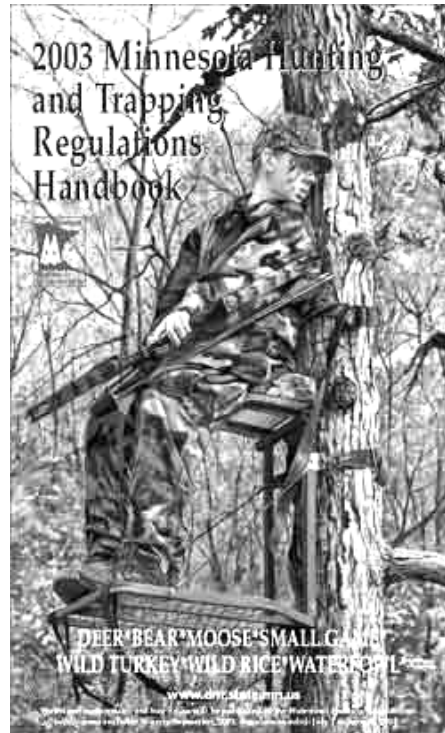


Hunting in Minnesota: A Study of Hunter Participation and Activities



Final Report

A cooperative study conducted by:

Minnesota Cooperative Fish and Wildlife Research Unit
Minnesota Department of Natural Resources

Hunting in Minnesota: A Study of Hunter Participation and Activities

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Executive Summary

This study was conducted to:

- identify the lifelong hunting participation patterns of current Minnesota hunters.
- identify important factors in the process of initiation into and continuation of hunting for Minnesota residents.
- identify the constraints and barriers that influence the decision to participate in hunting.
- identify involvement in recruiting/mentoring new hunters.
- identify important factors related to recruiting/mentoring people into hunting.
- compare age cohorts on each of the above.

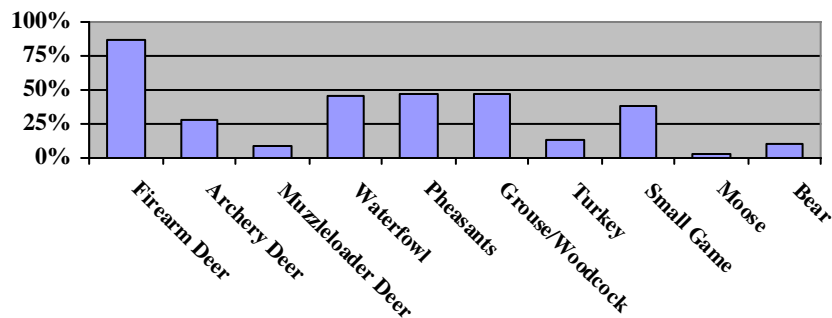
A survey was distributed to 2,400 individuals. After adjusting for undeliverable surveys and invalid respondents, the response rate was 62%.

Hunting Background

Over 80% of respondents had hunted in Minnesota in each of the previous 5 years. Only 2% of respondents had not hunted any of the previous 5 years.

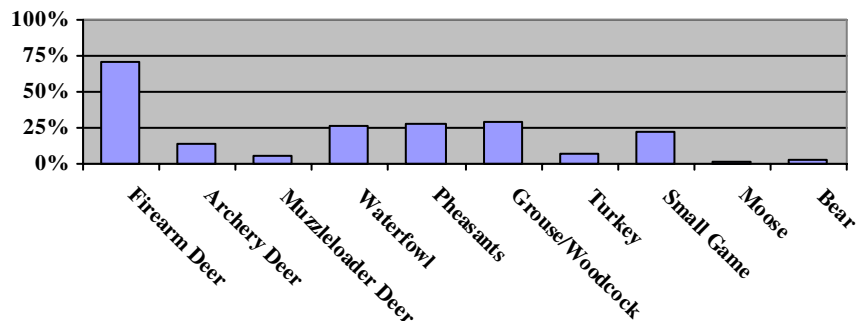
On average respondents had participated in three different types of hunting. Eighty-seven percent of respondents had hunted for deer with a firearm at some point in their lives. About half of the respondents had hunted waterfowl, pheasants, and grouse/woodcock, and about a third had hunted small game or deer with archery. Less than 10% of respondents had ever hunted for deer with a muzzleloader, moose, or bear (See Figure S-1).

Figure S-1: Percentage of respondents who have ever hunted...



Approximately 15% of respondents had only ever hunted for deer using a firearm. Nearly one-third of respondents in the 66 years and over age cohort, and nearly one-fourth of the respondents in the 50-65 age cohort, had only hunted for deer using a firearm during their lifetimes.

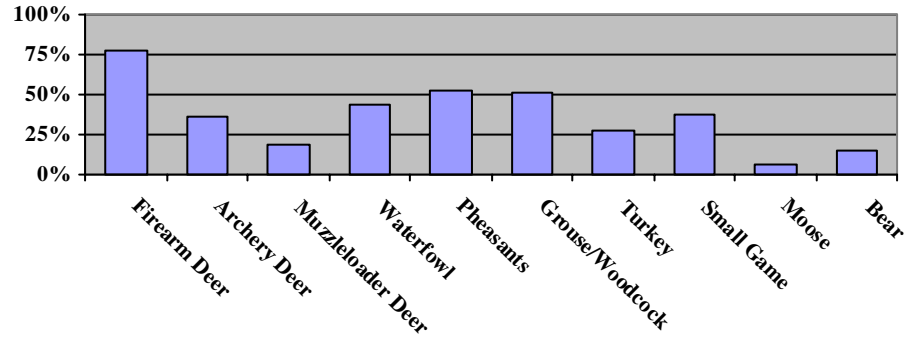
Figure S-2: Percentage of respondents who hunted... in 2002



Over 70% of respondents hunted deer with a firearm in 2002. About one-fourth of respondents hunted waterfowl, pheasants, grouse/woodcock, or small game during 2002. Less than 20% of respondents

participated in the other hunts during 2002. (See Figure S-2). Respondents indicated their intention to participate in different types of hunts in the next 5 years (See Figure S-3). Where significant differences in hunting intention among age cohorts existed, respondents from the younger age cohorts reported higher intentions to hunt (See Figure S-4).

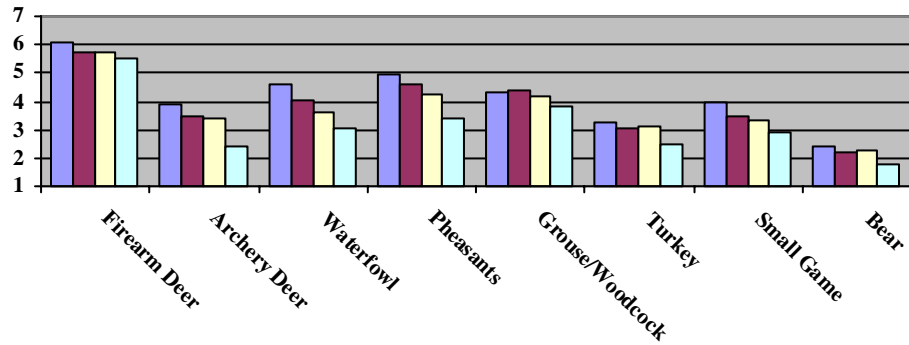
Figure S-3: Percentage of respondents who were slightly, somewhat, or very likely to hunt... in the next 5 years in Minnesota



Investment in Hunting

Investment is a concept that is used to examine complex and repeated behaviors, like hunting. Nine investment statements were used to capture hunters' engagement or how much they "put into" hunting. Based on these scale items, we found that respondents were highly invested in hunting.

Figure S-4: Likelihood that respondents will hunt... in the next 5 years in Minnesota by age cohort



In addition, about two-thirds of respondents indicated that they had mentored new hunters. Nearly 80% of respondents from both the age 50 to 65 cohort and the age 66 and over cohort had mentored a new hunter; nearly half of respondents from the 20-29 year age cohort had mentored a new hunter.

Attitudes About Hunting

Respondents reported very positive attitudes about hunting, and strong social support for their participation in hunting activities. The positive attitudes and norms were consistent among the age cohorts.

Outcomes of Hunting

Respondents reported that (a) enjoying nature and the outdoors, (b) spending time with family or friends, and (c) resting and relaxing were all very important outcomes of hunting. Developing and demonstrating skills was a moderately to very important outcome. Getting food was a slightly to moderately important outcome. Compared to older respondents, younger respondents rated getting food and spending time with family or friends more important.

Constraints to Hunting

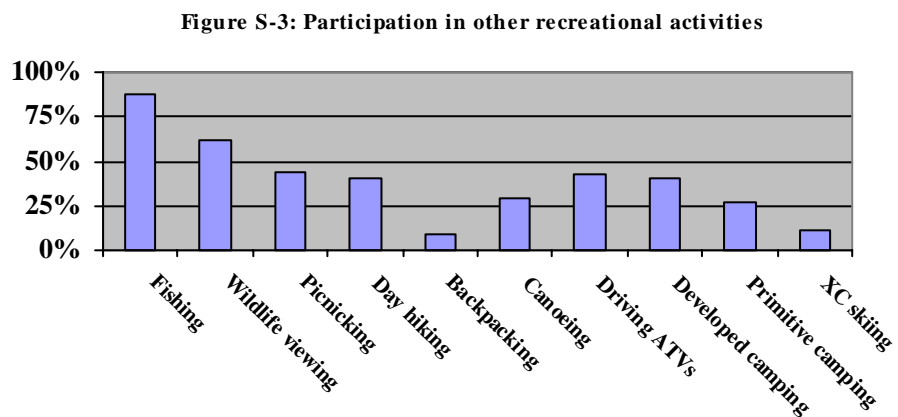
Respondents reported that, on average, it was slightly to moderately easy for them to participate in hunting activities. About half of the respondents, however, reported that their hunting activity was constrained in some way. Nearly 80% of respondents who reported being constrained in their hunting indicated that they cannot hunt as often as they would like. About 40% reported that they have stopped

doing hunting activities that they did in the past, although they would still like to do them. Thirty-six percent of respondents reported that there are types of hunting that they would like to start but can't. About one-fourth of respondents reported that because of constraints, they do not enjoy hunting as much as they might otherwise. Younger respondents were more likely to report that they cannot hunt as often as they would like. Older respondents, however, were more likely to report that there are hunting activities they have stopped doing that they did in the past, although they would still like to do them.

Survey participants responded to 27 specific constraint items. Work and family commitments, limited leisure time, crowding at hunting areas, and limited access to private land for hunting were the items that limited hunting participation most. Young respondents found work commitments and the cost of equipment to be more limiting. Older respondents found physical limitations, low need to wild game for food, personal and others' concern for animals' pain and distress, age and poor health, and the effort required to go hunting to be more limiting.

Other Outdoor Activities

During the previous 12 months, nearly 90% of respondents had fished, and over 60% of respondents had participated in wildlife watching. Approximately 40% of respondents had participated in picnicking, day hiking, driving all-terrain vehicles, or developed camping during the past 12 months. About 30% of respondents had canoed or gone primitive camping, and about 10% of respondents had gone cross-country skiing or backpacking (Figure S-3).



Income and Rural Residence

Correlations suggest that respondents with higher incomes participate in more different types of hunting. Respondents with higher incomes are less motivated by the outcome of getting food from hunting. They are more constrained by work and family commitments and limited leisure time, but are less constrained by the cost of equipment, licenses, and travel, and physical/age-related limitations.

Alternatively, respondents who report more rural upbringing or residence participate in fewer different types of hunting. They are more motivated to hunt for food. They are more constrained by restrictive regulations and costs related to hunting, but less constrained by access to land for hunting.

Conclusions and Implications

The results suggest that Minnesota hunters are committed to hunting. They report consistent participation, positive attitudes and norms, and strong investment.

Research has suggested that hunting participation rates among younger age cohorts are declining. These results, however, suggest that young people who are already active hunters have a strong interest and commitment to the activity. In general, compared to older hunters, younger hunters report higher levels of participation and intention to participate in hunting. In general, young people report similar attitudes, norms, and indicators of involvement to those reported by older people. More people from younger age cohorts, however, report being constrained in their hunting participation. Work commitments and the cost of equipment constrain young people more than older people.

Table of Contents

Acknowledgements.....	ii
Suggested Citation.....	ii
Contact Information.....	ii
Executive Summary.....	iii
Hunting Background.....	iii
Investment in Hunting.....	iv
Attitudes About Hunting.....	iv
Outcomes of Hunting.....	iv
Constraints to Hunting.....	iv
Other Outdoor Activities.....	v
Income and Rural Residence.....	v
Conclusions and Implications.....	v
Table of Contents.....	vii
List of Tables.....	ix
Introduction.....	1
Study Purpose and Objectives.....	1
Methods.....	1
Sampling.....	1
Data Collection.....	2
Survey Instrument.....	2
Data Entry and Analysis.....	2
Survey Response Rate.....	3
Population Estimates.....	3
Statewide Estimates.....	3
Age-Cohort Estimates.....	3
Findings:.....	4
Age Started Hunting in Minnesota.....	4
Hunting in Minnesota in 1998-2002.....	4
Participation in Different Types of Hunts.....	5
Hunting in the Previous 5 years.....	6
Hunting During the 2002 Season.....	6
Hunting During the Next 5 years.....	8
Summary.....	8
Section 2: Your Introduction to Hunting.....	25
Findings:.....	25
Age When you Started Hunting.....	25
Who Introduced you to Hunting?.....	25
Father’s Attitude Toward Hunting.....	25
Mother’s Attitude Toward Hunting.....	26
Section 3: Your Investment in Hunting.....	29
Findings:.....	29
Hunting Investment.....	29
Mentoring New Hunters.....	29
Membership in Hunting-Related Organizations.....	30
Section 4: Hunting Attitudes and Norms.....	42
Findings:.....	42
Hunting Attitudes.....	42
Hunting Norms.....	42

Section 5: The Outcomes of Hunting.....	48
Findings:.....	48
Section 6: Constraints to Hunting.....	51
Findings:.....	51
How Easy or Difficult it is to go Hunting.....	51
How is Hunting Participation Constrained.....	51
Factors That Constrain Hunting Participation.....	52
Section 7: Patterns of Hunting Participation.....	68
Findings:.....	68
Deer Hunting.....	68
Waterfowl Hunting.....	69
Pheasant Hunting.....	69
Grouse/Woodcock Hunting.....	70
Small Game Hunting.....	70
Summary.....	70
Section 8: Other Outdoor Interests.....	82
Findings:.....	82
Section 9: Demographic Information.....	87
Findings:.....	87
Age.....	87
Percentage of Life Living in Minnesota.....	87
Percentage of Life Living on a Farm or Ranch.....	87
Education.....	88
Income.....	88
Marital Status.....	89
Race.....	89
Late Respondents.....	89
References.....	95
Appendix A: Survey Instrument.....	96

List of Tables

Table I-1: Response rates for age cohorts	3
Table I-2: Proportion of state hunting-license purchasers and state residents by age cohort	3
Table 1-2: Proportion of hunters who hunted in 1998 through 2002.....	9
Table 1-3: Proportion of hunters who ever participated in deer hunts.....	9
Table 1-4: Proportion of hunters who ever participated in bird hunts.....	10
Table 1-5: Proportion of hunters who ever participated in small game, moose, or bear hunts.....	10
Table 1-6: Number of hunts ever participated in.....	10
Table 1-7: Proportion of hunters who exclusively have participated in specific deer hunts.....	11
Table 1-8: Proportion of hunters who have exclusively participated in bird hunts.....	11
Table 1-9: Proportion of hunters who have exclusively participated in small game, moose, or bear hunts.....	11
Table 1-10: Average number of years, of previous 5 years, hunting deer. ¹	12
Table 1-11: Average number of years, of previous 5 years, hunting birds. ¹	12
Table 1-12: Average number of years, of previous 5 years, hunting small game, moose, bear. ¹	12
Table 1-13: Proportion of hunters who hunted deer in 2002.....	13
Table 1-14: Proportion of hunters who hunted birds in 2002.....	13
Table 1-15: Proportion of hunters who hunted small game, moose, or bear in 2002.....	13
Table 1-16: Number of hunts participated in during 2002.....	14
Table 1-17: Proportion of hunters who hunted deer exclusively in 2002.....	14
Table 1-18: Proportion of hunters who hunted birds exclusively in 2002.....	14
Table 1-19: Proportion of hunters who hunted small game, moose, or bear exclusively in 2002.....	15
Table 1-20: Proportion of hunters who ever hunted deer, who hunted deer in 2002.....	15
Table 1-21: Proportion of hunters who ever hunted birds, who hunted birds in 2002.....	15
Table 1-22: Proportion of hunters who ever hunted small game, moose, and bear who hunted small game, moose, and bear in 2002.....	16
Table 1-23: Average number of days spent deer hunting in Minnesota in last 12 months, for those who hunted in 2002.....	16
Table 1-24: Average number of days spent bird hunting in Minnesota in last 12 months, for those who hunted in 2002.....	16
Table 1-25: Average number of days spent hunting small game, moose, and bear in Minnesota in last 12 months, for those who hunted in 2002.....	17
Table 1-26: How likely you will participate in deer hunting activities during the next 5 years ¹	17
Table 1-27: How likely you will participate in bird hunting activities during the next 5 years ¹	17
Table 1-28: How likely you will participate in small game, moose, and bear hunting activities during the next 5 years ¹	18
Table 1-29: How likely you will participate in firearm deer hunting during the next 5 years.....	18
Table 1-30: How likely you will participate in archery deer hunting during the next 5 years.....	18
Table 1-31: How likely you will participate in muzzleloader deer hunting during the next 5 years.....	19
Table 1-32: How likely you will participate in waterfowl hunting during the next 5 years.....	19
Table 1-33: How likely you will participate in pheasant hunting during the next 5 years.....	19
Table 1-34: How likely you will participate in grouse hunting during the next 5 years.....	20
Table 1-35: How likely you will participate in turkey hunting during the next 5 years.....	20
Table 1-36: How likely you will participate in small game hunting during the next 5 years.....	20
Table 1-37: How likely you will participate in moose hunting during the next 5 years.....	21
Table 1-38: How likely you will participate in bear hunting during the next 5 years.....	21
Table 1-39: Among hunters who have ever hunted firearm deer, how likely they will participate in firearm deer hunting during the next 5 years.....	21
Table 1-40: Among hunters who have ever hunted archery deer, how likely they will participate in archery deer hunting during the next 5 years.....	22

Table 1-41: Among hunters who have ever hunted muzzleloader deer, how likely they will participate in muzzleloader deer hunting during the next 5 years.	22
Table 1-42: Among hunters who have ever hunted waterfowl, how likely they will participate in waterfowl hunting during the next 5 years.	22
Table 1-43: Among hunters who have ever hunted pheasants, how likely they will participate in pheasant hunting during the next 5 years.	23
Table 1-44: Among hunters who have ever hunted grouse, how likely they will participate in grouse hunting during the next 5 years.	23
Table 1-45: Among hunters who have ever hunted turkey, how likely they will participate in turkey hunting during the next 5 years.	23
Table 1-46: Among hunters who have ever hunted small game, how likely they will participate in small game hunting during the next 5 years.	24
Table 1-47: Among hunters who have ever hunted moose, how likely they will participate in moose hunting during the next 5 years.	24
Table 1-48: Among hunters who have ever hunted bear, how likely they will participate in bear hunting during the next 5 years.	24
Table 2-1: Age started hunting.	27
Table 2-2: Who introduced you to hunting?	27
Table 2-3: Father’s attitude toward hunting.	27
Table 2-4: Mother’s attitude toward hunting.	28
Table 3-1: Level of agreement for investment items.	31
Table 3-2: Mean score on nine hunting investment items.	31
Table 3-3: I have close friendships that are based on a common interest in hunting.	31
Table 3-4: I have annual traditions related to hunting.	32
Table 3-5: If I stopped hunting, I would feel an important part of my life was missing.	32
Table 3-6: Participation in hunting is a large part of my life.	32
Table 3-7: I have put a lot of time and energy into developing skills for hunting.	33
Table 3-8: It would be difficult for me to find another recreational activity to replace hunting.	33
Table 3-9: I have acquired equipment that would not use if I quit hunting.	33
Table 3-10: I would go hunting even if I did not have partners to go with.	34
Table 3-11: I would rather hunt than do any other recreational activity.	34
Table 3-12: Have you ever taken someone hunting who was not already familiar with the sport (mentored a new hunter)?	34
Table 3-13: If you have mentored a new hunter, did you mentor a son?	35
Table 3-14: If you have mentored a new hunter, did you mentor a daughter?	35
Table 3-15: If you have mentored a new hunter, did you mentor a brother?	35
Table 3-16: If you have mentored a new hunter, did you mentor a sister?	36
Table 3-17: If you have mentored a new hunter, did you mentor a father?	36
Table 3-18: If you have mentored a new hunter, did you mentor a mother?	36
Table 3-19: If you have mentored a new hunter, did you mentor a spouse or significant other?	37
Table 3-20: If you have mentored a new hunter, did you mentor a male friend?	37
Table 3-21: If you have mentored a new hunter, did you mentor a female friend?	37
Table 3-22: If you mentored a son, how many sons did you mentor?	38
Table 3-23: If you mentored a daughter, how many did you mentor?	38
Table 3-24: If you mentored a brother, how many did you mentor?	38
Table 3-25: If you mentored a sister, how many did you mentor?	39
Table 3-26: If you mentored a father, how many did you mentor?	39
Table 3-27: If you mentored a mother, how many did you mentor?	39
Table 3-28: If you mentored a spouse or significant other, how many did you mentor?	40
Table 3-29: If you mentored a male friend, how many did you mentor?	40
Table 3-30: If you mentored a female friend, how many did you mentor?	40

Table 3-31: Total number of people mentored.	41
Table 3-32: How many hunting-related organizations do you belong to?.....	41
Table 4-1: Hunter attitudes: How positive or negative is hunting?	44
Table 4-2: Hunter attitudes: How enjoyable or unenjoyable is hunting?.....	44
Table 4-3: Hunter norms: Most people important to me think I should hunt.	44
Table 4-4: Hunter norms: Most people important to me approve/disapprove of me hunting.....	45
Table 4-5: Comparison of level of agreement for social norms.....	45
Table 4-6: Hunter norms: My father approves of me hunting.	45
Table 4-7: Hunter norms: My mother approves of me hunting.	46
Table 4-8: Hunter norms: My spouse or significant other approves of me hunting.	46
Table 4-9: Hunter norms: My friends approve of me hunting.	46
Table 4-10: Hunter norms: My children approve of me hunting.	47
Table 5-1: Comparison of outcomes of hunting.	49
Table 5-2: Hunting is a way for me to enjoy nature and the outdoors.	49
Table 5-3: Hunting is a way for me to get food.	49
Table 5-4: Hunting is a way for me to spend time with family or friends.	50
Table 5-5: Hunting is a way for me to rest and relax.	50
Table 5-6: Hunting is a way for me to develop and demonstrate skills.	50
Table 6-1: How easy or difficult is it for you to go hunting?	54
Table 6-2: If I wanted to, I could easily go hunting.	54
Table 6-3: Do you feel that the amount of time you spend hunting, or the type of hunting you do, is constrained (restricted or inhibited) in any way?.....	54
Table 6-4: For respondents who said that the amount of time they spend hunting, or the type of hunting they do, is constrained, percentage who indicated.	55
Table 6-5: How much family commitments limit hunting participation.	55
Table 6-6: How much work commitments limit hunting participation.....	55
Table 6-8: How much access to public land for hunting limits hunting participation.	56
Table 6-9: How much crowding at hunting areas limits hunting participation.....	56
Table 6-10: How much the cost of equipment limits hunting participation.....	57
Table 6-11: How much the cost of licenses limits hunting participation.	57
Table 6-12: How much travel costs limit hunting participation.	57
Table 6-13: How much restrictive hunting regulations limit hunting participation.....	58
Table 6-14: How much availability of hunting partners limits hunting participation.....	58
Table 6-15: How much being physically unable to go hunting limits hunting participation.	58
Table 6-16: How much inadequate hunting skills limit hunting participation.....	59
Table 6-17: How much interest in other recreational activities limits hunting participation.....	59
Table 6-18: How much safety concerns limit hunting participation.....	59
Table 6-19: How much low game populations limit hunting participation.	60
Table 6-20: How much low desire for wild game for food limits hunting participation.	60
Table 6-21: How much low need for wild game for food limits hunting participation.	60
Table 6-22: How much personal concern for animals' pain and distress limits hunting participation.	61
Table 6-23: How much other people's concern for animals' pain and distress limits hunting participation.	61
Table 6-24: How much weather conditions limit hunting participation.	61
Table 6-25: How much lack of leisure time limits hunting participation.	62
Table 6-26: How much the type of people that hunt limits hunting participation.	62
Table 6-27: How much the amount of planning required to go hunting limits hunting participation.	62
Table 6-28: How much age limits hunting participation.	63
Table 6-29: How much the amount of effort required to go hunting limits hunting participation.	63
Table 6-30: How much limited hunting opportunities near home limits hunting participation.....	63
Table 6-31: How much poor health limits hunting participation.	64

Table 6-32: Comparison of constraints to hunting.....	65
Table 6-33: Correlations between income and constraints to hunting.....	66
Table 6-34: Correlations between income and rural residence.....	67
Table 7-1: Of respondents who hunted deer, number of years they hunted during that age range.....	72
Table 7-2: Of respondents who ever hunted deer, proportion of years they hunted during that age range.....	72
Table 7-3: Of respondents who ever hunted deer, approximate number of days they hunted deer per year during that age range.....	73
Table 7-4: Of respondents who ever hunted deer, index of level of participation in deer hunting during age ranges.....	73
Table 7-5: Of respondents who hunted waterfowl, number of years they hunted during that age range....	74
Table 7-6: Of respondents who hunted waterfowl, proportion of years they hunted during that age range.....	74
Table 7-7: Of respondents who hunted waterfowl, approximate number of days they hunted waterfowl per year during that age range.....	75
Table 7-8: Of respondents who hunted waterfowl, index of level of participation in waterfowl hunting during age ranges.....	75
Table 7-9: Of respondents who hunted pheasants, number of years they hunted during that age range....	76
Table 7-10: Of respondents who hunted pheasants, proportion of years they hunted during that age range.....	76
Table 7-11: Of respondents who hunted pheasants, approximate number of days they hunted pheasants per year during that age range.....	77
Table 7-12: Of respondents who hunted pheasants, index of level of participation in pheasant hunting during age ranges.....	77
Table 7-13: Of respondents who hunted grouse/woodcock, number of years they hunted during that age range.....	78
Table 7-14: Of respondents who hunted grouse/woodcock, proportion of years they hunted during that age range.....	78
Table 7-15: Of respondents who hunted grouse/woodcock, approximate number of days they hunted grouse/woodcock per year during that age range.....	79
Table 7-16: Of respondents who hunted grouse/woodcock, index of level of participation in grouse/woodcock hunting during age ranges.....	79
Table 7-17: Of respondents who hunted small game, number of years they hunted during that age range.....	80
Table 7-18: Of respondents who hunted small game, proportion of years they hunted during that age range.....	80
Table 7-19: Of respondents who hunted small game, approximate number of days they hunted small game per year during that age range.....	81
Table 7-20: Of respondents who hunted small game, index of level of participation in small game hunting during age ranges.....	81
Table 8-1: Participation in other activities in the past 12 months.....	83
Table 8-2: Of respondents who fished in the last 12 months, average number of days spent fishing in past 12 months.....	83
Table 8-3: Of respondents who participated in wildlife viewing in the last 12 months, average number of days spent wildlife viewing in past 12 months.....	83
Table 8-4: Of respondents who picnicked in the last 12 months, average number of days picnicking in past 12 months.....	84
Table 8-5: Of respondents who went day hiking in the last 12 months, average number of days spent day hiking in past 12 months.....	84
Table 8-6: Of respondents who went backpacking in the last 12 months, average number of days spent backpacking in past 12 months.....	84

Table 8-7: Of respondents who went canoeing in the last 12 months, average number of days spent canoeing in past 12 months.....	85
Table 8-8: Of respondents who drove off-road vehicles in the last 12 months, average number of days spent driving off-road vehicles in past 12 months.	85
Table 8-9: Of respondents who camped in developed campgrounds in the last 12 months, average number of days spent camping in past 12 months.	85
Table 8-10: Of respondents who went primitive camping in the last 12 months, average number of days spent primitive camping in past 12 months.	86
Table 8-11: Of respondents who went cross-country skiing in the last 12 months, average number of days spent cross-country skiing in the past 12 months.	86
Table 9-1: Year of birth.	91
Table 9-2: Proportion of life living in Minnesota.	91
Table 9-3: Proportion of life from birth to age 17 living on a farm or ranch, or non-suburban rural area.....	91
Table 9-4: Proportion of life from age 18 until now living on a farm or ranch, or non-suburban rural area.....	92
Table 9-5: Proportion of life living on a farm or ranch, or non-suburban rural area.	92
Table 9-6: Highest Level of Education.	92
Table 9-7: Approximate household income.....	93
Table 9-8: Marital Status.	93
Table 9-9: Race.	93
Table 9-10: Hispanic background.	94

Introduction

Minnesota is home to nearly 1.5 million sportspeople, including 582,000 hunters (U.S. Department of the Interior, Fish and Wildlife Service, 2002). Approximately 15% of Minnesota residents hunt with approximately 13% participating in both hunting and fishing (U.S. Department of the Interior, Fish and Wildlife Service, 2002).

Minnesota hunting participation has been remarkably stable, as a proportion of the population, at around 15% over the last 30 years (Kelly, 2004). The absolute number of state resident hunters increased 29% from 1991 to 2001, and the hunting-related expenditures by in-state hunters increased by 58% during the same period (U.S. Department of the Interior, Fish and Wildlife Service, 2002). Minnesota hunters spent nearly \$600 million dollars on hunting and trip-related expenses in 2001.

Although Minnesota's participation in hunting appears stable, indicators of hunter recruitment and retention in the United States point to decreasing trends (Enck, Decker, & Brown, 2000; Kelly, 2004). If trends in hunting and fishing participation continue to decline, there are obvious negative implications for the funding obtained from license sales and the federal taxes applied to hunting and fishing equipment. In addition, declines in the number of people who fish and hunt could lead to decreasing social and political support for recreational and conservation programs. Recent national hunting participation patterns suggest that participation among youths and young adults is dramatically lower than older age cohorts (Kelly, 2004). Given the similarity of Minnesota to the rest of the United States, it is likely that this pattern may be true for Minnesota as well.

Study Purpose and Objectives

The purpose of this study was to examine the experience-use patterns of hunters in Minnesota in order to better understand the implications of current participation and recruitment patterns on future trends in hunting participation.

The specific objectives of this study were to:

1. identify the lifelong hunting participation patterns of current Minnesota hunters.
2. identify important factors in the process of initiation into and continuation of hunting for Minnesota residents.
3. identify the constraints and barriers that influence the decision to participate in hunting.
4. identify involvement in recruiting/mentoring new hunters.
5. identify important factors related to recruiting/mentoring people into hunting.
6. compare age cohorts on each of the above.

The questions used to address each objective are provided in the survey instrument (Appendix A) and discussed in more detail in the subsequent sections.

Methods

Sampling

The population of interest in this study included all Minnesota residents aged 20 and older who had purchased any of 18 types of hunting licenses for any of the 2000, 2001, or 2002 seasons. The sampling frame used to draw the study sample was the Minnesota Department of Natural Resources' (DNR)

Electronic Licensing System (ELS). A stratified random sample of Minnesota residents in the ELS was drawn. The study sample was stratified by age during the 2002 season. The four age cohorts were 20-29 years, 30-39 years, 40-49 years, and 50 years and older. The target sample size was $n = 300$ for each age cohort ($n = 1,200$ statewide). An initial stratified random sample of 2,400 individuals, approximately 600 from each of the four age cohorts, was drawn from the ELS.

Data Collection

Data were collected using a mail-back survey following the process outlined by Dillman (2000) to enhance response rates. We constructed a relatively straightforward questionnaire, created personalized cover letters, and made multiple contacts with the targeted respondents. Potential study respondents were contacted four times between November 2003 and January 2004. In the initial contact, a cover letter, survey questionnaire, and business-reply envelope were mailed to all potential study participants. The personalized cover letter explained the purpose of the study and made an appeal for respondents to complete and return the survey. Approximately seven days later, a postcard was sent to all potential participants reminding them of the survey and encouraging them to reply. Three weeks after the first mailing, a third mailing that included a personalized cover letter and replacement questionnaire with business-reply envelope was sent to all individuals with valid addresses who had not yet replied. Approximately seven weeks after the first mailing, a fourth mailing that included another cover letter and replacement questionnaire with another business-reply envelope was sent to all individuals with valid addresses who had not yet replied. Returned surveys were collected through April 7, 2004.

Survey Instrument

The data collection instrument was a 12-page self-administered survey with 11 pages of questions (Appendix A). The questionnaire included the following sections:

- Part 1: Your hunting background;
- Part 2: Your introduction to hunting;
- Part 3: Your involvement in hunting;
- Part 4: Attitudes about hunting;
- Part 5: The outcomes of hunting;
- Part 6: Constraints to your hunting activity;
- Part 7: Patterns of hunting in your life;
- Part 8: Other outdoor activities;
- Part 9: Sociodemographics.

Data Entry and Analysis

Data were professionally keypunched and analyzed on a personal computer using the Statistical Program for the Social Sciences (SPSS for Windows 11.5.0). We computed basic descriptive statistics and frequencies for the statewide results. Age cohort results were compared using one-way analysis of variance and cross-tabulations.

Survey Response Rate

Of the 2,400 questionnaires mailed, 231 were undeliverable, sent to a deceased person, or otherwise invalid. Of the remaining 2,169 surveys, a total of 1,331 were returned, resulting in an overall response rate of 61.4%. Response rates for each age cohort are summarized in Table I-1. Responses received after the third survey mailing (n = 145) were used as a nonresponse check. Differences between early and late responses are described in Section 9.

Based on the unique ID numbers in the Minnesota Department of Natural Resources' (DNR) Electronic Licensing System (ELS), we drew a random sample of 2,400 individuals who had purchased any of 18 types of hunting licenses in any of the years 2000, 2001, or 2002. This sample was stratified to obtain 600 each from the following four age cohorts: 20-29, 30-39, 40-49, and 50+.

Table I-1: Response rates for age cohorts

	Initial sample size	Number invalid	Valid sample size	Number completed and returned	Response rate %
20-29 years	600	92	508	258	50.79%
30-39 years	600	65	535	298	55.70%
40-49 years	600	38	562	352	62.63%
50-65 years	600	36	564	416	73.76%
Full sample	2,400	231	2,169	1,331	61.36%

Population Estimates

Statewide Estimates

The study sample was drawn using a stratified random sample with age in 2002 defining the four study cohorts. For this reason the data were weighted to reflect the proportion of the population in each age cohort when making statewide estimates. Table I-2 summarizes the statewide population proportions for each age cohort.

Age-Cohort Estimates

For these estimates, the data were not weighted. To provide more detail about older respondents, the 50+ study cohort is divided (into 50-65 year-olds and respondents over 65 years) in the body of the report.

Table I-2: Proportion of state hunting-license purchasers and state residents by age cohort.

Age cohorts	Proportion of hunters in each age cohort (2002 season)		Proportion of Minnesota residents in each age cohort (2000 census)		Proportion of Minnesotans that hunt (2000 season/ census).	
	Frequency ¹	Proportion	Frequency ²	Proportion	Frequency ¹	Proportion
20-29	93,075	20.20%	642,309	18.43%	98,624	15.35%
30-39	109,715	23.81%	765,802	21.98%	126,850	16.56%
40-49	126,364	27.42%	775,939	22.27%	129,091	16.64%
50+	131,667	28.57%	1,300,584	37.32%	130,881	10.06%
Statewide	460,821	100.00%	3,484,634	100.00%	485,446	13.93%

Notes:

¹ Source: DNR license database

² Source: www.lmic.state.mn.us

Section 1: Minnesota Hunting Background

Findings:

Age Started Hunting in Minnesota

Statewide

Respondents reported the year that they started hunting in Minnesota, and we calculated the age from the year reported. On average, respondents started hunting at 17 years of age (Table 1-1). The age of initiation to hunting ranged from 0 to 68 years.

Age Groups

The average age that respondents started hunting in Minnesota differed significantly by age cohort ($F=6.454$, $p\leq 0.001$, $\eta=0.142$) (Table 1-1). In general, younger respondents started hunting at a younger age. Respondents from the 20-29 age cohort started hunting at 14.6 years of age on average, compared to 16.6, 17.7, 17.5, and 18.2 years of age for the 30-39, 40-49, 50-65, and 66 and over age cohorts respectively. The difference in reported age of initiation to Minnesota hunting may be the result of recall bias.

Hunting in Minnesota in 1998-2002

Statewide

Respondents checked a box for each of the years they had hunted in Minnesota from 1998 through 2002, or a box to indicate that they had not hunted in Minnesota during any of these years (Table 1-2). Over 80% of respondents hunted during each of the seasons from 1998 through 2002. Only 2% of respondents reported that they did not hunt in any of these years. There were significant positive correlations between the number of years hunting in Minnesota between 1998 and 2002 and the percentage of years living in a rural area (a) from birth until age 17 ($r= 0.069$, $p\leq 0.05$), (b) from age 18 on ($r= 0.065$, $p\leq 0.05$), and (c) from birth on ($r= 0.063$, $p\leq 0.05$). This means that respondents who have lived a greater proportion of their lives in rural areas hunted slightly more years between 1998 and 2002.

Age Cohorts

The percentage of respondents who hunted in 1998, 1999, and 2000 differed significantly by age cohort (Table 1-2). In general, a smaller percentage of hunters from the 20-29 age cohort and 30-39 age cohort hunted during these years compared to hunters from the three older age cohorts.

Section 1: Minnesota Hunting Background

Participation in Different Types of Hunts

Statewide

Respondents circled yes or no to indicate whether they had ever hunted in Minnesota for: (a) firearm deer, (b) archery deer, (c) muzzleloader deer, (d) migratory waterfowl (ducks and geese), (e) pheasants, (f) grouse/woodcock, (g) turkeys, (h) small game (rabbits, hares, squirrels, fox), (i) moose, or (j) bear. Nearly 9 out of 10 respondents (87%) had participated in rifle deer hunting at some point in their life (Table 1-3). This compares to 28% and 9% participation in archery or muzzleloader deer hunting, respectively. Similar proportions of respondents reported participating in waterfowl (45%), pheasant (47%), or grouse/woodcock (47%) hunting at some point in their lives (Table 1-4). Fewer respondents (13%) had ever participated in turkey hunting. Over one-third of the respondents had hunted small game at some point in their lives (Table 1-5). A small percentage of respondents reported ever hunting moose (3%) or bear (10%).

On average, respondents had participated in three types of hunts during their lifetime. Approximately one-fifth of respondents reported that they had participated in only 1 of the 10 types of hunting in Minnesota; an additional one-fifth had participated in 2 of the 10 types of hunts, and another one-fifth had participated in three types of hunts. Approximately 40% of respondents had participated in four or more types of hunts (Table 1-6).

Some respondents had only participated in one type of hunting during their lives. Nearly 17% of respondents reported that they had only hunted deer with a firearm, and 1% of respondents reported that they had only hunted archery deer (Table 1-7). The proportion of respondents who had hunted other species exclusively was less than 1% (Tables 1-7, 1-8, and 1-9).

There was a significant positive correlation between income and the number of different types of hunts that respondents had participated in ($r=0.118$, $p\leq 0.001$). This finding suggests that respondents who had higher incomes had participated in more types of hunts. There were significant negative correlations between the number of different hunt types that respondents had ever participated in and the percentage of life in rural residence (a) from birth to age 17 ($r=-0.097$, $p\leq 0.001$), (b) from age 18 to current ($r=-0.060$, $p\leq 0.05$), and (c) from birth to current ($r=-0.078$, $p\leq 0.01$). This means that respondents who had lived more of their lives in rural areas had participated in fewer types of hunts.

Age Cohorts

Nearly 95% of respondents from the 66 and older age cohort reported having hunted deer with a firearm, compared to between 85 and 90% of respondents from the other age cohorts ($\chi^2=10.007$, $p\leq 0.05$, Cramer's $V=0.087$) (Table 1-3). Only 10% of respondents from the 66 and over age category and just over 20% of 50-65 year-old respondents reported that they had ever hunted archery deer, compared to approximately 30% of respondents from the three other age cohorts ($\chi^2=29.808$, $p\leq 0.001$, Cramer's $V=0.133$). There was no significant difference among age cohorts in the percentage of respondents who hunted muzzleloader deer.

Like archery deer, a smaller percentage of respondents from the 50-65 and 66 and over age cohorts reported having ever hunted for pheasants or waterfowl (Table 1-4). Less than 40% of respondents from these two age cohorts reported ever hunting pheasants, compared to approximately 50% of respondents from the other cohorts ($\chi^2=20.067$, $p\leq 0.001$, Cramer's

Section 1: Minnesota Hunting Background

V=0.124). There were no significant differences among age cohorts in the percentage of respondents who had ever hunted waterfowl, grouse/woodcock, or turkeys.

Approximately 40% of 20-29, 30-39, and 40-49 year-old respondents reported having hunted small game, compared to 34% of 50-65 year-olds and 27% of those over 65 years (Table 1-5). A larger, albeit still small, percentage of hunters from the 50-65 and 66 and over age cohorts (5% and 8% respectively) reported having ever hunted moose, compared to 20-29 year old hunters (0.4%), 30-39 year old hunters (2%), and 40-49 year old hunters (3%). There was no significant difference among age cohorts in the percentage of respondents who had ever hunted bear.

As shown in Table 1-6, respondents from the 30-39 year-old age cohort had participated in the highest average number of hunt types (3.5) and respondents from the 66 and older age cohort had participated in the lowest average number of hunt types (2.9). Over one-third of the hunters from the 66+ age cohort and nearly one-fourth of 50-65 year-old hunters had exclusively hunted deer with a firearm during their lifetimes; this compares to less than 15% of respondents from the other age categories (Table 1-7).

Hunting in the Previous 5 years

Statewide

If a respondent had ever participated in a type of hunt, they reported the number of years, of the previous 5 years, that they had hunted. Respondents who had ever hunted deer with a firearm hunted an average of 4.2 of the previous 5 years, compared to 3.7 for small game, 3.6 for grouse/woodcock, 3.6 for waterfowl, 3.3 for pheasants, 3.3 for archery deer, 2.6 for turkey, 2.3 for muzzleloader deer, 2.0 for moose, and 1.9 for bear (Tables 1-10, 1-11, 1-12).

Age Cohorts

Age cohorts differed in the average number of years of the previous 5 years hunting deer with a firearm ($F=5.363$, $p\leq 0.001$, $\eta^2=0.139$) (Table 1-10). In general, older respondents reported hunting deer with a firearm more years of the previous 5 years than younger respondents did. There were no other significant differences in average years hunting of the previous 5 years for the other species listed.

Hunting During the 2002 Season

Statewide

Respondents circled yes or no to indicate if they had participated in specific hunts during the 2002 season. If they had participated in a hunt, they were asked to report the number of days they hunted during the past 12 months.

Over two-thirds of respondents (71%) hunted deer with a firearm in 2002, while only 14% hunted archery deer, and 5% hunted muzzleloader deer (Table 1-13). On average, respondents hunted deer with a firearm for 5.4 days during the past 12 months, compared to 19.7 days for archery deer and 5.6 days for muzzleloader deer (Table 1-23).

Section 1: Minnesota Hunting Background

Approximately one out of three respondents reported hunting waterfowl (27%), pheasants (28%), or grouse/woodcock (29%) during 2002. Only 7% of respondents reported hunting turkey during 2002 (Table 1-14). Ten percent of respondents hunted upland game (both pheasants and grouse/woodcock) during 2002; 0.7% of respondents hunted upland game exclusively during 2002. Respondents hunted waterfowl for an average of 10.0 days, compared to 7.0 days for pheasants, 8.0 days for grouse/woodcock, and 3.8 days for turkeys (Table 1-24).

Almost one-fourth of respondents (22%) hunted small game during 2002. Less than 3% of respondents reported hunting moose (0.9%) or bear (3%) during 2002 (Table 1-15). On average, respondents spent 12.4 days hunting small game in the last 12 months, compared to 3.5 days for moose, and 7.4 days for bear (Table 1-25).

On average, respondents had participated in two different types of hunts in Minnesota during 2002. Approximately one-third (34%) of respondents reported that they had participated in only 1 of the 10 types of hunting in Minnesota; an additional 23% had participated in 2 of the 10 types of hunts, and another 16% participated in three types of hunts. Less than 20% of respondents had participated in four or more types of hunts (Table 1-16).

Over 25% of respondents reported that they had only hunted deer with a firearm in 2002 (Table 1-17). Nearly 2% of respondents reported that they had only hunted archery deer (1.7%), pheasants (1.7%), or grouse/woodcock (1.9%) (Table 1-17 and 1-18). The proportion of respondents who had hunted other species exclusively in 2002 was less than 1% (Table 1-17, 1-18, and 1-19).

There was a significant positive correlation between income and the number of different hunts in 2002 ($r=0.065$, $p\leq 0.05$). This means that respondents who had higher incomes participated in more types of hunts during the 2002 season.

Age Cohorts

No respondents from the 66 and over age cohort and only 11% of 50-65 year-olds reported that they hunted archery deer in 2002, compared to over 15% of respondents from the three other age cohorts ($\chi^2=27.719$, $p\leq 0.001$, Cramer's $V=0.146$) (Table 1-13). There were no significant differences among age cohorts in the percentage of respondents who hunted deer with a firearm or muzzleloader. There were also no significant differences among age cohorts in the number of days spent hunting for deer with a firearm, bow, or muzzleloader (Table 1-23).

Smaller percentages of respondents from the older age cohorts reported hunting for pheasants or waterfowl in 2002 (Table 1-14). Less than 20% of respondents from the 50-65 and 66 and over age cohorts reported hunting pheasants in 2002, compared to 29%, 32%, and 39% of respondents from the 40-49, 30-39, and 20-29 age cohorts respectively ($\chi^2=46.646$, $p\leq 0.001$, Cramer's $V=0.189$). Similarly, 20% of respondents who were 50-65 years old and 22% of those over 65 reported hunting waterfowl, compared to 24% of 40-49 year olds, 29% of 30-39 year olds, and 37% of 20-29 year olds ($\chi^2=22.647$, $p\leq 0.001$, Cramer's $V=0.132$). There were no significant differences among age cohorts in the percentage of respondents who hunted grouse/woodcock or turkeys in 2002. There were no significant differences by age cohort in the average number of days spent hunting waterfowl, pheasants, grouse/woodcock, or turkeys (Table 1-24).

A greater proportion of the younger hunters reported hunting small game in 2002 (Table 1-15). Thirty-two percent of respondents from the 20-29 year-old age cohort reported hunting small game in 2002 compared to 23%, 20%, 18%, and 15% of respondents from the 30-39, 40-49, 50-

Section 1: Minnesota Hunting Background

65, and 66 and over age cohorts respectively. There were no significant differences among age cohorts in the percentage of respondents who hunted moose or bear in 2002. Also, there were no significant differences in the average number of days spent hunting small game, moose, or bear in 2002 (Table 1-25).

Hunting During the Next 5 years

Statewide

Respondents were asked to indicate how likely it was that they would participate in different hunts in Minnesota at some time during the next 5 years. Responses were recorded on a scale of 1=very unlikely to 7=very likely.

The statewide average likelihood for hunting deer with a firearm was 5.8 (slightly to somewhat likely). Pheasants (mean=4.3) and grouse/woodcock (mean=4.2) were the only other types of hunting that had average ratings over the midpoint (4=undecided). Other types of hunts were all rated below the midpoint: waterfowl (mean=3.8), small game (mean=3.4), turkeys (mean=3.0), bear (mean=2.2) and moose (mean=1.7). See Tables 1-26, 1-27, 1-28.

Age Cohorts

Age cohorts differed on their intention to hunt for specific types of game in the next 5 years (Tables 1-26, 1-27, 1-28, 1-29, 1-30, 1-31, 1-32, 1-33, 1-34, 1-35, 1-36, 1-37, 1-38). In general, younger hunters reported that it was more likely that they would hunt compared to older hunters. This finding was also true when looking only at hunters who had previously participated in a particular type of hunt (Tables 1-39, 1-40, 1-41, 1-42, 1-43, 1-44, 1-45, 1-46, 1-47, 1-48).

Summary

More than 80% of respondents had hunted each of the years between 1998 and 2002. Eighty-seven percent of respondents had hunted for deer with a firearm at some point during their lifetime, and 71% had hunted deer with a firearm in 2002. Over 25% of respondents had only ever hunted for deer with a firearm. Older respondents were more likely to have hunted deer with a firearm, and to exclusively hunt for deer with a firearm. Older respondents were less likely to have hunted for archery deer, pheasants, waterfowl, or small game. In general, younger respondents reported stronger intentions to hunt in the future.

Section 1: Minnesota Hunting Background

Table 1-1: Age started hunting.

Age Cohorts	Sample size (n)	Age started hunting
Statewide ¹	1282	16.8
20-29	247	14.6
30-39	289	16.6
40-49	336	17.7
50-65	279	17.5
66+	110	18.2
F=6.454***, η=0.142		

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-2: Proportion of hunters who hunted in 1998 through 2002.

Age Cohorts	% who hunted in 1998	% who hunted in 1999	% who hunted in 2000	% who hunted in 2001	% who hunted in 2002	% who did not hunt any of these years
Statewide ¹	84.8	86.9	88.1	88.0	86.6	2.2
20-29	79.8	83.3	82.9	87.9	88.3	1.6
30-39	77.9	79.9	87.2	86.9	84.2	3.7
40-49	90.1	90.6	90.3	87.5	88.4	0.9
50-65	88.6	91.6	90.6	89.6	86.5	2.4
66+	90.7	92.4	90.7	89.8	83.9	2.5
Chi-square	χ ² =30.482***	χ ² =29.439***	χ ² =11.157*	χ ² =1.473	χ ² =3.782	χ ² =6.868
Cramer's V	0.152***	0.149***	0.092*	0.033	0.053	0.072

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05, ***P ≤ 0.001

Table 1-3: Proportion of hunters who ever participated in deer hunts.

Age Cohorts	% who hunted firearm deer	% who hunted archery deer	% who hunted muzzleloader deer
Statewide ¹	87.3	27.5	9.2
20-29	89.1	29.6	7.0
30-39	84.2	34.0	10.4
40-49	85.8	29.3	10.2
50-65	88.1	22.3	9.5
66+	94.7	9.6	6.1
Chi-square	χ ² =10.007*	χ ² =29.808***	χ ² =3.800
Cramer's V	0.087*	0.151***	0.054

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05, ***P ≤ 0.001

Section 1: Minnesota Hunting Background

Table 1-4: Proportion of hunters who ever participated in bird hunts.

Age Cohorts	% who hunted waterfowl	% who hunted pheasants	% who hunted grouse or woodcock	% who hunted turkey
Statewide ¹	45.2	47.4	46.6	13.1
20-29	48.2	54.1	44.7	11.3
30-39	49.2	50.8	51.5	14.8
40-49	45.2	48.3	47.7	14.5
50-65	40.0	38.3	42.0	11.2
66+	37.7	37.7	44.7	11.4
Chi-square	$\chi^2=8.592$	$\chi^2=20.067^{***}$	$\chi^2=6.041$	$\chi^2=3.348$
Cramer's V	0.081	0.124 ^{***}	0.068	0.050

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-5: Proportion of hunters who ever participated in small game, moose, or bear hunts.

Age Cohorts	% who hunted small game	% who hunted moose	% who hunted bear
Statewide ¹	38.0	3.1	9.8
20-29	41.2	0.4	7.0
30-39	41.1	2.0	11.1
40-49	38.9	2.8	12.2
50-65	33.9	5.4	8.1
66+	27.2	7.9	7.9
Chi-square	$\chi^2=10.212^*$	$\chi^2=20.896^{***}$	$\chi^2=6.623$
Cramer's V	0.088 [*]	0.126 ^{***}	0.071

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05, ***P ≤ 0.001

Table 1-6: Number of hunts ever participated in.

Age Cohorts	Sample size (n)	% who had participated in...							Mean ²
		0 hunts	1 hunt	2 hunts	3 hunts	4 hunts	5 hunts	6+ hunts	
Statewide ¹	1340	1.0	20.1	19.5	18.6	14.3	12.9	13.7	3.27
20-29	255	0.8	14.8	22.2	18.7	19.1	11.7	12.8	3.33
30-39	294	1.3	15.5	19.2	18.5	14.5	14.8	16.2	3.49
40-49	347	0.9	17.0	17.9	23.0	15.3	13.1	12.8	3.35
50-65	294	1.4	28.8	19.7	15.6	9.2	11.5	13.9	2.99
66+	112	0.0	36.8	18.4	11.4	9.6	13.2	10.5	2.85
$\chi^2=62.147^{***}$; Cramer's V=0.109 ^{***}									

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

² F=4.284 (p≤0.01), η=0.114. Range of 0 to 10

***P ≤ 0.001

Section 1: Minnesota Hunting Background

Table 1-7: Proportion of hunters who exclusively have participated in specific deer hunts.

Age Cohorts	% who hunted firearm deer	% who hunted archery deer	% who hunted muzzleloader deer
Statewide ¹	16.9	1.2	0.1
20-29	13.2	0.8	0.0
30-39	12.1	1.7	0.3
40-49	13.9	1.1	0.0
50-65	24.3	1.7	0.0
66+	32.2	0.0	0.0
Chi-square	$\chi^2=40.034^{***}$	$\chi^2=2.983$	$\chi^2=3.439$
Cramer's V	0.174 ^{***}	0.048	0.051

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-8: Proportion of hunters who have exclusively participated in bird hunts.

Age Cohorts	% who hunted waterfowl	% who hunted pheasants	% who hunted grouse or woodcock	% who hunted turkey
Statewide ¹	0.3	0.7	0.7	0.0
20-29	0.0	0.0	0.4	0.0
30-39	0.0	1.0	0.3	0.0
40-49	0.6	0.6	0.9	0.0
50-65	0.3	1.0	1.4	0.0
66+	0.8	0.8	0.8	0.0
Chi-square	$\chi^2=3.684$	$\chi^2=2.836$	$\chi^2=2.622$	$\chi^2=\text{not computed}$
Cramer's V	0.053	0.046	0.045	not computed

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 1-9: Proportion of hunters who have exclusively participated in small game, moose, or bear hunts.

Age Cohorts	% who hunted small game	% who hunted moose	% who hunted bear
Statewide ¹	0.1	0.0	0.0
20-29	0.4	0.0	0.0
30-39	0.0	0.0	0.0
40-49	0.0	0.0	0.0
50-65	0.2	0.0	0.0
66+	0.8	0.0	0.0
Chi-square	$\chi^2=6.173$	$\chi^2=\text{not computed}$	$\chi^2=\text{not computed}$
Cramer's V	0.068	not computed	not computed

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 1: Minnesota Hunting Background

Table 1-10: Average number of years, of previous 5 years, hunting deer.¹

Age Cohorts	Firearm deer		Archery deer		Muzzleloader deer	
	N	Mean	N	Mean	N	Mean
Statewide ¹	1106	4.20	299	3.28	115	2.29
20-29	225	3.96	73	2.96	18	2.00
30-39	237	4.07	81	3.30	29	2.41
40-49	287	4.32	83	3.42	35	2.20
50-65	235	4.38	45	3.62	24	2.08
66+	102	4.47	6	3.17	6	3.67
F	F=5.363***		F=1.418		F=1.795	
η	0.139		0.140		0.251	

Notes:

²A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P < 0.001

Table 1-11: Average number of years, of previous 5 years, hunting birds.¹

Age Cohorts	Waterfowl		Pheasants		Grouse or woodcock		Turkey	
	N	Mean	N	Mean	N	Mean	N	Mean
Statewide ²	495	3.57	533	3.33	536	3.63	163	2.58
20-29	118	3.53	134	3.14	108	3.61	28	2.21
30-39	126	3.48	128	3.41	137	3.58	38	2.53
40-49	124	3.58	144	3.42	138	3.72	48	2.77
50-65	78	3.62	79	3.30	97	3.62	31	2.39
66+	33	3.88	29	3.55	43	3.70	13	3.46
F	F=0.456		F=0.793		F=0.165		F=2.240	
η	0.062		0.079		0.036		0.235	

Notes:

¹ Number of years reflects an average of respondents that participated in the specific hunt between 1998 and 2002.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 1-12: Average number of years, of previous 5 years, hunting small game, moose, bear.¹

Age Cohorts	Small game		Moose		Bear	
	N	Mean	N	Mean	N	Mean
Statewide ²	409	3.71	14	1.99	116	1.91
20-29	103	3.85	1	2.00	18	1.50
30-39	98	3.40	3	2.33	29	1.83
40-49	103	3.70	4	1.50	37	1.84
50-65	69	3.99	1	1.00	20	2.30
66+	24	4.04	5	2.40	8	2.88
F	F=2.095		F=0.284		F=2.244	
η	0.145		0.335		0.278	

Notes:

¹ Number of years reflects an average of respondents that participated in the specific hunt between 1998 and 2002.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 1: Minnesota Hunting Background

Table 1-13: Proportion of hunters who hunted deer in 2002.

Age Cohorts	% who hunted firearm deer	% who hunted archery deer	% who hunted muzzleloader deer
Statewide ¹	70.9	14.4	5.2
20-29	73.3	18.4	4.7
30-39	68.0	17.0	5.1
40-49	69.7	15.9	5.2
50-65	70.1	10.9	6.8
66+	79.5	0.0	1.8
Chi-square	$\chi^2=6.220$	$\chi^2=27.719^{***}$	$\chi^2=4.348$
Cramer's V	0.069	0.146 ^{***}	0.058

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-14: Proportion of hunters who hunted birds in 2002.

Age Cohorts	% who hunted waterfowl	% who hunted pheasants	% who hunted grouse or woodcock	% who hunted turkey
Statewide ¹	26.8	28.0	28.5	7.2
20-29	36.5	38.8	30.2	5.5
30-39	28.9	31.6	31.3	7.1
40-49	23.6	28.8	28.8	8.6
50-65	20.1	18.0	23.5	7.1
66+	22.3	11.6	28.6	7.1
Chi-square	$\chi^2=22.647^{***}$	$\chi^2=46.646^{***}$	$\chi^2=5.158$	$\chi^2=2.198$
Cramer's V	0.132 ^{***}	0.189 ^{***}	0.063	0.041

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-15: Proportion of hunters who hunted small game, moose, or bear in 2002.

Age Cohorts	% who hunted small game	% who hunted moose	% who hunted bear
Statewide ¹	22.1	0.9	2.7
20-29	31.8	1.2	2.7
30-39	22.8	1.0	2.4
40-49	19.9	1.2	3.5
50-65	17.7	0.7	3.4
66+	15.2	0.0	0.0
Chi-square	$\chi^2=21.427^{***}$	$\chi^2=1.645$	$\chi^2=4.410$
Cramer's V	0.128	0.036	0.058

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 1: Minnesota Hunting Background

Table 1-16: Number of hunts participated in during 2002.

Age Cohorts	Sample size (n)	% who participated in __ number of different types of hunts							Mean # of hunts ²
		0	1	2	3	4	5	6+	
Statewide ¹	1326	11.0	33.6	22.7	15.5	9.5	5.1	2.7	2.07
20-29	255	10.2	26.3	21.2	14.9	13.3	11.0	3.1	2.43
30-39	294	11.9	29.3	24.5	15.0	10.9	4.4	4.1	2.15
40-49	347	10.4	32.6	25.1	16.4	8.9	4.0	2.6	2.05
50-65	294	12.6	40.8	20.7	15.3	6.1	2.7	1.7	1.78
66+	112	8.9	50.0	17.0	16.1	6.3	1.8	0.0	1.66
$\chi^2=65.289^{***}$, Cramer's V=0.112 ^{***}									

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

² F=8.435 (p<0.001), η=0.159. Range 0 to 10.

Table 1-17: Proportion of hunters who hunted deer exclusively in 2002.

Age Cohorts	Sample size (n)	% who hunted firearm deer	% who hunted archery deer	% who hunted muzzleloader deer
Statewide ¹	1347	25.8	1.7	0.4
20-29	258	22.1	0.8	0.0
30-39	298	19.8	2.0	0.0
40-49	352	24.1	2.0	0.9
50-65	296	32.8	2.4	0.3
66+	118	40.7	0.0	0.0
Chi-square		$\chi^2=28.752^{***}$	$\chi^2=4.580$	$\chi^2=5.584$
Cramer's V		0.147 ^{***}	0.059	0.065

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-18: Proportion of hunters who hunted birds exclusively in 2002.

Age Cohorts	Sample size (n)	% who hunted waterfowl	% who hunted pheasants	% who hunted grouse or woodcock	% who hunted turkey
Statewide ¹	1347	0.9	1.7	1.9	0.2
20-29	258	0.8	0.4	1.2	0.0
30-39	298	1.0	3.7	1.3	0.0
40-49	353	0.6	0.9	2.6	0.6
50-65	296	0.3	2.0	2.4	0.0
66+	118	3.4	0.8	1.7	0.0
Chi-square		$\chi^2=9.685^*$	$\chi^2=12.189^*$	$\chi^2=2.445$	$\chi^2=5.520$
Cramer's V		0.086 [*]	0.096 [*]	0.043	0.065

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.05

Section 1: Minnesota Hunting Background

Table 1-19: Proportion of hunters who hunted small game, moose, or bear exclusively in 2002.

Age Cohorts	Sample size (n)	% who hunted small game	% who hunted moose	% who hunted bear
Statewide ¹	1347	0.6	0.1	0.0
20-29	258	0.4	0.4	0.0
30-39	300	1.0	0.0	0.0
40-49	348	0.6	0.0	0.0
50-65	423	0.3	0.0	0.0
66+		0.8	0.0	0.0
Chi-square		$\chi^2=1.477$	$\chi^2=4.127$	χ^2 =not calculated
Cramer's V		0.033	0.056	not calculated

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 1-20: Proportion of hunters who ever hunted deer, who hunted deer in 2002.

Age Cohorts	% who ever hunted firearm deer who hunted in 2002		% who ever hunted archery deer who hunted in 2002		% who ever hunted muzzleloader deer who hunted in 2002	
	N	%	N	%	N	%
Statewide ¹	1157	81.0	364	51.5	123	49.4
20-29	227	82.4	76	61.8	18	50.0
30-39	247	81.0	100	50.0	31	48.4
40-49	298	80.9	101	52.5	36	44.4
50-65	260	78.8	65	47.7	28	60.7
66+	105	83.8	11	0.0	7	28.6
Chi-square	$\chi^2=1.606$		$\chi^2=15.430^{**}$		$\chi^2=3.016$	
Cramer's V	0.038		0.209 ^{**}		0.159	

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

^{**}P≤0.01

Table 1-21: Proportion of hunters who ever hunted birds, who hunted birds in 2002.

Age Cohorts	% who ever hunted waterfowl who hunted in 2002		% who ever hunted pheasants who hunted in 2002		% who ever hunted grouse/woodcock who hunted in 2002		% who ever hunted turkey who hunted in 2002	
	N	%	N	%	N	%	N	%
Statewide ¹	601	58.6	628	58.7	619	59.6	176	53.1
20-29	124	74.2	138	71.7	113	65.5	29	48.3
30-39	144	59.0	149	62.4	152	60.5	44	47.7
40-49	158	51.3	169	58.6	167	57.5	51	56.9
50-65	118	50.0	112	46.4	124	54.0	33	60.6
66+	42	57.1	42	31.0	50	64.0	13	61.5
Chi-square	$\chi^2=19.481^{***}$		$\chi^2=30.721^{***}$		$\chi^2=3.988$		$\chi^2=2.125$	
Cramer's V	0.182 ^{***}		0.224 ^{***}		0.081		0.112	

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

^{***}P ≤ 0.001

Section 1: Minnesota Hunting Background

Table 1-22: Proportion of hunters who ever hunted small game, moose, and bear who hunted small game, moose, and bear in 2002.

Age Cohorts	% who ever hunted small game who hunted in 2002		% who ever hunted moose who hunted in 2002		% who ever hunted bear who hunted in 2002	
	N	%	N	%	N	%
Statewide ¹	506	56.6	41	10.4	130	26.6
20-29	106	75.5	1	0.0	18	38.9
30-39	122	53.3	6	33.3	33	21.2
40-49	136	49.3	10	20.0	42	26.2
50-65	99	51.5	16	0.0	24	37.5
66+	30	56.7	9	0.0	9	0.0
Chi-square	$\chi^2=19.951^{***}$		$\chi^2=7.958^*$		$\chi^2=6.539$	
Cramer's V	0.201 ^{***}		0.435 [*]		0.228	

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

* $P \leq 0.05$, *** $P \leq 0.001$

Table 1-23: Average number of days spent deer hunting in Minnesota in last 12 months, for those who hunted in 2002.

Age Cohorts	Firearm deer		Archery deer		Muzzleloader deer	
	N	Mean	N	Mean	N	Mean
Statewide ¹	929	5.41	188	19.72	68	5.60
20-29	185	5.23	47	20.11	12	5.08
30-39	197	5.25	49	19.18	15	5.60
40-49	238	5.51	54	21.48	17	6.18
50-65	205	5.68	31	16.52	20	5.80
66+	89	5.34	0	0	2	3.50
F	F=0.496		F=0.517		F=0.278	
η	0.047		0.108		0.134	

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 1-24: Average number of days spent bird hunting in Minnesota in last 12 months, for those who hunted in 2002.

Age Cohorts	Waterfowl		Pheasants		Grouse/woodcock		Turkeys	
	N	Mean	N	Mean	N	Mean	N	Mean
Statewide ¹	347	10.03	362	6.97	369	7.99	93	3.79
20-29	92	11.18	98	6.94	77	9.30	14	4.00
30-39	84	9.62	91	6.45	89	5.97	21	3.67
40-49	80	10.40	95	7.33	98	8.78	28	3.71
50-65	55	9.45	52	8.02	66	7.74	21	3.76
66+	25	6.92	13	4.62	31	8.90	8	4.13
F	F=1.226		F=0.836		F=2.079		F=0.250	
η	0.121		0.098		0.151		0.107	

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 1: Minnesota Hunting Background

Table 1-25: Average number of days spent hunting small game, moose, and bear in Minnesota in last 12 months, for those who hunted in 2002.

Age Cohorts	Small game		Moose		Bear	
	N	Mean	N	Mean	N	Mean
Statewide ¹	288	12.37	10	3.53	34	7.42
20-29	81	11.28	1	5.00	7	8.14
30-39	65	10.88	3	3.33	6	6.17
40-49	68	14.81	4	3.75	11	6.55
50-65	50	13.12	2	2.50	10	8.80
66+	17	11.71	0	0	0	0
F	F=0.385		F=0.180		F=0.277	
η	0.074		0.354		0.192	

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 1-26: How likely you will participate in deer hunting activities during the next 5 years¹.

Age Cohorts	Firearm deer	Archery deer	Muzzleloader deer
Statewide ²	5.75	3.30	2.41
20-29	6.11	3.92	2.33
30-39	5.70	3.50	2.47
40-49	5.73	3.37	2.65
50-65	5.49	2.64	2.35
66+	5.63	1.64	1.48
F	F=2.852*	F=16.015***	F=4.352**
η	0.094	0.234	0.126

Notes:

¹ Mean is based on a scale of 1=very unlikely, 2=somewhat unlikely, 3=slightly unlikely, 4=undecided, 5=slightly likely, 6=somewhat likely, 7=very likely.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05, **P ≤ 0.01, ***P ≤ 0.001

Table 1-27: How likely you will participate in bird hunting activities during the next 5 years¹.

Age Cohorts	Waterfowl	Pheasants	Grouse/woodcock	Turkeys
Statewide ²	3.79	4.29	4.16	2.97
20-29	4.60	4.98	4.35	3.25
30-39	4.06	4.59	4.36	3.03
40-49	3.59	4.27	4.16	3.12
50-65	3.07	3.61	3.93	2.56
66+	2.84	2.86	3.59	2.23
F	F=15.729***	F=19.949***	F=2.541*	F=5.612***
η	0.227	0.252	0.093	0.140

Notes:

¹ Mean is based on a scale of 1=very unlikely, 2=somewhat unlikely, 3=slightly unlikely, 4=undecided, 5=slightly likely, 6=somewhat likely, 7=very likely.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05, ***P ≤ 0.001

Section 1: Minnesota Hunting Background

Table 1-28: How likely you will participate in small game, moose, and bear hunting activities during the next 5 years¹.

Age Cohorts	Small game	Moose	Bear
Statewide ²	3.41	1.69	2.15
20-29	4.00	1.72	2.38
30-39	3.48	1.73	2.18
40-49	3.35	1.78	2.29
50-65	3.06	1.58	1.89
66+	2.34	1.25	1.38
F	F=8.843***	F=2.613*	F=5.987***
η	0.172	0.096	0.144

Notes:

¹ Mean is based on a scale of 1=very unlikely, 2=somewhat unlikely, 3=slightly unlikely, 4=undecided, 5=slightly likely, 6=somewhat likely, 7=very likely.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P<0.05, ***P ≤ 0.001

Table 1-29: How likely you will participate in firearm deer hunting during the next 5 years.

Age Cohorts	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely
Statewide ¹	13.8%	2.3%	0.7%	5.1%	3.0%	6.7%	68.4%
20-29	9.8%	0.4%	1.6%	3.5%	2.8%	5.5%	76.4%
30-39	13.7%	3.8%	0.3%	4.1%	4.1%	6.8%	67.1%
40-49	14.8%	2.3%	0.3%	4.7%	2.6%	6.1%	69.2%
50-65	17.5%	2.8%	1.0%	5.9%	1.7%	6.3%	64.7%
66+	11.8%	1.8%	0.0%	11.8%	4.5%	12.7%	57.3%
$\chi^2=45.982^{**}$; Cramer's V=0.095**							

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Table 1-30: How likely you will participate in archery deer hunting during the next 5 years.

Age Cohorts	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely
Statewide ¹	47.9%	4.6%	2.4%	9.2%	7.6%	7.7%	20.7%
20-29	35.1%	2.9%	5.4%	10.5%	10.5%	8.8%	26.8%
30-39	42.4%	6.5%	1.1%	10.1%	9.8%	9.1%	21.0%
40-49	46.0%	4.3%	2.3%	11.3%	6.3%	9.0%	20.7%
50-65	63.2%	5.1%	1.3%	4.7%	3.8%	4.3%	17.5%
66+	84.4%	1.6%	0.0%	4.7%	3.1%	1.6%	4.7%
$\chi^2=100.188^{***}$; Cramer's V=0.150***							

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 1: Minnesota Hunting Background

Table 1-31: How likely you will participate in muzzleloader deer hunting during the next 5 years.

Age Cohorts	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely
Statewide ¹	63.1%	4.7%	3.0%	10.0%	5.7%	3.4%	10.1%
20-29	65.2%	3.0%	4.8%	7.8%	7.0%	4.3%	7.8%
30-39	59.9%	6.1%	2.7%	12.2%	6.5%	2.3%	10.3%
40-49	56.8%	5.4%	3.1%	12.2%	6.8%	4.4%	11.2%
50-65	68.3%	3.5%	1.7%	7.0%	3.5%	3.5%	12.6%
66+	84.6%	3.1%	1.5%	7.7%	0.0%	0.0%	3.1%
$\chi^2=40.842^*$; Cramer's V=0.097*							

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Table 1-32: How likely you will participate in waterfowl hunting during the next 5 years.

Age Cohorts	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely
Statewide ¹	37.3%	6.7%	3.2%	9.1%	8.4%	7.1%	28.3%
20-29	23.5%	5.7%	4.0%	8.9%	8.5%	10.9%	38.5%
30-39	30.7%	7.9%	3.2%	9.3%	11.4%	7.1%	30.4%
40-49	41.1%	5.4%	3.2%	11.1%	7.6%	6.1%	25.5%
50-65	50.0%	9.0%	3.3%	5.7%	6.6%	4.1%	21.3%
66+	58.5%	4.9%	0.0%	8.5%	4.9%	4.9%	18.3%
$\chi^2=81.182^{***}$; Cramer's V=0.132 ^{***}							

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-33: How likely you will participate in pheasant hunting during the next 5 years.

Age Cohorts	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely
Statewide ¹	26.5%	4.2%	4.0%	12.8%	12.0%	12.0%	28.4%
20-29	17.1%	3.3%	2.4%	11.0%	13.0%	15.0%	38.2%
30-39	19.9%	5.0%	5.0%	12.1%	14.2%	12.1%	31.7%
40-49	26.5%	3.7%	2.8%	14.8%	13.5%	12.9%	25.8%
50-65	38.1%	4.9%	6.9%	10.9%	8.5%	8.9%	21.9%
66+	51.2%	5.8%	3.5%	16.3%	4.7%	5.8%	12.8%
$\chi^2=93.900^{***}$; Cramer's V=0.141 ^{***}							

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 1: Minnesota Hunting Background

Table 1-34: How likely you will participate in grouse hunting during the next 5 years.

Age Cohorts	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely
Statewide ¹	30.8%	5.4%	3.3%	8.8%	11.1%	10.3%	30.3%
20-29	25.4%	4.6%	5.8%	10.0%	11.7%	12.5%	30.0%
30-39	27.4%	4.7%	3.6%	9.4%	11.9%	9.0%	33.9%
40-49	31.2%	5.7%	2.5%	7.6%	12.9%	9.8%	30.3%
50-65	36.0%	5.9%	2.0%	8.3%	8.3%	12.3%	27.3%
66+	41.8%	7.7%	1.1%	8.8%	7.7%	5.5%	27.5%
$\chi^2=30.635$; Cramer's V=0.081							

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 1-35: How likely you will participate in turkey hunting during the next 5 years.

Age Cohorts	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely
Statewide ¹	46.8%	7.9%	5.2%	12.8%	8.7%	6.2%	12.5%
20-29	37.6%	9.3%	8.4%	12.7%	11.4%	8.9%	11.8%
30-39	43.3%	10.0%	4.1%	14.1%	11.1%	6.7%	10.7%
40-49	44.5%	7.5%	4.9%	14.6%	7.5%	5.5%	15.6%
50-65	59.1%	5.7%	3.0%	10.4%	7.0%	3.9%	10.9%
66+	68.3%	3.7%	4.9%	7.3%	1.2%	4.9%	9.8%
$\chi^2=57.783^{***}$; Cramer's V=0.113 ^{***}							

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-36: How likely you will participate in small game hunting during the next 5 years.

Age Cohorts	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely
Statewide ¹	43.8%	5.4%	4.0%	8.9%	9.2%	8.7%	20.1%
20-29	32.9%	3.3%	4.9%	11.5%	10.7%	10.3%	26.3%
30-39	42.4%	7.2%	3.6%	6.1%	9.7%	9.0%	21.9%
40-49	42.5%	7.0%	3.8%	9.6%	11.2%	8.0%	17.9%
50-65	53.3%	2.9%	3.3%	8.2%	7.0%	8.6%	16.8%
66+	65.9%	4.9%	3.7%	8.5%	1.2%	3.7%	12.2%
$\chi^2=56.747^{***}$; Cramer's V=0.111 ^{***}							

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 1: Minnesota Hunting Background

Table 1-37: How likely you will participate in moose hunting during the next 5 years.

Age Cohorts	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely
Statewide ¹	76.6%	5.5%	2.6%	8.6%	3.4%	1.6%	1.7%
20-29	73.0%	8.0%	2.5%	10.1%	3.8%	2.1%	0.4%
30-39	76.2%	4.8%	2.6%	8.6%	3.7%	1.9%	2.2%
40-49	73.4%	6.9%	3.3%	8.2%	3.6%	2.0%	2.6%
50-65	80.5%	3.0%	2.6%	8.7%	3.5%	0.4%	1.3%
66+	93.7%	0.0%	0.0%	3.8%	0.0%	1.3%	1.3%
$\chi^2=31.214$; Cramer's V=0.083							

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 1-38: How likely you will participate in bear hunting during the next 5 years.

Age Cohorts	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely
Statewide ¹	67.1%	5.1%	2.9%	10.0%	5.9%	3.7%	5.3%
20-29	60.3%	6.7%	2.1%	12.6%	8.4%	4.2%	5.9%
30-39	67.4%	4.0%	3.3%	9.5%	5.5%	4.4%	5.9%
40-49	62.1%	5.9%	3.9%	11.8%	6.5%	4.6%	5.2%
50-65	74.9%	3.0%	3.0%	7.7%	4.7%	2.1%	4.7%
66+	88.8%	3.8%	0.0%	3.8%	0.0%	0.0%	3.8%
$\chi^2=40.930^*$; Cramer's V=0.095*							

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Table 1-39: Among hunters who have ever hunted firearm deer, how likely they will participate in firearm deer hunting during the next 5 years.

Age Cohorts	n	Unlikely	Undecided	Likely
Statewide ¹	1158	9.5%	4.5%	86.0%
20-29	228	5.3%	3.1%	91.7%
30-39	249	9.6%	2.0%	88.4%
40-49	298	8.1%	4.7%	87.2%
50-65	258	15.1%	5.4%	79.5%
66+	105	11.4%	11.4%	77.1%
$\chi^2=32.748^{***}$; Cramer's V=0.120 ^{***}				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 1: Minnesota Hunting Background

Table 1-40: Among hunters who have ever hunted archery deer, how likely they will participate in archery deer hunting during the next 5 years.

Age Cohorts	N	Unlikely	Undecided	Likely
Statewide ¹	355	16.1%	7.6%	76.2%
20-29	74	4.1%	2.7%	93.2%
30-39	100	18.0%	8.0%	74.0%
40-49	98	13.3%	12.2%	74.5%
50-65	64	31.3%	4.7%	64.1%
66+	7	42.9%	14.3%	42.9%
$\chi^2=30.434^{***}$; Cramer's V=0.211 ^{***}				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-41: Among hunters who have ever hunted muzzleloader deer, how likely they will participate in muzzleloader deer hunting during the next 5 years.

Age Cohorts	n	Unlikely	Undecided	Likely
Statewide ¹	117	19.2%	4.5%	76.4%
20-29	17	11.8%	5.9%	82.4%
30-39	31	19.4%	6.5%	74.2%
40-49	33	24.2%	3.0%	72.7%
50-65	27	14.8%	0.0%	85.2%
66+	5	40.0%	20.0%	40.0%
$\chi^2=8.039$; Cramer's V=0.189				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 1-42: Among hunters who have ever hunted waterfowl, how likely they will participate in waterfowl hunting during the next 5 years.

Age Cohorts	N	Unlikely	Undecided	Likely
Statewide ¹	587	19.9%	7.3%	72.8%
20-29	124	6.5%	4.0%	89.5%
30-39	145	17.2%	6.9%	75.9%
40-49	151	21.2%	9.9%	68.9%
50-65	114	34.2%	7.0%	58.8%
66+	37	35.1%	8.1%	56.8%
$\chi^2=40.128^{***}$; Cramer's V=0.187 ^{***}				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 1: Minnesota Hunting Background

Table 1-43: Among hunters who have ever hunted pheasants, how likely they will participate in pheasant hunting during the next 5 years.

Age Cohorts	n	Unlikely	Undecided	Likely
Statewide ¹	619	13.2%	11.0%	75.8%
20-29	136	8.1%	5.9%	86.0%
30-39	150	9.3%	7.3%	83.3%
40-49	168	10.1%	15.5%	74.4%
50-65	109	25.7%	10.1%	64.2%
66+	37	35.1%	24.3%	40.5%
$\chi^2=55.806^{***}$; Cramer's V=0.216 ^{***}				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-44: Among hunters who have ever hunted grouse, how likely they will participate in grouse hunting during the next 5 years.

Age Cohorts	N	Unlikely	Undecided	Likely
Statewide ¹	609	13.2%	5.1%	81.6%
20-29	113	8.0%	3.5%	88.5%
30-39	152	11.2%	3.9%	84.9%
40-49	162	14.8%	4.9%	80.2%
50-65	119	14.3%	7.6%	78.2%
66+	49	24.5%	6.1%	69.4%
$\chi^2=12.367$; Cramer's V=0.102				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 1-45: Among hunters who have ever hunted turkey, how likely they will participate in turkey hunting during the next 5 years.

Age Cohorts	N	Unlikely	Undecided	Likely
Statewide ¹	171	10.3%	7.2%	82.5%
20-29	28	3.6%	3.6%	92.9%
30-39	43	18.6%	11.6%	69.8%
40-49	50	8.0%	2.0%	90.0%
50-65	30	0.0%	13.3%	86.7%
66+	13	30.8%	0.0%	69.2%
$\chi^2=20.991^{**}$; Cramer's V=0.253 ^{**}				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Section 1: Minnesota Hunting Background

Table 1-46: Among hunters who have ever hunted small game, how likely they will participate in small game hunting during the next 5 years.

Age Cohorts	n	Unlikely	Undecided	Likely
Statewide ¹	497	19.3%	8.8%	71.9%
20-29	106	5.7%	7.5%	86.8%
30-39	120	19.2%	4.2%	76.7%
40-49	134	23.9%	11.2%	64.9%
50-65	94	22.3%	10.6%	67.0%
66+	29	41.4%	13.8%	44.8%
$\chi^2=32.339^{***}$; Cramer's V=0.183 ^{***}				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 1-47: Among hunters who have ever hunted moose, how likely they will participate in moose hunting during the next 5 years.

Age Cohorts	N	Unlikely	Undecided	Likely
Statewide ¹	39	72.6%	9.5%	17.9%
20-29	1	100.0%	0.0%	0.0%
30-39	6	83.3%	0.0%	16.7%
40-49	9	77.8%	0.0%	22.2%
50-65	14	50.0%	28.6	21.4%
66+	9	88.9%	0.0%	11.1%
$\chi^2=9.308$; Cramer's V=0.345				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 1-48: Among hunters who have ever hunted bear, how likely they will participate in bear hunting during the next 5 years.

Age Cohorts	N	Unlikely	Undecided	Likely
Statewide ¹	129	20.3%	20.2%	59.5%
20-29	18	5.6%	16.7%	77.8%
30-39	32	18.8%	18.8%	62.5%
40-49	42	16.7%	28.6%	54.8%
50-65	23	21.7%	13.0%	65.2%
66+	9	66.7%	11.1%	22.2%
$\chi^2=17.866^*$; Cramer's V=0.268				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Section 2: Your Introduction to Hunting

Findings:

Age When you Started Hunting

The mean age that respondents started hunting, *not necessarily in Minnesota*, was 14.5 years (Table 2-1). The starting age ranged from 3 to 53 years. On average, respondents from the 20-29 year age cohort started hunting slightly younger than average (13.5 years), while respondents from the 40-49 year age cohort started hunting slightly older (15.3 years). There was a significant negative correlation between the age that respondents started hunting and the percentage of years living in a rural area (a) from birth until age 17 ($r = -0.106$, $p \leq 0.001$), and (b) from birth until now ($r = -0.074$, $p \leq 0.01$). This means that respondents who lived a greater proportion of their childhood or their lives in rural areas began hunting at a younger age.

Who Introduced you to Hunting?

Statewide

Respondents were asked to indicate who introduced them to hunting by selecting from the following list: grandparent, father, mother, sibling, uncle/aunt, friend, organized class or cohort, self, or other. Sixty percent of respondents were introduced to hunting by their father; 13% were introduced to hunting by a friend, and 6% were introduced to hunting by a grandparent (Table 2-2).

Age Cohorts

Over half of respondents from all age cohorts reported being introduced to hunting by their father (Table 2-2). Respondents indicated that friends were the next most common source of their introduction to hunting. Compared to respondents from the 20-29, 50-65, and 66+ age cohorts, more respondents from the 30-39 and 40-49 year-old age cohorts reported being introduced to hunting by friends.

Father's Attitude Toward Hunting

Statewide

Respondents were asked to indicate their father's attitude toward hunting from a list of five options. The large majority (77%) of respondents' fathers were hunters, and another 16% of respondents' fathers "did not hunt, but approved of hunting" (Table 2-3).

Section 2: Your Introduction to Hunting

Age Cohorts

The majority of respondents from all age cohorts reported that their father is or was a hunter (Table 2-3). Eighty-six percent of respondents from the 20-29 year old age cohort reported that their father is, or was, a hunter; this compares to 80% of respondents from the 30-39 year-old age cohort, 74% of respondents from the 40-49 year-old age cohort, 73% of respondents from the 50-65 year-old age cohort, and 68% of respondents from the 66 and older age cohort. Compared to respondents from the younger age cohorts, more respondents from the older age cohorts reported that their father did not hunt, but approved of hunting, or that they did not know how their father felt about hunting.

Mother's Attitude Toward Hunting

Statewide

Respondents indicated their mother's attitude toward hunting. Over 70% of respondents indicated that their mother did not hunt, but approved of hunting; 15% indicated that their mother did not hunt, but tolerated hunting, and 10% said their mother is, or was, a hunter (Table 2-4).

Age Cohorts

The majority of respondents from all age cohorts reported that their mother did not hunt, but approved of hunting (Table 2-4). Eighty-four percent of respondents from the 66+ year-old age cohort reported that their mother did not hunt, but approved of hunting; this compares to 76% of respondents from the 50-65 year-old age cohort, 70% of respondents from the 40-49 year-old age cohort, 68% of respondents from the 30-39 year-old age cohort, and 67% of respondents from the 20-29 year-old age cohort. Compared to respondents from the older age cohorts, more respondents from the younger age cohorts reported that their mother is, or was, a hunter, or that their mother did not hunt, but tolerated hunting. Compared to respondents from younger age cohorts, a greater proportion from the older age cohorts reported that that they did not know how their mother felt about hunting.

Section 2: Your Introduction to Hunting

Table 2-1: Age started hunting.

Age Cohorts	Sample size (n)	Age started hunting
Statewide ¹	1330	14.5
20-29	256	13.5
30-39	296	14.5
40-49	350	15.3
50-65	291	14.4
66+	113	14.5
F=2.938*, $\eta=0.095$		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Table 2-2: Who introduced you to hunting?

Age Cohorts	Sample size (n)	Grand-parent	Father	Mother	Sibling	Uncle/aunt	Friend	Class/group	Self	Other
Statewide ¹	1,339	5.7	60.3	0.4	5.0	4.2	12.7	0.4	5.4	5.8
20-29	256	7.0	67.6	1.2	3.1	5.1	9.4	0.0	2.7	3.9
30-39	297	6.1	60.9	0.0	3.4	3.0	13.8	0.7	4.0	8.1
40-49	351	5.7	57.5	0.0	6.0	2.8	17.1	0.6	5.1	5.1
50-65	296	5.1	58.1	0.3	6.4	6.4	10.5	0.3	6.4	6.4
66+	114	3.5	55.3	0.9	7.9	4.4	7.9	0.0	15.8	4.4
$\chi^2=71.476^{***}$, Cramer's V=0.117 ^{***}										

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 2-3: Father's attitude toward hunting.

Age Cohorts	Sample size (n)	He is, or was, a hunter.	He did not hunt, but approved of hunting.	He did not hunt, but tolerated hunting.	He did not hunt and discouraged hunting.	I do not know.
Statewide ¹	1,338	77.2	16.4	2.7	0.7	3.0
20-29	256	86.3	9.8	2.7	0.8	0.4
30-39	296	79.7	15.2	2.0	0.7	2.4
40-49	352	74.4	18.8	3.4	0.9	2.6
50-65	296	73.0	18.6	1.7	0.0	6.8
66+	114	67.5	23.7	2.6	1.8	4.4
$\chi^2=44.121^{***}$, Cramer's V=0.092 ^{***}						

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 2: Your Introduction to Hunting

Table 2-4: Mother's attitude toward hunting.

Age Cohorts	Sample size (n)	She is, or was, a hunter.	She did not hunt, but approved of hunting.	She did not hunt, but tolerated hunting.	She did not hunt and discouraged hunting.	I do not know.
Statewide ¹	1,337	9.8	71.1	14.6	1.8	2.7
20-29	255	14.1	67.1	17.3	0.0	1.6
30-39	297	10.8	68.0	15.8	3.0	2.4
40-49	351	8.8	69.8	16.0	2.3	3.1
50-65	296	8.1	76.0	10.5	1.7	3.7
66+	113	3.5	84.1	8.8	0.9	2.7
$\chi^2=34.682^{**}$, Cramer's V=0.081**						

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Section 3: Your Investment in Hunting

Findings:

Hunting Investment

Statewide

Respondents were asked to rate their investment in hunting by responding to nine items on a scale of 1=strongly disagree to 7=strongly agree. Mean scores for the items ranged from 4.5 for “I would rather hunt than do any other recreational activity” to 6.1 for “I have acquired equipment that I would not use if I quit hunting” and “I have annual traditions related to hunting” (Table 3-1). The internal consistency of the nine-item scale was measured with Cronbach’s alpha, which was 0.92.

Age Cohorts

Respondents from different age cohorts did not differ significantly on their average score on the nine scaled investment items (Table 3-2). Looking at the hunting investment items individually, we found significant differences for three of the nine items (Tables 3-3 to 3-11). Older respondents more strongly agreed that they have close friendships based on a common interest in hunting ($F=8.514$, $p\leq 0.001$, $\eta=0.160$) (Table 3-3), and that they would rather hunt than do any other recreational activity ($F=2.986$, $p\leq 0.05$, $\eta=0.096$) (Table 3-11). Respondents from the 20-29 age cohort and the 66+ age cohort agreed less that they would go hunting even if they did not have partners to go with ($F=2.744$, $p\leq 0.05$, $\eta=0.092$) (Table 3-10).

Mentoring New Hunters

Statewide

Respondents were asked if they have ever taken someone hunting who was not already familiar with the sport (mentored a new hunter). Statewide, two-thirds of respondents (67.2%) had mentored a new hunter (Table 3-12). Of hunters who had mentored a new hunter, 57% had mentored a son, 50% had mentored a male friend, 27% had mentored a daughter, 27% had mentored a spouse or significant other, 15% had mentored a brother, and 12% had mentored a female friend; less than 10% had mentored their father or mother (Tables 3-13 through 3-21).

Age Cohorts

Younger respondents have mentored fewer new hunters than older hunters ($\chi^2=69.183$, $p\leq 0.001$, Cramer’s $V=0.232$) (Table 3-12), but younger hunters also have had fewer years to introduce new people to hunting. Mentoring new people into hunting, however, is common even among younger hunters. Nearly 50% of respondents from the 20-29 year old age cohort had mentored new hunters. The percentage of respondents who have mentored new hunters increases with age; among the 30-39, 40-49, 50-65, and 66 and over age cohorts, 63.1%, 72.9%, 79.1%, and 78.0% of respondents, respectively, had mentored new hunters. Likewise, fewer younger respondents have mentored sons into hunting than older hunters have (Table 3-13). More young respondents, however, have mentored sisters and male or female friends (Tables 3-16, 3-20, 3-21).

Section 3: Your Investment in Hunting

Membership in Hunting-Related Organizations

Statewide

Respondents were asked about their membership in hunting-related organizations. Over half of respondents (56%) were not members of any hunting-related organizations, and nearly 40% were members of one or two organizations (Table 3-31). As income increased, the number of memberships in hunting-related organizations also increased ($r=0.173$, $p\leq 0.001$).

Age Cohorts

Age cohorts did not differ in membership in hunting-related organizations.

Section 3: Your Investment in Hunting

Table 3-1: Level of agreement for investment items.

Item	Statewide mean ¹
I have acquired equipment that would not use if I quit hunting.	6.14
I have annual traditions related to hunting.	6.11
I have close friendships that are based on a common interest in hunting.	5.89
I would go hunting even if I did not have partners to go with.	5.78
If I stopped hunting, I would feel an important part of my life was missing.	5.76
I have put a lot of time and energy into developing skills for hunting.	5.56
Participation in hunting is a large part of my life.	5.39
It would be difficult for me to find another recreational activity to replace hunting.	5.02
I would rather hunt than do any other recreational activity.	4.48

Notes:

¹ F= 265.793 (p<0.001). Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² Cronbach's α =0.9179

Table 3-2: Mean score on nine hunting investment items.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,329	5.54
20-29	258	5.41
30-39	298	5.46
40-49	345	5.59
50-65	290	5.64
66+	114	5.80
F=2.261, η =0.083		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-3: I have close friendships that are based on a common interest in hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,324	5.87
20-29	258	5.69
30-39	296	5.55
40-49	345	5.95
50-65	287	6.16
66+	114	6.33
F=8.514***, η =0.160		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P \leq 0.001

Section 3: Your Investment in Hunting

Table 3-4: I have annual traditions related to hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,322	6.08
20-29	258	5.97
30-39	297	6.02
40-49	345	6.08
50-65	288	6.27
66+	110	6.13
F=1.501, η =0.068		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-5: If I stopped hunting, I would feel an important part of my life was missing.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,327	5.74
20-29	258	5.59
30-39	297	5.67
40-49	345	5.81
50-65	289	5.87
66+	114	5.89
F=1.257, η =0.062		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-6: Participation in hunting is a large part of my life.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,327	5.38
20-29	258	5.32
30-39	297	5.30
40-49	345	5.42
50-65	289	5.35
66+	114	5.72
F=1.267, η =0.062		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 3: Your Investment in Hunting

Table 3-7: I have put a lot of time and energy into developing skills for hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,325	5.53
20-29	257	5.42
30-39	298	5.39
40-49	344	5.59
50-65	288	5.66
66+	114	5.81
F=1.989, η =0.078		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-8: It would be difficult for me to find another recreational activity to replace hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,328	5.00
20-29	258	4.95
30-39	298	4.91
40-49	345	5.04
50-65	289	4.99
66+	114	5.42
F=1.396, η =0.065		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-9: I have acquired equipment that would not use if I quit hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,324	6.12
20-29	257	6.04
30-39	297	6.16
40-49	344	6.08
50-65	289	6.23
66+	113	6.19
F=0.664, η =0.045		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 3: Your Investment in Hunting

Table 3-10: I would go hunting even if I did not have partners to go with.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,323	5.76
20-29	258	5.48
30-39	296	5.75
40-49	344	5.92
50-65	288	5.89
66+	113	5.66
		F=2.744*, $\eta=0.092$

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Table 3-11: I would rather hunt than do any other recreational activity.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,322	4.45
20-29	258	4.24
30-39	295	4.44
40-49	344	4.47
50-65	288	4.47
66+	113	5.02
		F=2.986*, $\eta=0.096$

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-12: Have you ever taken someone hunting who was not already familiar with the sport (mentored a new hunter)?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	1,307	32.8	67.2
20-29	254	50.8	49.2
30-39	293	36.9	63.1
40-49	340	27.1	72.9
50-65	287	20.9	79.1
66+	109	22.0	78.0
		$\chi^2=69.183^{***}$, Cramer's V=0.232 ^{***}	

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 3: Your Investment in Hunting

Table 3-13: If you have mentored a new hunter, did you mentor a son?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	898	42.9	57.1
20-29	126	88.1	11.9
30-39	188	56.4	43.6
40-49	254	30.7	69.8
50-65	232	26.3	73.7
66+	90	17.8	82.2
$\chi^2=184.567^{***}$, Cramer's V=0.455 ^{***}			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 3-14: If you have mentored a new hunter, did you mentor a daughter?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	894	73.3	26.7
20-29	126	95.2	4.8
30-39	188	76.1	23.9
40-49	253	62.8	37.2
50-65	230	70.9	29.1
66+	88	70.5	29.5
$\chi^2=46.675^{***}$, Cramer's V=0.230 ^{***}			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 3-15: If you have mentored a new hunter, did you mentor a brother?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	892	84.5	15.5
20-29	126	84.1	15.9
30-39	188	88.8	11.2
40-49	254	82.7	17.3
50-65	229	83.0	17.0
66+	86	83.7	16.3
$\chi^2=3.762$, Cramer's V=0.065			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 3: Your Investment in Hunting

Table 3-16: If you have mentored a new hunter, did you mentor a sister?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	891	95.9	4.1
20-29	126	92.1	7.9
30-39	188	93.6	6.4
40-49	253	97.2	2.8
50-65	229	97.8	2.2
66+	86	98.8	1.2
$\chi^2=12.732^*$, Cramer's V=0.120*			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*8P ≤ 0.01

Table 3-17: If you have mentored a new hunter, did you mentor a father?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	891	95.4	4.6
20-29	126	95.2	4.8
30-39	188	95.7	4.3
40-49	253	95.3	4.7
50-65	229	96.5	3.5
66+	86	91.9	8.1
$\chi^2=3.128$, Cramer's V=0.060			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-18: If you have mentored a new hunter, did you mentor a mother?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	891	98.8	1.2
20-29	126	98.4	1.6
30-39	188	97.3	2.7
40-49	253	99.2	0.8
50-65	229	99.6	0.4
66+	86	100.0	0.0
$\chi^2=6.381$, Cramer's V=0.085			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 3: Your Investment in Hunting

Table 3-19: If you have mentored a new hunter, did you mentor a spouse or significant other?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	895	72.8	27.2
20-29	126	69.0	31.0
30-39	189	69.8	30.2
40-49	255	72.5	27.5
50-65	230	77.0	23.0
66+	86	75.6	24.4
$\chi^2=4.087$, Cramer's V=0.068			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-20: If you have mentored a new hunter, did you mentor a male friend?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	897	50.3	49.7
20-29	127	33.9	66.1
30-39	190	50.5	49.5
40-49	255	48.6	51.4
50-65	229	59.4	40.6
66+	87	58.6	41.4
$\chi^2=23.952^{***}$, Cramer's V=0.164 ^{***}			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 3-21: If you have mentored a new hunter, did you mentor a female friend?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	894	87.6	12.4
20-29	126	73.8	26.2
30-39	190	85.8	14.2
40-49	254	88.6	11.4
50-65	229	93.4	6.6
66+	86	96.5	3.5
$\chi^2=37.081^{***}$, Cramer's V=0.205 ^{***}			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 3: Your Investment in Hunting

Table 3-22: If you mentored a son, how many sons did you mentor?

Age Cohorts	Sample size (n)	1	2	3	4 or more
Statewide ¹	498	55.7	29.4	9.7	4.9
20-29	14	78.6	21.4	0.0	0.0
30-39	79	70.9	22.8	6.3	0.0
40-49	172	60.5	30.8	5.2	3.5
50-65	164	50.6	31.7	12.8	4.9
66+	73	31.5	30.1	21.9	16.4
$\chi^2=57.124^{***}$, Cramer's V=0.195 ^{***}					

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 3-23: If you mentored a daughter, how many did you mentor?

Age Cohorts	Sample size (n)	1	2	3	4 or more
Statewide ¹	231	64.9	28.5	5.0	1.6
20-29	7	71.4	28.6	0.0	0.0
30-39	43	74.4	23.3	2.3	0.0
40-49	93	67.7	28.0	3.2	1.1
50-65	60	53.3	35.0	8.3	3.3
66+	27	59.3	25.9	11.1	3.7
$\chi^2=10.760$, Cramer's V=0.125					

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-24: If you mentored a brother, how many did you mentor?

Age Cohorts	Sample size (n)	1	2	3	4 or more
Statewide ¹	136	64.2	25.7	8.1	2.0
20-29	20	65.0	25.0	10.0	0.0
30-39	21	81.0	19.0	0.0	0.0
40-49	45	62.2	26.7	11.1	0.0
50-65	35	57.1	28.6	11.4	2.9
66+	14	57.1	28.6	0.0	14.3
$\chi^2=16.890$, Cramer's V=0.204					

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 3: Your Investment in Hunting

Table 3-25: If you mentored a sister, how many did you mentor?

Age Cohorts	Sample size (n)	1	2	3	4 or more
Statewide ¹	36	71.9	25.6	2.5	0.0
20-29	10	80.0	20.0	0.0	0.0
30-39	12	83.3	16.7	0.0	0.0
40-49	6	50.0	50.0	0.0	0.0
50-65	5	60.0	20.0	20.0	0.0
66+	2	50.0	50.0	0.0	0.0
$\chi^2=9.354$, Cramer's V=0.366					

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-26: If you mentored a father, how many did you mentor?

Age Cohorts	Sample size (n)	1	2	3	4 or more
Statewide ¹	37	79.6	2.4	7.8	10.2
20-29	6	100.0	0.0	0.0	0.0
30-39	6	100.0	0.0	0.0	0.0
40-49	11	81.8	0.0	9.1	9.1
50-65	7	85.7	0.0	0.0	14.3
66+	7	28.6	14.3	28.6	28.6
$\chi^2=15.899$, Cramer's V=0.378					

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-27: If you mentored a mother, how many did you mentor?

Age Cohorts	Sample size (n)	1	2
Statewide ¹	10	91.2	8.8
20-29	2	100.0	0.0
30-39	4	100.0	0.0
40-49	3	100.0	0.0
50-65	0	0.0	0.0
66+	1	0.0	100.0
$\chi^2=10.000^*$, Cramer's V=1.000*			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Section 3: Your Investment in Hunting

Table 3-28: If you mentored a spouse or significant other, how many did you mentor?

Age Cohorts	Sample size (n)	1	2	3	4 or more
Statewide ¹	239	89.0	8.0	1.7	1.3
20-29	39	89.7	7.7	2.6	0.0
30-39	57	93.0	3.5	1.8	1.8
40-49	67	86.6	10.4	1.5	1.5
50-65	51	88.2	11.8	0.0	0.0
66+	21	85.7	4.8	4.8	4.8
$\chi^2=8.750$, Cramer's V=0.111					

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 3-29: If you mentored a male friend, how many did you mentor?

Age Cohorts	Sample size (n)	1	2	3	4 or more
Statewide ¹	434	37.4	29.6	11.4	21.6
20-29	84	40.5	32.1	13.1	14.3
30-39	90	32.2	32.2	7.8	27.8
40-49	127	41.7	32.3	7.1	18.9
50-65	91	35.2	23.1	14.3	27.5
66+	34	29.4	20.6	29.4	20.6
$\chi^2=23.890^*$, Cramer's V=0.137*					

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Table 3-30: If you mentored a female friend, how many did you mentor?

Age Cohorts	Sample size (n)	1	2	3	4 or more
Statewide ¹	110	56.2	28.9	5.5	9.4
20-29	35	65.7	22.9	8.6	2.9
30-39	25	48.0	32.0	0.0	20.0
40-49	26	57.7	30.8	3.8	7.7
50-65	17	47.1	35.3	5.9	11.8
66+	4	50.0	25.0	25.0	0.0
$\chi^2=11.920$, Cramer's V=0.193					

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 3: Your Investment in Hunting

Table 3-31: Total number of people mentored.

Age Cohorts	Sample size (n)	Number
Statewide ¹	872	3.58
20-29	127	2.76
30-39	185	3.25
40-49	245	3.80
50-65	217	3.87
66+	89	4.42
		F=6.257***, $\eta=0.168$

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P \leq 0.001

Table 3-32: How many hunting-related organizations do you belong to?

Age Cohorts	Sample size (n)	None	1 or 2	3 to 5	6 to 10	More than 10
Statewide ¹	1,312	55.7	38.2	5.3	0.6	0.2
20-29	255	62.0	33.3	3.9	0.8	0.0
30-39	292	52.4	40.8	5.5	1.0	0.3
40-49	339	53.4	41.3	4.7	0.3	0.3
50-65	290	56.2	37.2	6.6	0.0	0.0
66+	113	54.9	36.3	8.0	0.9	0.0
		$\chi^2=15.064$, Cramer's V=0.054				

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 4: Hunting Attitudes and Norms

Findings:

Hunting Attitudes

Statewide

Respondents were asked to report their attitudes about hunting. First, respondents reported whether hunting is negative or positive using the scale 1=extremely negative to 7=extremely positive. The statewide mean was 6.5, moderately to extremely positive (Table 4-1). Then, respondents reported on how enjoyable hunting is, using the scale 1=extremely unenjoyable to 7=extremely enjoyable. The statewide mean was 6.5, moderately to extremely enjoyable (Table 4-2). When scores on these two items were averaged, the statewide mean was 6.5. The reliability coefficient for the scale of these two items was 0.67.

Age Cohorts

There were no significant differences among age cohorts in positive or negative attitudes toward hunting (Table 4-1), or in the perception of whether hunting is enjoyable or not enjoyable (Table 4-2).

Hunting Norms

Statewide

Respondents were asked about their subjective hunting norms. Respondents were asked to respond to the statement “most people important to me think I should hunt” using the scale 1=definitely false to 7=definitely true. The statewide mean was 5.7, slightly to moderately true (Table 4-3). Respondents were asked to report whether most people important to them approve or disapprove of them hunting. The average response was 6.2 on a 7-point scale, indicating moderate to strong approval (Table 4-4). The average score for these two items combined was 6.0. The Cronbach’s alpha for these two items was 0.75. This norm index was strongly correlated to the two-item attitude index ($r=0.470$, $p\leq 0.001$).

Respondents were asked to specifically report whether certain people (including father, mother, spouse/significant other, friends, and children) approved of them hunting. The mean responses ranged from 6.2 for mothers and spouses/significant others to 6.6 for fathers (Table 4-5). The Cronbach’s alpha for the scale of five items was 0.86, and the overall mean for the five items was 6.4. Rural residence was positively related to whether respondents’ children approved of them hunting ($r=0.108$, $p\leq 0.001$). Income was negatively related to whether respondents’ children approved of them hunting ($r=-0.070$, $p\leq 0.05$).

Section 4: Hunting Attitudes and Norms

Age Cohorts

There were no significant differences among age cohorts in whether people important to them thought they should hunt (Table 4-3), or approved of their hunting (Table 4-4).

There were significant differences among age cohorts in how much respondents' mothers and children approved of them hunting (Tables 4-7 and 4-10). Compared to respondents from the other age cohorts, respondents from the 20-29 year-old, 50-65, and 66 and older age cohorts felt that their mothers were more approving of their hunting ($F=2.782$, $p\leq 0.05$, $\eta=0.100$).

Respondents from the older age cohorts felt that their children approved more of their hunting ($F=3.268$, $p\leq 0.05$, $\eta=0.115$). There were no significant differences among age cohorts in how much respondents' fathers, spouses, or friends approved of their hunting (Tables 4-6, 4-8, and 4-9). There was no significant difference among age cohorts in the mean score on the five-item scale for others' approval of hunting.

Section 4: Hunting Attitudes and Norms

Table 4-1: Hunter attitudes: How positive or negative is hunting?

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,323	6.50
20-29	272	6.62
30-39	317	6.46
40-49	362	6.50
50-65	264	6.44
66+	102	6.46
F=1.871, η =0.075		

Notes:

¹ Mean is based on a scale of: 1=extremely negative, 2=moderately negative, 3=slightly negative, 4=neutral, 5=slightly positive, 6=moderately positive, 7=extremely positive.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 4-2: Hunter attitudes: How enjoyable or unenjoyable is hunting?

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,321	6.53
20-29	272	6.59
30-39	319	6.49
40-49	361	6.54
50-65	264	6.51
66+	101	6.48
F=0.529, η =0.040		

Notes:

¹ Mean is based on a scale of: 1=extremely unenjoyable, 2=moderately unenjoyable, 3=slightly unenjoyable, 4=neutral, 5=slightly enjoyable, 6=moderately enjoyable, 7=extremely enjoyable.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 4-3: Hunter norms: Most people important to me think I should hunt.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,321	5.72
20-29	273	5.67
30-39	317	5.65
40-49	362	5.74
50-65	260	5.71
66+	103	6.05
F=1.712, η =0.072		

Notes:

¹ Mean is based on a scale of: 1=definitely false, 2=moderately false, 3=slightly false, 4=neutral, 5=slightly true, 6=moderately true, 7=definitely true.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 4: Hunting Attitudes and Norms

Table 4-4: Hunter norms: Most people important to me approve/disapprove of me hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,323	6.19
20-29	273	6.27
30-39	317	6.14
40-49	364	6.16
50-65	263	6.13
66+	101	6.35
F=0.913, η =0.046		

Notes:

¹ Mean is based on a scale of: 1=strongly disapprove, 2=moderately disapprove, 3=slightly disapprove, 4=neutral, 5=slightly approve, 6=moderately approve, 7=strongly approve.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 4-5: Comparison of level of agreement for social norms.

Item	Statewide mean ¹
My father approves of me hunting.	6.58
My friends approve of me hunting.	6.44
My children approve of me hunting.	6.35
My spouse or significant other approves of me hunting.	6.24
My mother approves of me hunting.	6.23

Notes:

¹F= 25.738 (p<0.001). Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

²Cronbach's α = 0.8647

Table 4-6: Hunter norms: My father approves of me hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,066	6.61
20-29	266	6.71
30-39	291	6.62
40-49	299	6.53
50-65	160	6.58
66+	46	6.63
F=1.240, η =0.068		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 4: Hunting Attitudes and Norms

Table 4-7: Hunter norms: My mother approves of me hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,106	6.22
20-29	256	6.35
30-39	301	6.10
40-49	315	6.14
50-65	181	6.27
66+	48	6.59
F=2.782*, η =0.100		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

* $p \leq 0.05$

Table 4-8: Hunter norms: My spouse or significant other approves of me hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,197	6.23
20-29	214	6.18
30-39	297	6.18
40-49	341	6.20
50-65	244	6.26
66+	98	6.53
F=1.673, η =0.075		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 4-9: Hunter norms: My friends approve of me hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,297	6.45
20-29	270	6.55
30-39	316	6.34
40-49	357	6.47
50-65	254	6.44
66+	97	6.51
F=1.723, η =0.073		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 4: Hunting Attitudes and Norms

Table 4-10: Hunter norms: My children approve of me hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	979	6.37
20-29	92	6.05
30-39	230	6.32
40-49	321	6.38
50-65	235	6.44
66+	100	6.61
F=3.268*, $\eta=0.115$		

Notes:

¹ Mean is based on a scale of: 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral, 5=slightly agree, 6=moderately agree, 7=strongly agree.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

* $p \leq 0.05$

Section 5: The Outcomes of Hunting

Findings:

Statewide

Respondents were asked to report the importance of five possible outcomes of hunting using the scale 1=not at all important to 5=extremely important. Enjoying nature and the outdoors, spending time with family and friends, and resting and relaxing, were all rated very to extremely important. One item, developing and demonstrating skills, was rated moderately to very important, and the other item, getting food, was rated slightly to moderately important (Table 5-1).

Income was positively related to the outcomes of: (a) enjoying nature and the outdoors ($r=0.106$, $p\leq 0.001$), (b) spending time with family and friends ($r=0.099$, $p\leq 0.001$), and (c) resting and relaxing ($r=0.099$, $p\leq 0.001$). In general, respondents with higher incomes reported that these outcomes were more important. Income was negatively related to the outcome of getting food ($r=-0.121$, $p\leq 0.001$). Respondents with higher incomes reported less importance for getting food as an outcome of hunting.

The outcome of getting food was positively related to percentage of life living in a rural area: (a) from birth to age 17 ($r=0.101$, $p\leq 0.001$), (b) from age 18 to current age ($r=0.138$, $p\leq 0.001$), and (c) from birth to current age ($r=0.137$, $p\leq 0.001$). Rural respondents reported more importance for getting food as an outcome of hunting.

Age Cohorts

Age cohorts differed in the importance they reported for two of the five listed outcomes for hunting. Compared to older respondents, respondents from the younger age cohorts rated “hunting is a way for me to get food” and “hunting is a way for me to spend time with family or friends,” as more important (Tables 5-3 and 5-4). Age cohorts did not differ for the items: (a) hunting is a way for me to enjoy nature and the outdoors, (b) hunting is a way for me to rest and relax, or (c) hunting is a way for me to develop and demonstrate skills (Tables 5-2, 5-5, and 5-6).

Section 5: Outcomes of Hunting

Table 5-1: Comparison of outcomes of hunting.

Outcome	Sample size (n)	Mean ¹
Hunting is a way for me to...		
...enjoy nature and the outdoors.	1,331	4.55
...spend time with family or friends.	1,331	4.21
...rest and relax.	1,331	4.16
...develop and demonstrate skills	1,331	3.51
...get food.	1,331	2.68

Notes:

¹ F=824.505 (p<0.001). Mean is based on a scale of: 1=not at all important, 2=slightly important, 3=moderately important, 4=very important, 5=extremely important.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 5-2: Hunting is a way for me to enjoy nature and the outdoors.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	4.55
20-29	258	4.56
30-39	298	4.57
40-49	352	4.59
50-65	298	4.53
66+	118	4.36
F=1.597, η =0.069		

Notes:

¹ Mean is based on a scale of: 1=not at all important, 2=slightly important, 3=moderately important, 4=very important, 5=extremely important.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 5-3: Hunting is a way for me to get food.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.69
20-29	258	2.88
30-39	298	2.82
40-49	352	2.66
50-65	298	2.37
66+	118	2.67
F=5.556***, η =0.129		

Notes:

¹ Mean is based on a scale of: 1=not at all important, 2=slightly important, 3=moderately important, 4=very important, 5=extremely important.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 5: Outcomes of Hunting

Table 5-4: Hunting is a way for me to spend time with family or friends.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	4.21
20-29	258	4.34
30-39	298	4.21
40-49	352	4.22
50-65	298	4.14
66+	118	3.97
F=2.456*, $\eta=0.086$		

Notes:

¹ Mean is based on a scale of: 1=not at all important, 2=slightly important, 3=moderately important, 4=very important, 5=extremely important.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

* $p \leq 0.05$

Table 5-5: Hunting is a way for me to rest and relax.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	4.16
20-29	258	4.20
30-39	298	4.11
40-49	352	4.19
50-65	298	4.21
66+	118	3.90
F=2.019, $\eta=0.078$		

Notes:

¹ Mean is based on a scale of: 1=not at all important, 2=slightly important, 3=moderately important, 4=very important, 5=extremely important.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 5-6: Hunting is a way for me to develop and demonstrate skills.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	3.51
20-29	258	3.49
30-39	298	3.48
40-49	352	3.57
50-65	298	3.49
66+	118	3.40
F=0.376, $\eta=0.034$		

Notes:

¹ Mean is based on a scale of: 1=not at all important, 2=slightly important, 3=moderately important, 4=very important, 5=extremely important.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 6: Constraints to Hunting

Findings:

How Easy or Difficult it is to go Hunting

Statewide

Respondents were asked to rate how easy or difficult it is for them to go hunting using the scale 1=very difficult to 7=very easy. On average, respondents rated going hunting slightly to moderately easy (5.4) (Table 6-1). Respondents were also asked: “if I wanted to, I could easily go hunting,” with responses on the scale 1=definitely false to 7=definitely true. The mean score for this question was slightly to moderately true (5.7) (Table 6-2). When these two items were averaged, the statewide mean score was 5.6. The reliability coefficient for these two items was 0.90.

Age Cohorts

Respondents differed by age cohort in their perceptions of how easy or difficult it is to go hunting. When asked “how easy or difficult is it for you to go hunting,” respondents from the 50-65, and 66 and older age cohorts rated it easier than other age cohorts ($F=3.448$, $p\leq 0.01$, $\eta=0.102$) (Table 6-1). Likewise, when asked “if I wanted to, I could easily go hunting,” the respondents from the 50-65, and 66 and older age cohorts rated the item 6.0 (on a scale of 1=definitely false to 7=definitely true) compared to 5.6 for the other age cohorts ($F=5.377$, $p\leq 0.001$, $\eta=0.127$) (Table 6-2). Age cohorts differed in their average score for these two items; respondents from the 50-65 and 66+ age cohorts had an average score of 5.8, compared to 5.5 for the 20-29 and 40-49 age groups and 5.4 for the 30-39 age group ($F=4.669$, $p\leq 0.001$, $\eta=0.118$).

How is Hunting Participation Constrained

Statewide

Respondents were asked whether the amount of time they spend hunting, or the type of hunting they do, is constrained (restricted or inhibited) in any way. Fifty-one percent of respondents indicated that their hunting was constrained (Table 6-3).

We asked respondents who felt that their hunting was constrained to report how their hunting was constrained. Respondents were asked to check all of the statements that they felt applied to their hunting participation from a list of four items (Table 6-4). Thirty-six percent of respondents indicated that “there are types of hunting that I would like to start, but can’t.” Forty-two percent reported that “I have stopped doing hunting activities that I did in the past, although I would still like to do them.” Seventy-eight percent indicated that “I cannot hunt as often as I would like.” Finally, 26% reported that “because of constraints to my hunting, I do not enjoy hunting as much as I might otherwise.”

Section 6: Constraints to Hunting

Age Cohorts

Fewer respondents from the 50-65, and 66 and older age cohorts reported that their hunting time or the type of hunting they do was constrained, restricted, or inhibited. Less than 40 percent of respondents from the two older cohorts reported that their hunting was constrained, compared to 51%, 60%, and 57% of respondents from the 40-49, 30-39, and 20-29 year-old age cohorts ($\chi^2=39.022$, $p\leq 0.001$, Cramer's $V=0.174$) (Table 6-3).

Respondents who reported that their hunting was constrained were asked to indicate how they felt constrained (Table 6-4). Compared to older respondents, younger respondents were more likely to report that "I cannot hunt as often as I would like" ($\chi^2=31.365$, $p\leq 0.001$, Cramer's $V=0.220$). Compared to younger respondents, older respondents were more likely to respond that "I have stopped doing hunting activities that I did in the past, although I would still like to do them" ($\chi^2=24.009$, $p\leq 0.001$, Cramer's $V=0.193$).

Factors That Constrain Hunting Participation

Statewide

Respondents were asked to rate 27 possible constraints to hunting on the scale 1=not at all limiting to 7=very limiting. All constraints had mean scores at or below the midpoint on the scale. Five constraints had mean ratings over 3.0: (a) work commitments (4.0), (b) not enough leisure time (3.5), (c) crowding at hunting areas (3.5), (d) access to private land for hunting (3.5), and (e) family commitments (3.3) (Tables 6-5 through 6-32).

Income was positively related to the hunting constraints of: (a) family commitments, (b) work commitments, (c) interest in other recreational activities, (d) not enough leisure time, and (e) no hunting opportunities near my home. Income was negatively related to the constraints of: (a) cost of equipment, (b) cost of licenses, (c) travel costs, (d) hunting regulations too restrictive, (e) physically unable to go hunting, (f) safety concerns, (g) other people's concern for animals' pain and distress, (h) weather conditions, (i) age, and (j) poor health. (Table 6-33).

Rural residence was positively related to the hunting constraints of: (a) cost of equipment, (b) cost of licenses, (c) hunting regulations too restrictive, (d) safety concerns, (e) age. Rural residence was negatively correlated to the hunting constraints of: (a) access to private land for hunting, (b) access to public land for hunting, (c) crowding at hunting areas, (d) interest in other recreational activities, and (e) no hunting opportunities near my home (Table 6-34).

Age Cohorts

Age cohorts differed on how limiting they perceived 21 of the 27 constraints.

Compared to older respondents, younger respondents felt that work commitments and the cost of equipment were more limiting to their hunting participation (Tables 6-6 and 6-10).

Older respondents rated eight items as more limiting: (a) being physically unable to go hunting ($F=17.674$, $p\leq 0.001$, $\eta=0.226$) (Table 6-15), (b) low need for wild game for food ($F=4.021$, $p\leq 0.01$, $\eta=0.110$) (Table 6-21), (c) personal concern for animals' pain and distress ($F=2.785$, $p\leq 0.05$, $\eta=0.092$) (Table 6-22), (d) others' concern for animals' pain and distress ($F=2.652$, $p\leq 0.05$, $\eta=0.089$) (Table 6-23), (e) age ($F=45.662$, $p\leq 0.001$, $\eta=0.349$) (Table 6-28), (f) the effort

Section 6: Constraints to Hunting

required to go hunting ($F=8.405$, $p\leq 0.001$, $\eta=0.158$) (Table 6-29), and (g) poor health ($F=28.643$, $p\leq 0.001$, $\eta=0.283$) (Table 6-31).

Respondents in the 30-39 and 40-49 age cohorts rated four items as somewhat more limiting: (a) crowding at hunting areas ($F=5.683$, $p\leq 0.001$, $\eta=0.130$) (Table 6-9), (b) inadequate hunting skills ($F=3.436$, $p\leq 0.01$, $\eta=0.102$) (Table 6-16), (c) low game populations ($F=3.763$, $p\leq 0.01$, $\eta=0.106$) (Table 6-19), (d) lack of leisure time ($F=47.104$, $p\leq 0.001$, $\eta=0.354$) (Table 6-25).

Respondents in the 20-29, 30-39, and 40-49 age cohorts rated four items somewhat more limiting than did respondents in the two older age cohorts. These items included: (a) cost of licenses ($F=4.544$, $p\leq 0.001$, $\eta=0.117$) (Table 6-11), (b) travel costs ($F=5.171$, $p\leq 0.001$, $\eta=0.124$) (Table 6-12), (c) interest in other recreational activities ($F=9.100$, $p\leq 0.001$, $\eta=0.164$) (Table 6-17), and (d) amount of planning required to go hunting ($F=3.468$, $p\leq 0.01$, $\eta=0.102$) (Table 6-27).

Safety concerns were rated somewhat more limiting by respondents in the 40-49 age cohort and somewhat less limiting by respondents in the 20-29 and 66+ age cohorts ($F=4.226$, $p\leq 0.01$, $\eta=0.112$) (Table 6-18). Family commitments were rated more limiting to respondents from the 30-39 age cohort and less limiting to respondents from the 50-65 and 66+ age cohorts ($F=30.186$, $p\leq 0.001$, $\eta=0.290$) (Table 6-5).

Section 6: Constraints to Hunting

Table 6-1: How easy or difficult is it for you to go hunting?

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,340	5.40
20-29	257	5.37
30-39	297	5.22
40-49	352	5.32
50-65	295	5.68
66+	116	5.55
		F=3.448**, η=0.102

Notes:

¹ Mean is based on a scale of: 1=very difficult, 2=moderately difficult, 3=slightly difficult, 4=neutral, 5=slightly easy, 6=moderately easy, 7=very easy.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Table 6-2: If I wanted to, I could easily go hunting.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,333	5.70
20-29	256	5.55
30-39	295	5.58
40-49	351	5.61
50-65	294	6.00
66+	114	6.02
		F=5.377***, η=0.127

Notes:

¹ Mean is based on a scale of: 1=definitely false, 2=moderately false, 3=slightly false, 4=neutral, 5=slightly true, 6=moderately true, 7=very true.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 6-3: Do you feel that the amount of time you spend hunting, or the type of hunting you do, is constrained (restricted or inhibited) in any way?

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	1,316	49.4	50.6
20-29	251	43.4	56.6
30-39	294	40.1	59.9
40-49	343	49.3	50.7
50-65	292	60.3	39.7
66+	113	65.5	34.5
		χ ² =39.022*** Cramer's V=0.174***	

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 6: Constraints to Hunting

Table 6-4: For respondents who said that the amount of time they spend hunting, or the type of hunting they do, is constrained, percentage who indicated...

Age Cohorts	Sample size (n)	There are types of hunting that I would like to start, but can't.	I have stopped doing hunting activities that I did in the past, although I would still like to do them.	I cannot hunt as often as I would like.	Because of constraints to my hunting, I do not enjoy hunting as much as I might otherwise.
Statewide ¹	664	36.4	42.2	78.2	25.5
20-29	142	40.1	26.8	83.8	19.1
30-39	175	41.1	41.5	84.1	23.9
40-49	174	33.9	46.6	78.7	28.7
50-65	116	25.9	51.7	69.0	28.4
66+	39	41.0	59.0	48.7	35.9
Chi-square		$\chi^2=8.960$	$\chi^2=24.009^{***}$	$\chi^2=31.365^{***}$	$\chi^2=6.903$
Cramer's V		0.118	0.193 ^{***}	0.220 ^{***}	0.103

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 6-5: How much family commitments limit hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	3.33
20-29	258	3.39
30-39	298	4.03
40-49	352	3.45
50-65	298	2.84
66+	118	2.03
	F=30.186 ^{***} , $\eta=0.290$	

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 6-6: How much work commitments limit hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	4.05
20-29	258	4.64
30-39	298	4.47
40-49	352	4.50
50-65	298	3.31
66+	118	1.61
	F=68.052 ^{***} , $\eta=0.414$	

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 6: Constraints to Hunting

Table 6-7: How much access to private land for hunting limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	3.48
20-29	258	3.62
30-39	298	3.67
40-49	352	3.59
50-65	298	3.30
66+	118	2.77
F=3.924**, $\eta=0.108$		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Table 6-8: How much access to public land for hunting limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.64
20-29	258	2.62
30-39	298	2.76
40-49	352	2.68
50-65	298	2.62
66+	118	2.29
F=1.326, $\eta=0.063$		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 6-9: How much crowding at hunting areas limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	3.49
20-29	258	3.46
30-39	298	3.84
40-49	352	3.57
50-65	298	3.35
66+	118	2.76
F=5.683***, $\eta=0.130$		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 6: Constraints to Hunting

Table 6-10: How much the cost of equipment limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.88
20-29	258	3.30
30-39	298	3.03
40-49	352	2.92
50-65	298	2.44
66+	118	2.31
F=11.157***, η =0.181		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 6-11: How much the cost of licenses limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.85
20-29	258	3.13
30-39	298	2.89
40-49	352	2.94
50-65	298	2.54
66+	118	2.54
F=4.544***, η =0.117		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 6-12: How much travel costs limit hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.74
20-29	258	2.85
30-39	298	2.84
40-49	352	2.93
50-65	298	2.46
66+	118	2.25
F=5.171***, η =0.124		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 6: Constraints to Hunting

Table 6-13: How much restrictive hunting regulations limit hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.47
20-29	258	2.47
30-39	298	2.38
40-49	352	2.60
50-65	298	2.48
66+	118	2.37
F=0.714, η =0.046		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 6-14: How much availability of hunting partners limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.15
20-29	258	2.14
30-39	298	2.18
40-49	352	2.32
50-65	298	1.99
66+	118	1.89
F=2.558*, η =0.088		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Table 6-15: How much being physically unable to go hunting limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.52
20-29	258	1.21
30-39	298	1.35
40-49	352	1.48
50-65	298	1.84
66+	118	2.19
F=17.674***, η =0.226		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 6: Constraints to Hunting

Table 6-16: How much inadequate hunting skills limit hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.48
20-29	258	1.40
30-39	298	1.59
40-49	352	1.59
50-65	298	1.35
66+	118	1.36
		F=3.436**, η=0.102

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Table 6-17: How much interest in other recreational activities limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.64
20-29	258	2.83
30-39	298	2.90
40-49	352	2.72
50-65	298	2.33
66+	118	1.97
		F=9.100***, η=0.164

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 6-18: How much safety concerns limit hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.77
20-29	258	1.59
30-39	298	1.79
40-49	352	2.01
50-65	298	1.69
66+	118	1.57
		F=4.226***, η=0.112

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 6: Constraints to Hunting

Table 6-19: How much low game populations limit hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.64
20-29	258	2.42
30-39	298	2.81
40-49	352	2.75
50-65	298	2.70
66+	118	2.18
F=3.763**, $\eta=0.106$		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Table 6-20: How much low desire for wild game for food limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.66
20-29	258	1.49
30-39	298	1.63
40-49	352	1.75
50-65	298	1.75
66+	118	1.65
F=1.864, $\eta=0.075$		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 6-21: How much low need for wild game for food limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.88
20-29	258	1.65
30-39	298	1.76
40-49	352	1.97
50-65	298	2.04
66+	118	2.18
F=4.021**, $\eta=0.110$		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Section 6: Constraints to Hunting

Table 6-22: How much personal concern for animals' pain and distress limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.76
20-29	258	1.55
30-39	298	1.74
40-49	352	1.79
50-65	298	1.94
66+	118	1.92
F=2.785*, $\eta=0.092$		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Table 6-23: How much other people's concern for animals' pain and distress limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.61
20-29	258	1.43
30-39	298	1.56
40-49	352	1.66
50-65	298	1.73
66+	118	1.81
F=2.652*, $\eta=0.089$		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Table 6-24: How much weather conditions limit hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.42
20-29	258	2.39
30-39	298	2.29
40-49	352	2.51
50-65	298	2.45
66+	118	2.49
F=0.890, $\eta=0.052$		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 6: Constraints to Hunting

Table 6-25: How much lack of leisure time limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	3.57
20-29	258	3.84
30-39	298	4.05
40-49	352	4.06
50-65	298	2.91
66+	118	1.53
F=47.104***, η =0.354		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 6-26: How much the type of people that hunt limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.14
20-29	258	1.99
30-39	298	2.14
40-49	352	2.31
50-65	298	2.19
66+	118	1.85
F=2.770*, η =0.091		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Table 6-27: How much the amount of planning required to go hunting limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.78
20-29	258	1.87
30-39	298	1.78
40-49	352	1.89
50-65	298	1.65
66+	118	1.47
F=3.468**, η =0.102		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Section 6: Constraints to Hunting

Table 6-28: How much age limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.67
20-29	258	1.21
30-39	298	1.36
40-49	352	1.66
50-65	298	2.04
66+	118	2.96
F=45.662***, η =0.349		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 6-29: How much the amount of effort required to go hunting limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.93
20-29	258	1.68
30-39	298	1.76
40-49	352	2.03
50-65	298	2.05
66+	118	2.47
F=8.405***, η =0.158		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 6-30: How much limited hunting opportunities near home limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	2.34
20-29	258	2.29
30-39	298	2.42
40-49	352	2.42
50-65	298	2.35
66+	118	1.97
F=1.503, η =0.067		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 6: Constraints to Hunting

Table 6-31: How much poor health limits hunting participation.

Age Cohorts	Sample size (n)	Mean ¹
Statewide ²	1,349	1.50
20-29	258	1.16
30-39	298	1.25
40-49	352	1.50
50-65	298	1.82
66+	118	2.38
F=28.643***, η =0.283		

Notes:

¹ Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P \leq 0.001

Section 6: Constraints to Hunting

Table 6-32: Comparison of constraints to hunting.

Constraint	Sample size (n)	Mean ¹
Work commitments	1331	3.99
Not enough leisure time	1331	3.52
Crowding at hunting areas	1331	3.48
Access to private land for hunting	1331	3.46
Family commitments	1331	3.30
Cost of equipment	1331	2.85
Cost of licenses	1331	2.84
Travel costs	1331	2.72
Access to public land for hunting	1331	2.63
Game populations too low	1331	2.63
Interest in other recreational activities	1331	2.62
Hunting regulations too restrictive	1331	2.47
Weather conditions	1331	2.42
No hunting opportunities near my home	1331	2.34
Availability of hunting partners	1331	2.14
The type of people that hunt	1331	2.14
The amount of effort required to go hunting	1331	1.94
No need for wild game as food	1331	1.89
Personal concern for animals' pain and distress	1331	1.77
The amount of planning required to go hunting	1331	1.77
Safety concerns	1331	1.76
Age	1331	1.70
No desire for wild game as food	1331	1.66
Other people's concern for animals' pain and distress	1331	1.62
Physically unable to go hunting	1331	1.54
Poor health	1331	1.52
Inadequate hunting skills	1331	1.47

Notes:

¹ F=302.267 (p<0.001). Mean is based on a scale of: 1=not at all limiting to 7=very limiting.

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 6: Constraints to Hunting

Table 6-33: Correlations between income and constraints to hunting.

Constraint	R
Family commitments	0.168***
Work commitments	0.107***
Access to private land for hunting	0.040
Access to public land for hunting	0.027
Crowding at hunting areas	0.015
Cost of equipment	-0.185***
Cost of licenses	-0.187***
Travel costs	-0.140***
Hunting regulations too restrictive	-0.077**
Availability of hunting partners	-0.009
Physically unable to go hunting	-0.112***
Inadequate hunting skills	-0.084**
Interest in other recreational activities	0.085**
Safety concerns	-0.076*
Game populations too low	0.010
No desire for wild game as food	0.011
No need for wild game as food	-0.023
Personal concern for animals' pain and distress	-0.048
Other people's concern for animals' pain and distress	-0.060*
Weather conditions	-0.084**
Not enough leisure time	-0.102***
The type of people that hunt	-0.054
The amount of planning required to go hunting	-0.018
Age	-0.077*
The amount of effort required to go hunting	-0.041
No hunting opportunities near my home	0.082**
Poor health	-0.107***

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 6: Constraints to Hunting

Table 6-34: Correlations between income and rural residence.

Constraint	Rural residence age 0-17	Rural residence age 18+	Rural residence age 0+
	R	R	R
Family commitments	-0.061*	-0.071*	-0.072*
Work commitments	-0.006	-0.005	0.017
Access to private land for hunting	-0.100***	-0.167***	-0.157***
Access to public land for hunting	-0.042	-0.072*	-0.071*
Crowding at hunting areas	-0.069*	-0.093***	-0.093***
Cost of equipment	0.088**	0.066*	0.095***
Cost of licenses	0.110***	0.131***	0.133***
Travel costs	0.035	0.005	0.026
Hunting regulations too restrictive	0.059*	0.117***	0.097***
Availability of hunting partners	-0.038	-0.057*	-0.053
Physically unable to go hunting	0.050	0.032	0.022
Inadequate hunting skills	0.028	0.029	0.035
Interest in other recreational activities	-0.032	-0.081**	-0.059*
Safety concerns	0.047	0.071*	0.060*
Game populations too low	-0.027	-0.007	-0.029
No desire for wild game as food	-0.004	0.011	0.001
No need for wild game as food	0.037	0.040	0.027
Personal concern for animals' pain and distress	-0.001	-0.012	-0.016
Other people's concern for animals' pain and distress	0.014	0.015	0.009
Weather conditions	0.049	0.044	0.046
Not enough leisure time	0.006	-0.049	-0.014
The type of people that hunt	0.027	0.049	0.030
The amount of planning required to go hunting	0.008	-0.011	-0.004
Age	0.121***	0.100***	0.088**
The amount of effort required to go hunting	0.069*	0.045	0.050
No hunting opportunities near my home	-0.114***	-0.205***	-0.185***
Poor health	0.056*	0.049	0.034

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 7: Patterns of Hunting Participation

Findings:

Respondents were asked to report their patterns of hunting participation for deer, waterfowl, pheasants, grouse/woodcock, and small game over the course of their lives. First, respondents were asked if they had ever hunted for the type of game. Second, they were asked to indicate the number of years that they had hunted for that type of game during seven age ranges: 10-19, 20-29, 30-39, 40-49, 50-59, 60-69, and 70+. Third, they were asked to report the approximate number of days they hunted each year in each of the age ranges using the scale 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, and 9=40 or more days.

In order to compare level of participation during a specific age range for participants with different levels of opportunity to hunt during an age range (for example, comparing a 22 year-old respondent who could only have hunted 3 years during his twenties, with a 29-year-old who could have hunted 10 years during his twenties), we calculated the percentage of possible years hunted during each age range for each respondent. We also calculated a level of participation index by multiplying the percentage of possible hunting years in an age range by the average score on the scale of how many days per year hunted. The range for the resultant index was 0 to 9.

Deer Hunting

Statewide

The average number of years hunted during each age range is presented in Table 7-1. Respondents hunted slightly less than 50% of possible years during their teen years, nearly 70% of the possible years during their twenties and seventies, and over 75% of possible years during their thirties, forties, fifties, and sixties (Table 7-2). On average, deer hunters hunted more days per year during their thirties, forties, and sixties, and somewhat fewer days per year during their teens and seventies (Table 7-3). The participation index was highest during the 30-39 and 40-49 age ranges and lowest for the 10-19 age range (Table 7-4).

Age Cohorts

Hunters from the 20-29 year old age cohort hunted a larger percentage of possible years during their teen years, compared to respondents from the other age cohorts (Table 7-2). However, older hunters reported hunting a larger proportion of possible years during their thirties and forties, compared to younger hunters. Compared to older hunters, younger hunters reported hunting more days per year during their teens (Table 7-3). The index of deer hunting participation shows hunters from the 20-29 year old age range have stronger participation during their teen years compared to older hunters ($F=9.250$, $p\leq 0.001$, $\eta=0.187$) (Table 7-4).

Section 7: Patterns of Hunting Participation

Waterfowl Hunting

Statewide

The average number of years hunting for waterfowl during each age range is presented in Table 7-5. Respondents hunted between 40% and 60% of possible years during their teens, twenties, thirties, forties, and fifties, and dropped to 37% during their sixties and to 24% during their seventies (Table 7-6). On average, waterfowl hunters hunted more days per year during their teens, twenties, and thirties, fewer days during their forties, fifties, and sixties, and fewer yet during their seventies (Table 7-7). The participation index was highest during the 20-29 and 30-39 age ranges and lowest for the 70+ age range (Table 7-8).

Age Cohorts

There were no significant differences in the percentage of possible years hunting waterfowl during the teens or twenties (Table 7-6). However, older hunters reported hunting a larger proportion of possible years during their thirties and forties. There were no significant differences among age cohorts for the number of days hunting waterfowl per year (Table 7-7). The index of waterfowl hunting participation shows older hunters having stronger participation during their thirties, forties, and fifties ($F=5.958, p\leq 0.001, \eta=0.204$; $F=6.425, p\leq 0.001, \eta=0.247$; $F=3.564, p\leq 0.01, \eta=0.249$) (Table 7-8).

Pheasant Hunting

Statewide

The average number of years hunting for pheasants during each age range is presented in Table 7-9. Respondents hunted for pheasants during 53% of possible years during their twenties, 51% of years during their thirties, 43% of years during their teens and forties, 35% of years during their fifties, 33% of years during their sixties, and 20% of possible years during their seventies (Table 7-10). On average, the number of days per year of pheasant hunting declines with age (Table 7-11). The participation index for pheasant hunting was highest during the 20-29 and 30-39 age ranges and lowest for the 70+ age range (Table 7-12).

Age Cohorts

Compared to younger hunters, older hunters reported hunting pheasants during a greater percentage of years during their teens, twenties, and thirties (Table 7-10). Older hunters also reported hunting pheasants more days per year during their twenties and thirties, compared to the days per year reported by younger hunters (Table 7-11). The index of pheasant hunting participation shows older hunters having stronger participation during their twenties, thirties, and forties ($F=3.921, p\leq 0.01, \eta=0.146$; $F=4.673, p\leq 0.001, \eta=0.177$; $F=2.982, p\leq 0.05, \eta=0.171$) (Table 7-12).

Section 7: Patterns of Hunting Participation

Grouse/Woodcock Hunting

Statewide

The average number of years hunting for grouse and/or woodcock during each age range is presented in Table 7-13. On average, respondents hunted for grouse/woodcock in more than 50% of possible years during their twenties, thirties, and forties, and in 40% to 50% of possible years during their teens, fifties, and sixties. Respondents hunted an average of 24% of possible years during their seventies (Table 7-14). The average number of days per year of grouse/woodcock hunting is highest during the teen years and declines through the 50-59 year age range, and increases slightly in the sixties (Table 7-15). The participation index for grouse/woodcock hunting is highest during the 20-29 age range (Table 7-16).

Age Cohorts

Compared to older respondents, younger respondents reported hunting grouse/woodcock during a greater percentage of years during their teens (Table 7-14). There were no significant differences by age cohort in other age ranges. There were no significant differences among age cohorts in the number of days per year hunting grouse/woodcock (Table 7-15). The index of grouse/woodcock hunting participation shows hunters from the 40-49 year age cohort having stronger participation during their twenties ($F=2.911$, $p\leq 0.05$, $\eta=0.136$). During the age of 30 to 39, the index of grouse/woodcock hunting participation is highest for hunters from the 66+ age cohort ($F=3.637$, $p\leq 0.01$, $\eta=0.167$) (Table 7-16).

Small Game Hunting

Statewide

The average number of years hunting small game during each age range is presented in Table 7-17. On average, the percentage of possible years hunting for small game declined from 59% of possible years during the teens to 29% of possible years during the seventies (Table 7-18). The average number of days per year of small game hunting is highest during the teen years and declines through the 50-59 year age range, and increases slightly in the sixties (Table 7-19). The participation index for small game hunting is highest during the teens and declines steadily through the 70+ age range (Table 7-20).

Age Cohorts

There were no significant differences among age cohorts in the proportion of possible years hunting or the number of days per year hunting small game (Table 7-18 and Table 7-19). The index of small-game-hunting participation shows older hunters having stronger participation during their thirties compared to younger hunters ($F=2.404$, $p\leq 0.05$, $\eta=0.144$) (Table 7-20).

Summary

Respondents hunted for deer in over 75% of possible years during their 30s, 40s, 50s, and 60s, with older respondents having hunted a greater proportion of the years during their 30s and 40s. Respondents hunted waterfowl in 40 to 60% of the possible years during their 30s and 40s, with

Section 7: Patterns of Hunting Participation

older respondents having hunted a greater proportion of the years during these decades of their lives. Respondents hunted pheasants during 50% of the possible years during their 20s and 30s. Older respondents had hunted a greater proportion of the years during their teens, 20s, and 30s. Respondents hunted grouse approximately 50% of the possible years during their 20s, 30s, and 40s. Younger respondents reported hunting grouse during a greater proportion of their teen years. Finally, respondents reported hunting small game in 50 to 60% of the possible years during their teens and 20s. There was no difference by age cohort in the proportion of years hunting small game during different decades of life.

Section 7: Patterns of Hunting Participation

Table 7-1: Of respondents who hunted deer, number of years they hunted during that age range.

Age Cohorts	Mean 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ¹	4.59	6.40	6.81	6.01	5.55	4.43	1.75
20-29	5.32	4.18	0.55	n.a.	n.a.	n.a.	n.a.
30-39	4.75	6.86	4.90	0.48	n.a.	n.a.	n.a.
40-49	4.15	6.99	7.83	4.34	0.37	n.a.	n.a.
50-65	4.52	7.02	7.71	8.13	5.43	2.29	n.a.
66+	3.67	6.85	8.21	8.67	8.91	8.10	3.28

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 7-2: Of respondents who ever hunted deer, proportion of years they hunted during that age range.

Age Cohorts	Mean % 10-19 year olds	Mean % 20-29 year olds	Mean % 30-39 year olds	Mean % 40-49 year olds	Mean % 50-59 year olds	Mean % 60-69 year olds	Mean % 70+ year olds
Statewide ^{1, 2}	45.9%	68.8%	76.0%	77.1%	78.2%	76.0%	68.8%
20-29	53.2%	66.5%	92.3%	n.a.	n.a.	n.a.	n.a.
30-39	47.5%	68.6%	69.4%	76.5%	n.a.	n.a.	n.a.
40-49	41.5%	69.9%	78.3%	71.2%	76.9%	n.a.	n.a.
50-65	45.2%	70.2%	77.1%	81.3%	73.7%	64.9%	n.a.
66+	36.7%	68.5%	82.1%	86.7%	89.1%	83.6%	68.8%
F	6.299***	0.407	4.474***	6.081***	4.237**	3.134*	n.a.
η	0.154	0.039	0.140	0.190	0.218	0.286	n.a.

Notes:

¹ F=52.004 (p<0.001).

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P<0.05, ***P<0.001

Section 7: Patterns of Hunting Participation

Table 7-3: Of respondents who ever hunted deer, approximate number of days they hunted deer per year during that age range.

Age Cohorts	Mean ¹ 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ^{2,3}	2.52	2.88	3.08	3.06	2.95	3.00	2.79
20-29	2.89	2.95	1.75	n.a.	n.a.	n.a.	n.a.
30-39	2.85	3.15	3.11	3.94	n.a.	n.a.	n.a.
40-49	2.32	2.84	3.28	3.03	2.27	n.a.	n.a.
50-65	2.13	2.62	2.91	3.08	3.00	2.74	n.a.
66+	2.13	2.74	2.87	2.93	2.99	3.23	2.81
F	7.564***	1.991	2.213	0.806	0.459	0.678	n.a.
η	0.181	0.088	0.102	0.071	0.074	0.128	n.a.

Notes:

¹ Means are based on the scale of 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, 9=40+ days.

² F=3.474 (p<0.01).

³ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P<0.001

Table 7-4: Of respondents who ever hunted deer, index of level of participation in deer hunting during age ranges.

Age Cohorts	Mean ¹ 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ^{1,2}	1.26	2.10	2.40	2.41	2.36	2.27	2.11
20-29	1.60	2.12	1.58	n.a.	n.a.	n.a.	n.a.
30-39	1.52	2.31	2.24	2.35	n.a.	n.a.	n.a.
40-49	1.04	2.10	2.61	2.23	1.85	n.a.	n.a.
50-65	1.02	1.87	2.32	2.57	2.25	1.60	n.a.
66+	0.85	2.03	2.48	2.60	2.69	2.74	2.15
F	9.250***	1.333	1.519	1.014	0.954	2.950*	n.a.
η	0.187	0.071	0.083	0.080	0.107	0.280	n.a.

Notes:

¹ Means are on the scale of 0 to 9, based on the multiplied index of percent of possible hunting years in age range times scale of how often during each year hunting based on scale: 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, 9=40+ days.

² F=16.897 (p<0.001)

³ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*p<0.05, ***P<0.001

Section 7: Patterns of Hunting Participation

Table 7-5: Of respondents who hunted waterfowl, number of years they hunted during that age range.

Age Cohorts	Mean 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ¹	4.50	5.37	4.82	3.75	3.00	2.28	0.58
20-29	4.57	3.87	0.46	n.a.	n.a.	n.a.	n.a.
30-39	4.17	5.33	3.09	0.33	n.a.	n.a.	n.a.
40-49	4.44	5.52	4.76	2.23	0.28	n.a.	n.a.
50-65	4.69	5.89	5.86	4.73	2.46	0.76	n.a.
66+	5.14	6.74	7.85	7.42	5.85	4.54	1.23

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 7-6: Of respondents who hunted waterfowl, proportion of years they hunted during that age range.

Age Cohorts	Mean % 10-19 year olds	Mean % 20-29 year olds	Mean % 30-39 year olds	Mean % 40-49 year olds	Mean % 50-59 year olds	Mean % 60-69 year olds	Mean % 70+ year olds
Statewide ^{1,2}	45.0%	57.1%	53.4%	45.8%	40.1%	37.2%	23.9%
20-29	45.7%	57.8%	66.7%	n.a.	n.a.	n.a.	n.a.
30-39	41.7%	53.3%	45.6%	50.0%	n.a.	n.a.	n.a.
40-49	44.4%	55.2%	47.6%	36.1%	41.7%	n.a.	n.a.
50-65	46.8%	58.9%	58.6%	47.3%	32.8%	24.5%	n.a.
66+	51.4%	67.4%	78.5%	74.2%	58.5%	47.0%	23.9%
F	1.219	1.832	9.769***	9.962***	4.136**	1.750	n.a.
η	0.083	0.102	0.255	0.301	0.263	0.262	n.a.

Notes:

¹ F=8.931 (p<0.001).

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

P<0.01, *P<0.001

Section 7: Patterns of Hunting Participation

Table 7-7: Of respondents who hunted waterfowl, approximate number of days they hunted waterfowl per year during that age range.

Age Cohorts	Mean ¹ 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ^{2,3}	3.37 ²	3.71	3.45	3.26	3.08	3.16	2.39
20-29	3.68	3.57	2.67	n.a.	n.a.	n.a.	n.a.
30-39	3.28	3.89	3.19	3.60	n.a.	n.a.	n.a.
40-49	3.35	3.90	3.40	3.04	2.13	n.a.	n.a.
50-65	3.19	3.47	3.64	3.32	3.00	3.44	n.a.
66+	3.35	3.59	3.87	3.60	3.41	3.11	2.47
F	1.075	0.618	1.556	0.793	0.860	0.347	n.a.
η	0.085	0.063	0.118	0.107	0.159	0.166	n.a.

Notes:

¹ Means are based on the scale of 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, 9=40+ days.

² F= 2.355 (p≤0.05)

³ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 7-8: Of respondents who hunted waterfowl, index of level of participation in waterfowl hunting during age ranges.

Age Cohorts	Mean ¹ 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ^{2,3}	1.73	2.44	2.09	1.68	1.37	1.21	0.57
20-29	1.89	2.32	1.78	n.a.	n.a.	n.a.	n.a.
30-39	1.61	2.43	1.70	1.87	n.a.	n.a.	n.a.
40-49	1.70	2.57	1.88	1.24	1.08	n.a.	n.a.
50-65	1.68	2.28	2.38	1.81	1.08	0.64	n.a.
66+	1.96	2.68	3.24	2.84	2.20	1.68	0.57
F	0.627	0.328	5.958***	6.425***	3.564**	1.989	n.a.
η	0.060	0.044	0.204	0.247	0.249	0.286	n.a.

Notes:

¹ Means are on the scale of 0 to 9, based on the multiplied index of percent of possible hunting years in age range times scale of how often during each year hunting based on scale: 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, 9=40+ days.

² 7.401 (p≤0.001)

³ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

p≤0.01, *p≤0.001

Section 7: Patterns of Hunting Participation

Table 7-9: Of respondents who hunted pheasants, number of years they hunted during that age range.

Age Cohorts	Mean 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ¹	4.28	5.02	4.60	3.48	2.55	1.83	0.45
20-29	4.00	3.29	0.36	n.a.	n.a.	n.a.	n.a.
30-39	3.95	4.83	3.18	0.19	n.a.	n.a.	n.a.
40-49	3.99	5.20	4.79	2.67	0.29	n.a.	n.a.
50-65	4.57	5.54	4.93	3.93	2.25	0.94	n.a.
66+	5.83	7.04	7.07	5.57	4.38	3.27	0.94

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 7-10: Of respondents who hunted pheasants, proportion of years they hunted during that age range.

Age Cohorts	Mean % 10-19 year olds	Mean % 20-29 year olds	Mean % 30-39 year olds	Mean % 40-49 year olds	Mean % 50-59 year olds	Mean % 60-69 year olds	Mean % 70+ year olds
Statewide ^{1,2}	42.8%	53.2%	50.6%	43.0%	35.2%	32.8%	20.0%
20-29	40.0%	49.7%	50.0%	n.a.	n.a.	n.a.	n.a.
30-39	39.5%	48.3%	46.2%	37.5%	n.a.	n.a.	n.a.
40-49	40.0%	52.0%	47.9%	41.9%	55.6%	n.a.	n.a.
50-65	45.7%	55.4%	59.3%	39.3%	30.5%	31.0%	n.a.
66+	58.3%	70.5%	70.7%	55.7%	43.8%	34.2%	20.0%
F	5.529***	5.212***	5.710***	2.162	1.900	0.037	n.a.
η	0.172	0.166	0.194	0.144	0.189	0.040	n.a.

Notes:

¹ F=8.122 (p<0.001).

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P<0.001

Section 7: Patterns of Hunting Participation

Table 7-11: Of respondents who hunted pheasants, approximate number of days they hunted pheasants per year during that age range.

Age Cohorts	Mean ¹ 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ^{2,3}	3.17	3.08	2.97	2.75	2.53	2.56	1.60
20-29	3.25	2.71	1.57	n.a.	n.a.	n.a.	n.a.
30-39	3.06	3.01	2.60	3.60	n.a.	n.a.	n.a.
40-49	3.40	3.42	2.97	2.62	2.83	n.a.	n.a.
50-65	3.00	2.96	3.22	2.76	2.44	3.00	n.a.
66+	3.16	3.36	3.36	2.98	2.66	2.30	1.67
F	1.067	3.435**	2.437*	0.643	0.138	0.651	n.a.
η	0.083	0.143	0.140	0.093	0.065	0.218	n.a.

Notes:

¹ Means are based on the scale of 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, 9=40+ days.

² F=5.116 (p<0.001)

³ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P<0.05, ** P<0.01

Table 7-12: Of respondents who hunted pheasants, index of level of participation in pheasant hunting during age ranges.

Age Cohorts	Mean ¹ 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ^{2,3}	1.59	1.90	1.77	1.38	1.05	0.97	0.42
20-29	1.52	1.53	0.75	n.a.	n.a.	n.a.	n.a.
30-39	1.42	1.74	1.36	0.88	n.a.	n.a.	n.a.
40-49	1.63	2.03	1.66	1.19	1.78	n.a.	n.a.
50-65	1.58	1.92	1.96	1.33	0.84	1.05	n.a.
66+	2.10	2.67	2.74	2.09	1.47	0.91	0.42
F	1.641	3.921**	4.673***	2.982*	1.713	0.041	n.a.
η	0.096	0.146	0.177	0.171	0.182	0.042	n.a.

Notes:

¹ Means are on the scale of 0 to 9, based on the multiplied index of percent of possible hunting years in age range times scale of how often during each year hunting based on scale: 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, 9=40+ days.

² F=7.017 (p<0.001)

³ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P<0.05, ** P<0.01, *** P<0.001

Section 7: Patterns of Hunting Participation

Table 7-13: Of respondents who hunted grouse/woodcock, number of years they hunted during that age range.

Age Cohorts	Mean 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ¹	4.67	5.44	5.18	4.17	3.34	2.45	0.80
20-29	5.14	3.48	0.33	n.a.	n.a.	n.a.	n.a.
30-39	5.06	6.02	3.66	0.42	n.a.	n.a.	n.a.
40-49	4.63	6.12	5.72	3.06	0.27	n.a.	n.a.
50-65	4.26	5.57	6.15	5.34	2.99	1.24	n.a.
66+	3.15	5.43	5.81	6.00	5.60	4.11	1.40

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 7-14: Of respondents who hunted grouse/woodcock, proportion of years they hunted during that age range.

Age Cohorts	Mean % 10-19 year olds	Mean % 20-29 year olds	Mean % 30-39 year olds	Mean % 40-49 year olds	Mean % 50-59 year olds	Mean % 60-69 year olds	Mean % 70+ year olds
Statewide ^{1,2}	46.7%	58.0%	56.8%	51.8%	42.7%	39.9%	23.9%
20-29	51.4%	54.1%	40.0%	n.a.	n.a.	n.a.	n.a.
30-39	50.6%	60.2%	52.4%	62.5%	n.a.	n.a.	n.a.
40-49	46.3%	61.2%	57.2%	47.8%	30.0%	n.a.	n.a.
50-65	42.6%	55.7%	61.5%	53.4%	39.1%	35.4%	n.a.
66+	31.5%	54.3%	58.2%	60.0%	56.0%	43.3%	23.9%
F	3.322*	1.055	1.361	1.179	1.750	0.196	n.a.
η	0.149	0.082	0.102	0.114	0.190	0.099	n.a.

Notes:

¹ F=5.690 (p<0.001).

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P<0.05

Section 7: Patterns of Hunting Participation

Table 7-15: Of respondents who hunted grouse/woodcock, approximate number of days they hunted grouse/woodcock per year during that age range.

Age Cohorts	Mean ¹ 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ^{2,3}	3.59	3.32	2.98	2.95	2.84	2.97	2.91
20-29	3.36	2.85	2.00	n.a.	n.a.	n.a.	n.a.
30-39	3.73	3.29	2.44	2.83	n.a.	n.a.	n.a.
40-49	3.83	3.82	3.29	2.82	1.71	n.a.	n.a.
50-65	3.23	3.11	3.08	2.95	2.73	2.88	n.a.
66+	3.84	3.33	3.47	3.49	3.36	3.18	2.88
F	1.469	3.992**	4.496***	0.911	1.130	0.554	n.a.
η	0.110	0.167	0.195	0.111	0.179	0.197	n.a.

Notes:

¹ Means are based on the scale of 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, 9=40+ days.

² F=1.429 (n.s.)

³ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

** p<0.01, ***P<0.001

Table 7-16: Of respondents who hunted grouse/woodcock, index of level of participation in grouse/woodcock hunting during age ranges.

Age Cohorts	Mean ¹ 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ^{2,3}	1.97	2.19	1.94	1.77	1.47	1.31	1.03
20-29	2.09	1.74	0.80	n.a.	n.a.	n.a.	n.a.
30-39	2.20	2.27	1.45	1.88	n.a.	n.a.	n.a.
40-49	2.07	2.58	2.14	1.54	0.70	n.a.	n.a.
50-65	1.61	1.96	2.09	1.84	1.26	0.91	1.08
66+	1.49	2.13	2.39	2.43	2.25	1.64	1.03
F	1.845	2.911*	3.637**	1.857	2.362	0.740	n.a.
η	0.112	0.136	0.167	0.144	0.222	0.191	n.a.

Notes:

¹ Means are on the scale of 0 to 9, based on the multiplied index of percent of possible hunting years in age range times scale of how often during each year hunting based on scale: 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, 9=40+ days.

² F=3.801 (p<0.01)

³ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P<0.05, ** P<0.01

Section 7: Patterns of Hunting Participation

Table 7-17: Of respondents who hunted small game, number of years they hunted during that age range.

Age Cohorts	Mean 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ¹	5.87	5.04	4.02	2.92	2.21	1.50	0.43
20-29	6.03	3.37	0.57	n.a.	n.a.	n.a.	n.a.
30-39	5.71	4.81	2.55	0.29	n.a.	n.a.	n.a.
40-49	5.82	5.62	4.36	2.01	0.13	n.a.	n.a.
50-65	5.90	5.62	4.71	3.89	1.99	0.65	n.a.
66+	6.49	5.98	5.52	4.60	3.49	3.03	1.10

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 7-18: Of respondents who hunted small game, proportion of years they hunted during that age range.

Age Cohorts	Mean % 10-19 year olds	Mean % 20-29 year olds	Mean % 30-39 year olds	Mean % 40-49 year olds	Mean % 50-59 year olds	Mean % 60-69 year olds	Mean % 70+ year olds
Statewide ^{1,2}	58.9%	54.0%	43.5%	37.3%	29.9%	26.8%	29.2%
20-29	60.3%	53.6%	57.1%	n.a.	n.a.	n.a.	n.a.
30-39	57.1%	48.1%	36.3%	40.0%	n.a.	n.a.	n.a.
40-49	58.2%	56.2%	43.6%	34.2%	22.2%	n.a.	n.a.
50-65	59.0%	56.2%	47.1%	38.9%	29.1%	21.0%	n.a.
66+	64.9%	59.8%	55.2%	46.0%	34.9%	32.1%	29.2%
F	0.656	1.450	2.479	0.784	0.244	0.316	n.a.
η	0.064	0.099	0.145	0.099	0.081	0.147	n.a.

Notes:

¹ F=4.319 (p<0.001).

² A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 7: Patterns of Hunting Participation

Table 7-19: Of respondents who hunted small game, approximate number of days they hunted small game per year during that age range.

Age Cohorts	Mean ¹ 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ^{2,3}	4.12	3.66	3.26	3.12	2.83	3.05	2.38
20-29	4.05	3.39	1.75	n.a.	n.a.	n.a.	n.a.
30-39	4.06	3.37	2.88	3.25	n.a.	n.a.	n.a.
40-49	4.25	4.02	3.50	3.02	2.43	n.a.	n.a.
50-65	4.06	3.73	3.27	3.18	2.80	3.20	n.a.
66+	4.24	3.66	3.57	3.32	3.04	3.05	2.23
F	0.215	1.692	1.621	0.130	0.127	0.242	n.a.
η	0.037	0.112	0.136	0.050	0.074	0.174	n.a.

Notes:

¹ Means are based on the scale of 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, 9=40+ days.

² F=3.903 (p<0.001)

³ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 7-20: Of respondents who hunted small game, index of level of participation in small game hunting during age ranges.

Age Cohorts	Mean ¹ 10-19 years old	Mean 20-29 years old	Mean 30-39 years old	Mean 40-49 years old	Mean 50-59 years old	Mean 60-69 years old	Mean 70+ years old
Statewide ^{2,3}	2.73	2.26	1.66	1.34	0.88	0.88	0.79
20-29	2.70	1.88	1.00	n.a.	n.a.	n.a.	n.a.
30-39	2.62	1.98	1.21	1.30	n.a.	n.a.	n.a.
40-49	2.83	2.58	1.81	1.19	0.44	n.a.	n.a.
50-65	2.69	2.41	1.84	1.44	0.80	0.53	0.71
66+	2.90	2.40	2.18	1.72	1.26	1.18	0.79
F	0.216	1.979	2.404*	0.622	0.771	0.690	n.a.
η	0.037	0.116	0.144	0.089	0.145	0.215	n.a.

Notes:

¹ Means are on the scale of 0 to 9, based on the multiplied index of percent of possible hunting years in age range times scale of how often during each year hunting based on scale: 1=1 or 2 days, 2=about 5 days, 3=about 10 days, 4=about 15 days, 5=about 20 days, 6=about 25 days, 7=about 30 days, 8=about 35 days, 9=40+ days.

² F=2.781 (p<0.05)

³ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P<0.05

Section 8: Other Outdoor Interests

Findings:

Statewide

Respondents were asked to indicate whether they participated in 10 outdoor recreational activities in the previous 12 months. Over half of the respondents had participated in fishing (87%) or wildlife viewing (62%) in the previous 12 months. Approximately 40% had participated in picnicking (44%), driving ATVs (43%), developed camping (41%), or day hiking (40%). Less than a third of respondents had participated in canoeing (29%), primitive camping (27%), cross-country skiing (11%), or backpacking (9%) (Table 8-1).

If respondents had participated in a particular recreational activity, they were asked to indicate the number of days that they had done the activity during the previous 12 months. Respondents averaged nearly 70 days in the previous year watching wildlife, 31 days driving off-road vehicles, 27 days fishing, 18 days hiking, and 11 days camping in developed campgrounds. Respondents spent an average of less than 10 days participating in other activities (Tables 8-2 through 8-11).

Age Cohorts

Age cohorts differed in participation in 6 of the 10 listed recreational activities (Table 8-1). Participation in three activities—backpacking, driving ATVs, and developed camping—was significantly lower for older age cohorts. Participation in canoeing and primitive camping was somewhat higher for respondents from the 30-39 age cohort and somewhat lower for the 50-65, and 66 and older age cohorts. Participation in picnicking was lower among respondents in the 20-29 year old age cohort. Age cohorts did not differ for participation in fishing, wildlife viewing, day hiking, or cross-country skiing.

Among respondents who participated in recreation activities, there were significant differences by age cohort in the number of days that people had participated in 3 of the 10 activities. Of respondents who reported participating in wildlife watching, day hiking, or developed camping, respondents from the older age cohorts reported participating more days during the previous year (Tables 8-3, 8-5, 8-9). There were no significant differences in the number of days fishing, picnicking, backpacking, canoeing, driving off-road vehicles, primitive camping, or cross-country skiing (Tables 8-2, 8-4, 8-6, 8-7, 8-8, 8-10, 8-11).

Section 8: Other Outdoor Recreation Activities

Table 8-1: Participation in other activities in the past 12 months.

Age Cohorts	Fishing	Wildlife viewing	Picnick- ing	Day hiking	Back- packing	Canoeing	Driving ATVs	Developed camping	Primitive camping	XC skiing
Statewide ¹	87.3%	61.6%	43.5%	40.0%	8.6%	29.0%	42.6%	40.8%	27.2%	11.1%
20-29	87.4%	56.5%	34.0%	42.7%	13.0%	30.7%	54.9%	50.0%	30.7%	8.3%
30-39	89.9%	62.5%	44.9%	42.6%	10.5%	37.2%	43.6%	48.6%	37.5%	11.8%
40-49	87.0%	64.5%	48.4%	40.6%	7.8%	29.6%	42.3%	39.3%	27.2%	12.8%
50-65	85.0%	62.1%	42.7%	35.2%	5.8%	22.9%	35.2%	30.4%	16.7%	11.9%
66+	86.1%	60.9%	47.0%	34.8%	1.7%	13.9%	27.8%	26.1%	13.9%	7.9%
Chi-square	3.325	4.172	13.576**	5.763	17.993***	28.185***	32.783***	40.289***	44.279***	4.590
Cramer's V	0.051	0.057	0.102**	0.067	0.118***	0.147***	0.159***	0.176***	0.184***	0.059

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

P ≤ 0.01, *P ≤ 0.001

Table 8-2: Of respondents who fished in the last 12 months, average number of days spent fishing in past 12 months.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	1,127	27.03
20-29	215	28.55
30-39	261	26.28
40-49	295	29.62
50-65	242	25.38
66+	95	20.14
		F=1.589, η=0.076

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 8-3: Of respondents who participated in wildlife viewing in the last 12 months, average number of days spent wildlife viewing in past 12 months.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	777	69.16
20-29	133	41.46
30-39	178	61.86
40-49	218	84.72
50-65	170	86.41
66+	65	49.80
		F=4.331**, η=0.149

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Section 8: Other Outdoor Recreation Activities

Table 8-4: Of respondents who picnicked in the last 12 months, average number of days picnicking in past 12 months.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	556	7.91
20-29	81	6.28
30-39	127	8.43
40-49	167	8.66
50-65	119	7.78
66+	52	6.58
F=0.477, η =0.059		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 8-5: Of respondents who went day hiking in the last 12 months, average number of days spent day hiking in past 12 months.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	516	17.72
20-29	102	6.82
30-39	125	14.82
40-49	139	18.99
50-65	98	25.45
66+	39	38.21
F=4.279**, η =0.182		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Table 8-6: Of respondents who went backpacking in the last 12 months, average number of days spent backpacking in past 12 months.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	111	8.32
20-29	33	7.67
30-39	29	6.00
40-49	28	12.43
50-65	15	7.07
66+	2	3.00
F=1.233, η =0.215		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 8: Other Outdoor Recreation Activities

Table 8-7: Of respondents who went canoeing in the last 12 months, average number of days spent canoeing in past 12 months.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	371	6.68
20-29	75	6.01
30-39	105	5.57
40-49	101	7.36
50-65	65	8.94
66+	14	4.50
F=1.257, $\eta=0.118$		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 8-8: Of respondents who drove off-road vehicles in the last 12 months, average number of days spent driving off-road vehicles in past 12 months.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	538	30.84
20-29	132	24.64
30-39	125	29.10
40-49	143	36.49
50-65	97	30.38
66+	26	44.27
F=1.217, $\eta=0.097$		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 8-9: Of respondents who camped in developed campgrounds in the last 12 months, average number of days spent camping in past 12 months.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	522	11.47
20-29	122	8.62
30-39	138	10.66
40-49	137	11.32
50-65	81	17.22
66+	29	14.86
F=3.651**, $\eta=0.168$		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Section 8: Other Outdoor Recreation Activities

Table 8-10: Of respondents who went primitive camping in the last 12 months, average number of days spent primitive camping in past 12 months.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	349	8.42
20-29	75	6.95
30-39	107	8.62
40-49	95	8.67
50-65	46	9.98
66+	14	8.64
F=0.333, η =0.063		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 8-11: Of respondents who went cross-country skiing in the last 12 months, average number of days spent cross-country skiing in the past 12 months.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	140	8.94
20-29	19	7.11
30-39	34	9.26
40-49	43	7.81
50-65	32	12.31
66+	9	7.11
F=0.902, η =0.163		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 9: Demographic Information

Findings:

Age

Statewide

Respondents averaged 44 years of age (Table 9-1).

Age cohorts

The average age for respondents from the 20-29 year old age cohort was 25.7. For the 30-39 age cohort it was 35.8. The average age for the 40-49 age cohort was 45.1; the average age for the 50-65 age cohort was 57.2, and the average age for the 66 and over age cohort was 71.7 (Table 9-1).

Percentage of Life Living in Minnesota

Statewide

Respondents were asked to report the number of years they had lived in Minnesota. Using respondents' age and number of years living in Minnesota, we calculated the proportion of life spent living in the state. On average, respondents had lived in Minnesota for 90% of their lives (Table 9-2).

Age cohorts

Age cohorts did not differ in the proportion of their lives lived in Minnesota.

Percentage of Life Living on a Farm or Ranch

Statewide

Survey recipients were asked to report the number of years that they lived on a farm, ranch, or non-suburban rural area from birth until age 17, and from age 18 until now. Using this information, we calculated: (a) the proportion of life from birth to age 17 living on a farm, or ranch, or in a non-suburban rural area, (b) the proportion of life from age 18 until now living on a farm, ranch, or non-suburban rural area, and (c) the total proportion of life living on a farm, ranch, or non-suburban rural area. Respondents had lived an average of 52% of their lives from birth to age 17 on a farm or ranch (Table 9-3). Respondents had lived an average of 36% of their adult lives on farms or ranches (Table 9-4).

Section 9: Demographic Information

Age cohorts

Age cohorts differed in the percentage of life spent living on a farm, or ranch, or in a non-suburban rural area. Respondents from the 66 and older age cohort lived an average of 71% of their life from birth until age 17 on a farm, ranch, or in a non-suburban rural area, compared to 56% for respondents from the 50-65 age cohort, 55% for respondents from the 20-29 age cohort, 49% for respondents from the 40-49 age cohort, and 45% for respondents from the 30-39 age cohort ($F=7.668$, $p\leq 0.001$, $\eta=0.155$) (Table 9-3). Respondents from the 50-65 age cohort lived an average of 40% of their life from age 18 until now on a farm, ranch, or in a non-suburban rural area, compared to 39% for respondents from the 66+ age cohort, 35% for respondents from the 20-29 age cohort, 37% for respondents from the 40-49 age cohort, and 30% for respondents from the 30-39 age cohort ($F=2.728$, $p\leq 0.05$, $\eta=0.093$) (Table 9-4). On average, respondents from the 20-29 age cohort lived 48% of their lives on a farm, ranch, or in a non-suburban rural area, compared to 46% for respondents from the 66+ age cohort, 45% for respondents from the 50-65 age cohort, 41% for respondents from the 40-49 age cohort, and 37% for respondents from the 30-39 age cohort ($F=3.509$, $p\leq 0.01$, $\eta=0.106$) (Table 9-5).

Education

Statewide

Respondents were asked to select their highest level of education from a list of nine options including: (a) grade school, (b) some high school, (c) high school diploma or GED, (d) some vocational or technical school, (e) vocational or technical school (associate's) degree, (f) some college, (g) four-year college (bachelor's) degree, (h) some graduate school, and (i) graduate (master's or doctoral) degree. Eighty percent of respondents had more than a high-school education (Table 9-6).

Age cohorts

In general, respondents from the younger age cohorts had higher levels of education (Table 9-6).

Income

Statewide

Respondents' average household income was \$64,806.

Age cohorts

Household income was highest for the three middle age cohorts. The average household income for respondents from the 20-29 year old age cohort was \$49,597. For the 30-39 age cohort it was \$70,878. The average income for the 40-49 age cohort was \$70,617; the average income for the 50-65 age cohort was \$72,682, and the average income for the 66 and over age cohort was \$41,460 ($F=21.520$, $p\leq 0.001$, $\eta=0.271$) (Table 9-7).

Section 9: Demographic Information

Marital Status

Statewide

Respondents were asked to select their current marital status from the list of: (a) single, (b) divorced or widowed, (c) living with a partner, or (d) married. About three-fourths of respondents were married, about 15% were single, and the remainder were either divorced, widowed, or living with a partner.

Age cohorts

There were significant differences by age cohort in respondents' marital status. As might be expected, a smaller percentage of respondents from the 20-29 age cohort were married (47%), compared to respondents from the 30-39 age cohort (82%), the 40-49 age cohort (80%), the 50-65 age cohort (82%), and the 66+ age cohort (87%) ($\chi^2=255.394$, $p\leq 0.001$, Cramer's $V=0.254$) (Table 9-8).

Race

Statewide

Nearly all respondents (99%) were White.

Age cohorts

There were no significant differences in race or Hispanic background by age cohort (Table 9-9 and 9-10).

Late Respondents

Late respondents were somewhat younger (42 years) than other respondents (45 years) ($F=3.989$, $p\leq 0.05$, $\eta=0.055$). On average, late respondents had spent a larger percentage of their adult life on a farm or ranch, or in a non-suburban rural area (43%), compared to earlier respondents (35%) ($F=4.699$, $p\leq 0.05$, $\eta=0.061$). Late respondents also had a significantly lower average income (\$55,929), compared to earlier respondents (\$65,681) ($F=5.505$, $p\leq 0.05$, $\eta=0.071$). There were no significant differences between early and late respondents in the percentage of years they had lived in Minnesota, their level of education, their marital status, or their race.

There were no significant differences between early and late respondents in the number of years they hunted between 1998 and 2002, nor in the number of hunt types they had ever participated in, nor in the number of hunt types they had participated in during 2002. There were some significant differences between early and late respondents in their past participation and future intention to participate in certain types of hunting. Where differences occurred, early respondents generally reported higher participation and intention. Early respondents had hunted for deer with firearms in an average of 4.3 of the previous 5 years, compared to 3.9 years for late respondents ($F=6.212$, $p\leq 0.05$, $\eta=0.075$). Likewise, early respondents had hunted for deer using archery in 3.4 of the previous 5 years, compared to 2.6 for late respondents ($F=5.659$, $p\leq 0.05$, $\eta=0.139$).

Section 9: Demographic Information

Similarly, early respondents had hunted for waterfowl in 3.6 of the previous 5 years, compared to 3.0 for late respondents ($F=6.214$, $p\leq 0.05$, $\eta=0.113$). A greater percentage of early respondents (14%) reported having hunted for turkeys at some point in their lives, compared to the percentage of late respondents who reported ever hunting turkeys (7%) ($\chi^2=4.300$, $p\leq 0.05$, Cramer's $V=0.057$). Early respondents also reported a higher intention to hunt for turkeys in the next five years in Minnesota (3.0), compared to the intention reported by late respondents (2.3) ($F=10.209$, $p\leq 0.001$, $\eta=0.095$). In the case of bear hunting, a greater percentage of late respondents (6%) reported hunting during 2002, compared to 2% of early respondents ($\chi^2=5.665$, $p\leq 0.05$, Cramer's $V=0.066$).

Late respondents had somewhat less positive attitudes about hunting, and had slightly lower ratings of one hunting outcome and one measure of hunting investment. Late respondents rated the item, "hunting is negative/positive," lower (6.4) than earlier respondents did (6.5) ($F=4.207$, $p\leq 0.05$, $\eta=0.057$). Likewise, late respondents rated the item, "hunting is unenjoyable/enjoyable," lower (6.3) than earlier respondents did (6.6) ($F=8.778$, $p\leq 0.01$, $\eta=0.082$). Late respondents rated the outcome of enjoying nature lower (4.4) than early respondents did (4.6) ($F=5.099$, $p\leq 0.05$, $\eta=0.062$). There were no significant differences between early and late respondents in their ratings of other hunting outcomes. Late respondents rated the investment item, "I have close friendships that are based on a common interest in hunting," lower (5.6) than earlier respondents did (5.9) ($F=6.328$, $p\leq 0.05$, $\eta=0.070$). There were no significant differences between early and late respondents on the other eight investment items. There were no significant differences between early and late respondents in their rating of social norms related to hunting or how easy or difficult it was for them to go hunting.

Section 9: Demographic Information

Table 9-1: Year of birth.

Age Cohorts	Sample size (n)	Year of birth	Age
Statewide ¹	1,342	1960	43.5
20-29	257	1977	25.7
30-39	298	1967	35.8
40-49	352	1958	45.1
50-65	297	1946	57.2
66+	118	1931	71.7
F=5200.654***, $\eta=0.970$			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 9-2: Proportion of life living in Minnesota.

Age Cohorts	Sample size (n)	Mean %
Statewide ¹	1,322	90.4%
20-29	268	93%
30-39	313	89%
40-49	367	91%
50-65	295	89%
66+	115	92%
F=2.221, $\eta=0.082$		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Table 9-3: Proportion of life from birth to age 17 living on a farm or ranch, or non-suburban rural area.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	1,275	52.3%
20-29	245	55.0%
30-39	288	45.1%
40-49	333	48.7%
50-65	279	55.8%
66+	109	71.2%
F=7.668***, $\eta=0.155$		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Section 9: Demographic Information

Table 9-4: Proportion of life from age 18 until now living on a farm or ranch, or non-suburban rural area.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	1,265	35.5%
20-29	245	34.8%
30-39	289	30.1%
40-49	331	36.5%
50-65	273	40.4%
66+	106	38.7%
F=2.728*, $\eta=0.093$		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

*P ≤ 0.05

Table 9-5: Proportion of life living on a farm or ranch, or non-suburban rural area.

Age Cohorts	Sample size (n)	Mean
Statewide ¹	1,253	43.0%
20-29	244	48.4%
30-39	285	37.2%
40-49	328	41.4%
50-65	271	45.2%
66+	104	46.3%
F=3.509**, $\eta=0.106$		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

**P ≤ 0.01

Table 9-6: Highest Level of Education.

Age Cohorts	Percent of respondents whose highest level of education was...								
	Grade school	Some high school	High school diploma (or GED)	Some vocational or technical school	Associate's degree	Some college	4-year college degree	Some graduate school	Graduate degree
Statewide ¹	1.1	2.9	19.7	12.9	16.3	17.7	18.9	3.9	6.6
20-29	0.4	2.7	11.7	8.6	22.3	21.5	25.4	4.7	2.7
30-39	0.0	1.4	15.3	14.9	16.6	16.9	25.1	3.7	6.1
40-49	0.0	2.0	27.7	14.0	17.7	14.6	13.7	4.0	6.3
50-65	0.7	3.4	19.7	14.6	11.5	21.0	15.3	3.4	10.5
66+	11.3	7.8	24.3	10.4	7.8	13.9	11.3	3.5	9.6
$\chi^2=208.680^{***}$, Cramer's V=0.199 ^{***}									

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

²8.3% of cells have an expected count of less than 5.

***P ≤ 0.001

Section 9: Demographic Information

Table 9-7: Approximate household income.

Age Cohorts	Sample size (n)	Income
Statewide ¹	1,117	\$64,806
20-29	220	\$49,597
30-39	263	\$70,878
40-49	304	\$70,617
50-65	231	72,682
66+	77	41,460
F=21.520***, $\eta=0.271$		

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 9-8: Marital Status.

Age Cohorts	Sample size (n)	Single	Divorced or widowed	Living with a partner	Married
Statewide ¹	1,338	14.6	5.9	4.9	74.6
20-29	256	41.8	2.0	9.4	46.9
30-39	297	9.8	3.0	5.1	82.2
40-49	350	8.9	7.1	4.3	79.7
50-65	295	5.1	10.2	3.1	81.7
66+	118	2.5	10.2	0.0	87.3
$\chi^2=255.394$ ***, Cramer's V=0.254***					

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

***P ≤ 0.001

Table 9-9: Race.

Age Cohorts	Sample size (n)	Caucasian/ White	African American/ Black	Asian	Pacific Islander	American Indian or Alaskan Native
Statewide ¹	1,335	98.6	0.2	0.7	0.0	0.5
20-29	257	98.4	0.0	0.8	0.0	0.8
30-39	297	98.0	0.0	1.7	0.0	0.3
40-49	349	98.0	0.6	0.6	0.0	0.9
50-65	295	99.7	0.0	0.0	0.0	0.3
66+	116	100.0	0.0	0.0	0.0	0.0
$\chi^2=14.878$, Cramer's V=0.061						

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

Section 9: Demographic Information

Table 9-10: Hispanic background.

Age Cohorts	Sample size (n)	No	Yes
Statewide ¹	1,317	97.9	2.1
20-29	253	98.8	1.2
30-39	295	99.0	1.0
40-49	348	96.0	4.0
50-65	288	98.3	1.7
66+	111	98.2	1.8
$\chi^2=9.268$, Cramer's V=0.085			

Notes:

¹ A stratified sample based on age was drawn. Statewide data is weighted to reflect age proportions in the population.

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Appendix A: Survey Instrument

HUNTING IN MINNESOTA

A study of hunter participation and activities



A cooperative study conducted by the University of Minnesota for the
Minnesota Department of Natural Resources

Your help on this study is greatly appreciated!

Please return your completed questionnaire in the enclosed envelope. The envelope is self-addressed and no postage is required. Thanks!

Minnesota Cooperative Fish and Wildlife Research Unit,
Department of Fisheries, Wildlife and Conservation Biology
University of Minnesota
St. Paul, Minnesota 55108-6124

Appendix A: Survey Instrument

Part 1. Your Hunting Background

We would like to know about your background and experience as a hunter.

Q1. What year did you begin hunting in Minnesota? If uncertain please estimate.

_____ year

Q2. For the previous 5 years, please indicate which years you hunted in Minnesota? (Check all that apply.)

- 2002
- 2001
- 2000
- 1999
- 1998
- I did not hunt in Minnesota during any of these years.

Q3. Please indicate whether you have ever hunted for the following game animals. If you have hunted for a type of game, please indicate how many years during the previous 5 years that you hunted for that type of game.

Have you ever hunted in Minnesota for:	Please circle no or yes.	If yes, during the previous 5 years, how many years did you hunt for each kind of game?				
Deer - firearm	no yes	1	2	3	4	5
- archery	no yes	1	2	3	4	5
- muzzleloader	no yes	1	2	3	4	5
Migratory waterfowl (ducks and geese)	no yes	1	2	3	4	5
Pheasants	no yes	1	2	3	4	5
Grouse/woodcock	no yes	1	2	3	4	5
Turkeys	no yes	1	2	3	4	5
Small game (rabbits, hares, squirrels, fox)	no yes	1	2	3	4	5
Moose	no yes	1	2	3	4	5
Bear	no yes	1	2	3	4	5

Q4. Please indicate whether you hunted for the following game animals in Minnesota during 2002. If you did hunt, estimate the total number of days that you hunted.

During 2002 in Minnesota, did you hunt for:	Please circle no or yes.	If yes, how many days did you hunt in Minnesota in the past 12 months?
Deer - firearm	no yes	_____ days
- archery	no yes	_____ days
- muzzleloader	no yes	_____ days
Migratory waterfowl (ducks and geese)	no yes	_____ days
Pheasants	no yes	_____ days
Grouse/woodcock	no yes	_____ days
Turkeys	no yes	_____ days
Small game (rabbits, hares, squirrels, fox)	no yes	_____ days
Moose	no yes	_____ days
Bear	no yes	_____ days

Appendix A: Survey Instrument

Q5. Please indicate how likely it is you will participate in each of the following hunting activities at some time during the next 5 years in Minnesota. Please circle one response for each activity.

		Very Unlikely	Somewhat Unlikely	Slightly Unlikely	Undecided	Slightly Likely	Somewhat Likely	Very Likely
Deer	firearm	1	2	3	4	5	6	7
	archery	1	2	3	4	5	6	7
	muzzleloader	1	2	3	4	5	6	7
Waterfowl (ducks and geese)		1	2	3	4	5	6	7
Pheasants		1	2	3	4	5	6	7
Grouse		1	2	3	4	5	6	7
Turkeys		1	2	3	4	5	6	7
Small game (rabbits, hares, squirrels)		1	2	3	4	5	6	7
Moose		1	2	3	4	5	6	7
Bear		1	2	3	4	5	6	7

Part 2. Your Introduction to Hunting

Q6. How old were you when you first began to hunt (not necessarily in Minnesota)? If uncertain please estimate.

_____ years old

Q7. Who introduced you to hunting? (Check one.)

- Grandparent
- Father
- Mother
- Sibling
- Uncle or aunt
- Friend
- Organized class or group
- Self
- Other: _____ (Please specify.)

Q8. Please check the response that best reflects your father's attitude toward hunting. (Check one.)

- He is, or was, a hunter.
- He did not hunt, but approved of hunting.
- He did not hunt, but tolerated hunting.
- He did not hunt and discouraged hunting.
- I do not know.

Q9. Please check the response that best reflects your mother's attitude toward hunting. (Check one.)

- She is, or was, a hunter.
- She did not hunt, but approved of hunting.
- She did not hunt, but tolerated hunting.
- She did not hunt and discouraged hunting.
- I do not know.

Appendix A: Survey Instrument

Part 3. Your Involvement in Hunting

Q10. Please indicate how much you agree or disagree with the following statements about hunting. *Please circle one response for each:*

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
I have close friendships that are based on a common interest in hunting.	1	2	3	4	5	6	7
I have annual traditions related to hunting.	1	2	3	4	5	6	7
If I stopped hunting, I would feel an important part of my life was missing.	1	2	3	4	5	6	7
Participation in hunting is a large part of my life.	1	2	3	4	5	6	7
I have put a lot of time and energy into developing skills for hunting.	1	2	3	4	5	6	7
It would be difficult for me to find another recreational activity to replace hunting.	1	2	3	4	5	6	7
I have acquired equipment that I would not use if I quit hunting.	1	2	3	4	5	6	7
I would go hunting even if I did not have partners to go with.	1	2	3	4	5	6	7
I would rather hunt than do any other recreational activity.	1	2	3	4	5	6	7

Q11. Have you ever taken someone hunting who was not already familiar with the sport (mentored a new hunter)?

- No → Skip to Q12
- Yes. (Please answer Q11a.)

Q11a. If yes, what was their relationship to you? (Please circle yes or no and write in the number of people you have mentored.)

Relationship:	Please circle no or yes.		Number of people mentored.			
	no	yes	1	2	3	4 or more
Son	no	yes	1	2	3	4 or more
Daughter	no	yes	1	2	3	4 or more
Brother	no	yes	1	2	3	4 or more
Sister	no	yes	1	2	3	4 or more
Father	no	yes	1	2	3	4 or more
Mother	no	yes	1	2	3	4 or more
Spouse or significant other	no	yes	1	2	3	4 or more
Male friend	no	yes	1	2	3	4 or more
Female friend	no	yes	1	2	3	4 or more
Other. Please specify:	no	yes	1	2	3	4 or more

Appendix A: Survey Instrument

Q12. How many hunting-related organizations do you belong to?

- None
- 1 or 2
- 3 to 5
- 6 to 10
- More than 10

Part 4. Attitudes About Hunting

Please circle the number that best represents your response:

“In my opinion,

	Extremely Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Extremely Positive
Q13. Hunting is...	1	2	3	4	5	6	7

	Extremely Unenjoyabl	Moderately Unenjoyable	Slightly Unenjoyable	Neutral	Slightly Enjoyable	Moderately Enjoyable	Extremely Enjoyable
Q14. Hunting is...	1	2	3	4	5	6	7

	Definitely False	Moderately False	Slightly False	Neutral	Slightly True	Moderately True	Definitely True
Q15. Most people important to me think I should hunt.	1	2	3	4	5	6	7

	Strongly Disapprove	Moderately Disapprove	Slightly Disapprove	Neutral	Slightly Approve	Moderately Approve	Strongly Approve
Q16. When I hunt, most people important to me...	1	2	3	4	5	6	7

Q17. Please respond to the following statements about how others feel about your hunting, using the scale “strongly disagree” to “strongly agree.” Please circle one response for each:

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree	Not applicable
My father approves of me hunting.	1	2	3	4	5	6	7	9
My mother approves of me hunting.	1	2	3	4	5	6	7	9
My spouse or significant other approves of me hunting.	1	2	3	4	5	6	7	9
My friends approve of me hunting.	1	2	3	4	5	6	7	9
My children approve of me hunting.	1	2	3	4	5	6	7	9

Appendix A: Survey Instrument

Part 5. The Outcomes of Hunting

Q18. Please identify how important the following outcomes of hunting are for you personally. Please circle one response for each:

	Not at all Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Hunting is a way for me to enjoy nature and the outdoors.	1	2	3	4	5
Hunting is a way for me to get food.	1	2	3	4	5
Hunting is a way for me to spend time with family or friends.	1	2	3	4	5
Hunting is a way for me to rest and relax.	1	2	3	4	5
Hunting is a way for me to develop and demonstrate skills.	1	2	3	4	5

Part 6. Constraints to Your Hunting Activity

Q19. How easy or difficult is it for you to go hunting?

Very Difficult	Moderately Difficult	Slightly Difficult	Neutral	Slightly Easy	Moderately Easy	Very Easy
1	2	3	4	5	6	7

Q20. If I wanted to, I could easily go hunting.

Definitely False	Moderately False	Slightly False	Neutral	Slightly True	Moderately True	Definitely True
1	2	3	4	5	6	7

Q21. Do you feel that the amount of time you spend hunting, or the type of hunting you do, is constrained (restricted or inhibited) in any way?

- No —————> Skip to Q22.
 Yes. (Please answer Q21a.)

→ Q21a. If yes, please check the statements that you feel apply to your hunting participation. (Check all that apply.)

- There are types of hunting that I would like to start, but can't.
 I have stopped doing hunting activities that I did in the past, although I would still like to do them.
 I cannot hunt as often as I would like.
 Because of constraints to my hunting, I do not enjoy hunting as much as I might otherwise.

Appendix A: Survey Instrument

Q22. Specifically, how much do the following factors limit your hunting participation? Please circle the response that indicates how much the factor limits the amount and type of hunting you do. Please circle one response for each:

	HOW MUCH DO THE LISTED FACTORS LIMIT THE AMOUNT AND TYPES OF HUNTING YOU DO?						
	Not at all Limiting						Very Limiting
Family commitments	1	2	3	4	5	6	7
Work commitments	1	2	3	4	5	6	7
Access to private land for hunting	1	2	3	4	5	6	7
Access to public land for hunting	1	2	3	4	5	6	7
Crowding at hunting areas	1	2	3	4	5	6	7
Cost of equipment	1	2	3	4	5	6	7
Cost of licenses	1	2	3	4	5	6	7
Travel costs	1	2	3	4	5	6	7
Hunting regulations too restrictive	1	2	3	4	5	6	7
Availability of hunting partners	1	2	3	4	5	6	7
Physically unable to go hunting	1	2	3	4	5	6	7
Inadequate hunting skills	1	2	3	4	5	6	7
Interest in other recreational activities	1	2	3	4	5	6	7
Safety concerns	1	2	3	4	5	6	7
Game populations too low	1	2	3	4	5	6	7
No desire for wild game as food	1	2	3	4	5	6	7
No need for wild game as food	1	2	3	4	5	6	7
Personal concern for animals' pain and distress	1	2	3	4	5	6	7
Other people's concern for animals' pain and distress	1	2	3	4	5	6	7
Weather conditions	1	2	3	4	5	6	7
Not enough leisure time	1	2	3	4	5	6	7
The type of people that hunt	1	2	3	4	5	6	7
The amount of planning required to go hunting	1	2	3	4	5	6	7
Age	1	2	3	4	5	6	7
The amount of effort required to go hunting	1	2	3	4	5	6	7
No hunting opportunities near my home	1	2	3	4	5	6	7
Poor health	1	2	3	4	5	6	7

Appendix A: Survey Instrument

Part 7. Patterns of Hunting in Your Life

Peoples' lives change over time, and they sometimes find that they have increased or decreased time for hunting and other recreational activities. We are interested in seeing how your involvement in hunting may have changed throughout your life. This series of questions asks about your participation in hunting for different game animals over time.

For each question, please check yes or no to indicate whether you have participated in each type of hunting. If you have participated in a type of hunting, please circle the number of years you hunted during each age range. If you are younger than the listed age range, circle NA for not applicable.

Q23. Have you ever hunted deer?

- No \longrightarrow Skip to Q24.
 Yes. (Please answer Q23a and Q23b.)

\longrightarrow **Q23a. If yes, please circle the approximate number of years that you hunted for deer during each age range.**

Game hunted	Age range	About how many years out of 10 did you hunt deer with a firearm during the following 10-year age ranges?												
Deer	10-19	0	1	2	3	4	5	6	7	8	9	10	NA	
	20-29	0	1	2	3	4	5	6	7	8	9	10	NA	
	30-39	0	1	2	3	4	5	6	7	8	9	10	NA	
	40-49	0	1	2	3	4	5	6	7	8	9	10	NA	
	50-59	0	1	2	3	4	5	6	7	8	9	10	NA	
	60-69	0	1	2	3	4	5	6	7	8	9	10	NA	
	70+	0	1	2	3	4	5	6	7	8	9	10	NA	

Q23b. Please estimate how often you went deer hunting in a typical year during the following 10-year age ranges.

Game hunted	Age range	About how often did you hunt deer each year during the following 10-year age ranges?										
Deer		One or two days	About 5 days	About 10 days	About 15 days	About 20 days	About 25 days	About 30 days	About 35 days	40 or more days		
	10-19	1	2	3	4	5	6	7	8	9	NA	
	20-29	1	2	3	4	5	6	7	8	9	NA	
	30-39	1	2	3	4	5	6	7	8	9	NA	
	40-49	1	2	3	4	5	6	7	8	9	NA	
	50-59	1	2	3	4	5	6	7	8	9	NA	
	60-69	1	2	3	4	5	6	7	8	9	NA	
70+	1	2	3	4	5	6	7	8	9	NA		

Appendix A: Survey Instrument

Q24. Have you ever hunted for waterfowl (ducks and/or geese)?

- No. —→ Skip to Q25.
 Yes. (Please answer Q24a and Q24b.)

→ Q24a. If yes, please circle the number of years that you hunted for waterfowl during each age range.

Game hunted	Age range	About how many years out of 10 did you hunt waterfowl during each of the following 10-year age ranges?											
Waterfowl	10-19	0	1	2	3	4	5	6	7	8	9	10	NA
	20-29	0	1	2	3	4	5	6	7	8	9	10	NA
	30-39	0	1	2	3	4	5	6	7	8	9	10	NA
	40-49	0	1	2	3	4	5	6	7	8	9	10	NA
	50-59	0	1	2	3	4	5	6	7	8	9	10	NA
	60-69	0	1	2	3	4	5	6	7	8	9	10	NA
	70+	0	1	2	3	4	5	6	7	8	9	10	NA

Q24b. Please estimate how often you went waterfowl hunting in a typical year during the following 10-year age ranges.

Game hunted	Age range	About how often did you go hunting for waterfowl each year during the following 10-year age ranges?										
Waterfowl		One or two days	About 5 days	About 10 days	About 15 days	About 20 days	About 25 days	About 30 days	About 35 days	40 or more days		
	10-19	1	2	3	4	5	6	7	8	9		N/A
	20-29	1	2	3	4	5	6	7	8	9		N/A
	30-39	1	2	3	4	5	6	7	8	9		N/A
	40-49	1	2	3	4	5	6	7	8	9		N/A
	50-59	1	2	3	4	5	6	7	8	9		N/A
	60-69	1	2	3	4	5	6	7	8	9		N/A
70+	1	2	3	4	5	6	7	8	9		N/A	

Q25. Have you ever hunted for pheasants?

- No. —→ Skip to Q26.
 Yes. (Please answer Q25a and Q25b.)

→ Q25a. If yes, please circle the number of years that you hunted pheasants during each age range.

Game hunted	Age range	About how many years out of 10 did you hunt pheasants during each of the following 10-year age ranges?											
Pheasant	10-19	0	1	2	3	4	5	6	7	8	9	10	N/A
	20-29	0	1	2	3	4	5	6	7	8	9	10	N/A
	30-39	0	1	2	3	4	5	6	7	8	9	10	N/A
	40-49	0	1	2	3	4	5	6	7	8	9	10	N/A
	50-59	0	1	2	3	4	5	6	7	8	9	10	N/A
	60-69	0	1	2	3	4	5	6	7	8	9	10	N/A
	70+	0	1	2	3	4	5	6	7	8	9	10	N/A

Appendix A: Survey Instrument

Q25b. Please estimate how often you went pheasant hunting in a typical year during the following 10-year age ranges.

Game hunted	Age range	About how often did you go hunting for pheasant each year during the following 10-year age ranges?									
		One or two days	About 5 days	About 10 days	About 15 days	About 20 days	About 25 days	About 30 days	About 35 days	40 or more days	
Pheasant	10-19	1	2	3	4	5	6	7	8	9	NA
	20-29	1	2	3	4	5	6	7	8	9	NA
	30-39	1	2	3	4	5	6	7	8	9	NA
	40-49	1	2	3	4	5	6	7	8	9	NA
	50-59	1	2	3	4	5	6	7	8	9	NA
	60-69	1	2	3	4	5	6	7	8	9	NA
	70+	1	2	3	4	5	6	7	8	9	NA

Q26. Have you ever hunted for grouse/woodcock?

- No. → Skip to Q27.
 Yes. (Please answer Q26a and Q26b.)

→ **Q26a.** If yes, please circle the number of years that you hunted for grouse/woodcock during each age range.

Game hunted	Age range	About how many years out of 10 did you hunt for grouse/woodcock during each of the following 10-year age ranges?											
		0	1	2	3	4	5	6	7	8	9	10	NA
Grouse & woodcock	10-19	0	1	2	3	4	5	6	7	8	9	10	NA
	20-29	0	1	2	3	4	5	6	7	8	9	10	NA
	30-39	0	1	2	3	4	5	6	7	8	9	10	NA
	40-49	0	1	2	3	4	5	6	7	8	9	10	NA
	50-59	0	1	2	3	4	5	6	7	8	9	10	NA
	60-69	0	1	2	3	4	5	6	7	8	9	10	NA
	70+	0	1	2	3	4	5	6	7	8	9	10	NA

Q26b. Please estimate how often you went grouse/woodcock hunting in a typical year during the following 10-year age ranges.

Game hunted	Age range	About how often did you go hunting grouse/woodcock each year during the following 10-year age ranges?									
		One or two days	About 5 days	About 10 days	About 15 days	About 20 days	About 25 days	About 30 days	About 35 days	40 or more days	
Grouse & woodcock	10-19	1	2	3	4	5	6	7	8	9	NA
	20-29	1	2	3	4	5	6	7	8	9	NA
	30-39	1	2	3	4	5	6	7	8	9	NA
	40-49	1	2	3	4	5	6	7	8	9	NA
	50-59	1	2	3	4	5	6	7	8	9	NA
	60-69	1	2	3	4	5	6	7	8	9	NA
	70+	1	2	3	4	5	6	7	8	9	NA

Appendix A: Survey Instrument

Q27. Have you ever hunted for small game (rabbits, hares, squirrels)?

- No. —————> Skip to Q28.
 Yes. (Please answer Q27a and Q27b.)

→ Q27a. If yes, please circle the number of years that you hunted for small game during each age range.

Game hunted	Age range	About how many years out of 10 did you hunt for small game during each of the following 10-year age ranges?											
Small game	10-19	0	1	2	3	4	5	6	7	8	9	10	NA
	20-29	0	1	2	3	4	5	6	7	8	9	10	NA
	30-39	0	1	2	3	4	5	6	7	8	9	10	NA
	40-49	0	1	2	3	4	5	6	7	8	9	10	NA
	50-59	0	1	2	3	4	5	6	7	8	9	10	NA
	60-69	0	1	2	3	4	5	6	7	8	9	10	NA
	70+	0	1	2	3	4	5	6	7	8	9	10	NA

Q27b. Please estimate how often you went small game hunting in a typical year during the following 10-year age ranges.

Game hunted	Age range	About how often did you go hunting for small game each year during the following 10-year age ranges?									
Small game		One or two days	About 5 days	About 10 days	About 15 days	About 20 days	About 25 days	About 30 days	About 35 days	40 or more days	
	10-19	1	2	3	4	5	6	7	8	9	NA
	20-29	1	2	3	4	5	6	7	8	9	NA
	30-39	1	2	3	4	5	6	7	8	9	NA
	40-49	1	2	3	4	5	6	7	8	9	NA
	50-59	1	2	3	4	5	6	7	8	9	NA
	60-69	1	2	3	4	5	6	7	8	9	NA
70+	1	2	3	4	5	6	7	8	9	NA	

Part 8. Other Outdoor Activities

Q28. We are interested in what outdoor activities you do, besides hunting. For each, please circle yes or no for whether you have done the listed activity within the past 12 months. If yes, please indicate how many days you participated in the activity in the past 12 months.

Have you participated in the following activities <u>in the past 12 months</u> ?	Please circle no or yes.	Number of days you participated in the activity in the past 12 months?
Fishing	no yes	_____ days
Wildlife viewing	no yes	_____ days
Picnicking	no yes	_____ days
Day hiking	no yes	_____ days
Backpacking	no yes	_____ days
Canoeing	no yes	_____ days
Driving off-road vehicles	no yes	_____ days
Developed camping	no yes	_____ days
Primitive camping	no yes	_____ days
Cross-country skiing	no yes	_____ days

Appendix A: Survey Instrument

Part 9. About You

Q29. In what year were you born?

_____ year

Q30. How many years have you lived in Minnesota?

_____ years

Q31. How many years did you live on a farm or ranch, or in a non-suburban rural area from birth until age 17:?

_____ years

Q32. How many years have you lived on a farm or ranch, or in a non-suburban rural area from age 18 until now?

_____ years

Q33. What is the highest level of education you have completed? (*Check one.*)

- | | |
|--|---|
| <input type="checkbox"/> Grade school | <input type="checkbox"/> Some college |
| <input type="checkbox"/> Some high school | <input type="checkbox"/> Four-year college (bachelor's) degree |
| <input type="checkbox"/> High school diploma or GED | <input type="checkbox"/> Some graduate school |
| <input type="checkbox"/> Some vocational or technical school | <input type="checkbox"/> Graduate (master's or doctoral) degree |
| <input type="checkbox"/> Vocational or technical school (associate's) degree | |

Q34. What was your approximate total household income before taxes last year?

\$ _____

Q35. Which of the following best describes your current marital status? (*Check one.*)

- Single
- Divorced or widowed
- Living with a partner
- Married

Q36. Which of the following best describes your race? (*Check all that apply.*)

- Caucasian/White
- African American/Black
- Asian
- Pacific Islander
- American Indian or Alaskan Native

Q37. Do you consider yourself Hispanic/Latino/Spanish? (*Check one.*)

- No
- Yes

THANK YOU FOR YOUR HELP!

Please return the completed questionnaire in the enclosed self-addressed, stamped envelope.