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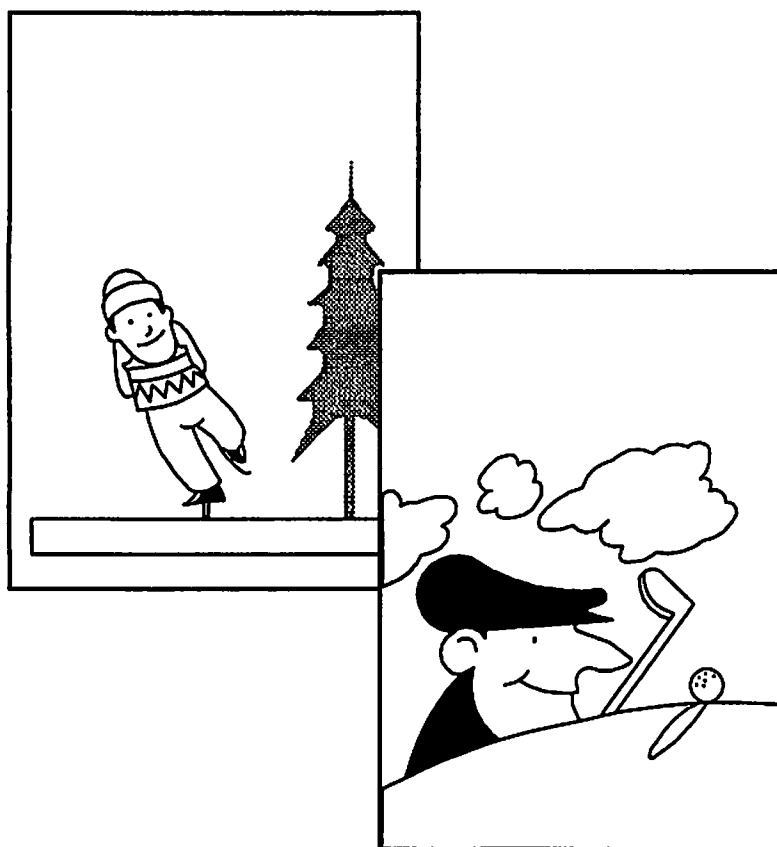
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Projected Needs in Outdoor Recreation in North Dakota: 1990-2000

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Highlights

The purpose of SCORP (State Comprehensive Outdoor Recreation Plan) is to provide a comprehensive planning framework to meet the future recreational needs of the state and fulfill a federal requirement for participation in the Land and Water Conservation Program (LWCP). LWCP participation ensures availability of federal monies to considerably enhance and develop the state's recreational resources. A substantial effort of SCORP is identification of recreational needs of the state.

The purpose of this study was to estimate present and future outdoor recreation needs in North Dakota. Specifically, the total number of participants and total days of participation are projected among state planning regions and for the state for spring/summer and fall/winter recreational activities presently available in the state for years 1990, 1995, and 2000. Projection estimates were based on a random survey of outdoor recreational activities North Dakota residents participated in during spring/summer 1988 and fall/winter 1988-89. Results presented represent a substantial segment of the SCORP effort.

Important spring/summer activities based on projected total number of participants were fishing, gardening, and picnicking. The number of picnicking participants was projected to increase from 310,000 in 1990 to nearly 350,000 by the year 2000. Important fall/winter activities were bicycling, picnicking, and walking.

Common activities based on projected total days of participation were bicycling, gardening, and walking. Projected total days of participation in recreational walking were estimated to increase from 13.3 million days in 1990 to 15.4 million days by year 2000. Other common recreational activities were camping, open water fishing, and softball/baseball. Less common recreational activities residents participated in were broomball and sailing. Less than 50,000 total days of participation were projected for these activities in the state.

The average North Dakota resident was estimated to be spending 20 days recreational walking, 14 days bicycling, and 12 days gardening in the state by 1990. The average state resident was also projected to spend six days open water fishing in 1990. Per capita days of participation in these recreational activities were considerably higher than any other activity.

Most North Dakota residents considered the availability of outdoor recreation to be important. The majority of residents were willing to leave the state to pursue their most important recreational activities if unavailable in North Dakota. Out-of-state activities participated in most frequently were boating/water skiing, camping, and fishing. Residents in eastern counties (state planning regions 4 and 5) participated in recreational activities out-of-state most often.

PROJECTED NEEDS IN OUTDOOR RECREATION
IN NORTH DAKOTA: 1990-2000

James F. Baltezore and Jay A. Leitch*

Introduction

North Dakota residents are in a unique position to enjoy a wide array of outdoor recreational opportunities. The quality and quantity of these opportunities provide residents both social and economic benefits. Social benefits are in the high quality of life that North Dakota residents enjoy. Economic benefits are increasingly being recognized as recreation becomes a substantial portion of the North Dakota economy (Golz and Leitch 1989).

The state's natural resources provide the base to support recreational activities. Proper management of these resources is essential to ensure adequate recreational opportunities in the future. Resource managers and planners need detailed information concerning recreation demand and supply so efficient allocation of resources can be achieved.

North Dakota published its first State Comprehensive Outdoor Recreation Plan (SCORP) in 1966 with updates in 1970, 1975, 1980, and 1985. The purpose of SCORP is to provide a comprehensive planning framework to meet future recreational needs of the public at large and fulfill a federal requirement for participation in the Land and Water Conservation Program (LWCP) (ND Parks and Recreation Dept. 1985). Federal LWCP monies give North Dakota an opportunity to substantially enhance development of the state's recreational resources.

States participating in the LWCP are required to submit a revised recreation plan (SCORP) at five-year intervals. SCORP provides information regarding future development of recreational resources. The plan must be based on public input and should reflect the recreational concerns of all segments of the population (ND Parks and Recreation Department 1985).

Purpose

A substantial element of the SCORP is identification of recreational needs of the state. The purpose of this study was to estimate present and future needs in outdoor recreation in North Dakota. Specifically, this study:

- estimates total number of participants in spring/summer and fall/winter recreational activities for the state and among state planning regions,
- estimates total number of days of participation in spring/summer and fall/winter recreational activities for the state and among state planning regions, and

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- identifies recreational needs of the state and among state planning regions.

Participation in outdoor recreation is projected for target years 1990, 1995, and 2000.

Study Area

The geographical study area was the state of North Dakota and respective state planning regions (Figure 1). The study population was North Dakota residents. Responses were collected so recreational needs could be identified on a state and regional basis.

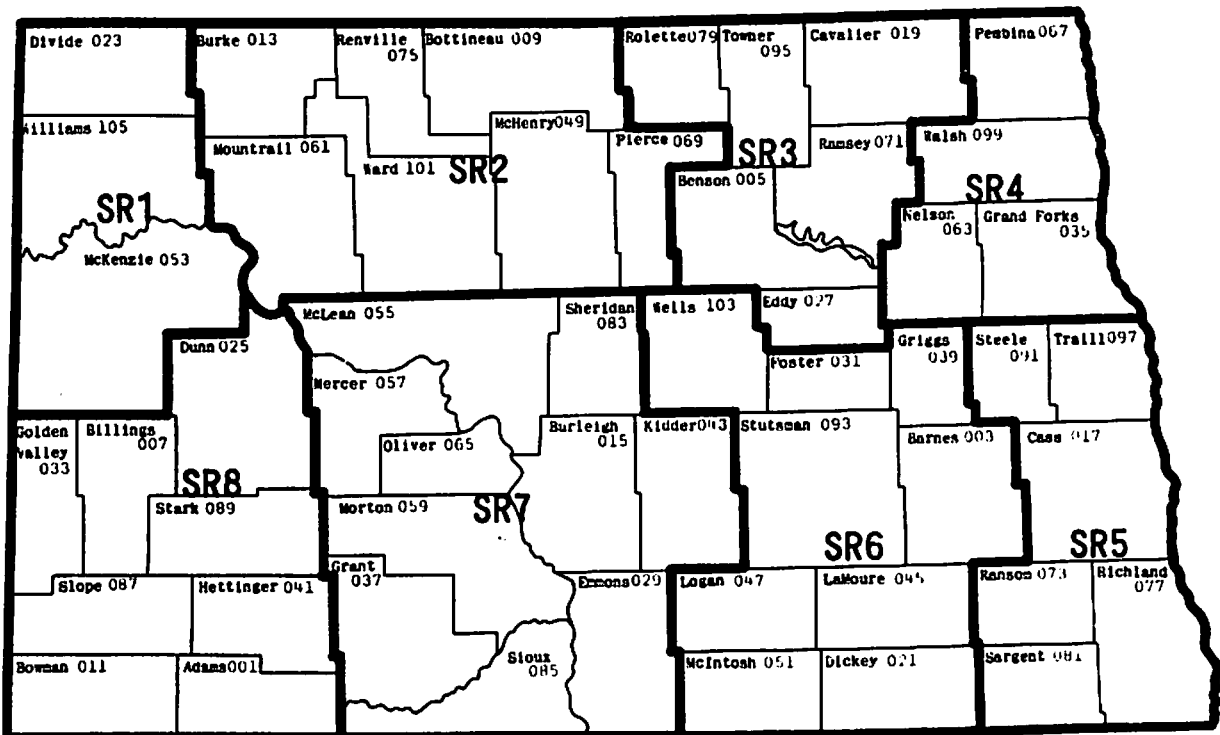


Figure 1. North Dakota State Planning Regions

Data Collection Procedure

Data were collected using a mail survey. The survey population was all North Dakota residents. Nonresidents who participate in recreational activities within the state were not included. The research population was North Dakota residents represented by 1988 passenger car vehicle registrations.

A random sample of approximately 5,000 households was used to collect information on family members regarding recreational activities they participated in, how often they participated, and where they participated. Households were randomly selected from the list of vehicle registrations. The sample included individuals 16 years of age or older. However, respondents were requested to provide information on all family members presently residing in the household.

Survey Instrument Design

Survey instruments used for the spring/summer (Appendix A) and fall/winter (Appendix B) surveys were similar to those used in previous studies (Phillips et al. 1975, Mittleider et al. 1980, and Anderson and Leitch 1985). Questionnaires were designed to collect information on the frequency and location of each household member's participation in various North Dakota outdoor recreational activities. Recreational activities included in the spring/summer questionnaire were

--ATVing,	--picnicking,
--basketball-outdoor courts,	--playground activities,
--bicycling,	--sailing,
--boating/water skiing,	--sightseeing/visiting historical places,
--camping,	--soccer,
--canoeing,	--softball/baseball,
--fishing,	--swimming-beach,
--gardening,	--swimming-outdoor pool,
--golf,	--tennis, and
--hiking,	--walking.
--horseback riding,	
--horseshoes,	
--jogging,	
--nature observation (birdwatching, nature study, etc.),	

Recreational opportunities included in the fall/winter questionnaire were

--ATVing,	--fishing-ice,
--bicycling,	--golf,
--broomball,	--hiking,
--camping,	--hockey-outdoors,
--cross-country skiing,	--horseback riding,
--downhill skiing,	--hunting-big game,
--fishing-open water,	--hunting-nongame,

--hunting--upland game,	--sledding,
--hunting--waterfowl,	--snowmobiling,
--jogging,	--soccer,
--picnicking,	--softball/baseball,
--sightseeing/visiting historical areas,	--tennis,
--skating,	--trapping, and
	--walking.

Activities were identified by the North Dakota Parks and Recreation Department and designed to reflect outdoor recreational opportunities in the state during spring/summer and fall/winter seasons.

Survey instruments were designed to collect information on socioeconomic characteristics of each responding household including

--age of family members,	--occupation,
--sex of family members,	--marital status,
--location of residence,	--education, and
--employment status,	--income.

Survey instruments included questions about the family's most important outdoor recreation activity, what the family would do if their most important activity was not available, and what recreation activities should be developed or what current activities should be expanded in the state. Households were asked if they visited a North Dakota State Park in the spring/summer of 1987 and 1988 and fall/winter of 1987-88 and 1988-89, average length of stay for each visit, and if they did not visit a state park, what was the reason.

Mailings

Six identical sets of mailing labels were printed representing the sample survey group (three for the spring/summer and three for the fall/winter). Mailing labels were sorted by ZIP code to facilitate bulk-rate mailing. One set of labels was used to address the initial mailing. Questionnaires were sent in window envelopes (Appendix A and B) printed with a return address, bulk-rate mailing permit, and an address correction request. While "address correction requested" costs 25 cents for each survey returned, it saves sending follow-up mailings to bad addresses that obviously will not elicit a response.

A cover letter was included asking residents for their cooperation and providing information about survey sponsors. A self-addressed business reply envelope was included with each questionnaire. Mailing three contained a brief reminder stating this was the last opportunity to respond (Appendix A and B).

The initial mailing for the spring/summer survey was sent on October 24, 1988. As responses were received, corresponding labels on the other two mailing label sets were removed, leaving only nonrespondents' labels. Those not responding to the initial mailing within four weeks were mailed a second questionnaire (November 21, 1988). Those not responding to the second mailing

were mailed a third questionnaire on December 20, 1988. Cumulative response rate for the spring/summer survey was 37 percent (Table 1).

The first mailing for the fall/winter survey was sent on March 28, 1989. Second and third mailings were sent on April 28 and May 26, 1989, respectively. Procedures similar to those used for the spring/summer mailings were followed. Response rate for the fall/winter survey was 32 percent (Table 2).

Nonresponse Bias

Nonresponse bias can occur when only a portion of a sample replies and when reasons for nonresponse are related to the survey topic (Kish 1967). Characteristics of nonrespondents could be significantly different from those who do respond. Wrong addresses, deaths, literacy, and loss of questionnaire in the mail are not likely sources of nonresponse bias in this study since the opinions of individuals in these categories will usually not be biased in either a positive or negative way with respect to the survey topic. Reasons for refusing to respond that may lead to nonresponse bias on this survey are strong pro or con opinions of the sponsoring agency and nonparticipation in the activities listed on the survey instrument.

TABLE 1. SPRING/SUMMER SCORP SURVEY RESPONSE, NORTH DAKOTA, 1990

Item	Ques. Mailed	Returned			Totals	Percent
		Usable Returns	Deceased	Moved out of State		
First mailing	5,027	761	12	22	810	16
Second mailing	4,349	355	5	7	385	8
Third mailing	3,857	<u>703</u>	<u>11</u>	<u>5</u>	<u>719</u>	<u>14</u>
Totals	--	1,819	28	34	1,914	38
Percent of questionnaires returned		95	1.5	1.8	1.5	--
Response rate: (1,819/4,936)						37

TABLE 2. FALL/WINTER SCORP SURVEY RESPONSE, NORTH DAKOTA, 1990

Item	Ques. Mailed	Returned					Totals	Percent
		Usable Returns	Deceased	Moved out of State	Unknown Addresses	Refused		
First mailing	5,147	864	17	7	11	16	915	18
Second mailing	4,030	254	3	5	5	8	275	5
Third mailing	3,749	<u>481</u>	<u>9</u>	<u>3</u>	<u>7</u>	<u>33</u>	<u>533</u>	<u>10</u>
Totals	--	1,599	29	15	23	57	1,723	33
Percent of questionnaires returned		93.0	1.7	0.9	1.3	3.3	--	--
Response rate: (1,599/5,023)								32

No effort was made to mitigate potential effects of nonresponse bias other than using multiple mailings. Previous SCORPs and other studies of recreation participation did not correct for potential nonresponse bias. Therefore, comparisons with previous studies would be more consistent if underlying assumptions remained constant.

Data Collection Problems and Recommendations

Mailing labels supplied by the North Dakota State Motor Vehicle Department included a number of duplicate names along with business addresses. Duplicate names and businesses reduced the initial set of 5,500 labels to 5,027 (a reduction of 9 percent). Placing future mailing label sets from the Motor Vehicle Department on a disk rather than on mailing labels directly would facilitate screening names and addresses before the mailing labels are printed. Duplicate names and businesses could be eliminated reducing the cost of producing mailing label lists.

The mailing list provided by the Motor Vehicle Department may not have represented the general North Dakota population. Survey returns indicated that over 80 percent of the respondents to the spring/summer and fall/winter surveys lived in rural areas of the state. The 1980 Census estimated that 52 percent of the state's residents reside in rural areas (U.S. Department of Commerce 1980). As a result of disproportionate sampling, survey returns were weighted by resident location in order to properly characterize a statewide response (see section entitled "Weighting" on 8 for further details).

Generally, farmers and ranchers have more vehicles than urban people. Therefore, farm and ranch families may have a somewhat greater probability of being selected to participate in the survey than urban families. Future mailing lists should be constructed so that proper proportions of urban and rural responses can be achieved without using a weighting procedure.

The "address correction requested" on the window envelope should be changed to "forwarding and return postage guaranteed, address correction requested." The "address correction requested" notation requires the postal service to return mail, at a cost of 25 cents, if the address is not exact. "Forwarding and return postage guaranteed, address correction requested" requires the postal service to forward the mail even if the address is not exact. In turn, the postal service returns a postcard with the correct address at a cost of 30 cents. This saves 20 cents for each bad address since it costs 25 cents to receive and 25 cents to mail a bad address compared with 30 cents for the postcard.

The length and complexity of the survey instrument resulted in many respondents failing to completely or accurately respond to the questionnaire (Kerestes and Leitch 1983). (Survey length and complexity may also have contributed to lack-luster response rates.) Some respondents were not willing to identify their sex and/or age. Without this information, projections of future recreation needs using these responses could not be made. Respondents also experienced problems or reluctance trying to identify where they participated in recreational activities and how many days they participated.

Future survey instruments should be shorter in length and less complicated. A shorter survey instrument could be achieved by dividing the number of activities in half and conducting two surveys instead of one. Half of the sample would respond to one portion of the activities while the other half of the sample would respond to the remaining activities. This would initially require a somewhat larger sample size, however, a shorter, less complicated questionnaire should improve response rates and provide more reliable projection estimates.

Analytical Procedure

Two methods have been used in the past to project recreation participation in North Dakota. The statistical approach, using socioeconomic characteristics to explain and predict participation, was used in the 1975 (Phillips et al. 1975) and 1980 (Mittleider et al. 1980) SCORPs. This approach assumes relationships between socioeconomic variables and participation rates are independent of time. Participation rates and days of participation are determined by respondent age, education, occupation, vacation days, income, and residence.

An alternative method, the age/sex cohort approach, was used in the 1980 and 1985 (Anderson and Leitch 1985) SCORPs. This approach assumes a person's age and sex can be used to estimate participation in outdoor recreation activities. The age/sex cohort method assumes relationships between age/sex and participation rates or days of participation will be the same over time. As long as a person remains in a particular age category, their participation

is assumed constant. Changes in participation rates and days of participation for each recreation activity can be projected for targeted years by shifts in population from one age category to another and changes in the size of the population.

The age/sex cohort approach was used in this study. Age and sex were important factors in explaining recreation behavior. Projections with this method appear to be relatively precise, simple to apply, and less costly than the statistical approach.

Weighting

Over 80 percent of the respondents from the spring/summer and fall/winter surveys resided in rural areas of the state (Table 3). The Bureau of the Census estimated 52 percent of North Dakota's population resided in rural areas in 1980 (U.S. Dept. of Commerce 1980). (The Census defines those people living in communities of less than 2,500 as rural.) Consequently, samples could over-state responses from rural areas while under-estimating responses from urban areas in the state.

Mean days of participation were compared for each activity between urban and rural respondents. Urban respondents were identified as those living in cities with populations greater than or equal to 2,500. Respondents living in communities with populations less than 2,500, on a farm or ranch, or rural nonfarm were considered rural. Significant differences in mean days of participation were found between the two groups (urban and rural) in eleven (46 percent) of the spring/summer recreational activities (Table 4). (Mean days of participation among urban and rural respondents were tested for significant differences using a Tukey Test, based on a 90 percent confidence level.) Significant differences were found in mean days of participation

TABLE 3. PERCENTAGE OF NORTH DAKOTA POPULATION AND PERCENTAGE OF RESPONSES FROM SPRING/SUMMER AND FALL/WINTER SCORP SURVEYS BY RESIDENT POPULATION CATEGORY, NORTH DAKOTA, 1990

Resident Population Category	1980	Spring/Summer	Fall/Winter
	Census	Survey	Survey
	----- Percent -----		
More than 50,000	8	3	3
2,500 - 50,000	40	11	13
Less than 2,500	23	19	20
Rural	29	67	64

TABLE 4. MEAN DAYS OF PARTICIPATION FOR URBAN AND RURAL RESPONDENTS, SPRING/SUMMER ACTIVITIES, SCORP, NORTH DAKOTA, 1990

Activity	Urban	Rural	Significant Difference ^a
	----- Days -----		
ATVing	7.6	24.0	Y
Basketball	17.1	17.8	N
Bicycling	30.3	27.7	N
Boating	8.1	7.8	N
Camping	9.1	5.8	Y
Canoeing	3.4	2.7	N
Fishing	10.9	7.9	Y
Gardening	37.5	31.0	Y
Golfing	19.9	12.9	Y
Hiking	16.0	8.5	Y
Horseback riding	16.1	15.8	N
Horseshoes	4.6	6.4	N
Jogging	31.2	25.1	N
Nature observation	25.7	26.4	N
Picnicking	3.9	4.7	Y
Playground activities	13.7	11.0	N
Sailing	4.3	3.1	N
Sightseeing/visiting historical places	5.0	3.6	Y
Soccer	11.2	10.2	N
Softball/baseball	17.0	16.6	N
Swimming-Beach	7.9	7.1	N
Swimming-Outdoor Pool	10.9	14.3	Y
Tennis	5.6	9.8	Y
Walking	28.8	35.0	Y

^aBased on a Tukey Test at 90 percent confidence level. A "Y" implies yes, there is a significant difference, while a "n" implies no, there is not a significant difference.

between urban and rural responses in nine (33 percent) of the fall/winter activities (Table 5). Significant differences in mean days of participation between urban and rural respondents suggest that spring/summer and fall/winter samples should be weighted to more accurately represent recreation participation within the state.

Weight factors for the spring/summer survey were

<u>Resident Population Category</u>	<u>Weight Factor</u>	<u>Sample Responses</u>
More than 50,000	5.4	56
2,500 - 50,000	8.2	186
Less than 2,500	2.8	310
Farm or ranch and rural nonfarm	1.0	1,100

Weight factors for the fall/winter survey were

<u>Resident Population Category</u>	<u>Weight Factor</u>	<u>Sample Responses</u>
More than 50,000	5.9	43
2,500 - 50,000	7.1	178
Less than 2,500	2.5	289
Farm or ranch and rural nonfarm	1.0	919

Weight factors were determined by dividing the census percentage of rural residents (Table 3) (excluding residents who live in communities with populations less than 2,500) by the number of rural sample responses to estimate total number of responses in the weighted sample (ie., $1,100 \div .29 = 3,793$ for the spring/summer survey and $919 \div .29 = 3,169$ for the fall/winter survey). The total number of responses from the weighted sample was multiplied by the census percentage of residents living in each resident category (Table 3) to estimate weighted sample sizes for each resident population category. The weight factor was determined by dividing the weighted sample size by the actual sample size among respective resident population categories.

The weighting procedure was used to adjust both samples to more accurately represent urban/rural demographic characteristics of the state. A secondary benefit of weighting was that the percentage of responses from the weighted samples among state planning regions more closely represented census estimates of the population among state planning regions (Table 6). In addition, the distribution of responses for weighted samples was more representative of the state's population by sex and age group than unweighted samples (Table 7).

Participation Projections

Projections were estimated for total participants and total days of participation by age and sex for each region and the state by region of residence and region of occurrence for target years 1990, 1995 and 2000.

TABLE 5. MEAN DAYS OF PARTICIPATION FOR URBAN AND RURAL RESPONDENTS, FALL/WINTER ACTIVITIES, SCORP, NORTH DAKOTA, 1990

Activity	Urban	Rural	Significant Difference ^a
	----- Days -----		
ATVing	11.3	16.8	N
Bicycling	17.4	20.7	N
Broomball	11.5	15.8	N
Camping	6.6	5.5	N
Cross-country skiing	4.4	6.7	N
Downhill skiing	4.7	3.1	N
Fishing-open water	10.5	6.1	Y
Fishing-ice	9.4	6.8	N
Golfing	15.0	8.5	Y
Hiking	12.3	18.4	N
Hockey-outdoors	14.0	16.4	N
Horseback riding	5.4	9.0	N
Hunting-big game	4.6	6.2	Y
Hunting-nongame	7.6	7.2	N
Hunting-upland game	5.8	6.5	N
Hunting-waterfowl	6.1	7.4	N
Jogging	24.0	24.9	N
Picnicking	3.9	4.3	N
Sightseeing/visiting historical places	4.0	3.5	N
Skating	6.1	3.9	Y
Sledding	3.7	6.8	Y
Snowmobiling	4.5	9.8	Y
Soccer	9.7	17.7	N
Softball/baseball	11.1	11.2	N
Tennis	12.6	7.1	Y
Trapping	10.0	23.2	Y
Walking	30.8	39.9	Y

^aBased on a Tukey Test at 90 percent confidence level. A "Y" implies, yes, there is a significant difference, while a "n" implies no, there is not a significant difference.

TABLE 6. PERCENTAGE OF NORTH DAKOTA POPULATION AND PERCENTAGE OF RESPONSES FROM SPRING/SUMMER AND FALL/WINTER SURVEYS BY STATE PLANNING REGION

State Planning Region	1980 Census	Spring/Summer Survey		Fall/Winter Survey	
		Actual	Weighted	Actual	Weighted
-----Percent-----					
1	5.5	5.3	6.8	5.1	5.5
2	11.7	17.1	18.2	16.9	18.4
3	6.1	12.0	8.1	12.1	9.1
4	13.4	10.7	11.3	12.4	11.2
5	22.3	12.7	11.6	11.8	10.8
6	9.5	17.8	15.9	17.8	17.7
7	24.6	17.1	20.4	16.6	20.5
8	7.0	7.3	7.7	7.2	6.8

TABLE 7. DISTRIBUTION OF SPRING/SUMMER AND FALL/WINTER SAMPLES AND NORTH DAKOTA POPULATION BY AGE AND SEX

Sex	Group	1980 Census	Spring/Summer		Fall/Winter	
			Sample	Weighted	Sample	Weighted
----- Percent -----						
Males	less than 20	29.5	27.2	28.5	24.9	25.1
	20 to 44	46.3	26.5	31.2	24.2	26.6
	45 to 64	14.8	29.0	23.8	28.6	26.5
	65 and over	<u>9.4</u>	<u>17.3</u>	<u>16.5</u>	<u>22.3</u>	<u>21.8</u>
	Totals	100.0	100.0	100.0	100.0	100.0
Females	less than 20	30.1	26.4	29.7	26.2	26.6
	20 to 44	40.5	26.4	30.8	22.6	24.7
	45 to 64	15.4	32.9	24.3	32.3	29.3
	65 and over	<u>14.0</u>	<u>14.3</u>	<u>15.2</u>	<u>18.9</u>	<u>19.5</u>
	Totals	100.0	100.0	100.0	100.0	100.0

Region of residence represents participation in the state planning region in which respondents actually live. Region of occurrence represents participation in the state planning region in which respondents participated in the activity.

Responses were aggregated by age and sex. Age categories were

- less than 20 years of age,
- 20 to 44 years of age,
- 45 to 64 years of age, and
- over 65 years of age.

Age categories correspond to those used in previous SCORP's. Responses were aggregated by sex and age to facilitate using the age/sex cohort projection method.

North Dakota's population in 1988 was estimated to be 667,093 (Bureau of the Census 1989). The state's population in 1990 was assumed to be the same as in 1988 since reliable estimates of population changes between 1988 and 1990 were not available. Population estimates for 1990 and population projections for 1995 and 2000 by age/sex among state planning regions and for the state were based on a simple average of demographic projections assuming a zero migration rate and the migration rate which occurred over the ten-year period from 1970 through 1980 for targeted years (Coon et al. 1988). The 1990 average population projection (the simple average population projection assuming zero and 1970-80 migration rates) by age/sex among state planning regions was used to allocate 1988 census population estimates providing a 1990 base population for each region by age/sex. Relative changes among 1990, 1995, and 2000 average populations were used to project the 1990 base population to 1995 and 2000 by age/sex among state planning regions and for the state.

North Dakota's population is projected to increase to 749,441 (12 percent) by the year 2000 (Appendix C). Populations in state planning regions 1, 3, 6, and 8 are projected to grow only slightly while moderate population growth is anticipated in regions 5 and 7. State planning regions 2 and 4 are projected to decrease somewhat in population over the ten-year period.

Region of Residence. Projected total number of participants in each state planning region for targeted years was estimated by multiplying the percentage of each sex/age category participating by the distribution of the population in the target year. Projected total days of participation were determined by multiplying the projected total number of participants by the mean number of days of participation.

Table 8, which contains Region 1 participation estimates for ATVing in 1990, is included to help describe the projection procedure. "Distribution of Responses, Sample" represents the number of survey respondents from Region 1 by age and sex. The number of actual ATVing participants by age and sex and region of residence is represented by the "Distribution of Participants." The "Proportion of Class Participating" by age/sex category was estimated by

TABLE 8. PROJECTED TOTAL NUMBER OF PARTICIPANTS AND TOTAL DAYS OF PARTICIPATION FOR ATVING, REGION 1, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990

Sex	Age	Distribution of Responses, Sample	Distribution of Participants	Distribution of Population 1990	Proportion of Class Participating in 1990	Total Number of Participants in 1990	Mean Days of Participation in 1990	Total Days of Participation in 1990
Males	below 20	146	41	5,934	0.2808	1,666	11.2	18,664
	20 to 44	93	29	7,707	0.3118	2,403	6.2	14,901
	45 to 64	69	5	2,669	0.0725	193	28.8	5,570
	65 and over	<u>50</u>	<u>1</u>	<u>1,729</u>	0.0200	<u>35</u>	3.0	<u>104</u>
	Totals	358	76	16,039		4,298		39,238
Females	below 20	73	10	5,569	0.1370	763	14.7	11,214
	20 to 44	80	9	5,747	0.1125	646	4.7	3,039
	45 to 64	64	2	2,517	0.0313	79	53.0	4,169
	65 and over	<u>39</u>	<u>2</u>	<u>2,204</u>	0.0513	<u>113</u>	10.0	<u>1,130</u>
	Totals	256	23	16,037		1,601		19,552
Grand Totals						5,899		58,790

dividing the "Distribution of Participants" by the "Distribution of Responses, Sample." "Total Number of Participants" was estimated by multiplying the "Proportion of the Class Participating" by the "Distribution of the Population" in the state planning region for the target year. "Total Days of Participation" in the target year was calculated by multiplying the "Mean Days of Participation" by the "Total Number of Participants." Projections of the total number of participants and total days of participation identifies outdoor recreation demands or needs.

Region of Occurrence. The procedure used to project by region of occurrence was similar to the one used to project by region of residence presented above. Major differences were that the "Distribution of Participants" represents the number of respondents who participated in a specific activity by the region in which participation occurred (Table 9). "Distribution of Responses, Sample" reflects all respondents (rather than responses from a particular region). "Distribution of Population in 1990" represents the state population for the targeted year. Projections of total participants and total days of participation represent recreation demands of the state planning region in which participation occurred.

Outdoor Recreation Needs

Households were asked to list recreational activities they would like to see developed or expanded in the state and to identify recreational activities they participated in outside North Dakota. Responses represent state recreational needs. Responses were examined by state planning region to identify regional recreational concerns.

Results

Results are presented for both the spring/summer and fall/winter surveys. Results are divided into four general areas including:

- respondent characteristics,
- participation,
- recreational needs, and
- state park use.

Responses from the spring/summer and fall/winter surveys were kept separate so relevant information from each would not be lost through aggregation.

Spring/Summer Survey

Respondent Characteristics. The average age of the head of the household responding was 53 years with 94 percent being males (Table 10). Average household size was three. Sixty-seven percent of the household heads were employed full time. Over 33 percent of the responding households earned more than \$40,000 in total income. Farmer or rancher and housewife were the most common occupations reported by respondents (Table 11).

TABLE 9. PROJECTED TOTAL NUMBER OF PARTICIPANTS AND TOTAL DAYS OF PARTICIPATION FOR ATVING OCCURRING IN REGION 1, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990

Sex	Age	Distribution of Responses, Sample	Distribution of Participants	Distribution of Population 1990	Proportion of Class Participating in 1990	Total Number of Participants in 1990	Mean Days of Participation in 1990	Total Days of Participation in 1990
Males	below 20	1,328	62	104,473	0.0467	4,878	8.0	39,256
	20 to 44	1,400	37	148,537	0.0264	3,926	5.6	21,856
	45 to 64	1,236	13	52,453	0.0105	552	11.1	6,111
	65 and over	<u>787</u>	<u>1</u>	<u>34,137</u>	<u>0.0013</u>	<u>43</u>	<u>3.0</u>	<u>130</u>
	Totals	4,751	113	339,600		9,398		67,353
Females	below 20	1,083	18	99,238	0.0166	1,649	9.0	14,844
	20 to 44	1,249	9	129,055	0.0072	930	4.8	4,443
	45 to 64	1,171	11	52,125	0.0094	490	11.2	5,475
	65 and over	<u>619</u>	<u>2</u>	<u>47,074</u>	<u>0.0032</u>	<u>152</u>	<u>4.0</u>	<u>608</u>
	Totals	4,122	40	327,492		3,221		25,371
Grand Totals						12,619		92,724

TABLE 10. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDING HOUSEHOLDS,
SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990

Characteristics	Group	Percent
Gender of Head of Household	Male	93.9
	Female	6.1
Age of Head of Household (years)	Less than 20	0.4
	20 to 44	33.4
	45 to 64	38.4
	65 and over	27.8
	Mean = 53	
Education Level of Head of Household (years)	8 or less	16.7
	9 through 12	37.7
	13 through 14	24.9
	15 through 16	14.1
	17 and over	6.7
Mean = 13		
Marital Status of Head of Household	Married	84.1
	Single	15.9
Household Size (people)	1	13.0
	2	42.6
	3	15.9
	4	16.7
	5	9.0
	6 or more	2.9
	Mean = 3	
Residence Location	City over 50,000	8.0
	2,500 to 50,000	40.7
	Under 2,500	22.5
	Farm or ranch	26.1
	Rural nonfarm	2.7
Employment Status of Head of Household	Employed full time	67.0
	Employed part time	5.3
	Unemployed	1.5
	Retired	26.2
Total Household Income	Less than \$10,000	9.8
	\$10,000 to \$14,999	9.8
	\$15,000 to \$19,999	10.6
	\$20,000 to \$29,999	20.6
	\$30,000 to \$39,999	16.0
	\$40,000 and over	33.2

TABLE 11. OCCUPATIONS OF EMPLOYED
HOUSEHOLD MEMBERS, SPRING/SUMMER
SCORP SURVEY, NORTH DAKOTA, 1990

Occupation	Percent
Professional	8
Executive, manager, public official	5
Craftsman	5
Clerk, secretary	6
Farmer, rancher	23
Sales	3
Laborer	3
Truck, bus driver, other operative	3
Services	5
Housewife	23
Armed Forces	1
Student	10
Other	5
Total	100

Participation. Participation estimates were based on the percentage of respondents participating in outdoor recreation activities. Activities respondents participated in often were picnicking (45 percent) followed by fishing (39 percent) and gardening (35 percent) (Table 12). Less common activities included canoeing, sailing, soccer, and tennis (5 percent or less).

Participation was also represented by the number of days of participation among recreational activities. Respondents spent 35 days gardening, 32 days recreational walking, and 31 days bicycling, on average, in the state (Table 13). Responding participants in canoeing, picnicking, sailing, and sightseeing recreational activities spent less than 5 days participating in each.

Projections of the number of participants in 1990, 1995, and 2000 for the state indicated picnicking will have over 348,000 participants by the year 2000 (Table 14). (The absolute numbers for each activity should only be used as a gross estimate of the number of participants. The important aspect is the number of participants among activities.) Generally, the number of participants is projected to increase for each Spring/Summer activity within the state. Important activities based on number of participants were fishing, gardening, and picnicking. Less important activities included canoeing, sailing, and soccer. Projections of the number of participants from each state planning region are provided in Appendix D.

TABLE 12. PERCENTAGE OF RESPONDENTS PARTICIPATING IN OUTDOOR RECREATION,
BY REGION AND FOR THE STATE, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990

Activities	State Planning Region								State
	1	2	3	4	5	6	7	8	
-----Percent-----									
ATVing	16	10	14	8	9	6	11	15	10
Basketball-outdoor courts	16	8	7	14	9	9	11	11	10
Bicycling	25	20	23	32	27	29	26	30	26
Boating/water skiing	46	31	23	14	12	25	34	30	27
Camping	46	31	17	29	6	34	40	39	31
Canoeing	8	7	4	3	2	3	4	2	4
Fishing	46	42	35	26	18	35	57	47	39
Gardening	31	34	37	35	36	33	37	32	35
Golfing	6	12	7	13	16	12	8	11	11
Hiking	3	16	8	19	9	13	11	12	12
Horseback riding	5	11	5	4	5	4	7	11	7
Horseshoes	8	5	5	9	3	7	10	8	7
Jogging	7	6	7	2	9	5	7	5	6
Nature observation	4	13	15	12	13	13	12	11	12
Picnicking	34	40	39	51	36	57	49	44	45
Playground activities	15	18	14	14	20	34	21	18	20
Sailing	0	1	2	0	0	0	2	3	1
Sightseeing/visiting historical places	38	33	25	29	20	29	35	43	31
Soccer	0	1	1	2	2	5	5	1	3
Softball/baseball	13	10	12	13	14	20	11	20	14
Swim-beach	33	27	21	25	5	22	31	26	24
Swim- outdoor pool	8	18	18	21	19	22	16	23	18
Tennis	4	6	2	5	7	3	6	6	5
Walking	26	34	32	33	29	36	34	29	33

TABLE 13. AVERAGE NUMBER OF DAYS OF ACTIVITY PARTICIPATION FOR EACH RESPONDING PARTICIPANT, BY REGION AND FOR THE STATE, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990

Activities	State Planning Region								State
	1	2	3	4	5	6	7	8	
	-----Days-----								
ATVing	11	22	12	26	13	54	15	10	19
Basketball-outdoor courts	16	16	17	16	23	16	23	14	18
Bicycling	37	32	29	26	27	33	32	33	31
Boating/water skiing	6	10	14	8	8	5	9	5	8
Camping	6	12	6	6	5	6	9	6	7
Canoeing	2	2	3	2	2	2	4	21	3
Fishing	11	14	7	6	5	8	11	8	8
Gardening	27	37	38	21	24	43	45	25	35
Golfing	11	16	18	22	12	20	19	15	17
Hiking	9	7	22	7	20	13	20	8	13
Horseback riding	5	24	16	6	5	11	9	19	15
Horseshoes	3	4	10	11	3	3	4	6	5
Jogging	22	20	26	17	16	23	23	23	21
Nature Observation	15	26	17	11	22	30	40	15	25
Picnicking	3	4	4	4	3	4	5	4	4
Playground activities	10	9	9	9	22	12	14	14	13
Sailing	0	5	1	2	0	0	2	7	4
Sightseeing/visiting historical places	4	3	4	4	9	4	5	3	4
Soccer	0	4	1	12	9	10	13	27	11
Softball/baseball	18	14	16	32	13	14	15	17	17
Swim-beach	6	11	10	8	9	5	8	3	8
Swim-outdoor pool	19	11	13	15	9	11	15	16	13
Tennis	16	8	7	6	5	9	6	11	7
Walking	50	28	36	29	30	31	31	35	32

TABLE 14. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN NORTH DAKOTA,
BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	73,954	78,178	81,857
Basketball-outdoor courts	78,900	83,114	85,443
Bicycling	191,420	202,220	210,507
Boating/water skiing	196,802	207,995	218,008
Camping	222,072	234,783	246,201
Canoeing	32,052	33,574	34,598
Fishing	274,283	290,704	306,367
Gardening	225,494	240,005	257,346
Golfing	78,518	83,246	88,523
Hiking	81,327	86,659	92,634
Horseback riding	51,351	54,139	56,341
Horseshoes	55,655	58,569	61,085
Jogging	45,888	48,336	50,223
Nature observation	78,159	83,351	88,967
Picnicking	308,657	328,147	348,032
Playground activities	156,192	164,266	168,735
Sailing	7,012	7,316	7,537
Sightseeing/visiting historical places	211,125	224,779	239,280
Soccer	19,448	20,489	20,910
Softball	106,931	112,563	116,359
Swim-beach	187,227	196,566	202,199
Swim-outdoor pool	140,806	148,130	151,989
Tennis	41,205	43,180	44,130
Walking	214,289	227,790	242,736

North Dakota residents will spend over 8.8 million days gardening in the state by the year 2000 (Table 15). Residents will spend nearly 7.2 million days recreational walking. Common recreational activities based on total days of participation were bicycling, gardening, and walking. The least common activities were canoeing, sailing, and soccer. Projections of total days of participation for each state planning region by region of residence are provided in Appendix E.

Projections of the total days of participation occurring in each state planning region and in the state are shown in Appendix F. The three most important and least important outdoor recreational activities based on total days of participation by region of occurrence were:

<u>Region</u>	<u>Most Important</u>	<u>Least Important</u>
1	Bicycling Gardening Walking	Horseshoes Sailing Soccer
2	Bicycling Gardening Walking	Canoeing Sailing Soccer
3	Bicycling Gardening Walking	Canoeing Sailing Soccer
4	Bicycling Gardening Walking	Canoeing Horseback riding Soccer
5	Bicycling Gardening Walking	Canoeing Horseshoes Sailing
6	Bicycling Gardening Walking	Canoeing Horseshoes Sailing
7	Bicycling Gardening Walking	Canoeing Sailing Tennis
8	Bicycling Gardening Walking	Canoeing Sailing Soccer

Ranking outdoor recreational activities by annual per capita days of participation in each region and for the state showed bicycling, gardening, and walking were the three most common activities pursued by North Dakota residents (Table 16). Per capita days of participation were estimated by dividing total days of participation (by region of residence) by projected

TABLE 15. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM NORTH DAKOTA, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	1,430,347	1,509,592	1,568,490
Basketball-outdoor courts	1,411,262	1,488,403	1,521,698
Bicycling	6,024,072	6,364,569	6,561,222
Boating/water skiing	1,654,687	1,744,148	1,823,134
Camping	1,632,065	1,734,973	1,845,397
Canoeing	100,091	104,359	106,466
Fishing	2,664,785	2,826,441	2,993,773
Gardening	7,734,711	8,211,652	8,788,131
Golfing	1,265,329	1,352,699	1,468,441
Hiking	888,894	957,605	1,050,798
Horseback riding	762,204	803,455	831,197
Horseshoes	284,211	299,415	312,684
Jogging	976,499	1,026,426	1,066,612
Nature Observation	1,834,245	1,950,374	2,071,436
Picnicking	1,292,181	1,374,396	1,459,051
Playground activities	1,988,225	2,095,014	2,138,648
Sailing	24,406	25,798	27,293
Sightseeing/visiting historical places	919,339	973,492	1,025,996
Soccer	212,516	224,148	228,063
Softball	1,741,521	1,834,931	1,886,451
Swim-beach	1,406,572	1,474,909	1,515,181
Swim-outdoor pool	1,731,944	1,831,856	1,880,203
Tennis	279,071	293,992	301,795
Walking	6,321,584	6,724,102	7,197,386

TABLE 16. RANKING OF OUTDOOR RECREATION ACTIVITIES BASED ON ANNUAL PER CAPITA DAYS OF PARTICIPATION (IN PARENTHESES), BY REGION AND FOR THE STATE, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990

Recreational Activities	State Planning Region					
	1	2	3	4	5	6
Gardening	1 (11.595)	2 (9.540)	1 (12.262)	1 (11.888)	2 (8.880)	1 (12.670)
Walking	2 (9.476)	1 (13.488)	2 (8.197)	2 (9.409)	1 (9.673)	2 (10.925)
Bicycling	3 (9.030)	3 (8.840)	3 (8.295)	1 (8.772)	3 (8.855)	3 (10.338)
Fishing	4 (3.995)	4 (5.615)	7 (2.341)	14 (1.316)	16 (1.001)	8 (2.714)
Playground activities	5 (2.980)	13 (1.672)	12 (1.914)	15 (1.516)	13 (1.338)	4 (4.478)
Nature observation	6 (2.750)	18 (0.393)	8 (3.460)	8 (2.240)	12 (1.545)	7 (3.098)
Softball/baseball	7 (2.611)	9 (1.897)	14 (1.724)	9 (2.190)	4 (4.782)	6 (3.237)
Swim-outdoor pool	8 (2.596)	14 (1.558)	10 (2.504)	5 (3.236)	5 (3.010)	10 (1.872)
Boating/water skiing	9 (2.480)	5 (2.978)	6 (3.776)	4 (4.009)	18 (0.907)	15 (1.039)
Camping	10 (2.447)	6 (2.785)	5 (3.970)	19 (0.898)	11 (1.801)	19 (0.291)
Basketball-outdoor courts	11 (2.161)	7 (2.685)	16 (1.558)	13 (1.701)	6 (2.424)	8 (2.092)
ATVing	12 (2.144)	11 (1.725)	11 (2.409)	12 (1.709)	10 (2.050)	13 (1.339)
Swim-beach	13 (2.109)	8 (2.386)	7 (3.548)	6 (2.533)	8 (2.181)	17 (0.500)
Picnicking	14 (1.937)	15 (1.075)	13 (1.872)	14 (1.535)	9 (2.178)	11 (2.431)
Golfing	15 (1.897)	17 (0.649)	15 (1.656)	16 (1.192)	7 (2.190)	9 (1.947)
Jogging	16 (1.464)	10 (1.865)	17 (1.195)	10 (2.029)	19 (0.520)	11 (1.845)
Sightseeing/visiting historical places	17 (1.378)	12 (1.698)	19 (0.869)	18 (0.937)	17 (1.081)	6 (2.336)
Hiking	18 (1.332)	20 (0.240)	18 (1.153)	11 (1.815)	16 (1.156)	12 (1.593)
Horseback riding	19 (1.143)	19 (0.284)	9 (3.459)	17 (1.048)	21 (0.252)	20 (0.279)
Horsehoes	20 (0.426)	21 (0.191)	21 (0.254)	20 (0.586)	15 (1.176)	22 (0.112)
Tennis	21 (0.418)	16 (0.750)	20 (0.579)	21 (0.212)	20 (0.335)	18 (0.389)
Soccer	22 (0.319)	23 (0.000)	23 (0.039)	24 (0.004)	22 (0.158)	21 (0.204)
Canoeing	23 (0.150)	22 (0.186)	22 (0.189)	22 (0.127)	23 (0.043)	23 (0.070)
Sailing	24 (0.037)	24 (0.000)	24 (0.030)	23 (0.025)	24 (0.003)	24 (0.000)

1990 population for each state planning region and for the state. Other common recreational activities participated in by North Dakota residents include fishing, playground activities, and nature observation. Canoeing, sailing, and soccer were the least common recreational activities. However, differences existed among state planning regions.

The most important outdoor recreational activity reported by respondent families among state planning regions was camping or fishing (Table 17). Gardening and walking were also important activities indicated by respondents.

The majority of respondents indicated that they would leave the state to pursue their most important recreational activities if their most important recreational activity was not available in the state (Table 18). This was especially true in state planning regions 1, 4, 5, 7 and 8 where over 40 percent of the respondents said they would leave the state. Other responses included travel more, stay home, and work and save the money.

Recreational Needs. Recreational needs of the state were identified in two ways. The first was by asking respondents what recreational activities they would like to see developed or expanded in the state. The second was by examining recreational activities respondents participated in outside of the state.

Respondent families indicated they would like to see boating, canoeing, and/or fishing opportunities and facilities developed or expanded in the state (Table 19). Respondents wanted additional campgrounds and picnic areas and nature, walking, and cross country skiing trails. Thirteen percent and eleven percent of the respondents from regions 1 and 5, respectively, wanted sporting areas developed or expanded. Ten percent of the respondent families from region 3 thought no recreational facilities or activities should be expanded in the state.

Sixteen percent of the respondent families went sightseeing/visiting historical places and fishing in states other than North Dakota (Table 20). Over 25 percent of the respondent families in state planning regions 4 and 5 fished out-of-state. Generally, respondents from region 5 participated in recreational activities outside of North Dakota more often than respondents in any other state planning region.

State Park Use. Each family was asked if they visited a North Dakota state park during 1987 and/or 1988. Results indicated that the majority of families responding did visit a state park (Table 21). Generally, more respondents visited a North Dakota state park in 1987 than in 1988. Less than 50 percent of the respondents from planning region 5 visited a state park, while 50 percent or more of the respondents from the remaining regions did visit a state park.

The majority of respondents who visited a state park stayed at least 1 day (Table 22). Over 80 percent of the respondents visiting a state park stayed one or two days on average. Nineteen percent of the respondents from state planning region 2 spent an average of 3 days. Nine percent of the

TABLE 17. RESPONDING FAMILIES' MOST IMPORTANT
OUTDOOR RECREATIONAL ACTIVITIES, BY REGION AND
FOR THE STATE, SPRING/SUMMER SCORP SURVEY,
NORTH DAKOTA, 1990

State Planning Region	Activities	Percent
1	Fishing	28
	Camping	20
	Camping/Fishing	8
2	Camping	14
	Fishing	10
	Gardening	7
3	Fishing	16
	Walking	12
	Camping	10
4	Camping	18
	Fishing	10
	Gardening	9
5	Fishing	13
	Walking	10
	Camping	10
6	Camping	13
	Walking	13
	Fishing	11
7	Fishing	21
	Camping	16
	Walking	8
8	Camping	18
	Fishing	13
	Camping/Fishing	11
State	Fishing	15
	Camping	15
	Walking	8

TABLE 18. WHAT RESPONDING FAMILIES WOULD DO WITH THE ADDITIONAL TIME AND MONEY IF THEIR MOST IMPORTANT RECREATIONAL ACTIVITY WAS NOT AVAILABLE, BY REGION AND FOR THE STATE, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990

State Planning Region	Responses	Percent
1	Leave the state	63
	Fishing/boating	6
	Work more and save money	6
2	Leave the state	34
	Travel	15
	Work more and save money	10
3	Leave the state	38
	Stay home	9
	Athletics	7
4	Leave the state	43
	Travel	20
	Camping	7
5	Leave the state	48
	Work more and save money	7
	Pursue other activities	6
6	Leave the state	26
	Camping	16
	Stay home	8
7	Leave the state	47
	Travel	12
	Work more and save money	11
8	Leave the state	45
	Travel	23
	Work more and save money	13
State	Leave the state	41
	Travel	11
	Work more and save money	8

TABLE 19. NEW RECREATION AREAS THE RESPONDING HOUSEHOLDS
WOULD LIKE TO SEE DEVELOPED OR EXPANDED, BY REGION AND
FOR THE STATE, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA,
1990

State Planning Region	Responses	Percent
1	Boating, canoeing, fishing, campgrounds, picnic areas	26
	Boating, canoeing, fishing	22
	Sporting areas	13
2	Boating, canoeing, fishing	17
	Boating, canoeing, fishing, campgrounds, picnic areas	10
	Trails-nature, walking, etc.	10
3	Boating, canoeing, fishing	22
	None	10
	Boating, canoeing, fishing, campgrounds, picnic areas	8
4	Boating, canoeing, fishing	17
	Campgrounds, picnic areas	15
	Trails-nature, walking, etc.	10
5	Sporting Areas	11
	Campgrounds, picnic areas	11
	Boating, canoeing, fishing	11
6	Boating, canoeing, fishing	24
	Boating, canoeing, fishing, campgrounds, picnic areas	8
	Trails-nature, walking, etc.	8
7	Boating, canoeing, fishing	24
	Boating, canoeing, fishing, campgrounds, picnic areas	12
	Campgrounds, picnic areas	11
8	Boating, canoeing, fishing	25
	Boating, canoeing, fishing, campgrounds, picnic areas	17
	Campgrounds, picnic areas	16
State	Boating, canoeing, fishing	20
	Boating, canoeing, fishing, campgrounds, picnic areas	10
	Campgrounds, picnic areas	9

TABLE 20. PERCENTAGE OF RESPONDENT FAMILIES PARTICIPATING IN OUT-OF-STATE ACTIVITIES, BY REGION AND FOR THE STATE, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990

Activities	State Planning Region								State
	1	2	3	4	5	6	7	8	
	-----Percent-----								
ATVing	1	1	1	2	3	1	2	4	2
Basketball-outdoor	1	0	0	0	2	1	2	0	1
Bicycling	0	1	1	2	1	1	1	0	1
Boating/water skiing	4	5	6	16	28	10	6	3	10
Camping	14	16	10	15	16	15	10	10	14
Canoeing	7	1	2	2	6	5	4	3	4
Fishing	10	11	13	27	32	13	11	13	16
Gardening	0	2	0	0	4	1	0	1	1
Golfing	2	5	2	9	11	2	3	4	5
Hiking	13	4	5	8	5	8	2	13	6
Horseback riding	1	1	1	0	3	4	1	2	1
Horseshoes	1	2	1	1	3	3	2	1	2
Jogging	1	0	1	0	4	1	1	1	1
Nature observation	8	1	3	5	5	7	1	7	4
Picnicking	2	5	6	7	11	11	5	8	7
Playground activities	0	2	5	2	6	5	1	3	3
Sailing	1	1	1	1	1	1	2	0	1
Sightseeing/visiting historical places	14	11	19	16	20	19	16	15	16
Soccer	0	0	0	0	0	0	2	0	1
Softball/baseball	1	1	1	1	1	4	0	1	1
Swim-beach	4	2	7	15	27	12	6	5	10
Swim-pool	2	4	2	3	4	3	4	5	3
Tennis	0	1	1	0	2	0	1	0	1
Walking	7	4	5	5	12	6	5	12	6

TABLE 21. RESPONSES TO THE QUESTION, "DID YOUR FAMILY VISIT A NORTH DAKOTA STATE PARK DURING SPRING/SUMMER...", BY REGION AND FOR THE STATE, SPRING/SUMMER SCORP SURVEY, 1990

Response	State Planning Region								State
	1	2	3	4	5	6	7	8	
-----Percent-----									
1988									
Yes	58	61	56	61	40	51	67	68	58
No	42	39	44	39	60	49	33	32	42
1987									
Yes	71	65	50	61	41	56	72	75	62
No	29	35	50	39	59	44	28	25	38

TABLE 22. AVERAGE LENGTH OF STAY FOR RESPONDENT FAMILIES VISITING A NORTH DAKOTA STATE PARK, BY REGION AND FOR THE STATE, SPRING/SUMMER SCORP SURVEY, 1990

Response	State Planning Region								State
	1	2	3	4	5	6	7	8	
-----Percent-----									
1 day	58	34	71	61	64	52	50	79	54
2 days	27	46	20	25	20	38	31	14	30
3 days	15	19	7	8	7	7	17	2	12
4+ days	0	1	2	6	9	3	2	5	4

respondents from region 5 stayed an average of 4 or more days at a North Dakota state park.

Of those respondents who did not visit a North Dakota state park, the majority (35 percent) indicated they lacked time required to visit one (Table 23). Lack of time was the most frequently reported reason for not visiting a state park among state planning regions. Other reasons for not visiting a state park included no money, no interest, already seen them, and poor health. Eight percent of respondent families from regions 4 and 5 indicated they owned a recreational cabin. Eighteen percent of the respondents from region 7 indicated that state parks were too crowded.

Fall/Winter Survey

Respondent Characteristics. Over 90 percent of the heads of households responding were male (Table 24). The average age of the head of the household was 53 years with nearly 65 percent over 45 years old. Over 60 percent of the responding heads of households had 12 years of education or less. The average size of responding households was 3. Nearly 60 percent of responding household heads were employed full time. Farmer or rancher was the most common occupation reported by respondents (Table 25).

Participation. Common activities respondents participated in during the fall/winter included bicycling, open water fishing, picnicking, sightseeing/visiting historical places, and walking (Table 26). Twenty percent or more of the respondents participated in these activities. Less common activities included broomball, downhill skiing, hunting-nongame, soccer, tennis, and trapping. Less than 5 percent of the respondents participated in these activities.

More than 20 days, on average, were spent jogging, trapping, and walking in the state by respondents participating in these activities (Table 27). Average number of days of activity participation were 5 days or less for residents participating in downhill skiing, picnicking, sightseeing, skating, and sledding recreational activities.

The projected number of North Dakota participants in fall/winter recreational activities is expected to increase slightly through year 2000 (Table 28). More than 200,000 participants are projected for bicycling, picnicking, and walking recreational activities in the state by year 2000. Less than 10,000 participants are projected in broomball, soccer, and trapping activities. Regional projections of participants are presented in Appendix G.

North Dakota residents will spend over 1 million days bicycling, open water fishing, hiking, jogging, and walking in the state by year 2000 (Table 29). Residents will spend less than 100,000 days participating in broomball and soccer activities. Total days of participation by residents is projected to increase slightly for all recreational activities through year 2000. Total days of participation for each activity by region of residence is provided in Appendix H.

TABLE 23. REASONS WHY RESPONDENT FAMILIES DID NOT VISIT A NORTH DAKOTA STATE PARK, BY REGION AND FOR THE STATE, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990

State Planning Region	Responses	Percent
1	Lack time	28
	No money	24
	Already seen them	15
2	Lack time	30
	Poor health	9
	No interest	9
3	Lack time	41
	No money	10
	Go out of state	9
4	Lack time	30
	No money	14
	Have a cabin	8
5	Lack time	40
	No interest	11
	Have a cabin	8
6	Lack time	39
	No money	13
	Other vacation plans	12
7	Lack time	28
	Too crowded	18
	No money	11
8	Lack time	49
	Already seen them	14
	No money	10
State	Lack time	35
	No money	11
	No interest	9

TABLE 24. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDING HOUSEHOLDS, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990

Characteristics	Group	Percent
Gender of Head of Household	Male	93.2
	Female	6.8
Age of Head of Household (years)	Less than 20	10.9
	20 to 44	25.1
	45 to 64	33.8
	65 and over	30.3
	Mean = 53	
Education Level of Head of Household (years)	8 or less	21.2
	9 through 12	39.4
	13 through 14	21.5
	15 through 16	12.2
	17 and over	5.6
	Mean = 13	
Marital Status of Head of Household	Married	82.3
	Single	17.7
Household Size (people)	1	14.0
	2	45.5
	3	14.9
	4	13.5
	5	8.4
	6 or more	3.7
	Mean = 3	
Residence Location	City over 50,000	8.0
	2,500 to 50,000	40.0
	Under 2,500	22.9
	Farm or ranch	26.9
	Rural nonfarm	2.2
Employment Status of Head of Household	Employed full time	59.8
	Employed part time	7.3
	Unemployed	2.2
	Retired	30.8
Total Household Income	Less than \$10,000	9.6
	\$10,000 to \$14,999	10.5
	\$15,000 to \$19,999	11.5
	\$20,000 to \$29,999	19.1
	\$30,000 to \$39,999	17.8
	\$40,000 and over	31.6

TABLE 25. OCCUPATIONS OF EMPLOYED
HOUSEHOLD MEMBERS, FALL/WINTER SCORP
SURVEY, NORTH DAKOTA, 1990

Occupation	Percent
Professional	8
Executive, manager, public official	6
Craftsman	4
Clerk, secretary	7
Farmer, rancher	24
Sales	3
Laborer	4
Truck, bus driver, other operative	3
Services	4
Housewife	22
Armed Forces	1
Student	8
Other	6
Total	100

Projected total days of participation occurring in each region show that the most important and least important recreational activities were:

<u>Region</u>	<u>Most Important</u>	<u>Least Important</u>
1	Bicycling Fishing-open water Walking	Broomball Downhill skiing Hunting-waterfowl
2	Bicycling Golf Walking	Broomball Hockey-outdoor Soccer
3	Bicycling Hiking Walking	Broomball Hockey-outdoor Soccer
4	Bicycling Hiking Walking	Broomball Fishing-ice Soccer
5	Bicycling Hiking Walking	Broomball Hockey-outdoor Horseback riding

TABLE 26. PERCENTAGE OF RESPONDENTS PARTICIPATING IN OUTDOOR RECREATION,
BY REGION AND FOR THE STATE, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990

Activities	State Planning Region								State
	1	2	3	4	5	6	7	8	
	-----Percent-----								
ATVing	14	6	10	6	4	7	6	13	7
Bicycling	23	23	24	23	34	20	24	22	24
Broomball	0	0	0	0	0	2	0	0	0
Camping	21	14	16	16	5	19	21	38	18
Cross-country skiing	3	3	4	6	10	4	7	1	5
Downhill skiing	0	9	9	3	0	3	1	1	4
Fishing-open water	32	20	19	13	6	18	31	28	21
Fishing-ice	14	10	19	5	2	10	15	4	10
Golfing	8	21	5	10	9	18	5	7	10
Hiking	6	11	15	8	10	7	12	19	11
Hockey-outdoor	1	1	1	5	1	1	1	1	1
Horseback riding	4	5	5	5	2	4	3	12	5
Hunting-big game	9	18	9	19	13	13	19	6	15
Hunting-nongame	6	5	2	4	2	2	3	6	4
Hunting-upland game	10	14	3	9	8	8	18	10	11
Hunting-waterfowl	3	12	6	8	3	6	9	1	7
Jogging	2	7	3	5	10	6	8	3	6
Picnicking	19	18	21	27	26	27	36	35	27
Sightseeing/visiting historical places	27	20	18	16	14	13	29	27	20
Skating	17	5	8	4	13	6	5	4	7
Sledding	29	14	10	12	22	13	12	19	15
Snowmobiling	18	10	16	15	18	7	5	5	11
Soccer	1	1	0	0	1	0	2	0	1
Softball/baseball	4	4	3	14	9	7	8	13	7
Tennis	3	5	0	4	8	5	2	3	4
Trapping	1	0	1	5	1	1	1	1	1
Walking	29	32	33	30	40	29	38	36	33

TABLE 27. AVERAGE NUMBER OF DAYS OF ACTIVITY PARTICIPATION FOR EACH RESPONDING PARTICIPANT, BY REGION AND FOR THE STATE, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990

Activities	State Planning Region								State
	1	2	3	4	5	6	7	8	
	-----Days-----								
ATVing	16	8	9	20	22	15	9	17	14
Bicycling	21	22	21	16	21	15	14	25	19
Broomball	0	21	0	1	32	11	0	0	13
Camping	5	6	5	3	4	5	7	6	6
Cross-country skiing	7	4	5	8	4	7	6	2	6
Downhill skiing	2	3	3	3	2	7	2	3	4
Fishing-open water	8	8	7	13	5	7	10	5	8
Fishing-ice	5	10	7	6	19	13	6	5	8
Golfing	17	18	11	20	6	8	4	5	13
Hiking	23	19	20	10	24	12	13	8	15
Hockey-outdoor	6	1	12	16	3	11	21	60	16
Horseback riding	8	5	10	14	4	9	7	4	7
Hunting-big game	4	6	6	6	4	5	6	6	6
Hunting-nongame	8	6	6	6	6	17	5	6	7
Hunting-upland game	8	6	6	5	4	10	6	7	6
Hunting-waterfowl	2	7	9	4	6	11	5	4	7
Jogging	36	25	18	23	15	28	31	30	25
Picnicking	3	4	4	5	5	3	4	5	4
Sightseeing/visiting historical places	3	4	6	3	4	3	3	4	4
Skating	8	9	4	6	7	2	4	4	5
Sledding	4	4	7	5	5	6	4	5	5
Snowmobiling	5	7	12	10	8	5	6	12	8
Soccer	33	7	0	0	7	0	12	20	11
Softball/baseball	9	13	13	14	13	11	6	10	11
Tennis	11	19	3	12	12	7	6	20	12
Trapping	11	65	6	27	20	22	8	30	24
Walking	30	40	48	33	28	31	32	37	35

TABLE 28. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN NORTH DAKOTA, BY ACTIVITY, FALL/WINTER SCORP SURVEY, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	54,190	57,462	60,173
Bicycling	183,112	192,945	200,022
Broomball	3,542	3,743	3,926
Camping	135,669	143,649	151,088
Cross-country skiing	38,802	40,786	42,608
Downhill skiing	30,022	31,708	32,911
Fishing-open water	147,993	157,290	166,730
Fishing-ice	68,387	73,417	79,666
Golfing	68,387	76,380	82,006
Hiking	69,294	74,200	80,059
Hockey-outdoor	9,672	10,242	10,565
Horseback riding	34,991	36,978	38,723
Hunting-big game	106,642	113,884	122,479
Hunting-nongame	29,073	30,722	32,110
Hunting-upland game	83,931	89,257	95,027
Hunting-waterfowl	51,973	55,419	59,194
Jogging	48,300	50,722	52,444
Picnicking	186,579	197,617	208,220
Sightseeing/visiting historical places	133,527	142,210	151,609
Skating	54,082	56,795	57,987
Sledding	123,202	129,203	131,624
Snowmobiling	81,728	86,603	90,642
Soccer	5,397	5,737	5,856
Softball/baseball	61,346	64,609	66,963
Tennis	32,229	33,707	34,559
Trapping	8,312	8,824	9,216
Walking	222,763	236,450	251,992

TABLE 29. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS
FROM NORTH DAKOTA, BY ACTIVITY, FALL/WINTER SCORP SURVEY,
1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	787,973	828,677	853,153
Bicycling	3,287,982	3,475,978	3,591,089
Broomball	38,011	40,589	43,915
Camping	774,755	819,802	861,614
Cross-country skiing	210,089	222,358	235,904
Downhill skiing	109,785	116,855	124,112
Fishing-open water	1,262,460	1,335,157	1,405,964
Fishing-ice	542,826	584,600	640,996
Golfing	781,915	842,744	925,655
Hiking	947,032	1,016,065	1,102,439
Hockey-outdoor	172,541	183,062	187,980
Horseback riding	287,052	300,810	311,743
Hunting-big game	612,317	651,393	695,966
Hunting-nongame	226,446	238,573	248,734
Hunting-upland game	578,865	611,726	643,768
Hunting-waterfowl	355,781	377,671	400,849
Jogging	1,318,210	1,382,038	1,428,316
Picnicking	753,209	795,427	832,976
Sightseeing/visiting historical places	458,065	489,194	525,226
Skating	292,235	307,325	312,904
Sledding	586,795	617,640	629,100
Snowmobiling	658,539	695,803	722,057
Soccer	60,589	64,406	65,737
Softball/baseball	686,092	720,233	739,549
Tennis	400,441	418,247	428,377
Trapping	200,465	210,616	218,495
Walking	6,979,200	7,478,097	8,154,860

6	Bicycling Jogging Walking	Skating Soccer Trapping
7	Bicycling Fishing-open water Walking	Broomball Downhill skiing Trapping
8	ATVing Bicycling Walking	Broomball Cross country skiing Downhill skiing

Projections of total days of participation occurring in each state planning region are presented in Appendix I.

Annual per capita days of participation showed bicycling, jogging, and walking were the most common recreational activities participated in by North Dakota residents (Table 30). An average resident spent over 10 days walking for recreation in the state. Walking and bicycling were the most common recreational activities among state planning regions. The least common recreational activities based on per capita days of participation were broomball, downhill skiing, and soccer. Least common recreational activities were different among state planning regions.

Camping, open water fishing, and walking were the most important outdoor recreational activities reported by respondent families (Table 31). Thirteen percent of the respondent families indicated open water fishing as their most important recreational activities. Big game hunting and snowmobiling were also important recreational activities indicated by respondent families.

Nearly 40 percent of the respondent families would leave the state to pursue their most important recreational activity if it were not available in North Dakota (Table 32). Leave the state was the most common response among state planning regions. Over 50 percent of the respondent families from region 3 indicated they would leave the state to pursue their most important activity. Other common responses were don't know and travel.

Recreational Needs. Thirteen percent of the respondent families indicated that no new recreational areas should be developed or expanded in the state (Table 33). Other common responses were boating, camping, fishing, hunting, parks, water activities, and zoos. Nearly 40 percent of the respondent families from region 1 indicated that boating areas should be developed or expanded.

Activities respondent families participated in out-of-state were camping, downhill skiing, fishing-open water, and sightseeing (Table 34). Over 20 percent of the respondent families from region 5 participated in open water fishing outside of North Dakota. Eighteen percent of the respondent families in region 5 participated in downhill skiing outside of North Dakota.

TABLE 30. RANKING OF OUTDOOR RECREATION ACTIVITIES BASED ON ANNUAL PER CAPITA DAYS OF PARTICIPATION (IN PARENTHESES), BY REGION AND FOR THE STATE, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990

Recreational Activities	State Planning Region								
	1	2	3	4	5	6	7	8	
Walking	1 (10.462)	1 (6.217)	1 (12.348)	1 (15.324)	1 (8.458)	1 (10.264)	1 (7.930)	1 (10.655)	1 (11.370)
Bicycling	2 (4.929)	2 (5.246)	2 (7.000)	2 (5.982)	2 (3.840)	2 (5.474)	2 (3.386)	2 (4.216)	2 (6.697)
Jogging	3 (1.976)	14 (0.661)	4 (2.586)	11 (0.709)	10 (1.471)	4 (1.734)	3 (2.179)	4 (2.660)	12 (0.917)
Fishing-open water	4 (1.892)	3 (3.080)	6 (1.508)	8 (0.968)	4 (2.081)	17 (0.224)	6 (1.243)	3 (3.479)	8 (1.399)
Hiking	5 (1.420)	8 (1.206)	5 (1.824)	3 (3.189)	15 (0.719)	3 (1.787)	15 (0.623)	7 (1.342)	7 (1.450)
ATVing	6 (1.181)	7 (1.325)	15 (0.709)	5 (1.125)	6 (1.907)	8 (1.133)	5 (1.248)	13 (0.568)	3 (2.908)
Golfing	7 (1.172)	5 (1.493)	3 (3.453)	15 (0.623)	11 (1.398)	13 (0.561)	12 (0.822)	18 (0.217)	19 (0.323)
Camping	8 (1.161)	9 (1.145)	9 (1.004)	7 (0.971)	18 (0.553)	18 (0.214)	8 (1.046)	5 (1.629)	4 (2.827)
Picnicking	9 (1.129)	16 (0.563)	18 (0.561)	13 (0.693)	7 (1.786)	11 (0.903)	7 (1.091)	6 (1.415)	5 (2.056)
Softball/baseball	10 (1.028)	18 (0.456)	13 (0.794)	14 (0.647)	5 (1.945)	5 (1.593)	11 (0.944)	15 (0.477)	6 (1.684)
Snowmobiling	11 (0.987)	10 (0.972)	12 (0.804)	4 (2.667)	9 (1.678)	6 (1.476)	19 (0.437)	17 (0.318)	14 (0.805)
Hunting-big game	12 (0.918)	17 (0.503)	8 (1.034)	16 (0.577)	8 (1.685)	12 (0.583)	13 (0.807)	9 (1.106)	18 (0.389)
Saddling	13 (0.880)	6 (1.345)	16 (0.649)	9 (0.954)	14 (0.729)	7 (1.197)	10 (0.946)	12 (0.662)	9 (1.100)
Hunting-upland game	14 (0.868)	11 (0.966)	10 (0.915)	21 (0.211)	17 (0.571)	16 (0.376)	9 (0.973)	8 (1.187)	13 (0.861)
Fishing-ice	15 (0.814)	13 (0.705)	14 (0.783)	6 (1.079)	22 (0.345)	19 (0.206)	4 (1.462)	11 (0.728)	20 (0.248)
Sightseeing/visiting historical places	16 (0.687)	12 (0.816)	17 (0.641)	10 (0.814)	20 (0.473)	14 (0.445)	18 (0.444)	10 (0.899)	10 (1.087)
Tennis	17 (0.600)	20 (0.313)	7 (1.271)	25 (0.018)	13 (1.024)	10 (0.978)	20 (0.409)	24 (0.150)	15 (0.707)
Hunting-waterfowl	18 (0.533)	24 (0.093)	11 (0.885)	17 (0.573)	24 (0.242)	20 (0.204)	14 (0.721)	16 (0.452)	24 (0.066)
Skating	19 (0.438)	4 (1.613)	19 (0.386)	18 (0.435)	23 (0.331)	9 (1.112)	26 (0.095)	20 (0.214)	21 (0.205)
Horseback riding	20 (0.430)	19 (0.397)	21 (0.281)	12 (0.708)	12 (1.357)	24 (0.086)	17 (0.451)	19 (0.215)	16 (0.522)
Hunting-nongame	21 (0.339)	15 (0.564)	20 (0.303)	23 (0.134)	21 (0.401)	21 (0.166)	16 (0.524)	22 (0.190)	17 (0.476)
Cross-country skiing	22 (0.315)	22 (0.212)	24 (0.103)	22 (0.181)	19 (0.477)	15 (0.380)	21 (0.340)	14 (0.498)	26 (0.017)
Trapping	23 (0.301)	23 (0.135)	23 (0.160)	24 (0.061)	3 (2.123)	23 (0.106)	25 (0.136)	25 (0.076)	22 (0.103)
Hockey-outdoor	24 (0.259)	25 (0.076)	26 (0.004)	20 (0.247)	16 (0.662)	27 (0.000)	24 (0.177)	23 (0.172)	11 (1.080)
Downhill skiing	25 (0.165)	26 (0.007)	22 (0.255)	19 (0.358)	25 (0.162)	26 (0.007)	22 (0.334)	26 (0.028)	25 (0.023)
Soccer	26 (0.091)	21 (0.271)	25 (0.059)	26 (0.000)	27 (0.000)	22 (0.116)	27 (0.000)	21 (0.205)	23 (0.099)
Broomball	27 (0.057)	27 (0.000)	27 (0.003)	27 (0.000)	26 (0.002)	25 (0.076)	23 (0.247)	27 (0.000)	27 (0.000)

TABLE 31. RESPONDING FAMILIES' MOST IMPORTANT OUTDOOR RECREATIONAL ACTIVITIES, BY REGION AND FOR THE STATE, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990

State Planning Region	Activities	Percent
1	Camping/fishing-open water	19
	Fishing-open water	16
	Walking	6
2	Fishing-open water	10
	Camping	10
	Walking	7
3	Fishing-open water	19
	Camping	9
	Snowmobiling	5
4	Walking	12
	Fishing-open water	10
	Camping	9
5	Walking	9
	Camping	7
	Hunting-big game	6
6	Fishing-open water	17
	Walking	8
	Camping	5
7	Fishing-open water	18
	Camping	8
	Walking	7
8	Camping	17
	Fishing-open water	6
	Walking	5
State	Fishing-open water	13
	Camping	8
	Walking	7

TABLE 32. WHAT RESPONDING FAMILIES WOULD DO WITH THE ADDITIONAL TIME AND MONEY IF THEIR MOST IMPORTANT RECREATIONAL ACTIVITY WAS NOT AVAILABLE, BY REGION AND FOR THE STATE, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990

State Planning Region	Responses	Percent
1	Leave the state	27
	Stay home	18
	Pursue other activities	15
2	Leave the state	37
	Travel	13
	Don't know	13
3	Leave the state	51
	Work more and save money	7
	Fishing	6
4	Leave the state	36
	Don't know	11
	Pursue other activities	10
5	Leave the state	47
	Don't know	20
	Travel	7
6	Leave the state	36
	Work more and save money	11
	Stay home	10
7	Leave the state	29
	Travel	12
	Pursue other activities	9
8	Leave the state	41
	Don't know	13
	Travel	10
State	Leave the state	37
	Don't know	10
	Travel	8

TABLE 33. NEW RECREATION AREAS RESPONDING HOUSEHOLDS
WOULD LIKE TO SEE DEVELOPED OR EXPANDED, BY REGION
AND FOR THE STATE, FALL/WINTER SCORP, NORTH DAKOTA,
1990

State Planning Region	Responses	Percent
1	Boating	38
	Hunting and fishing	10
	Zoo	10
2	None	12
	Camping	12
	Boating	7
3	Boating	10
	Parks	9
	None	9
4	None	14
	Parks	9
	Hunting	6
5	None	21
	Fishing	13
	Parks	8
6	None	15
	Fishing	10
	Water activities	7
7	Camping	12
	Boating	12
	None	8
8	None	19
	Boating	16
	Camping and boating	10
State	None	13
	Camping	8
	Boating	8

TABLE 34. PERCENTAGE OF RESPONDENT FAMILIES PARTICIPATING IN OUT-OF-STATE ACTIVITIES, BY REGION AND FOR THE STATE, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990

Activities	State Planning Region								State
	1	2	3	4	5	6	7	8	
	-----Percent-----								
ATVing	0	1	1	2	4	1	1	3	1
Bicycling	1	1	0	6	1	3	1	0	1
Broomball	0	1	0	0	0	1	1	0	0
Camping	1	5	4	9	16	11	3	11	8
Cross-country skiing	0	1	1	1	1	1	1	1	1
Downhill skiing	6	6	6	8	18	5	7	8	8
Fishing-open water	4	5	8	13	20	1	5	6	7
Fishing-ice	1	2	4	2	8	2	1	1	2
Golfing	3	7	1	7	10	4	0	2	4
Hiking	2	1	1	5	4	2	1	12	3
Hockey-outdoor	0	1	0	0	0	0	0	0	0
Horseback riding	0	1	2	0	0	1	1	0	1
Hunting-big game	3	5	5	2	2	1	1	1	2
Hunting-nongame	0	1	0	0	0	0	0	1	0
Hunting-upland game	0	1	3	1	4	1	1	2	1
Hunting-waterfowl	0	1	2	0	2	1	1	1	1
Jogging	1	1	0	0	2	0	1	1	1
Picnicking	0	3	6	5	5	3	1	8	4
Sightseeing/visiting historical places	4	6	10	10	7	6	6	12	7
Skating	0	1	1	0	0	1	0	0	0
Sledding	0	1	0	0	2	2	0	1	1
Snowmobiling	0	1	6	2	5	2	3	3	2
Soccer	0	1	0	0	0	0	0	0	0
Softball/baseball	0	1	2	1	0	1	1	0	1
Tennis	0	1	0	2	0	1	0	0	0
Trapping	0	1	0	0	0	0	0	0	0
Walking	1	4	2	8	4	3	2	13	4

State Park Use. Slightly over 25 percent of the respondent families visited a North Dakota state park during the fall/winter of 1988-89 and 1987-88 (Table 35). Fifteen percent or less of the respondent families from region 5 visited a state park in 1988-89 and 1987-88. Over 30 percent of the respondent families from regions 1, 4, and 7 visited a state park.

The majority of respondent families who visited a state park stayed an average of one day (Table 36). Ninety percent of the respondent families stayed one or two days. Ten percent of the families in planning regions 5 and 8 stayed 4 or more days.

Forty-five percent of the respondent families not visiting a North Dakota state park indicated they lack time required to visit one (Table 37). Lack of time was the most common response among state planning regions. Inclement weather and no interest were also reasons reported by respondent families.

TABLE 35. RESPONSES TO THE QUESTION, "DID YOUR FAMILY VISIT A NORTH DAKOTA STATE PARK DURING FALL/WINTER...", BY REGION AND FOR THE STATE, FALL/WINTER SCORP SURVEY, 1990

Response	State Planning Region								State
	1	2	3	4	5	6	7	8	
-----Percent-----									
1988 -89									
Yes	35	21	27	36	14	20	40	22	26
No	65	79	73	64	86	80	60	78	74
1987-88									
Yes	34	21	25	33	15	21	36	28	27
No	66	79	75	67	85	79	64	72	73

TABLE 36. AVERAGE LENGTH OF STAY FOR RESPONDENT FAMILIES VISITING A NORTH DAKOTA STATE PARK, BY REGION AND FOR THE STATE, FALL/WINTER SCORP SURVEY, 1990

Response	State Planning Region								State
	1	2	3	4	5	6	7	8	
-----Percent-----									
1 day	89	70	63	74	58	54	63	82	67
2 days	9	26	19	13	27	33	27	7	23
3 days	2	4	18	5	5	8	5	1	6
4+ days	0	0	0	8	10	5	5	10	4

TABLE 37. REASONS WHY RESPONDENT FAMILIES DID NOT VISIT A
NORTH DAKOTA STATE PARK, BY REGION AND FOR THE STATE,
FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990

State Planning Region	Responses	Percent
1	Lack time	28
	No interest	23
	Inclement weather	17
	Poor health	17
2	Lack time	55
	Inclement weather	15
	No interest	11
3	Lack time	52
	Go out of state	12
	No interest	11
4	Lack time	59
	Inclement weather	12
	No interest	10
5	Lack time	38
	No interest	14
	Go south for the winter	11
6	Lack time	46
	Inclement weather	26
	Poor health	7
7	Lack time	36
	No interest	17
	Inclement weather	16
8	Lack time	44
	Poor health	10
	Go out of state	10
State	Lack time	45
	Inclement weather	15
	No interest	12

Summary and Conclusions

The purpose of this study was to identify outdoor recreational needs of the state by estimating present and future demand for specific outdoor recreational activities in North Dakota. Present and future recreation demand was estimated for each state planning region and for the state based on projected total number of participants and total days of participation for specific recreational activities. Survey returns for spring/summer and fall/winter outdoor recreational opportunities provided the basis for projecting total number of participants and total days of participation in North Dakota for the years 1990, 1995, and 2000. Projections represent a substantial element of the State Comprehensive Outdoor Recreation Plan (SCORP).

Popular outdoor recreational activities in the state based on total days of participation were bicycling, gardening, and walking (Table 38). Total days of participation for walking activities in North Dakota are projected to increase from 13.3 million in 1990 to 15.3 million by the year 2000. Less popular outdoor recreational activities were broomball and sailing.

The average North Dakota resident will spend 20 days recreational walking, 14 days bicycling, and 12 days gardening in the state in 1990 (Table 39). Residents will also spend nearly 6 days on average open water fishing in the state. Participation in these activities was considerably higher than any other outdoor recreational activities.

Respondents indicated boating, canoeing, and/or fishing opportunities and facilities should be developed or expanded in the state. Respondents also wanted additional campground and picnic facilities as well as cross country skiing, nature, and walking trails. Some outdoor recreational needs of residents were provided by other states since over 10 percent of the respondent families participated in fishing, camping, and boating/water skiing activities in states other than North Dakota. Generally, respondent families from state planning regions 4 and 5 participated in recreational activities outside of the state more frequently than those from any other planning regions. The majority of respondent families indicated they would leave the state to pursue their most important recreational activity if it was not available in North Dakota.

Most respondent families to the spring/summer survey visited a North Dakota state park during 1987 and 1988. Less than 30 percent of the respondent families to the fall/winter survey visited a state park during 1987-88 and 1988-89. Primary reasons for not visiting a state park during the fall/winter were lack of time and inclement weather.

North Dakota residents consider outdoor recreation to be important since the majority of them are willing to leave the state to pursue their most important recreational activity. Data presented allows recreation planners to identify and prioritize recreational needs among state planning regions and for the state. Prioritizing and then addressing recreational needs will allow for more efficient allocation of recreation resources and will help ensure present and future demand for outdoor recreation by families in North Dakota is met.

TABLE 38. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM NORTH DAKOTA, ALL ACTIVITIES, SCORP SURVEY, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	2,218,320	2,338,269	2,421,643
Basketball-outdoor courts	1,411,262	1,488,403	1,521,698
Bicycling	9,312,054	9,840,547	10,152,311
Boating/waterskiing	1,654,687	1,744,148	1,823,134
Broomball	38,011	40,589	43,915
Camping	2,406,820	2,554,775	2,707,011
Canoeing	100,091	104,359	106,466
Cross-country skiing	210,089	222,358	235,904
Downhill skiing	109,785	116,855	124,112
Fishing-ice	542,826	584,600	640,996
Fishing-open water	3,927,245	4,161,598	4,399,737
Gardening	7,734,711	8,211,652	8,788,131
Golfing	2,047,244	2,195,443	2,394,096
Hiking	1,835,926	1,973,670	2,153,237
Hockey-outdoor	172,541	183,062	187,980
Horseback riding	1,049,256	1,104,265	1,142,940
Horseshoes	284,211	299,415	312,684
Hunting-big game	612,317	651,393	695,966
Hunting-nongame	226,446	238,573	248,734
Hunting-upland game	578,865	611,726	643,768
Hunting-waterfowl	355,781	377,671	400,849
Jogging	2,294,709	2,408,464	2,494,928
Nature observation	1,834,245	1,950,374	2,071,436
Picnicking	2,045,390	2,169,823	2,292,027
Playground activities	1,988,225	2,095,014	2,138,648
Sailing	24,406	45,798	27,293
Sightseeing/visiting historical places	1,377,404	1,462,686	1,551,222
Skating	292,235	307,325	312,904
Sledding	586,795	617,640	629,100
Snowmobiling	658,539	695,803	722,057
Soccer	273,105	288,554	293,800
Softball/baseball	2,427,613	2,555,164	2,626,000
Swim-beach	1,406,572	1,474,909	1,515,181
Swim-outdoor pool	1,731,944	1,831,856	1,880,203
Tennis	679,512	712,239	730,172
Trapping	200,465	210,616	218,495
Walking	13,300,784	14,202,199	15,352,246

TABLE 39. RANKING OF OUTDOOR RECREATIONAL ACTIVITIES
 BASED ON ANNUAL PER CAPITA PARTICIPATION DAYS,
 ALL ACTIVITIES, SCORP SURVEY, NORTH DAKOTA, 1990

Activity	Per Capita Participation Days	Rank
Walking	19.938	1
Bicycling	13.959	2
Gardening	11.595	3
Fishing-open water	5.887	4
Softball/baseball	3.639	5
Camping	3.608	6
Jogging	3.440	7
ATVing	3.325	8
Golfing	3.069	9
Picnicking	3.066	10
Playground activities	2.980	11
Hiking	2.752	12
Nature observation	2.750	13
Swim-outdoor pool	2.596	14
Boating/waterskiing	2.480	15
Basketball-outdoor courts	2.116	16
Swim beach	2.109	17
Sightseeing/visiting historical places	2.065	18
Horseback riding	1.573	19
Tennis	1.019	20
Snowmobiling	0.987	21
Hunting-big game	0.918	22
Sledding	0.880	23
Hunting-upland game	0.868	24
Fishing-ice	0.814	25
Hunting-waterfowl	0.533	26
Skating	0.438	27
Horseshoes	0.426	28
Soccer	0.409	29
Hunting-nongame	0.339	30
Cross-country skiing	0.315	31
Trapping	0.301	32
Hockey-outdoor	0.259	33
Downhill skiing	0.165	34
Canoeing	0.150	35
Broomball	0.057	36
Sailing	0.037	37

References

- Anderson, Randall S. and Jay A. Leitch. 1985. Projections of Future Participation and Needs in Outdoor Recreation for North Dakota. Agr. Econ. Rpt. No. 205. Dept. of Agr. Econ., NDSU, Fargo.
- Bureau of the Census. 1989. "Population Estimates for 1987 and 1988." Washington, D.C.: Government Printing Office.
- Coon, Randal C., Richard W. Rathge, Gary A. Goreham, and F. Larry Leistritz. 1988. North Dakota Demographic Projection Model. Agr. Econ. Software Series No. 2. Dept of Agr. Econ., NDSU, Fargo.
- Golz, Theresa K. and Jay A. Leitch. 1989. Expansion of North Dakota's Input-Output Model to Include a Recreation and Tourism Sector. Agr. Econ. Rpt. in print, Dept. of Agr. Econ., NDSU, Fargo.
- Kerestes, Daniel E., and Jay A. Leitch. 1983. An Analysis of Sportsman Data Activity Collection Methods for North Dakota. Agr. Econ. Rpt. 180. Fargo: North Dakota State University, Agricultural Experiment Station.
- Kish, Leslie. 1967. Survey Sampling. John Wiley and Sons, Inc., New York.
- Mittleider, J.F., H.G. Vreugdenhill, D.L. Helgeson, and D.F. Scott. 1980. Projections of Future Participation in Outdoor Recreation for North Dakota, 1978 to 1995. Agr. Econ. Rpt. No. 140. Dept of Agr. Econ., NDSU, Fargo.
- North Dakota State Parks and Recreation Department. 1985. 1985 North Dakota State Comprehensive Outdoor Recreation Plan. Bismarck, ND.
- Phillips, C., J. Lofgren, and P. Miller. 1975. Projections of Outdoor Recreation Participation for North Dakota: 1990. Water Resources Research Institute, Univ. of Wyoming, Laramie.
- U.S. Department of Commerce. 1980. "Number of Inhabitants, North Dakota." PC80-1-A36, Bureau of Census, U.S. Government Printing Office, Washington, D.C.

Appendix A
Spring/Summer Survey

NDSU

Department of Agricultural Economics
 North Dakota State University
 State University Station, P. O. Box 5636
 Fargo, North Dakota 58106-6636
 (701) 237-7441

October 10, 1988

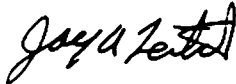
Dear Recreationist:

The North Dakota Parks and Recreation Department in cooperation with the Department of Agricultural Economics at North Dakota State University is conducting a study to determine the present and future adequacy of diversified outdoor recreation opportunities and experiences for North Dakota's residents. As a primary component of the Statewide Comprehensive Outdoor Recreation Plan, the study will also serve to point to the need for continuance of federal fund assistance for outdoor recreation in this state.

A major part of the study effort involves the selection of a number of families who are asked to complete the attached questionnaire. To insure that an adequate representation of the state's citizens are involved, both recreation participants and nonparticipants are asked to respond. Please complete the questionnaire at your earliest convenience—right now, if you can—and return it in the stamped, self-addressed envelope. The information you provide will be kept strictly confidential and used only to develop overall statistics.

Your participation in this survey is voluntary, but we would appreciate your cooperation in order to ensure the optimum use of this state's recreational resources. Thank you for your assistance.

Sincerely,



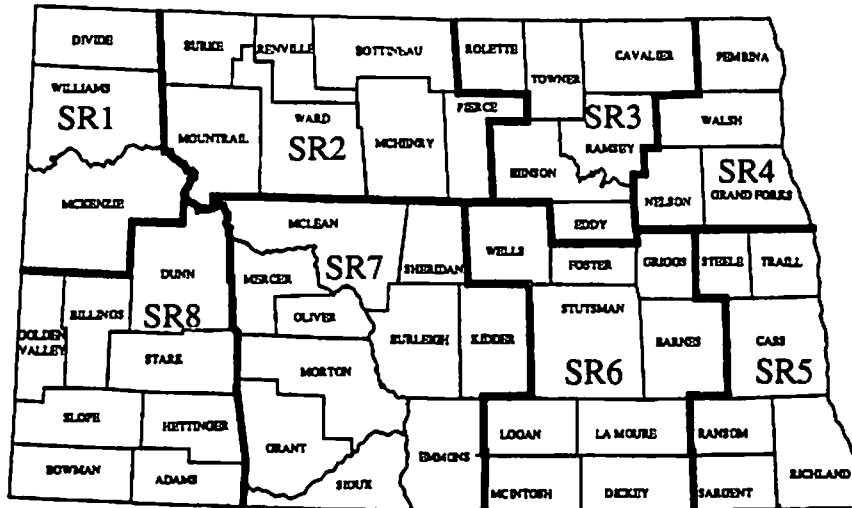
Jay A. Leitch
 Associate Professor



Doug Eiken, Director
 North Dakota Parks and Recreation

North Dakota Outdoor Recreation Survey

A. On the map below, place an "X" on the county in which you live.



North Dakota State Planning Regions

B. Spring/Summer Activities: Under the section entitled household members, give the age and the sex of all members now residing in your household, starting with the head of the household as No. 1. Then, for the period *April 1-August 31, 1988*, provide an estimate of the number of days each household member participated in the activities listed and in which regions in North Dakota (from the map above) the activities occurred. Place a checkmark (✓) in the last column if any household member participated in any of the activities outside of North Dakota. Each day an activity is pursued, even if for only an hour, is considered a day.

Example: The household is composed of a man (35 years old), his wife (32 years old) and son (10 years old). The family went camping at Medora, Region 8, for 3 days. On another trip, the family went camping to Devils Lake, Region 3, for 2 days. The family also camped out-of-state one weekend. These activities are reported below.

EXAMPLE								
HOUSEHOLD MEMBERS								
		No. 1	No. 2	No. 3	No. 4	No. 5	No. 6+	OUT-OF-STATE ACTIVITY
AGE		35	32	10				
SEX		(M) F	M (F) (M)	F M	F M	F		
ACTIVITY	REGION	NUMBER OF ACTIVITY DAYS APRIL 1-AUGUST 31, 1988						✓
CAMPING 	8	3	3	3				✓
	3	2	2	2				

C. What is your family's Most Important Outdoor recreation activity?

If your Most Important recreation activity was not available in North Dakota, what would you do with the additional time and money?

D. If new recreation areas were developed in North Dakota, or if present recreation areas were expanded, list those activities your household would most like to see developed or expanded.

E. Do you have any suggestions or comments on how outdoor recreation can be improved in North Dakota?

F. Did your family visit a North Dakota State Park during either of the following time periods?

spring/summer 1988 ___yes ___No

spring/summer 1987 ___yes ___No

If yes, what was the average length of stay for each visit?

___ 1 day ___ 2 days ___ 3 days ___ 4+ days

If no, what was the main reason for your not visiting a North Dakota State Park?

G. Demographic Information: The following information is needed to project recreation activity on a statewide basis. The information you provide will be aggregated for statistical purposes, assuring the confidentiality of your response. This is a very important part of the survey and your cooperation will be greatly appreciated.

1. Which of the following best describes the location of your residence?

- city over 50,000
- city between 2,500 and 50,000
- community under 2,500 population
- farm or ranch
- rural nonfarm

2. What is the employment status of the head of the household?

- employed full time
- employed part time
- unemployed
- retired

3. What is the primary occupation of each employed household member? Please list the number assigned each household member in section B beside the occupation most nearly describing his/her work.

- | | | |
|---|---|--|
| <input type="checkbox"/> professional (doctor, dentist teacher, etc.) | <input type="checkbox"/> farmer, rancher | <input type="checkbox"/> housewife |
| <input type="checkbox"/> executive, manager, public official | <input type="checkbox"/> sales | <input type="checkbox"/> armed forces |
| <input type="checkbox"/> craftsman (carpenter, etc.) | <input type="checkbox"/> laborer | <input type="checkbox"/> student |
| <input type="checkbox"/> clerk, secretary | <input type="checkbox"/> truck, bus driver, other operative | <input type="checkbox"/> other (specify) |
| | <input type="checkbox"/> services | _____ |
| | | _____ |

4. What is the marital status of head of household?

- married
- single

5. What is the highest year of education the head of household has completed?

- | | | | |
|------------------------|-------------------|--------------------------------------|--------------------------|
| <u>1 2 3 4 5 6 7 8</u> | <u>9 10 11 12</u> | <u>13 14 15 16</u> | <u>17 18 19 20 21 22</u> |
| Grade School | High School | University, Business or Trade School | Graduate School |

6. **Income:** Please check the income category that includes your total household family income before taxes and deductions (gross income).

- | | |
|--|--|
| <input type="checkbox"/> less than \$10,000 | <input type="checkbox"/> \$20,000 - \$29,999 |
| <input type="checkbox"/> \$10,000 - \$14,999 | <input type="checkbox"/> \$30,000 - \$39,999 |
| <input type="checkbox"/> \$15,000 - \$19,999 | <input type="checkbox"/> \$40,000 and over |

Thank you!

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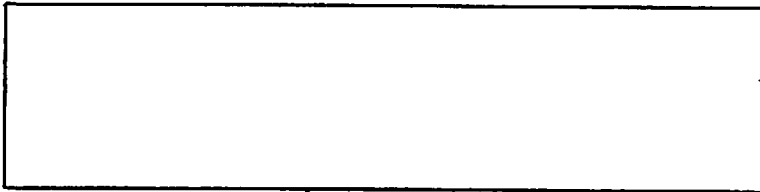
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North Dakota State University
of Agriculture and Applied Science
P.O. Box 5636
Fargo, North Dakota 58105-5636

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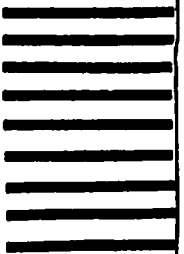
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Mailing three reminder

May 1989

Dear Recreationist:

We have not received a response from you to our requests to complete a North Dakota Outdoor Recreation Survey. Your response is essential to determine present and future outdoor recreational opportunities and experiences within the state and to ensure continuance of federal fund assistance. Even if you did not participate in any activities, we would like you to take this final opportunity to complete and return the questionnaire.

Thank you!

Appendix B
Fall/Winter Survey

NDSU

Department of Agricultural Economics
 North Dakota State University
 State University Station, P. O. Box 5636
 Fargo, North Dakota 58106-5636
 (701) 237-7441

March 1, 1989

Dear North Dakota Resident:

The North Dakota Parks and Recreation Department in cooperation with the Department of Agricultural Economics at North Dakota State University is conducting a study to determine the present and future adequacy of diversified outdoor recreation opportunities and experiences for North Dakota's residents. As a primary component of the Statewide Comprehensive Outdoor Recreation Plan, the study will also serve to point to the need for continuance of federal fund assistance for outdoor recreation in this state.

A major part of the study effort involves the selection of a number of families who are asked to complete the attached questionnaire. To insure that an adequate representation of the state's citizens is involved, both recreation participants and nonparticipants are asked to respond. Please complete the questionnaire at your earliest convenience—right now, if you can—and return it in the stamped, self-addressed envelope. The information you provide will be kept strictly confidential and used only to develop overall statistics.

Your participation in this survey is voluntary, but we would appreciate your cooperation in order to ensure the optimum use of this state's recreational resources. Thank you for your assistance.












Sincerely,






Jay A. Leitch
 Associate Professor



Doug Eiken, Director
 North Dakota Parks and Recreation

ACTIVITY	REGION	NUMBER OF ACTIVITY DAYS SEPT 1988 - FEB 1989						
11. HOCKEY- OUTDOORS								
12. HORSEBACK RIDING								
13. HUNTING- BIG GAME								
14. HUNTING- NONGAME								
15. HUNTING- UPLAND GAME								
16. HUNTING- WATERFOWL								
17. JOGGING								
18. PICNICKING								
19. SIGHTSEEING/ VISITING HISTORICAL AREAS								
20. SKATING								
21. SLEDDING								
22. SNOWMOBILING								
23. SOCCER								
24. SOFTBALL/ BASEBALL								

ACTIVITY	REGION	NUMBER OF ACTIVITY DAYS SEPT 1988 - FEB 1989						
25. TENNIS 	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____
26. TRAPPING 	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____
27. WALKING 	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____

C. What is your family's Most Important Outdoor recreation activity?

If your Most Important recreation activity was not available in North Dakota, what would you do with the additional time and money?

D. If new recreation areas were developed in North Dakota, or if present recreation areas were expanded, list those activities your household would most like to see developed or expanded.

E. Do you have any suggestions or comments on how outdoor recreation can be improved in North Dakota?

F. Did your family visit a North Dakota State Park during either of the following time periods?

fall/winter 1988-89 yes No

fall/winter 1987-88 yes No

If yes, what was the average length of stay for each visit?

1 day 2 days 3 days 4+ days

If no, what was the main reason for your not visiting a North Dakota State Park?

- G. Demographic Information:** The following information is needed to project recreation activity on a statewide basis. The information you provide will be aggregated for statistical purposes, assuring the confidentiality of your response. This is a very important part of the survey and your cooperation will be greatly appreciated.
- Which of the following best describes the location of your residence?

<input type="checkbox"/> city over 50,000	<input type="checkbox"/> farm or ranch
<input type="checkbox"/> city between 2,500 and 50,000	<input type="checkbox"/> rural nonfarm
<input type="checkbox"/> community under 2,500 population	
 - What is the employment status of the head of the household?

<input type="checkbox"/> employed full time	<input type="checkbox"/> unemployed
<input type="checkbox"/> employed part time	<input type="checkbox"/> retired
 - What is the primary occupation of each employed household member? Please list the number assigned each household member in section B beside the occupation most nearly describing his/her work.

<input type="checkbox"/> professional (doctor, dentist teacher, etc.)	<input type="checkbox"/> farmer, rancher	<input type="checkbox"/> housewife
<input type="checkbox"/> executive, manager, public official	<input type="checkbox"/> sales	<input type="checkbox"/> armed forces
<input type="checkbox"/> craftsman (carpenter, etc.)	<input type="checkbox"/> laborer	<input type="checkbox"/> student
<input type="checkbox"/> clerk, secretary	<input type="checkbox"/> truck, bus driver, other operative	<input type="checkbox"/> other (specify) _____ _____
	<input type="checkbox"/> services	
 - What is the marital status of head of household?

<input type="checkbox"/> married	<input type="checkbox"/> single
----------------------------------	---------------------------------
 - What is the highest year of education the head of household has completed?

<u>1 2 3 4 5 6 7 8</u>	<u>9 10 11 12</u>	<u>13 14 15 16</u>	<u>17 18 19 20 21 22</u>
Grade School	High School	University or Trade School	Graduate School
 - Income:** Please check the income category that includes your total household family income before taxes and deductions (gross income).

<input type="checkbox"/> less than \$10,000	<input type="checkbox"/> \$20,000 - \$29,999
<input type="checkbox"/> \$10,000 - \$14,999	<input type="checkbox"/> \$30,000 - \$39,999
<input type="checkbox"/> \$15,000 - \$19,999	<input type="checkbox"/> \$40,000 and over

Thank you!

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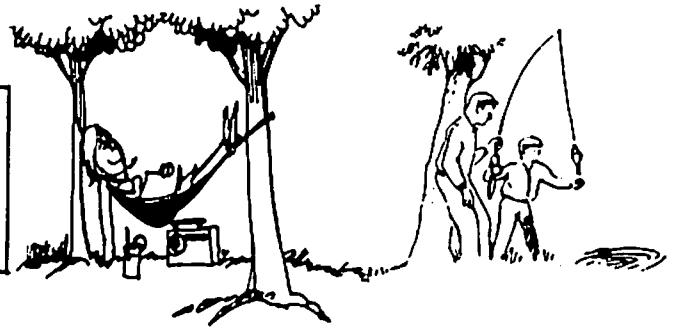
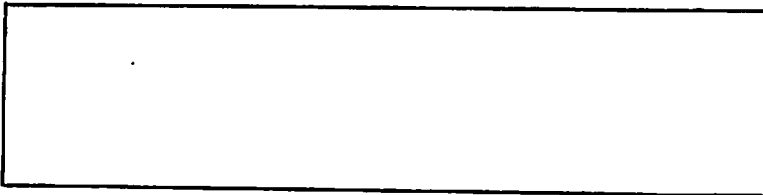
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NORTH DAKOTA STATE UNIVERSITY
P.O. BOX 5636
FARGO, NORTH DAKOTA 58105-9990



Mailing three reminder

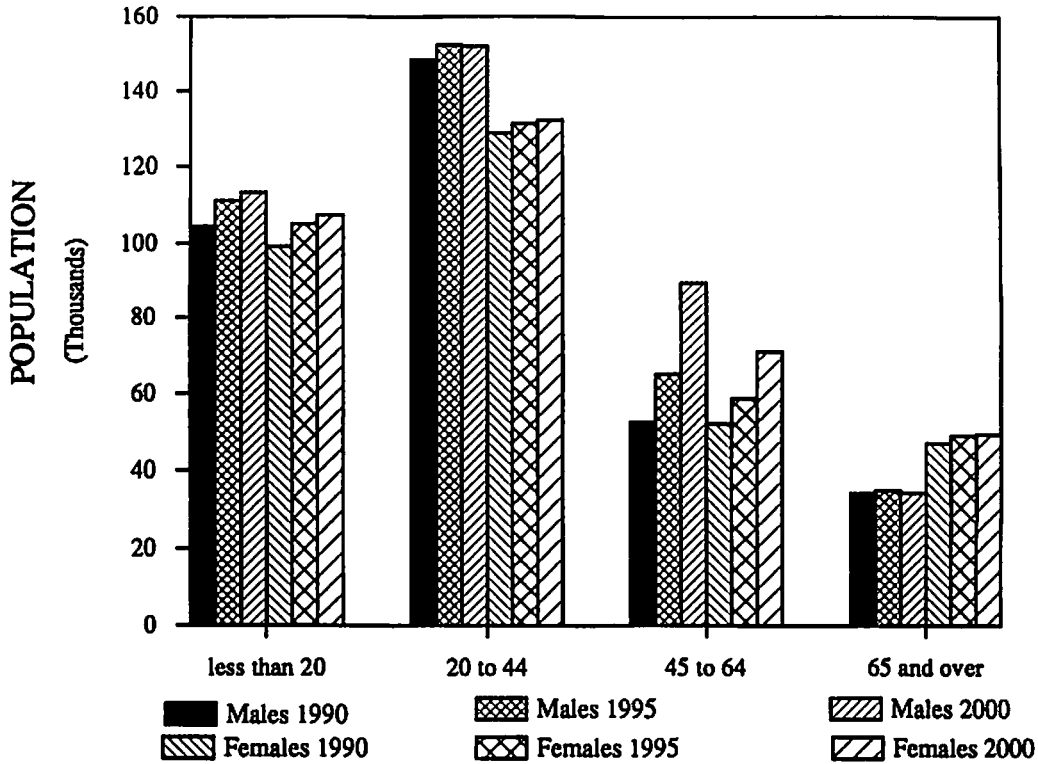
December 1988

Dear Recreationist:

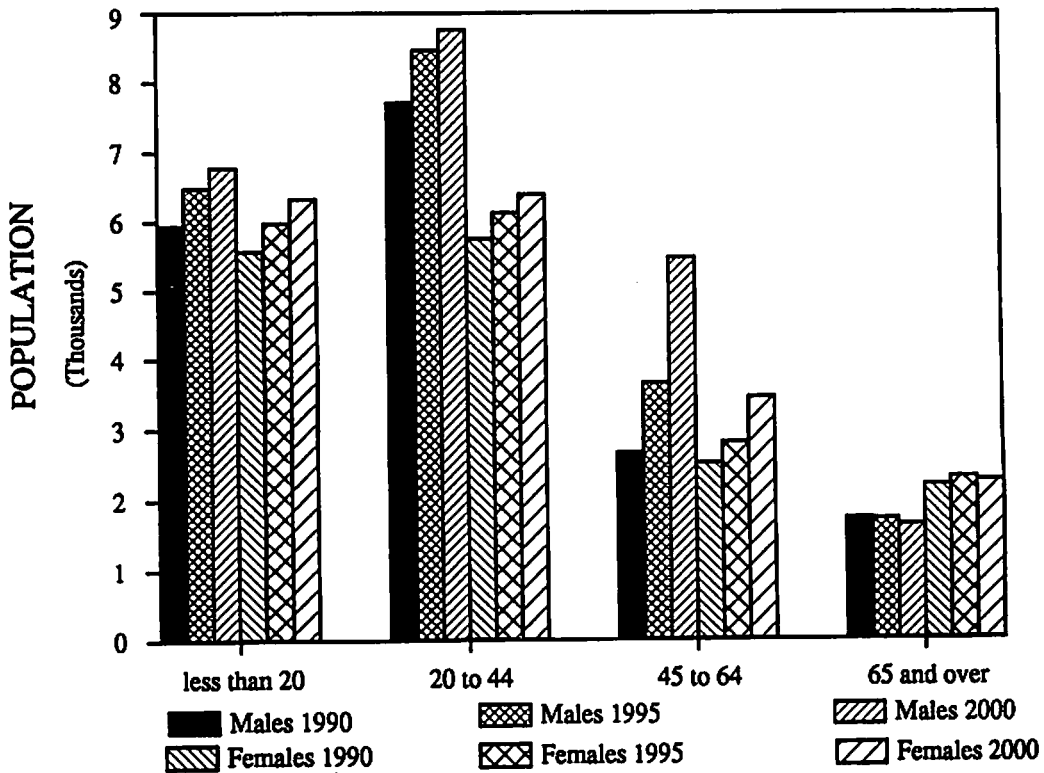
We have not received a response from you to our requests to complete a North Dakota Outdoor Recreation Survey. Your response is essential to determine present and future outdoor recreational opportunities and experiences within the state and to ensure continuance of federal fund assistance. Even if you did not participate in any activities, we would like you to take this final opportunity to complete and return the questionnaire.

Thank you!

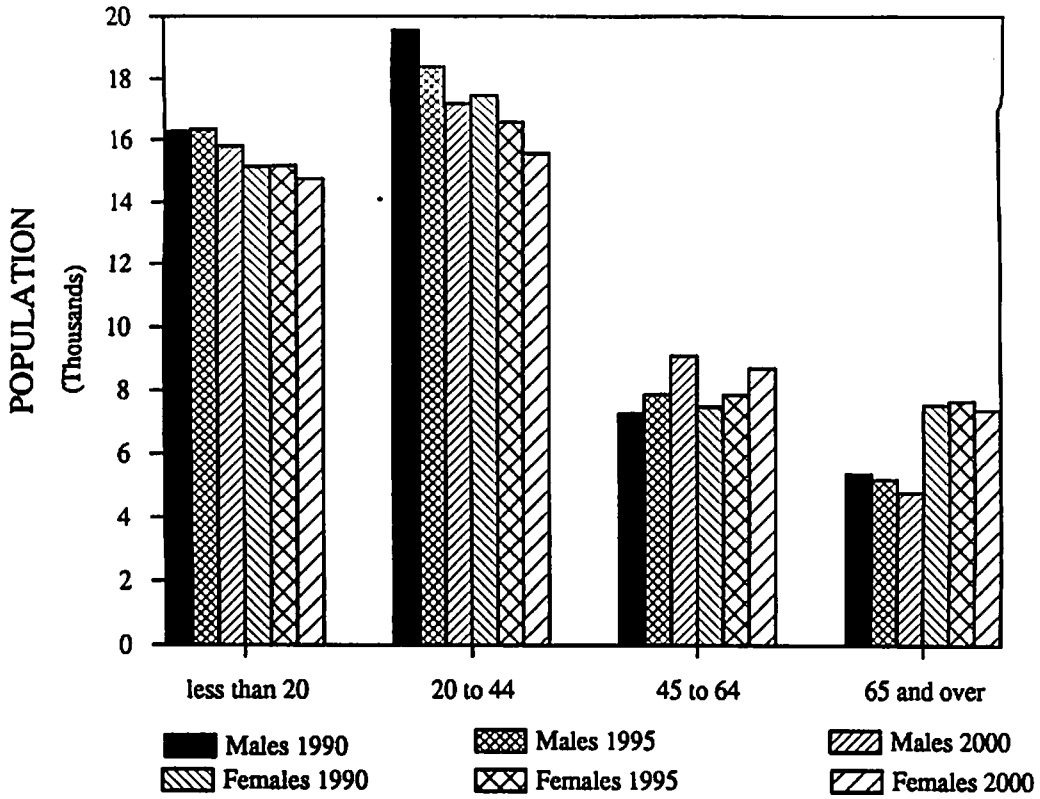
Appendix C
Population Projections, by State
Planning Region and for the State,
North Dakota, 1990, 1995, and 2,000



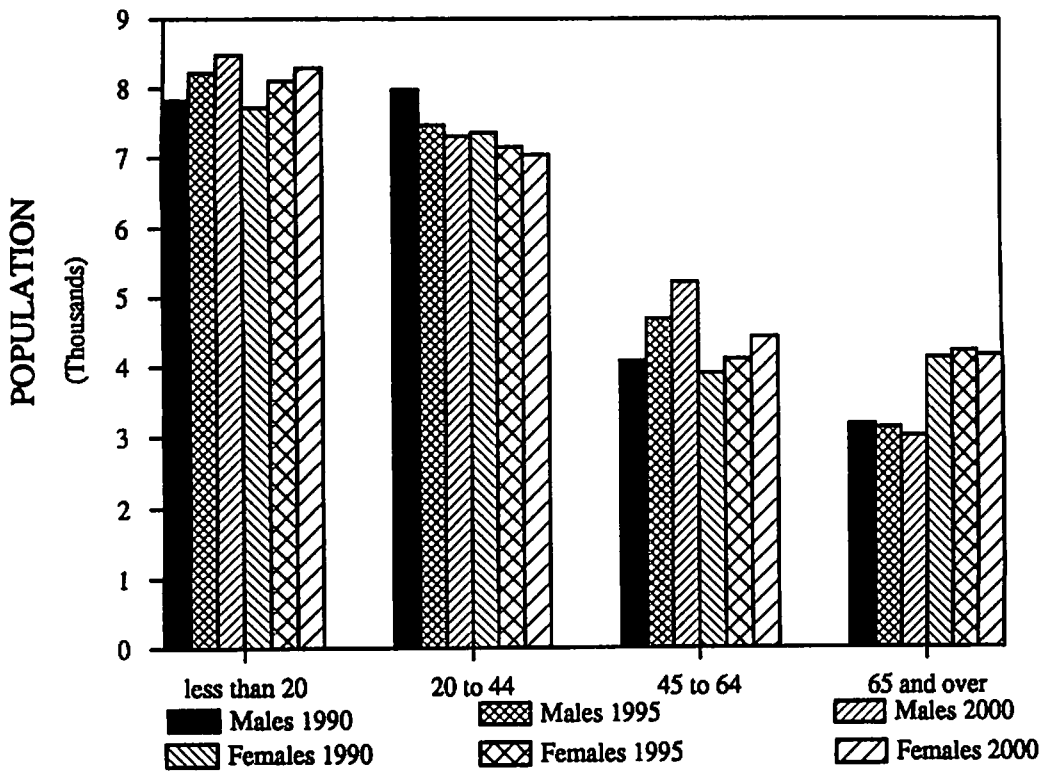
Appendix Figure C1. Population Estimates, by Age and Sex, North Dakota



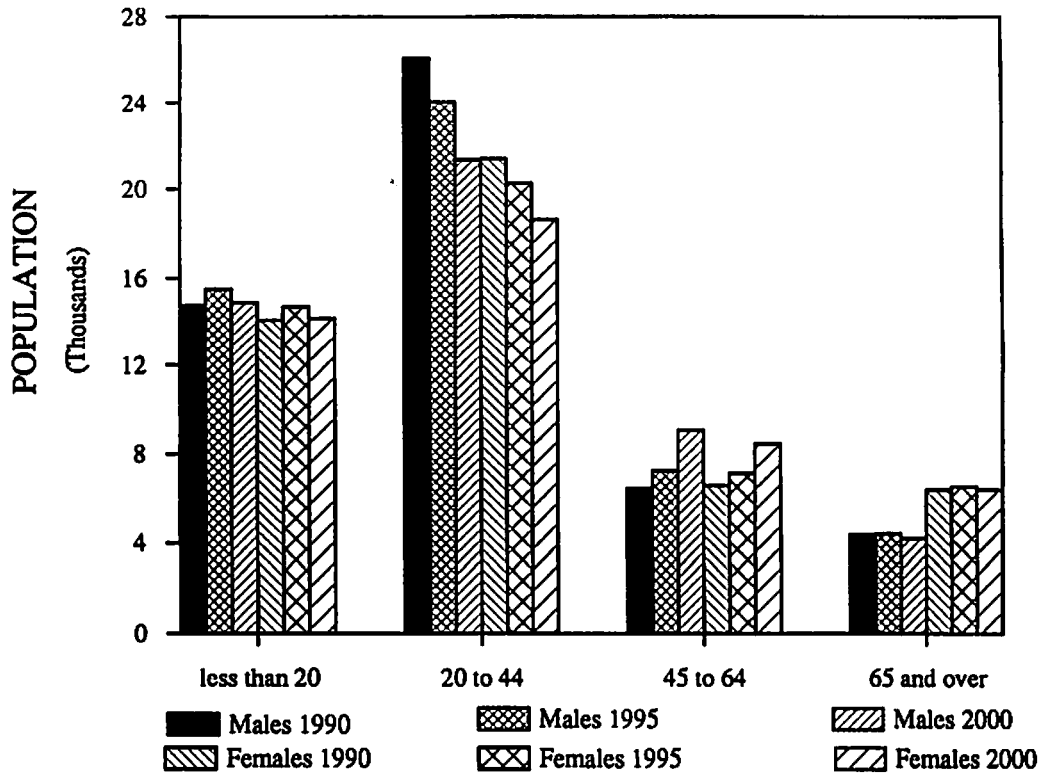
Appendix Figure C2. Region 1 Population Estimates, by Age and Sex, North Dakota



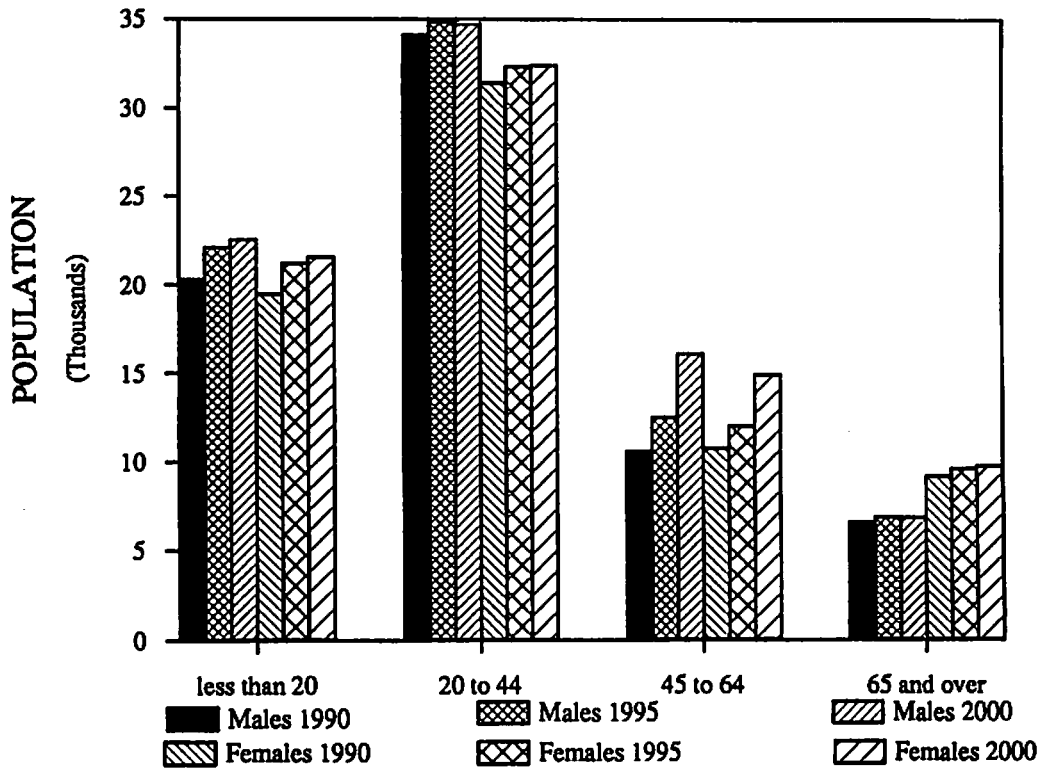
Appendix Figure C3. Region 2 Population Estimates, by Age and Sex, North Dakota



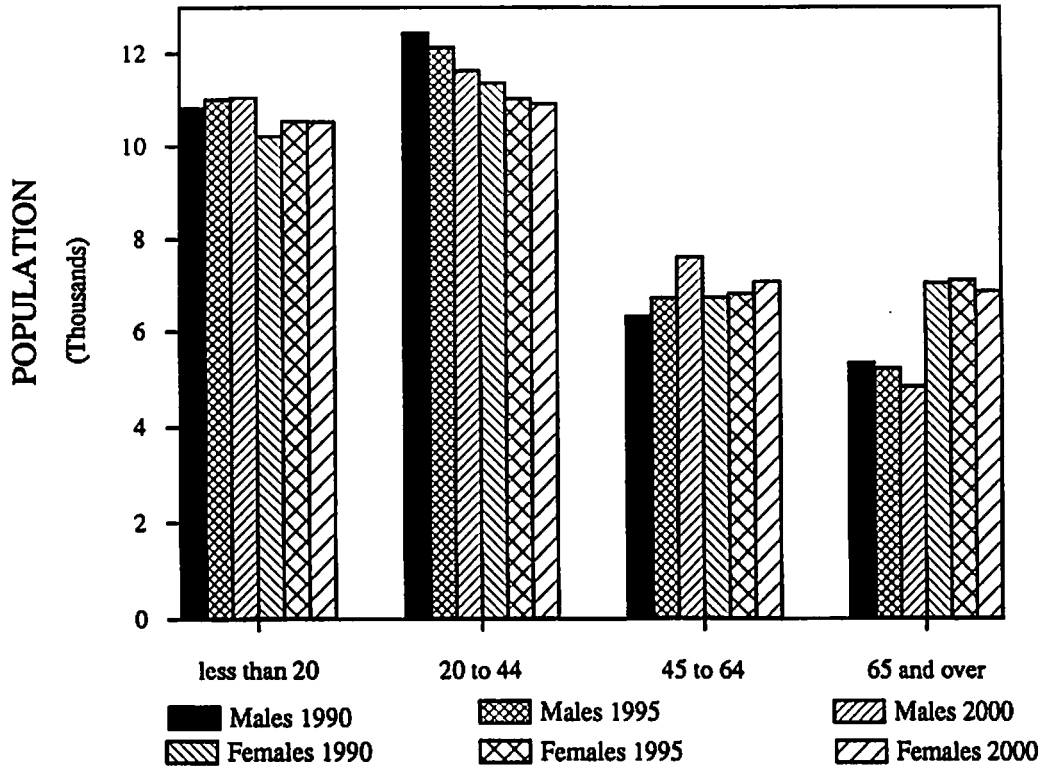
Appendix Figure C4. Region 3 Population Estimates, by Age and Sex, North Dakota



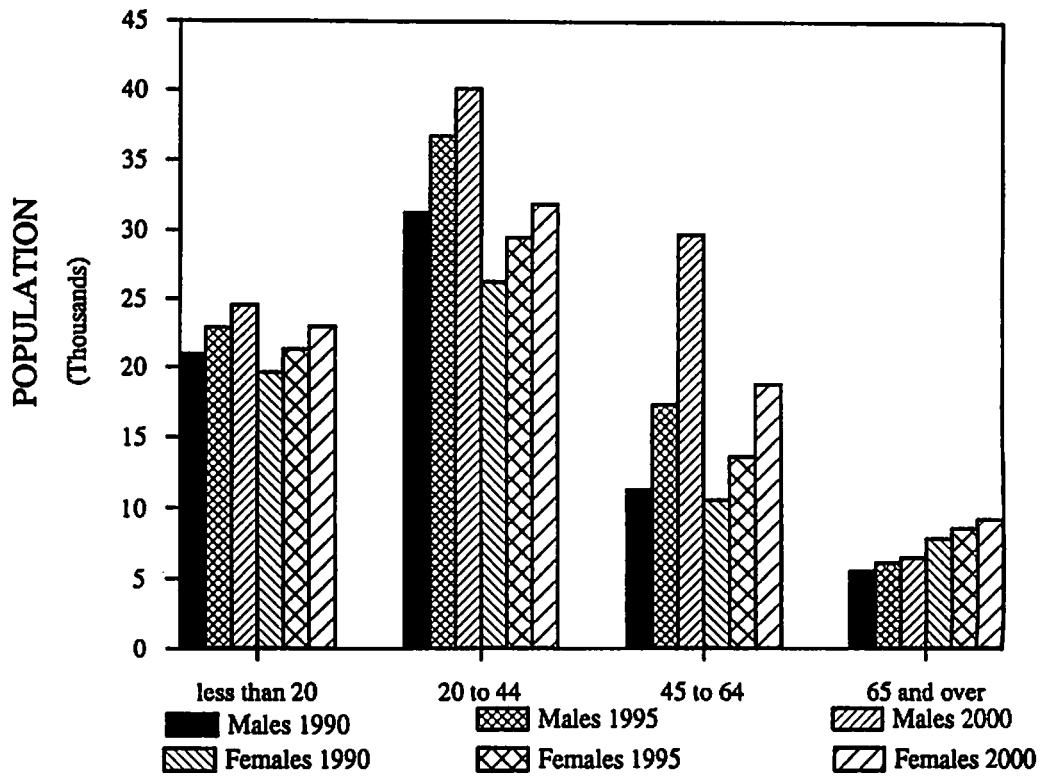
Appendix Figure C5. Region 4 Population Estimates, by Age and Sex, North Dakota



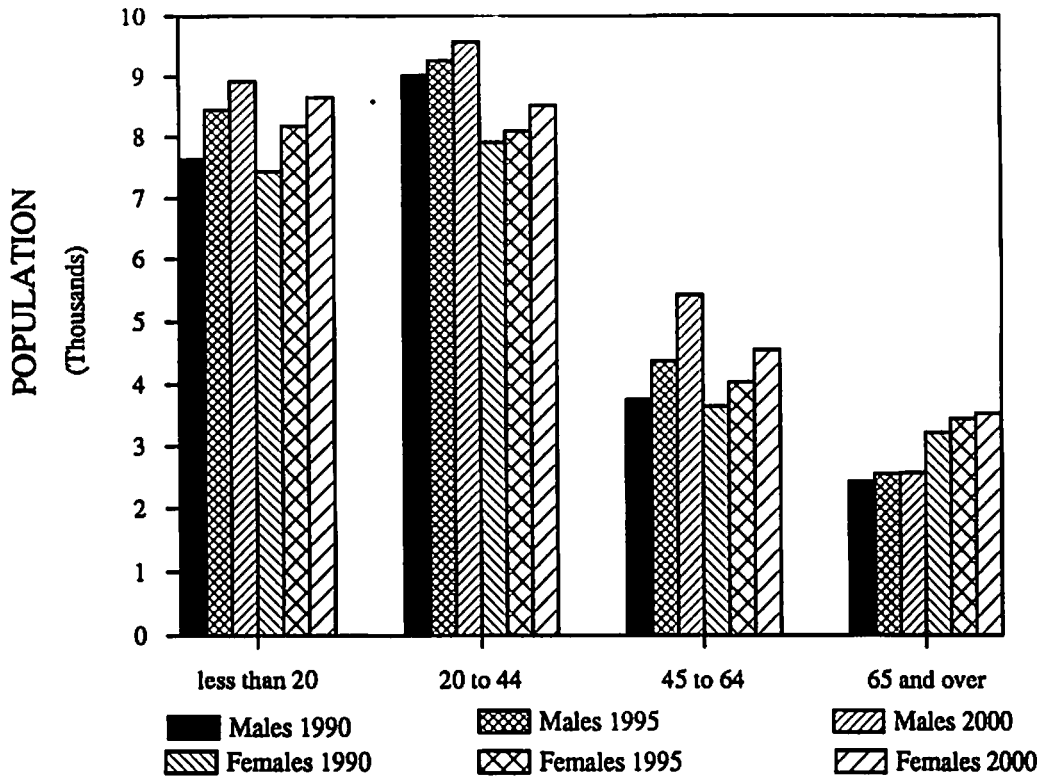
Appendix Figure C6. Region 5 Population Estimates, by Age and Sex, North Dakota



Appendix Figure C7. Region 6 Population Estimates, by Age and Sex, North Dakota



Appendix Figure C8. Region 7 Population Estimates, by Age and Sex, North Dakota



Appendix Figure C9. Region 8 Population Estimates, by Age and Sex, North Dakota

APPENDIX TABLE C1. PROJECTED DISTRIBUTION OF NORTH DAKOTA POPULATION, 1990, 1995, AND 2000

Sex	Age Group	Year		
		1990	1995	2000
<u>Region 1</u>				
Males	Less than 20	5,934	6,477	6,787
	20 to 44	7,707	8,458	8,754
	45 to 64	2,669	3,657	5,476
	65 and over	1,729	1,719	1,641
	Total	18,039	20,311	22,568
Females	Less than 20	5,569	5,982	6,325
	20 to 44	5,747	6,125	6,397
	45 to 64	2,517	2,817	3,449
	65 and over	2,204	2,320	2,279
	Total	16,037	17,244	18,451
Region 1 total		34,076	37,556	41,109
<u>Region 2</u>				
Males	Less than 20	16,265	16,317	15,783
	20 to 44	19,549	18,367	17,166
	45 to 64	7,235	7,823	9,059
	65 and over	5,310	5,163	4,757
	Total	48,359	47,669	46,765
Females	Less than 20	15,139	15,163	14,745
	20 to 44	17,427	16,547	15,552
	45 to 64	7,441	7,827	8,662
	65 and over	7,498	7,621	7,349
	Total	47,505	47,158	46,307
Region 2 total		95,864	94,828	93,072
<u>Region 3</u>				
Males	Less than 20	7,830	8,223	8,476
	20 to 44	7,984	7,479	7,319
	45 to 64	4,078	4,692	5,225
	65 and over	3,180	3,136	3,013
	Total	23,072	23,530	24,034
Females	Less than 20	7,723	8,107	8,292
	20 to 44	7,366	7,159	7,039
	45 to 64	3,906	4,106	4,436
	65 and over	4,127	4,226	4,169
	Total	23,122	23,598	23,937
Region 3 total		46,194	47,128	47,970

CONTINUED

APPENDIX TABLE C1. PROJECTED DISTRIBUTION OF NORTH DAKOTA POPULATION, 1990, 1995, AND 2000 (CONTINUED)

Sex	Age Group	Year		
		1990	1995	2000
<u>Region 4</u>				
Males	Less than 20	14,761	15,483	14,904
	20 to 44	26,097	24,077	21,382
	45 to 64	6,408	7,197	9,028
	65 and over	4,334	4,365	4,172
	Total	51,599	51,122	49,486
Females	Less than 20	14,075	14,675	14,157
	20 to 44	21,422	20,316	18,677
	45 to 64	6,530	7,097	8,433
	65 and over	6,334	6,484	6,343
	Total	48,361	48,573	47,600
Region 4 total		99,960	99,965	97,086
<u>Region 5</u>				
Males	Less than 20	20,313	22,091	22,544
	20 to 44	34,126	34,875	34,755
	45 to 64	10,576	12,479	16,062
	65 and over	6,556	6,856	6,827
	Total	71,571	76,301	80,188
Females	Less than 20	19,466	21,209	21,549
	20 to 44	31,438	32,329	32,421
	45 to 64	10,747	12,004	14,945
	65 and over	9,161	9,582	9,751
	Total	70,811	75,125	78,666
Region 5 total		142,382	151,426	158,854
<u>Region 6</u>				
Males	Less than 20	10,810	10,999	11,040
	20 to 44	12,441	12,132	11,632
	45 to 64	6,316	6,721	7,610
	65 and over	5,305	5,198	4,819
	Total	34,872	35,050	35,101
Females	Less than 20	10,219	10,528	10,524
	20 to 44	11,348	11,017	10,920
	45 to 64	6,740	6,817	7,076
	65 and over	7,035	7,107	6,879
	Total	35,342	35,470	35,399
Region 6 total		70,214	70,520	70,499

CONTINUED

APPENDIX TABLE C1. PROJECTED DISTRIBUTION OF NORTH DAKOTA POPULATION, 1990, 1995, AND 2000 (CONTINUED)

Sex	Age Group	Year		
		1990	1995	2000
<u>Region 7</u>				
Males	Less than 20	20,959	22,939	24,553
	20 to 44	31,284	36,772	40,137
	45 to 64	11,331	17,407	29,771
	65 and over	5,524	6,117	6,499
	Total	69,099	83,235	100,960
Females	Less than 20	19,639	21,345	23,013
	20 to 44	26,305	29,514	31,945
	45 to 64	10,627	13,681	18,839
	65 and over	7,820	8,592	9,244
	Total	64,391	73,132	83,040
Region 7 total		133,490	156,367	184,000
<u>Region 8</u>				
Males	Less than 20	7,623	8,435	8,916
	20 to 44	9,015	9,257	9,573
	45 to 64	3,732	4,347	5,395
	65 and over	2,411	2,533	2,542
	Total	22,781	24,574	26,426
Females	Less than 20	7,434	8,168	8,644
	20 to 44	7,895	8,077	8,497
	45 to 64	3,618	4,011	4,525
	65 and over	3,185	3,407	3,496
	Total	22,132	23,662	25,162
Region 8 total		44,913	48,236	51,588
<u>State</u>				
Males	Less than 20	104,473	111,117	113,377
	20 to 44	148,537	152,456	152,267
	45 to 64	52,453	64,942	89,289
	65 and over	34,137	34,950	34,218
	Total	339,601	363,465	389,150
Females	Less than 20	99,238	105,294	107,586
	20 to 44	129,055	131,615	132,339
	45 to 64	52,125	58,604	70,987
	65 and over	47,074	49,112	49,378
	Total	327,492	344,625	360,291
State total		667,093	708,090	749,441

Appendix D
Projected Number of Participants, by
Region and Activity, Spring/Summer
SCORP Survey, North Dakota

APPENDIX TABLE D1. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN
 REGION 1, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA,
 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	5,899	6,471	6,876
Basketball-outdoor courts	5,947	6,499	6,885
Bicycling	8,855	9,709	10,396
Boating/water skiing	16,837	18,501	19,952
Camping	16,201	17,873	19,453
Canoeing	3,244	3,524	3,677
Fishing	15,696	17,261	18,638
Gardening	11,495	12,700	13,881
Golf	1,905	2,154	2,466
Hiking	951	1,035	1,140
Horseback riding	1,883	2,042	2,124
Horseshoes	2,579	2,901	3,225
Jogging	2,672	2,899	3,039
Nature observation	1,028	1,181	1,411
Picnicking	11,135	12,343	13,638
Playground activities	4,791	5,304	5,847
Sailing	0	0	0
Sightseeing/visiting historical places	13,086	14,479	15,922
Soccer	0	0	0
Softball/baseball	3,679	4,127	4,630
Swim-beach	12,984	14,093	14,797
Swim-outdoor pool	2,706	2,942	3,115
Tennis	1,652	1,801	1,914
Walking	9,345	10,228	10,996

APPENDIX TABLE D2. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN
 REGION 2, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA,
 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	10,267	10,174	10,094
Basketball-outdoor courts	9,217	9,049	8,724
Bicycling	20,530	20,299	19,866
Boating/water skiing	31,289	30,814	30,216
Camping	32,195	31,746	31,162
Canoeing	7,969	7,774	7,498
Fishing	41,039	40,503	39,733
Gardening	30,910	30,619	30,310
Golf	10,962	10,817	10,706
Hiking	16,070	15,921	15,672
Horseback riding	12,497	12,209	11,737
Horseshoes	6,270	6,071	5,816
Jogging	6,096	6,013	5,885
Nature observation	13,188	12,986	12,664
Picnicking	40,441	39,884	39,101
Playground activities	20,563	20,217	19,467
Sailing	874	895	917
Sightseeing/visiting historical places	32,356	31,977	31,392
Soccer	866	869	841
Softball/baseball	11,775	11,537	11,097
Swim-beach	31,052	30,374	29,245
Swim-outdoor pool	22,635	22,132	21,258
Tennis	7,322	7,142	6,835
Walking	31,026	30,774	30,500

APPENDIX TABLE D3. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN
 REGION 3, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA,
 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	7,475	7,515	7,591
Basketball-outdoor courts	4,332	4,484	4,595
Bicycling	11,473	11,744	11,997
Boating/water skiing	12,942	13,090	13,268
Camping	8,911	9,058	9,201
Canoeing	2,096	2,135	2,173
Fishing	16,811	17,105	17,390
Gardening	14,989	15,415	15,829
Golf	3,489	3,591	3,699
Hiking	4,178	4,272	4,352
Horseback riding	3,038	3,080	3,119
Horseshoes	2,042	2,162	2,265
Jogging	3,364	3,424	3,490
Nature observation	5,905	6,164	6,402
Picnicking	18,009	18,511	18,990
Playground activities	7,989	8,219	8,392
Sailing	1,097	1,067	1,059
Sightseeing/visiting historical places	11,426	11,700	11,947
Soccer	202	222	244
Softball/baseball	6,402	6,540	6,685
Swim-beach	11,466	11,713	11,943
Swim-outdoor pool	10,271	10,549	10,763
Tennis	1,279	1,315	1,348
Walking	13,915	14,182	14,466

APPENDIX TABLE D4. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN REGION 4, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	1990	1995	2000
ATVing	7,429	7,519	7,444
Basketball- outdoor courts	13,321	13,349	12,908
Bicycling	32,772	32,856	31,796
Boating/ water skiing	13,133	13,258	13,280
Camping	30,562	30,373	29,235
Canoeing	3,256	3,080	2,821
Fishing	24,956	24,993	24,590
Gardening	35,127	34,901	34,243
Golf	14,199	13,835	13,340
Hiking	18,843	18,848	18,451
Horseback riding	3,275	3,385	3,451
Horseshoes	8,818	8,687	8,459
Jogging	2,867	2,733	2,521
Nature observation	13,648	13,612	13,058
Picnicking	52,816	52,531	50,817
Playground activities	16,228	16,426	15,706
Sailing	155	143	127
Sightseeing/ visiting historical places	28,011	28,403	28,278
Soccer	1,319	1,384	1,332
Softball/ baseball	15,190	14,894	13,959
Swim-beach	29,194	29,001	27,563
Swim-outdoor pool	22,173	22,163	20,943
Tennis	6,995	6,855	6,411
Walking	29,588	29,661	29,457

-----Participants-----

APPENDIX TABLE D5. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN
 REGION 5, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA,
 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	15,753	16,613	16,944
Basketball-outdoor courts	16,513	17,507	17,762
Bicycling	44,403	47,163	48,565
Boating/water skiing	18,626	19,571	20,163
Camping	9,072	9,715	10,223
Canoeing	3,433	3,573	3,706
Fishing	27,414	28,899	29,814
Gardening	49,547	52,676	56,053
Golf	24,880	26,308	27,452
Hiking	11,535	12,427	13,249
Horseback riding	10,320	10,855	11,040
Horseshoes	5,562	5,795	5,928
Jogging	16,714	17,597	17,949
Nature observation	21,617	22,904	23,576
Picnicking	50,054	53,577	56,657
Playground activities	35,307	37,412	37,991
Sailing	0	0	0
Sightseeing/visiting historical places	29,774	31,643	33,317
Soccer	3,579	3,896	3,966
Softball/baseball	23,016	24,398	25,093
Swim-beach	8,434	8,919	9,212
Swim-outdoor pool	30,492	32,557	33,316
Tennis	12,070	12,860	13,175
Walking	41,496	44,153	46,613

APPENDIX TABLE D6. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN REGION 6, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	1990	1995	2000
ATVing	4,291	4,301	4,292
Basketball-outdoor courts	7,143	7,136	7,066
Bicycling	21,540	21,629	21,541
Boating/water skiing	18,182	18,224	18,246
Camping	25,442	25,471	25,451
Canoeing	2,397	2,403	2,423
Fishing	25,413	25,513	25,524
Gardening	22,939	22,957	22,999
Golf	8,946	8,901	8,878
Hiking	9,549	9,510	9,450
Horseback riding	3,633	3,606	3,562
Horseshoes	5,868	5,856	5,778
Jogging	4,269	4,210	4,119
Nature observation	8,455	8,490	8,536
Picnicking	41,172	41,327	41,330
Playground activities	25,703	25,822	25,770
Sailing	0	0	0
Sightseeing/visiting historical places	19,998	20,100	20,174
Soccer	4,987	5,005	4,973
Softball/baseball	17,347	17,342	17,262
Swim-beach	19,385	19,341	19,169
Swim-outdoor pool	17,076	17,238	17,182
Tennis	2,344	2,316	2,269
Walking	25,454	25,541	25,611

-----Participants-----

APPENDIX TABLE D7. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN REGION 7, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
ATVing	13,425	15,525	17,772
Basketball-outdoor courts	17,148	19,387	21,399
Bicycling	39,192	44,604	50,048
Boating/water skiing	49,982	58,051	67,118
Camping	56,157	65,090	74,903
Canoeing	6,168	6,979	7,614
Fishing	79,632	93,042	108,797
Gardening	47,302	56,453	68,211
Golf	12,475	14,804	17,332
Hiking	13,352	16,259	20,516
Horseback riding	9,906	11,664	13,857
Horseshoes	16,149	19,054	22,149
Jogging	10,357	11,955	13,702
Nature observation	13,438	16,219	20,384
Picnicking	67,703	79,722	94,893
Playground activities	32,485	36,600	40,377
Sailing	2,408	2,749	2,982
Sightseeing/visiting historical places	45,930	54,436	65,823
Soccer	7,157	7,938	8,563
Softball/baseball	17,600	20,150	22,460
Swim-beach	45,586	52,355	59,618
Swim-outdoor pool	23,722	26,895	30,300
Tennis	9,503	10,757	11,891
Walking	45,876	53,977	64,104

-----Participants-----

APPENDIX TABLE D8. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN REGION 8, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	1990	1995	2000
Activity	1990	1995	2000
-----Participants-----			
ATVing	7,314	7,831	8,310
Basketball-outdoor courts	6,369	6,933	7,302
Bicycling	13,765	14,886	15,946
Boating/water skiing	15,208	16,235	17,237
Camping	18,508	19,886	21,384
Canoeing	712	751	786
Fishing	22,245	23,869	25,558
Gardening	15,009	16,149	17,428
Golf	5,958	6,308	6,719
Hiking	5,818	6,265	6,760
Horseback riding	5,300	5,744	6,187
Horseshoes	4,476	4,655	4,871
Jogging	2,168	2,394	2,637
Nature observation	5,211	5,593	5,991
Picnicking	20,409	22,028	23,693
Playground activities	9,139	9,817	10,356
Sailing	1,510	1,565	1,646
Sightseeing/visiting historical places	20,283	21,767	23,286
Soccer	412	456	482
Softball/baseball	10,669	11,438	12,083
Swim-beach	13,849	14,782	15,567
Swim-outdoor pool	11,465	12,352	13,051
Tennis	2,840	3,095	3,270
Walking	13,297	14,287	15,334

Appendix E
Projected Total Days of Participation, by
Region of Residence and Activity,
Spring/Summer SCORP Survey



APPENDIX TABLE E1. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 1, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	58,790	65,599	72,799
Basketball-outdoor courts	91,509	99,854	104,495
Bicycling	301,220	327,512	344,866
Boating/water skiing	101,468	110,829	117,870
Camping	94,917	104,110	111,952
Canoeing	6,333	6,908	7,193
Fishing	191,327	209,157	221,644
Gardening	325,100	355,936	382,899
Golf	22,105	25,226	28,874
Hiking	8,162	8,707	9,190
Horseback riding	9,677	10,444	10,879
Horseshoes	6,511	7,211	7,957
Jogging	63,548	69,116	73,687
Nature observation	13,391	16,182	21,410
Picnicking	36,636	40,402	44,474
Playground activities	56,988	62,049	66,725
Sailing	0	0	0
Sightseeing/visiting historical places	57,852	63,721	68,654
Soccer	0	0	0
Softball/baseball	64,658	72,425	80,032
Swim-beach	81,294	88,121	92,346
Swim-outdoor pool	53,096	57,606	60,945
Tennis	25,570	27,833	29,652
Walking	459,602	501,027	533,544

APPENDIX TABLE E2. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 2, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	230,956	225,259	219,511
Basketball-outdoor courts	149,389	147,907	143,080
Bicycling	661,588	654,857	638,708
Boating/water skiing	362,030	354,107	343,292
Camping	380,598	374,237	367,454
Canoeing	18,147	17,593	16,806
Fishing	554,743	546,030	537,399
Gardening	1,175,481	1,155,856	1,135,872
Golf	158,762	158,300	159,733
Hiking	110,517	109,633	107,232
Horseback riding	331,631	325,904	313,153
Horseshoes	24,317	23,893	23,308
Jogging	114,526	113,509	112,336
Nature observation	331,661	328,669	321,159
Picnicking	179,421	177,325	174,470
Playground activities	183,525	181,279	174,417
Sailing	2,904	3,067	3,371
Sightseeing/visiting historical places	83,336	82,515	81,350
Soccer	3,773	3,784	3,664
Softball/baseball	165,299	162,175	156,495
Swim-beach	339,904	331,798	318,456
Swim-outdoor pool	240,008	237,081	229,819
Tennis	55,544	54,446	52,281
Walking	785,832	784,417	781,417

APPENDIX TABLE E3. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 3, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	78,928	81,035	82,691
Basketball-outdoor courts	78,574	82,191	84,611
Bicycling	388,175	391,704	398,001
Boating/water skiing	185,210	184,761	185,345
Camping	41,466	42,722	43,986
Canoeing	5,865	5,976	6,081
Fishing	108,122	110,504	112,741
Gardening	539,938	557,768	574,111
Golf	55,061	54,663	55,396
Hiking	83,844	86,040	87,236
Horseback riding	48,305	48,951	49,526
Horseshoes	27,083	28,051	28,913
Jogging	93,715	93,658	94,237
Nature observation	103,469	107,689	111,923
Picnicking	70,922	73,443	75,882
Playground activities	70,020	72,744	74,581
Sailing	1,155	1,121	1,113
Sightseeing/visiting historical places	43,267	44,693	45,982
Soccer	202	222	244
Softball/baseball	101,163	105,879	109,579
Swim-beach	116,990	118,530	120,059
Swim-outdoor pool	149,470	154,256	157,238
Tennis	9,816	10,186	10,474
Walking	434,624	447,886	460,414

APPENDIX TABLE E4. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 4, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	1990	1995	2000
ATVing	204,921	205,265	198,630
Basketball--outdoor courts	242,260	243,504	231,971
Bicycling	876,898	887,737	855,022
Boating/water skiing	90,668	92,166	94,623
Camping	180,005	179,568	176,578
Canoeing	4,284	4,055	3,709
Fishing	131,580	134,027	135,819
Gardening	724,318	721,656	719,178
Golf	218,917	222,095	233,433
Hiking	115,515	117,265	119,325
Horseback riding	25,213	25,774	24,890
Horseshoes	117,550	114,187	107,907
Jogging	51,962	49,406	45,356
Nature observation	154,443	152,703	145,543
Picnicking	217,671	216,786	211,720
Playground activities	133,730	135,952	129,989
Sailing	311	287	255
Sightseeing/visiting historical places	108,056	108,513	106,908
Soccer	15,833	16,608	15,986
Softball/baseball	478,022	471,620	440,433
Swim-beach	217,964	216,702	207,410
Swim-outdoor pool	300,927	308,219	294,482
Tennis	33,481	33,877	32,198
Walking	733,927	735,695	747,447

-----Days-----

APPENDIX TABLE E5. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 5, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	190,719	201,393	207,018
Basketball-outdoor courts	297,890	315,495	318,781
Bicycling	1,260,778	1,347,787	1,385,199
Boating/water skiing	147,954	156,730	162,028
Camping	41,430	44,267	46,706
Canoeing	7,659	7,955	8,216
Fishing	142,547	150,831	156,372
Gardening	1,264,417	1,332,858	1,407,268
Golf	277,178	296,668	315,266
Hiking	226,785	240,012	256,938
Horseback riding	39,741	42,735	44,621
Horseshoes	15,960	16,791	17,121
Jogging	262,762	274,848	281,184
Nature observation	536,946	569,121	582,845
Picnicking	156,991	168,072	177,379
Playground activities	790,327	848,904	861,116
Sailing	0	0	0
Sightseeing/visiting historical places	332,615	345,800	350,149
Soccer	28,977	31,526	32,142
Softball/baseball	297,859	314,950	323,061
Swim-beach	71,160	75,386	78,973
Swim-outdoor pool	266,562	287,502	297,421
Tennis	55,337	59,120	61,014
Walking	1,377,309	1,457,235	1,506,625

APPENDIX TABLE E6. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 6, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	250,858	250,454	247,275
Basketball-outdoor courts	118,424	118,446	117,305
Bicycling	725,839	731,760	728,211
Boating/water skiing	95,782	95,879	96,112
Camping	150,674	151,180	151,950
Canoeing	4,907	4,892	4,896
Fishing	190,590	190,577	190,014
Gardening	889,611	891,172	887,181
Golf	176,535	175,123	175,178
Hiking	104,928	105,977	108,714
Horseback riding	41,351	41,267	40,885
Horseshoes	14,913	14,767	14,579
Jogging	95,868	93,896	90,955
Nature observation	217,548	217,660	218,164
Picnicking	170,715	171,129	171,046
Playground activities	314,405	317,916	316,980
Sailing	0	0	0
Sightseeing/visiting historical places	78,647	79,132	79,697
Soccer	46,081	46,385	46,122
Softball/baseball	227,258	228,330	227,229
Swim-beach	90,086	90,526	90,076
Swim-outdoor pool	179,637	182,833	182,839
Tennis	12,922	12,856	12,603
Walking	767,061	770,563	772,969

APPENDIX TABLE E7. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 7, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	215,719	248,011	283,917
Basketball-outdoor courts	395,468	438,928	478,850
Bicycling	1,259,516	1,403,531	1,536,292
Boating/water skiing	432,393	506,347	592,294
Camping	457,109	544,132	659,912
Canoeing	27,395	31,209	34,264
Fishing	854,815	1,015,363	1,212,521
Gardening	2,190,784	2,595,061	3,094,787
Golf	244,667	290,380	335,041
Hiking	233,495	292,966	390,523
Horseback riding	85,339	104,982	134,305
Horseshoes	60,981	72,411	83,864
Jogging	243,578	281,784	322,021
Nature observation	420,856	488,329	574,790
Picnicking	317,643	369,399	430,128
Playground activities	446,252	495,735	537,358
Sailing	4,363	4,936	5,336
Sightseeing/visiting historical places	224,701	264,017	314,524
Soccer	97,579	107,843	115,937
Softball/baseball	261,645	293,516	318,269
Swim-beach	341,112	389,904	437,133
Swim-outdoor pool	326,707	361,988	396,184
Tennis	50,264	57,257	64,493
Walking	1,297,520	1,541,779	1,859,676

APPENDIX TABLE E8. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 8, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	69,906	74,871	78,879
Basketball-outdoor courts	95,201	104,416	110,151
Bicycling	479,007	524,991	556,894
Boating/water skiing	72,663	77,192	81,850
Camping	123,539	132,532	141,914
Canoeing	13,253	13,973	14,587
Fishing	174,974	187,782	201,536
Gardening	348,302	374,569	406,831
Golf	81,778	86,905	92,578
Hiking	42,322	45,544	48,679
Horseback riding	117,972	128,585	137,017
Horseshoes	24,103	25,529	26,877
Jogging	50,046	55,145	60,360
Nature observation	63,195	68,723	75,700
Picnicking	90,333	98,014	105,620
Playground activities	133,960	146,402	154,569
Sailing	11,626	12,044	12,572
Sightseeing/visiting historical places	72,962	78,244	83,363
Soccer	11,290	12,493	13,206
Softball/baseball	179,311	194,995	205,801
Swim-beach	46,481	49,434	51,984
Swim-outdoor pool	187,808	204,706	216,163
Tennis	34,922	38,451	40,650
Walking	370,881	398,940	430,653

Appendix F
Projected Total Days of Participation, by
Region of Occurrence and Activity,
Spring/Summer SCORP Survey, North Dakota

APPENDIX TABLE F1. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 1, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA 1990, 1995, AND 2000

Activity	1990	1995	2000
ATVing	92,724	98,957	104,284
Basketball-outdoor courts	140,153	146,785	148,783
Bicycling	353,399	373,393	381,506
Boating/water skiing	153,963	161,490	165,551
Camping	177,500	186,374	191,946
Canoeing	9,453	9,843	9,928
Fishing	275,094	287,146	293,883
Gardening	441,091	460,481	477,042
Golf	29,098	30,965	33,188
Hiking	16,344	17,326	18,365
Horseback riding	9,231	9,496	9,552
Horseshoes	8,151	8,678	9,249
Jogging	87,353	91,230	93,997
Nature observation	16,174	18,471	22,685
Picnicking	49,231	52,260	55,075
Playground activities	77,957	83,002	85,895
Sailing	849	871	870
Sightseeing/visiting historical places	83,352	88,011	91,996
Soccer	0	0	0
Softball/baseball	103,850	111,186	116,638
Swim-beach	135,809	141,821	143,735
Swim-outdoor pool	77,956	82,891	84,914
Tennis	38,266	40,254	41,232
Walking	669,889	703,184	721,920

-----Days-----

APPENDIX TABLE F2. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 2, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	276,981	291,101	304,585
Basketball-outdoor courts	168,292	178,175	183,445
Bicycling	770,764	816,915	853,022
Boating/water skiing	322,349	340,299	356,222
Camping	292,815	309,748	327,638
Canoeing	19,523	20,416	20,920
Fishing	535,891	568,002	602,302
Gardening	1,511,589	1,602,989	1,712,110
Golf	195,348	212,512	237,510
Hiking	120,686	128,459	136,771
Horseback riding	359,328	376,601	384,179
Horseshoes	27,958	29,839	31,841
Jogging	140,089	149,999	161,417
Nature observation	274,589	293,022	312,932
Picnicking	187,687	200,814	216,044
Playground activities	194,405	204,229	207,650
Sailing	1,861	1,962	1,994
Sightseeing/visiting historical places	60,676	65,264	71,110
Soccer	14,328	15,049	15,347
Softball/baseball	185,178	194,579	198,922
Swim-beach	338,742	354,029	362,535
Swim-outdoor pool	290,285	305,898	315,039
Tennis	63,275	66,672	68,035
Walking	959,395	1,029,038	1,120,030

APPENDIX TABLE F3. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 3, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
ATVing	94,397	100,113	104,582
Basketball-outdoor courts	65,462	69,820	72,240
Bicycling	449,858	473,502	488,717
Boating/water skiing	211,575	223,272	237,792
Camping	125,767	136,946	153,187
Canoeing	5,929	6,237	6,441
Fishing	196,129	211,702	231,724
Gardening	756,854	817,424	899,109
Golf	77,408	82,843	90,423
Hiking	106,869	114,091	122,250
Horseback riding	49,311	51,566	52,537
Horseshoes	21,111	22,794	24,873
Jogging	101,707	105,673	108,848
Nature observation	131,725	143,747	161,180
Picnicking	104,098	112,444	123,394
Playground activities	70,439	75,046	78,399
Sailing	1,607	1,656	1,662
Sightseeing/visiting historical places	76,603	81,892	87,394
Soccer	0	0	0
Softball/baseball	91,730	98,912	106,122
Swim-beach	136,491	143,874	150,864
Swim-outdoor pool	137,807	145,654	150,079
Tennis	10,036	10,668	11,077
Walking	676,223	725,211	787,113

-----Days-----

APPENDIX TABLE F4. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 4, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	168,205	179,886	191,820
Basketball-outdoor courts	204,537	216,712	223,932
Bicycling	696,283	38,196	767,094
Boating/water skiing	37,188	39,923	43,496
Camping	54,218	58,012	62,546
Canoeing	2,345	2,425	2,464
Fishing	57,813	61,977	66,494
Gardening	527,373	564,171	615,286
Golf	180,452	198,755	229,242
Hiking	65,430	71,511	80,460
Horseback riding	18,581	19,673	20,257
Horseshoes	97,630	103,102	108,086
Jogging	57,369	59,709	60,433
Nature observation	92,431	97,305	100,960
Picnicking	138,412	147,604	157,952
Playground activities	97,839	102,906	104,766
Sailing	0	0	0
Sightseeing/visiting historical places	40,780	44,136	48,696
Soccer	21,873	23,120	23,532
Softball/baseball	370,371	387,967	394,877
Swim-beach	141,746	149,542	155,260
Swim-outdoor pool	232,706	245,510	250,036
Tennis	32,148	33,993	34,808
Walking	570,267	611,456	672,249

APPENDIX TABLE F5. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 5, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	93,747	99,347	104,191
Basketball-outdoor courts	199,030	209,262	212,551
Bicycling	647,407	680,942	698,293
Boating/water skiing	36,279	38,823	41,715
Camping	17,330	18,364	19,291
Canoeing	3,945	4,137	4,331
Fishing	39,045	42,201	46,463
Gardening	664,397	703,633	753,644
Golf	136,442	144,825	154,058
Hiking	117,163	125,189	136,156
Horseback riding	20,055	21,508	23,012
Horseshoes	7,068	7,404	7,619
Jogging	131,408	137,485	141,440
Nature observation	269,725	283,377	293,289
Picnicking	87,335	92,711	97,915
Playground activities	407,884	430,045	438,197
Sailing	0	0	0
Sightseeing/visiting historical places	171,740	178,087	181,074
Soccer	13,002	13,821	14,107
Softball/baseball	162,605	171,546	178,151
Swim-beach	39,334	41,695	44,097
Swim-outdoor pool	95,284	101,031	105,267
Tennis	28,257	30,054	31,649
Walking	727,202	765,919	800,686

APPENDIX TABLE F6. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 6, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	389,937	407,623	413,149
Basketball-outdoor courts	184,933	193,222	195,839
Bicycling	1,075,951	1,133,567	1,161,767
Boating/water skiing	156,411	164,342	170,681
Camping	159,927	167,699	172,731
Canoeing	6,588	6,929	7,248
Fishing	276,403	291,037	303,386
Gardening	1,034,407	1,107,510	1,206,782
Golf	271,616	285,998	302,372
Hiking	116,463	127,495	145,100
Horseback riding	71,440	75,765	79,824
Horseshoes	15,417	16,130	16,764
Jogging	171,162	176,321	177,322
Nature observation	295,628	317,697	349,566
Picnicking	236,049	250,274	264,375
Playground activities	476,888	502,483	513,880
Sailing	849	871	870
Sightseeing/visiting historical places	61,932	66,379	71,882
Soccer	70,288	73,720	74,860
Softball/baseball	304,398	321,564	332,833
Swim-beach	111,616	117,219	119,438
Swim-outdoor pool	280,352	296,517	302,873
Tennis	21,205	22,086	22,397
Walking	828,330	889,986	974,922

APPENDIX TABLE F7. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 7, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	236,546	250,647	261,424
Basketball-outdoor courts	397,739	421,083	431,040
Bicycling	1,295,007	1,365,072	1,395,756
Boating/water skiing	587,259	619,556	647,178
Camping	647,526	691,268	740,565
Canoeing	30,950	32,060	32,371
Fishing	1,092,188	1,160,725	1,233,954
Gardening	2,300,749	2,417,922	2,530,368
Golf	264,437	275,621	284,372
Hiking	193,261	209,823	232,768
Horseback riding	70,709	75,757	81,664
Horseshoes	73,251	76,415	78,564
Jogging	225,999	238,967	248,433
Nature observation	589,630	621,800	644,997
Picnicking	358,387	378,891	396,315
Playground activities	483,102	507,737	516,662
Sailing	7,472	8,308	9,667
Sightseeing/visiting historical places	242,953	256,980	268,659
Soccer	75,687	80,042	81,475
Softball/baseball	292,955	306,318	310,612
Swim-beach	428,325	448,931	460,295
Swim-outdoor pool	322,289	341,455	350,468
Tennis	49,910	52,646	54,365
Walking	1,222,394	1,291,599	1,365,574

APPENDIX TABLE F8. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 8, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	77,768	81,761	83,871
Basketball-outdoor courts	95,895	101,174	102,860
Bicycling	580,916	616,116	634,555
Boating/water skiing	135,168	141,354	145,185
Camping	202,751	214,813	227,104
Canoeing	21,440	22,325	22,606
Fishing	183,201	194,636	206,955
Gardening	473,827	508,559	556,233
Golf	81,775	86,752	92,748
Hiking	153,059	163,535	177,435
Horseback riding	160,676	170,158	177,222
Horseshoes	34,924	36,416	37,119
Jogging	63,815	69,758	78,056
Nature observation	162,458	172,914	183,415
Picnicking	134,747	143,352	152,071
Playground activities	176,140	185,792	189,271
Sailing	11,976	12,360	12,501
Sightseeing/visiting historical places	179,843	191,239	203,693
Soccer	12,430	13,220	13,489
Softball/baseball	220,350	232,220	236,847
Swim-beach	72,690	75,885	76,957
Swim-outdoor pool	255,931	270,215	275,558
Tennis	37,504	39,749	40,547
Walking	600,543	639,135	686,875

APPENDIX TABLE F9. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN NORTH DAKOTA, BY ACTIVITY, SPRING/SUMMER SCORP SURVEY, NORTH DAKOTA 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	1,430,306	1,509,435	1,567,906
Basketball-outdoor courts	1,456,042	1,536,233	1,570,689
Bicycling	5,869,585	6,197,703	6,380,711
Boating/water skiing	1,640,191	1,729,058	1,807,821
Camping	1,677,835	1,783,223	1,895,007
Canoeing	100,174	104,372	106,308
Fishing	2,655,765	2,817,427	2,985,162
Gardening	7,710,288	8,182,688	8,750,573
Golf	1,236,577	1,318,271	1,423,913
Hiking	889,275	957,428	1,049,306
Horseback riding	759,330	800,523	828,246
Horseshoes	285,510	300,779	314,116
Jogging	978,902	1,029,143	1,069,945
Nature observation	1,832,358	1,948,333	2,069,024
Picnicking	1,295,946	1,378,351	1,463,139
Playground activities	1,984,654	2,091,241	2,134,721
Sailing	24,613	26,028	27,564
Sightseeing/visiting historical places	917,880	971,987	1,024,504
Soccer	207,608	218,973	222,811
Softball/baseball	1,731,437	1,824,292	1,875,003
Swim-beach	1,404,753	1,472,995	1,513,182
Swim-outdoor pool	1,692,133	1,788,683	1,833,754
Tennis	281,049	296,123	304,110
Walking	6,254,242	6,655,528	7,129,370

Appendix G
Projected Number of Participants,
by Region and Activity
Fall/Winter SCORP Survey

APPENDIX TABLE G1. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN REGION 1, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	1990	1995	2000
ATVing	4,098	4,715	5,582
Bicycling	9,646	10,464	11,006
Broomball	0	0	0
Camping	8,260	9,156	10,095
Cross-country skiing	1,079	1,184	1,288
Downhill skiing	184	219	267
Fishing-open water	12,392	13,822	15,377
Fishing-ice	5,245	5,903	6,607
Golfing	2,766	3,192	3,797
Hiking	2,351	2,604	2,867
Hockey-outdoor	471	514	539
Horseback riding	1,803	1,973	2,113
Hunting-big game	3,672	4,222	4,903
Hunting-nongame	2,388	2,701	3,049
Hunting-upland game	3,784	4,354	5,035
Hunting-waterfowl	1,336	1,540	1,803
Jogging	625	677	712
Picnicking	7,658	8,393	9,025
Sightseeing/visiting historical places	10,450	11,559	12,681
Skating	7,187	7,815	8,214
Sledding	11,996	13,063	13,784
Snowmobiling	7,414	8,271	9,026
Soccer	274	298	313
Softball/baseball	1,970	2,140	2,236
Tennis	942	1,012	1,070
Trapping	342	368	380
Walking	9,320	10,242	11,266

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APPENDIX TABLE G2. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN
 REGION 2, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA,
 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	7,206	7,054	6,760
Bicycling	26,354	25,889	25,079
Broomball	124	117	110
Camping	13,917	13,660	13,352
Cross-country skiing	3,031	2,966	2,907
Downhill skiing	10,608	10,510	10,254
Fishing-open water	20,209	19,259	19,707
Fishing-ice	8,285	8,185	8,164
Golfing	20,403	20,167	19,919
Hiking	10,601	10,621	10,579
Hockey-outdoor	420	408	381
Horseback riding	6,008	5,938	5,814
Hunting-big game	16,239	16,038	16,001
Hunting-nongame	5,530	5,384	5,214
Hunting-upland game	13,735	13,632	13,533
Hunting-waterfowl	11,730	11,680	11,634
Jogging	8,724	8,565	8,276
Picnicking	17,017	16,657	16,100
Sightseeing/visiting historical places	20,363	20,038	19,487
Skating	4,806	4,800	4,661
Sledding	16,895	16,646	16,072
Snowmobiling	11,619	11,394	11,058
Soccer	889	892	862
Softball/baseball	5,204	5,101	4,901
Tennis	6,009	5,888	5,658
Trapping	228	235	246
Walking	29,546	29,145	28,660

APPENDIX TABLE G3. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN REGION 3, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	5,484	5,585	5,685
Bicycling	13,380	13,598	13,823
Broomball	0	0	0
Camping	8,121	8,263	8,422
Cross-country skiing	1,922	1,986	2,058
Downhill skiing	5,236	5,388	5,529
Fishing-open water	7,676	7,772	7,888
Fishing-ice	9,224	9,342	9,504
Golfing	2,872	2,785	2,767
Hiking	6,952	7,135	7,334
Hockey-outdoor	910	920	935
Horseback riding	3,079	3,154	3,218
Hunting-big game	4,081	4,115	4,198
Hunting-nongame	893	940	978
Hunting-upland game	1,389	1,395	1,431
Hunting-waterfowl	3,092	3,095	3,148
Jogging	1,638	1,660	1,701
Picnicking	8,207	8,466	8,692
Sightseeing/visiting historical places	6,804	7,073	7,320
Skating	5,464	5,526	5,583
Sledding	6,973	7,036	7,097
Snowmobiling	9,823	9,897	10,043
Soccer	0	0	0
Softball/baseball	2,168	2,178	2,200
Tennis	191	204	216
Trapping	518	540	559
Walking	14,648	14,908	15,233

APPENDIX TABLE G4. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN
 REGION 4, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA,
 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	8,680	8,510	7,986
Bicycling	25,364	25,253	24,295
Broomball	150	156	151
Camping	17,335	17,360	16,895
Cross-country skiing	6,365	6,264	6,145
Downhill skiing	6,118	5,760	5,224
Fishing-open water	14,012	14,009	13,583
Fishing-ice	5,878	5,863	5,680
Golfing	8,031	8,105	8,164
Hiking	6,455	6,461	6,607
Hockey-outdoor	5,007	4,987	4,656
Horseback riding	7,907	7,571	7,020
Hunting-big game	25,346	24,659	23,261
Hunting-nongame	5,692	5,515	5,145
Hunting-upland game	11,380	11,059	10,453
Hunting-waterfowl	7,334	7,443	7,278
Jogging	5,959	5,628	5,139
Picnicking	28,429	28,238	27,608
Sightseeing/visiting historical places	11,987	12,190	12,398
Skating	4,615	4,590	4,399
Sledding	14,688	14,717	13,876
Snowmobiling	16,772	16,804	16,246
Soccer	0	0	0
Softball/baseball	15,580	15,417	14,707
Tennis	8,261	7,855	7,167
Trapping	6,016	5,921	5,514
Walking	30,325	30,052	29,626

APPENDIX TABLE G5. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN REGION 5, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	6,179	6,724	7,186
Bicycling	50,511	53,556	54,726
Broomball	338	345	344
Camping	7,758	8,310	8,630
Cross-country skiing	14,052	14,814	15,113
Downhill skiing	492	519	525
Fishing-open water	8,595	9,195	9,615
Fishing-ice	1,762	2,002	2,373
Golfing	13,631	14,362	15,214
Hiking	13,506	14,406	15,190
Hockey-outdoor	0	0	0
Horseback riding	3,092	3,309	3,438
Hunting-big game	21,395	22,653	23,801
Hunting-nongame	3,860	4,121	4,310
Hunting-upland game	13,405	14,051	14,565
Hunting-waterfowl	4,486	4,744	4,989
Jogging	15,513	16,351	16,593
Picnicking	33,862	36,005	37,374
Sightseeing/visiting historical places	18,935	20,256	21,733
Skating	23,466	25,004	25,384
Sledding	30,962	32,914	33,325
Snowmobiling	23,824	25,370	26,174
Soccer	2,274	2,474	2,522
Softball/baseball	16,357	17,200	17,751
Tennis	10,475	10,959	11,205
Trapping	851	9,943	1,022
Walking	59,357	62,826	65,607

APPENDIX TABLE G6. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN REGION 6, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	5,803	5,802	5,745
Bicycling	16,042	16,147	16,210
Broomball	1,720	1,720	1,717
Camping	16,299	16,374	16,387
Cross-country skiing	3,321	3,279	3,201
Downhill skiing	3,268	3,271	3,238
Fishing-open water	13,370	13,376	13,383
Fishing-ice	7,347	7,362	7,381
Golfing	8,713	8,711	8,709
Hiking	4,664	4,639	4,609
Hockey-outdoor	1,064	1,072	1,084
Horseback riding	3,621	3,598	3,540
Hunting-big game	10,257	10,162	10,045
Hunting-nongame	2,018	2,009	1,996
Hunting-upland game	7,013	6,922	6,770
Hunting-waterfowl	4,511	4,442	4,317
Jogging	5,207	5,142	5,083
Picnicking	21,311	21,374	21,326
Sightseeing/visiting historical places	8,965	9,007	9,053
Skating	4,093	4,119	4,089
Sledding	11,265	11,373	11,336
Snowmobiling	6,064	6,064	6,059
Soccer	0	0	0
Softball/baseball	5,625	5,601	5,578
Tennis	4,094	4,086	4,069
Trapping	353	363	380
Walking	19,748	19,729	19,733

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APPENDIX TABLE G7. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN REGION 7, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Participants-----		
ATVing	7,028	8,380	10,188
Bicycling	37,894	42,818	47,507
Broomball	0	0	0
Camping	29,407	34,697	41,299
Cross-country skiing	11,672	13,753	15,779
Downhill skiing	1,377	1,534	1,655
Fishing-open water	42,600	50,285	59,874
Fishing-ice	18,917	23,679	30,779
Golfing	7,737	9,104	10,661
Hiking	15,734	18,788	22,899
Hockey-outdoor	973	1,104	1,249
Horseback riding	3,575	4,174	4,938
Hunting-big game	24,858	30,945	39,537
Hunting-nongame	4,803	5,584	6,302
Hunting-upland game	25,003	30,807	38,461
Hunting-waterfowl	12,475	15,273	18,527
Jogging	10,649	12,496	14,857
Picnicking	49,689	58,252	68,604
Sightseeing/visiting historical places	37,916	44,225	52,013
Skating	7,682	8,632	9,388
Sledding	21,025	23,599	25,763
Snowmobiling	7,838	9,041	10,423
Soccer	2,350	2,566	2,754
Softball/baseball	11,636	13,433	15,358
Tennis	3,541	3,954	4,273
Trapping	1,375	1,589	1,783
Walking	51,140	59,905	70,724

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APPENDIX TABLE 8. PROJECTED NUMBER OF RESIDENT PARTICIPANTS IN REGION 8, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	1990	1995	2000
Year			
-----Participants-----			
ATVing	6,844	7,397	7,881
Bicycling	11,290	12,275	13,149
Broomball	0	0	0
Camping	20,369	21,789	23,186
Cross-country skiing	521	541	582
Downhill skiing	351	361	373
Fishing--open water	14,147	15,197	16,155
Fishing--ice	2,020	2,178	2,345
Golfing	3,167	3,401	3,692
Hiking	8,484	9,249	10,021
Hockey--outdoor	808	895	946
Horseback riding	5,286	5,787	6,297
Hunting--big game	3,224	3,456	3,694
Hunting--nongame	3,283	3,540	3,727
Hunting--upland game	5,553	5,922	6,255
Hunting--waterfowl	632	709	786
Jogging	1,672	1,795	1,888
Picnicking	17,465	18,858	20,282
Sightseeing/visiting historical places	12,916	13,895	14,982
Skating	2,145	2,292	2,402
Stedding	10,323	11,072	11,670
Snowmobiling	2,825	3,038	3,266
Soccer	223	246	260
Softball/baseball	7,179	7,717	8,166
Tennis	1,501	1,665	1,798
Trapping	154	162	162
Walking	15,736	16,891	18,344

Appendix H
Projected Total Days of Participation
by Region of Residence and Activity,
Fall/Winter SCORP Survey

APPENDIX TABLE H1. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 1, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	45,140	49,115	53,789
Bicycling	178,755	194,041	203,737
Broomball	0	0	0
Camping	39,031	42,844	46,730
Cross-country skiing	7,234	8,130	9,343
Downhill skiing	248	306	398
Fishing-open water	104,963	115,747	125,379
Fishing-ice	24,028	27,877	32,815
Golfing	50,870	58,295	68,138
Hiking	41,086	43,829	44,561
Hockey-outdoor	2,590	2,827	2,963
Horseback riding	13,530	14,741	15,659
Hunting-big game	17,133	19,557	22,278
Hunting-nongame	19,221	21,764	24,463
Hunting-upland game	32,911	37,681	43,042
Hunting-waterfowl	3,174	3,609	4,121
Jogging	22,516	24,399	25,671
Picnicking	19,197	21,293	23,562
Sightseeing/visiting historical places	27,797	31,094	35,060
Skating	54,972	59,613	62,480
Sledding	45,847	49,913	52,525
Snowmobiling	33,134	37,106	40,797
Soccer	9,249	10,065	10,565
Softball/baseball	15,525	16,912	17,715
Tennis	10,649	11,440	12,096
Trapping	4,596	4,982	5,187
Walking	211,865	228,855	245,841

APPENDIX TABLE H2. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 2, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	67,988	65,749	62,910
Bicycling	671,066	660,626	636,480
Broomball	247	235	221
Camping	96,253	93,982	91,640
Cross-country skiing	9,902	9,845	9,992
Downhill skiing	24,472	24,931	25,706
Fishing-open water	144,575	144,081	145,983
Fishing-ice	75,054	74,770	76,271
Golfing	331,011	326,140	321,853
Hiking	174,871	176,503	177,675
Hockey-outdoor	420	408	381
Horseback riding	26,910	26,737	26,735
Hunting-big game	99,122	97,354	96,251
Hunting-nongame	29,066	28,394	27,905
Hunting-upland game	87,737	86,207	85,023
Hunting-waterfowl	84,808	84,069	83,663
Jogging	247,941	237,250	224,981
Picnicking	53,826	53,046	51,915
Sightseeing/visiting historical places	61,494	61,293	60,407
Skating	36,981	37,004	35,831
Sledding	62,175	61,522	59,308
Snowmobiling	77,120	75,653	73,165
Soccer	5,688	5,707	5,520
Softball/baseball	76,155	74,309	71,079
Tennis	121,828	117,966	112,726
Trapping	15,356	15,862	16,492
Walking	1,183,773	1,167,602	1,157,108

APPENDIX TABLE H3. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 3, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	51,977	53,567	54,918
Bicycling	276,341	287,028	295,209
Broomball	0	0	0
Camping	44,858	45,961	46,986
Cross-country skiing	8,351	8,762	9,224
Downhill skiing	16,531	17,089	17,576
Fishing-open water	44,714	45,199	45,289
Fishing-ice	49,825	50,533	51,390
Golfing	28,761	27,647	27,454
Hiking	147,294	149,471	153,110
Hockey-outdoor	11,416	11,625	11,835
Horseback riding	32,689	32,834	33,006
Hunting-big game	26,652	26,692	27,140
Hunting-nongame	6,203	6,501	6,728
Hunting-upland game	9,738	9,592	9,736
Hunting-waterfowl	26,479	26,423	26,861
Jogging	32,762	33,151	33,810
Picnicking	31,992	32,684	33,333
Sightseeing/visiting historical places	37,614	39,296	40,873
Skating	20,113	20,335	20,530
Sledding	44,073	44,644	45,133
Snowmobiling	123,193	122,662	123,629
Soccer	0	0	0
Softball/baseball	29,886	30,265	30,695
Tennis	828	878	917
Trapping	2,838	3,008	3,151
Walking	707,896	711,620	721,592

APPENDIX TABLE H4. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 4, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	190,662	184,769	170,601
Bicycling	383,822	387,785	376,713
Broomball	150	156	151
Camping	55,233	55,619	54,433
Cross-country skiing	47,697	48,017	48,338
Downhill skiing	16,236	15,253	13,778
Fishing-open water	207,991	207,726	196,829
Fishing-ice	34,503	34,680	33,846
Golfing	139,727	144,754	151,047
Hiking	71,914	71,214	71,514
Hockey-outdoor	66,128	68,834	65,969
Horseback riding	135,643	127,927	115,961
Hunting-big game	168,393	162,515	152,522
Hunting-nongame	40,081	38,475	35,389
Hunting-upland game	57,065	55,307	51,415
Hunting-waterfowl	24,236	24,790	24,491
Jogging	146,998	140,639	129,640
Picnicking	178,544	174,501	165,159
Sightseeing/visiting historical places	47,255	47,773	47,718
Skating	33,085	33,294	31,602
Sledding	72,851	74,757	71,568
Snowmobiling	167,745	168,234	160,624
Soccer	0	0	0
Softball/baseball	194,460	195,635	187,906
Tennis	102,399	97,069	88,480
Trapping	212,248	201,816	183,826
Walking	845,429	843,908	853,336

APPENDIX TABLE H5. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 5, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	161,270	172,263	179,124
Bicycling	779,403	836,865	853,375
Broomball	10,812	11,049	11,011
Camping	30,472	32,530	33,901
Cross-country skiing	54,106	57,155	58,701
Downhill skiing	933	999	1,015
Fishing-open water	31,869	34,065	35,934
Fishing-ice	29,373	33,568	41,704
Golfing	79,943	85,056	92,148
Hiking	254,368	270,986	291,015
Hockey-outdoor	0	0	0
Horseback riding	12,185	13,279	13,873
Hunting-big game	82,993	88,306	94,013
Hunting-nongame	23,652	25,021	25,728
Hunting-upland game	53,576	56,048	57,581
Hunting-waterfowl	28,989	30,530	31,548
Jogging	246,822	260,210	265,922
Picnicking	128,572	136,560	141,108
Sightseeing/visiting historical places	63,324	67,653	72,053
Skating	158,384	169,696	172,387
Sledding	170,431	182,370	185,004
Snowmobiling	210,207	225,176	231,796
Soccer	16,515	17,965	18,323
Softball/baseball	226,775	238,224	243,192
Tennis	139,315	146,624	150,348
Trapping	15,035	16,822	18,771
Walking	1,461,371	1,565,768	1,690,048

APPENDIX TABLE H6. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 6, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	87,622	87,473	86,263
Bicycling	237,760	241,289	242,758
Broomball	17,363	17,402	17,614
Camping	73,437	73,747	73,891
Cross-country skiing	23,877	23,577	23,039
Downhill skiing	23,473	23,110	22,439
Fishing-open water	87,261	87,279	86,690
Fishing-ice	102,651	101,904	100,925
Golfing	57,700	58,106	59,095
Hiking	43,731	43,762	43,306
Hockey-outdoor	12,397	12,316	12,261
Horseback riding	31,655	31,197	30,778
Hunting-big game	56,675	55,956	55,193
Hunting-nongame	36,809	36,314	35,602
Hunting-upland game	68,293	67,104	65,199
Hunting-waterfowl	50,609	49,648	48,082
Jogging	152,983	150,839	149,025
Picnicking	76,582	76,723	76,298
Sightseeing/visiting historical places	31,204	31,272	31,399
Skating	6,659	6,734	6,700
Sledding	66,410	67,498	67,415
Snowmobiling	30,687	30,705	30,761
Soccer	0	0	0
Softball/baseball	66,297	65,416	63,910
Tennis	28,708	29,041	29,336
Trapping	9,565	9,587	9,528
Walking	556,765	556,234	557,761

APPENDIX TABLE H7. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 7, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	75,800	87,723	99,421
Bicycling	562,729	641,086	713,863
Broomball	0	0	0
Camping	217,493	255,303	300,346
Cross-country skiing	66,510	79,876	93,363
Downhill skiing	3,687	4,078	4,395
Fishing-open water	464,390	552,129	642,154
Fishing-ice	97,243	124,812	168,273
Golfing	28,921	35,127	43,549
Hiking	179,199	216,275	267,776
Hockey-outdoor	23,006	25,538	28,188
Horseback riding	28,740	33,431	39,326
Hunting-big game	147,691	182,088	227,833
Hunting-nongame	25,309	29,688	33,710
Hunting-upland game	158,463	195,281	242,295
Hunting-waterfowl	60,315	73,831	89,521
Jogging	355,035	432,096	537,813
Picnicking	188,901	220,940	257,661
Sightseeing/visiting historical places	119,985	140,749	165,785
Skating	28,595	31,698	34,643
Sledding	88,331	98,486	106,803
Snowmobiling	42,455	49,558	57,147
Soccer	27,379	29,908	32,076
Softball/baseball	63,661	73,229	81,830
Tennis	20,053	22,584	24,422
Trapping	10,140	11,682	13,249
Walking	1,422,374	1,727,320	2,157,967

APPENDIX TABLE H8. PROJECTED TOTAL DAYS OF PARTICIPATION BY RESIDENTS FROM REGION 8, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	130,627	139,889	147,380
Bicycling	300,786	329,554	349,171
Broomball	0	0	0
Camping	126,971	136,543	145,334
Cross-country skiing	747	804	909
Downhill skiing	1,054	1,082	1,119
Fishing-open water	62,680	68,073	73,131
Fishing-ice	11,127	11,919	12,707
Golfing	14,493	15,464	16,593
Hiking	65,117	70,683	77,006
Hockey-outdoor	48,508	53,680	56,741
Horseback riding	23,425	25,451	27,520
Hunting-big game	16,567	17,775	18,973
Hunting-nongame	21,365	23,260	24,541
Hunting-upland game	38,688	41,162	43,235
Hunting-waterfowl	2,973	3,309	3,571
Jogging	41,190	43,337	45,280
Picnicking	92,356	99,832	107,391
Sightseeing/visiting historical places	48,805	52,695	56,974
Skating	9,204	9,762	10,203
Sledding	49,401	53,423	56,381
Snowmobiling	36,162	38,496	40,650
Soccer	4,465	4,924	5,207
Softball/baseball	75,640	82,286	87,024
Tennis	31,762	35,077	37,395
Trapping	4,616	4,851	4,867
Walking	510,641	558,289	626,961

Appendix I
Projected Total Days of Participation
by Region of Occurrence and Activity
Fall/Winter SCORP Survey

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APPENDIX TABLE 11. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 1, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
ATVing	69,998	73,872	76,510
Bicycling	206,973	218,428	222,737
Broomball	0	0	0
Camping	79,207	83,166	85,603
Cross-country skiing	7,342	7,836	8,453
Downhill skiing	0	0	0
Fishing-open water	100,109	105,250	109,067
Fishing-ice	16,157	17,654	19,613
Golfing	51,858	55,389	59,871
Hiking	57,673	61,359	64,667
Hockey-outdoor	2,962	3,150	3,214
Horseback riding	22,291	23,536	24,428
Hunting-big game	16,455	17,680	19,287
Hunting-nongame	19,016	20,301	21,451
Hunting-upland game	46,921	49,964	53,093
Hunting-waterfowl	2,636	2,813	2,892
Jogging	27,031	28,716	29,320
Picnicking	39,298	41,235	42,503
Sightseeing/visiting historical places	34,223	36,275	38,222
Skating	64,483	67,691	68,721
Sledding	58,455	61,556	62,633
Snowmobiling	34,507	36,818	38,537
Soccer	10,788	11,468	11,705
Softball/baseball	17,220	18,219	18,545
Tennis	13,029	13,824	14,125
Trapping	4,579	4,851	4,929
Walking	260,242	273,690	284,868

APPENDIX TABLE I2. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 2, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	87,870	92,222	95,084
Bicycling	739,776	775,719	790,492
Broomball	0	0	0
Camping	135,634	144,130	153,312
Cross-country skiing	16,495	17,750	19,507
Downhill skiing	32,447	36,248	41,957
Fishing-open water	160,710	174,038	192,496
Fishing-ice	83,003	90,620	102,471
Golfing	354,624	378,877	407,875
Hiking	209,217	228,125	253,724
Hockey-outdoor	252	263	265
Horseback riding	31,429	34,291	38,236
Hunting-big game	128,439	137,912	149,814
.Hunting-nongame	39,239	41,885	45,003
Hunting-upland game	98,467	105,857	115,080
Hunting-waterfowl	104,191	112,062	121,677
Jogging	332,567	344,916	349,299
Picnicking	108,717	114,641	120,078
Sightseeing/visiting historical places	58,268	62,796	68,507
Skating	42,979	45,636	46,610
Sledding	69,447	73,248	74,875
Snowmobiling	105,680	111,488	116,037
Soccer	6,462	6,873	7,013
Softball/baseball	85,083	88,760	90,110
Tennis	136,208	140,759	142,108
Trapping	19,857	22,317	26,288
Walking	1,487,670	1,589,650	1,723,316

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APPENDIX TABLE I3. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 3, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	75,543	80,331	84,097
Bicycling	356,013	381,135	403,666
Broomball	0	0	0
Camping	63,761	67,570	71,222
Cross-country skiing	9,566	10,845	13,019
Downhill skiing	32,164	34,061	35,479
Fishing-open water	95,320	101,200	106,659
Fishing-ice	166,803	176,831	188,170
Golfing	80,201	88,596	102,818
Hiking	179,592	192,107	207,195
Hockey-outdoor	3,844	4,045	4,096
Horseback riding	38,580	40,331	41,276
Hunting-big game	46,788	49,887	53,811
Hunting-nongame	9,717	10,727	12,023
Hunting-upland game	11,346	12,396	14,059
Hunting-waterfowl	41,497	44,500	48,145
Jogging	59,793	62,677	65,025
Picnicking	45,792	49,158	53,393
Sightseeing/visiting historical places	55,890	61,287	69,576
Skating	23,786	24,858	25,313
Sledding	37,969	39,759	40,343
Snowmobiling	145,315	152,888	158,282
Soccer	0	0	0
Softball/baseball	47,314	49,840	50,705
Tennis	3,896	4,035	4,138
Trapping	4,818	5,387	6,219
Walking	983,498	1,047,487	1,126,700

APPENDIX TABLE I4. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 4, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	122,001	128,096	130,816
Bicycling	272,503	290,319	306,414
Broomball	7,375	9,112	12,488
Camping	19,430	21,009	23,295
Cross-country skiing	35,134	38,189	42,582
Downhill skiing	4,267	4,386	4,394
Fishing-open water	58,967	62,067	64,160
Fishing-ice	4,389	4,621	4,881
Golfing	36,566	39,724	44,355
Hiking	54,581	58,857	65,665
Hockey-outdoor	74,319	79,482	82,613
Horseback riding	37,812	39,200	39,690
Hunting-big game	81,081	86,498	92,593
Hunting-nongame	17,791	18,860	19,730
Hunting-upland game	13,073	13,646	14,040
Hunting-waterfowl	13,658	14,952	16,567
Jogging	73,446	76,918	78,983
Picnicking	86,158	90,932	95,421
Sightseeing/visiting historical places	20,773	22,599	25,204
Skating	21,337	22,586	23,268
Sledding	50,136	53,094	54,415
Snowmobiling	128,337	136,139	141,167
Soccer	0	0	0
Softball/baseball	103,442	110,404	116,862
Tennis	49,478	50,883	51,117
Trapping	126,756	130,997	131,753
Walking	581,512	633,872	716,965

APPENDIX TABLE 15. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 5, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
ATVing	77,309	82,217	86,465
Bicycling	447,219	471,142	481,409
Broomball	4,933	5,061	5,057
Camping	17,266	18,378	19,375
Cross-country skiing	31,233	32,676	33,747
Downhill skiing	6,795	7,033	7,089
Fishing-open water	12,952	13,764	14,476
Fishing-ice	10,776	11,490	12,162
Golfing	51,978	55,473	59,986
Hiking	126,068	133,414	141,466
Hockey-outdoor	0	0	0
Horseback riding	6,251	6,700	7,045
Hunting-big game	28,294	30,563	33,511
Hunting-nongame	11,237	11,834	12,259
Hunting-upland game	17,410	18,310	18,981
Hunting-waterfowl	10,519	11,092	11,536
Jogging	121,890	127,617	130,996
Picnicking	68,555	72,049	74,316
Sightseeing/visiting historical places	29,637	31,889	34,879
Skating	91,828	96,514	98,235
Sledding	103,999	109,337	111,293
Snowmobiling	105,674	112,080	116,315
Soccer	8,517	9,056	9,242
Softball/baseball	124,538	129,802	132,856
Tennis	86,425	90,591	93,899
Trapping	7,610	8,576	9,964
Walking	753,461	806,172	875,778

APPENDIX TABLE I6. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 6, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	139,275	145,233	148,063
Bicycling	363,510	387,949	407,811
Broomball	26,095	26,840	26,841
Camping	72,644	77,558	82,378
Cross-country skiing	40,997	42,328	42,596
Downhill skiing	31,320	32,153	32,119
Fishing-open water	109,177	115,335	121,353
Fishing-ice	127,061	136,745	150,328
Golfing	89,529	97,344	109,071
Hiking	60,622	64,272	68,289
Hockey-outdoor	21,115	21,688	21,671
Horseback riding	55,411	57,390	58,807
Hunting-big game	101,478	106,299	110,729
Hunting-nongame	48,443	50,980	53,600
Hunting-upland game	94,933	98,555	100,465
Hunting-waterfowl	66,036	68,575	70,100
Jogging	268,254	277,340	280,904
Picnicking	119,260	125,364	129,650
Sightseeing/visiting historical places	19,393	20,935	22,990
Skating	11,310	11,880	12,065
Sledding	114,400	120,547	122,732
Snowmobiling	52,481	55,283	57,496
Soccer	0	0	0
Softball/baseball	128,060	133,051	135,664
Tennis	47,129	50,446	53,664
Trapping	16,497	17,367	17,887
Walking	896,103	956,705	1,037,842

APPENDIX TABLE I7. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 7, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	88,778	93,175	95,225
Bicycling	607,327	637,229	652,252
Broomball	0	0	0
Camping	283,343	299,165	313,562
Cross-country skiing	65,150	68,173	70,880
Downhill skiing	843	872	876
Fishing-open water	647,090	681,637	713,356
Fishing-ice	110,475	121,184	136,725
Golfing	135,519	146,416	159,980
Hiking	181,535	195,046	212,818
Hockey-outdoor	25,242	26,779	27,514
Horseback riding	70,191	72,767	73,972
Hunting-big game	164,823	174,906	185,561
Hunting-nongame	28,201	29,278	29,782
Hunting-upland game	206,630	219,083	231,699
Hunting-waterfowl	92,229	97,684	103,394
Jogging	388,655	415,295	444,271
Picnicking	217,852	229,552	239,702
Sightseeing/visiting historical places	159,170	167,569	174,446
Skating	23,733	24,851	25,249
Sledding	99,211	104,355	106,131
Snowmobiling	43,876	46,267	47,911
Soccer	30,592	32,515	33,190
Softball/baseball	90,809	95,631	98,041
Tennis	35,265	36,606	36,989
Trapping	9,461	9,927	10,253
Walking	1,456,779	1,555,689	1,686,025

APPENDIX TABLE I9. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN NORTH DAKOTA, BY ACTIVITY, FALL/WINTER SCORP SURVEY, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	785,364	825,732	849,615
Bicycling	3,271,671	3,457,540	3,569,003
Broomball	38,403	41,013	44,385
Camping	771,262	816,175	857,934
Cross-country skiing	206,781	218,734	231,844
Downhill skiing	108,993	115,941	123,099
Fishing-open water	1,261,871	1,334,686	1,405,825
Fishing-ice	539,111	580,507	636,289
Golfing	821,364	883,799	966,460
Hiking	942,924	1,011,652	1,097,728
Hockey-outdoor	173,616	184,207	189,166
Horseback riding	281,690	295,192	305,911
Hunting-big game	605,057	643,934	688,332
Hunting-nongame	217,198	229,144	239,550
Hunting-upland game	575,096	607,464	638,623
Hunting-waterfowl	350,675	372,248	395,024
Jogging	1,314,372	1,377,755	1,423,396
Picnicking	767,179	809,296	845,909
Sightseeing/visiting historical places	457,313	488,328	524,189
Skating	289,934	304,918	310,446
Sledding	580,562	611,155	622,504
Snowmobiling	654,939	691,857	717,657
Soccer	60,685	64,508	65,841
Softball/baseball	678,612	712,309	731,302
Tennis	402,550	420,372	430,422
Trapping	192,619	202,535	210,340
Walking	6,950,764	7,448,662	8,125,024

APPENDIX TABLE I8. PROJECTED TOTAL DAYS OF PARTICIPATION OCCURRING IN REGION 8, BY ACTIVITY, FALL/WINTER SCORP SURVEY, NORTH DAKOTA, 1990, 1995, AND 2000

Activity	Year		
	1990	1995	2000
	-----Days-----		
ATVing	124,589	130,586	133,354
Bicycling	302,766	321,093	329,833
Broomball	0	0	0
Camping	99,977	105,200	109,187
Cross-country skiing	865	938	1,060
Downhill skiing	1,157	1,188	1,186
Fishing-open water	77,546	81,395	84,258
Fishing-ice	20,448	21,362	21,939
Golfing	21,089	21,980	22,503
Hiking	73,636	78,472	83,904
Hockey-outdoor	45,882	48,800	49,792
Horseback riding	19,724	20,976	22,457
Hunting-big game	37,699	40,189	43,026
Hunting-nongame	43,554	45,278	45,701
Hunting-upland game	86,257	89,653	91,207
Hunting-waterfowl	19,910	20,570	20,713
Jogging	42,735	44,276	44,596
Picnicking	81,547	86,363	90,846
Sightseeing/visiting historical places	79,758	84,978	90,366
Skating	10,478	10,901	10,986
Sledding	46,945	49,259	50,082
Snowmobiling	39,068	40,893	41,912
Soccer	4,326	4,595	4,692
Softball/baseball	82,147	86,602	88,520
Tennis	31,120	33,228	34,383
Trapping	3,041	3,113	3,048
Walking	531,497	585,398	673,531