indicated your willingness to participate in a study of the wilderness attitudes of students, faculty, and staff from the University of Montana. Shortly thereafter, you should have received a questionnaire for determining your position on this matter.

The response to the questionnaire has been most gratifying. However, at this date, the record indicates that your questionnaire has not been returned. Since your response is vital to the study, may I once again urge you to participate. In the event that you have misplaced the first questionnaire, I am enclosing another copy.

Your efforts will be greatly appreciated.

Sincerely yours,

Howard E. Johnson  
Assistant Director  
Campus Recreation  
University of Montana

Enclosures



APPENDIX F  
STATISTICAL FORMULAE USED IN THIS STUDY

## APPENDIX F

## STATISTICAL FORMULAE USED IN THIS STUDY

## I. Method of Scoring Revised Hendee Wilderness-Urban Attitude Test

1. Add assigned numbers for all responses both negative and positive.
2. Multiply number of questions answered by number of respondents.
3. Divide addition by multiplication numbers (i.e. divide Step 1 by Step 2).
4. Multiply result by ten to determine score.
5. Classify into the following groups:

10 - 54 = Urbanist

55 - 64 = Neutralist

65 - 74 = Weak wildernist

75 - 84 = Moderate wildernist

85 - 90 = Strong wildernist

## II. The Scheffe Method

$$F = \frac{(\bar{X}_1 - \bar{X}_2)^2}{S^2_w (N_1 + N_2) / N_1 N_2}$$

### III. Analysis of Variance

In Analysis of Variance, the total sum of squares is partitioned into two segments, i.e.:

Total Sum of Squares = Sum of Squares Between Groups + Sum of Squares Within Groups

That is:

$$SS_T = SS_B + SS_W$$

Where:

$$SS_T = \sum_{j=1}^r \sum_{i=1}^{n_j} X_{ij}^2 - \frac{T_{..}^2}{N}$$

$$SS_B = \frac{\sum_{j=1}^r T_{.j}^2}{n_j} - \frac{T_{..}^2}{N}$$

and:

$$SS_W = SS_T - SS_B$$

APPENDIX G  
CLASSIFICATION OF SUBJECTS

APPENDIX G

YEAR IN COLLEGE OF SUBJECTS

	<u>Percent Responding By Year in College</u>						
	Freshman	Sophomore	Junior	Senior	Graduate	Faculty	Staff
Participants	34.0	10.0	10.0	20.0	20.0	4.0	2.0
Non-participants	15.4	25.0	30.8	13.5	9.6	1.9	3.8
Non-users <sup>a</sup>	33.3	13.0	14.8	22.2	9.3	1.9	1.9
Total <sup>b</sup>	27.6	16.0	18.6	18.6	12.8	2.6	2.6

<sup>a</sup> No response by two subjects

<sup>b</sup> No response by two subjects

APPENDIX H  
ACCOMPANIMENT ON INITIAL BACKPACK TRIP

## APPENDIX H

ACCOMPANIMENT ON INITIAL BACKPACK TRIP OF  
PARTICIPANTS AND NON-PARTICIPANTS

Groups	<u>Percent Responding</u>				
	Family Member	Friend	Club	Campus Recreation	Other
Participants	32.0	28.0	18.0	4.0	18.0
Non-participants <sup>a</sup>	13.5	48.1	23.1	1.9	11.5

<sup>a</sup> No response from one subject

APPENDIX I

NUMBER OF SUBJECTS' FRIENDS WHO BACKPACK



## APPENDIX I

PERCENTILE DISTRIBUTION OF  
NUMBER OF SUBJECTS' FRIENDS WHO BACKPACK

Groups	<u>Percent of Responses</u>					5 or More
	0	1	2	3	4	
Participants	0.0	2.0	0.0	8.0	10.0	80.0
Non-participants	0.0	0.0	13.5	7.7	11.5	67.3
Non-users	0.0	1.9	5.6	11.1	5.6	75.9
Total	0.0	1.3	6.4	9.0	9.0	74.4

APPENDIX J

THE IDENTIFYING ELEMENTS CONTAINED IN THE SIX FACTORS  
OF THE REVISED HENDEE WILDERNESS-URBANISM ATTITUDE TEST

## APPENDIX J

THE IDENTIFYING ELEMENTS CONTAINED IN THE SIX FACTORS  
OF THE REVISED HENDEE WILDERNESS-URBANISM ATTITUDE TEST

1. Spartanism
  - A. Physical exercise
  - B. Emotional satisfaction
2. Antiartifactualism
  - A. Camps for organizations
  - B. Gravel roads
  - C. Private cottages
  - D. Purchasing souvenirs
  - E. Camping (with car)
  - F. Equipped bathing beaches
  - G. Automobile touring
  - H. Power boating
  - I. Campsites with plumbing
  - J. Developed resort facilities
3. Primevalism
  - A. Alpine meadows
  - B. Virgin forests
  - C. Timberline vegetation
  - D. Rugged topography
  - E. Native wild animals
4. Humility
  - A. Cutting Christmas trees

5. Outdoorsmanship
  - A. Camping (backpacking)
  - B. Sleeping outdoors
  - C. Hiking
6. Escapism
  - A. Tranquillity
  - B. Solitude
  - C. Absence of man-made features
  - D. Vast areas and enormous vistas