ECONOMIC CONTRIBUTIONS OF ATV-RELATED ACTIVITIES IN MAINE

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ECONOMIC CONTRIBUTIONS OF ATV-RELATED ACTIVITY IN MAINE

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EXECUTIVE SUMMARY

Introduction

Riding ATVs has become a highly visible recreational activity in Maine. During the 2003/2004 season from July 1, 2003 to June 30, 2004 there were 59,057 ATVs registered in Maine to 45,561 separate households in Maine and from outside of Maine. During 2004, the Margaret Chase Smith Policy Center at the University of Maine in conjunction with the Maine Department of Conservation conducted a study to determine the total contribution to Maine's economy that results from the spending related directly to the purchase and use of ATVs in Maine. We also examined the environmental and economic damages caused by ATVs.

Economic Activity

Based on a mail survey of resident and non-resident households with ATVs registered in Maine, we estimate $156.0 million of net spending took place in Maine during the 2003/2004 season to purchase, register and operate ATVs. Approximately 5.9 percent of this spending comes from nonresident households. This figure includes spending for both new and used ATVs from dealers, and the cost of transporting them. It also includes ATV-related expenditures (gas and oil, ATV accessories, maintenance and repair, registrations, insurance), rider-related expenditures (clothing and accessories), and trip-related expenditures (eating and drinking, overnight accommodations, gasoline, highway tolls). A detailed spending breakdown is provided in this report.

This spending creates additional economic activity through induced spending in other sectors of Maine's economy (e.g., the multiplier effect). In the case of ATVs, trailers, tow vehicles and selected other equipment, only the retail margin captured by dealers and other retail businesses generates additional activity through the multiplier effect. We estimate that an additional $44.0 million of economic output is stimulated by ATV spending. Combined with the direct net spending of $156.0 million, ATVs directly and indirectly contribute $200.0 million of economic activity to the Maine economy. Included in the total economic output are jobs and income related to total ATV spending in Maine. It is estimated that 1,975 jobs and $42.7 million of income can be directly and indirectly attributed to spending on ATVs.

ATV Spending and Economic Activity

Expenditure	Resident	Non-Resident	All Riders
Spending			
ATVs, trailers and tow vehicles	101,265,981	5,180,100	106,446,081
ATV-related expenditures	27,057,723	1,472,417	28,530,139
Rider-related expenditures	5,673,631	408,269	6,081,900
Trip-related expenditures	12,832,766	2,148,526	14,981,292
Net Spending*	**$146,830,101**	**$9,209,311**	**$156,039,412**
Multiplier effects	41,291,650	2,703,104	43,994,754
Total Economic Activity	**$188,121,751**	**$11,912,415**	**$200,034,166**
Employment (including multipliers)	**1,852**	**123**	**1,975**
Income (including multipliers)	**39,921,863**	**2,756,353**	**42,678,216**

*Net spending excludes private-party transactions and the value of trade-ins.

As discussed in the this report, ATV use can cause damage to railroad beds, unpaved roads and trails, fields, and wetlands that are not or cannot be repaired. It is likely that damage is costing hundreds of thousand of dollars every year. If it were possible to establish a cost for wetland impacts that are not or cannot be repaired, the overall damage estimate would likely increase substantially. Quantifying all these damages reliably is quite difficult and beyond the scope of this report. These damages take away from the economic benefits that ATVs have on Maine's economy.

ATV Rider Characteristics and ATV Use

The survey also produced information about riders of ATVs and the places that they ride. Among the highlights are the following:

- Nearly all ATV registrations are for riders in Maine households. Only 6 percent are registered to nonresidents. Because 2004 is the first year for which out-of-state registrations are available, it is not possible to know if there has been any change in the percentage of out-of-state registrations in recent years.

- One-half of out-of-state registrations are to households in Massachusetts.

- Penobscot, Aroostook and York counties have the greatest numbers of registered ATVs, but the highest concentrations of ATVs per population are found in Franklin, Piscataquis and Washington counties.

- Households with ATVs have higher incomes than the Maine population overall. One-quarter of ATV households have an income of $75,000 or more compared to 15 percent of households in the general population.

- One-third of survey respondents have been riding ATVs for more than 15 years, while another one-third have been riding for five years or less.

- More than one-quarter of respondents have taken an ATV safety course. However, fewer than 17 percent always wear a helmet and fewer than 22 percent wear a helmet most of the time.

- Approximately 21 percent of riders have ever been a member of an ATV club, and 16 percent were members of an ATV club during the 2003/2004 season.

- Registered ATV owners from Maine ride their machines an average of 530 miles per year.

- Among eight regions in the state, most of the riding is done in the Maine Highlands region (24 percent), Maine Lakes and Mountains region (19 percent) and the Kennebec and Moose River Valleys region (14 percent). The highest average number of miles ridden, however, is for riders in the Aroostook County, Downeast and Acadia, and Southern Maine Coast regions.

- Nearly one-half (46 percent) of ATV riding in Maine is done on marked ATV trails, 35 percent occurs on trails not specifically marked for ATVs, and 18 percent is done in areas with no trails or roads. Three-quarters of respondents reported riding at least sometimes on ATV trails while 56 percent reported riding sometimes in areas with no trails or roads.

- Perhaps surprisingly, nearly half of all respondents (49 percent) reported at least some riding on land of unknown ownership.

TABLE OF CONTENTS

Introduction **1**

Methodology **1**
Survey Sample 1
Survey Implementation 3

Demographics **5**
Residence 5
Age and Sex 6
Education 7
Income 8

ATV Characteristics **9**
ATVs Registered in Maine 9
Type of ATV 9

Rider Characteristics **10**
Years Riding 10
Ever Taken and ATV Course 10
Wear a Helmet 11
Ride Double 11
Club Membership 12

Riding Characteristics **13**
Miles Ridden in Maine 13
Where to Ride 13
Days Ridden 15
Season 15
Land 16
Trails 17
Overnight Trips 18

Factors and Perceptions about Riding ATVs **20**
Riding in Maine 22

ATV-Related Spending **24**
ATV Purchases 24
ATV Trailer Purchases 26
Purchases of Cars or Trucks to Tow ATVs 27
ATV-Related Expenditures 29
Rider-Related Expenditures 30
Trip-Related Expenditures 32

Total ATV-Related Spending in Maine **34**
Total Economic Contributions of ATV-Related Activity in Maine **37**

ATV Damage **39**
Background 39
Goals 39
Methods 39
Conclusions 40
Estimating the Cost of an Effective ATV Damage Mitigation Fund 41

ATV Damage Case Studies **42**
Portland Natural Gas Transmission System 42
Central Maine Power Company 44
Plum Creek Timber Company 45
International Paper Company and Atlantic Salmon Restoration 46
Mud Run on State Land 47
Railroads 48
ATV Damage on Smaller Private Properties 49

Appendix 1 – Survey Materials **A1-1**

Appendix 2 – Overall Responses **A2-1**

LIST OF FIGURES

Figure 1: Families with Registered ATV's – Maine and Out-of-State 5
Figure 2: Maine Families with Registered ATVs by County..... 5
Figure 3: Percent of Families in Each County with a Registered ATV..... 6
Figure 4: Out-of-State Families with Maine-Registered ATVs 6
Figure 5: Respondents by Age 7
Figure 6: Educational Attainments by Respondents and General Maine Population 7
Figure 7: Household Income of Survey Respondents and All Maine Households..... 8
Figure 8: Number of ATVs 9
Figure 9: Years Riding ATVs 10
Figure 10: Ever Taken an ATV Course 10
Figure 11: How Often Wear a Helmet..... 11
Figure 12: How Often Ride Double..... 11
Figure 13: Ride Double by Miles Ridden..... 12
Figure 14: Club Membership 12
Figure 15: Miles Ridden..... 13
Figure 16: Percent of All Riding by Region..... 14
Figure 17: Days Ridden 15
Figure 18: Season Ridden..... 16
Figure 19: Percent of Riding on Type of Land..... 16
Figure 20: Percent of Riding on Trail Type..... 17
Figure 21: Overnight Trips 18
Figure 22: Most Important Factors in Deciding Where to Ride..... 20
Figure 23: Least Important Factors in Deciding Where to Ride..... 20

LIST OF TABLES

Table 1: Survey Population 1
Table 2: Maine Survey Population and Sample by County 2
Table 3: Out-of-State Survey Population and Sample by State 3
Table 4: Survey Sample and Respondents 4
Table 5: Respondents Who Ride in Regions 15
Table 6: Riding on Land Type by Number of Miles Ridden 17
Table 7: At Least Some Riding, by Land Types 17
Table 8: Riding on Trail Type by Number of Miles Ridden 18
Table 9: At Least Some Riding on Trail Types 18
Table 10: Overnight Trips, by Number of Miles Ridden 19
Table 11: Factors in Deciding Where to Ride 21
Table 12: Most Important Factors by Number of Miles Ridden 22
Table 13: Status of ATV Riding in Maine 22
Table 14: ATV Expenditures Across All Households 24
Table 15: ATV Expenditures of Those Who Spent Something 25
Table 16: ATV Expenditures by Respondent Category (all households) 25
Table 17: ATV Trailer Expenditures Across All Households 26
Table 18: ATV Trailer Expenditures of Those Who Spent Something 26
Table 19: ATV Trailer Expenditures by Respondent Category (all households) 27
Table 20: Expenditures for Cars or Trucks to Tow ATVs Across All Households 27
Table 21: Expenditures for Cars or Trucks to Tow ATVs of Those Who Spent Something 28
Table 22: Expenditures for Cars or Trucks to Tow ATVs by Respondent Category (all households) 28
Table 23: ATV-Related Expenditures Across All Households 29
Table 24: ATV-Related Expenditures of Those Who Spent Something 29
Table 25: ATV-Related Expenditures by Respondent Category (all households) 30
Table 26: Rider-Related Expenditures Across All Households 30
Table 27: Rider-Related Expenditures of Those Who Spent Something 31
Table 28: Rider-Related Expenditures by Respondent Category (all households) 31
Table 29: Trip-Related Expenditures Across All Households 32
Table 30: Trip-Related Expenditures of Those Who Spent Something 32
Table 31: Trip-Related Expenditures by Respondent Category (all households) 33
Table 32: Gross and Adjusted Net Annual Spending in Maine for ATVs and Related Goods and Services 34
Table 33: Detailed ATV-Related Expenditures in Maine by Residents and Non-Residents 35
Table 34: Multiplier Effects of ATV Spending in Maine 38

INTRODUCTION

This study was conducted as part of a cooperative agreement between the Margaret Chase Smith Policy Center at the University of Maine and the Maine Department of Conservation. The purpose of this study is to identify the economic impact of all terrain vehicles (ATVs) in Maine. This report presents the results of a mail survey of households whose members had registered an ATV in Maine from July 1, 2003 through June 30, 2004, an assessment of the economic impact of ATVs in Maine, and a review of the costs of mitigating damage caused to land in Maine by ATVs. The appendices to this report present the survey materials as well as overall responses to each question from all those who responded to the survey.

METHODOLOGY

Survey Sample

The survey sample used in this study was developed from a data file of all ATV registrations in Maine from July 1, 2003 through June 30, 2004. The data file was provided by the Maine Department of Inland Fisheries and Wildlife which is responsible for registering ATVs in Maine. That twelve month period was the first in which all out-of-state ATVs were required to be registered in Maine. Accordingly, the survey sample was developed to include at least 300 out-of-state households and 900 Maine households. In this report, the terms "families" and "households" are used interchangeably.

The data file provided by the Maine Department of Inland Fisheries and Wildlife contained a total of 59,057 individual ATV registrations. 55,441 of these registrations were from Maine and 3,616 were from out-of-state. Since the survey was intended to be of households, all registrations by businesses and government entities as well as incomplete records were removed. In addition, through successive sorts of the file by state, town, address and registrant name, households were identified. For households in which multiple ATVs were registered (i.e., same last name, same address, same town) one registration was randomly selected and the remaining duplicate household records were removed. Table 1 presents the total records received, those that were removed, and the final survey population.

Table 1
Survey Population

	Maine	Out-of-state	Total
Records Received	55,441	3,616	59,057
Records Removed			
Incomplete	51	1	52
Businesses	398	7	405
Government, etc	157	1	158
Duplicate Family	12,099	782	12,881
Total Removed	12,705	791	13,496
Survey Population	**42,736**	**2,825**	**45,561**

As mentioned above, the final survey sample was intended to contain at least 300 out-of-state individuals and at least 900 Maine individuals. The Maine population was sorted by town by county and the out-of-state population was sorted by state and random (interval) samples were taken for both populations. This method of sampling helped ensure appropriate geographic representation in the survey sample. The final survey sample of 1,223 included 909 individuals from Maine and 314 individuals from out-of-state who had registered ATVs in Maine from July 1, 2003 through June 30, 2004.

Out-of-state families with ATVs registered in Maine were over-represented in the sample to ensure an adequate number of observations for statistical accuracy. Unless otherwise noted, the reported study results are appropriately adjusted to account for this over-representation. Table 2 presents the distribution of Maine families in the population and in the survey sample by county.

Table 2
Maine Survey Population and Sample by County

County	Maine Families	% of Families	Sample Families	% Sample Families
Androscoggin	2,687	6.29%	57	6.27%
Aroostook	5,000	11.70%	107	11.77%
Cumberland	3,575	8.37%	76	8.36%
Franklin	1,774	4.15%	38	4.18%
Hancock	2,141	5.01%	46	5.06%
Kennebec	4,132	9.67%	88	9.68%
Knox	775	1.81%	17	1.87%
Lincoln	1,127	2.64%	24	2.64%
Oxford	2,503	5.86%	53	5.83%
Penobscot	6,070	14.20%	129	14.19%
Piscataquis	1,114	2.61%	24	2.64%
Sagadahoc	1,091	2.55%	21	2.31%
Somerset	2,797	6.54%	60	6.60%
Waldo	1,407	3.29%	30	3.30%
Washington	1,966	4.60%	42	4.62%
York	4,577	10.71%	97	10.67%
Total Maine	**42,736**	**100.00%**	**909**	**100.00%**

Table 3 presents the distribution of out-of-state families in the population and in the survey sample by state.

During the course of the survey a number of the mailings were returned by the postal service as undeliverable. Those returned with forwarding addresses were then mailed to the forwarding address. A total of 48 (40 from Maine, 8 from out-of-state) were returned with no forwarding address and were determined to be undeliverable. Since those individuals did not have the opportunity to participate in the survey, they were removed from the survey sample. The final survey sample contained a total of 1,175 households (869 from Maine, 306 from out-of-state).

Table 3
Out-of-State Survey Population and Sample by State

State	Out-of-state Families	% Out-of-state Families	Out-of-state Sample Families	% Out-of-state Sample Families
Connecticut	362	12.81%	40	12.74%
Massachusetts	1,387	49.10%	154	49.04%
New Hampshire	422	14.94%	47	14.97%
New Jersey	178	6.30%	20	6.37%
New York	54	1.91%	6	1.91%
Rhode Island	174	6.16%	19	6.05%
Vermont	88	3.12%	10	3.18%
All Others (27)	160	5.66%	18	5.73%
Total Out-of-state	**2,825**	**100.00%**	**314**	**100.00%**

Survey Implementation

The survey questionnaire was developed in close cooperation with representatives of the Maine Department of Conservation. The final questionnaire was developed to solicit demographic information on respondents, where, how and how often they ride, perceptions of ATV riding, as well as ATV-related spending.

One week prior to the initial survey mailing, the Department of Conservation mailed to all members of the survey population a letter from the Commissioner encouraging recipients to participate in the survey (see Appendix 1). The original survey mailing was conducted on September 3, 2004. The original mailing (see Appendix 1) included the questionnaire, a cover letter explaining the purpose of the survey, and a postage-paid return envelope. On September 27, 2004 a reminder postcard (see Appendix 1) was mailed to the 687 members of the survey sample who had not returned completed questionnaires by that date. On October 12, 2004 a replacement mailing including a cover letter (see Appendix 1), a replacement questionnaire, and a postage-paid return envelope was sent to the 615 members of the survey sample who had not completed and returned a questionnaire by that date. Completed and returned questionnaires from the original and follow-up mailings were received through November 11, 2004.

Responses from returned, completed questionnaires were entered into a computer data file. The data file was cleaned to reconcile any values out of range. A total of 748 completed questionnaires were received representing 63.66% of the final survey sample. Table 4 presents the final survey sample and respondents by Maine county and state. As shown in Table 4, the geographic distribution of respondents closely represents the geographic distribution of the final survey sample.

Table 4
Survey Sample and Respondents

Maine County	Final Sample	% of Final Sample	Respondents	% of All Respondents
Androscoggin	56	4.77%	35	4.69%
Aroostook	103	8.77%	57	7.63%
Cumberland	72	6.13%	43	5.76%
Franklin	38	3.23%	29	3.88%
Hancock	43	3.66%	24	3.21%
Kennebec	85	7.23%	49	6.56%
Knox	16	1.36%	8	1.07%
Lincoln	23	1.96%	15	2.01%
Oxford	49	4.17%	30	4.02%
Penobscot	122	10.38%	79	10.58%
Piscataquis	23	1.96%	17	2.28%
Sagadahoc	20	1.70%	11	1.47%
Somerset	58	4.94%	34	4.55%
Waldo	28	2.38%	16	2.14%
Washington	40	3.40%	31	4.15%
York	93	7.91%	56	7.50%
Total Maine	**869**	**73.96%**	**534**	**71.49%**
Out-of-state				
Connecticut	38	**3.23%**	24	**3.21%**
Massachusetts	149	**12.68%**	107	**14.32%**
New Hampshire	46	**3.91%**	28	**3.75%**
New Jersey	20	**1.70%**	14	**1.87%**
New York	6	**0.51%**	6	**0.80%**
Rhode Island	19	**1.62%**	13	**1.74%**
Vermont	10	**0.85%**	8	**1.07%**
All Other States (27)	18	**1.53%**	13	**1.74%**
Total Out-of-state	**306**	**26.04%**	**213**	**28.51%**
Final Total	**1,175**	**100%**	**747***	**100%**

* one respondent removed the questionnaire ID number that included the geographic identifier

Residence

ATV registrants resided in all Maine counties as well as 15 other states and the Province of Quebec, Canada. Figure 1 displays the proportion of families with ATVs who reside in Maine and outside the state of Maine. While Maine attracts riders from a large number of places outside of the state, the number of nonresident families with ATVs registered in Maine is fairly small relative to the overall total.

Figure 1
Families with Registered ATVs – Maine and Out-of-State

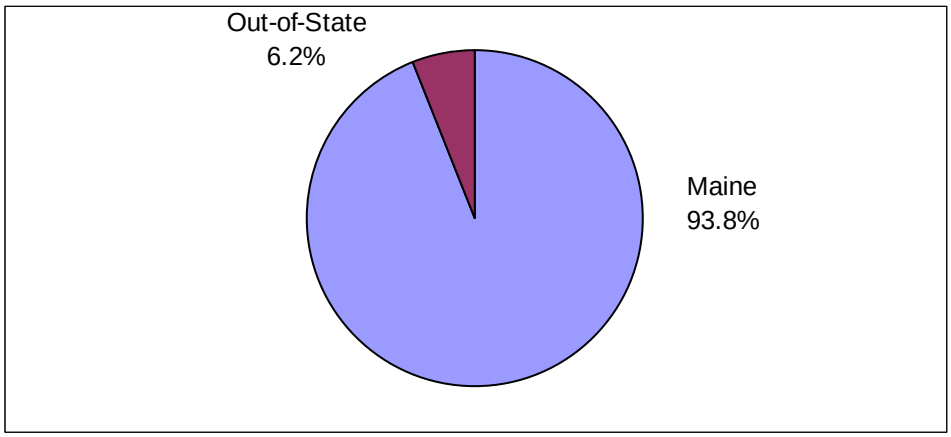
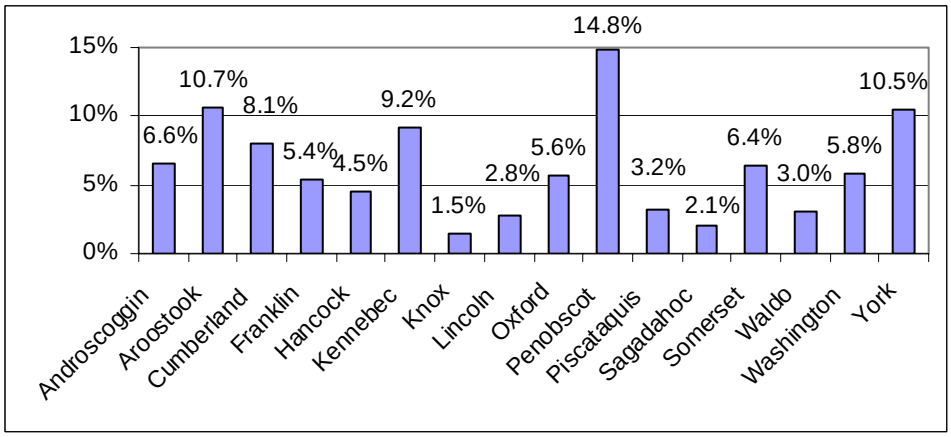


Figure 2 displays the proportion of Maine families with registered ATVs, by Maine county. The county with the largest number of registered machines is Penobscot, followed by Aroostook and York counties with approximately equal numbers of ATVs. Knox and Sagadahoc counties account for the fewest ATVs in the states.

Figure 2
Maine Families with Registered ATVs by County



Accounting for differences in population, however, the proportion of families in each county with at least one registered ATV looks quite different (Figure 3). In Penobscot County, which has nearly 15 percent of the state's ATVs, nearly 11 percent of families have at least one registered ATV. Franklin County, which accounts for only 5.4 percent of registered ATVs in Maine, has the highest rate of registrations with 19.7 percent of families registering at least one ATV. York County, which has the third-highest number of ATV's in the state has the third-lowest rate of ATV registrations. York account for 10.5% of ATVs in Maine but only six percent of families in York County have a registered ATV.

Figure 3
Percent of Families in Each County with a Registered ATV

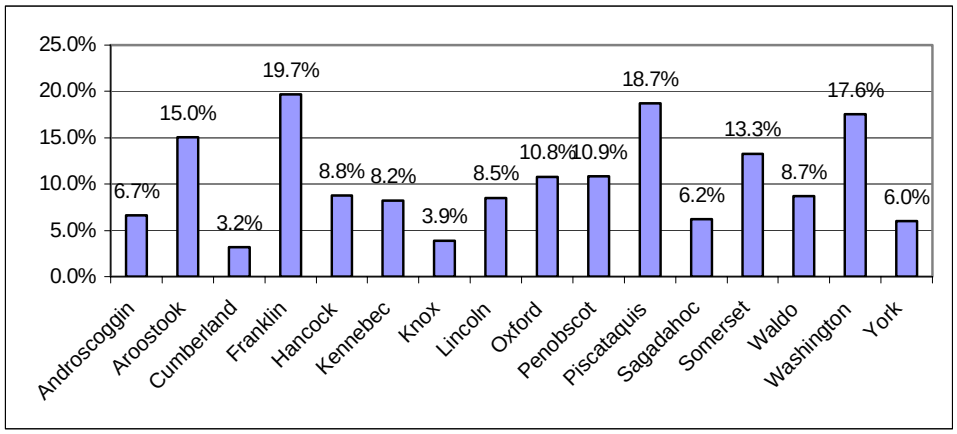
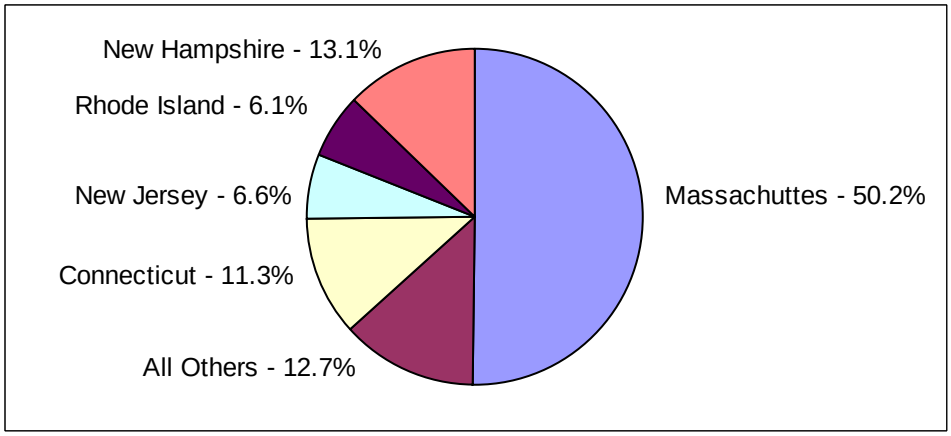


Figure 4 displays out-of-state families with Maine-registered ATVs, by state. One-half of all nonresident registrations come from families residing in Massachusetts.

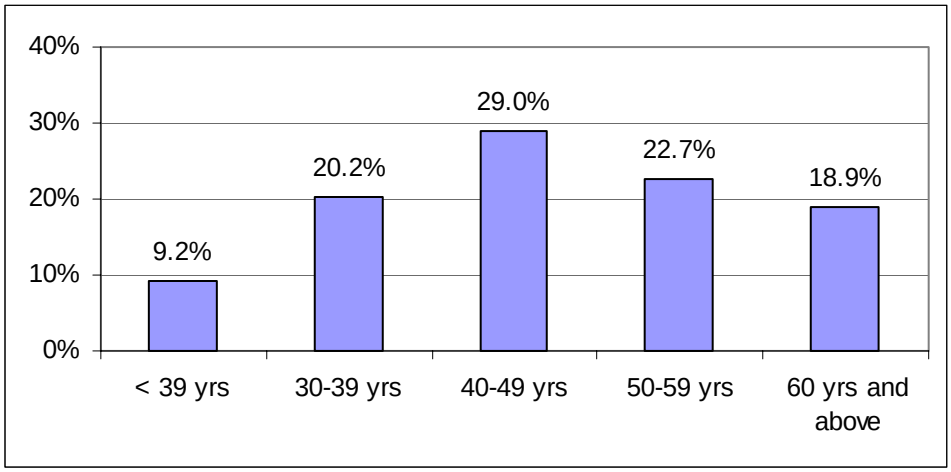
Figure 4
Out-of-State Families with Maine-Registered ATVs



Age and Sex

Most respondents (87.6%) to the survey were male. Respondents ranged in age from 11 years to 87 years. The average age of survey respondents was 47.4 years. The average age of out-of-state respondents (49.4 years) was slightly higher than the average age of those from Maine (47.3 years). Figure 5 displays survey respondents by age category.

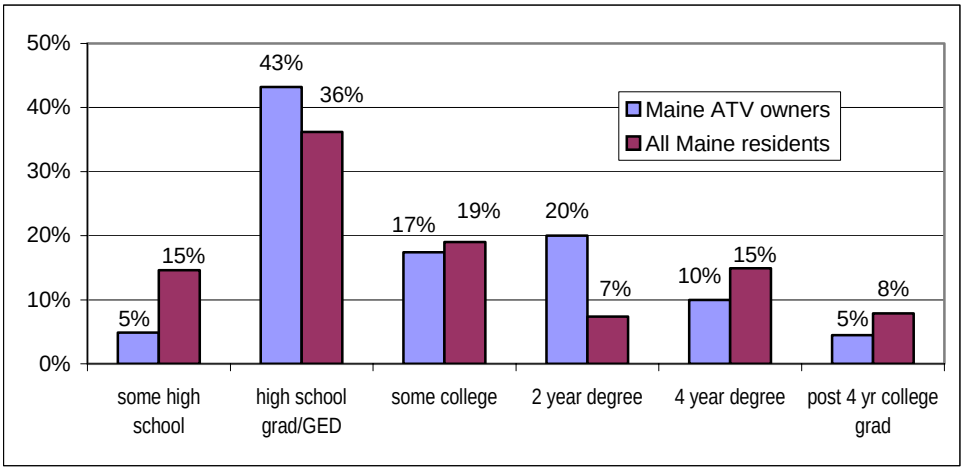
Figure 5
Respondents by Age



Education

The questionnaire asked respondents to indicate their level of education. 48.1% of respondents had either some high school or had a high school diploma or GED. 37.4% of respondents had some college or a two-year college degree and 14.5% had a four-year college degree or post-college or graduate degree. Figure 6 displays the education of those responding to the survey and the Maine population, in general. Respondents to the survey are more likely to have graduated from high school than the average Maine resident, and more likely to have attained a two-year degree. Fifteen percent of survey respondents have attained a four-year degree or higher compared to 23 percent of the general population.

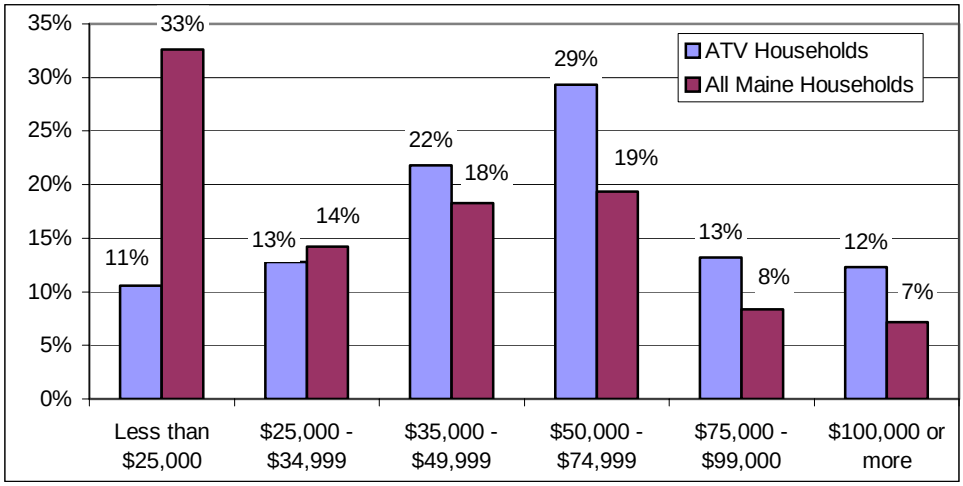
Figure 6
Educational Attainment by Respondents and General Maine Population



Income

Respondents were asked to indicate the combined income for the members of their household. Generally, families with registered ATVs have higher incomes than the overall population in Maine. Over half (51.1%) of respondents reported a combined household income of $35,000 to $75,499, compared to 37% of all households in Maine. Less than 11% of those responding reported household income below $25,000, compared to one-third of Maine households at that income level. One-quarter of ATV households have an income of $75,000 or more compared to 15% of households in the general population. Out-of-state respondents reported higher incomes with 52.8% indicating household incomes of $75,000 or more compared to 23.6% of those from Maine. Figure 7 displays the combined household income of respondents and all Maine households.

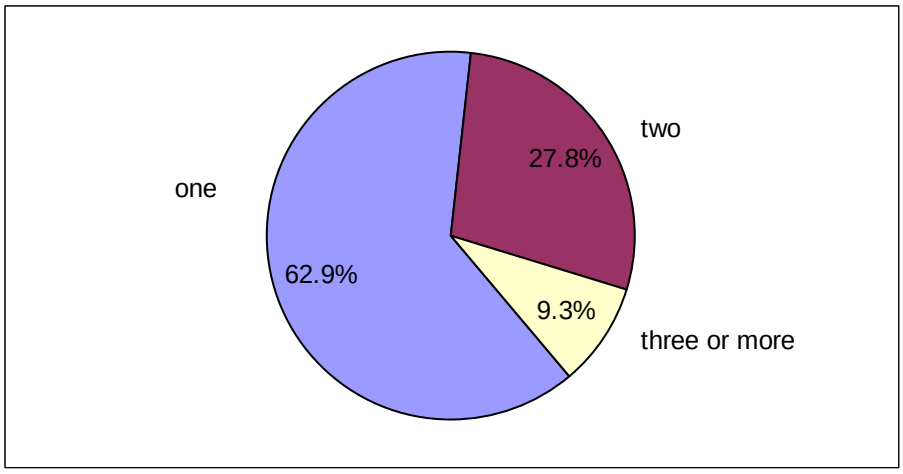
Figure 7
Household Income of Survey Respondents and All Maine Households



ATVs Registered in Maine

A majority of those responding (62.9%) reported their household registered one ATV in Maine from July 1, 2003 to June 30, 2004. The average number of ATVs registered in respondents' households in Maine from July 1, 2003 to June 30, 2004 was 1.5. Figure 8 displays the number of ATVs registered by respondents in Maine from July 1, 2003 to June 30, 2004.

Figure 8
Number of ATVs



The proportion of respondents registering more than one ATV in Maine increases as combined household income increases. One-third of respondents with household incomes less than $50,000 reported registering two or more ATVs in Maine compared to 43.1% of those with reported incomes of $50,000 or more. Similarly, younger respondents were more likely to report registering more than one ATV in Maine than did older respondents (41.6% of those under 55 years compared to 27.2% of those 55 years and older).

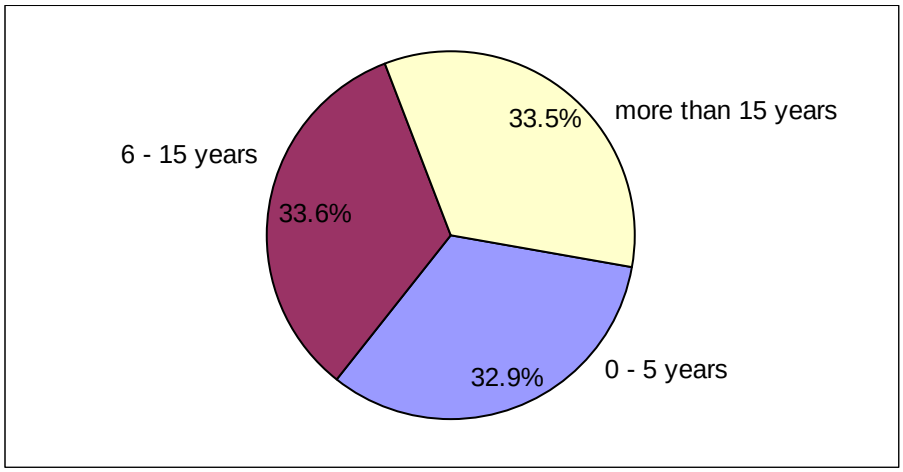
Type of ATV

Respondents were asked how many of the functioning ATVs in their household had 2, 3, 4 and more than 4 wheels. Nearly all respondents (94.5%) reported having at least one 4 wheel ATV in their household. 7% of respondents reported having 2 wheel ATVs (e.g., dirt bike), 5.4% reported having 3 wheel ATVs and less than one percent reported having ATVs with more than 4 wheels (utility machines such as the "Argo" or "Ranger").

Years Riding

Survey respondents reported having ridden ATVs from less than one year to 47 years. The average numbers of years riding ATVs for respondents was 12.4 years. Figure 9 presents the number of years respondents reported riding ATVs.

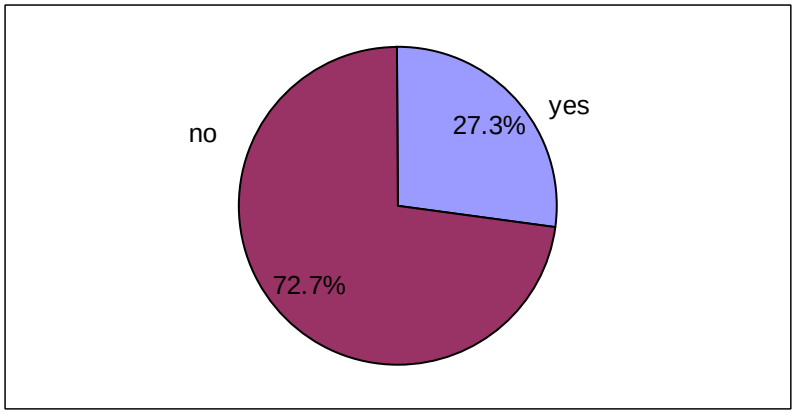
Figure 9
Years Riding ATVs



Ever Taken an ATV Course

As shown in Figure 10, just over one-quarter of respondents reported that they have ever taken an ATV safety course.

Figure 10
Ever Taken an ATV Course

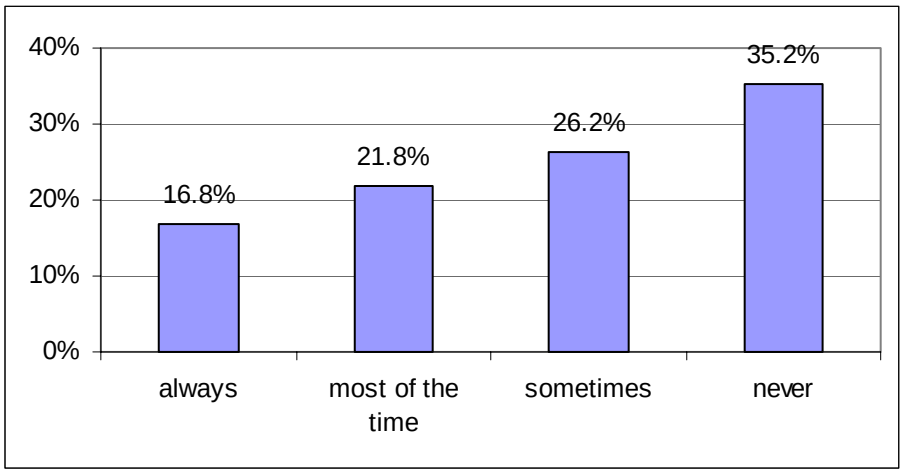


More out-of-state respondents (38.9%) reported having taken an ATV safety course than those from Maine (24.2%). Slightly more than one-third of respondents who rode more than 500 miles in the 2003-2004 season have taken an ATV safety course compared to 26.5% of those who rode fewer than 500 miles. More respondents with some college or a two-year college degree (32.2%) reported having taken an ATV safety course than respondents with a high school degree or less or those with four or more years of college (25.4% and 22.5% respectively).

Wear a Helmet

As shown in Figure 11, over one-third of respondents reported they never wear a helmet when riding an ATV and just over one-sixth reported always wearing a helmet.

Figure 11
How Often Wear a Helmet

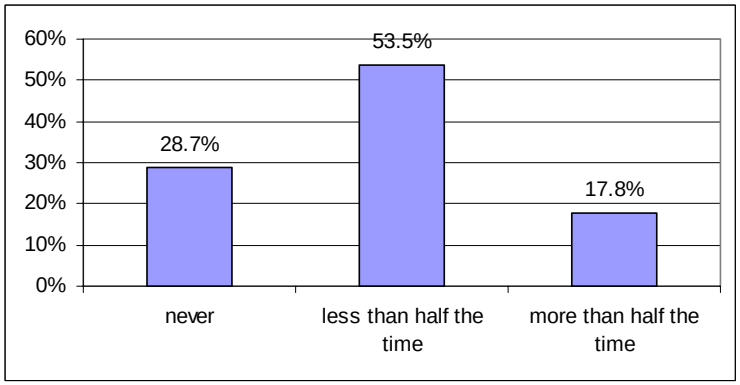


More out-of-state respondents (52.6%) report wearing a helmet at least most of the time compared to those from Maine (37.7%). Similarly, 43.4% of respondents under the age of 55 years report wearing a helmet at least most of the time compared to 27.3% of those 55 years or older.

Ride Double

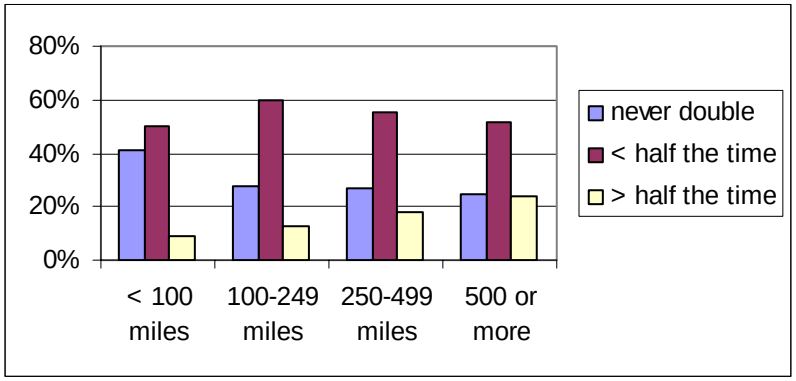
Over one-quarter of respondents reported that they never ride double. Figure 12 displays how often respondents report riding double.

Figure 12
How Often Ride Double



More out-of-state respondents (49.8%) report never riding double than those from Maine (27.3%). As Shown in Figure 13, those who ride more miles ride double more often. (Miles ridden determined from survey question 15).

Figure 13
Ride Double by Miles Ridden



Club Membership

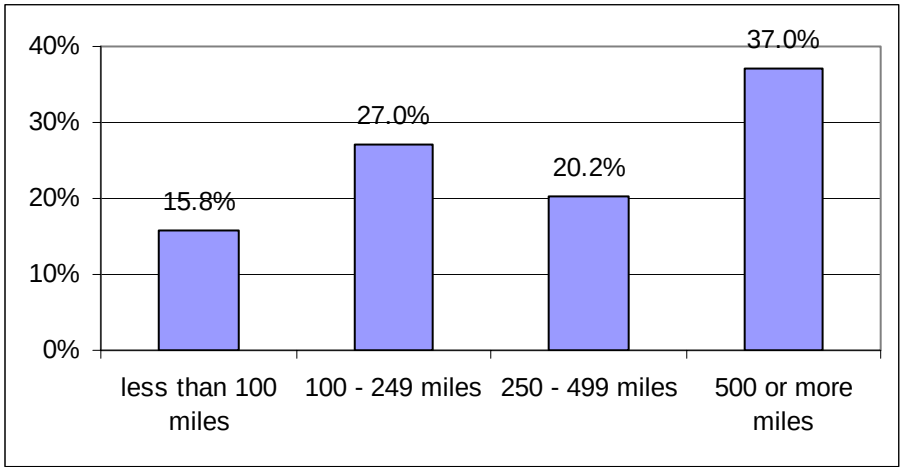
Figure 14 displays the proportion of survey respondents who ever have been a member of an ATV club and those who have ever been a member of "ATV Maine" as well as the proportion who were an ATV club member and a member of "ATV Maine" from July 1, 2003 to June 30, 2004.

Figure 14
Club Membership

Miles Ridden in Maine

Overall, respondents rode their ATVs in Maine an average of 520 miles during the 2003-2004 season. Figure 15 presents the number of miles ridden by survey respondents.

Figure 15
Miles Ridden



Maine respondents rode their ATVs more miles in Maine (average 527 miles) than did out-of-state respondents (average 421 miles). Respondents who rode 500 or more miles were more likely to have ever been a member of an ATV club than those who rode fewer than 500 miles (30.5% and 16.3% respectively). Similarly, respondents who rode 500 or more miles were more likely to have ever taken an ATV course than those who rode fewer than 500 miles (34.5% and 24.2% respectively).

Where to Ride

The questionnaire presented a map of the state of Maine divided into eight regions and asked respondents to indicate the percentage of their total riding in Maine for each region. Figure 16 presents the average proportion of all ATV riding in Maine during the 2003-2004 season for each region. As shown in Figure 16, the highest proportion of all ATV riding is in the Maine Highlands region.

Table 5 presents the proportion of all respondents who reported any riding in each of the regions during the 2003-2004 season and their average miles of riding. As shown in Table 5, more respondents reported riding in Region 2 (the Maine Highlands) than in any other region. However, the average number of miles ridden was highest for those who rode in Region 1 (Aroostook County) and Region 5 (Downeast and Acadia).

Figure 16
Percent of All Riding by Region

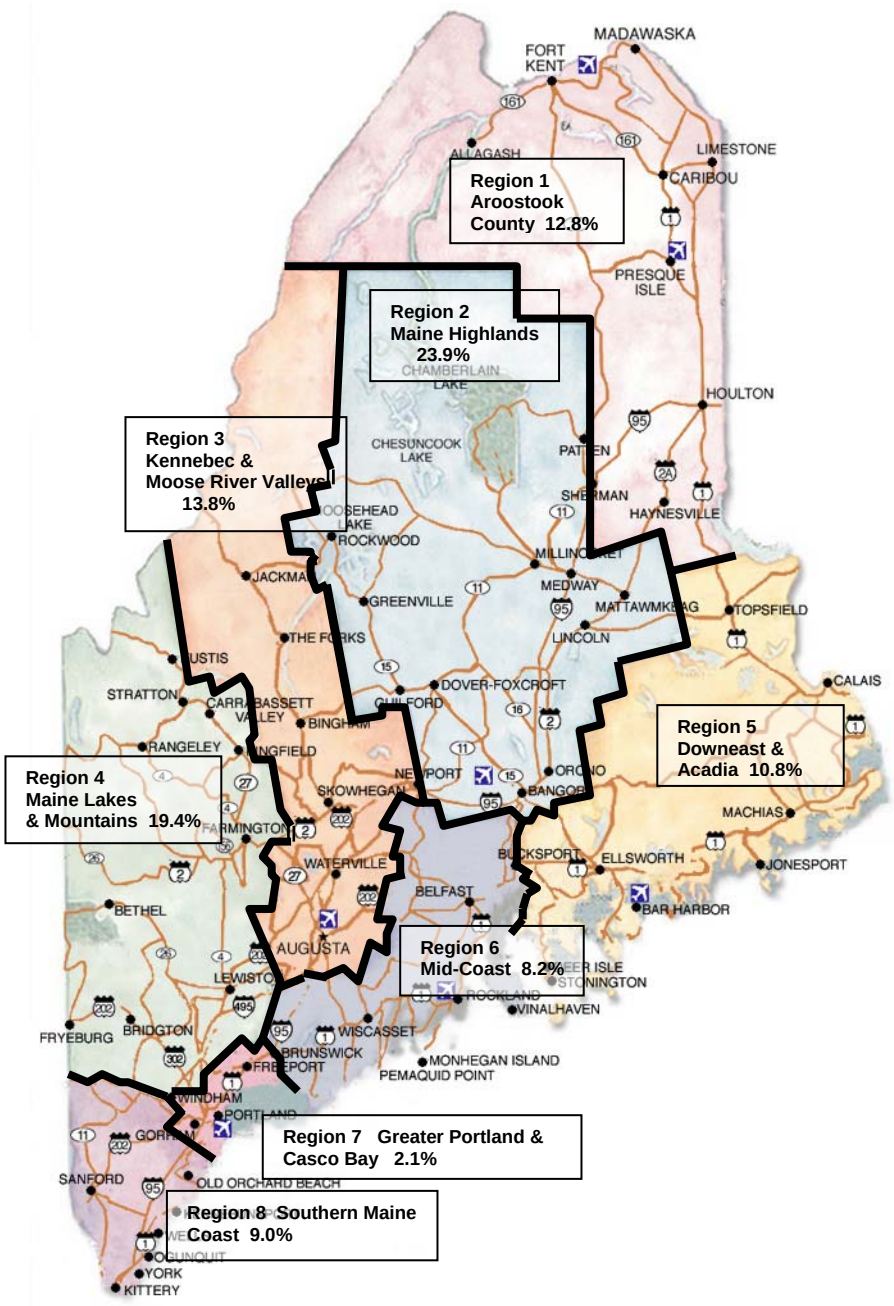


Table 5
Respondents Who Ride in Regions

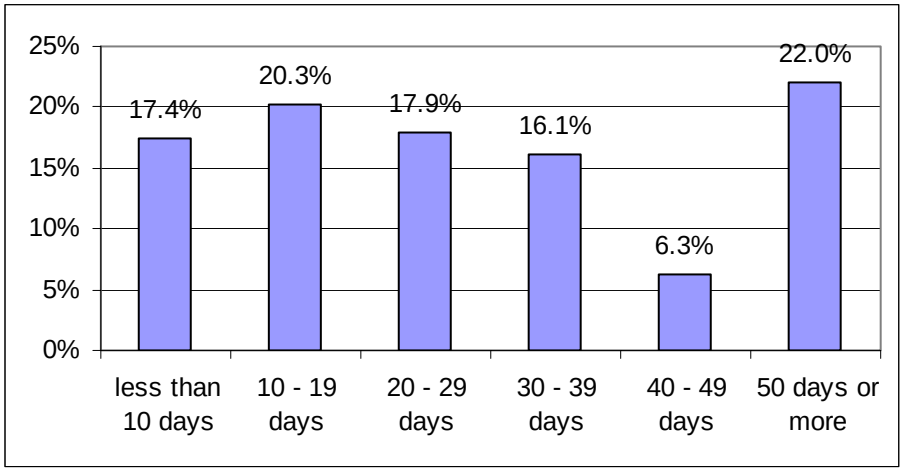
Region	Percent of All Respondents Who Rode in Region*	Average Miles Ridden for Those Who Rode in Region
1 – Aroostook County	17.7%	596
2 – Maine Highlands	35.1%	334
3 – Kennebec & Moose River Valley	22.6%	302
4 – Maine Lakes and Mountains	27.8%	291
5 – Downeast & Acadia	15.0%	419
6 – Mid-Coast	13.5%	312
7 – Greater Portland & Casco Bay	4.1%	146
8 – Southern Maine Coast	12.1%	359

* Column does not sum to 100% because respondents rode in more than one region.

Days Ridden

Respondents were asked approximately how many days they rode ATVs in Maine during the 2003-2004 season. Figure 17 presents the number of days ridden in Maine by respondents.

Figure 17
Days Ridden

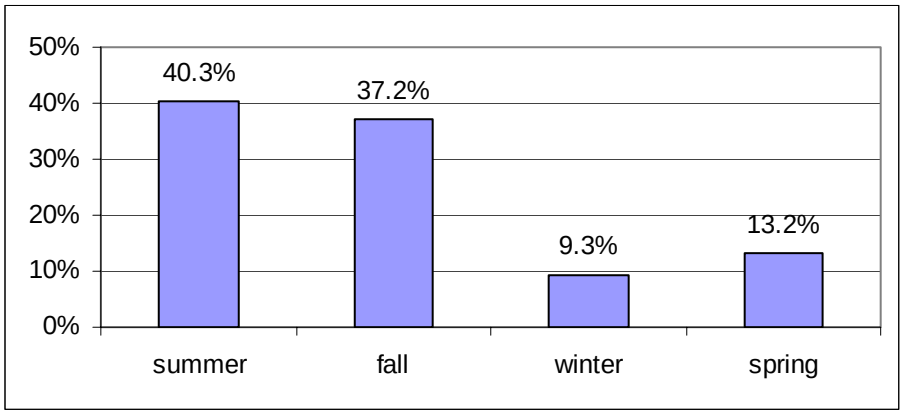


Season

More than three-quarters of the ATV riding by respondents was done during the summer and fall seasons. Figure 18 displays the average percent of all ATV riding by season as reported by survey respondents. More than one-half (53.6%) of those responding indicated that they did not ride during the winter, 36.1% did not ride during the spring, 8.8% did not ride during the summer, and 4.4% did not ride during the fall. Slightly less than one-half (49.5%) of out-of-state respondents rode only in the summer and fall compared to 24.8% of Maine respondents.

Overall, respondents reported that two-thirds of their ATV riding was done during weekends and one-third during weekdays. Maine respondents rode more on weekends (68.3% of all riding) than did out-of-state respondents (57.3% of all riding).

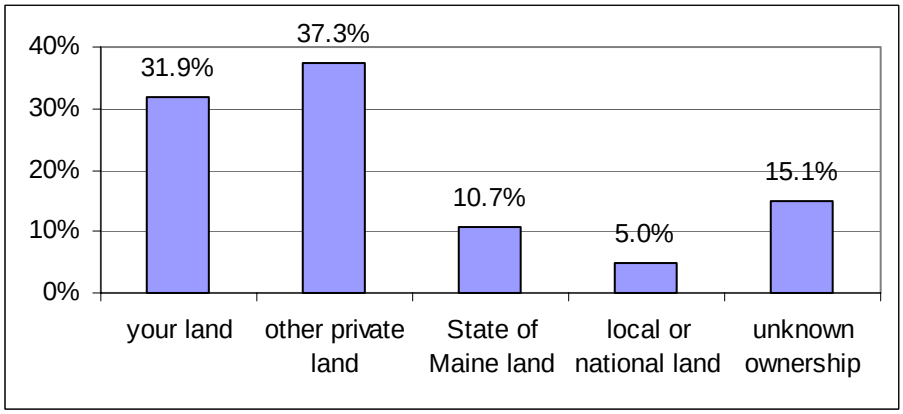
Figure 18
Season Ridden



Land

The questionnaire asked respondents what percent of their ATV riding is done on each of five types of land. Figure 19 presents the average percent of all ATV riding reported by respondents on each type of land.

Figure 19
Percent of Riding on Type of Land



Respondents who reported riding fewer than 250 miles from July 1, 2003 to June 30, 2004 rode more on their own land than did respondents riding 250 miles or more. Table 6 displays the average percent of all riding on each type of land by the number of miles they rode during the 2003 – 2004 season.

Table 7 displays the percent of respondents who reported at least some riding on each type of land presented in the questionnaire. Over three-quarters of those responding reported that they rode on private land owned by others. While only 10.9% of all riding was done on land owned by the state of Maine, 38.9% of respondents did at least some of their riding on State of Maine land.

Table 6
Riding on Land Types by Number of Miles Ridden

Miles Ridden	Percent ride on your land	Percent ride on other private land	Percent ride on State of ME land	Percent ride on local or national land	Percent ride on unknown ownership
less than 100 miles	45.3%	33.2%	4.8%	4.2%	12.7%
100 – 249 miles	42.1%	33.5%	7.5%	4.3%	12.7%
250 – 499 miles	24.8%	39.8%	13.7%	5.2%	16.4%
500 or more miles	20.7%	42.8%	13.8%	5.7%	17.1%

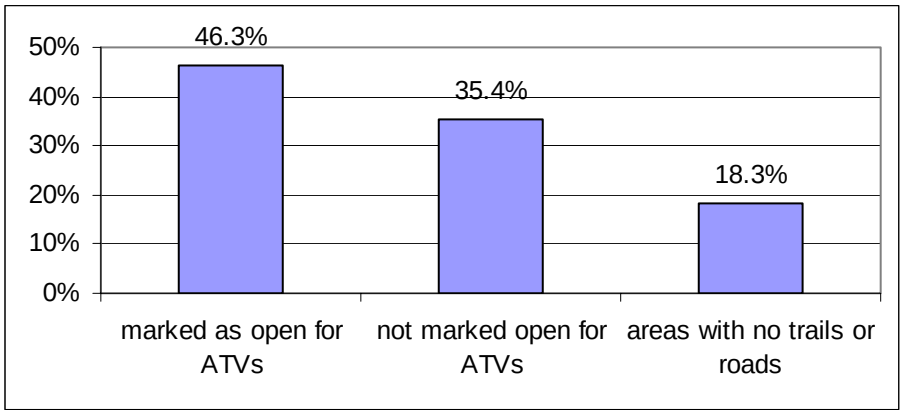
Table 7
At Least Some Riding by Land Types

	Ride on your land	Ride on other private land	Ride on State of Maine land	Ride on local or national land	Ride on unknown ownership
Percent of Respondents	72.5%	78.4%	38.9%	20.6%	49.3%

Trails

The questionnaire also asked respondents what percent of their riding was done on each of three types of trails. Figure 20 presents the proportion of all reported ATV riding during the 2003-2004 ATV season done on each type of trail.

Figure 20
Percent of Riding on Trail Type



As shown in Table 8, respondents who rode fewer than 100 miles during the 2003 – 2004 season rode more on areas with no trails or roads than those who rode 100 or more miles.

As shown in Table 9, over half of all respondents reported that they rode at least some on all three types of trails. While 18.6% of all ATV riding was done on areas with no trails or roads, just over

half of all respondents rode at least some in those areas. Respondents who rode 50% or more on their own land rode more on areas with no trails or roads (29.5% of all riding) than did respondents who rode less than 50% on their own land (13.9% of all riding).

Table 8
Riding on Trail Type by Number of Miles Ridden

Miles Ridden	Percent ride on trails or roads marked as open for ATVs	Percent ride on trails or roads not marked as open for ATVs	Percent ride on areas with no trails or roads
less than 100 miles (n=105)	32.4%	34.4%	33.2%
100 – 249 miles (n=178)	41.0%	39.9%	19.1%
250 – 499 miles (n=128)	50.5%	32.5%	17.0%
500 or more miles (n=232)	52.1%	34.1%	13.8%

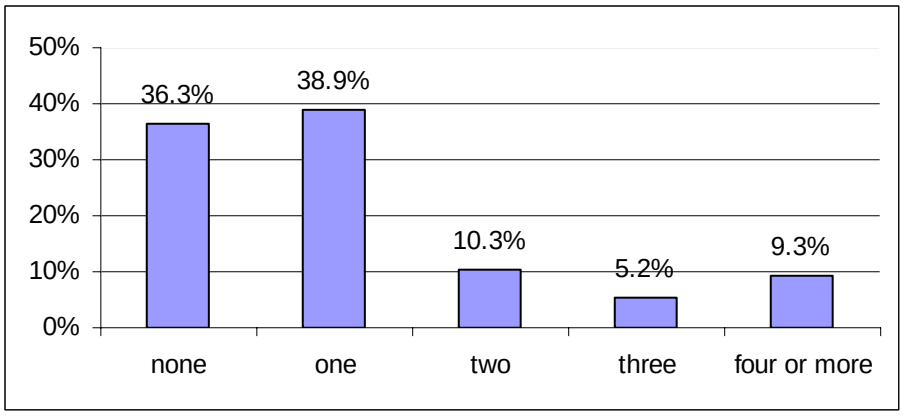
Table 9
At Least Some Riding on Trail Types

	Ride on trails or roads marked as open for ATVs	Ride on trails or roads not marked as open for ATVs	Ride on areas with no trails or roads
Percent of Respondents	76.2%	71.7%	55.8%

Overnight Trips

Nearly two-thirds of all respondents reported that they took at least one overnight trip where they did not return to their home or camp during the 2003 – 2004 season. Figure 21 presents the percent of all respondents who reported taking overnight trips.

Figure 21
Overnight Trips



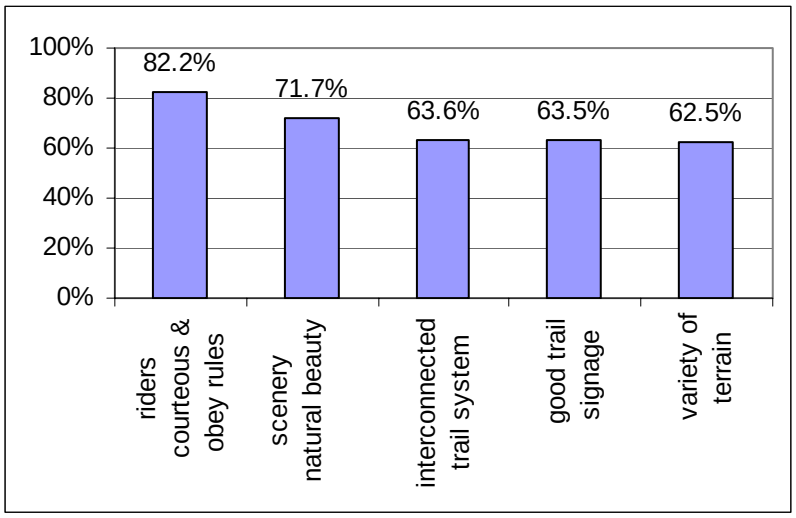
More out-of-state respondents (70.2%) than Maine respondents (63.3%) reported taking at least one overnight trip. In addition, 14.3% of out-of-state respondents reported taking more than five overnight trips compared to 4.1% of those from Maine. As shown in Table 10, respondents who ride more miles took more overnight trips during the 2003 – 2004 season.

Table 10
Overnight Trips by Number of Miles Ridden

Miles Ridden	No Overnight Trips	One or More Overnight Trips
less than 100 miles (n=96)	63.4%	36.6%
100 – 249 miles (n=146)	44.2%	55.8%
250 – 499 miles (n=115)	28.1%	71.9%
500 or more miles (n=198)	23.8%	76.2%

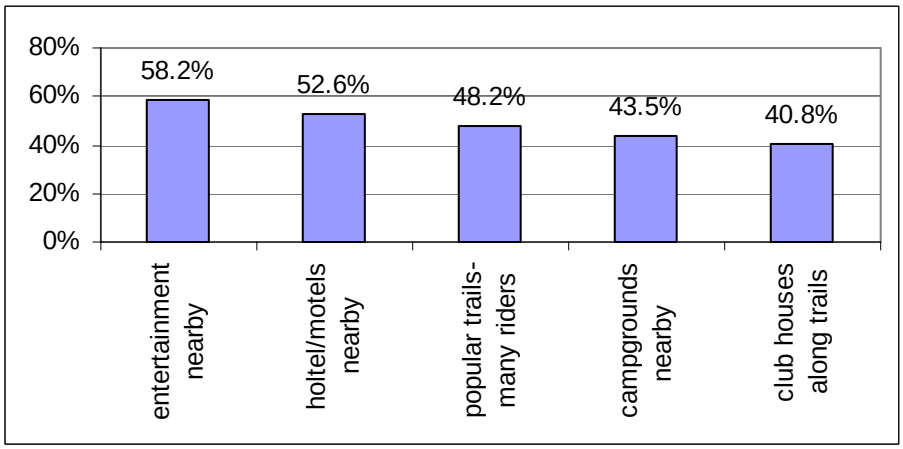
The questionnaire presented respondents a list of 22 factors that might be considered in deciding where to ride and asked respondents how important each factor was in their ATV riding decisions. Overall, the factor identified as either very important or somewhat important by most respondents (82.2%) was "other riders are courteous and obey the rules." Over half (55.5%) rated this factor as being very important in deciding where to ride their ATV in Maine. Figure 22 presents respondents' five most important factors in deciding where to ride their ATVs (percentage of respondents rating the factor either very important or somewhat important).

Figure 22
Most Important Factors in Deciding Where to Ride



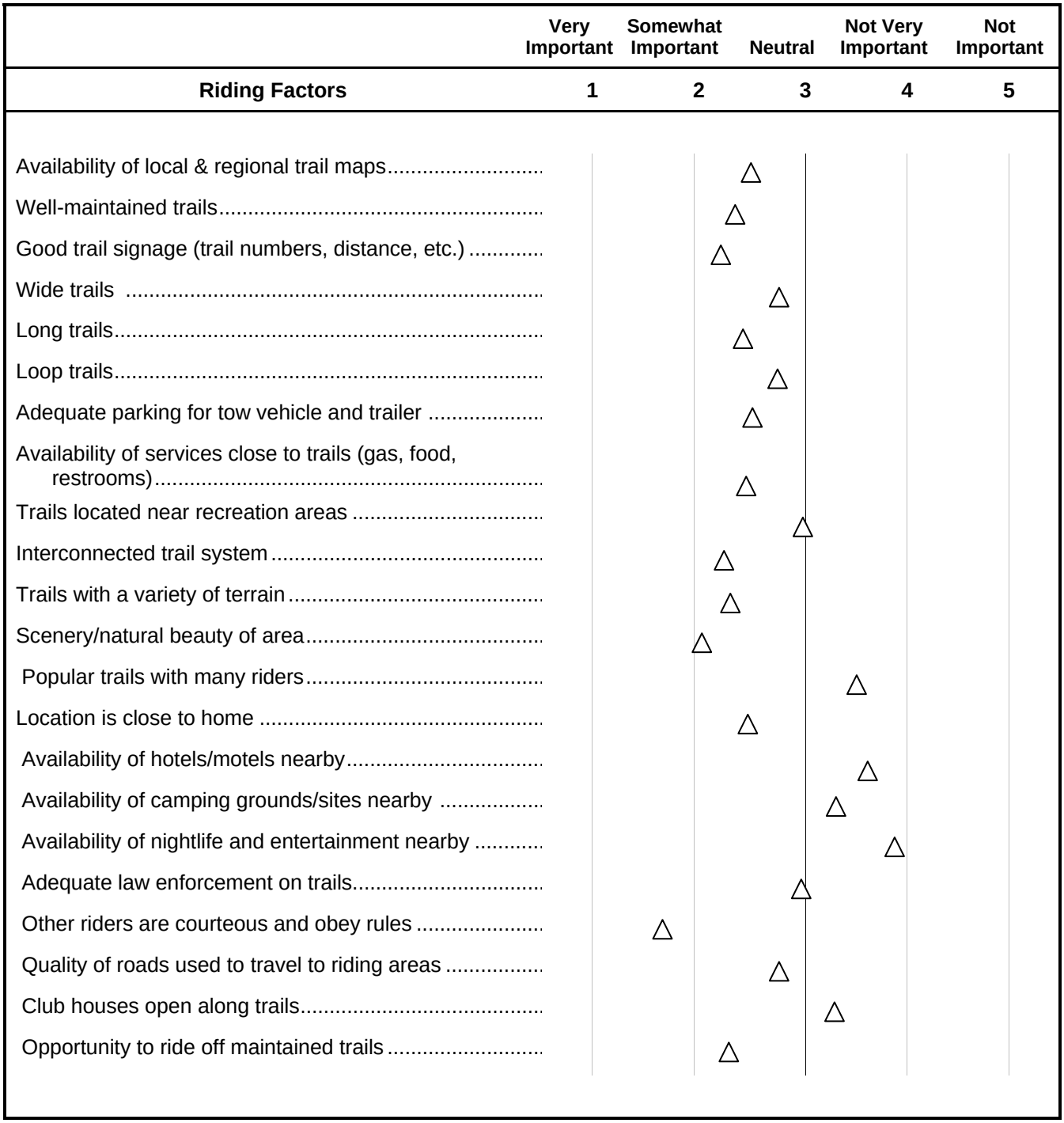
Among the factors presented in the questionnaire "availability of nightlife and entertainment nearby" was rated as least important. Figure 23 presents respondents' five least important factors in deciding where to ride their ATVs (percentage of respondents rating the factor either not very important or not important).

Figure 23
Least Important Factors in Deciding Where to Ride



The results suggest that most riders prefer some degree of solitude and prefer locations that offer an opportunity to enjoy the natural beauty of the outdoors. The most important factor is that other riders are courteous and obey the rules, and the second most important factor is the scenery and natural beauty of an area. While most other factors score an average rating somewhere between "neutral" and "somewhat important," the factors that score as less important have to do with the presence of other people or built facilities. The complete list factors included in the survey and their average scores is presented in Table 11.

Table 11
Factors in Deciding Where to Ride



When reviewing ratings of these factors across types of respondents, the greatest variation in ratings was found by how many miles respondents ride. Nearly every factor presented on the questionnaire was rated "very important" more often by respondents who rode 500 or more miles than those who rode fewer than 500 miles. Table 12 presents the percent of respondents who ride 500 miles or more and those who ride fewer than 500 miles who rated the five most important factors listed above as "very important."

Table 12
Most Important Factors by Number of Miles Ridden

Factor	Ride ATVs 500 miles or more	Ride ATVs fewer than 500 miles
Other riders are courteous and obey rules	58.4%	54.0%
Scenery/natural beauty of area	44.0%	30.8%
Trails with a variety of terrain	38.5%	22.4%
Interconnected trail system	41.4%	27.0%
Good trail signage	42.1%	36.7%

Riding in Maine

The questionnaire provided a series of five statements regarding the status of ATV riding in Maine and asked respondents to indicate the extent to which they agreed or disagreed with those statements. Their responses are presented in Table 13.

Table 13
Status of ATV Riding in Maine

	strongly agree	agree	neutral	disagree	strongly disagree	don't know
Overall, trails are well marked	7.8%	27.7%	27.2%	18.7%	4.4%	14.2%
Trail conditions have improved in recent years	9.3%	36.8%	24.5%	9.7%	3.3%	16.3%
There are an adequate number of trails for riding ATVs	6.8%	13.4%	15.2%	31.2%	20.7%	12.7%
I am satisfied with the level of law enforcement on Maine trails	9.4%	29.5%	32.6%	11.6%	5.3%	11.5%
I have observed more damage to land and trails caused by ATVs this year than compared to last year	3.0%	9.7%	26.5%	25.9%	17.5%	17.5%

Generally, respondents are more likely to agree that trails are mostly well-marked, that trail conditions have improved in recent years, and that they are satisfied with the current level of law enforcement on the trails. More respondents disagreed than agreed with the statements that there are an adequate number of trails for riding ATVs, and that they observed more damage to ATV trails this year compared to the year before.

Few differences in opinion to these statements were found across different types of respondents. More than one-half (53.4%) of those who rode 500 or more miles agreed or strongly agreed that trail conditions have improved in recent years compared to 41.4% of those who rode fewer than 500 miles. Similarly, 58.7% of those who rode 500 or more miles disagreed or strongly disagreed that they have observed more ATV damage this year compared to 34.1% of those who rode fewer than 500 miles.

The questionnaire asked respondents a variety of questions regarding ATV-related spending they made in Maine from July 1, 2003 to June 30, 2004. In these questions, respondents were instructed to report only expenditures that were made in Maine and only expenditures by people in their household. The survey included several categories of expenditures relating to the ownership and usage of ATVs in Maine. The categories included: the purchase of ATVs, trailers and tow vehicles; ATV-related expenditures for parts and accessories, gas and oil, servicing, storage and insurance; rider-related expenditures for clothing, helmets, goggles, two-way radios and other accessories used by the riders; and, trip-related expenditures such as gas for the tow vehicle, restaurant and other food/beverages consumed on ATV trips, overnight accommodations, and souvenirs. Any purchase of a tow vehicle was pro-rated based on the miles the vehicle was driven to transport ATVs in order to include only that part of the total expenditure that was related directly to ATV usage.

On average, Maine residents spent more on ATVs and other items and activities related to ATVs than did respondents from out-of-state. In almost all categories of expenditures presented in the questionnaire, more was spent by: respondents with more than one ATV; respondents who made one or more overnight trips with their ATV; respondents who rode more miles; younger respondents; respondents with higher levels of education; and respondents with larger household incomes.

ATV Purchases

Table 14 presents the average household amount spent annually across all ATV households to buy an ATV. The average household amount spent across all households was $2,309.74 ($2,364.87 across all Maine households and $1,458.17 across all out-of-state households).

Table 14
ATV Expenditures
Across All Households

ATV Purchase	Average Expenditure Across All ATV Households
New ATVs from a dealer	$1,880.67
Used ATVs from a dealer	$181.47
Used ATVs form private party	$247.61

However, not all ATV households purchased ATVs. Table 15 presents the average amount spent annually to purchase ATVs in households that reported buying an ATV. During the 2003-2004 season, 35.6% of households with registered ATVs reported buying either a new or used ATV. Of the households that purchased an ATV during the 2003-2004 season, 71.5% purchased a new ATV from a dealer, 14.2% purchased a used ATV from a dealer, and 23.9% purchased a used ATV from a private party. Maine households spent an average of $6,177.62 (n=196) and out-of-state households spent an average of $7,290.85 (n=40).

Table 16 presents the average amount spent annually in Maine on ATV purchases by respondents' households from July 1, 2003 to June 30, 2004 by different categories of respondents.

Table 15
ATV Expenditures
of Those Who Spent Something

ATV Purchase	Average Expenditure for Households That Spent Something
New ATVs from a dealer	$7,080.07
Used ATVs from a dealer	$3,431.60
Used ATVs form private party	$2,783.57

Table 16
ATV Expenditures
by Respondent Category (all households)

Respondent Category	Average Expenditure Across All ATV Households
In State – Out-of-State	
Maine	$2,365
Out-of-State	$1,458
Number of Registered ATVs	
One ATV	$1,308
More than one ATV	$4,018
Overnight Trips	
No Overnight Trips	$1,454
One or More Overnight Trips	$2,901
Miles Ride ATV	
Less than 100 Miles	$1,157
100 – 249 Miles	$1,421
250 – 499 Miles	$2,602
500 or more Miles	$3,332
Age	
Less than 40 years	$2,841
40 – 54 Years	$2,479
55 Years and Above	$1,583
Education	
High School or Less	$2,324
Some College/2 Year Degree	$2,341
4 Year Degree or More	$2,323
Household Income	
Less Than $25,000	$1,620
$25,000 - $49,999	$2,341
$50,000 - $74,999	$2,521
$75,000 – and Above	$2,764

ATV Trailer Purchases

Table 17 presents the average household amount spent annually across all ATV households on trailers for transporting their ATVs. The average household amount spent across all ATV households on trailer purchases was $222.08 ($222.47 across all Maine households and $216.12 across all out-of-state households).

Table 17
ATV Trailer Expenditures
Across All Households

ATV Trailer Purchase	Average Expenditure Across All ATV Households
New ATV trailers from a dealer	$154.04
Used ATV trailers from a dealer	$14.41
Used ATV trailers form private party	$53.63

However, not all ATV households purchased trailers for transporting their ATVs. Table 18 presents the average amount spent annually to purchase ATV trailers in households that reported buying a trailer to transport their ATVs. During the 2003-2004 season, 17.7% of households with registered ATVs reported buying either a new or used trailer. Of the households that purchased an ATV trailer during the 2003-2004 season, 53.6% purchased a new trailer from a dealer, 7.1% purchased a used trailer from a dealer, and 40.6% purchased a used trailer from a private party. Maine households spent an average of $1,155.92 (n=97) and out-of-state households spent an average of $1,773.96 (n=24).

Table 18
ATV Trailer Expenditures
of Those Who Spent Something

ATV Trailer Purchase	Average Expenditure for Households That Spent Something
New ATV trailers from a dealer	$1,526.68
Used ATV trailers from a dealer	$1,079.11
Used ATV trailers form private party	$702.03

Table 19 presents the average amount spent annually in Maine on ATV trailer purchases by respondents' households from July 1, 2003 to June 30, 2004 by different categories of respondents.

Table 19
ATV Trailer Expenditures
by Respondent Category (all households)

Respondent Category	Average Expenditure Across All ATV Households
In State – Out-of-State	
Maine	$222
Out-of-State	$216
Number of Registered ATVs	
One ATV	$119
More than one ATV	$402
Overnight Trips	
No Overnight Trips	$75
One or More Overnight Trips	$305
Miles Ride ATV	
Less than 100 Miles	$81
100 – 249 Miles	$199
250 – 499 Miles	$210
500 or more Miles	$329
Age	
Less than 40 years	$251
40 – 54 Years	$252
55 Years and Above	$157
Education	
High School or Less	$155
Some College/2 Year Degree	$291
4 Year Degree or More	$287
Household Income	
Less Than $25,000	$66
$25,000 - $49,999	$229
$50,000 - $74,999	$152
$75,000 – and Above	$327

Purchases of Cars or Trucks to Tow ATVs

Table 20 presents the average household amount spent annually across all ATV households on cars or trucks primarily to tow ATVs. The average household amount spent across all ATV households on cars and trucks primarily to tow ATVs was $2,452.05 ($2,488.76 across all Maine households and $1,880.67 across all out-of-state households).

Table 20
Expenditures for Cars or Trucks to Tow ATVs
Across All Households

Car or Truck Purchase	Average Expenditure Across All ATV Households
New cars/trucks from a dealer	$1,512.78
Used cars/trucks from a dealer	$771.23
Used cars/trucks from private party	$167.31

Of the households that purchased a vehicle during the 2003-2004 season, 40.9% purchased a new vehicle from a dealer, 38.1% purchased a used vehicle from a dealer, and 23.8% purchased a used vehicle from a private party primarily to tow their ATV. Maine respondents who reported spending something on cars or trucks primarily to tow ATVs spent an average of $17,492.43 (n=70) and out-of-state respondents spent an average of $28,207.69 (n=13).

Table 21
Expenditures for Cars or Trucks to Tow ATVs
of Those Who Spent Something

Car or Truck Purchase	Average Expenditure for Households That Spent Something
New cars/trucks from a dealer	$2,6895
Used cars/trucks from a dealer	$14,706
Used cars/trucks from private party	$5,109

Table 22 presents the average amount spent annually in respondents' households on cars or trucks primarily to tow ATVs from July 1, 2003 to June 30, 2004 by different categories of respondents.

Table 22
Expenditures for Cars or Trucks to Tow ATVs
by Respondent Category (all households)

Respondent Category	Average Expenditure Across All ATV Households
In State – Out-of-State	
Maine	$2,489
Out-of-State	$1,881
Number of Registered ATVs	
One ATV	$2,095
More than one ATV	$3,126
Overnight Trips	
No Overnight Trips	$581
One or More Overnight Trips	$4,050
Miles Ride ATV	
Less than 100 Miles	$438
100 – 249 Miles	$912
250 – 499 Miles	$2,170
500 or more Miles	$4,701
Age	
Less than 40 years	$4,276
40 – 54 Years	$1,745
55 Years and Above	$1,602
Education	
High School or Less	$2,303
Some College/2 Year Degree	$2,561
4 Year Degree or More	$2,944
Household Income	
Less Than $25,000	$907
$25,000 - $49,999	$2,164
$50,000 - $74,999	$2,952
$75,000 – and Above	$3,456

ATV-Related Expenditures

Table 23 presents the average household amount spent annually across all ATV households on goods and services associated with owning and operating ATVs. The average household ATV-related expenditure across all ATV households was $578.07 for all respondents ($589.19 across all Maine households and $432.80 across all out-of-state households).

Table 23
ATV-Related Expenditures
Across All Households

ATV-Related Expense	Average Expenditure Across All ATV Households
ATV parts and accessories (tires, mufflers, winches, plow)	$221.08
Gasoline and oil for ATVs	$146.81
ATV service and repair	$117.85
ATV storage	$4.29
ATV insurance	$67.58
Other	$19.86

However, not all ATV households spent money on all of these ATV-related items. Table 24 presents the average amount spent annually by households that reported spending something on those ATV-related items. Maine households reported spending an average of $605.44 (n=499) and out-of-state households reported spending an average of $447.25 (n=199).

Table 24
ATV-Related Expenditures
of Those Who Spent Something

ATV Related Expense	Average Expenditure for Households That Spent Something
ATV parts and accessories (tires, mufflers, winches, plow)	$413.75
Gasoline and oil for ATVs	$153.97
ATV service and repair	$241.24
ATV storage	$288.80
ATV insurance	$193.14
Other	$298.21

Table 25 presents the average amount spent in Maine on ATV-related expenses by all respondents' households from July 1, 2003 to June 30, 2004 for different categories of respondents.

Table 25
ATV-Related Expenditures
by Respondent Category (all households)

Respondent Category	Average Expenditure Across All ATV Households
In State – Out-of-State	
Maine	$589
Out-of-State	$433
Number of Registered ATVs	
One ATV	$394
More than one ATV	$890
Overnight Trips	
No Overnight Trips	$434
One or More Overnight Trips	$684
Miles Ride ATV	
Less than 100 Miles	$153
100 – 249 Miles	$375
250 – 499 Miles	$641
500 or more Miles	$896
Age	
Less than 40 years	$731
40 – 54 Years	$626
55 Years and Above	$370
Education	
High School or Less	$482
Some College/2 Year Degree	$680
4 Year Degree or More	$648
Household Income	
Less Than $25,000	$389
$25,000 - $49,999	$459
$50,000 - $74,999	$613
$75,000 – and Above	$864

Rider-Related Expenditures

Table 26 presents the average household amount spent annually across all ATV households on rider-related items such as clothing and accessories. The average household expenditure for these items across all ATV households was $133.53 ($132.76 across all Maine households and $144.53 across all out-of-state households).

Table 26
Rider-Related Expenditures Across All Households

Rider-Related Expense	Average Expenditure Across All ATV Households
ATV Clothing (pants, boots, gloves, etc.)	$51.76
Accessories (helmets, goggles, communications, etc.)	$71.55
Other	$10.16

However, not all ATV households spent money on these ATV rider-related expenses. Table 27 presents the average amount spent annually by households that reported spending something on those ATV rider-related items. Maine households reported spending an average of $255.38 (n=260) and out-of-state households reported spending an average of $272.68 (n=106).

Table 27
Rider-Related Expenditures
of Those Who Spent Something

Rider Related Expense	Average Expenditure for Households That Spent Something
ATV Clothing (pants, boots, gloves, etc.)	$143.90
Accessories (helmets, goggles, communications, etc.)	$158.34
Other	$393.88

Table 28 presents the average amount spent annually in Maine on ATV rider-related expenses by respondents' households from July 1, 2003 to June 30, 2004 by different categories of respondents.

Table 28
Rider-Related Expenditures by Respondent Category (all households)

Respondent Category	Average Expenditure Across All ATV Households
In State – Out-of-State	
Maine	$133
Out-of-State	$145
Number of Registered ATVs	
One ATV	$89
More than one ATV	$208
Overnight Trips	
No Overnight Trips	$78
One or More Overnight Trips	$181
Miles Ride ATV	
Less than 100 Miles	$21
100 – 249 Miles	$63
250 – 499 Miles	$193
500 or more Miles	$204
Age	
Less than 40 years	$164
40 – 54 Years	$165
55 Years and Above	$62
Education	
High School or Less	$110
Some College/2 Year Degree	$153
4 Year Degree or More	$170
Household Income	
Less Than $25,000	$61
$25,000 - $49,999	$94
$50,000 - $74,999	$181
$75,000 – and Above	$204

Trip-Related Expenses

Table 29 presents the average household amount spent annually across all ATV households on goods and services during a trip taken on their ATVs. The average household trip-related expenditure across all ATV households was $329.02 ($300.27 across all Maine households and $760.50 across all out-of-state households).

Table 29
Trip-Related Expenditures
Across All Households

Trip Related Expense	Average Expenditure Across All ATV Households
Gas and oil for towing vehicle	$120.44
Turnpike tolls for towing vehicle	$5.94
Restaurant and lounge expenses	$62.41
Food and drinks bought in stores	$75.85
Overnight accommodations	$40.56
Guides and tour packages	$1.15
Club memberships, dues or donations	$6.60
Souvenirs, gifts, etc.	$9.83
Other	$6.47

However, not all ATV households made ATV trip-related expenditures. Table 30 presents the average annual expenditure in households that reported spending something on these trip-related items. Maine households reported spending an average of $402.22 (n=369) and out-of-state households reported spending an average of $870.42 (n=175).

Table 30
Trip-Related Expenditures
of Those Who Spent Something

Trip-Related Expense	Average Expense All Respondents Who Spent Something
Gas and oil for towing vehicle	$178.06
Turnpike tolls for towing vehicle	$29.88
Restaurant and lounge expenses	$203.89
Food and drinks bought in stores	$188.25
Overnight accommodations	$415.83
Guides and tour packages	$261.23
Club memberships, dues or donations	$38.17
Souvenirs, gifts, etc.	$92.68
Other	$389.53

Table 31 presents the average amount spent in Maine on ATV trip-related expenses by respondents' households from July 1, 2003 to June 30, 2004 by different categories of respondents.

Table 31
Trip-Related Expenditures
by Respondent Category (all respondents)

	Average Expenditure Across All ATV Households
In State – Out-of-State	
Maine	$300
Out-of-State	$760
Number of Registered ATVs	
One ATV	$221
More than one ATV	$514
Overnight Trips	
No Overnight Trips	$172
One or More Overnight Trips	$485
Miles Ride ATV	
Less than 100 Miles	$72
100 – 249 Miles	$181
250 – 499 Miles	$381
500 or more Miles	$535
Age	
Less than 40 years	$431
40 – 54 Years	$356
55 Years and Above	$193
Education	
High School or Less	$289
Some College/2 Year Degree	$365
4 Year Degree or More	$382
Household Income	
Less Than $25,000	$151
$25,000 - $49,999	$207
$50,000 - $74,999	$374
$75,000 – and Above	$536

TOTAL ATV-RELATED SPENDING IN MAINE

The average spending per household reported in the previous section was expanded to reflect total spending by all in-state (resident) and out-of-state (nonresident) households with ATVs registered in Maine. Including purchases from private parties, gross expenditures on ATVs and other goods and services in Maine directly related to ATVs is $181.6 million (Table 32). Because transactions between private parties produce no net change in the Maine economy, that spending is subtracted from the total. In addition, survey respondents reported their purchases for new ATVs, trailers and tow vehicles not including the value of trade-ins. Therefore, spending at retail dealerships is adjusted to reflect the value of used items traded in toward the purchase of new ones.[1]

These adjustments result in net ATV-related spending in Maine of $156.0 million. Over 94 percent ($146.8 million) of that total comes from spending by Maine residents and less than 6 percent ($9.2 million) of the total is contributed by visitors to this state.

Table 32
Gross and Adjusted Net Annual Spending in Maine
for ATVs and Related Goods and Services

	Resident	NonResident	All Riders
Gross Expenditures	**$171,567,797**	**$10,076,237**	**$181,644,034**
private party ATV transactions	-10,866,910	-408,213	-11,275,123
private party trailer transactions	-2,378,258	-63,111	-2,441,369
private party tow vehicle transactions	-3,092,804	-101,502	-3,194,307
adjustment for trade-in values	-8,399,723	-294,101	-8,693,824
Net Spending	**$146,830,101**	**$9,209,311**	**$156,039,412**

The detailed net spending by residents and non-residents is shown in Table 33. The largest portion is associated with purchasing, maintaining and transporting ATVs ($135.0 million). The remainder is spent on clothing, equipment and accessories for ATV riders ($6.1 million), and trip-related spending for gasoline, food, accommodations and other items ($15.0 million)

Spending on ATVs and the trailers and vehicles used to transport ATVs totals $106.4 million, including purchases of both new and used items from dealers. Approximately 86 percent of that spending involves the purchase of new ATVs, trailers and tow vehicles from retail dealers, while 14 percent includes the purchase of used ATVs, trailers and tow vehicles from retail dealers. Maine residents annually spend $84.7 million to buy new and used ATVs, which is approximately 58 percent of total ATV-related expenditures by Maine residents. For nonresidents, purchases of new and used ATVs in Maine ($3.6 million) make up 39 percent of their total ATV-related spending in Maine.

[1] Trade-in values of used ATVs and vehicles are estimated as a percentage of retail prices paid by survey respondents based on information contained in Kelley Blue Book online (www.kbb.com). Trade-in values of used ATV trailers are based on retail margins for sporting goods stores in the IMPLAN Pro© input-output model for Maine.

Table 33
Detailed ATV-Related Expenditures in Maine by Residents and Non-Residents

	Resident	NonResident	All Riders
ATV Expenditures	**$84,715,333**	**$3,576,168**	**$88,291,501**
New from dealer*	76,652,332	3,377,711	80,030,044
Used from dealer	8,063,001	198,456	8,261,457
ATV Trailer Expenditures	**$6,727,939**	**$540,294**	**$7,268,233**
New from dealer*	6,083,480	528,825	6,612,305
Used from dealer	644,459	11,470	655,928
Allocated Tow Vehicle Expenditures	**$9,822,709**	**$1,063,638**	**$10,886,346**
New from dealer*	4,624,302	749,554	5,373,856
Used from dealer	5,198,407	314,084	5,512,491
ATV-related Expenditures	**$27,057,723**	**$1,472,417**	**$28,530,139**
Parts and accessories	9,648,507	462,085	10,110,592
Gasoline	6,426,212	300,665	6,726,877
Service and repair	5,165,928	204,982	5,370,910
Storage	172,653	22,967	195,621
Insurance	2,966,306	124,893	3,091,199
Registration	1,878,099	249,785	2,127,884
Other	800,018	107,039	907,057
Rider-related Expenditures	**$5,673,631**	**$408,269**	**$6,081,900**
Clothing	2,174,408	183,682	2,358,089
Accessories	3,042,803	217,271	3,260,074
Other	456,420	7,317	463,737
Trip-related Expenditures	**$12,832,766**	**$2,148,526**	**$14,981,292**
Gasoline	4,936,863	550,197	5,487,060
Turnpike tolls	184,620	85,541	270,161
Restaurants	2,423,131	416,320	2,839,451
Groceries	3,010,751	441,124	3,451,875
Overnight accommodations	1,421,827	418,750	1,840,576
Guides and tours	38,035	14,182	52,217
Club memberships, dues	284,622	16,498	301,120
Souvenirs	326,503	118,989	445,492
Other	206,415	86,925	293,340
Total Net Spending	**$146,830,101**	**$9,209,311**	**$156,039,412**

*Dollar amounts reflect adjustment for trade-in value of used items.

Spending associated with transporting ATVs includes purchases of trailers designed and used primarily for ATV transport, and purchases of vehicles with which to tow or transport the ATVs. A total of $7.3 million is spent on new and used ATV trailers. Some studies of the economic impact of recreational vehicles such as snowmobiles and ATVs choose to omit spending on tow vehicles. Generally, that decision is based on the rationale that transporting a recreational vehicle may factor into the decision to purchase a tow vehicle, but it is seldom the sole or primary use of the vehicle. In this study, we asked respondents about the usage patterns of vehicles that they purchase and use primarily to tow their ATVs. Based on the reported total miles that the vehicle is driven each year

and the miles that it is driven to transport an ATV, we allocate a portion of the purchase price of a vehicle to overall ATV-related spending. This approach suggests that $10.9 million of the total $87.2 million (12.5 percent) spent on new and used tow vehicles can be attributed to transporting ATVs. For residents and nonresidents, this represents 6.7 percent and 11.5 percent of their total ATV-related spending, respectively.

The second largest category of spending includes costs to operate and maintain ATVs, including parts and accessories, gasoline, repair services, insurance, registration and storage. A total of $28.5 million is spent on these items. For resident and nonresidents, this represents 18.4 percent and 16.0 percent of their total ATV spending in Maine, respectively.

Trip-related expenditures include spending on restaurants and food, overnight accommodations, gasoline, turnpike tolls, souvenirs, guided tours and other items. Total spending in this category is nearly $15 million and makes up eight percent of overall ATV spending in Maine. Most of the spending is this category includes gasoline for the tow vehicles, food and lodging. As may be expected, this category makes up a larger proportion of total spending by nonresidents than residents. Trip-related expenses represent 8.7 percent of the total spending by Maine residents and 23.3 percent of total spending by nonresidents.

Rider-related expenditures include spending for clothing, equipment and accessories specifically associated with riding ATVs. These expenditures equal $6.1 million, or 3.9 percent of total ATV-related spending. This category is 3.9 percent of total resident spending and 4.4 percent of total nonresident spending in Maine.

Similar to other studies of recreational vehicle economic impacts, real estate purchases are not included in this study for several reasons. Real estate has many uses, including several forms of outdoor recreation, second homes, vacation spots, eventual retirement destinations, or financial investment. Therefore, it is difficult to assign value to one specific non-consumptive use of real estate such as ATV riding. In addition, the multiple use aspect of real estate creates problems in trying to establish some basis by which to allocate value to any particular use. Finally, a purchase of real estate is not necessary to have a place to ride ATVs, and in most cases a person who buys real estate is likely to do so regardless of whether they own an ATV.

TOTAL ECONOMIC CONTRIBUTION OF ATV-RELATED ACTIVITY IN MAINE

The total economic contribution of ATVs in Maine is based on the spending described above and the multiplier effect of that spending. The multiplier effect can be described as the relationship between some specified change in net spending and the resulting total change throughout the statewide economy. We estimate the multiplier effect of ATV-related spending with an IMPLAN Pro© input-output model of the Maine economy.

An input-output model describes the relationships that exist between businesses as they interact with each other and between businesses and the final consumers of their products. It does so by tracing the monetary market transactions that take place within an identifiable geographic area. Industries that directly supply goods and services to meet consumer demand in turn generate their own demand for the goods and services that they use as inputs to their business operation. The supplying companies, in turn, generate additional demands of their own. The linkages continue backward until the effect becomes insignificant as dollars leak out of the local economy. In this way, dollar expenditures by riders of ATVs can be traced backward to all of the affected industries in Maine.

Net ATV-related spending in Maine by both residents and nonresidents is $156.0 million. A large portion of this spending, however, involves the purchase of goods that are not manufactured in this state. For example, 62.6 percent ($97.6 million) of total ATV spending goes to purchase new ATVs, tow vehicles and gasoline. None of these items is produced in Maine. Also, a percentage of other items purchased, such as clothing and accessories for riders, parts and accessories for ATVs, and food are produced elsewhere and imported into the state. Money that is spent on goods produced elsewhere leaks immediately out of the state and does not create further economic activity through the multiplier effect.

However, because consumers generally purchase goods through retail outlets such as ATV dealers and grocery stores, part of their purchases are captured by the retail, wholesale and transportation sectors that are involved in making the products available in Maine. We refer to this captured spending as the margin. This captured spending, or margin, drives the multiplier effect for items not produced in Maine. Spending on services and goods produced locally (such as overnight accommodations, food at restaurants, repair services) is fully captured within the Maine economy and all of it contributes to the multiplier effect.

Table 34 presents a summary of the net spending, the multiplier effect that comes from the captured portion of that spending, and the level of economic activity that ATV-related spending has in the state of Maine. The $156.0 million of net ATV spending in Maine creates an additional $44.0 million of economic activity through the multiplier effect. If we combine the net ATV spending and the multiplier effect that it generates, ATV-related spending contributes a total of $200.0 million dollars of economic activity in the state.

Included in the total economic contribution of ATV-related spending is the employment and associated incomes of people that are directly and indirectly affected by the spending of ATV owners and riders. The spending directly supports 1,400 full- and part-time jobs that provide $26.9 million of income. Economic activity created through the multiplier effects supports an additional 575 jobs that provide $15.7 million of income. Altogether, ATV-related spending supports 1,975 jobs in Maine that provide $42.7 million of income. Of these, 123 jobs and $2.8 million of income are supported through spending by nonresidents, while spending by Maine residents supports 1,852 jobs and $39.9 million of income.

Table 34
Multiplier Effects of ATV Spending in Maine

	Net Spending	Multiplier Effect	Total Economic Activity
Output			
Resident	146,830,101	41,291,650	188,121,751
Non-Resident	9,209,311	2,703,104	11,912,415
Total	**$156,039,412**	**$43,994,754**	**$200,034,166**
Employment			
Resident	1,312	539	1,852
Non-Resident	88	35	123
Total	**$1,400**	**$574**	**$1,975**
Income			
Resident	25,130,089	14,791,774	39,921,863
Non-Resident	1,800,842	955,511	2,756,353
Total	**$26,930,931**	**$15,747,285**	**$42,678,216**

Finally, the economic activity, employment and personal income attributed to ATV-related spending contribute tax revenues for state and local governments in Maine. Unlike the case with calculating economic impact, the total retail spending for new ATVs and vehicles is subject to Maine's five percent sales tax, regardless of whether part of the purchase leaks out of the state's economy. Based on the estimated taxable portion of the net ATV spending, the state of Maine receives approximately $6.4 million of sales taxes, in addition to the $1.9 million of registration fees paid by Maine residents and $0.2 million of registration fees paid by nonresidents. An unknown amount of property, income and other tax revenues are also likely to be associated with the ATV spending and its multiplier effect through the jobs and income that are directly and indirectly supported by ATV spending.

Background

In 2003, Governor John Baldacci established an ATV Task Force to address problems related to ATV use in Maine. After holding several public hearings and taking comments, the Task Force prepared a report, ATV Solutions, which was presented to the Governor and the Legislature in December of 2003.

The report included many recommendations that were enacted or implemented. Some recommendations, however, raised questions and concerns. One of these was the creation of an ATV Damage Mitigation Fund to reimburse landowners for the cost of repairing damages caused by ATVs. There were several questions raised concerning this recommendation, including:

- What kind of damage was occurring?
- Was there any documentation of the damage?
- Was there any pattern to where damage was occurring?
- What were the costs to repair this damage?
- Was the damage actually being repaired and if so, who was paying for the repairs?
- If a Damage Mitigation Fund were created, how much money would be needed?

The need for answers to these questions led the Legislature's Fish & Wildlife Committee to ask the Department of Conservation to conduct a study to document ATV damages and repair costs.

Goals

The primary goal of the study was to establish a dollar figure for ATV damages occurring annually. This, in turn, would indicate an annual dollar amount that might be placed in a Damage Mitigation Fund for damage payments. The study would also yield other basic information such as the kind of damage occurring, the costs of different types of repairs, the types of land and resources being affected, who was paying for the repairs, the type of information needed to verify claims, etc.

Methods

Information about ATV damages and repair costs was to be gathered from existing landowner records. However, it became apparent early in the search that there was a lack of records by which to document verifiable ATV damages and repair costs. Some reasons for the lack of records include:

- Landowner failure to report damages for fear of charges and costs associated with regulatory violations;
- Landowner lack of technical knowledge and/or equipment to complete the repairs;
- Landowner lack of funds to hire a contractor to complete repairs;
- Landowner inability to prevent the damage from happening again; and
- Landowner concern that attempt to repair damage will result in further damage.

The review of existing records necessarily required verification that damages were caused by ATVs and not by trucks, jeeps, other vehicles, or other causes. It was also important to identify situations

where ATV use was one among many causes of damage. It is apparent from many anecdotal comments received that 4-wheel drive trucks or jeeps are a major problem in some areas, and some investigated damage complaints turned out to be caused by trucks. In one situation, a landowner contacted an ATV club to reseed a damaged lawn where there was no authorized trail, and children had caused the damage. It was important to eliminate this type of claim, so that only cases with well documented ATV damages and repairs were considered.

It was also important to obtain information from a cross-section of landowners, from large corporate landowners as well as smaller farmers and woodlot owners. Utilities were an obvious choice given the extensive ATV use of utility corridors. In an effort to secure other verifiable data, articles were posted in periodicals like the Small Woodland Owners Association of Maine (SWOAM) newsletter asking for information from landowners. In the end, the Department of Conservation (DOC) was able to obtain useful information from a limited number of small and large landowners, utilities, watershed councils, and railroads as well as from verified costs from DOC to close out a mud run and repair an old road on state land. While the work on DOC lands does not qualify as ATV damage, it is useful as a base for comparing mitigation costs.

The final part of this section includes case studies of landowner damage, how they were addressed, and the costs associated with repairs and barricading.

Conclusions

Based on the cases of ATV damage and related repairs finally selected for review, costs ranged from approximately $1,000 per mile to as much $25,000 per mile and from $500 to $14,000 per site location. The costs varied generally according to the extent of repair work done (e.g., the cost of barricading alone is much less than barricading and repairing, or barricading and relocating a road or trail).

It is apparent that ATV damage has occurred and continues to occur in many areas. However, it is impossible to tell how many locations are affected and what it would cost to repair them all. In addition some of the damage involves causes other than ATVs, making it very difficult to differentiate among them. The fact that Central Maine Power Company (CMP) spent almost $50,000 over two years and Portland Natural Gas spent a almost $200,000 over 3years points to the likelihood that damage costing hundreds of thousand of dollars is occurring every year. If it were possible to establish a cost for wetland impacts that are not or cannot be repaired, the overall damage estimate would likely increase substantially.

Damage to wetlands deserves special mention because of the potential complexity and cost of successfully repairing these areas. Much of the wetland damage by ATVs would require extensive permitting from the Maine Department of Environmental Protection and in some cases from the Army Corps of Engineers. Moreover, it is also possible there would be further wetland impacts from work undertaken to repair the original ATV damage. In these cases, the most reasonable solution may be to barricade the area to prevent future damage, and allow the wetlands to recover naturally.

It is clear that repairing damaged areas and barricading them without involving local education and enforcement has limited results. The involvement of a strong ATV club has been shown to significantly reduce the behaviors that result in land and resource damage, but additional help and support from the law enforcement community is needed for greater success. Changing user behavior may be the most critical step in preventing ATV damage.

Estimating the Cost of an Effective ATV Damage Mitigation Fund

Based on the limited information we were able to obtain on the costs of ATV damage and repairs, it would take from two hundred thousand to several hundred thousand dollars a year to maintain a viable ATV Damage Mitigation Fund and program. Many factors would impact the cost of an ATV Damage Mitigation Fund, including answers to the following questions:

What expenses would be considered eligible for payment?
-Materials and contract services?
-Permitting?

What percentage of the repair costs should be paid?

Would payments be made prior to repair work or as reimbursements?

How would the payment program be implemented and managed?
-Site inspections before and after repair work?
-Documentation of cost and payments?
-Approved contractors or enforcement of Best Management Practices?
-Accounting and audit requirements?

From what source would staff and program operating expenses be paid?

Portland Natural Gas Transmission System

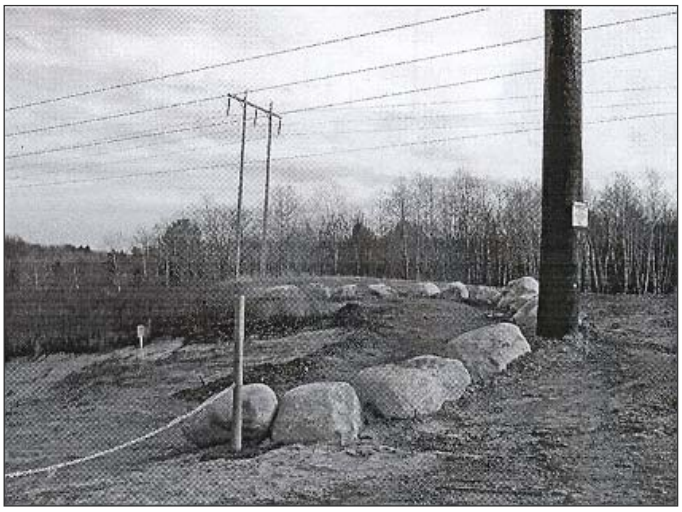
In 1999 the Portland Natural Gas Transmission System (PNG) constructed a new pipeline in southern Maine. As part of the permitting agreement with the Federal Energy Regulatory Commission (FERC) and the Maine Department of Environmental Protection, PNG had to restore the land to its prior conditions. Because the pipeline corridor is easily followed, PNG began to have problems with ATV use and made several attempts to stop the illegal activity. They subsequently asked for help from the Bureau of Parks and Lands, but FERC regulations would not permit construction of a hardened trail, so treatment was limited to repairs, barricades, attempts to educate, and law enforcement. After several unsuccessful attempts by PNG to stop ATV use, FERC agreed that the company had made a reasonable attempt to regulate use and has not pursued the matter further.

While a breakdown of expenses was not available, PNG indicates they paid out almost $200,000 over 3 years for all the restoration and repairs of which a significant portion was the result of ATV damage. The following pictures show some of the damage and attempted repairs, including barricades.

Branch Brook Area Erosion Repairs and Barrier Installations - December 2000

View: Southern Slope Barricade

- Barricade installed and tied into the tree-line to the west and a ravine feature to the east
- Fence posts in concrete -Permanent gate to be fabricated



View: Northern Slope Barricade

- Barricade installed and tied into the tree-line to the west and a dense vegetation to the east
- Fence posts in concrete
- Permanent gate to be fabricated

View: Branch Brook Valley

- Erosion repaired
- Stream banks restored
- Waterbars replaced
- Uplands seeded/mulched
- Barricades installed
- Fence posts set

Branch Brook Area New ATV Damage and Erosion - June 2001

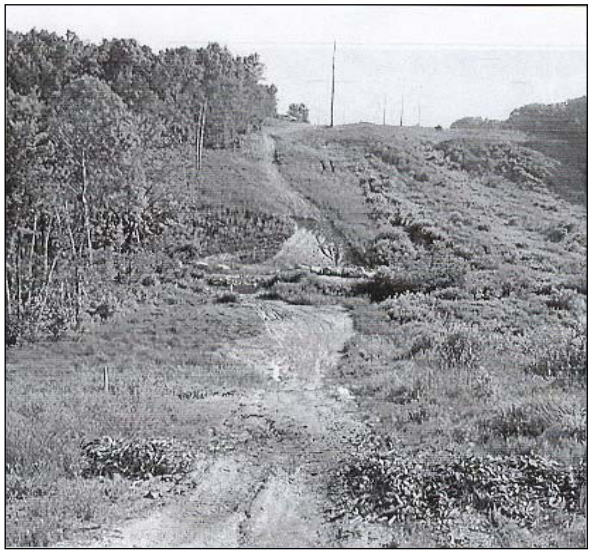
View: Branch Brook Valley

- ATV riders moved smaller boulders on the northern barricade and went around the end of the southern barricade to forge a new trail through the Branch Brook Valley.

- Stream bank rip-rap has been relocated to create a rock ramp through the stream.

- Waterbars have been breached.

- Vegetation in trail area has been destroyed.



Central Maine Power Company

Central Maine Power Company (CMP) has dealt with illegal use of their right-of-ways (ROWs) for many years. The company owns some ROWs in fee, and some are easements only. While the public doesn't often understand the difference, CMP does have to treat the ROWs differently, and this affects their ability to control use. Damage is caused not only by ATVs, but also by trucks and jeeps. However, much damage is caused by ATVs riding on snowmobile trails during the off-season. The cost of addressing damage varies depending on the location and the extent of repair work needed. Repairs are routinely more expensive than barricades, but barricades that include gates for landowner access are substantially more expensive than simple standard rock barricades.

As examples, CMP treated four sites in the summer of 2004. At two sites they installed barricades: one for $1000 and the other for $1,400. At two other sites they also had to repair approximately one-half mile of wetlands. The cost at these two sites was $4,200 and $4,700 respectively. In CMP's case repairing resource damage increased their expenses by approximately 400%.

This picture is ATV damage resulting from unauthorized use of a power line. This is on an access road built during power line construction and used for maintenance.

ATV use is not limited to one track but tends to spread out over time. As a track becomes impassable in wet seasons, ATVs move to one side or the other and end up creating several rutted trails.

Plum Creek Timber Company

Large forest landowners have found that ATV use of winter roads results in rutting that destroys roads and causes siltation of adjacent streams and wetlands. By the time problems are discovered, the damage is often extensive and involves environmental regulatory violations for which the landowner is responsible.

In 2003, a case on Plum Creek land resulted in a Land Use Regulation Commission violation that required $822 to restore and barricade the area and another $13,200 to relocate the road. (Generally the road must be closed and barricaded to prevent further use, and an alternate route is required for future harvests.)

Plum Creek has had an open land policy. Problems like the one noted above are forcing reconsideration of the policy, and the company has started discussions with ATV clubs and the Bureau of Parks & Lands about developing a designated ATV trail system. This would transfer the burden of maintaining and relocating trails and managing ATV use from the landowner to the ATV clubs. Similar working relationships exist elsewhere between clubs and watershed councils. In the end, club management results in more people working together to get work done more quickly and inexpensively. In the process, users learn why certain behaviors pose problems and how to avoid them.

In addition to ATVs and trucks we also have modified rigs like the ones in the picture. These had just come off a snowmobile trail when this picture was taken. They had gone around a gate to get on the trail. They had traveled across state land as well as the land of at least two large private landowners.

International Paper Company and Atlantic Salmon Restoration

Ever since the Atlantic salmon was listed as an endangered species, landowners, watershed councils, and other groups in areas with rivers providing salmon habitat have had to address water quality issues, including impacts created by recreational activities. For ATV trails in downeast Maine, this included redesigning trail systems to move routes away from sensitive areas and closing and barricading fords or replacing them with bridges to eliminate sources of siltation. A plan was implemented over a period of several years through a cooperative agreement among state and federal governments, International Paper Company and other landowners, ATV clubs, and watershed councils.

To date, thousands of dollars have been spent in this area to repair damage done by off-road vehicles, including ATVs, trucks and jeeps. It is hoped that these efforts to properly barricade and restore should eliminate the need for further damage restoration in the area.

One example of trail relocation involves the closure of an old road along the Narraguagus River in Beddington completed through state, club and watershed council efforts. The road had been used as a trail for years, but its proximity to the river and a multitude of small water crossings made it a prime source of siltation.

It cost about $2,900 to remove old culverts and bridges, install water control measures, grass, seed, and barricade approximately a mile and a half of road. In its place, 3 miles of new trail were constructed with a new 130-foot bridge built to handle not only ATVs but also snowmobiles and snowmobile trail groomers. They also had to build a new access road for the landowner to replace the one that was closed at a cost of another $15,797. This brought the entire cost to approximately $80,000, which was accomplished through the funding and assistance from several sources and groups, including the state ATV program.

Mud Run on State Land

In order to have a useful number for a baseline comparison, the Bureau of Parks and Lands closed a mud run on state land that had received authorized use for many years, but because of its proximity to a river, needed to be closed. Consultation with the Department of Environmental Protection made it clear that road construction to get heavy equipment on the site for closeout work would result in even more negative impacts.

In the end, the 2,000-foot run was barricaded against future use at both ends, the drainage channels were returned to their original routes, and the area is being left to recover naturally. The cost of barricading was less than $1,000, but bulldozing, ditching, and installing box culverts and bridges on the 1-mile rerouted trail cost approximately $3,500.

Railroads

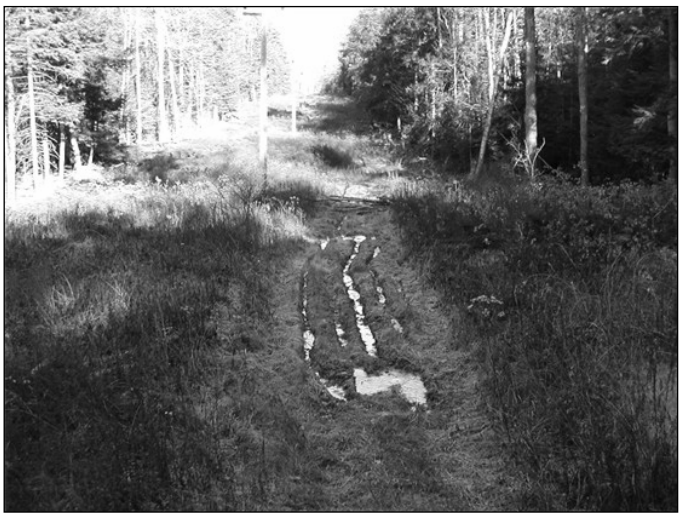
Railroads have had many problems with ATV use along their active lines. In addition to the safety issue for ATV riders when a train comes along, there is a major hazard for trains because of ATV damage to the rail bed ballast. ATV use along the tracks undermines the soil supporting the ties making them unstable. This allows for rail movement that could result in train derailment.

There have been numerous instances of people recreating on railroad tracks that have led to accidents. People do not realize how fast trains travel or how long it takes them to stop, and it is often difficult to hear trains coming. There were a number of collisions between trains and ATVs in the summer of 2004 and ATV riders narrowly escaped serious harm.

Emergency stops for a train can result in several thousand dollars of damage to wheels and rails, and derailments are even more costly. One railroad even spent $10,000 just for law enforcement last year.

ATV Damage on Smaller Private Properties

The Bureau of Parks and Lands received phone calls from several landowners reporting smaller scale damage to areas like lawns, driveways and even a tennis court. These owners were not able to produce any documentation in the form of pictures, receipts, etc. Their estimates of repair costs ranged from a $200 to $500 for each repair.



This photo shows a snowmobile trail along a power line on a SWOAM member's property. The power company has an easement to cross the land, and

the snowmobile club has permission to have a trail. The landowner does allow ATV activity. This landowner requested law enforcement assistance to stop the illegal ATV use, but they were unable to catch the culprit. In this case the damage did not occur until the start of hunting season. This issue of improper ATV use by hunters is one we have heard several times.

Not all damage is caused by ATVs, and it is apparent that 4-wheel drive trucks and jeeps are also culpable. This is especially true on utility corridors and on large private forestland where skid trails and winter roads attract use.

Some complaints of ATV abuse turned out to be situations like this that, when investigated, were found to be caused by trucks, or in some cases by trucks and ATVs.

Landowners might fix something like this in a couple of hours with their own equipment, but in many cases restoration will require a contractor to fill, grade and seed the affected area. This scale of work costs at least a few hundred dollars each time.

APPENDIX 1

SURVEY MATERIALS

STATE OF MAINE
DEPARTMENT OF CONSERVATION
22 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0022

JOHN ELIAS BALDACCI
GOVERNOR

PATRICK K. McGOWAN
COMMISSIONER

September, 2004

Dear Maine-Registered ATV Owner,

We are looking for your help in a matter of importance to those who enjoy riding all-terrain vehicles (ATVs) in Maine.

In 2003, Maine's Governor Baldacci convened an ATV Task Force of riders, landowners, state agencies, and others to examine issues surrounding the use of ATVs and to recommend ways to expand riding opportunities, improve safety, and provide protection for landowners and the environment.

One recommendation of the Task Force was that we gain a better understanding of the economic impacts of ATVs in Maine. The Department of Conservation has contracted with the Margaret Chase Smith Center for Public Policy at The University of Maine to conduct a survey to determine those economic impacts.

Your name was drawn as part of a sample of Maine-registered ATV owners being asked to participate in the survey. In order for the results of the survey to truly represent the experience of all ATV owners, it is important that each questionnaire be completed and returned.

You should be receiving a questionnaire within a week. We would greatly appreciate your participation by completing the questionnaire and returning it at your earliest convenience.

Thank you.

Sincerely,

Patrick K. McGowan
Commissioner

PRINTED ON RECYCLED PAPER

www.maine.gov/doc
PHONE: (207) 287-4900
FAX: (207) 287-2400
(TTY): (207) 287-2213

Margaret Chase Smith Center for Public Policy

5715 Coburn Hall
Orono, ME 04469-5715
Tel: 207-581-1648
Fax: 207-581-1266
www.umaine.edu/mcsc

September 3, 2004

Dear ATV Owner:

A variety of issues will affect the future of ATV use in Maine. The purpose of this survey is to find out about the characteristics and preferences of people who own ATVs registered in Maine. The information from this survey will be used to support improved ATV riding opportunities and solutions to problems associated with ATV use. This survey is being conducted by University of Maine researchers and the Maine Department of Conservation, Bureau of Public Lands.

You are one of a select group of Maine ATV registrants being asked to provide information about ATV use and expenditures. Your name was drawn as part of a sample of people who registered ATVs in Maine from July 1, 2003 to June 30, 2004. In order for this survey to truly represent the thinking of all Maine ATV registrants, it is important that each questionnaire be completed and returned. You must be at least 18 years of age to participate in the survey. If you are under 18, please have someone in your household who is 18 or over answer the questionnaire.

Completing this survey should take about 20 minutes. Except for your time and inconvenience, there are no known risks in participating. Your participation is voluntary and you do not have to answer questions you don't want to. Returning the questionnaire will mean that you agree to participate. Your responses will remain confidential.

After you have completed the questionnaire, please mail it to us in the postage-paid envelope provided. Do not put your name on the questionnaire. The number stamped on the questionnaire allows us to know you returned it. Your name will not be connected with your answers.

The results of the survey will be provided to the Maine Department of Conservation. They are interested in hearing your responses in order to create polices to improve ATV riding in Maine.

Please complete and return the questionnaire by Friday, September 17. If you have any questions about the survey, please contact Eva McLaughlin at (207) 581-1646 or email eva.mclaughlin@umit.maine.edu. If you have any questions about your rights as a research participant, please contact Gayle Anderson, Assistant to the University of Maine's Protection of Human Subjects Review Board, at (207) 581-1498 or gayle.anderson@umit.maine.edu.

Thank you for your participation.

Sincerely,

Charles E. Morris
Senior Research Associate

Follow-up Postcard

September 27, 2004

A few weeks ago, a questionnaire seeking information about ATV use in Maine was mailed to you. Your name was drawn in a sample of people who registered ATVs in Maine.

Our records indicate that you have not yet returned the survey to us. Please do so today. Because it has been sent to only a small, but representative, sample of ATV registrants, it is extremely important that your opinions are included in the study.

If by some chance you did not receive the questionnaire, or it got misplaced, please contact Eva McLaughlin at 581-1646, or email eva.mclaughlin@umit.maine.edu and we will send you another one today.

Sincerely,

Charles E. Morris
Project Director

Margaret Chase Smith
Center for Public Policy

5715 Coburn Hall
Orono, ME 04469-5715
Tel: 207-581-1648
Fax: 207-581-1266
www.umaine.edu/mcsc

October 12, 2004

Dear ATV Owner:

About a month ago, I wrote to you seeking information about ATV use in Maine. As of today, our records indicate that we have not yet received your completed questionnaire.

The University of Maine is working with the Maine Department of Conservation to collect information on ATV use. The purpose of this survey is to help support improved ATV riding opportunities and solutions to problems associated with ATV use in Maine

I am writing to you again because of the importance that each questionnaire has to the future of ATV riding in Maine. Your name was drawn as a part of a random sample of Maine ATV registrants. In order for the results of our study to truly represent the opinions of those who register ATVs in Maine, it is essential that each questionnaire be completed and returned.

In the event that your original questionnaire has been misplaced, I am enclosing a replacement questionnaire for you to complete and return in the enclosed postage-paid envelope.

Completing this questionnaire should take about 20 minutes of your time. Your participation is voluntary and you do not have to answer any questions you don't want to. Except for your time and inconvenience, there are no risks in participating. Returning the questionnaire means you agree to participate. Your responses will remain confidential.

Please complete and return the questionnaire as soon as possible. If you have any questions about the survey, please contact Eva McLaughlin at 581-1646, or email eva.mclaughlin@umit.maine.edu. If you have any questions about your rights as a research participant, please contact Gayle Anderson, Assistant to the University of Maine's Protection of Human Subjects Review Board, 581-1498, gayle.anderson@umit.maine.edu.

Thank you,

Charles E. Morris
Project Director

encs.

Maine ATV Use Survey

This survey is being conducted by the Margaret Chase Smith Policy Center at The University of Maine. It is being conducted in partnership with the Maine Department of Conservation, Bureau of Public Lands. You must be at least 18 years of age to participate in the survey. If you are under 18, please have someone in your household who is 18 or over answer the questionnaire.

The survey is designed to find out about the characteristics and preferences of people who own ATVs registered in Maine. The information from this survey will be used to support improved ATV riding opportunities and solutions to problems associated with ATV use.

Completing the questionnaire should take about 20 minutes of your time. Your participation in this survey is voluntary and you do not have to answer any questions you don't want to. Do not put your name or other identifying marks on the questionnaire. The number stamped on the questionnaire allows us to know that you returned the questionnaire. Your name will not be connected to your answers.

This survey has been sent to owners of ATVs registered in Maine from July 1, 2003 through June 30, 2004. It is important that your opinions are included. After you have completed the questionnaire, please mail it to us in the postage-paid envelope provided.

Thank you for your help.

First, we'd like to ask you about the ATVs in your household.

1. **Did you or anyone living in your household own or operate an ATV in Maine between July 1, 2003 and June 30, 2004?** *(check one)*

   ☐ Yes ☐ No

2. **Between July 1, 2003 and June 30, 2004, did you or anyone living in your household purchase an ATV, a trailer for transporting ATVs, parts and accessories for an ATV, or clothing primarily for riding ATVs?** *(check one)*

   ☐ Yes ☐ No

3. **How many functioning ATVs did you and other people in your household own during the 2003-2004 ATV season (July 1, 2003 through June 30, 2004)?** *(check one)*

   ☐ One ☐ Two ☐ Three ☐ Four ☐ Five ☐ More than five

4. **How many of those functioning ATVs in your household were <u>registered in Maine</u> during the 2003-2004 ATV season (July 1, 2003 through June 30, 2004)?** *(check one)*

   ☐ One ☐ Two ☐ Three ☐ Four ☐ Five ☐ More than five

5. Of the functioning ATVs in your household, how many have: *(write numbers in spaces below)*

2 wheels	_____	*(number of ATVs)*
3 wheels	_____	*(number of ATVs)*
4 wheels	_____	*(number of ATVs)*
More than 4 wheels	_____	*(number of ATVs)*

6. Have you or anyone in your household ever been a member of a local or regional Maine ATV club? *(check one)*

☐ Yes ☐ No

7. Were you or anyone living in your household a member of a local or regional ATV club during the 2003-2004 season (July 1, 2003 through June 30, 2004) ? *(check one)*

☐ Yes ☐ No

8. Have you or anyone in your household ever been a member of *ATV Maine* (a statewide organization)? *(check one)*

☐ Yes ☐ No

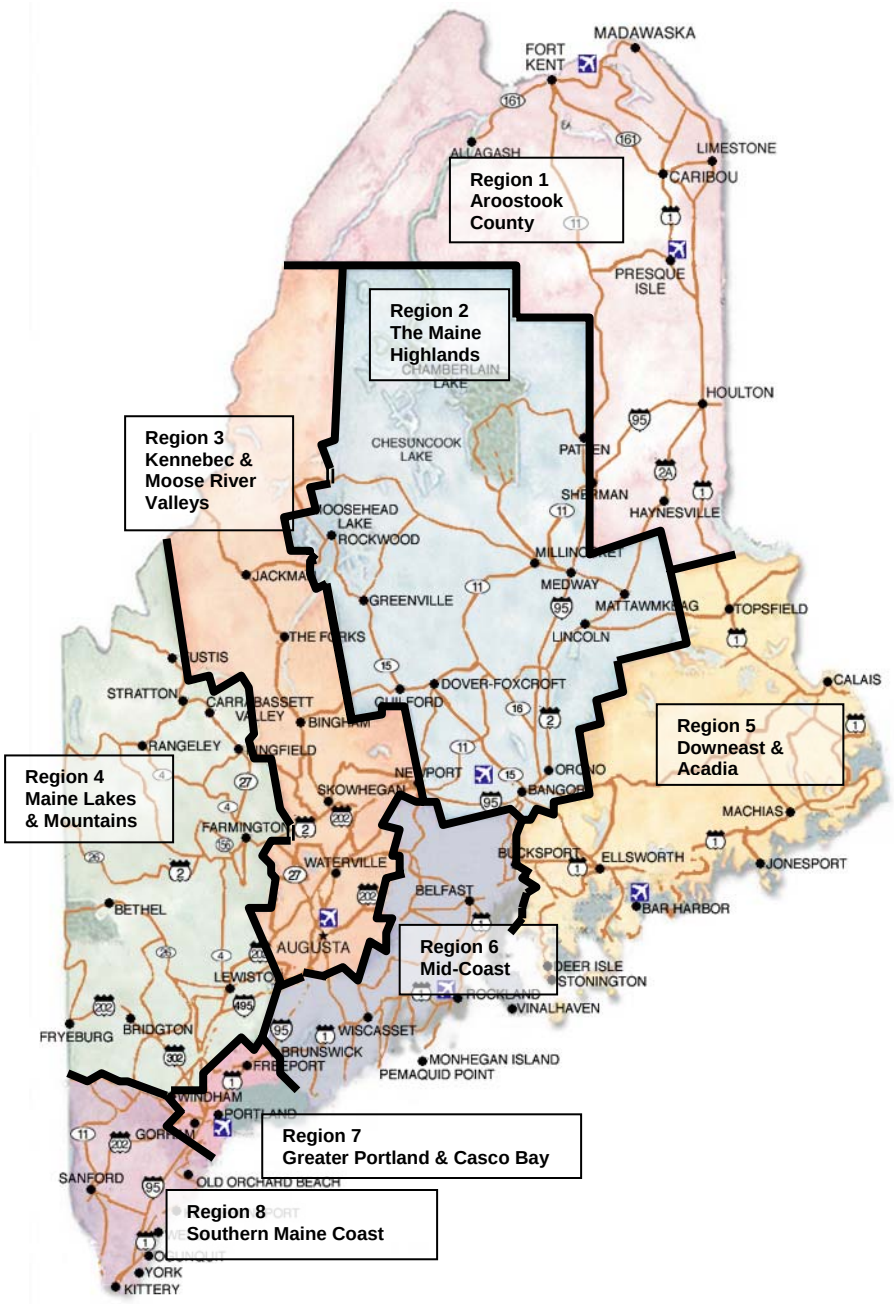
9. Were you or anyone living in your household a member of *ATV Maine* (a statewide organization) during the 2003-2004 season? *(check one)*

☐ Yes ☐ No

Next, we'd like to ask you about where and how you ride your ATV in Maine.

10. Using the map below, please indicate the percentage of your total riding in Maine in each region during the 2003-2004 season (July 1, 2003 through June 30, 2004).
(write percentages below, enter zero if none)

Region 1	_____%	Region 5	_____%
Region 2	_____%	Region 6	_____%
Region 3	_____%	Region 7	_____%
Region 4	_____%	Region 8	_____%
		Total	**100%**



11. Please indicate how important each factor is to you when deciding where to ride your ATV in Maine.

(rate each statement)	very important	somewhat important	neutral	not very important	not important	don't know
A. Availability of local & regional trail maps	☐	☐	☐	☐	☐	☐
B. Well-maintained trails	☐	☐	☐	☐	☐	☐
C. Good trail signage (trail numbers, distance, etc.)	☐	☐	☐	☐	☐	☐
D. Wide trails	☐	☐	☐	☐	☐	☐
E. Long trails	☐	☐	☐	☐	☐	☐
F. Loop trails	☐	☐	☐	☐	☐	☐
G. Adequate parking for tow vehicle and trailer	☐	☐	☐	☐	☐	☐
H. Availability of services close to trails (gas, food, restrooms)	☐	☐	☐	☐	☐	☐
I. Trails located near recreation areas	☐	☐	☐	☐	☐	☐
J. Interconnected trail system	☐	☐	☐	☐	☐	☐
K. Trails with a variety of terrain	☐	☐	☐	☐	☐	☐
L. Scenery/natural beauty of area	☐	☐	☐	☐	☐	☐
M. Popular trails with many riders	☐	☐	☐	☐	☐	☐
N. Location is close to home	☐	☐	☐	☐	☐	☐
O. Availability of hotels/motels nearby	☐	☐	☐	☐	☐	☐
P. Availability of camping grounds/sites nearby	☐	☐	☐	☐	☐	☐
Q. Availability of nightlife and entertainment nearby	☐	☐	☐	☐	☐	☐
R. Adequate law enforcement on trails	☐	☐	☐	☐	☐	☐
S. Other riders are courteous and obey rules	☐	☐	☐	☐	☐	☐
T. Quality of roads used to travel to riding areas	☐	☐	☐	☐	☐	☐
U. Club houses open along trails	☐	☐	☐	☐	☐	☐
V. Opportunity to ride off maintained trails	☐	☐	☐	☐	☐	☐

12. Please indicate how much you agree or disagree with the following about ATV riding in Maine.

(rate each statement)	strongly agree	agree	neutral	disagree	strongly disagree	don't know
A. Overall, trails are well marked	☐	☐	☐	☐	☐	☐
B. Trail conditions have improved in recent years	☐	☐	☐	☐	☐	☐
C. There are an adequate number of trails for riding ATVs	☐	☐	☐	☐	☐	☐
D. I am satisfied with the level of law enforcement on Maine trails	☐	☐	☐	☐	☐	☐
E. I have observed more damage to land and trails caused by ATVs this year compared to last year	☐	☐	☐	☐	☐	☐

13. Approximately how many days in all did you ride ATVs in Maine during the 2003-2004 season (July 1, 2003 through June 30, 2004)? *(check one)*

☐ Less than 10 days ☐ 30 – 39 days

☐ 10 – 19 days ☐ 40 – 49 days

☐ 20 – 29 days ☐ 50 days or more

14. How many different <u>overnight trips</u> in Maine (where you did not return to your own home or camp at night) did you take during the 2003-2004 season (July 1, 2003 through June 30, 2004)? *(check one)*

- ☐ One
- ☐ Two
- ☐ Three
- ☐ Four
- ☐ Five
- ☐ More than five

15. About how many miles did you ride ATVs in Maine during the 2003-2004 season (July 1, 2003 through June 30, 2004)? *(write answer below)*

_____ Miles ridden in Maine

16. About what percentage of your ATV riding is done on each of the following?
(write percentages below, enter "0" if none)

Land that you own or lease in Maine	_____ %
Other privately owned or leased land in Maine	_____ %
Public land owned by the State of Maine	_____ %
Public land in Maine owned by local or national government (town or national park or forest)	_____ %
Land of unknown ownership	_____ %
Total	**100%**

17. About what percentage of your ATV riding is done on each of the following?
(write percentages below, enter "0" if none)

Trails or roads marked as open for ATV riding	_____ %
Trails or roads <u>not marked</u> as open for ATV riding	_____ %
Other areas that have no trails or roads	_____ %
Total	**100%**

18. About what percentage of your ATV riding is done during the following times of the year?
(write percentages below, enter "0" if none)

Summer (June, July, August)	_____ %
Fall (September, October, November)	_____ %
Winter (December, January, February)	_____ %
Spring (March, April, May)	_____ %
Total	**100%**

19. About what percentage of your ATV riding is done on weekdays and on weekends?
(write percentages below, enter "0" if none)

Weekdays (Monday through Friday)	_____ %
Weekends (Saturday or Sunday)	_____ %
Total	**100%**

Questions 20 – 26 ask about expenses associated with the use of all ATVs by you and people in your household during the 2003-2004 season* (July 1, 2003 through June 30, 2004)*. When reporting your expenses, please keep in mind the following:

a. ***Report only expenditures made in Maine. Do not report any spending that took place outside of Maine. If you drove to Maine from outside of the state, report only expenditures that you made in Maine.***

b. ***Please report all expenditures for all of the ATVs used by people in your household between July 1, 2003 and June 30, 2004. We are interested in all spending that occurred in Maine, regardless of who paid the expenses.***

c. ***Use your best estimate for each answer. Enter a zero if you made no expenditures.***

d. ***Please do not include any expenditures more than once.***

20. About how much did you spend on each of the following <u>ATV expenses</u>?
(write answers below, enter "0" if none)

A. ATV parts and accessories (tires, mufflers, winches, plow)	$ _____.00
B. Gasoline and oil for ATVs	$ _____.00
C. ATV service & repair	$ _____.00
D. ATV storage	$ _____.00
E. ATV insurance	$ _____.00
F. Other (specify) _____	$ _____.00
G. Other (specify) _____	$ _____.00

21. About how much did you spend on each of the following <u>rider related expenses</u>?
(write answers below, enter "0" if none)

A. ATV clothing (pants, boots, gloves, etc.)	$ _____.00
B. Accessories (helmets, goggles, communications, etc.)	$ _____.00
C. Other (specify) _____	$ _____.00
D. Other (specify) _____	$ _____.00

22. About how much did you spend on each of the following <u>trip related expenses</u>?
(write answers below, enter "0" if none)

A. Gasoline and oil for the towing vehicle	$ _____.00
B. Turnpike tolls for the towing vehicle	$ _____.00
C. Restaurant and lounge expenses	$ _____.00
D. Food and drinks bought in stores	$ _____.00
E. Overnight accommodations (motel, cabin, etc.)	$ _____.00
F. Guides and tour packages	$ _____.00
G. Club memberships, dues or donations	$ _____.00
H. Souvenirs, gifts, etc.	$ _____.00
I. Other (specify) _____	$ _____.00
J. Other (specify) _____	$ _____.00

23. Not including the value of any trade-ins, about how much did you and other people in your household spend to buy ATVs <u>in Maine</u> between July 1, 2003 and June 30, 2004? *(enter "0" if none)*

A. New ATVs from a dealer $ _____.00

B. Used ATVs from a dealer $ _____.00

C. Used ATVs from a private party $ _____.00

24. Not including the value of any trade-ins, approximately how much did you and other people in your household spend in total <u>for trailers</u> (primarily for transporting ATVs) that you bought <u>in Maine</u> between July 1, 2003 and June 30, 2004? *(enter "0" if none)*

A. New trailers from a dealer $ _____.00

B. Used trailers from a dealer $ _____.00

C. Used trailers from a private party $ _____.00

25. Not including the value of any trade-ins, approximately how much did you and others in your household spend in Maine between July 1, 2003 and June 30, 2004 to buy <u>cars or trucks</u> primarily to tow your ATVs? *(enter "0" if none)*

	Vehicle 1	Vehicle 2
A. New cars/trucks to tow ATVs from a dealer	$ _____.00	$ _____.00
B. Used cars/trucks to tow ATVs from a dealer	$ _____.00	$ _____.00
C. Used cars/trucks to tow ATVs from a private party	$ _____.00	$ _____.00

26. About how many miles did you drive the vehicle(s) you reported in question 25? *(enter "0" if none)*

	Vehicle 1	Vehicle 2
A. Total miles driven	_____	_____
B. Miles transporting ATVs	_____	_____

Finally, we'd like to ask a few questions about yourself as the owner of an ATV registered in Maine from July 1, 2003 through June 30, 2004.

27. Have you ever taken an ATV safety course? *(check one)*

☐ Yes ☐ No

28. How often do you wear a helmet when riding an ATV? *(check one)*

☐ Always ☐ Most of the time ☐ Sometimes ☐ Never

29. How often do you ride double on ATVs? *(check one)*

☐ Never ride double ☐ Less than half the time ☐ More than half the time

30. About how many years have you been riding ATVs? _____ **years**

31. Have you or anyone in your household ever purchased property in Maine primarily to have a base from which to ride your ATV? *(check one)*

☐ Yes ☐ No

32. If your family owns a camp in Maine, about what percentage of all your ATV riding is done from that camp? *(check one)*

☐ Do not own a camp in Maine
☐ 0% - 25%
☐ 26% - 50%
☐ 51% - 75%
☐ 76% - 100%

33. What is your sex? ☐ Male ☐ Female

34. In what year were you born? **19** ___ ___

35. Which of the following best describes your level of education so far? *(check one)*

☐ Some high school, no diploma
☐ High school graduate/GED
☐ Some college, no degree
☐ 2-year college/vocational graduate
☐ 4-year college graduate
☐ Post-college graduate or professional degree

36. During the past 12 months, what was the combined income for the members of your household? *(check one)*

☐ Less than $10,000
☐ $10,000 - $14,999
☐ $15,000 - $24,999
☐ $25,000 - $34,999
☐ $35,000 - $49,999
☐ $50,000 - $74,999
☐ $75,000 - $99,999
☐ $100,000 or more

Thank you for completing the questionnaire. Please mail the completed questionnaire in the enclosed postage-paid return envelope.

APPENDIX 2

OVERALL RESPONSES

Maine ATV Use Survey

This survey is being conducted by the Margaret Chase Smith Policy Center at The University of Maine. It is being conducted in partnership with the Maine Department of Conservation, Bureau of Public Lands. You must be at least 18 years of age to participate in the survey. If you are under 18, please have someone in your household who is 18 or over answer the questionnaire.

The survey is designed to find out about the characteristics and preferences of people who own ATVs registered in Maine. The information from this survey will be used to support improved ATV riding opportunities and solutions to problems associated with ATV use.

Completing the questionnaire should take about 20 minutes of your time. Your participation in this survey is voluntary and you do not have to answer any questions you don't want to. Do not put your name or other identifying marks on the questionnaire. The number stamped on the questionnaire allows us to know that you returned the questionnaire. Your name will not be connected to your answers.

This survey has been sent to owners of ATVs registered in Maine from July 1, 2003 through June 30, 2004. It is important that your opinions are included. After you have completed the questionnaire, please mail it to us in the postage-paid envelope provided.

Thank you for your help.

First, we'd like to ask you about the ATVs in your household.

1. Did you or anyone living in your household own or operate an ATV in Maine between July 1, 2003 and June 30, 2004?

98.8% Yes ***1.2%*** No

2. Between July 1, 2003 and June 30, 2004, did you or anyone living in your household purchase an ATV, a trailer for transporting ATVs, parts and accessories for an ATV, or clothing primarily for riding ATVs?

64.4% Yes ***35.6%*** No

3. How many functioning ATVs did you and other people in your household own during the 2003-2004 ATV season (July 1, 2003 through June 30, 2004)?

57.6% One ***29.0%*** Two ***8.9%*** Three ***2.6%*** Four ***0.8 %*** Five ***1.1%*** More than five

4. How many of those functioning ATVs in your household were registered in Maine during the 2003-2004 ATV season (July 1, 2003 through June 30, 2004)?

62.9% One **27.8%** Two **6.4%** Three **1.9%** Four **0.6%** Five **0.4%** More than five

5. Of the functioning ATVs in your household, how many have: *(write numbers in spaces below)*

(*n=45*) 2 wheels	***mean = 1.7***	*(number of ATVs)*
(*n= 33*) 3 wheels	***mean= 1.3***	*(number of ATVs)*
(*n=709*) 4 wheels	***mean= 1.5***	*(number of ATVs)*
(*n=5*) More than 4 wheels	***mean= 1.0***	*(number of ATVs)*

6. Have you or anyone in your household ever been a member of a local or regional Maine ATV club?

20.8% Yes ***79.2%*** No

7. Were you or anyone living in your household a member of a local or regional ATV club during the 2003-2004 season (July 1, 2003 through June 30, 2004) ?

16.3% Yes ***83.7%*** No

8. Have you or anyone in your household ever been a member of *ATV Maine* (a statewide organization)?

7.6% Yes ***92.4%*** No

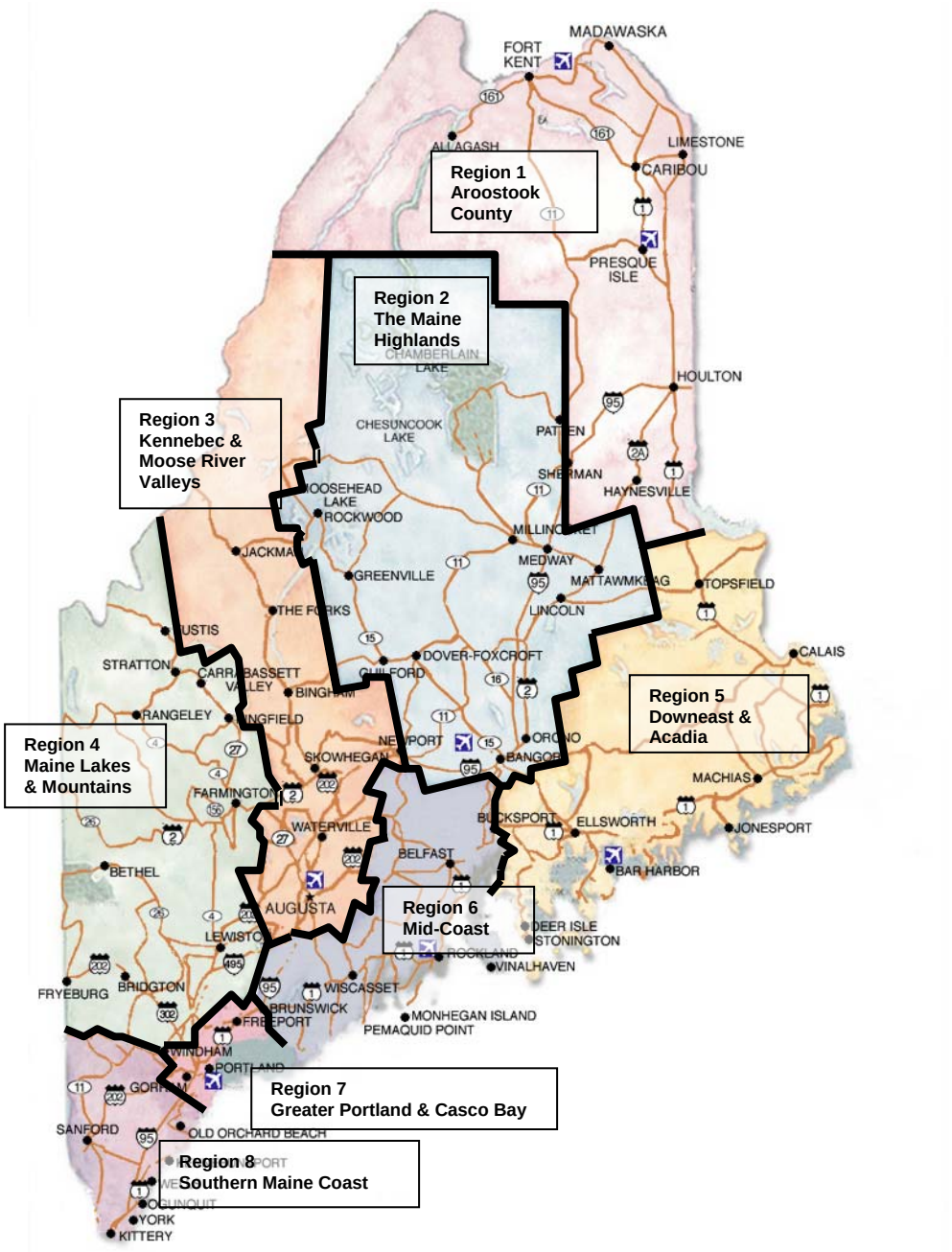
9. Were you or anyone living in your household a member of *ATV Maine* (a statewide organization) during the 2003-2004 season?

7.3% Yes **92.7%** No

Next, we'd like to ask you about where and how you ride your ATV in Maine.

10. Using the map below, please indicate the percentage of your total riding in Maine in each region during the 2003-2004 season (July 1, 2003 through June 30, 2004).

Region 1	***mean= 12.8%***	Region 5	***mean= 10.8%***
Region 2	***mean= 23.9%***	Region 6	***mean= 8.2%***
Region 3	***mean= 13.8%***	Region 7	***mean= 2.1%***
Region 4	***mean=19.4%***	Region 8	***mean= 9.0%***
		Total	**100%**



11. Please indicate how important each factor is to you when deciding where to ride your ATV in Maine.

(rate each statement)	very important	somewhat important	neutral	not very important	not important	don't know
A. Availability of local & regional trail maps	27.5%	26.1%	17.1%	9.2%	16.7%	3.4%
B. Well-maintained trails	29.9%	31.0%	14.4%	8.4%	12.7%	3.6%
C. Good trail signage (trail numbers, distance, etc.)	38.7%	24.8%	13.5%	6.7%	12.8%	3.6%
D. Wide trails	19.7%	25.5%	25.0%	10.9%	15.6%	3.4%
E. Long trails	23.9%	31.3%	22.9%	6.0%	12.3%	3.7%
F. Loop trails	17.4%	28.9%	27.0%	9.4%	13.2%	4.1%
G. Adequate parking for tow vehicle and trailer	25.5%	26.5%	19.6%	8.8%	16.5%	3.0%
H. Availability of services close to trails (gas, food, restrooms)	26.0%	29.9%	16.7%	8.8%	15.4%	3.2%
I. Trails located near recreation areas	12.2%	26.0%	25.9%	15.4%	17.0%	3.6%
J. Interconnected trail system	31.8%	31.7%	15.8%	4.6%	12.0%	4.0%
K. Trails with a variety of terrain	28.2%	34.3%	15.7%	7.6%	11.0%	3.2%
L. Scenery/natural beauty of area	35.2%	36.4%	13.7%	4.1%	7.5%	3.0%
M. Popular trails with many riders	6.3%	12.6%	29.1%	20.3%	27.9%	3.8%
N. Location is close to home	23.3%	31.9%	20.3%	10.2%	11.9%	2.3%
O. Availability of hotels/motels nearby	5.9%	13.6%	23.6%	20.3%	32.3%	4.3%
P. Availability of camping grounds/sites nearby	9.1%	19.6%	24.2%	15.4%	28.1%	3.6%
Q. Availability of nightlife and entertainment nearby	2.9%	7.7%	26.8%	18.1%	40.1%	4.4%
R. Adequate law enforcement on trails	17.6%	20.7%	26.0%	10.2%	22.5%	3.0%
S. Other riders are courteous and obey rules	55.5%	26.7%	6.9%	2.0%	6.2%	2.8%
T. Quality of roads used to travel to riding areas	15.5%	33.4%	22.2%	9.3%	16.9%	2.8%
U. Club houses open along trails	8.1%	17.1%	30.1%	14.7%	26.1%	4.0%
V. Opportunity to ride off maintained trails	28.9%	29.51%	20.0%	6.8%	11.6%	3.0%

12. Please indicate how much you agree or disagree with the following about ATV riding in Maine.

(rate each statement)	strongly agree	agree	neutral	disagree	strongly disagree	don't know
A. Overall, trails are well marked	7.8%	27.7%	27.2%	18.7%	4.4%	14.2%
B. Trail conditions have improved in recent years	9.3%	36.8%	24.5%	9.7%	3.3%	16.3%
C. There are an adequate number of trails for riding ATVs	6.8%	13.4%	15.2%	31.2%	20.7%	12.7%
D. I am satisfied with the level of law enforcement on Maine trails	9.4%	29.5%	32.6%	11.6%	5.3%	11.5%
E. I have observed more damage to land and trails caused by ATVs this year compared to last year	3.0%	9.7%	26.5%	25.9%	17.5%	17.5%

13. Approximately how many days in all did you ride ATVs in Maine during the 2003-2004 season (July 1, 2003 through June 30, 2004)?

17.4% Less than 10 days ***16.1%*** 30 – 39 days

20.3% 10 – 19 days ***6.3%*** 40 – 49 days

17.9% 20 – 29 days ***22.0%*** 50 days or more

14. How many different overnight trips in Maine (where you did not return to your own home or camp at night) did you take during the 2003-2004 season (July 1, 2003 through June 30, 2004)?

36.3% None	***3.4%*** Four
38.9% One	***1.2%*** Five
10.3% Two	***4.7%*** More than five
5.2% Three	

15. About how many miles did you ride ATVs in Maine during the 2003-2004 season (July 1, 2003 through June 30, 2004)?

mean=520.5 Miles ridden in Maine

16. About what percentage of your ATV riding is done on each of the following?

Land that you own or lease in Maine	***mean=31.9%***
Other privately owned or leased land in Maine	***mean=37.3%***
Public land owned by the State of Maine	***mean=10.7%***
Public land in Maine owned by local or national government (town or national park or forest)	***mean=5.0%***
Land of unknown ownership	***mean=15.1%***

17. About what percentage of your ATV riding is done on each of the following?

Trails or roads marked as open for ATV riding	***mean=46.3%***
Trails or roads not marked as open for ATV riding	***mean=35.4%***
Other areas that have no trails or roads	***mean=18.3%***

19. About what percentage of your ATV riding is done during the following times of the year?

Summer (June, July, August)	***mean=40.3%***
Fall (September, October, November)	***mean=37.2%***
Winter (December, January, February)	***mean=9.3%***
Spring (March, April, May)	**mean=13.2%**

19. About what percentage of your ATV riding is done on weekdays and on weekends?

Weekdays (Monday through Friday)	***mean=33.5%***
Weekends (Saturday or Sunday)	***mean=67.5%***

Questions 20 – 26 ask about expenses associated with the use of all ATVs by you and people in your household during the 2003-2004 season* (July 1, 2003 through June 30, 2004)*. When reporting your expenses, please keep in mind the following:

- ***e. Report only expenditures made in Maine. Do not report any spending that took place outside of Maine. If you drove to Maine from outside of the state, report only expenditures that you made in Maine.***
- ***f. Please report all expenditures for all of the ATVs used by people in your household between July 1, 2003 and June 30, 2004. We are interested in all spending that occurred in Maine, regardless of who paid the expenses.***
- ***g. Use your best estimate for each answer. Enter a zero if you made no expenditures.***
- ***h. Please do not include any expenditures more than once.***

20. About how much did you spend on each of the following ATV expenses?
(write answers below, enter "0" if none)

A. ATV parts and accessories (tires, mufflers, winches, plow)	***mean=$221.08***
B. Gasoline and oil for ATVs	***mean=$146.81***
C. ATV service & repair	***mean=$117.85***
D. ATV storage	***mean=$4.29***
E. ATV insurance	***mean=$67.58***
F. Other (specify _____	***mean=$19.86***

21. About how much did you spend on each of the following rider related expenses?
(write answers below, enter "0" if none)

A. ATV clothing (pants, boots, gloves, etc.) (	***mean = $51.76***
B. Accessories (helmets, goggles, communications, etc.)	***mean = $71.55***
C. Other (specify) _____	***mean = $10.16***

22. About how much did you spend on each of the following trip related expenses?
(write answers below, enter "0" if none)

A. Gasoline and oil for the towing vehicle	***mean=$120.44***
B. Turnpike tolls for the towing vehicle	***mean=$5.94***
C. Restaurant and lounge expenses	***mean=$62.41***
D. Food and drinks bought in stores	***mean=$75.85***
E. Overnight accommodations (motel, cabin, etc.)	***mean=$40.56***
F. Guides and tour packages	***mean=$1.15***
G. Club memberships, dues or donations	***mean=$6.60***
H. Souvenirs, gifts, etc.	***mean=$9.83***
I. Other (specify) _____	***mean=$6.47***

23. Not including the value of any trade-ins, about how much did you and other people in your household spend to buy ATVs <u>in Maine</u> between July 1, 2003 and June 30, 2004? *(enter "0" if none)*

A. New ATVs from a dealer	***mean$1,880.67***
B. Used ATVs from a dealer	***mean=$181.47***
C. Used ATVs from a private party	***mean=$247.60***

24. Not including the value of any trade-ins, approximately how much did you and other people in your household spend in total <u>for trailers</u> (primarily for transporting ATVs) that you bought <u>in Maine</u> between July 1, 2003 and June 30, 2004? *(enter "0" if none)*

A. New trailers from a dealer	***mean=$154.04***
B. Used trailers from a dealer	***mean=$14.41***
C. Used trailers from a private party	***mean=$53.63***

25. Not including the value of any trade-ins, approximately how much did you and others in your household spend in Maine between July 1, 2003 and June 30, 2004 to buy <u>cars or trucks</u> primarily to tow your ATVs? *(enter "0" if none)*

	Vehicles 1 & 2
A. New cars/trucks to tow ATVs from a dealer	***mean=$1,512.78***
B. Used cars/trucks to tow ATVs from a dealer	***mean=$771.23***
C. Used cars/trucks to tow ATVs from a private party	***mean=$167.31***

26. About how many miles did you drive the vehicle(s) you reported in question 25? *(enter "0" if none)*

	Vehicles 1 & 2
A. Total miles driven (*n=83*)	***mean=12,3000***
B. Miles transporting ATVs (*n=82*)	***mean=1,579***

Finally, we'd like to ask a few questions about yourself as the owner of an ATV registered in Maine from July 1, 2003 through June 30, 2004.

27. Have you ever taken an ATV safety course?

27.3% Yes ***72.7%*** No

28. How often do you wear a helmet when riding an ATV?

16.8% Always ***21.8%*** Most of the time ***26.2%*** Sometimes ***35.2%*** Never

29. How often do you ride double on ATVs?

28.7% Never ride double ***53.5%*** Less than half the time ***17.8%*** More than half the time

30. About how many years have you been riding ATVs? ***mean=12.4*** **years**

31. Have you or anyone in your household ever purchased property in Maine primarily to have a base from which to ride your ATV?

11.7% Yes ***88.3%*** No

32. If your family owns a camp in Maine, about what percentage of all your ATV riding is done from that camp?

52.9% Do not own a camp in Maine

14.7% - 0% - 25%

9.6% - 26% - 50%

7.9% - 51% - 75%

14.9% - 76% - 100%

33. What is your sex? ***87.6%*** Male ***12.4%*** Female

34. In what year were you born? ***mean age=47.4 years***

35. Which of the following best describes your level of education so far?

4.9% Some high school, no diploma

43.2% High school graduate/GED

17.4% Some college, no degree

20.0% 2-year college/vocational graduate

10.0% 4-year college graduate

4.5% Post-college graduate or professional degree

36. During the past 12 months, what was the combined income for the members of your household?

0.8% Less than $10,000

1.8% $10,000 - $14,999

8.0% $15,000 - $24,999

12.8% $25,000 - $34,999

21.8% $35,000 -$49,999

29.3% $50,000 - $74,999

13.2% $75,000 - $99,999

12.3% $100,000 or more