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Outdoor Recreation Participation in Ohio 1983-84:

A Statewide Survey

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Introduction to Outdoor Recreation Participation 1983-1984: A State Survey

The purpose of this paper is to report the findings from a state-wide survey of Ohio residents designed to assess outdoor recreation participation enacted in the State during the 1983-1984 recreation year. The goal of the research was to build mathematical models to predict participation in a variety of outdoor recreation activities from the data collected. The study was initiated to examine the merits of a theoretical model developed from the existing literature focused on outdoor recreation participation. The model basically argues that outdoor recreation participation is a function of socio-demographic variables (Buchanan, et al. , 1981; Bultena and Field, 1981; Burdge, 1969; Christensen, 1980; Forniciari and Napier, 1981; Field and O'Leary, 1973; Jackson, 1973; Napier 1981; Napier and Maurer, 1981; O'Leary, and VanVooren, 1981; O'Leary, et al. , 1974; Sprietzer and Snyder, 1974; Washburne, 1978; Washburne and Wall, 1980; West, 1982; West, 1981a; West, 1981b; White, 1975; Yoesting, 1974; Yoesting and Christensen, 1978; Zuzanek, 1978), personal and facility barriers (Aveni, 1976; Bryant and Napier, 1981; Clark, et al., 1971; Fisk and Hatry, 1979; Knopp, 1972; Lime, 1972; Lime and Stankey, 1979; McConnell, 1975; Napier and Maurer, 1981; Norbert and Liebman, 1970; O'Leary and Dottavio, 1981; Pierce and Napier, 1981; Thompson, 1979; Wilensky, 1961; Yoesting, 1974) and perceptions (Bryant and Napier, 1981; Driver and Tocher, 1979; Heberlein, 1977; Neulinger and Breit, 1969; Pierce and Napier, 1981; Proshansky, et al., 1970; Tuan, 1974;

Vaske, et al., 1982).

The theoretical perspective posits that people are blocked from participation by a variety of factors. Socio-demographic factors such as age, education, place of residence, occupation, income and race are argued to affect outdoor recreation participation because people with different backgrounds and interests tend to recreate in different ways and frequencies. People with different demands on their time will recreate differently to accommodate the competing demands of their schedules. Socio-demographic factors such as income also affect the ability of the potential client to access recreation opportunities via purchasing power. Early life experiences will affect adult recreation activities and people from more rural-oriented areas tend to have greater opportunities for these early life experiences than people from urban communities. Age tends to affect outdoor recreation behavior in a negative manner because increasing age also tends to be associated with decreasing ability to enact the activity due to declining health status.

Closely aligned to socio-demographic blockages are barriers to participation which are termed ability to act factors. This component of the theory suggests that factors such as health status, outdoor recreation skill levels, access to recreation equipment, access to transportation, and previous experience in the recreation activity affect the frequency of participation in outdoor recreation activities. People who do not have the necessary skills to participate, do not have access to transportation to recreation sites, are in poor health, do not possess recreation equipment, and do not have outdoor recreation experiences would be expected to have lower rates of participation in outdoor recreation activities. In essence,

this component of the theory argues that people must have access to opportunities to participate to enact outdoor recreation behavior. The model recognizes a variety of personal factors that can act as barriers to participation.

It is also argued that barriers to use of outdoor recreation facilities will reduce participation in outdoor recreation activities because people experiencing such blockages will not have access to recreation sites. Time to recreation sites, crowding at the recreation sites, fear for personal safety at the recreation sites, travel distance to the recreation sites, fuel costs, user fees at the recreation sites, availability of facilities at the recreation sites to accommodate needs of specific user groups with physical limitations, and lack of facilities to enact desired recreation activities are a few of the blockages to outdoor recreation activities which are facility based. People may be blocked from participation because the opportunities offered at existing recreation sites are perceived as being inadequate for the potential client's needs. This component of the theory suggests that opportunities offered at recreation sites must be consistent with recreation expectations or individuals will elect to pursue other activities.

The final component of the theory used to guide this investigation was focused on perceptions and based on social learning theory (Bandura, 1977). The logic advanced in this section of the theory is that potential clients must possess positive orientations toward outdoor recreation participation or they will not participate. People also tend to repeat behavior that they find rewarding which suggests that potential users of outdoor recreation facilities must view the activity as being positive. People must perceive that they

have access to desirable recreation experiences or paticipation in outdoor recreation will not be attempted. This component of the model suggests that factors such as satisfaction with past recreation activities, perceptions of access to existing outdoor recreation opportunities, perceptions associated with crowding and safety at recreation sites and psychosocial orientations toward outdoor recreation as an experience will be significantly related to outdoor recreation participation.

This theoretical perspective was used to select concepts for study and to guide the formation of measurement devices. The study methods are specified in the following section and the findings and conclusions section is presented last.

METHODOLOGY

Sample Selection and Data Collection Techiques

Data to examine the correlates of outdoor recreation participation in Ohio were collected in the late winter of 1983 and the spring of 1984 using a mail questionnaire. A total of 5,125 possible respondents were chosen using a systematic random sampling technique (Blalock, 1979) from lists of licensed drivers in the State of Ohio at the time of the study. Thus, the sample includes only individals 16 years of age and older even though the respondents were requested to provide data on the family unit with whom they presently reside.

A questionnaire was mailed to the potential respondents with a cover letter explaining the purpose of the study. A self-addressed stamped envelope was enclosed to return the completed questionnaire. A number was included on the return envelope to ensure that the individuals who responded to the first mailing would not receive subsequent mailings. Two weeks after the initial mailing, a post card was mailed to the nonrespondents requesting that the questionnaire be completed and returned. Two weeks later a second questionnaire was directed to the respondents who had not replied to the two previous mailings. A cover letter was included which explained why it was important for the potential respondents to reply. As an inducement for the respondents to complete the questionnaire, the sample was told in the first mailing that they would receive a coupon good for two <u>free</u> nights of camping at any of the state parks. The coupons were mailed when the completed questionnaire was received and checked for completion. When questionnaires were received which were not

completed, they were classified as being returned nonresponses.

When questionnaires were received, they were removed from the envelopes and the names and addresses of the respondents were removed from the original mailing lists. No identification was used on the questionnaires, therefore, no means exists to identify specific respondents. This action was taken to ensure anonymity of the respondents.

Of the 5,125 questionnaires mailed, a total of 3,028 were returned (59.1 percent response rate). Of those returned, a total of 2,341 were usuable (52.7 percent response rate). Six hundred eighty-seven questionnaires were returned but not included in the analyses because they were not deliverable, people refused to participate in the study, or the questionnaire was only partially completed. The response rate is very high given contemporary research standards (Dillman, 1978; Hammitt and McDonald, 1982). The characteristics of the sample are provided in Table 1.

(Table 1 Here)

The data presented in Table 1 indicate that the sample is composed of married people who are middle-aged and basically well educated. The sample consists of people who have lived in Ohio for most of their lives and in the county of present residence for extended periods of time. The number of people living in the household is relatively small which is a partial function of the age of the sample (many people included in the sample have completed the family cycle). A vast majority of the respondents are White (the percentage of Blacks in the sample is substantially less than in the population from which the sample was drawn). The under-representation of Blacks is a frequent occurrence in social science research. A

majority of the respondents indicated that they had spent $1,000 or less on outdoor recreation during the last year. About 42 percent of the respondents indicated that 50 percent or more of their recreation dollars were spent in Ohio. More than 3/4 of the respondents indicated that they had participated in outdoor recreation activities as a youth.

Given the large sample size, the random nature of the sample selection technique used, wide geographical distribution of the sample, and the completeness of the data provided by the respondents, it is argued that the data are very appropriate for building models of outdoor recreation participation.

Questionnaire Construction

The questionnaire used in the study was developed from an extensive review of the existing literature focused on outdoor recreation participation. The literature review indicated that many factors affect recreation behavior. These factors were classified into three categories of variables. The first category of variables was termed "Personal Blockages" which included such factors as attitudes, perceptions and measures of the individual's ability to act. The second category of variables was termed "Facility Blockages" which included such things as measures of access to recreation facilities, available support facilities at the recreation site and conditions of the recreation site. The third category of variables was termed "Socio-Demographic Characteristics" which included such items as personal and family characteristics.

Once the questionnaire was developed in rough draft form, it was discussed with the staff of the Comprehensive Planning Section of the Ohio Department of Natural Resources and multiple revisions were made in the original draft to improve the wording and sequencing of questions. A pretest was conducted using the revised draft. A single mailing to the pretest group produced enough responses to evaluate the adequacy of the instrument. The questionnaire was revised once more using the input from the pretest group and mailed to the selected sample as noted above.

Measurement of the Study Variables

The dependent variable of this study is participation in outdoor recreation activities. The variable was measured by asking the respondents to indicate how frequently members of the household participated in a variety of outdoor recreation activities during the preceding year. The respondents were cautioned to only report the participation which occurred in Ohio during the time period being assessed. There were 31 different types of outdoor recreation activities assessed. The activities examined are as follows: powerboating, sailing, canoeing, waterskiing, other boating, pan fishing (bass, bluegill, catfish, perch), walleye fishing, specialized sport fishing (trout, muskie, pike, salmon), fishing for anything that bites, backpack and tent camping, group camping (Scouts, church groups), motorized camping (vans, trailers), state lodges and cabins, deer hunting, small game hunting (rabbit, squirrel), waterfowl hunting (ducks, geese), bird hunting (grouse,turkey, pheasant), other hunting

(raccoon, groundhog), picnicking, trail activities (hiking, jogging), bicycling, off-road vehicle riding (trail bikes, 4-wheel), visiting local parks and playgrounds, field sports, court sports, golf, beach activities, outdoor pool swimming, winter sports (snowmobiling, ice skating, skiing), horseback riding, and other outdoor recreation activities not included on the questionnaire. There were 8 response categories to the outdoor recreation activities which were as follows: did not participate, 1-5 times, 6-10 times, 11-15 times, 16-20 times, 21-25 times, 26-30 times, and more than 31 times. The respones were weighted from 0 to 7 with "did not participate" receiving a value of 0 while "more than 31 times" received a value of 7.

Given that outdoor recreation participation was measured in the manner noted above, it was possible to construct multiple measures of recreation activities. Subsequently, several participation variables were constructed using the responses from the individual outdoor recreation activities. The various outdoor recreation activities constructed and examined are as follows:

"Total outdoor recreation participation" was measured by summing the weighting values for <u>all</u> outdoor recreation activities evaluated. This variable provided an overall measure of family participation.

The responses to total family participation in outdoor recreation activities were submitted to factor analysis using principal component analysis. Six meaningful factors emerged from the analysis. The factors were labeled as follows: boating participation factor, fishing participation factor, hunting participation factor, extensive activity factor, intensive group activity factor, and a community-based activity factor. The variables composing the factors

were subjected to item analysis and the alpha coefficients revealed that the composite measures were reliable. The alpha coefficients for the activity factors are presented in Table 2.

(Table 2 Here)

Since the factor and item analyses indicated that the composite measures were intercorrelated and could be combined into multi-variable indicators, the weighting values for the variables composing each factor were summed. The variables used to build each indicator are as follows:

1. The boating participation factor was measured by summing the responses to powerboating, waterskiing and other boating.

2. The fishing participation factor was measured by summing the responses to pan fishing, walleye fishing, and specialized sport fishing.

3. The hunting participation factor was measured by summing the responses to deer hunting, small game hunting, waterfowl hunting, bird hunting, and other hunting.

4. The extensive activity factor was measured by summing the responses to canoeing, backpack and tent camping, group camping, motorized camping, and off-road vehicle riding.

5. The intensive activity factor was measured by summing the responses to picnicking, trail activities, bicycling, visiting local parks and playgrounds, beach activities, and outdoor pool swimming.

6. The community-based activity factor was measured by summing the responses to field sports, court sports and outdoor pool swimming.

Future outdoor recreation activity was evaluated by asking the respondents to indicate how often the members of the household intend to recreate in the next two or three years. The respondents were

requested to respond to the question by comparing future participation with the amount enacted the past year. The activities evaluated in this context are as follows: boating, fishing, camping, hunting, picnicking, trail activities, bicycling, off-road vehicle riding, visiting local parks and playgrounds, field sports, court sports, golf, swimming, winter sports, horseback riding, and other activities not included on the questionnaire. The possible responses ranged from much less to much more. A response of much less received a value of 0 while a response of much more received a value of 4. These data were used to build a predictive model regarding future outdoor recreation participation.

Independent Variables

The socio-demographic variables included in the study are as follows: percent recreation on public land, recreation spending last year, percent of recreation dollars spent in Ohio, education, age of primary income earner, household size, gender of primary income earner, tenure in Ohio, tenure in county of present residence, unemployment status, number of weeks unemployed, perceived income, place of childhood residence, race, occupation, marital status, number of children in the household, number of people in the household less than 18 years old, employment status of mate, number of hours worked by primary income earner, and perceived class level.

The socio-demographic variables used as independent variables were measured in the following manner:

1. The respondents were asked to indicate the percent of the family's total outdoor recreation participation which occurred on

public land and waters in Ohio.

2. The respondents were asked to indicate how much money was spent on outdoor recreation last year. Spending was measured in increments of $250 starting with $0. Weighting values ranged from 1 to 20 with 1 indicating no money spent on outdoor recreation and 20 representing $4,751 and above.

3. Percent of recreation dollars spent in Ohio was measured by asking the respondents to estimate the percentage of the total dollars allocated each year to outdoor recreation which are usually spent in Ohio.

4. The respondents were asked to indicate the number of years of formal education completed by the primary income earner. The range of possible responses was 1 to 22 years of education.

5. The age of the primary income earner was measured as the age at last birthday.

6. Household size was measured in terms of the number of people living in the household at the time of the study.

7. Gender of the primary income earner was measured as a dummy variable. Males received a value of 0 while females received a 1.

8. Tenure in Ohio was measured by asking the respondent how many years he/she had lived in Ohio.

9. Tenure in county was measured in terms of how many years the respondent had lived in the county of present residence.

10. Unemployment status was measured by asking if the primary income earner had been unemployed at any time during the past year. A "yes" response received a 0 while a "no" response received a value of 1.

11. The number of weeks unemployed was evaluated in terms of

actual weeks of unemployment during the past year.

12. Perceived income was measured in terms of asking the respondents to rank their total family income relative to other people living in Ohio. The possible responses were from 0 to 8 with 0 representing poor and 8 indicating wealthy.

13. Place of childhood residence was measured by asking the respondents to indicate where the primary income earner spent his/her first 15 years of life. The possible responses were as follows: rural farm, rural nonfarm, village of less than 2,500 people, small town of less than 10,000 people, small city of less than 50,000 people, city or suburb of a city of less than 250,000 people, and large city or suburb of a large city of more than 250,000 people. Weighting values from 1 to 7 were used to code the responses. Rural farm received a value of 1 while a large city or suburb of a large city received a 7.

14. Race was treated as a dummy variable with Whites receiving a value of 1 and Nonwhites a value of 0.

15. Occupation was measured in terms of the occupation of the primary income earner at the time of the study. Retired people were requested to give their last occupation. The respondents provided information about the occupation and a trained sociologist coded them using Census categories. The categories used are as follows: professional, executive of large corporations, skilled white collar and owners of small businesses, skilled blue collar, unskilled white collar, unskilled blue collar, and permanently unemployed. Weighting values from 1 to 7 were used to code the data with professionals receiving a value of 1 and permanently unemployed receiving a value of 7.

16. Marital status was measured as a dummy variable with

married people and those living together receiving a 1. People who were divorced, single or separated received a value of 0.

17. The number of children living in the household at the time of the study was recorded.

18. The number of children less than 18 years of age living in the household at the time of the study was recorded.

19. The employment status of the mate of the primary income earner was requested. Mates employed outside the home received a value of 0 while nonemployed mates received a value of 1.

20. The respondents were requested to indicate the number of hours a week the primary income earner usually worked.

21. The respondents were requested to classify their perceived economic class level. The possible responses were as follows: lower class, working class, middle class, professional class, and upper class. The weighting values used ranged from 1 to 5. Lower class responses received a value of 1 while upper class responses received a value of 5.

Personal Blockages to Outdoor Recreation Participation

Personal blockages to outdoor recreation participation consist of two types of variables termed "attitudes and perceptions" and "ability to act factors." The attitudes and perceptions included in the analyses are as follows: psychoscocial escape orientation, competitive-individualistic orientation, extractive orientation, and attitude toward outdoor recreation as an activity. These variables were measured in the following manner:

1. Psychosocial escape was measured by asking the respondents to note how important each of the following reasons was in explaining why household members participate in outdoor recreation activities. The factors included in this measure are as follows: to relax, to be with friends, to exercise, to observe and enjoy nature, to be with family, to escape busy schedules, change of pace from everyday life, and to see new places. The possible responses ranged from 1 for not important to 4 for very important. The responses were submitted to item analysis and the reliability coefficient produced was .83 which is very good. The weighting values were summed to form the index included in the statistical analyses.

2. The competitive-individualistic orientation was formed in the same manner as the previous variable. The respondents were asked to rate the importance of several reasons for participating in outdoor recreation activities. The factors examined are as follows: to challenge myself, to test outdoor skills, to be alone, to think, to compete with others, to develop new skills, to watch other people, and to meet new people. The alpha coefficient of reliability for this index is .81 which is very good. The weighting values were summed to form the index included in the statistical analyses.

3. The extractive orientation was measured in the same manner as the two previously discussed indexes. The factors the respondents rated are as follows: to get game trophies, to get game for food, and "other" reasons. The alpha reliability coefficient was .68 which is acceptable in social science research. The weighting values were summed to form the index used in the statistical analyses.

4. The perception of outdoor recreation in Ohio was measured using a semantic differential technique (Snider and Osgood, 1969;

Tannenbaum, 1969). This methodology consists of stating a partial phrase and asking the respondents to complete it by choosing between two opposite adjectives. The intensity of the commitment to the adjective chosen is determined by the qualifiers provided to the respondents. The partial phrase provided to the respondents was "Outdoor Recreation in Ohio is." The adjective pairs the respondents were requested to rate were as follows: Dangerous-Safe, Worthless-Valuable, Crowded-Empty, Undesirable-Desirable, Noisy-Quiet, Littered-Clean, Distant-Close and Expensive-Cheap. A continuum was provided with possible responses of 0 to 4 with 0 representing the very negative response and 4 the very positive response.

Several other personal blockages to outdoor recreation participation were included in the study. The respondents were requested to indicate if any of the following were important in preventing members of their household from participating more often than they presently do in outdoor recreation activities. The issues assessed are as follows: not enough time, do not have equipment, do not have skills, lack of transportation, poor health, friends do not participate in outdoor recreation, children at home, and do not wish to participate more. These factors were treated as dummy variables. If the respondents selected the issue, then the variable received a value of 1. If the variable was not chosen, the variable received a value of 0.

Ability to Act Factors

A very important consideration in any type of endeavor is whether or not a person possesses the necessary skills to perform a

task. This is especially true in certain outdoor recreation activities. One of the mechanisms for building skills is to participate in outdoor recreation activities as a youth. Subsequently, data relative to early life experiences in outdoor recreation activities were collected for the primary income earner and the mate of the primary income earner. The respondents were asked to indicate with a check mark whether or not the primary income earner had participated in any of the activities noted on the questionnaire as a youth. The activities examined are as follows: boating, fishing, camping, hunting, picnicking, trail activities, bicycling, off-road vehicle riding, local parks and playgrounds, field sports, golf, swimming, winter sports, horseback riding, and other. A checked response received a 1 while an activity not checked received a 0. The data were factor analyzed and two factors emerged. The first factor was termed "primary income earner youth participation in local activities" and the second was named "primary income earner youth participation in extensive-traditional activities." The activities composing the first factor are as follows: picnicking, trail activities, bicycling, local parks and playgrounds, field sports, court sports, swimming, winter sports, and horseback riding. The alpha produced from item analysis was .81 which is very good. The weighting values were summed to form an index used in the statistical analyses. The activities composing the primary income earner participation in extensive-traditional outdoor recreation activities are as follows: boating, fishing, camping, and hunting. The alpha coefficient for this measure was .76 which is quite good. The weighting values for the individual activities were summed to form a composite index used in the statistical analyses.

The same methodology used in the development of the two measures for the primary income earner youth activities was used to build composite indexes for youth activities for the mate of the primary income earner. The same activities were examined and the factor analysis produced two factors which were identical to those produced from the factor analysis conducted on the data for the primary income earner. The alpha coefficient for the "mate youth extensive-traditional participation" was .70 which is adequate in social science research. The "mate youth participation in local activities" was .83 which is quite good. The weighting values of the variables composing the two indexes were summed to build the two measures of mate involvement in outdoor recreation as a youth.

A very important consideration associated with participation in outdoor recreation activities is economics. Individuals who do not have adequate economic resources to participate will be blocked from being active in outdoor recreation activity. Unfortunately, many of the variables that influence an individual's expendable income are beyond the control of the person. Of particular importance in the short-run are recessions such as the one operative in recent years in Ohio. People respond to recessions in a variety of ways. One of the possible responses is to reduce nonessential activities. Since recreation is not usually perceived to be essential for the maintenance of one's income, it is possible that responses to recession may be predictive of outdoor recreation activity.

The impact of recession was evaluated in the context of how people respond to such economic conditions. Thus, the respondents were asked to note what the impact of the recent recession had on their recreation participation. They were asked to check any of the

responses that were relevant to their situation. The possible responses were as follows: reduced travel for recreation purposes, reduced number of trips, increased length of stay, adoption of less costly recreation activities, recreate at closer facilities, stay in camping areas rather than motels and cabins, cook own meals, no replacement of used equipment, take better care of equipment, no change in household recreation activities, household members participate more, and other impacts not evaluated. A checked response received a value of 1 while a response indicating that the issue was not relevant received a value of 0.

The responses to the recession question were factored and examined in the context of item analysis. Two factors emerged which were titled "less luxury index" and "reduction in travel and trip factor." The alpha coefficients for the variables were .66 and .73 respectively. The variables composing the less luxury index are as follows: increased length of stay, recreate at closer facilities, cook own meals, no replacement of used equipment, take better care of recreation equipment, and household members recreate more. The variables used to build the reduction in travel and trip factor are as follows: reduced travel for recreation purposes, reduced number of trips, adoption of less costly recreation activities, and recreate at closer facilities. The weighting values for the variables included in each of the indexes were summed to form the composite indexes.

Facility Related Blockages

One of the major impediments to participation in any activity

is access to the opportunity to enact the behavior. Facilities must exist if one is to participate in outdoor recreation. One of the factors deemed to be important relative to influencing the use of existing facilities was distance to the recreation site. The relative importance of distance was measured in terms of time to the household's favorite recreation site for each activity evaluated. The respondents were asked to note how much time was required to get to their favorite recreation site in Ohio. The activities evaluated are as follows: boating, fishing, camping, hunting, picnicking, trail activities, bicycling, off-road vehicle riding, local parks and playgrounds, field sports, court sports, golf, swimming, winter sports, horseback riding, and other activities not mentioned. The actual time entered by the respondents was used in the statistical analyses. The variables were designated by the prefix "time to" followed by the name of the specific activity.

Several other facility-related measures were included in the study. The respondents were asked to note if any of the following were important in preventing them from participating more often than they presently do in outdoor recreation activities. The factors provided for the respondents to consider are as follows: unfavorable weather, desirable outdoor recreation areas too far away, outdoor recreation areas too crowded, outdoor recreation areas too dirty, lack of information, outdoor recreation costs too much, outdoor recreation areas do not have facilities for the physically disabled, inadequate facilities at the recreation site, desired recreation experience not provided, recreation areas too noisy, fees for use too high, license fees too high, and any other reason not included on the questionnaire. The respondents were requested to check any of the reasons which were

appropriate. If the respondent checked a reason, it was given a value of 1. If the reason was not checked, the variable received a 0.

Access to public facilities was examined in the context of a question designed to evaluate the ease with which respondents are able to use public recreation facilities. The respondents were asked to rate the ease of use of public facilities by choosing from responses that ranged from never use areas to very easy to use. The weighting values ranged from 0 to 5 with 0 indicating never use area while 5 indicated very easy to use areas. The public facilities assessed in this manner are as follows: boating, fishing, camping, hunting, picnicking, trail activities, bicycling, off-road vehicle riding, local parks and playgrounds, field sports, court sports, golf, swimming, winter sports, horseback riding, and any other facility not included in the questionnaire.

The last independent variables to be discussed were used only to build predictive models for outdoor recreation participants because there was a possiblity of an identity problem existing in the data (both the independent and the dependent variables measuring the same thing). The respondents were requested to rate the level of satisfaction of household members with their outdoor recreation experiences during the past year in Ohio. The activities evaluated are as follows: boating, fishing, camping, hunting, picnicking, trail activities, bicycling, off-road vehicle riding, local parks and playgrounds, field sports, court sports, golf, swimming, winter sports, horseback riding, and other activities not included on the questionnaire. There were six response categories which are as follows: do not participate, completely dissatisfied, dissatisfied, neither satisfied nor dissatisfied, satisfied, completely satisfied.

The responses were weighted 0 to 5 with 0 indicating do not participate while 5 represented completely satisfied.

Statistical Analyses

The data were analyzed using both descriptive and multivariate analyses. Descriptive statistics were used to examine general trends in the data while regression analyses were used to build explanatory models. Several assumptions were made prior to the multivariate analyses. It was assumed that the attitude measures produced metric measures (Ableson and Tukey, 1970; Kim, 1975; Labovitz, 1970; Labovitz, 1972) and the variables included in the model were related in a linear fashion (Blalock, 1979). It was also assumed that the variables were normally distributed. Missing data were attributed the variable mean which has been shown to be the most appropriate technique for handling missing data when the sample is very large and the correlations are low to moderate (Donner, 1982). Both of these conditions are met in this data set. List-wise deletion of missing cases were conducted on specific computer runs to determine if the mean substitution approach was a problem. The findings revealed that the approach adopted was appropriate.

FINDINGS

The findings of the study outlined in the methods section of this paper are presented in this portion of the report. The findings are presented using descriptive statistics to provide an overview of the general trends in the data followed by the presentation of the multivariate analyses and statistical model building.

Outdoor Recreation Participation

The respondents were requested to provide information about the outdoor recreation activities of the household during the past year. These data are presented in Tables 3 and 4.

(Tables 3 and 4 Here)

The findings presented in Tables 3 and 4 indicate that the respondents were active in several outdoor recreation activities. Picnicking was shown to be the activity in which the largest percentage of respondents participated. This finding is very consistent with existing outdoor recreation studies which show that picnicking is one of the most popular activities. Approximately 67 percent of the respondents in this study indicated that members of their household engaged in picnicking in Ohio during the preceding year. Other recreation activities frequently reported were visiting local parks and playgrounds, swimming, and various types of fishing. These findings are also consistent with existing research because local parks and playground activities, fishing, and swimming have been

shown to be activities frequently enacted in the United States. The data also show that participation in the majority of activities evaluated was relatively low since most of the participants were clustered in the infrequent categories. The exceptions to this statement are fishing, picnicking, visiting parks and playgrounds, and outdoor pool swimming. A certain segment of the participants in these activities were shown to be very frequently engaged in the activities. These findings suggest that facilities offering fishing, picnicking, local parks and playgrounds activities and, swimming areas tend to be used more frequently than others.

The respondents were also requested to provide information about their household's anticipated outdoor recreation activities during the next 2 or 3 years. Their responses are presented in Tables 5 and 6.

(Tables 5 and 6 Here)

The findings presented in Tables 5 and 6 show that outdoor recreation participation in several of the activities examined will probably increase while others will probably decrease (this assumes that the respondents are able to accurately assess their family's future outdoor recreation activities). Only camping and swimming participation rates were demonstrated to remain about the same. Fishing, picnicking and visiting local parks and playgrounds were shown to be the activities which will probably be slightly expanded in the next 2 or 3 years. It is interesting to note that the activities which are anticipated to be enacted more frequently in the future are also the ones shown to be the most frequently enacted during the past year. These findings indicate that facilities offering fishing, picnicking and local parks and playground activities will be pressured

even further in the future. Boating, hunting, trail activities, bicycling, field sports, court sports, golf, winter sports, and horseback riding are expected to be enacted slightly less frequently. Off-road vehicle riding and other activities not included in the questionnaire were expected to be enacted less frequently as well.

The action implications of the descriptive data focused on the types of recreation activities enacted or expected to be enacted in the future by the study respondents suggest that some consideration should be directed toward serving the expected increase in demand for the three activities which the respondents indicate will be enacted more frequently in the future. Recreation opportunity providers should be prepared to make fishing, picnicking, and parks and playgrounds available to the recreation oriented public.

The respondents were asked to indicate what proportion of their total family outdoor recreation participation is usually enacted on public lands and waters in Ohio. Public lands and waters were defined as land and water owned or controlled by local, county, state or federal governments. The purpose of this question was to assess the relative importance of public lands and waters in meeting the recreation needs of Ohio residents.

(Table 7 Here)

The findings presented in Table 7 reveal that approximately 49 percent of the total outdoor recreation participation of the respondents' families is usually enacted on public lands and waters. The high percentage of use of public lands and waters demonstrates the importance placed on public recreation facilities by Ohio residents who participate in outdoor recreation activity. The magnitude of use of public recreation facilities suggests that many people would be

denied opportunities to participate in outdoor recreation activities if public lands and waters were not available. Table 7 shows that about 1/3 of the respondents usually spend 70 percent or more of their outdoor recreation time on public lands and waters. If access to public outdoor recreation facilities should become problematic, this particular group of recreators will have difficulty accessing recreation opportunities in the State. Loss of public recreational opportunities would mean these people would have to secure access to private facilities, change their recreation behavior or cease to participate. None of these consequences is desirable.

Priorities for Future Facility Development

The respondents were asked to provide information concerning the public outdoor recreation facility needs of their families in the near future. The respondents were asked to rank the 3 most important needs from the perspective of their family's priorities for recreation opportunities. These data are presented in Table 8.

(Table 8 Here)

The findings presented in Table 8 show that the respondents perceived the 3 greatest facility needs to be picnicking areas, public fishing areas and public swimming areas. These priorities are consistent with the previously discussed data concerning present and anticipated outdoor recreation activities (Tables 3-6). The respondents indicated that the next 3 most important recreation facilities are community parks and playgrounds, public camping areas, and public boating areas. It is interesting to note that each of the

facilities selected by the respondents as having priority could be incorporated into multiple-use areas, since they are not conflicting uses of the same resource. It is highly likely that programs to provide these types of outdoor recreation facilities would be met with considerable support among outdoor recreation user groups. Such programs would be consistent with anticipated future demands of the recreating public.

Satisfaction With Existing Facilities

The respondents were asked to note how satisfied they were with the outdoor recreation experiences they had in Ohio during the past year. These responses are presented in Tables 9 and 10.

(Tables 9 and 10 Here)

The findings presented in Tables 9 and 10 demonstrate that the respondents who participated in outdoor recreation activities were basically satisfied with the experiences they had last year in Ohio. The highest levels of satisfaction reported by the participants in the outdoor recreation activities were for picnicking, golf, trail activities and boating. The least satisfying experiences reported by the respondents were for off-road vehicle riding and horseback riding. The latter two activities were basically defined as being neither satisfying nor dissatisfying. In general, these data indicate relatively high levels of satisfaction with the experiences received while participating in outdoor recreation activities in the State last year. It must be noted, however, that these data are calculated from information provided by only those persons who were active in outdoor

recreation in the State last year. As a consequence, the findings may be biased somewhat by the exclusion of people who may have become very dissatisfied with the recreation opportunities offered in the State and subsequently ceased participation prior to the time period being assessed (last year).

Blockages to Outdoor Recreation Participation

Since one of the major purposes of the study was to identify factors that impede people from participating more often in outdoor recreation activities, the respondents were asked to identify the factors that tend to prevent them and family members from participating more often in outdoor recreation activities. The findings for these responses are presented in Table 11.

(Table 11 Here)

The findings presented in Table 11 show that the most important blockage to greater outdoor recreation participation is lack of time. While recreation agencies cannot affect the amount of time people allocate to outdoor recreation activities, they can influence the location of outdoor recreation facilities so that the time people have to spend in outdoor recreation can be maximized. Reduction in travel could easily increase the time people have to participate in their favorite activities and could increase participation for those who wish to do so but do not have the time to drive great distances to engage in such activities. This finding suggests that locational decisions regarding new recreation facilities should be partially couched in the context of time constraints on use by potential clients.

Unfavorable weather was also perceived to be an important blockage to greater outdoor recreation participation. Outdoor recreation facility providers may wish to consider developing more facilities that may be used even during poor weather conditions. Potential users could also be informed that adverse weather conditions may be negated by use of proper clothing and equipment.

Other factors considered to be impediments to greater outdoor recreation participation were crowding of recreation areas, lack of information about recreation areas, distance to the recreation sites and lack of equipment to participate in outdoor recreation activities. All of these variables can be affected by outdoor recreation opportunity providers. Controlled access of high use recreation areas can reduce the crowding problem, and information programs to inform potential users of existing recreation sites can reduce the ignorance associated with recreation opportunities in the State. A combination of these two approaches could result in the redistribution of the recreation demand to the point that users would be more satisfied with the recreational experience and the existing facilities would be more efficiently used.

The lack of equipment can also be influenced by the recreation opportunity providers. There are already programs in place in certain state recreation facilities for renting camping equipment and rental boats have been made available for many years. There may be other types of recreation equipment that could be provided on a rental basis to overcome this perceived blockage to greater outdoor recreation participation. More extensive information about the availability of rental equipment in the existing facilities may partially serve to overcome this barrier.

Of interest to recreation planners should be the data concerning access to transportation, lack of facilities for the physically disabled, noise level at the recreation site, and children living at home. These factors were perceived to be of little importance in terms of preventing the respondents from participating more often in outdoor recreation activities. The vast majority of respondents appear to have access to transportation for recreation purposes. Very few people perceive the existing facilities as not meeting the needs of individuals with physical problems, and they do not perceive the noise levels of existing facilities as being prohibitive. Having children at home does not appear to impede outdoor recreation participation (the probable reason for the lack of influence of children living at home is that they are often included in the recreation activities).

Difficulty in Using Outdoor Recreation Areas

Access to recreation opportunity was also measured in terms of the respondents' perception of difficulty in accessing the existing outdoor recreation facilities in Ohio. It was reasoned that the actual distance to facilities or user fees were probably less important than perception of access because people vary so much in terms of what costs they are willing to internalize to recreate. Some people will travel great distances for a brief recreational experience and define the access to the recreational opportunity as being easy. Others would define any expenditure of effort or resource to participate in outdoor recreation as being too costly. The responses

to the ability to use existing outdoor recreation facilities are presented in Tables 12 and 13.

(Tables 12 and 13 Here)

The findings presented in Tables 12 and 13 indicate that the user group perceived that existing outdoor recreation areas in the State are basically "neither difficult nor easy to use" or "somewhat easy to use." Inclusion of the nonparticipants in the calculation of the perceived ease of use statistics produced very different results. The ease of use findings using this approach revealed that the respondents as a total group perceived the access to be somewhat difficult. Local parks and playgrounds, and picnicking areas were perceived to be neither difficult nor easy. The other activities were perceived to be much more difficult to access. If one assumes that people who do not participate in outdoor recreation activities at existing recreation areas are prevented from doing so because any expenditure of effort is perceived to be too costly, then the conclusion drawn from the data is that ease of use of existing outdoor recreation areas is difficult. If one excludes the nonusers from the calculation of perceived ease of use, then the findings strongly suggest that the respondents believe that it is basically easy to use existing outdoor recreation facilities in the State.

Reasons For Participation in Outdoor Recreation Activities

The respondents were provided the opportunity to identify the factors which motivated them to participate in outdoor recreation activities. Many variables were selected from the existing literature

which have been used to explain why people participate in outdoor recreation activities. The respondents were provided several issues and asked to note how important each issue was in terms of explaining why members of the household participated in outdoor recreation activities. The respondents ranked the issues in terms of not important, of little importance, important and very important. The responses to the question are presented in Table 14.

(Table 14 Here)

The findings demonstrated that the most important reasons for participating in outdoor recreation activities were as follows: to relax, to be with family, to observe and enjoy nature, change of pace from everyday life and, to be with friends. These findings indicate that outdoor recreation opportunity providers should ensure that recreationists have the opportunity to have experiences which are not easily accessed in communities of residence. People apparently want to be with their family and friends in an environment that is close to nature where they are not disturbed and can relax. These findings suggest that recreation facilities oriented to small group activities would be received well. These findings also suggest that people do not want to be bothered by people they do not know while engaged in the recreation activities. This finding suggests that facility providers should make provision for privacy during the recreation experience. The concern for crowding noted earlier is supportive of this conclusion.

The desire to make new friends during participation in recreation activities is not very significant. The response "meet new people" was ranked number 10. While people desire to be with others, they wish to be with people they already know and like. This finding

suggests that providers of recreation opportunities do not have to be very much concerned about making provisions for interaction among the multiple user groups of the facilities. In fact, these findings suggest that facilities should be planned to provide some physical isolation of user groups if possible.

It is interesting to note that relatively few people indicated that they were motivated to participate in outdoor recreation activities by desires to secure trophies, getting game for food or competing with others. These findings strongly suggest that most people are motivated to participate in outdoor recreation activities for the experience rather than some tangible good or recognition to be derived from the activity. Apparently, most people want to escape the competition which permeates the society.

In summary, these findings strongly suggest that most people perceive outdoor recreation as being a means of re-creating themselves so that they may continue to participate in the societal activities which tend to be very competitive in nature. These findings imply that outdoor recreation may well be serving many people as a primary mechanism for coping with the complexities of contemporary demands of the society.

Perceptions of Outdoor Recreation as an Activity

Psychosocial theories argue that people must perceive an activity in a positive manner or they will not engage in the activity. Assessment of the perceptions of the respondents toward outdoor recreation in Ohio was made by asking them to describe outdoor

recreation via a semantic differential technique (Snider and Osgood, 1969; Tannenbaum, 1969). The responses to this methodology are presented in Table 15.

(Table 15 Here)

The findings reveal that the respondents hold basically positive perceptions about outdoor recreation in Ohio. The respondents believe that outdoor recreation is basically safe, valuable, slightly crowded, desirable, slightly clean, slightly close, and slightly cheap. The respondents perceived that the noise level associated with outdoor recreation activities was neither noisy nor quiet. These findings indicate that attitudes do not pose a problem for the potential users of the outdoor recreation facilities in the State. The respondents perceive outdoor recreation to be somewhat crowded but exhibit generally positive perceptions about the other aspects of the recreation experiences evaluated in the study. These findings indicate that outdoor recreation agencies have a potentially strong support base in the State because the populace holds a positive orientation toward outdoor recreation as an activity.

Impacts of Recent Economic Conditions on Outdoor Recreation Activity

The respondents were requested to provide information about the impacts of the recent economic problems (recession, inflation and unemployment) on their families' outdoor recreation activities in Ohio. The responses are presented in Table 16.

(Table 16 Here)

The most frequently reported consequence of the economic

problems recently encountered in Ohio and the society as a whole was a decline in the number of trips taken in the State for recreation purposes. The respondents also reported a reduction in the distance traveled for recreation purposes. The respondents indicated that other efforts have been instituted to reduce costs such as cooking their own food rather than going out to eat at recreation sites. They have also attempted to reduce costs by changing to recreation activities that are less costly. Only 27.6 percent of the respondents indicated that they had not changed their recreation behavior as a result of the economic problems noted above.

The findings presented in Table 16 reveal that the actions taken to counteract the economic problems encountered by people living in the State have tended to be conservation of economic resources by changing recreation behavior rather than ceasing to recreate. This is not surprising given the positive orientation the respondents exhibited toward outdoor recreation as an activity (Table 15). The probability is high that reduction in certain activities will continue as noted in the data regarding anticipated outdoor recreation activities in the next 2 or 3 years (Tables 5 and 6) but the respondents will continue to recreate in the outdoors even though the recreation rates may be modified.

The action implications of these findings is that agencies commissioned to provide outdoor recreation opportunities will be pressured to provide outdoor recreation opportunities closer to the client group. Unless this is done there will probably be at least a short-run decline in future use of outdoor recreation facilities which are located greater distances from population centers (almost half of the respondents lived in communities larger than 10,000 people --- see

Table 1). The decline in the use of more distant facilities will probably occur due to the reduction in the amount of economic resources available for family units to spend on outdoor recreation activities. There will also probably be a decline in participation in more costly outdoor recreation activities, such as staying in lodges and cabins, by the segment of the populace that has participated in that manner in the past.

In summary, the economic recession has already had some impact on the recreation behavior of the study respondents. The study participants indicate that they have compensated for the recessionary trends in the economy by shifting their behavior to less costly activities. It is interesting to note, however, that very few of the respondents reported that they stayed longer once they were at the recreation site. This is consistent with the data already reported concerning the time people have to allocate to outdoor recreation activities. The respondents indicated that the most important factor which prevented them from participating more extensively in outdoor recreation activities was lack of time (see Table 11). In periods of recession, it is highly doubtful that people will elect to take time from work which would further reduce consumable income or place their job in jeopardy.

Increasing Fuel Costs

One of the most important costs associated with travel is the cost of fuel. While the cost of fuel has stablized recently, gasoline has increased in price relatively rapidly in the past few years. The impact of the increase in fuel costs on outdoor recreation activities

was assessed by asking the respondents to indicate what the effects of increased fuel costs have been for the family unit during the past 3 years. The responses to this question are provided in Table 17.

(Table 17 Here)

The findings presented in Table 17 are quite consistent with the data presented in Table 16 which demonstrated that the respondents had already reduced travel and the number of trips for recreation purposes due to the economic problems facing the State's economy. The respondents indicated that the increase in the cost of fuel had resulted in a slight decline in participation in outdoor recreation. Almost 30 percent of the respondents indicated that they had reduced their participation, while less than 5 percent indicated that they had increased their participation even with the increase in the price of fuel.

The respondents were also asked what the price of fuel would have to be to generate changes in their present outdoor recreation behavior. The responses indicated that an increase of any magnitude at the present time will affect travel for recreation purposes. The data for the perceived impact of increasing fuel costs are presented in Table 18.

(Table 18 Here)

The findings presented in Table 18 are not surprising given the responses to the previous questions concerning the reactions of the respondents to recessionary trends in the economy. Almost 37 percent of the respondents indicated that they would change their recreation behavior if the price of gasoline increased to $1.50 a gallon. Nearly half of the respondents would change their recreation travel if the price of fuel increased to $1.75 a gallon. Almost 67

percent of the respondents indicated that they would change their behavior if the price of fuel increased to $2.00 a gallon.

The action implications of these data are that agencies commissioned to provide recreation opportunities should monitor economic conditions in terms of planning and be prepared to incorporate these data into short-run provision of services to the public. If the price of gasoline begins to increase, the immediate impact will be a decline in travel which means that facilities located farther from the population centers will tend to be under-utilized while facilities in close proximity to populated areas will be subject to greater user pressure (assuming other things equal). The evidence is that certain outdoor recreation activities are anticipated to be increased (Tables 5 and 6) but if the travel costs are concomitantly increased, the recreation must occur closer to the potential participants place of residence.

Travel Time to Favorite Recreation Site

The respondents were asked to note the distance they must travel to their favorite recreation site in Ohio for several types of outdoor recreation activities. These responses are presented in Table 19.

(Table 19 Here)

The findings show that recreators must travel 1.4 hours (one way) to engage in camping at their favorite site. This is a relatively long time to travel given fuel costs and the time constraints associated with outdoor recreation participation noted by

the participants. The respondents indicated that they have to travel on the average at least 1 hour to participate in boating, fishing, hunting, off-road vehicle riding, and winter sports. Even localistic activities such as field and court sports and local parks and playgrounds required thirty minutes to be accessed. These travel times may become prohibitive to outdoor recreation participation in the future, if time constraints and fuel costs continue to be problematic. In the event that time and travel costs remain a problem, outdoor recreationists will be required to reduce participation as they plan to do or locate recreation opportunities closer to their place of residence. The latter option may be very feasible since many respondents indicated that they were ignorant of many outdoor recreation opportunities in Ohio (Table 11). It may be possible for many people to locate recreation experiences which are substitutable for the experiences they presently enjoy and at a lower cost in terms of money and time. It may also be necessary for agencies to provide recreation opportunities closer to the user group.

Regression Findings For Present Outdoor Recreation Participation

One of the primary research goals of this study was to build mathematical models to isolate the factors that are predictive of outdoor recreation activity in the State. This research objective was accomplished by regressing the dependent variables noted in the methodology section of this report against the independent variables also noted in the methods section. The regression findings for total recreation participation and the recreation clusters are presented in Table 20.

(Table 20 Here)

The findings presented in Table 20 show that considerable variance in each dependent variable was explained by the independent variables included in the model. The regression model for total outdoor recreation activity explained 42.6 percent of the variance which is a large amount of explained variability by contemporary social science standards. Disaggregation of the total activity variable into recreation clusters as noted in the methodology portion of this report revealed relatively high levels of explained variance for each of the clusters even though the proportion was substantially less for the activity clusters than for total participation. The boating model explained 27.1 percent of the variance while the fishing model explained 35.3 percent of the variance. The extensive recreation activity model explained 29.1 percent of the variance, the hunting model explained 35.3 percent of the variance, the intensive model explained 37.3 percent of the variance and the total community based model explained 38.8 percent of the variance. In essence, the regression findings indicate that the models are basically good predictors of the outdoor recreation activities measured.

Inspection of the beta coefficients (standardized regression coefficients) in Table 20 reveals that each of the predictive models is quite different. The variables which entered the equations are substantially different for each recreation activity examined and the magnitude of the coefficients is also quite different for each model. These findings indicate that each recreation activity cluster must be examined separately and that the findings from one activity measure cannot be generalized to another. The only variables that entered every equation in Table 20 were recreation spending last year and time to golf site.

Total Recreation Participation

The regression equation for total outdoor recreation activities presented in Table 20 reveals that 29 variables were significant in reducing the unexplained variance in the dependent variable. The most important predictors of total outdoor recreation participation as measured by the magnitude of the beta coefficients are as follows: recreation spending last year, less luxury index, ease of use of swimming areas, competitive-individualistic recreation index, and ease of use of court sports areas. As recreation spending increased, people adopted less luxury in their recreation behavior, access to swimming areas became easier, people possessed a competitive-individualistic orientation and had greater access to court sports areas, there was a concomitant increase in total outdoor recreation activities.

Other factors which were shown to be significantly related in a positive manner with total outdoor recreation participation are as follows: ease of use of fishing areas, ease of use of field sports areas, percent of recreation enacted on public land, participation of the primary income earner in traditional-extensive activities as a youth, participation more often even in a recession, adoption of less costly recreation activities, time to golf site, ease of use of hunting areas, use of recreation as a psychosocial escape, perception that fees for use are too high, percent of recreation money spent in Ohio, time to camping areas, household size, ease of use of boating areas, extractive index, ease of use of bicycling areas, involvement

of mate in traditional-extensive activities as a youth, and lack of transportation. The factors shown to be inversely related to total outdoor recreation participation are as follows: no desire to recreate more, not enough time, ease of use of camping areas, marital status, ease of use of off-road vehicle areas, and lack of recreation skills.

The characteristics of more frequent outdoor recreators are as follows: people who have relatively easy access to recreation opportunities such as hunting, boating, fishing, swimming, bicycling, field and court sports areas and golf; households with children living at home; people who have adopted less costly recreation activities that are primarily enacted on public lands; people who have less access to camping and ORV areas; people who indicate that transportation to recreation areas is problematic; single people; and people who have recreation skills oftentimes developed as a youth.

The characteristics of the most frequent recreators were basically consistent with research expectations except those for the access to camping and ORV areas and the lack of transportation to recreation sites. It is possible that people engaged in camping may spend more time in the camp environment and be less inclined to engage in the multitude of other outdoor recreation activities available to them at the camping site. The same arguments could be applied to ORV riding participants. People engaged in ORV riding may spend their entire recreation time riding their vehicles rather than participating in other available recreation activities. It is highly likely that people engaged in these two recreation activities are restricting their recreation participation to a more narrow range of activities than other recreationists. Individuals who confine their recreation activities primarily to camping and ORV riding will also have to

travel farther to enact the activity as noted in Table 19 which would reduce the number of times they could participate.

The transportation findings are very interesting and appear to be illogical in that people who report lack of transportation to recreation sites also tend to report slightly higher levels of participation in outdoor recreation activities. This apparent inconsistency can be explained by noting that many outdoor recreation activities are enacted in the local community and, therefore, do not require extensive travel. The participants in neighborhood recreation activities can participate in numerous activities each day.

Total Boating Participation Factor

The regression findings for total boating participation are presented in Table 20 and demonstrate that 22 variables explain 27.1 percent of the variance in the dependent variable. The best explanatory factors are ease of use of boating areas, recreation spending last year, and ease of use of local parks and playgrounds. The first two variables were positively related to boating participation while the latter variable was negatively related. As ease of use of boating areas increased there was an increase in the incidence of boating. As spending increased there was an increase in boating participation. As ease of use of local parks and playgrounds increased there was a decrease in boating.

The total regression model revealed that the following variables contributed to increases in boating participation: better care of recreation equipment, percent of recreation on public lands,

psychosocial escape, not replace used equipment, time to golf site, ease of use of winter sports areas, time to winter sports areas, participate more often even in recession, percent recreation monies spent in Ohio, inadequate facilities, and mate involved in traditional-extensive activities as a youth. As these factors increased so did participation in boating.

The factors shown to be negatively related to boating participation are as follows: not enough time, no desire to recreate more, ease of use of camping areas, increasing fuel costs, time to trail activities site, lack of information, children at home which prevented more participation in outdoor recreation activities, and age of the primary income earner.

These findings indicate that boating participation is increased when the participants have relatively easy access to boating areas, have money to allocate to recreation, have access to public waters, have time to devote to the activity, do not have easy access to competing recreation activity sites such as winter sports areas, local parks and playgrounds and camping areas, have access to information about boating sites, have relatively few children at home, and are younger.

It is interesting to note that the recession has had an effect on the boating participants. The respondents indicate that they have responded to the economic problems by taking better care of their equipment and have not replaced used equipment. The latter action may be cause for concern if carried to the extremes. Boating equipment which requires replacement could lead to accidents.

Total Fishing

Participation Factor

The regression analysis revealed that 26 variables were significant in reducing the unexplained variance in the dependent variable. The best predictors of total fishing participation are ease of use of fishing areas, primary income earner participation in traditional extensive recreation activities as a youth, recreation spending, ease of use of camping areas, percent of recreation on public lands, and primary income earner participation in local activities as a youth. All of these factors are positively correlated with fishing participation except ease of use of camping areas, and primary income earner participation in local activities as a youth which are negatively related.

The regression findings revealed that the following variables were positively related to fishing participation in addition to those already noted in the previous paragraph. The variables shown to be positively related are as follows: less luxury index, competitive-individualistic index, time to golf site, ease of use of hunting areas, user fees too high, percent of recreation money spent in Ohio, household size, ease of use of boating areas, extractive index, mate involved in traditional-extensive activities as a youth, better care of equipment, time to boating site, weeks unemployed, recreation areas too noisy, time to hunting site, and occupation.

The factors shown to be negatively correlated with fishing in addition to those presented in the first paragraph of this subsection are as follows: no desire to recreate more, not enough time, lack of information, and ease of use of trail activities areas.

The fishing participation findings show that fishing tends to

increase when the participants: have relatively easy access to boating and fishing areas, have less easy access to competing activities such as hunting and trail activity areas, have time to devote to the activity, are more often employed in lower status occupations, have money to allocate to the activity, and have certain recreation skills usually acquired as a youth.

Total Extensive Recreation Participation Factor

The regression findings for the total extensive recreation participation factor revealed that 19 variables were significant in reducing the unexplained variance. These variables explained 29.1 percent of the variance in the dependent variable. The most important factors in the regression equation are as follows: ease of use of camping areas, recreation spending last year, ease of use of ORV areas, use of camping areas not cabins, and psychosocial escape orientation. All of these factors were positively correlated with the dependent variable.

The other variables shown to be positively related to total extensive recreation participation are as follows: less luxury index, participate more even during the recession, time to golf site, fees for use too high, time to camping site, mate involved in traditional-extensive activities as a youth, ease of use of trail activities areas, and time to ORV site. The variables shown to be negatively related to the dependent variable are as follows: no desire to recreate more, not enough time, ease of use of golf areas, recreation areas too dirty, do not have recreation equipment, and

unemployment during last year.

These data show that people engaged in extensive recreation activities tend to be influenced by access to camping and ORV areas, tend to have economic resources to spend on outdoor recreation activities, tend to be motivated by a psychosocial orientation to escape from everyday lifestyles, and have adopted certain economy measures to continue participating in outdoor recreation activities even during the recession. Individuals lacking recreation equipment and experiencing unemployment were less frequent participants. Access to competing activities, such as golf, tended to be reflected in less frequent participation in extensive recreation activities.

Total Hunting Participation Factor

The regression findings presented in Table 20 for total hunting participation reveal that 17 variables explained 35.3 percent of the variance in the dependent variable. The best explanatory variables are as follows: ease of use of hunting areas, extractive index, less luxury index, and ease of access to favorite camping site. People who indicated that they had relatively easy access to hunting areas, were motivated by success in capturing game, were able to reduce expenditures while maintaining participation, and had difficulty accessing their favorite camping areas tended to engage in hunting more frequently.

Other factors shown to be positively related to hunting participation are as follows: primary income earner engaged in traditional-extensive recreation activity as a youth, lack of

transportation, less costly recreation activity, time to golf site, and recreation spending last year. The factors shown to be related in a negative manner are as follows: no desire to recreate more, ease of use of bicycling areas, ease of use of ORV areas, no replacement of used equipment, primary income earner participation in local activities as a youth, place of residence, cook own meals, and time to favorite horseback riding site.

These findings reveal that more frequent participants in hunting tend to: have access to hunting areas; be blocked from engaging in competing activities such as bicycling, ORV riding, and camping; live in less populated areas; be motivated somewhat by success in securing game; have engaged in hunting as a youth; and reduce costs and still participate in the activity.

Total Intensive Recreation Participation

The regression findings presented in Table 20 for total intensive recreation participation revealed that 25 variables explained 37.3 percent of the variance in the dependent variable. The best explanatory variables are as follows: ease of use of swimming areas, ease of use of bicycling areas, ease of use of trail activities areas, recreation spending last year, mate involved in local recreation as a youth, and the number of people in the household less than 18 years of age. All of these factors were positively related with the dependent variable.

The regression analysis demonstrated that the following variables were significantly related in a positive manner with total

intensive recreation participation: less luxury index, competitive-individualistic recreation index, percent of total recreation on public lands, participate more even in a recession, time to golf site, ease of use of court sports areas, psychosocial escape, time to camping site, ease of use of local parks and playgrounds, primary income earner participation in local activities as a youth, reduction in travel and trips index, recreation areas lack facilities for the physically handicapped, and self-ranked class level. The variables shown to be negatively related to the dependent variable are as follows: primary income earner participation in traditional-extensive recreation activities, ease of use of boating areas, marital status, extractive index, ease of use of ORV areas, and ease of use of horseback riding areas.

These findings reveal that more frequent participants in intensive recreation activities tend to be those persons who: have access to swimming, bicycling, court sports, and local parks and playgrounds opportunities; are blocked from participating in competing activities such as golf, camping, horseback riding and boating; have been able to reduce expenditures associated with recreation participation and still maintain participation; are more often from the lower classes; are single; and are associated with persons (primary income earner) who participated in the activities as a youth.

Total Community-Based
Participation Factor

The regression findings presented in Table 20 show that 22 variables explained 38.8 percent of the variance in the dependent

variable. The variables demonstrated to be the best explanatory factors are as follows: ease of use of field sports areas, ease of use of court sports areas, ease of use of swimming areas, ease of use of ORV areas, competitive-individualistic recreation index, number of people in household less than 18 years of age, recreation spending last year, and ease of use of horseback riding areas. All of these variables were related in a positive manner except ease of use of ORV areas and ease of use of horseback riding areas.

The regression findings also revealed that other variables were significantly related with the dependent variable. The variables shown to be positively related are as follows: less costly recreation activities, time to camping site, time to golf site, primary income earner participation in local activities as a youth, time to boating site, occupation, do not have recreation equipment, unemployed last year, mate involvement in local recreation activities as a youth and recreate at closer facilities. The variables shown to be negatively related are as follows: ease of use of hunting areas, primary income earner involved in traditional-extensive recreation activities as a youth, poor weather conditions, and time to swimming areas.

The regression findings demonstrate that community-based recreation activities tend to be enacted more frequently by persons who: have access to field sports areas, court sports areas, and swimming areas; are blocked from participating in competing activities such as ORV riding, hunting, camping, boating, golf and horseback riding; are disproportionately from the lower classes; and have more children at home less than 18 years of age.

Individual Activities For

Participants Only

The data for each outdoor recreation activity were disaggregated for participants only and regressed against perceived satisfaction with outdoor recreation experiences in Ohio last year, ease of use of existing outdoor recreation areas in the State and time to favorite recreation site. These analyses were conducted since satisfaction with outdoor recreation experiences last year was only appropriate for participants. These findings are presented in Table 21.

(Table 21 Here)

The findings indicate that the 3 independent variables included in the analyses are very poor explanatory variables for the phenomena under study. One of the major reasons the independent variables included in the models are not very good predictors is that the disaggregation of the sample into the user and nonuser groups tended to make the user groups more homogenous which means the variance in the independent variables has been constrained. Such a situation would result in the reduction of the explained variance.

These findings indicate that predicting outdoor recreation participation for recreationists only is very difficult using the 3 variables included in the model. These findings indicate that recreation planning agencies should continue survey research which involves nonparticipants if they wish to build good predictive outdoor recreation participation models.

Individual Outdoor Recreation

Participation For the Total Sample

The individual outdoor recreation activities for the total sample were examined in the context of the independent variables noted in the methodology section of this report. These findings are presented in Table 22.

(Table 22 Here)

These findings are discussed in the context of generic outdoor recreation activities with special reference to the individual activities being examined.

Boating Participation

The regression models for the various types of boating presented in Table 22 demonstrate that a variety of independent variables was significant in reducing the unexplained variance in boating participation. Several general conclusions can be drawn from these findings.

1. Boating participation models tend to vary by the type of boating activity that is being assessed.

2. Individual boating activity models are not as predictive as the collective boating factor derived from summing the individual boating activities.

3. The best explanatory variable in each of the boating activity models was ease of use of recreation areas. This finding is consistent with the total boating participation factor reported earlier (Table 20). As ease of use of boating areas increased there was an increase in boating participation for all of the boating

activities assessed.

4. Spending was most predictive for the motorized types of boating (powerboating and waterskiing) but was also relatively important for the other boating activities as well. Boating participants must have economic resources to allocate to their recreation activities. This is especially true for the fuel consumptive-types of boating activities.

5. People who engage in powerboating most frequently tend to have the following characteristics in addition to spending and access to boating areas noted above: have higher percentage of total recreation on public lands and waters, have been blocked from use in some fashion from participation in competing activities, have compensated in some manner for the economic problems generated by the recession, have their own recreation equipment, and engage in the activity to escape everyday lifestyles.

6. People who participate more often in sailing tend to have the following characteristics in addition to the spending and access variables noted above: have higher education, are blocked from participation in competing activities, have friends who sail, and participated in winter sports as a youth.

7. People who engage more often in canoeing tend to have the following characteristics in addition to spending and access: live in households which are larger in size and composed of older people (more family members above the age of 18), participate more often in total outdoor recreation activities, have a competitive-individualistic recreation orientation, are White, are blocked from participation in competing recreation activities, and have experiences as a youth that support canoeing as a recreation activity (trail activities as a youth

is an example).

8. People who engage more often in waterskiing tend to have the following characteristics in addition to the spending and access variables noted above: live in households which are larger and composed of older people (more family members above the age of 18), are from houeholds that are headed by younger primary income earners, participated in boating as a youth, participate more often in outdoor recreation activities, have not replaced used equipment, are blocked from participation in competing recreation activities, and perceive the activity as an ascape from everyday lifestyle.

9. People who participate more often in other boating activities tend to have the following characteristics in addition to the spending and the access variables noted above: have not replaced used equipment, have a competitive-individualistic recreation orientation, participate more often in total outdoor recreation activities, have experiences as a youth which support their other boating participation and are blocked from participation in competing recreation activities.

Fishing Participation

The regression analyses presented in Table 22 show that several different variables were significant in reducing the unexplained variance in the individual fishing activities. None of the individual fishing models was as good as the total fishing factor composed of a composite of the individual fishing participation variables (Table 20) even though the models for panfishing and fishing for anything that bites were close to the amount of explained variance

for the total. Several of the general conclusions derived from the findings are as follows:

1. Five independent variables were shown to be common to all of the models. These factors are as follows: ease of use of fishing areas, recreation spending last year, better care of equipment, percent of outdoor recreation on public lands and waters and participation of mate in hunting as a youth. Each of these factors were positively related to the dependent variables. As ease of use of fishing areas, recreation spending last year, care of equipment, and mate involvement in hunting as a youth increased there was a concomitant increase in the various fishing activities.

2. Early experiences in fishing activity tended to positively affect fishing participation in nearly every model.

3. Blockages to participation in competing outdoor recreation activities were operative in each model.

4. Concern for securing game and trophies (extractive index) was significantly related to fishing participation in two of the four equations (panfishing and specialized sport fishing) but was of minor importance in explaining fishing participation. This suggests that the experience received from participating is more important than success in securing fish.

5. Ease of use of boating areas was only significant for walleye fishing. This finding probably has its greatest applicability to Lake Erie since it is one of the largest walleye fisheries in the State. As ease of use increased there was an increase in walleye fishing.

6. As the number of weeks of unemployment increased there was an increase in the participation in all but the specialized sport

fishing participation. This finding is not surprising since specialized sport fishing would require more travel and subsequently would tend to be avoided by people without work and assured income.

Camping Participation

The findings for camping are quite diverse as noted by the regression equations presented in Table 22. The amount of explained variance is also quite low for every activity examined which means the models are not very good in terms of prediction. There are two variables which are common to all four camping models. These factors are as follows: ease of use of camping areas and recreation spending last year. As spending and ease of use of camping areas increased there was a concomitant increase in camping participation. The respondents did indicate that reduction in the use of cabins and more use of camping areas has been their response to the recession. People who indicated that they used camping areas instead of cabins tended to participate more in motorized, group and backpack-tent camping. Some of the other general findings are as follows:

1. The number of children less than 18 tends to increase group camping but discourage backpack-tent camping. The variable has no influence on motorized and lodge-cabin use.

2. People who participate more frequently in outdoor recreation activities tend to participate more frequently in backpack-tent and group camping.

3. People blocked from competing outdoor recreation activities tend to engage in camping more frequently.

4. Participation in camping is a partial function of early

life experiences.

5. Income is of no consequence as a predictive variable for any of the camping models even though it was significantly related to use of lodges and cabins. Higher income people tended to use lodges and cabins slightly more frequently than other income groups.

Hunting Participation

The regression models for the various types of hunting activities are presented in Table 22 and demonstrate that 3 variables entered each equation. One variable entered 4 of the 5 hunting models and 2 variables entered 3 equations.

The two variables which were shown to be the best predictive factors for all 5 models were ease of use of hunting areas and extractive orientation. As hunting areas became easier to access, hunting participation increased. As people became more committed to an extractive orientation they tended to hunt more often. The final independent variable to enter the 5 equations was lack of transportation. As lack of transportation became a problem, hunting participation tended to increase. The latter finding suggests that hunting in local areas is being substituted for other outdoor recreation activities which require travel.

Individuals who reported taking better care of their recreation equipment as a response to the recession also tended to engage in deer, small game, waterfowl, and bird hunting more frequently. This finding suggests that hunters have been deferring purchases of equipment to be able to continue hunting at a more desirable rate. Continued maintenance of this behavior will probably

result in reduced expenditures associated with hunting equipment.

The adoption of less costly recreation activities as a response to the recession was shown to be significant in reducing the variance in the explanation of the frequency in deer hunting, small game hunting and bird hunting. Individuals who adopted less costly recreation activities tended to enact these hunting activities more frequently. These findings suggest that people who are concerned about the costs associated with hunting have adopted hunting activities which they feel are more affordable. The respondents apparently feel that deer, bird and small game hunting are activities which conserve economic resources.

Household size was also shown to be significantly related to three of the dependent variables. As the number of people living in the household increased there was an increase in the incidence of hunting for deer, small game and waterfowl.

Other generic findings for hunting participation which emerged from the regression findings and are presented in Table 22 are as follows:

1. Participation in hunting activities is a partial function of access to competing outdoor recreation activities.

2. Deer and small game hunters tend to live more often in lesser populated areas.

3. Bird and small game hunters tend to have experienced hunting as a youth.

4. Waterfowl hunters who participated more frequently also tended to have expended more money for recreation purposes.

5. Waterfowl and bird hunters tended to stay longer at the recreation site as a response to the recession.

Picnicking Participation

The regression findings for picnicking participation presented in Table 22 demonstrate that 20 variables were significant in reducing the unexplained variance in the dependent variable. The 5 best independent variables in terms of the magnitude of the explained variance are as follows: ease of use of picnicking areas, recreation spending last year, psychosocial escape, percent of outdoor recreation on public lands and waters, and picnicking as a youth. All of the relationships were positive. As ease of use of picnicking areas, recreation spending, psychosocial escape orientation, percent of recreation activity enacted on public lands and waters, and participation in picnicking as a youth increased there was a concomitant increase in picnicking participation.

In addition to these findings, more frequent participants in picnicking tend to: be blocked from participation in competing recreation activities, be members of family units which are attempting to reduce costs associated with recreation participation due to the recession, be members of family units in which the primary income earner is employed in lower status occupations, and be members of family units which have more children less than 18.

Trail Activities
Participation

The regression findings revealed that 13 variables were significant in reducing the unexplained variance in the frequency of

participation in trail activities. The model explained 22.3 percent of the variance in the dependent variable. The three most important explanatory variables are as follows: ease of use of trail activities areas, percent of recreation activity on public lands and waters, and recreation spending. As ease of use of trail activities areas, percent of recreation activity usually enacted on public lands and waters, and recreation spending last year increased there was an increase in participation in trail activities.

In addition to these findings, people who participate more frequently in trail activities tend to: be blocked from greater participation in other outdoor recreation activities, be more competitive-individualistic as measured by the index used in the study, participate in the activity as a youth, and be members of family units in which the primary income earner is female.

Bicycling Participation

The regression findings reveal that 17 variables explained 27.5 percent of the variance in bicycling participation. There was one good variable in terms of prediction which was ease of use of bicycling areas. As ease of use increased there was a substantial increase in participation in bicycling. In addition to these findings, other characteristics of people who participate more frequently in bicycling are as follows: participants in bicycling as a youth, spend greater percent of recreation money in Ohio and allocate more money to recreation activities, substitute bicycling for recreation activities from which they are blocked from participating, tend to recreate more often on public lands and waters and tend to

conserve on recreation activities due to the recession.

Off-Road Vehicle Riding Participation

The regression findings presented in Table 22 demonstrate that 20 variables explain 20.3 percent of the variance in frequency of participation in off-road vehicle (ORV) riding. The 3 best predictive variables were ease of use of ORV areas, ORV riding as a youth, and the ease of use of horseback riding areas. Ease of use of ORV areas and early life experiences with ORV riding increased the probability of higher levels of participation in ORV riding. The ease of use of horseback riding areas is a competing outdoor recreation activity and tended to reduce participation in ORV riding.

In addition to these findings, people who participate more often in ORV riding tend to have the following characteristics: live in less populated areas, blocked from participating in a variety of outdoor recreation activities, members of family units which have fewer people less than 18 years of age, exhibit an extractive orientation, perceive outdoor recreation as a mechanism for psychosocial escape, and have adopted economy measures to maintain participation.

Visiting Parks and Playgrounds Participation

The regression model for visiting parks and playgrounds reveals that 23 variables were significant in reducing the unexplained

variance in the dependent variable. The model explains 28.6 percent of the variance in the dependent variable. The 5 best explanatory variables are ease of use of local parks and playgrounds, percent of total outdoor recreation enacted on public lands and waters, ease of use of trail activities areas, competitive-individualistic index, and intent to use nearby facilities as a response to the recession. All of these factors were positively related with the dependent variable. As these variables increased so did participation at local parks and playgrounds.

In addition to these findings, people who are more frequent participants in local parks and playground activities tend to be: higher income, participants in the activities offered at local parks and playgrounds as a youth, members of families with more children less than 18 years old, blocked from participating in other outdoor recreation activities, not married, and exhibit a nonextractive orientation toward outdoor recreation activities.

Field Sports Participation

The regression model for field sports participation presented in Table 22 demonstrates that 20 variables were significant in the reduction of the explained variance in the dependent variable. The model explained 37.8 percent of the variance. The 3 best predictive variables are as follows: ease of use of field sports areas, ease of use of ORV areas, and participation in field sports as a youth. As ease of use of field sports and participation in field sports as a youth increased there was a concomitant increase in the dependent

variable. As ease of access to ORV areas increased there was a decrease in participation in field sports participation because ORV riding is a competing outdoor recreation activity.

The regression model revealed that other variables were significantly related to participation in field sports activities. More frequent participants in field sports activities tend to: be less educated, be members of families that have younger primary income earners, possess a competitive-individualistic orientation toward outdoor recreation activities, be blocked from participation in other outdoor recreation activities, be members of families which are larger, be people who have changed their recreation use to closer facilities and have done so to reduce the costs of participating in outdoor recreation activities.

Court Sports
Participation

The regression model for court sports particiaption presented in Table 22 indicates that 16 variables explain 31.7 percent of the variance in the dependent variable. There is 1 very good predictive variable and it is ease of use of court sports areas. As ease of use of court sports areas increases there is a substantial increase in the participation in the dependent variable. In addition to ease of use of court sports areas, people who are more frequent participants in court sports participation tend to: have participated as youths, be blocked from participating in other outdoor recreation activities, possess outdoor recreation skills, be members of larger families, and be competitive-individualistic in terms of their orientation toward

outdoor recreation.

Golf Participation

The regression model presented in Table 22 indicates that 15 variables explain 40.9 percent of the variance in the dependent variable. The 5 best predictive variables are as follows: ease of use of golf areas, golf participation as a youth, ease of use of horseback riding areas, recreation spending last year and ease of use of ORV areas. As ease of use of golf areas increased there was a very substantial increase in golf participation. Early life experience in golf also increased the probability the participation would be higher. Recreation spending increased as participation in golf increased. The competing activities of horseback riding and ORV riding tended to reduce participation in golf.

In addition to those factors already noted, more frequent golf participants tend to have the following characteristics: mate involvement in golf as a youth, competitive-individualistic orientation toward outdoor recreation, blocked from participation in competing outdoor recreation activities, participate more often in outdoor recreation activities and their friends do not participate much in outdoor recreation activities.

Beach Activities

Participation

The regression model for beach activities participation presented in Table 22 reveals that 18 variables were significant in

reducing the unexplained variance in the dependent variable. The model explained 24.4 percent of the variance in beach activities. The 5 best explanatory variables were as follows: ease of use of swimming areas, recreation spending, mate involvement in swimming as a youth, time to golf site and psychosocial escape. All of these variables were positively related to the frequency of participation in beach activities. As ease of use of swimming areas, recreation spending, participation of mate in swimming as a youth and commitment to psychosocial escape increased there was an increase in beach activities. As time to golf site increased there was a tendency for beach activities to increase. The latter finding suggests that the respondents are blocked from participating in golf activities by longer time to site and engage in beach activities which they find desirable.

The regression findings also indicate that other variables are related to the dependent variable. The characteristics associated with more frequent participants in beach activities are as follows: members of families which have younger primary income earners, people who recreate more often on public lands and waters, primary income earner has been unemployed for longer periods of time, members of families which are larger in size, people who are not married, people who have changed recreation behavior to cope with the recession, and participated in swimming as a youth.

Outdoor Pool Swimming

Participation

The regression analysis for outdoor pool swimming

participation presented in Table 22 demonstrates that 20 variables explained 23.8 percent of the variance in the dependent variable. The 3 best predictive variables are: ease of use of swimming areas, number of family members less than 18 years of age and the competitive-individualistic orientation. As the ease of access to swimming areas, the number of family members less than 18 years of age and the competitive-individualistic orientation increased there was an increase in the frequency of participation in swimming.

The regression model also indicated that several other factors were significant in explaining swimming participation. The characteristics of individuals who engage in outdoor recreation participation more frequently are as follows: people who have adopted less costly recreation activities, individuals who are blocked from participating more often in competing outdoor recreation activities, nonextractive oriented people and people who spend more money for outdoor recreation.

Winter Sports Participation

The regression findings indicate that 21 variables explain 25.8 percent of the variance in the dependent variable. The 3 best predictive variables are as follows: ease of use of winter sports areas, recreation spending last year and competitive-individualistic orientation. All of these factors were positively related to the dependent variable.

The regression model also indicates that other characteristics of more frequent participants in winter sports are as follows: people

blocked from participating in competing outdoor recreation activities, members of families which are larger but with fewer children less than 18 years of age, members of families which have adopted less costly recreation activities, people who are nonextractive in their perception of outdoor recreation, people who have lived in Ohio for a shorter period of time, individuals who are not married and have lower incomes, and individuals who have participated in winter sports as a youth.

Horseback Riding

Participation

The regression model presented in Table 22 for horseback riding participation indicates that 16 variables explained 23.6 percent of the variance in the dependent variable. The 5 best explanatory variables are as follows: ease of use of horseback riding areas, horseback riding participation as a youth, recreation spending last year, ease of use of ORV areas, and place of residence. As ease of use of horseback riding areas increased there was a substantial increase in the dependent variable. As participation in horseback riding as a youth and recreation spending increased there were also increases in the dependent variable but the increases were not as large as the increase generated by ease of use of recreation areas. People living in less populated areas were more frequent participants in horseback riding. Access to participation in competing outdoor recreation activities tended to reduce participation in horseback riding.

In addition to these findings, the regression model also

indicates that more frequent participants in horseback riding have the following characteristics: have access to information about recreation opportunities in the State, mate is not employed outside the home and their childhood residence was a more populated area.

Regression Findings For Anticipated Outdoor Recreation Activities

The responses to anticipated outdoor recreation participation were regressed against the independent variables noted in the methods section of this report and the findings are presented in Table 23.

(Table 23 Here)

Comparison of the regression findings for the anticipated outdoor recreation activities and the actual recreation participation show that the findings are very similar. The best predictive factors for anticipated outdoor recreation participation are bacically the same as those for the actual recreation behavior reported by the respondents. The only major difference in the findings is that measures of outdoor recreation participation last year for the various activities were entered as independent variables to predict anticipated recreation participation. These factors were shown to be predictive of the anticipated recreation participation in nearly every regression model. Each of the anticipated outdoor recreation activities examined are discussed in the context of the best predictve variables.

Intended Boating Participation

The regression findings for intended participation in boating activities presented in Table 23 revealed that 17 variables explained 31.5 percent of the variance in the dependent variable. The best predictive variables evaluated in the context of the magnitude of the regression coefficients are as follows: ease of use of boating areas, psychosocial escape, primary income earner participation in traditional-extensive recreation activities as a youth and total boating participation in the past year. All of these variables were related in a positive manner to the dependent variable. People who anticipate greater participation in boating during the next 2 or 3 years tend to: have easier access to boating areas, perceive outdoor recreation in the context of an escape from everyday life, be members of families headed by primary income earners who were involved in traditional-extensive outdoor recreation activities as a youth and participated more frequently in boating last year.

In addition to the variables already noted, the characteristics of people who intend to participate more frequently in boating in the next 2 or 3 years relative to other respondents are as follows: tend to be blocked from participating more often in competing outdoor recreation activities, do not have enough time to devote to greater participation in outdoor recreation activities (this suggests that a portion of the respondents would participate more often in boating if they had more time to devote to the activity), tend to perceive recreation areas as being safe and tend to be in better health.

Intended Fishing

Participation

The regression model for intended fishing participation presented in Table 23 reveals that 17 variables explained 34.5 percent of the variance in the dependent variable. The 4 best predictive variables are as follows: ease of use of fishing areas, total fishing participation last year, psychosocial escape, and primary income earner participation in traditional-extensive recreation activities as a youth. People who have easier access to fishing areas, engaged in fishing more often last year, perceive outdoor recreation as an escape from everyday life, and participated in such activities as a youth anticipate that they will participate more often in the future than people with opposite characteristics.

In addition, people who are blocked from enacting other recreation activities, are attempting to affect costs by reducing travel and the number of trips, hold an extractive orientation, perceive that license fees are too high and do not have enough time to recreate more often anticipate greater participation in fishing than people possessing opposite characteristics.

The regression model also revealed that the respondents who anticipated more frequent participation in fishing in the next 2 or 3 years perceived that they did not have enough time to participate more frequently. This suggests that fishing participation would probably increase if time barriers were reduced.

Intended Camping

Participation

The regression analysis for anticipated camping participation presented in Table 23 reveals that 22 variables explained 35.3 percent of the variance in the dependent variable. The 4 best predictive variables are as follows: ease of use of camping areas, total extensive activity participation, psychosocial escape and less luxury index. As each of these factors increased there was an increase in the dependent variable.

In addition to the variables noted above, people who indicated that they are anticipating camping more often tended to have the following characteristics: blocked from participating more often in competing outdoor recreation activities, perceive that recreation areas contain adequate facilities, perceive themselves as not having adequate information about existing recreation opportunities, have better health, have friends that participate in outdoor recreation activities, and are members of families in which the primary income earner participated in similiar recreation activities as a youth.

Intended Hunting Participation

The regression model focused on anticipated hunting participation in the next 2 or 3 years demonstrated that 15 variables were significant in explaining 34.1 percent of the variance in the dependent variable. The 4 best predictive variables were ease of use of hunting areas, extractive orientation, total small game hunting participation and total hunting participation. As each of these factors increased there was a concomitant increase in the dependent variable. These findings indicate that expected recreation'

participation is strongly influenced by prior recreation activities and ease of access to recreation opportunities to participate.

Factors that tend to reduce expected hunting participation are health status, participation in competing outdoor recreation activities, inadequate facilities at recreation sites and a perception that recreation does not offer an escape from everyday life. People who have poor health, participate in a variety of competing outdoor recreation activities, perceive the existing recreation facilities as being inadequate and view outdoor recreation as not offering an escape from everyday life tend to anticipate less involvement in hunting during the next 2 or 3 years.

Intended Picnicking Participation

The regression findings for anticipated picnicking participation presented in Table 23 demonstrate that 17 variables were significant in reducing the unexplained variance in the dependent variable. The predictive variables included in the analysis explained 32.5 percent of the variance in intended picnicking participation. The best explanatory variables are as follows: ease of use of picnicking areas, total picnicking participation last year and psychosocial escape. These factors were related in a positive manner to the dependent variable. As ease of use of picnicking areas, total participation in picnicking last year, and perceptions that outdoor recreation is a means of psychosocial escape increased there was a concomitant increase in anticipated picnicking participation.

Other characteristics of people who intend to participate more

often in picnicking are as follows: people blocked from participation in competing outdoor recreation activities, individuals blocked from greater participation in outdoor recreation because they lack transportation for recreation purposes, members of families that have reduced travel and trips due to recession, members of families who have been blocked from participation in outdoor recreation activities by having children at home (certain recreation activities cannot be enacted if there are dependent children present but picnicking would be an activity that could be enacted with even small children present), members of families which have primary income earners who participated in the activity as a youth, people who lack information about recreation opportunities, and do not have enough time to spend in outdoor recreation.

It is interesting to note that many of the variables that explain participation in picnicking are associated with blockages in some manner. The higher frequency of participation in and the anticipated participation in picnicking may be a partial function of the nature of the activity because many of the blockages do not apply to the activity.

Intended Trail Activities Participation

The regression analysis for intended participation in trail activities presented in Table 23 demonstrated that 18 variables explained 31.6 percent of the variance in anticipated trail activities participation. The best predictive variables were ease of use of trail areas, total trail activity participation and psychosocial

escape. Other variables shown to be significant in reducing the unexplained variance are poor health, inadequate facilities, competing recreation activities, primary income earner participation in the activity as a youth, inadequate time, and unfavorable weather.

People who indicated that they would participate more often in trail activities in the next 2 or 3 years tended to have the following characteristics: have easier access to trail activity areas, participated in trail actvities more often last year, perceived outdoor recreation as being an escape from everyday life, participated in trail activities as a youth, and were blocked from greater participation in the past due to unfavorable weather and lack of time. Individuals who indicated that they would participate less frequently tended to perceived that existing facilities contained inadequate facilities, participated in competing recreation activities, and were blocked from greater participation by health reasons.

Intended Bicycling Participation

The regression model for anticipated bicycling participation presented in Table 23 shows that 17 variables explained 32.1 percent of the variance in the dependent variable. The best predictive variables are ease of use of bicycling areas and total bicycling participation. As ease of use of bicycling areas and participation in bicycling last year increased there was a concomitant increase in the dependent variable. Intended participation also increased when people reported reduction in the costs attached to recreation participation due to the recession, reduced their participation in competing

recreation activities, indicated that they did not have enough time to recreate, perceive that outdoor recreation is a means of psychosocial escape, and were in adequate health to participate in the activity.

Intended ORV Participation

The regression model for ORV riding presented in Table 23 indicates that 12 variables explained 15.9 percent of the variance in the dependent variable. The 2 most important explanatory factors are total ORV participation last year and ease of use of ORV areas. As these variables increased there was an increase in the anticipated frequency in ORV riding.

Individuals who anticipated greater participation in ORV riding in the next 2 or 3 years tended to have the following characteristics in addition to those noted in the previous paragraph: lacked information on recreation opportunities, perceived outdoor recreation as a means of escape from everyday life, possessed an extractive orientation, were not blocked from participation by health problems but were blocked in some manner from participation in competing activities.

Intended Parks and Playground Participation

The regression analysis presented in Table 23 for intended participation in local parks and playground actvities revealed that 12 variables explained 30.6 percent of the variance in the dependent

variable. The 4 most important variables in the model were as follows: ease of use of local parks and playgrounds, total visits to local parks and playgrounds last year, psychosocial escape and reduction in travel and trips due to the recession. As these variables increased there was a concomitant increase in the dependent variable.

Other factors shown to be significantly related to intended use of local parks and playgrounds are lack of information and participation in competing recreation activities. Anticipated participation in local parks and playgrounds tended to increase when people reported a lack of information on outdoor recreation opportunities. Anticipated participation decreased when people reported participation in competing outdoor recreation activities.

Intended Field Sports
Participation

The regression analysis for anticipated field sports participation revealed that 13 variables explained 25.0 percent of the variance in the dependent variable. The 3 best predictive factors are as follows: ease of use of field sports areas, total field sports participation last year and a competitive-individualistic orientation toward outdoor recreation. As these factors increased there was an increase in the dependent variable.

Other factors shown to be significantly related to anticipated field sports participation are: lack of information on recreation options, health, extractive orientation and participation in competing activities. People who participate more often in competing outdoor

recreation activities, are blocked from participation by poor health, have information about recreation options, and are not concerned about extracting anything tangible from the recreation experience have a greater probability of participating less frequently in field sports activities.

Intended Court Sports Participation

The regression analysis for anticipated court sports participation presented in Table 23 indicate that 18 variables explained 29.7 percent of the variance in anticipated court sports participation. The 4 best explanatory variables were ease of use of court sports areas, total court sports participation last year, ease of use of ORV areas (competing activity), and competitive-individualistic orientation. People who had relatively easy access to court sports areas, were active in court sports activities last year, were blocked from use of ORV areas, and exhibited a competitive-individualistic orientation tended be more inclined to participate more often in future court sports activities. In addition to these characteristics, people who indicated that they anticipate greater participation in court sports activities tend to: exhibit an extractive orientation, perceive outdoor recreation as being a means of psychosocial escape, be blocked from greater outdoor recreation participation because they have children at home, be members of family units in which the primary income earner participated in court sports as a youth, feel that they do not have

enough time to devote to outdoor recreation, and believe that health does not prevent them from participating more often in outdoor recreation activities.

Intended Golf Participation

The regression findings presented in Table 23 for anticipated golf participation indicate that 15 variables explained 33.6 percent of the variance in the dependent variable. The 2 best predictive variables are ease of use of golf areas and total golf participation last year. As these factors increased, intended golf participation also increased. In addition to these variables, several other factors contributed to increased propensities to participate more often in golf. The characteristics of people who intend to recreate more often in golf activities are as follows: members of families in which the primary income earner participated in golf as a youth, do not have enough time to recreate more, have receation equipment, do not perceive that health prevents them from participating in outdoor recreation activities, and do not participate in competing recreation activities.

Intended Swimming Participation

The regression model for intended swimming participation presented in Table 23 indicates that 18 variables explained 36.1 percent of the variance in the dependent variable. The 4 most

important predictive variables were ease of use of swimming areas, psychosocial escape, lack of equipment as a barrier to participation in outdoor recreation activities, and total outdoor swimming participation. As the ease of use of swimming areas, psychosocial escape, and total outdoor swimming increased there was an increase in anticipated swimming participation. When the respondents indicated that they did not have outdoor recreation equipment there was also an increase in intended participation in swimming. The latter finding suggests that people can become participants in swimming with very little expenditure of money because the equipment requirements to participate are quite small.

The characteristics of people who indicated that they anticipate participating in swimming more often than other respondents in addition to the 4 variables already noted are as follows: members of families which have reduced costs to continue participation in outdoor recreation activities, members of family units with children living at home that prevent them from participating more often in outdoor recreation activities, individuals who have been blocked from participating in competing recreation activities, persons who do not have enough time to recreate more often in outdoor recreation activities, people who lack information about outdoor recreation opportunities, and individuals who report no health blockages to outdoor recreation participation.

Intended Winter Sports Participation

The regression model for winter sports participation presented

in Table 23 indicates that 20 variables explained 29.9 percent of the variance in the dependent variable. The 3 best predictive variables are as follows: ease of use of winter sports areas, total winter sports participation last year and the competitive-individualistic index. As the ease of use of winter sports areas, the competitive-individualistic orientation and total winter sports participation last year increased there was an increase in anticipated participation.

Other characteristics of people who anticipate greater participation in winter sports activities in the next 2 or 3 years are as follows: people who have children at home that prevent them from participating more often in outdoor recreation activities, individuals who are blocked from participating more due to participation in competing activities, persons who do not report that health problems prevent participation, people who were prevented from participating more often last year due to weather, and people who perceive outdoor recreation as being a means of achieving psychosocial escape.

Intended Horseback

Riding Participation

The regression model for horseback riding participation presented in Table 23 indicates that 16 variables explained 22.2 percent of the variance in the dependent variable. The 3 best explanatory variables are as follows: ease of use of horseback riding areas, total participation in horseback riding last year and time to favorite horseback riding site. As each of these variables increased there was a corresponding increase in the anticipated participation in horseback riding.

The characteristics of people who intend to participate more often in horseback riding than others in the study in addition to the 3 variables already noted are as follows: people who perceive outdoor recreation as a means of escaping from everyday life, individuals who are blocked in some manner from participation in competing outdoor recreation activities, people with children at home who prevent them from participating more often in outdoor recreation activities and individuals who report that they are not prevented from participating in outdoor recreation activities as a result of health problems.

SUMMARY OF FINDINGS AND IMPLICATIONS

The research findings indicate that many of the study respondents participate in outdoor recreation activities and perceive such behaviors as being very important in providing a means of escaping the problems of everyday life. The respondents also held

very positive attitudes toward outdoor recreation as an activity as noted by their responses to the semantic differential questions. The magnitude of the proportion of respondents indicating participation in outdoor recreation activities and the perceptions held about these types of experiences strongly suggest that the continued provision of recreation opportunities is essential to the well-being of people living in the State. These findings also indicate that outdoor recreation is held in very high esteem by people in the State. Outdoor recreation development agencies do have to be concerned about creating a positive image concerning outdoor recreation since it already exists among citizens in the State.

The research findings indicate that the use of public lands and waters is very extensive. Almost 1/2 of all family outdoor recreation activities are enacted on public lands and waters. If such facilities should be denied the people who engage in such activities, many would be unable to locate private facilities and would be forced to terminate their participation. Even if they were not forced to terminate participation many people would be compelled to reduce participation considerably. The magnitude of use of the existing public lands and waters suggests that public recreation facilities are a very good investment of limited development resources.

The data for types of outdoor recreation behavior enacted most often revealed that picnicking, visiting local parks and playgrounds, swimming and fishing (fishing would have been ranked higher if all types of fishing had been ranked together--fishing for anything that bites was ranked 4th, pan fishing was ranked 5th, walleye fishing was ranked 11th and specialized fishing was ranked 24th) were the activities in which the greatest proportion of people participated.

These findings suggest that the public desires these types of recreation experiences and that the agencies commissioned to provide recreation opportunities must make it possible for people to enact these behaviors. Facilities that include recreational opportunities such as those noted above should be utilized assuming they can be accessed by the client group. One of the exciting things about these types of recreational activities is that they tend to be complementary. Many recreation facilities already have these types of recreational opportunities and with proper management have been able to meet various demands for multiple use demands. Future facility development should encorporate these activities into the planning process.

Addition evidence concerning the importance of picnicking, visiting local parks and playgrounds, swimming and fishing to the recreating public was derived from the responses to the anticipated outdoor recreation participation question. The respondents indicated that they plan to slightly increase participation in fishing, picnicking and visiting local parks and playgrounds. Camping and swimming are expected to remain about the same. Other activities assessed are expected to decline. These data combined with the information provided for total participation strongly suggest that future expansion of outdoor recreation facilities should include opportunities to enact these behaviors if the goal of the development agencies is to provide recreational experiences relevant to the needs of the potential client population.

Other information provided by the respondents which support the conclusion that the recreating public desires picnicking, fishing, swimming and community parks and playgrounds was noted in the group's

responses to desired recreation facilities. These activities were perceived to be the most important needs of the respondents. These findings strongly suggest that the recreating public will support the development of new facilities which include picnicking, fishing, and swimming activities. The desire for local parks and playgrounds strongly suggests that the respondents would like to have their recreation facilities constructed close to their place of residence.

The importance of proximity in terms of use was noted in the response to blockages to participation in outdoor recreation activities. The most frequent blockage to more participation was lack of time. Desirable areas too far away was ranked 5th. These findings suggest that facilities located closer to the potential clients would be used more frequently. Consideration, however, would have to be given to the carrying capacity of the facility in the context of the number of people the facility can accommodate. The respondents noted that one of the most important reasons for not recreating more often was the crowded conditions of the existing recreation facilities (ranked 2nd. most important reason). These findings considered together suggest that people would like to have recreation facilities close to home that include swimming, fishing and picnicking but would also like to have some controls on the use level to reduce crowding. The latter conclusion suggests that management of existing and newly created facilities is a very important consideration. If recreation facilities are constructed in close proximity to populated areas and use expands as expected, the necessity for maintaining the optimum utilization of the facilities by controlling access will become more critical.

The respondents indicated that the most important reasons for

participating in outdoor recreation were to relax and to be with family. Several other reasons given also suggest that the respondents viewed outdoor recreation as being activites that provided a break from everyday activities. These findings suggest that outdoor recreation areas should be designed to provide family units or small primary-like groups some degree of privacy to relax and interact with each other without interruptions. It is highly likely that participation in outdoor recreation activities is one of the few times during the year that the family unit is together without disruption and conflicting demands.

The data focused on the influences of inflation and increasing costs of fuel indicate that recreation travel has been reduced and will probably continue to decline in the future if the present trends continue. The data also indicate that the respondents have reduced their expenditures in other areas as well to continue participation in outdoor recreation activities. The respondents have resorted to cooking their own meals, staying in camping areas rather than lodges and cabins and have made fewer trips for recreation purposes. These economy measures add credibility to the conclusion that recreation opportunities will have to be offered closer to population centers if people are to have recreation opportunities in the future. This conclusion is especially true when these findings are combined with the finding that the respondents do not have much time to spend recreating. Recreation planners engaged in the provision of facilities should monitor fuel prices carefully because the respondents indicated that they will begin changing their outdoor recreation behavior when the price of fuel reaches $1.50 per gallon. As the price increases, the affect on the number of respondents will

concomitantly increase. It should follow from the findings already reported that as the price of fuel increases there will be more reason to construct recreation facilities closer to the user group.

The regression findings for actual and anticipated outdoor recreation participation revealed that access to recreation facilities was the best predictor of participation in outdoor recreation activities. As the ease of access increased there was an increase in the participation for all of the outdoor recreation participation measures evaluated. These findings reinforce the conclusions drawn from the descriptive data regarding the importance of developing outdoor recreation sites which can be easily accessed by potential clients. Factors such as time limitations, recession, distance, inflation and other variables have operated together to make access to recreation opportunities more difficult. The regression findings consistently demonstrate that access is the most important factor in affecting recreation participation which suggests that recreation agencies should place very high priority on this variable in site location decisions.

All of the regression models tend to reflect a concern on the part of the respondents for the condition of the economy. The study participants indicated that an important consideration in past and future outdoor recreation participation was the costs attached to the activity. Many respondents indicated that they had modified their recreation behavior to accommodate the recessionary trends in the economy. The response to the recession has been a decline in participation and modification of behavior when participation is being enactd. Outdoor recreation agencies should recognize the limitations imposed on recreation spending by the present economic situation and

plan accordingly. Programs which will increase the costs (time and money) associated with outdoor recreation activity will probably result in further declines in participation. Efforts to reduce the time and money required to engage in outdoor recreation activities will probably result in an increase in participation.

Participation in competing outdoor recreation activities was shown to be significantly related to participation in specific outdoor recreation activities. When people participated in certain activities, they tended to forego participation in other actvities which were not complementary. This finding has interesting implications for planning purposes in that participation in specific outdoor recreation activities could be affected by the provision of facilities for competing activities. Changes of recreational opportunities at existing facilities would also result in shifts in the types of people who would be attracted to the sites.

The findings revealed that the socio-demographic variables included in the study were poor predictors of participation in outdoor recreation activities. While these findings were anticipated by the researchers, the implications are rather substantial for outdoor recreation planning groups. These findings indicate that reliance on socio-demographic variables to plan for the provision of recreational opportunities will not be successful. For the most part, socio-demographic factors were not significantly related to the dependent variables in a substantive manner.

A very important finding emerged from the data focused on the reasons why people participate in outdoor recreation activities. The respondents indicated that securing game and trophies (extractive index) were not significant factors in motivating them to participate

in outdoor recreation activities. The extractive index was only significant for hunting. Surprisingly fisherpersons were not particularily concerned about securing game or trophies. These findings suggest that the recreation experience itself is the motivating factor for participation rather than the ability to take something from the environment. Hunters tend to be motivated by securing game and trophies. Outdoor recreation agencies will be expected by huntres to make provisions for game animals but will feel much less pressure from other recreators to provide such opportunities. Most recreators perceive the wildlife as being for observation rather than consumption. Such differences between potential users could result in conflicts over the use of the wildlife as a resource. Management practices by outdoor recreation agencies will be required to prevent possible conflicts from becoming counter-productive to co-operation among outdoor recreationists. Practices such as designating certain areas as wildlife sanctuaries and prohibiting hunting is an example.

The study findings indicate that the respondents do not have a great deal of time to participate in outdoor recreation activities which suggests that they will probably recreate closer to their place of residence in the future. This suggests that local parks and playgrounds and other outdoor recreation recreation facilities located near urban areas will receive greater pressure in the future. Management personnel of such facilities should be made aware that increased use should be expected and that potential conflicts of use will probably emerge. Provisions should be made to resolve the conflicts such as mechanisms to reduce crowding and possible rationing of use.

Lastly, the research findings revealed that past involvement in specific activities tended to be relatively good predictors of anticipated participation. Individuals who participated more often in outdoor recreation activities during the past year also indicated that they would participate more frequently in the future. This finding suggests that outdoor recreation agencies should be responsive to participant groups and attempt to continue to meet their perceived needs. It should be noted, however, that development agencies must also attempt to meet the needs of people who would participate if the opportunities were made available to them.

Table 1: Socio-Demographic Characteristics of the Study Sample (n=2,341)

Characteristic		Descriptive Data Frequency	Percent
Gender of Primary Income Earner	Male	1,922	82.1
	Female	357	15.2
	No Data	62	2.6
Age of Primary Income Earner	Years		
	21-30	217	9.3
	31-40	542	23.2
	41-50	489	20.9
	51-60	518	22.1
	61-70	355	15.2
	71-80	116	5.0
	81-90	11	0.5
	91>	3	0.1
	No Data	90	3.8
	Mean = 48.4 years		
	S.D. = 13.9 years		
Race	White	2,180	93.1
	Black	76	3.2
	Hispanic	9	0.4
	Asian/Pacific Islander	2	0.1
	Native American/ Alaskan Native	5	0.2
	Other	24	1.0
	No Data	45	1.9
Educational Level Of Primary Income Earner	Years		
	<8	101	4.3
	9-12	1,106	47.2
	13-14	320	13.7
	15-16	366	15.6
	17>	364	15.5
	No Data	84	3.6
	Mean = 13.6 years		
	S.D. = 3.2 years		
Marital Status of Primary Income Earner	Married	1,889	80.7
	Widowed	102	4.4
	Divorced	129	5.5
	Single	142	6.1
	Living Together But Not Married	27	1.2
	No Data	52	2.2

Length of Residence In Present County	Years		
	1-10	298	12.7
	11-20	329	14.1
	21-30	489	20.9
	31-40	459	19.6
	41-50	268	11.4
	51-60	268	11.4
	61-70	155	6.6
	71›	49	2.1
	No Data	26	1.1
	Mean = 33.2 years		
	S.D. = 18.5 years		
Length Of Residence In Ohio	Years		
	1-10	42	1.8
	11-20	127	5.4
	21-30	426	18.2
	31-40	586	25.0
	41-50	399	17.0
	51-60	387	16.5
	61-70	253	10.8
	71-80	77	3.3
	81›	9	0.4
	No Data	35	1.5
	Mean = 42.1 years		
	S.D. = 15.9 years		
Household Size	People		
	1	185	7.9
	2	809	34.6
	3	436	18.6
	4	490	20.9
	5	221	9.4
	6	77	3.3
	7	28	1.2
	8	20	0.9
	9›	6	0.3
	No Data	69	2.9
	Mean = 3.1 people		
	S.D. = 1.5 people		
Number of People In Household Less Than 18 Years of Age	People		
	0	1,293	55.2
	1	353	15.1
	2	390	16.7
	3	151	6.5
	4	53	2.3
	5	9	0.4
	6	5	0.2
	7	1	0.0
	No Data	86	3.7
	Mean = 0.8 people		
	S.D. = 1.2 people		

	Location	Weighting Value	Frequency	Percent
Location Of Primary Income Earner's Residence First 15 Years Of Life	Rural Farm	1	428	18.3
	Rural Nonfarm	2	223	9.5
	Village(2,500 people)	3	202	8.6
	Small Town (10,000 people)	4	275	11.7
	Small City (50,000 people)	5	386	16.5
	City (250,000 people)	6	393	16.8
	Large City (250,000)	7	383	16.4
	No Data	-	51	2.2
	Mean = 4.2			
	S.D. = 2.1			

	Location	Weighting Value	Frequency	Percent
Location Of Present Household	Rural Farm	1	175	7.5
	Rural Nonfarm	2	315	13.5
	Village (2,500 people)	3	174	7.4
	Small Town (10,000 people)	4	248	10.6
	Small City (50,000 people)	5	522	22.3
	City (250,000 people)	6	469	20.0
	Large City (250,000)	7	384	16.4
	No Data	-	54	2.3
	Mean = 4.6			
	S.D. = 1.9			

		Frequency	Percent
Retirement Status Of Primary Income Earner	Not Retired	1,756	75.0
	Retired	507	21.7
	No Data	78	3.3

	Dollars	Weighting Value	Frequency	Percent
Household Expenditures For Outdoor Recreation Last Year	0-250	1	751	32.1
	251-500	2	389	16.6
	501-750	3	226	9.7
	751-1,000	4	217	9.3
	1,001-1,250	5	151	6.5
	1,251-1,500	6	107	4.6
	1,501-1,750	7	54	2.3
	1,751-2,000	8	60	2.6
	2,001-2,250	9	59	2.5
	2,251-2,500	10	49	2.1
	2,501-2,750	11	18	0.8
	2,751-3,000	12	25	1.1
	3,001-3,250	13	23	1.0
	3,251	14	97	4.1
	No Data	-	115	4.9
	Mean = 4.0			
	S.D. = 4.1			

	Percent Category	Frequency	Percent
Percent of Total Recreation Dollars Spent in Ohio	0-25	657	28.1
	26-50	242	10.3
	51-75	177	7.6
	76-100	804	34.3
	No Data	461	19.7
	Mean = 56.4 percent		
	S.D. = 39.3 percent		
Primary Income Earner Active In Outdoor Recreation As A Youth	Yes	1,780	76.0
	No	561	24.0

Table 2: Alpha Reliability Coefficients For Composite Indexes Used As Dependent Variables In the Multivariate Analyses (n=2,341)

Composite Index Name	Alpha Reliability
Boating Factor	0.70
Fishing Participation Factor	0.83
Hunting Participation Factor	0.80
Extensive Activity Factor	0.57
Intensive Activity Factor	0.80
Community-Based Activity Factor	0.63

Table 3: Frequency Counts and Percentages* (in parentheses) For Total Household Participation In Selected Outdoor Recreation Activities in 1982-1983 (n=2,341)

Activity Being Evaluated	Response Categories: Did Not Participate	1-5 Times	6-10 Times	11-15 Times	16-20 Times	21-25 Times	26-30 Times	More than 31 Times	Missing Data
Powerboating	1,388 (59.3)	360 (15.4)	97 (4.1)	46 (2.0)	38 (1.6)	27 (1.2)	23 (1.0)	69 (2.9)	293 (12.5)
Sailing	1,754 (74.9)	123 (5.3)	25 (1.1)	12 (0.5)	9 (0.4)	3 (0.1)	2 (0.1)	10 (0.4)	403 (17.2)
Canoeing	1,411 (60.3)	433 (18.5)	65 (2.8)	22 (0.9)	15 (0.6)	11 (0.5)	3 (0.1)	5 (0.2)	376 (16.1)
Water-skiing	1,545 (66.0)	240 (10.3)	75 (3.2)	33 (1.4)	12 (0.5)	19 (0.8)	8 (0.3)	26 (1.1)	383 (16.4)
Other boating	1,539 (65.7)	244 (10.4)	69 (2.9)	28 (1.2)	16 (0.7)	10 (0.4)	5 (0.2)	20 (0.9)	410 (17.6)
Pan Fishing	1,043 (44.6)	396 (16.9)	204 (8.7)	127 (5.4)	64 (2.7)	44 (1.9)	31 (1.3)	124 (5.3)	308 (13.2)
Walleye Fishing	1,404 (60.0)	287 (12.3)	98 (4.2)	40 (1.7)	50 (2.1)	18 (0.8)	12 (0.5)	52 (2.2)	380 (16.2)
Specialized sport Fishing	1,598 (68.3)	179 (7.6)	56 (2.4)	28 (1.2)	14 (0.6)	6 (0.3)	5 (0.2)	22 (0.9)	433 (18.5)
Anything that bites Fishing	969 (41.4)	442 (18.9)	171 (7.3)	131 (5.6)	83 (3.5)	46 (2.0)	40 (1.7)	140 (6.0)	319 (13.6)
Backpack & tent Camping	1,383 (59.1)	385 (16.5)	92 (3.9)	27 (1.2)	16 (0.7)	5 (0.2)	3 (0.1)	12 (0.5)	418 (17.9)
Group Camping	1,609 (68.7)	255 (10.9)	42 (1.8)	12 (0.5)	2 (0.1)	4 (0.2)	2 (0.1)	5 (0.2)	410 (17.5)
Motorized Camping	1,481 (63.3)	299 (12.8)	86 (3.7)	28 (1.2)	15 (0.6)	17 (0.7)	11 (0.5)	25 (1.1)	379 (16.2)
State Lodge & Cabins	1,538 (65.7)	347 (14.8)	42 (1.8)	4 (0.2)	3 (0.1)	3 (0.1)	1 (0.0)	1 (0.0)	402 (17.2)
Deer Hunting	1,629 (69.6)	198 (8.5)	58 (2.5)	28 (1.2)	14 (0.6)	4 (0.2)	4 (0.2)	16 (0.7)	390 (16.7)
Small Game Hunting	1,487 (63.5)	218 (9.3)	107 (4.6)	63 (2.7)	25 (1.1)	17 (0.7)	8 (0.3)	41 (1.8)	375 (16.0)
Waterfowl Hunting	1,815 (77.5)	56 (2.4)	20 (0.9)	9 (0.4)	3 (0.1)	5 (0.2)	1 (0.0)	8 (0.3)	424 (18.1)
Bird Hunting	1,649 (70.4)	160 (6.8)	58 (2.5)	21 (0.9)	13 (0.6)	12 (0.5)	5 (0.2)	17 (0.7)	406 (17.3)
Other Hunting	1,695 (72.4)	105 (4.5)	40 (1.7)	28 (1.2)	16 (0.7)	13 (0.6)	3 (0.1)	21 (0.9)	420 (17.9)
Picnicking	495 (21.1)	834 (35.6)	417 (17.8)	157 (6.7)	70 (3.0)	38 (1.6)	14 (0.6)	41 (1.8)	275 (11.7)

Trail Act- ivities	1,011 (43.2)	493 (21.1)	196 (8.4)	102 (4.4)	41 (1.8)	23 (1.0)	15 (0.6)	66 (2.8)	394 (16.8)
Bicycling	1,261 (53.9)	302 (12.9)	149 (6.4)	69 (2.9)	42 (1.8)	16 (0.7)	11 (0.5)	84 (3.6)	407 (17.4)
Off-Road Vehicles	1,737 (74.2)	87 (3.7)	35 (1.5)	13 (0.6)	13 (0.6)	3 (0.1)	4 (0.2)	27 (1.2)	420 (18.0)
Visiting Local Parks & Playgrounds	526 (22.5)	625 (26.7)	359 (15.3)	190 (8.1)	110 (4.7)	70 (3.0)	33 (1.4)	124 (5.3)	304 (13.0)
Field Sports	1,409 (60.2)	202 (8.6)	78 (3.3)	56 (2.4)	45 (1.9)	30 (1.3)	16 (0.7)	72 (3.1)	433 (18.5)
Court Sports	1,442 (61.6)	213 (9.1)	101 (4.3)	49 (2.1)	27 (1.2)	20 (0.9)	9 (0.4)	50 (2.1)	430 (18.3)
Golf	1,354 (57.8)	221 (9.4)	111 (4.7)	55 (2.3)	46 (2.0)	41 (1.8)	29 (1.2)	117 (5.0)	367 (15.7)
Beach Act- ivities	836 (35.7)	551 (23.5)	260 (11.1)	128 (5.5)	58 (2.5)	39 (1.7)	14 (0.6)	76 (3.2)	379 (16.2)
Outdoor Pool Swimming	974 (41.6)	409 (17.5)	196 (8.4)	99 (4.2)	64 (2.7)	45 (1.9)	24 (1.0)	144 (6.2)	386 (16.5)
Winter Sports	1,446 (61.8)	275 (11.7)	107 (4.6)	40 (1.7)	19 (0.8)	12 (0.5)	7 (0.3)	12 (0.5)	423 (18.1)
Horseback Riding	1,619 (69.2)	204 (8.7)	35 (1.5)	16 (0.7)	6 (0.3)	1 (0.0)	4 (0.2)	19 (0.8)	437 (18.6)
Other Out- door Act- ivities	488 (20.8)	26 (1.1)	17 (0.7)	9 (0.4)	10 (0.4)	8 (0.3)	5 (0.2)	25 (1.1)	1,753 (75.0)

*Percentages may not sum to 100.0 due to rounding error.

Table 4: Participants and Nonparticipants In Outdoor Recreation Activities In Ohio Presented In Absolute Numbers and Percentages (in parentheses) n=2,341*

Activity Being Evaluated	Did Not Participate	Participate	Missing Data	Rank Order
Powerboating	1,388 (59.3)	660 (28.2)	293 (12.5)	9
Sailing	1,754 (74.9)	184 (7.9)	403 (17.2)	28
Canoeing	1,411 (60.3)	554 (23.7)	376 (16.1)	12
Waterskiing	1,545 (66.0)	413 (17.6)	383 (16.4)	19
Other Boating	1,539 (65.7)	392 (16.7)	410 (17.6)	21
Pan Fishing	1,043 (44.6)	990 (42.3)	308 (13.2)	5
Walleye Fishing	1,404 (60.0)	557 (23.8)	380 (16.2)	11
Specialized Sport Fishing	1,598 (68.3)	310 (13.2)	433 (18.5)	24
Anything That Bites Fishing	969 (41.4)	1,053 (45.0)	319 (13.6)	4
Backpack and Tent Camping	1,383 (59.1)	540 (23.1)	418 (17.9)	13
Group Camping	1,609 (68.7)	322 (13.8)	410 (17.5)	22
Motorized Camping	1,481 (63.3)	481 (20.5)	379 (16.2)	15
State Lodge and Cabins	1,538 (65.7)	401 (17.1)	402 (17.2)	20
Deer Hunting	1,629 (69.6)	322 (13.8)	390 (16.7)	22
Small Game Hunting	1,487 (63.5)	479 (20.5)	375 (16.0)	16
Waterfowl Hunting	1,815 (77.5)	102 (4.4)	424 (18.1)	30
Bird Hunting	1,649 (70.4)	286 (12.2)	406 (17.3)	25
Other Hunting	1,695 (72.4)	226 (9.7)	420 (17.9)	27
Picnicking	495 (21.1)	1,571 (67.1)	275 (11.7)	1
Trail Activities	1,011 (43.2)	936 (40.0)	394 (16.8)	7
Bicycling	1,261 (53.9)	673 (28.7)	407 (17.4)	8
Off-Road Vehicle Riding	1,737 (74.2)	184 (7.9)	420 (18.0)	28
Visiting Local Parks	526	1,511	304	2

and Playgrounds	(22.5)	(64.5)	(13.0)	
Field Sports	1,409	499	433	14
	(60.2)	(21.3)	(18.5)	
Court Sports	1,442	469	430	18
	(61.6)	(20.0)	(18.3)	
Golf	1,354	620	367	10
	(57.8)	(26.5)	(15.7)	
Beach Activities	836	1,126	379	3
	(35.7)	(48.1)	(16.2)	
Outdoor Pool Swimming	974	981	386	6
	(41.6)	(41.9)	(16.5)	
Winter Sports	1,446	472	423	17
	(61.8)	(20.2)	(18.1)	
Horseback Riding	1,619	285	437	26
	(69.2)	(12.2)	(18.6)	
Other Outdoor Activities	488	100	1,753	31
	(20.8)	(4.3)	(75.0)	

* Data presented in this table were derived from those provided in Table 3. Percentages may not sum to 100.0 due to rounding error.

Table 5: Frequency Counts and Percentages* (in parentheses) For Anticipated Future Outdoor Recreation Participation For Selected Activities During the Next 2 to 3 Years Compared To Household's Outdoor Recreation Participation Last Year (n=2,341)

Activity Being Evaluated	Response Categories: Much Less 0	Less 1	About The Same 2	More 3	Much More 4	Missing Data
Boating	506	53	768	445	142	427
	(21.6)	(2.3)	(32.8)	(19.0)	(6.1)	(18.2)
Fishing	368	49	789	559	220	356
	(15.7)	(2.1)	(33.7)	(23.9)	(9.4)	(15.2)
Camping	442	70	629	549	183	468
	(18.9)	(3.0)	(26.9)	(23.5)	(7.8)	(20.0)
Hunting	665	53	740	213	117	553
	(28.4)	(2.3)	(31.6)	(9.1)	(5.0)	(23.6)
Picnicking	241	51	932	601	168	348
	(10.3)	(2.2)	(39.8)	(25.7)	(7.2)	(14.9)
Trail Activities	518	61	701	448	89	524
	(22.1)	(2.6)	(29.9)	(19.1)	(3.8)	(22.4)
Bicycling	554	50	700	381	95	561
	(23.7)	(2.1)	(29.9)	(16.3)	(4.1)	(24.0)
Off-Road Vehicle Riding	811	56	710	72	46	646
	(34.6)	(2.4)	(30.3)	(3.1)	(2.0)	(27.6)
Visiting Local Parks and Playgrounds	279	40	853	573	173	423
	(11.9)	(1.7)	(36.4)	(24.5)	(7.4)	(18.1)
Field Sports	670	76	789	135	41	630
	(28.6)	(3.2)	(33.7)	(5.8)	(1.8)	(26.9)
Court Sports	683	66	752	175	42	622
	(29.2)	(2.9)	(32.1)	(7.5)	(1.8)	(26.6)
Golf	656	55	744	257	104	525
	(28.0)	(2.3)	(31.8)	(11.0)	(4.4)	(22.4)
Swimming	365	46	809	492	172	457
	(15.6)	(2.0)	(34.6)	(21.0)	(7.3)	(19.5)
Winter Sports	646	48	700	271	63	613
	(27.6)	(2.1)	(29.9)	(11.6)	(2.7)	(26.2)
Horseback Riding	707	61	670	171	50	682
	(30.2)	(2.6)	(28.6)	(7.3)	(2.1)	(29.1)
Other	201	5	103	37	36	1,958
	(8.6)	(0.2)	(4.4)	(1.6)	(1.6)	(83.6)

*Percentages may not sum to 100.0 due to rounding error.

Table 6: Assessment of Anticipated Future Outdoor Recreation Participation (n=2,341)*

Activity Being Evaluated	Mean Value	Direction of Change
Boating	1.8	Slightly less
Fishing	2.1	Slightly more
Camping	2.0	About the same
Hunting	1.5	Slightly less
Picnicking	2.2	Slightly more
Trail Activities	1.7	Slightly less
Bicycling	1.7	Slightly less
Off-Road Vehicle Riding	1.1	Less
Visiting Local Parks and Playgrounds	2.2	Slightly more
Field Sports	1.3	Slightly less
Court Sports	1.3	Slightly less
Golf	1.5	Slightly less
Swimming	2.0	About the same
Winter Sports	1.5	Slightly less
Horseback Riding	1.3	Slightly less
Other	1.2	Less

* These data were calculated from those presented in Table 5.

Table 7: Frequency Counts and Percentages (in parentheses) of Total Household Outdoor Recreation Participation Usually Enacted on Public Lands and Waters in Ohio

Percent Category	Frequency	Percent	Percent Category	Frequency	Percent
0%	186	(7.9)	51-55%	0	(0.0)
1-5%	210	(9.0)	56-60%	53	(2.3)
6-10%	185	(7.9)	61-65%	4	(0.2)
11-15%	29	(1.2)	66-70%	38	(1.6)
16-20%	84	(3.6)	71-75%	183	(7.8)
21-25%	91	(3.9)	76-80%	127	(5.4)
26-30%	45	(1.9)	81-85%	25	(1.1)
31-35%	13	(0.6)	86-90%	179	(7.6)
36-40%	48	(2.1)	91-95%	60	(2.6)
41-45%	4	(0.2)	96-100%	232	(9.9)
46-50%	277	(11.8)	Missing Data	268	(11.4)

Mean = 49.1% S.D. = 36.0%

Table 8: Frequency Counts and Percentages*(in parentheses) For The Three Most Important Recreation Facility Needs of Household Members (n=2,341)

Type Of Recreation Facility	Number Selecting As First Choice	Number Selecting As Second Choice	Number Selecting As Third Choice	Number Not Selecting As A Choice	+ Weighted Score	Rank Order
Public Hunting Areas	196 (8.4)	102 (4.4)	146 (6.2)	1,897 (81.0)	938	9
Public Fishing Areas	402 (17.2)	243 (10.4)	173 (7.4)	1,523 (65.1)	1,865	2
Public Camping Areas	354 (15.1)	189 (8.1)	187 (8.0)	1,611 (68.8)	1,627	5
Public Boating Areas and Access Facilities	238 (10.2)	148 (6.3)	147 (6.3)	1,808 (77.2)	1,157	6
Public Picnic Areas	389 (16.6)	356 (15.2)	245 (10.5)	1,351 (57.7)	2,124	1
Public Hiking and Jogging Trails	190 (8.1)	165 (7.0)	224 (9.6)	1,762 (75.3)	1,124	7
Public Bicycling Paths	112 (4.8)	112 (4.8)	177 (7.6)	1,940 (82.9)	737	10
Public Off-Road Vehicle Areas	55 (2.3)	41 (1.8)	147 (6.3)	2,098 (89.6)	394	15
Community Parks and Playgrounds	341 (14.6)	257 (11.0)	236 (10.1)	1,507 (64.4)	1,773	4
Public Field Sport Facilities	69 (2.9)	73 (3.1)	111 (4.7)	2,088 (89.2)	464	13
Public Court Sport Facilities	73 (3.1)	62 (2.6)	131 (5.6)	2,075 (88.6)	474	12
Public Golf Courses	198 (8.5)	111 (4.7)	176 (7.5)	1,856 (79.3)	992	8
Public Beaches and Outdoor Swimming Pools	314 (13.4)	261 (11.1)	343 (14.7)	1,423 (60.8)	1,807	3
Public Winter Sports Areas	74 (3.2)	82 (3.5)	136 (5.8)	2,049 (87.5)	522	11
Horseback Riding Trails	61 (2.6)	54 (2.3)	130 (5.6)	2,096 (89.5)	421	14
Other Facilities	65 (2.8)	11 (0.5)	19 (0.8)	2,246 (95.9)	236	16

*Percentages may not sum to 100.0 due to rounding error.

+The weighted score was calculated by multiplying all first choices by 3, second choices by 2 and third choices by 1. The values were summed to form a total preference score. Higher values indicate higher preference.

Table 9: Frequency Counts and Percentages* (in parentheses) For Household Satisfaction WIth Outdoor Recreation Experiences In Ohio During the Past Year (n=2,341)

Activity Being Evaluated	Response Categories: Did Not Participate	Completely Dissatisfied 1	Dissatisfied 2	Neither Satisfied Nor Dissatisfied 3	Satisfied 4	Completely Satisfied 5	Missing Data
Boating	1,251 (53.4)	22 (0.9)	61 (2.6)	159 (6.8)	460 (19.6)	213 (9.1)	175 (7.5)
Fishing	1,001 (42.8)	54 (2.3)	144 (6.2)	259 (11.1)	492 (21.0)	221 (9.4)	170 (7.3)
Camping	1,132 (48.4)	24 (1.0)	82 (3.5)	176 (7.5)	465 (19.9)	202 (8.6)	260 (11.1)
Hunting	1,514 (64.7)	35 (1.5)	80 (3.4)	129 (5.5)	216 (9.2)	119 (5.1)	248 (10.6)
Picnicking	490 (20.9)	33 (1.4)	73 (3.1)	284 (12.1)	814 (34.8)	434 (18.5)	213 (9.1)
Trail Activities	1,051 (44.9)	18 (0.8)	61 (2.6)	184 (7.9)	523 (22.3)	259 (11.1)	245 (10.4)
Bicycling	1,353 (57.8)	30 (1.3)	67 (2.9)	180 (7.7)	300 (12.8)	127 (5.4)	284 (12.1)
Off-Road Vehicle Riding	1,822 (77.8)	36 (1.5)	41 (1.8)	73 (3.1)	52 (2.2)	34 (1.5)	283 (12.1)
Local Parks & Playgrounds	742 (31.7)	46 (2.0)	108 (4.6)	278 (11.9)	653 (27.9)	281 (12.0)	233 (10.0)
Field Sports	1,482 (63.3)	12 (0.5)	53 (2.3)	146 (6.2)	279 (11.9)	91 (3.9)	278 (11.9)
Court Sports	1,473 (62.9)	24 (1.0)	100 (4.3)	172 (7.3)	221 (9.4)	76 (3.2)	275 (11.9)
Golf	1,427 (61.0)	10 (0.4)	33 (1.4)	133 (5.7)	315 (13.5)	169 (7.2)	254 (10.9)
Swimming	749 (32.0)	69 (2.9)	222 (9.5)	266 (11.4)	547 (23.4)	226 (9.7)	262 (11.2)
Winter Sport	1,504 (64.2)	40 (1.7)	92 (3.9)	174 (7.4)	183 (7.8)	66 (2.8)	282 (12.0)
Horseback Riding	1,656 (70.7)	40 (1.7)	73 (3.1)	120 (5.1)	90 (3.8)	56 (2.4)	306 (13.1)
Other	467 (19.9)	23 (1.0)	17 (0.7)	11 (0.5)	29 (1.2)	38 (1.6)	1,756 (75.1)

*Percentages may not sum to 100.0 due to rounding error.

Table 10: Assessment of Levels of Household Satisfaction With Outdoor Recreation Experiences Last Year Using Central Tendency Data For Participants Only*

Activity Being Evaluated	Mean Score	Level of Satisfaction	Rank Order Of Satisfaction
Boating (n=915)	3.85	Satisfied	4
Fishing (n=1,170)	3.58	Basically satisfied	9
Camping (n=949)	3.78	Satisfied	5
Hunting (n=579)	3.53	Basically satisfied	10
Picnicking (n=1,638)	3.94	Satisfied	1
Trail Activities (n=1,045)	3.90	Satisfied	3
Bicycling (n=704)	3.61	Basically satisfied	8
Off-Road Vehicle Riding (n=236)	3.03	Neither satisfied nor Dissatisfied	15
Local Parks and Playgrounds (n=1,366)	3.74	Satisfied	6
Field Sports (n=581)	3.66	Basically satisfied	7
Court Sports (n=593)	3.38	Marginally satisfied	12
Golf (n=660)	3.91	Satisfied	2
Swimming (n=1,330)	3.48	Basically satisfied	11
Winter sports (n=555)	3.26	Marginally satisfied	13
Horseback riding (n=379)	3.13	Neither satisfied nor Dissatisfied	14

*These data were calculated from those presented in Table 9.

Table 11: Frequency Counts and Percentages* (in parentheses) For Blockages To Participation In Outdoor Recreation Activities (n=2,341)

Blockage Factor	Not A Problem (Percent)	Yes, A Problem (Percent)	Rank Order
1. Unfavorable Weather Conditions	1,453 (62.1)	888 (37.9)	2
2. Desirable Areas too Far Away	1,842 (78.7)	499 (21.3)	5
3. Outdoor Recreation Areas Too Crowded	1,698 (72.5)	643 (27.5)	3
4. Outdoor Recreation Areas Not Safe	2,220 (94.8)	121 (5.2)	18
5. Outdoor Recreation Areas Too Dirty	2,099 (89.7)	242 (10.3)	12
6. Do Not Have Access to Information About Areas	1,833 (78.3)	508 (21.7)	4
7. Do Not Have Enough Time	1,237 (52.8)	1,104 (47.2)	1
8. Outdoor Recreation Participation Too Expensive	2,100 (89.7)	241 (10.3)	13
9. Outdoor Recreation Areas Have No Facilities For Physically Disabled	2,277 (97.3)	64 (2.7)	20
10. Do Not Have Equipment To Participate in Outdoor Recreation Activities	1,900 (81.2)	441 (18.8)	6
11. Do Not Have Outdoor Recreation Skills	2,123 (90.7)	218 (9.3)	14
12. Do Not Have Transportation to Outdoor Recreation Areas	2,297 (98.1)	44 (1.9)	21
13. Outdoor Recreation Areas Do Not Have Adequate Facilities (toilets, showers, ramps)	2,005 (85.6)	336 (14.4)	8
14. Outdoor Recreation Areas Do Not Provide the Types of Recreational Experiences I Want	2,176 (93.0)	165 (7.0)	17
15. Poor Health Prevents Me From Participating More Often in Outdoor Recreation	2,146 (91.7)	195 (8.3)	16
16. Outdoor Recreation Areas Are Too Noisy	2,244 (95.8)	97 (4.1)	19
17. Friends Do Not Participate In Outdoor Recreation Activities	2,098 (89.6)	243 (10.4)	11
18. Fees Charged to Use Outdoor Recreation Areas Are Too High	2,123 (90.7)	218 (9.3)	14
19. License Fees Are Too High (hunting, fishing, boating)	2,019 (86.2)	322 (13.8)	9
20. Have Children at Home	2,180 (93.1)	161 (6.9)	18
21. Do Not Wish To Participate More Often in Outdoor Recreation Than I	1,915 (81.8)	426 (18.2)	7

Presently Do			
22. Other	2,045	296	10
	(87.4)	(12.6)	

*Percentages may not sum to 100.0 due to rounding error.

Table 12: Frequency Counts and Percentages* (in parentheses) For Perceived Ability of Household Members to Use Existing Outdoor Recreation Areas in Ohio (n=2,341)

Activity Being Evaluated	Response Categories: Never Use Area 0	Very Difficult To Use Area 1	Somewhat Difficult 2	Neither Easy Nor Difficult 3	Somewhat Easy 4	Very Easy To Use 5	Missing Data
Boating	892	94	274	245	294	281	261
	(38.1)	(4.0)	(11.7)	(10.5)	(12.6)	(12.0)	(11.1)
Fishing	665	32	205	322	406	471	240
	(28.4)	(1.4)	(8.8)	(13.8)	(17.3)	(20.1)	(10.3)
Camping	729	77	274	306	354	279	322
	(31.1)	(3.3)	(11.7)	(13.1)	(15.1)	(11.9)	(13.8)
Hunting	1,185	69	139	160	191	233	364
	(50.6)	(2.9)	(5.9)	(6.8)	(8.2)	(10.0)	(15.5)
Picnicking	314	27	116	353	552	704	275
	(13.4)	(1.2)	(5.0)	(15.1)	(23.6)	(30.1)	(11.7)
Trail Activities	801	46	133	301	350	347	363
	(34.2)	(2.0)	(5.7)	(12.9)	(15.0)	(14.8)	(15.5)
Bicycling	977	62	133	226	231	321	391
	(41.7)	(2.6)	(5.7)	(9.7)	(9.9)	(13.7)	(16.7)
Off-Road Vehicles	1,507	75	70	107	61	87	434
	(64.4)	(3.2)	(3.0)	(4.6)	(2.6)	(3.7)	(18.5)
Local Parks & Playground	401	26	87	275	473	754	325
	(17.1)	(1.1)	(3.7)	(11.7)	(20.2)	(32.2)	(13.9)
Field Sports	1,197	31	63	213	209	211	417
	(51.1)	(1.3)	(2.7)	(9.1)	(8.9)	(9.0)	(17.9)
Court Sports	1,179	47	92	200	207	201	415
	(50.4)	(2.0)	(3.9)	(8.5)	(8.8)	(8.6)	(17.7)
Golf	1,121	32	87	167	260	312	362
	(47.9)	(1.4)	(3.7)	(7.1)	(11.1)	(13.3)	(15.5)
Swimming	537	77	224	297	366	493	347
	(22.9)	(3.3)	(9.6)	(12.7)	(15.6)	(21.1)	(14.8)
Winter Sports	1,152	99	175	190	163	144	418
	(49.2)	(4.2)	(7.5)	(8.1)	(7.0)	(6.2)	(17.9)
Horseback Riding	1,330	120	141	134	83	89	444
	(56.8)	(5.1)	(6.0)	(5.7)	(3.5)	(3.8)	(19.0)
Other	214	21	8	21	13	21	2,043
	(9.1)	(0.9)	(0.3)	(0.9)	(0.6)	(0.9)	(87.3)

*Percentages may not sum to 100.0 due to rounding error.

Table 13: Assessment of Perceived Ability To Access Existing Outdoor Recreation Areas In Ohio Using Central Tendency Statistics (n=2,341)*

Activity Being Evaluated	Mean Total Sample	Mean User Group	Rank Order Ease of Use Total Sample	Rank Order Ease of Use User Group
Boating	1.9	3.3	7	11
Fishing	2.6	4.4	4	1
Camping	2.2	3.4	5	10
Hunting	1.4	3.5	10	9
Picnicking	3.4	4.0	1	3
Trail Activities	2.2	3.7	5	5
Bicycling	1.8	3.6	8	7
Off-Road Vehicle Riding	0.6	3.0	16	15
Local Parks and Playgrounds	3.3	4.1	2	2
Field Sports	1.4	3.7	10	5
Court Sports	1.4	3.6	10	7
Golf	1.7	3.9	9	4
Swimming	2.7	3.3	3	11
Winter Sports	1.2	3.1	13	13
Horseback Riding	0.8	2.8	15	16
Other	0.9	3.1	14	13

* These data were calculated from those presented in Table 12. The findings for the total sample are provided in addition to the user group because it is assumed that people who do not participate in recreation activity define any expenditure of effort to access the recreation opportunities as being very difficult. Nonusers are defined as the most difficult to use group in the calculation of the mean values for the total sample.

Table 14: Frequency Counts and Percentages* (in parentheses) For Reasons Given For Household Participation In Outdoor Recreation Activities (n=2,341)

Reason For Participation	Response Categories: Not Important	Of Little Importance	Important	Very Important	Missing Data	Rank Order
To Relax	142 (6.1)	99 (4.2)	951 (40.6)	929 (39.7)	220 (9.4)	1
To Be With Friends	248 (10.6)	304 (13.0)	959 (41.0)	538 (23.0)	292 (12.4)	5
To Exercise	256 (10.9)	291 (12.4)	909 (38.8)	527 (22.5)	358 (15.3)	6
To Challenge Myself	688 (29.4)	531 (22.7)	440 (18.8)	249 (10.6)	433 (18.5)	11
To Observe and Enjoy Nature	175 (7.5)	146 (6.2)	939 (40.1)	772 (33.0)	309 (13.2)	3
To Test Outdoor Skills	764 (32.6)	550 (23.5)	419 (17.9)	174 (7.4)	434 (18.5)	13
To Be With Family	183 (7.8)	102 (4.4)	755 (32.3)	984 (42.0)	317 (13.5)	1
To Be Alone	815 (34.8)	428 (18.3)	438 (18.7)	237 (10.1)	423 (18.1)	12
To Think	597 (25.5)	438 (18.7)	609 (26.0)	272 (11.6)	425 (18.2)	9
To Compete With Others	1,149 (49.1)	477 (20.4)	199 (8.5)	76 (3.2)	440 (18.8)	17
To Escape Busy Schedules	453 (19.4)	251 (10.7)	747 (31.9)	491 (21.0)	399 (17.0)	8
To Get Game Trophies	1,516 (64.8)	238 (10.2)	75 (3.2)	55 (2.3)	457 (19.5)	19
To Develop New Skills	872 (37.2)	402 (17.2)	495 (21.1)	124 (5.3)	448 (19.1)	14
To Watch Other People	884 (37.8)	623 (26.6)	346 (14.8)	68 (2.9)	420 (17.9)	15
To Meet New People	639 (27.3)	551 (23.5)	581 (24.8)	163 (7.0)	407 (17.4)	10
Change of Pace From Everyday Life	229 (9.8)	156 (6.7)	975 (41.6)	653 (27.9)	328 (14.0)	4
To Get Game For Food	1,381 (59.0)	266 (11.4)	171 (7.3)	76 (3.2)	447 (19.1)	18
To See New Places	323 (13.8)	231 (9.9)	909 (38.8)	483 (20.6)	395 (16.9)	7
Other	167 (7.1)	10 (0.4)	18 (0.8)	48 (2.1)	2,098 (89.6)	16

*Percentages may not sum to 100.0 due to rounding error.

Table 15: Frequency Counts and Percentages* (in parentheses) For Perception of Outdoor Recreation As An Activity (n=2,341)

Polar Adjective Being Evaluated	Response Categories					Polar Adjective Being Evaluated	Mean Value	Missing Data
	Very 0+	Somewhat 1+	Neither 2+	Somewhat 3+	Very 4+			
Dangerous	32 (1.4)	205 (8.8)	517 (22.1)	740 (31.6)	473 (20.2)	Safe	2.7	374 (16.0)
Worthless	39 (1.7)	53 (2.3)	353 (15.1)	540 (23.1)	907 (38.7)	Valuable	3.2	449 (19.2)
Crowded	300 (12.8)	715 (30.5)	475 (20.3)	409 (17.5)	73 (3.1)	Empty	1.6	369 (15.8)
Undesirable	50 (2.1)	163 (7.0)	430 (18.4)	635 (27.1)	654 (27.9)	Desirable	2.9	409 (17.5)
Noisy	89 (3.8)	368 (15.7)	814 (34.8)	500 (21.4)	146 (6.2)	Quiet	2.1	423 (18.1)
Littered	109 (4.7)	532 (22.7)	483 (20.6)	589 (25.2)	262 (11.2)	Clean	2.2	366 (15.6)
Distant	120 (5.1)	422 (18.0)	602 (25.7)	519 (22.2)	295 (12.6)	Close	2.2	383 (16.4)
Expensive	102 (4.4)	383 (16.4)	773 (33.0)	456 (19.5)	249 (10.6)	Cheap	2.2	378 (16.1)

*Percentages may not sum to 100.0 due to rounding error.
+Weighting value used to represent response categories.

Table 16: Frequency Counts and Percentages* (in parentheses) For The Perceived Impacts of Recent Economic Troubles on Participation in Outdoor Recreation Activities in Ohio (n=2,341)

Impact Evaluated	Applicable	Not Applicable	Rank Order
Reduced Distances Traveled for Recreational Purposes	876 (37.4)	1,465 (62.6)	2
Reduced the Number of Recreation Trips	957 (40.9)	1,384 (59.1)	1
Increased the Length of Stay Once at Recreation Site	214 (9.1)	2,127 (90.9)	10
Have Changed Recreation Activities to Those Less Costly	661 (28.2)	1,680 (71.8)	4
Recreate More Often at Nearby Recreation Facilities	612 (26.1)	1,729 (73.9)	6
Stay in Camping Areas Rather Than Cabins or Motels	452 (19.3)	1,889 (80.7)	7
Cook Own Meals Rather Than Eat Out at Recreation Sites	857 (36.6)	1,484 (63.4)	3
Have Not Replaced Used Recreation Equipment	361 (15.4)	1,980 (84.6)	9
Take Better Care of Recreation Equipment	441 (18.8)	1,900 (81.2)	8
These Economic Problems Have Not Changed Household's Recreation Activities	647 (27.6)	1,694 (72.4)	5
Household Members Participate More Often in Outdoor Recreation Activities	179 (7.6)	2,162 (92.4)	11
Other Impacts of These Economic Problems	162 (6.9)	2,179 (93.1)	12

*Respondents could select more than one impact so the percentages will not sum to 100.0 vertically.

Table 17: Frequency Counts and Percentages For the Perceived Effect of Changing Fuel Costs on Household Recreational Participation in Ohio During the Last Three Years (n=2,341)

Perceived Impact	Weighting Value	Frequency	Percent
Greatly Reduced Participation	0	211	9.0
Somewhat Reduced Participation	1	600	25.6
No Change In Participation	2	1,307	55.8
Somewhat Increase In Participation	3	87	3.7
Greatly Increased Participation	4	26	1.1
Missing Data	N.A.	110	4.8
	Mean = 1.6	S.D. = 0.8	

Table 18: Frequency Counts and Percentages For Perceived Levels of Fuel Costs Which Would Generate Changes in Outdoor Recreation Travel in Ohio (n=2,341)

Gasoline Cost Per Gallon	Weighting Value	Frequency of People Who Would Change Travel	Percent
$1.50	1	862	36.8
$1.75	2	282	12.0
$2.00	3	417	17.8
$2.25	4	86	3.7
$2.50	5	84	3.6
$2.75	6	7	0.3
$3.00	7	38	1.6
$3.25	8	124	5.3
Missing Data	N.A.	441	18.8
	Mean = 2.5	S.D. = 2.0	

Table 19: Mean Travel Time To Favorite Recreation Site For People Engaged In The Outdoor Recreation Activity (n=2,341)

Outdoor Recreation Activity	Mean Travel Time To Site In Fractions Of Hours	Nonparticipants In Activity
Boating	1.0	1,351
Fishing	1.0	1,155
Camping	1.4	1,339
Hunting	1.1	1,785
Picnicking	0.7	883
Trail Activities	0.8	1,489
Bicycling	0.6	1,797
Off-Road Vehicle Riding	1.0	2,139
Local Parks and Playgrounds	0.5	1,056
Field Sports	0.5	1,860
Court Sports	0.5	1,852
Golf	0.6	1,663
Swimming	0.7	1,150
Winter Sports	1.1	1,853
Horseback Riding	1.0	2,017
Other	1.7	2,267

Table 20: Best Regression Models For Outdoor Recreation Participation Factors: Presented In Standardized Regression Coefficient Form (n=2,341)

Dependent Variable	Adjusted Coefficient of Determination (R^2)
Total Outdoor Recreation Participation	0.426
$Y = 0.11x1 + 0.12x2 + 0.20x3 + 0.09x4 + 0.08x5 + 0.08x6 + 0.07x7 + 0.05x8 + 0.07x9 + 0.06x10 - 0.06x11 + 0.06x12 + 0.09x13 + 0.08x14 + 0.06x15 + 0.04x16 + 0.05x17 + 0.04x18 - 0.05x19 + 0.07x20 + 0.06x21 - 0.06x22 - 0.05x23 + 0.04x24 + 0.05x25 + 0.05x26 - 0.04x27 + 0.03x28 - 0.03x29$	
Total Boating Participation Factor	0.271
$Y = 0.33x21 + 0.20x3 + 0.07x30 + 0.07x7 - 0.09x31 + 0.06x15 + 0.06x32 - 0.06x19 + 0.05x12 - 0.05x11 + 0.06x33 - 0.06x22 + 0.06x34 + 0.04x9 + 0.04x17 - 0.04x35 - 0.04x36 - 0.04x37 + 0.04x38 - 0.04x39 - 0.04x40 + 0.04x26$	
Total Fishing Participation Factor	0.353
$Y = 0.32x5 + 0.07x2 + 0.14x8 + 0.06x24 + 0.12x3 + 0.09x7 - 0.11x22 - 0.09x41 - 0.07x19 + 0.06x26 + 0.08x30 - 0.07x11 + 0.05x42 + 0.05x43 + 0.08x4 + 0.05x17 + 0.05x16 - 0.06x44 + 0.04x12 + 0.04x45 + 0.05x14 + 0.04x20 + 0.04x46 - 0.03x37 + 0.04x47 + 0.05x21$	
Total Extensive Recreation Participation Factor	0.291
$Y = 0.17x22 + 0.08x2 + 0.17x3 + 0.15x27 + 0.09x15 + 0.14x48 + 0.07x16 + 0.08x9 + 0.05x18 - 0.06x49 + 0.05x26 + 0.05x50 - 0.04x51 + 0.04x12 - 0.04x11 - 0.04x19 + 0.04x44 - 0.04x52 - 0.03x53$	

Total Hunting
Participation Factor 0.353

Y = 0.43x14 + 0.23x24 + 0.18x2 - 0.10x22 + 0.07x28 + 0.08x8 - 0.04x25 + 0.05x12 + 0.06x10 - 0.05x54 - 0.04x27 - 0.07x32 - 0.06x55 - 0.04x56 - 0.04x11 - 0.04x41 + 0.04x3

Total Intensive Recreation
Participation Factor 0.373

Y = 0.16x1 + 0.12x44 + 0.06x15 + 0.08x57 + 0.13x3 + 0.15x25 + 0.09x58 + 0.09x59 + 0.08x7 - 0.06x23 - 0.06x27 + 0.06x9 + 0.06x18 + 0.07x31 - 0.05x21 + 0.07x13 + 0.05x2 + 0.08x4 - 0.05x24 - 0.05x60 + 0.04x61 + 0.04x12 + 0.04x62 + 0.07x41 - 0.06x8

Total Community Based
Recreation Factor 0.388

Y = 0.31x6 + 0.24x13 + 0.10x59 - 0.11x27 + 0.10x4 + 0.13x1 + 0.08x10 + 0.09x3 - 0.10x60 - 0.05x14 + 0.07x41 + 0.05x42 + 0.05x12 + 0.05x63 + 0.05x53 - 0.04x64 + 0.05x58 + 0.04x47 + 0.05x18 + 0.04x52 - 0.04x65 - 0.05x8

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x 1 = Ease of Use of Swimming Areas
x 2 = Less Luxury Index
x 3 = Recreation Spending Last Year
x 4 = Competitive Individualistic Recreation Index
x 5 = Ease of Use of Fishing Areas
x 6 = Ease of Use of Field Sport Areas
x 7 = Percent of Total Recreation on Public Lands
x 8 = Primary Income Earner Youth Participation in Traditional Extensive Activities
x 9 = Participate More Even In Recession
x10 = Less Costly Recreation Activities
x11 = No Desire to Recreate More
x12 = Time to Golf Site
x13 = Ease of Use of Court Sports Areas
x14 = Ease of Use of Hunting Areas
x15 = Psychosocial Escape Index
x16 = Fees For Use Too High

x17 = Percent of Recreation Monies Spent In Ohio
x18 = Time to Camping Site
x19 = Not Enough Time
x20 = Household Size
x21 = Ease of Use of Boating Areas
x22 = Ease of Use of Camping Areas
x23 = Marital Status
x24 = Extractive Index
x25 = Ease of Use of Bicycling Areas
x26 = Mate Youth Involvement In Traditional Extensive Activities
x27 = Ease of Use of ORV Areas
x28 = Lack of Transportation
x29 = Lack of Recreation Skills
x30 = Better Care of Recreation Equipment
x31 = Ease of Use of Local Parks and Playgrounds
x32 = Not Replace Used Equipment
x33 = Ease of Use of Winter Sports Areas
x34 = Time to Winter Sports Site
x35 = Increasing Fuel Costs
x36 = Time to Trail Activities Site
x37 = Lack of Information
x38 = Inadequate Facilities
x39 = Children at Home
x40 = Age of Primary Income Earner
x41 = Primary Income Earner Youth Participation In Local Activities
x42 = Time to Boating Site
x43 = Weeks Unemployed Last Year
x44 = Ease of Use of Trail Activities Areas
x45 = Recreation Areas Too Noisy
x46 = Time to Hunting Site
x47 = Occupation
x48 = Use Camping Areas Not Cabins or Motels
x49 = Ease of Use of Golf Areas
x50 = Time to ORV Site
x51 = Recreation Areas Too Dirty
x52 = Do Not Have Recreation Equipment
x53 = Unemployed At Some Time Last Year
x54 = Place of Residence
x55 = Cook Own Meals Rather Than Eat Out
x56 = Time To Horseback Riding Site
x57 = Reduction In Travel Time and Trips Index
x58 = Mate Youth Involvement in Local Recreation Activities Index
x59 = Number of People Below 18 in Household
x60 = Ease of Use of Horseback Riding Areas
x61 = Recreation Areas Lack Handicapped Facilities
x62 = Self-ranked Class Level
x63 = Recreate More Often in Nearby Recreation Facilities
x64 = Poor Weather Conditions
x65 = Time to Swimming Site

Table 21: Best Regression Models For Specific Outdoor Recreation Activities Using Only Participants: Presented in Standardized Regression Coefficient Form*

Dependent Variable	Adjusted Coefficient of Determination (R^2)
Total Hunting Participation Factor (n=489)	0.059
Y= 0.247x3	
Total Fishing Participation Factor (n=1,004)	0.047
Y= 0.220x3 + 0.079x2	
Total Boating Participation Factor (n=739)	0.074
Y= 0.275x3	
Total Canoeing Participation (n=554)	0.028
Y= 0.172x3	
Total Backpack and Tent Camping Participation (n=540)	0.007
Y= 0.096x3	
Total Group Camping Participation (n=322)	0.020
Y= -0.113x2 + 0.111x1	

Total Motorized Camping Participation (n=481)	0.000
No Significant Variables	
Total State Lodges and Cabins Participation (n=401)	0.021
Y= 0.154x3	
Total Picnicking Participation (n=1,571)	0.020
Y= 0.141x3 + 0.069x2	
Total Trail Activities Participation (n=936)	0.028
Y= 0.119x1 + 0.096x3	
Total Bicycling Participation (n=673)	0.041
Y= 0.207x3	
Total Off-Road Vehicle Riding Participation (n=182)	0.063
Y= 0.259x3 - 0.222x1	
Total Visiting Local Parks and Playgrounds Participation (n=1,511)	0.054
Y= 0.204x3 + 0.057x1 - 0.053x2	

Total Field Sports Participation (n=499)	0.107
Y= 0.330x3	
Total Court Sports Participation (n=469)	0.036
Y= 0.138x3 + 0.105x1	
Total Golf Participation (n=620)	0.065
Y= 0.168x3 + 0.158x1	
Total Beach Activities Participation (n=1,126)	0.032
Y= 0.182x3	
Total Outdoor Pool Swimming Participation (n=981)	0.031
Y= 0.144x3 + 0.068x1	
Total Winter Sports Participation (n=472)	0.031
Y= 0.182x3	
Total Horseback Riding Participation (n=285)	0.062
Y= 0.256x1	

x1= Perceived Satisfaction
x2= Time to Site
x3= Ease of Use

* These analyses were conducted because satisfaction with the experience could only be assessed by participants. The two additional variables were added because they were shown to be important predictors for the total sample. List wise deletion of missing data was used for these analyses.

Table 22: Best Regression Models For Participation In Individual Outdoor Recreation Activities: Presented In Standardized Regression Coefficient Form (n=2,341)

Dependent Variable	Adjusted Coefficient of Determination (R^2)
Powerboating Participation	0.267
$Y = 0.352x1 + 0.211x2 + 0.102x3 - 0.095x4 + 0.085x5 + 0.073x6 - 0.083x7 + 0.064x8 - 0.052x9 - 0.035x10 + 0.039x11 - 0.048x12 - 0.043x13 - 0.042x14$	
Sailing Participation	0.071
$Y = 0.171x1 + 0.087x15 + 0.090x16 + 0.085x2 - 0.049x17 - 0.050x18 + 0.044x19 - 0.055x7 - 0.042x21 - 0.041x22$	
Canoeing Participation	0.156
$Y = 0.125x1 + 0.086x18 + 0.097x2 + 0.101x25 + 0.074x93 + 0.074x7 + 0.058x46 + 0.059x100 + 0.045x5 + 0.057x50 + 0.046x76 - 0.047x22 + 0.048x35 + 0.064x68 - 0.067x53 - 0.067x37 - 0.062x96 + 0.045x52 + 0.113x27 - 0.094x26 + 0.037x65$	
Waterskiing Participation	0.151
$Y = 0.200x1 + 0.137x2 + 0.065x5 + 0.060x6 - 0.094x23 - 0.081x4 + 0.064x24 + 0.056x25 - 0.061x14 - 0.140x26 + 0.111x27 + 0.043x28 + 0.048x8 - 0.042x29 + 0.045x30 - 0.039x31$	
Other Boating Participation	0.110
$Y = 0.161x1 + 0.087x18 + 0.093x30 + 0.097x2 + 0.069x32 - 0.055x33 + 0.055x34 + 0.060x35 - 0.074x36 + 0.046x25 + 0.062x6 - 0.042x37 + 0.050x38 + 0.046x39 + 0.041x40$	

Panfishing Participation 0.338

Y = 0.349x41 + 0.109x54 + 0.087x5 + 0.123x44 + 0.086x42 + 0.079x3 + 0.064x52 + 0.084x2 - 0.072x14 + 0.055x30 - 0.059x53 + 0.068x16 + 0.047x26 + 0.054x35 - 0.060x9 - 0.070x7 + 0.051x8 - 0.054x104 + 0.045x49 + 0.040x70 + 0.057x6 + 0.046x11 - 0.047x12 - 0.063x50 - 0.044x107 + 0.039x65 + 0.038x19 - 0.040x97 + 0.036x25

Walleye Fishing Participation 0.222

Y = 0.176x41 + 0.160x2 + 0.067x42 + 0.093x5 + 0.060x37 + 0.122x1 - 0.091x7 + 0.066x38 + 0.085x3 - 0.058x14 - 0.053x12 - 0.051x9 + 0.061x6 - 0.061x43 + 0.061x44 - 0.057x45 + 0.053x46 + 0.044x47 - 0.041x48 + 0.047x18 + 0.040x49 - 0.054x50 - 0.049x51 + 0.045x16 - 0.038x33 + 0.042x52

Specialized Sport Fishing Participation 0.114

Y = 0.098x41 + 0.072x18 + 0.079x44 + 0.070x5 + 0.062x17 + 0.068x37 + 0.074x32 + 0.056x19 + 0.060x3 + 0.048x42 + 0.057x2 - 0.066x53 + 0.054x54 + 0.051x55 + 0.042x56 - 0.045x35 - 0.040x57

Fishing For Anything That Bites Participation 0.316

Y = 0.360x41 + 0.094x5 + 0.082x54 + 0.105x44 + 0.067x19 + 0.059x3 + 0.064x35 + 0.067x70 + 0.089x2 - 0.078x7 + 0.058x30 - 0.054x14 - 0.047x12 - 0.050x53 + 0.081x18 + 0.054x11 + 0.044x65 + 0.047x27 - 0.043x77 + 0.047x25 - 0.046x36 - 0.040x57 - 0.043x104 + 0.045x6 + 0.034x49

Backpack and Tent Camping Participation 0.194

Y = 0.182x7 + 0.159x58 + 0.075x59 + 0.063x18 - 0.114x23 + 0.088x60 + 0.066x25 + 0.060x19 - 0.048x10 + 0.073x50 - 0.082x17 - 0.044x9 + 0.046x61 + 0.047x62 - 0.066x63 + 0.043x44 - 0.106x26 + 0.074x27 - 0.047x33 - 0.041x43 + 0.048x2 - 0.040x64 + 0.039x65 + 0.041x3 - 0.052x36 + 0.061x20

Group Camping Participation 0.070

Y = 0.102x7 + 0.051x8 + 0.077x26 + 0.060x25 + 0.057x66 + 0.049x58 + 0.062x67 - 0.047x12 + 0.072x9 - 0.070x68 + 0.047x2 + 0.042x56

Motorized Camping Participation 0.217

Y = 0.227x58 + 0.190x2 + 0.183x7 - 0.069x20 + 0.061x52 + 0.065x66 - 0.071x53 + 0.065x72 - 0.055x10 + 0.052x108 + 0.058x5 + 0.050x28 + 0.055x8 - 0.053x41 - 0.045x14

State Lodges and Cabins Participation 0.095

Y = 0.094x7 + 0.100x15 + 0.092x8 + 0.096x32 + 0.070x62 + 0.055x69 + 0.067x70 + 0.052x71 + 0.066x60 - 0.066x72 + 0.054x13 - 0.059x35 + 0.052x56 - 0.061x73 + 0.049x74 + 0.049x2 - 0.051x54 + 0.046x75 - 0.040x76

Deer Hunting Participation 0.255

Y = 0.276x42 + 0.297x17 - 0.041x77 + 0.052x5 + 0.071x78 + 0.051x79 - 0.072x80 + 0.055x81 - 0.051x63 + 0.046x32 + 0.040x27 - 0.046x82 + 0.041x58 + 0.045x46 - 0.043x84

Small Game Hunting Participation 0.335

Y = 0.427x17 + 0.183x42 + 0.077x5 + 0.076x38 - 0.112x7 + 0.064x81 + 0.067x58 - 0.045x63 + 0.054x79 - 0.046x84 + 0.066x44 - 0.043x104 + 0.059x90 - 0.052x50 - 0.049x85 + 0.040x27 + 0.035x16

Waterfowl Hunting Participation 0.105

Y = 0.193x17 + 0.105x79 + 0.100x5 + 0.073x42 + 0.060x2 + 0.060x32 - 0.072x7 + 0.057x86 + 0.055x6 - 0.099x26 + 0.057x8 - 0.052x85 + 0.050x72 - 0.055x30 + 0.067x27

Bird Hunting Participation 0.207

Y = 0.336x17 + 0.168x42 + 0.089x38 + 0.058x5 - 0.101x7 + 0.048x86 + 0.049x79 + 0.050x81 + 0.044x46 - 0.052x55 + 0.044x3 - 0.045x87 + 0.039x32 + 0.040x2

Other Hunting Participation 0.170

Y = 0.279x17 + 0.161x42 - 0.063x73 - 0.073x50 + 0.063x25 + 0.054x109 - 0.051x37 + 0.054x66 - 0.054x53 + 0.044x26 + 0.043x79

Picnicking Participation 0.259

Y = 0.243x90 + 0.112x8 + 0.068x88 + 0.119x2 + 0.105x3 + 0.093x51 + 0.066x26 + 0.058x89 + 0.047x74 - 0.055x38 + 0.053x25 + 0.043x59 + 0.074x50 + 0.046x91 + 0.047x71 - 0.048x1 + 0.048x92 + 0.046x81 + 0.039x86 - 0.037x69

Trail Activities Participation 0.223

Y = 0.353x50 + 0.095x3 + 0.096x2 - 0.071x17 + 0.085x18 + 0.072x25 + 0.060x93 - 0.082x55 + 0.064x20 + 0.042x48 - 0.049x6 + 0.047x9 + 0.838x94

Bicycling Participation 0.275

Y = 0.525x63 + 0.084x9 - 0.086x62 + 0.077x2 - 0.064x77 + 0.046x30 + 0.057x11 - 0.069x7 + 0.054x88 + 0.046x18 - 0.044x12 + 0.043x59 + 0.043x3 + 0.041x104 - 0.041x6 + 0.043x39 - 0.045x50

Off-Road Vehicle Riding Participation 0.203

Y = 0.377x55 + 0.119x43 + 0.073x32 - 0.107x62 + 0.075x2 + 0.076x81 - 0.050x75 + 0.049x35 + 0.055x19 - 0.077x80 - 0.055x95 + 0.039x42 + 0.047x78 - 0.044x84 + 0.046x28 + 0.057x8 - 0.050x53 + 0.047x92 + 0.041x94 - 0.038x36

Visiting Local Parks and Playgrounds Participation 0.286

Y = 0.249x4 + 0.132x3 + 0.108x18 + 0.058x39 + 0.089x82 + 0.119x50 + 0.079x26 + 0.051x97 + 0.083x70 + 0.049x99 + 0.069x20 + 0.064x59 - 0.037x98 - 0.060x55 - 0.073x60 + 0.053x53 + 0.059x2 - 0.045x96 + 0.047x100 - 0.055x1 + 0.038x95 - 0.042x42 - 0.038x37

Field Sports Participation 0.378

Y = 0.587x105 - 0.140x55 + 0.125x39 + 0.074x81 + 0.082x32 - 0.074x62 + 0.071x18 - 0.062x17 - 0.062x15 + 0.042x27 - 0.045x98 + 0.053x82 - 0.047x50 + 0.039x103 - 0.034x31 + 0.037x52 - 0.039x60 + 0.039x2 - 0.041x23 - 0.035x95

Court Sports Participation 0.317

Y = 0.556x20 + 0.139x36 - 0.087x55 + 0.062x59 + 0.083x18 - 0.053x62 - 0.075x77 + 0.074x2 - 0.053x7 + 0.069x102 - 0.054x17 - 0.045x78 - 0.047x101 + 0.047x21 - 0.049x24 - 0.038x27

Golf Participation 0.409

Y = 0.548x77 + 0.177x75 - 0.098x62 + 0.132x2 - 0.188x55 + 0.077x103 + 0.052x25 - 0.050x7 + 0.061x18 - 0.055x20 - 0.047x104 - 0.055x6 + 0.044x54 + 0.035x21 - 0.032x14

Beach Activities Participation 0.244

Y = 0.245x67 + 0.090x8 + 0.134x2 + 0.062x88 + 0.096x97 + 0.095x32 + 0.059x82 - 0.058x23 - 0.044x14 + 0.072x27 - 0.061x96 - 0.054x33 + 0.051x3 + 0.050x99 + 0.040x49 + 0.066x68 + 0.042x25 - 0.048x53

Outdoor Pool Swimming Participation 0.238

Y = 0.271x67 + 0.132x26 + 0.071x20 + 0.070x81 + 0.084x2 + 0.095x18 - 0.059x41 + 0.063x97 + 0.076x71 + 0.075x105 + 0.058x82 - 0.073x62 + 0.068x66 + 0.046x10 - 0.061x78 + 0.059x63 + 0.041x52 + 0.041x32 - 0.045x42 - 0.039x93

Winter Sports Activities Participation 0.258

Y = 0.434x24 + 0.102x2 + 0.072x81 + 0.102x18 - 0.071x42 + 0.078x16 - 0.045x62 - 0.044x85 - 0.056x70 + 0.055x43 - 0.044x12 - 0.047x7 - 0.040x98 - 0.051x39 - 0.047x47 - 0.038x106 + 0.119x27 - 0.061x96 - 0.087x26 - 0.049x55 - 0.037x19

Horseback Riding Participation 0.236

Y = 0.489x62 + 0.126x66 - 0.107x55 + 0.122x2 - 0.081x24 - 0.111x84 + 0.062x13 - 0.081x77 + 0.057x73 + 0.063x59 - 0.044x37 - 0.051x50 - 0.056x12 + 0.040x22 - 0.048x60 + 0.045x75

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x1 = Ease of Use of Boating Areas
x2 = Recreation Spending Last Year
x3 = Percent of Total Recreation on Public Lands
x4 = Ease of Use of Local Parks and Playgrounds
x5 = Better Care of Recreation Equipment
x6 = Boating As A Youth
x7 = Ease of Use of Camping Areas
x8 = Psychosocial Escape Index
x9 = Bicycling As A Youth
x10 = No Equipment
x11 = Percent of Recreation Dollars Spent In Ohio
x12 = No Desire to Recreate More
x13 = Lack of Information
x14 = Not Enough Time
x15 = Education

x16 = Winter Sports As A Youth
x17 = Ease of Use of Hunting Areas
x18 = Competitive-Individualistic Recreation Index
x19 = Fees For Use Too High
x20 = Ease Of Use Of Court Sports Areas
x21 = Friends Do Not Participate
x22 = Mate Not Employed
x23 = Age of Primary Income Earner
x24 = Ease of Use Of Winter Sports Areas
x25 = Participate More Often In Outdoor Recreation
x26 = Family Members Less Than 18 Years Of Age
x27 = Household Size
x28 = Time to ORV Riding Areas
x29 = Mate Youth Bicycling Participation
x30 = Have Not Replaced Used Equipment
x31 = Inadequate Facilities
x32 = Time to Golf Site
x33 = No Change In Behavior
x34 = Mate Youth Fishing Participation
x35 = Time To Winter Sports Site
x36 = Court Sports As A Youth
x37 = Time to Fishing Site
x38 = Hunting As A Youth
x39 = Field Sports As A Youth
x40 = Perception Of Outdoor Recreation
x41 = Ease Of Use Of Fishing Areas
x42 = Extractive Index
x43 = ORV Riding As A Youth
x44 = Mate Youth Hunting Participation
x45 = Time To Bicycling Site
x46 = Time To Hunting Site
x47 = Tenure In Ohio
x48 = Gender of Primary Income Earner
x49 = Weeks Unemployed
x50 = Ease of Use of Trail Activities Areas
x51 = Picnicking As A Youth
x52 = Time To Boating Site
x53 = Local Parks and Playground Participation As A Youth
x54 = Fishing As A Youth
x55 = Ease of Use of ORV Areas
x56 = Poor Health
x57 = Unemployment Status
x58 = Use Camping Areas Not Cabins
x59 = Time To Camping Site
x60 = Camping As A Youth
x61 = Time To Trail Activities Site
x62 = Ease of Use of Horseback Riding Areas
x63 = Ease of Use of Bicycling Areas
x64 = Increased Length of Stay
x65 = Recreation Areas Too Noisy
x66 = Horseback Riding As A Youth
x67 = Ease of Use of Swimming Areas
x68 = Swimming As A Youth
x69 = Mate Youth Court Sports Participation
x70 = Income
x71 = Time To Picnicking Site

x72 = License Fees Too High
x73 = Childhood Residence
x74 = Reduce Travel Distance
x75 = Golf As A Youth
x76 = Race
x77 = Ease of Use of Golf Areas
x78 = Time To Swimming Site
x79 = Lack of Transportation
x80 = Time To Field Sport Site
x81 = Adopt Less Costly Recreation Activities
x82 = Use Nearby Facilities More
x84 = Place of Residence
x85 = Mate Youth Parks and Playground Participation
x86 = Increased Length of Stay
x87 = Time To Horseback Riding Site
x88 = Cook Own Meals
x89 = Lack of Facilities For Disabled
x90 = Ease of Use of Picnicking Areas
x91 = Occupation
x92 = Mate Youth Horseback Riding Participation
x93 = Trail Activities As A Youth
x94 = Desired Recreation Experience Not Provided
x95 = Recreation Areas Too Crowded
x96 = Marital Status
x97 = Mate Youth Swimming Participation
x98 = Time To Court Sports Site
x99 = Mate Youth Field Sport Participation
x100 = Mate Youth Camping Participation
x101 = No Skills
x102 = Time To Local Parks and Playgrounds
x103 = Mate Youth Golf Participation
x104 = Mate Youth ORV Riding Participation
x105 = Ease of Use of Field Sports Areas
x106 = Children In Household
x107 = Recreation Areas Dirty
x108 = Tenure In County
x109 = Unfavorable Weather

Table 23: Best Regression Models For Anticipated Outdoor Recreation Activities During The Next 2 To 3 Years Compared With Participation in 1983-1984 Presented In Standardized Regression Coefficient Form (n=2,341)

Dependent Variable	Adjusted Coefficient of Determination (R^2)
Intended Boating Participation	0.315
$Y = 0.298x1 + 0.114x2 + 0.090x3 + 0.094x4 - 0.058x5 + 0.051x6 - 0.055x7 - 0.062x8 + 0.076x9 + 0.050x10 + 0.072x11 - 0.041x12 + 0.062x13 - 0.050x14 - 0.041x15 + 0.037x16 + 0.075x17$	
Intended Fishing Participation	0.345
$Y = 0.313x18 + 0.228x11 + 0.145x2 + 0.099x4 - 0.065x19 + 0.056x20 + 0.063x16 - 0.052x7 + 0.062x21 + 0.070x22 - 0.040x15 + 0.045x23 - 0.054x24 + 0.041x25 - 0.043x8 + 0.041x26 - 0.038x27$	
Intended Camping Participation	0.353
$Y = 0.349x28 + 0.141x2 + 0.123x29 + 0.214x30 - 0.066x8 - 0.057x5 - 0.049x31 - 0.054x15 + 0.070x32 - 0.078x33 - 0.052x34 + 0.047x16 + 0.050x36 - 0.049x37 - 0.065x14 - 0.053x35 + 0.047x13 + 0.050x4 - 0.046x38 - 0.037x39 + 0.042x40 - 0.038x41$	
Intended Hunting Participation	0.341
$Y = 0.354x14 + 0.138x42 + 0.143x21 + 0.067x2 - 0.081x8 + 0.058x16 - 0.070x18 + 0.128x43 - 0.046x5 + 0.063x37 - 0.057x44 + 0.043x45 - 0.037x31 - 0.035x39 + 0.034x46$	
Intended Picnicking Participation	0.325
$Y = 0.206x47 + 0.218x48 + 0.182x2 + 0.087x23 - 0.050x17 + 0.063x49 + 0.063x36 + 0.047x16 - 0.056x41 + 0.046x45 - 0.055x50 + 0.040x51 - 0.038x31 + 0.049x52 + 0.038x53 - 0.055x1 + 0.045x28$	

Intended Trail Activities Participation 0.316

Y = 0.343x9 + 0.145x25 + 0.108x2 + 0.049x45 - 0.089x8 + 0.047x16 + 0.045x54 - 0.051x5 - 0.057x31 - 0.057x14 + 0.060x33 + 0.046x55 - 0.048x56 + 0.054x13 - 0.042x39 + 0.043x57 + 0.037x58 + 0.034x59

Intended Bicycling Participation 0.321

Y = 0.296x60 + 0.200x61 + 0.080x2 - 0.070x14 - 0.071x5 + 0.050x45 + 0.084x13 - 0.075x8 + 0.073x9 - 0.075x62 + 0.055x6 - 0.048x31 + 0.041x16 - 0.049x37 + 0.049x63 + 0.042x23 - 0.034x12

Intended ORV Participation 0.159

Y = 0.251x33 + 0.067x60 + 0.102x8 - 0.058x5 + 0.074x26 - 0.080x11 + 0.065x54 - 0.056x39 + 0.051x16 + 0.078x2 + 0.067x21 + 0.043x36

Intended Parks and Playgrounds Participation 0.306

Y = 0.225x49 + 0.168x2 + 0.174x40 + 0.091x23 + 0.084x47 + 0.052x45 + 0.050x51 - 0.050x14 + 0.061x52 + 0.043x36 + 0.043x55 - 0.041x64

Intended Field Sports Participation 0.250

Y = 0.252x65 + 0.208x6 + 0.093x13 - 0.073x5 - 0.086x8 + 0.052x9 - 0.055x37 + 0.052x45 - 0.073x62 + 0.059x21 + 0.063x66 - 0.049x67 + 0.039x36

Intended Court Sports Participation 0.297

Y = 0.262x68 + 0.236x69 + 0.091x13 - 0.099x8 + 0.069x45 - 0.070x5 + 0.049x16 + 0.062x9 - 0.049x62 + 0.062x2 - 0.043x67 + 0.047x51 + 0.046x70 - 0.038x15 + 0.048x71 - 0.048x1 + 0.055x21 - 0.041x72

Intended Golf Participation 0.336

Y = 0.341x73 + 0.263x70 - 0.063x5 + 0.051x45 - 0.063x18 - 0.082x8 + 0.059x54 + 0.045x16 + 0.080x13 - 0.043x50 - 0.039x74 + 0.063x9 - 0.039x31 - 0.047x25 + 0.035x59

Intended Swimming Participation 0.361

Y = 0.328x52 + 0.142x2 + 0.089x23 + 0.140x74 - 0.064x5 + 0.064x51 + 0.106x75 + 0.059x36 - 0.046x38 - 0.037x41 + 0.068x48 + 0.052x13 - 0.043x18 - 0.037x34 + 0.038x16 + 0.056x27 - 0.039x7 - 0.039x63

Intended Winter Sports Participation 0.299

Y = 0.256x57 + 0.189x24 + 0.069x2 + 0.079x45 + 0.082x54 - 0.063x5 + 0.093x13 - 0.069x8 + 0.070x9 + 0.044x16 + 0.048x10 - 0.070x18 + 0.045x55 - 0.036x37 - 0.060x48 + 0.048x71 + 0.041x51 + 0.047x47 + 0.040x58 - 0.035x39

Intended Horseback Riding Participation 0.222

Y = 0.241x19 + 0.191x59 + 0.057x2 + 0.064x45 + 0.100x55 - 0.070x5 + 0.081x54 - 0.095x8 + 0.084x9 + 0.059x16 + 0.082x13 - 0.057x15 - 0.062x73 - 0.057x11 + 0.043x51 + 0.041x71

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x1 = Ease of Use of Boating Areas
x2 = Psychosocial Escape Index
x3 = Total Boating Participation Factor
x4 = Primary Income Earner Youth Participation in Traditional Extensive Activities
x5 = Poor Health
x6 = Total Field Sports Participation
x7 = Time to Golf Site
x8 = Ease of Use of ORV Areas
x9 = Ease of Use of Trail Activities Areas
x10 = Total Sailing Participation
x11 = Total Fishing Participation Factor
x12 = Recreation Areas Not Safe
x13 = Competitive-Individualistic Orientation Index

x14 = Ease of Use of Hunting Areas
x15 = Time to Local Parks and Playgrounds
x16 = Not Enough Time
x17 = Total Powerboating Participation Factor
x18 = Ease of Use of Fishing Areas
x19 = Ease of Use of Horseback Riding Areas
x20 = License Fees Too High
x21 = Extractive Orientation Index
x22 = Time to Fishing Site
x23 = Reduction In Travel Time and Trips Index
x24 = Total Winter Sports Participation Factor
x25 = Total Trail Activities Participation Factor
x26 = Time to ORV Areas
x27 = Time to Swimming Site
x28 = Ease of Use of Camping Areas
x29 = Less Luxury Index
x30 = Total Extensive Activity Participation Factor
x31 = No Desire to Recreate More
x32 = Time to Camping Site
x33 = Total ORV Riding Participation
x34 = Friends Do Not Participate
x35 = Total Group Camping Participation Factor
x36 = Lack of Information
x37 = Time to Hunting Site
x38 = Walleye Fishing Participation
x39 = Inadequate Facilities
x40 = Total Visits to Local Parks and Playgrounds
x41 = Total State Lodges and Cabins Participation Factor
x42 = Total Hunting Participation Factor
x43 = Total Small Game Hunting Participation
x44 = Time to Field Sport Site
x45 = Primary Income Earner Youth Participation In Local Activities
x46 = Outdoor Recreation Too Costly
x47 = Ease of Use of Picnicking Areas
x48 = Total Picnicking Participation
x49 = Ease of Use of Local Parks and Playgrounds
x50 = Total Deer Hunting Participation
x51 = Children at Home
x52 = Ease of Use of Swimming Areas
x53 = Lack of Transportation
x54 = Total Community Based Activity Factor
x55 = Time to Horseback Riding Site
x56 = Waterfowl Hunting
x57 = Ease of Use of Winter Sports Areas
x58 = Unfavorable Weather
x59 = Total Participation In Horseback Riding
x60 = Ease of Use of Bicycling Areas
x61 = Total Bicycling Participation
x62 = Anything That Bites Fishing
x63 = Time to Bicycling Site
x64 = Total Panfishing Participation
x65 = Ease of Use of Field Sports Areas
x66 = Total Intensive Group Activity Factor
x67 = Recreation Areas Dirty
x68 = Ease of Use of Court Sports Areas
x69 = Total Court Sports Participation

x70 = Total Golf Participation
x71 = Total Waterskiing Participation
x72 = Total Bird Hunting Participation
x73 = Ease of Use of Golf Areas
x74 = No Equipment
x75 = Total Outdoor Pool Swimming Participation
x76 = Total Beach Activities Participation

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