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The Economic Contribution of Snowmobiling in Maine

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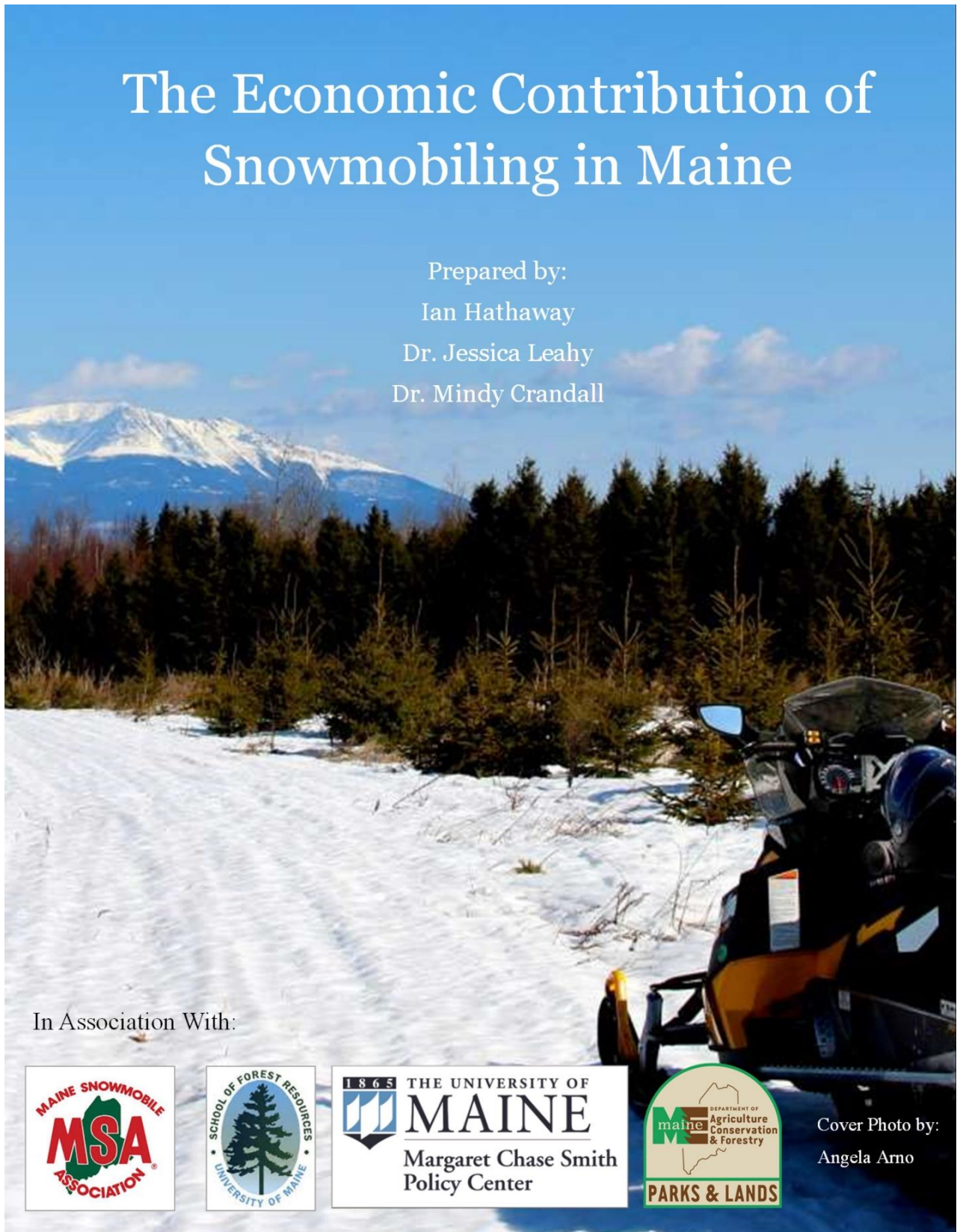
The Economic Contribution of Snowmobiling in Maine

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Executive Summary

Snowmobiling has been a popular winter pastime in Maine for decades. During the 2018-2019 snowmobiling season, nearly 60,000 snowmobiles were registered in Maine by resident snowmobilers, and over 25,000 snowmobiles were registered by non-residents. Since the 1998 report *An Economic Evaluation of Snowmobiling in Maine*, overall registrations have increased, and registrations among non-residents have more than doubled.

There has been no comprehensive evaluation of snowmobiling in Maine since the 1998 report completed by the University of Maine in collaboration with the Maine Snowmobile Association and State of Maine Snowmobile Program. In order to update the information on snowmobiling related expenditures, the sociodemographic characteristics of snowmobilers in Maine, and the opinions of Maine snowmobilers on snowmobiling tourism infrastructure and issues related to snowmobiling in Maine today, a new study was commissioned by the State of Maine Snowmobile Program and the Maine Department of Agriculture, Conservation and Forestry through the University of Maine's School of Forest Resources. The results are contained in this report.

The results conclude that snowmobiling generated \$459 million in direct spending across many sectors during the 2018-2019 season. Accounting for indirect and induced economic activity, the contribution of snowmobiling to Maine's economy was over \$606 million. Snowmobiling generates a significant amount of spending during the winter in Maine, especially in the rural areas which benefit from snowmobiling activity. Snowmobile related spending also directly supports 2,279 jobs in the state of Maine and indirect and induced effects of the spending support an additional 1,060 jobs.

Trip-related spending accounts for approximately \$209.5 million or about 46% of the total direct spending for the 2018-2019 season. Trip-related expenditures include but are not limited to, gas/oil for a snowmobile, gas/oil for a tow vehicle, restaurant purchase, souvenirs, clothing purchased during the trip, and overnight accommodations. The greatest amount of direct spending in a single category was snowmobile purchases, which generated approximately \$132 million in direct spending.

Introduction

This report provides an estimate of the overall contribution snowmobiling activity made to the Maine economy during the 2018-2019 snowmobiling season. Maine has not taken an extensive evaluation of snowmobiling since 1998 when a similar economic impact report was prepared by the University of Maine Department of Economics and Policy in collaboration with the State of Maine Snowmobile Program. During the data collection period of the 1998 Maine Snowmobiling Survey, New Hampshire residents with snowmobiles registered in New Hampshire were permitted to snowmobile in Maine without obtaining a Maine registration. Since then, Maine has changed its requirements such that all snowmobiles used in the state must have a Maine registration. Between 1998 and today (2019), snowmobiling in Maine has changed significantly, including advancements in snowmobile technology and gear, the mix of in- and out-of-state riders, and the popularity of different riding activities such as backcountry riding. Data used to calculate the economic contribution were collected through a questionnaire sent to a representative sample of snowmobilers with snowmobiles registered in the state of Maine. In addition to economic contribution information, this report also provides summary information from the questionnaire on snowmobiler sociodemographic information and opinions on snowmobiling related issues, such as backcountry riding, satisfaction with Maine's snowmobiling tourism infrastructure, and the Registered Maine Guide program as it relates to snowmobiling.

Methodology

In order to create an accurate estimate of the total economic contribution that snowmobiling generates within the State of Maine, a questionnaire was sent to a random sample of snowmobilers with snowmobiles registered with the state during the 2018-2019 snowmobiling season. The survey collected data on spending within the state which could be attributed to snowmobiling as well as basic demographics and opinions on snowmobiling related issues. The spending information from the survey was compiled into resident and non-resident groups and analyzed by the IMPLAN (Impact Planning Analysis) software which estimated how the snowmobiling dollars were recirculated within the state. Summary statistics on sociodemographic information, belief statements, and activity types were tabulated in IBM's SPSS statistics software.

Survey and Sampling Techniques

This research followed the methodology used in Reiling, Kotchen, and Kezis's 1998 report *An Economic Evaluation of Snowmobiling in Maine* in order to yield comparable results. Some questions were updated to make the survey relevant to snowmobiling today. Some opinion related questions were also replaced to reflect the current issues affecting snowmobiling in Maine now.

Questionnaire Description

The questionnaire was comprised of five sections (Appendix 1). Section one related to the snowmobile rider's past snowmobiling activities and included information on when they first began snowmobiling in Maine, how often they had gone in the past, volunteering for local clubs or the MSA, and activities and opinions related to Registered Maine Guides.

Section two pertained to the rider's current snowmobiling activities in Maine during the 2018-2019 season. Respondents indicated the number of trips they took and what types of trips they were, where they rode in and out of Maine, and who rode with them.

Section three asked respondents to provide, through Likert scale responses, their opinions on backcountry riding in Maine as it related to the landowner-snowmobiler interactions, and the effects that it could have on the natural environment.

Section four asked questions on snowmobiling spending and the riders' opinions on the areas in which they rode. This section asked riders to focus their responses on a snowmobiling trip taken closest to a specified date, generated randomly for each survey recipient and printed on the front of the survey. This created a spending profile for a given trip based on the length (in days) over which it took place. The questionnaire prompted the rider to indicate where the trip took place, how many members of their household took part, how many snowmobiles they brought, and how and where they spent money during the trip. All reported spending was considered snowmobiling related.

Section five asked respondents to answer questions about snowmobiling activity related to a specified snowmobile, indicated by a registration number printed on the front of the survey. This included questions about any gear, parts, labor, or accessories attributed to that particular snowmobile. It also asked whether or not the snowmobile was purchased that year, and for how much; if a trailer had been purchased that year, and if so for how much; and if the trailer was made by a Maine company. Respondents were also asked to report estimates of spending outside the state or online to help track the amount of money which could potentially be captured by in-state retailers in the future.

Section six asked for basic sociodemographic information on age, gender, ownership of assets, and income levels.

Sampling

Of the total 87,165 registered snowmobiles in the state of Maine during the 2018-2019 snowmobiling season, 61,661 were registered by Maine residents and 25,504 registered by non-resident riders. Snowmobiles registered to a business were not included in the sample. In order to receive enough responses to support a 95% confidence interval for the estimate, four hundred returned and completed surveys were needed from both the resident and non-resident groups. To receive this sample, the research team anticipated a response rate of 33% and sent out 1,200

surveys to a random sample from each group (resident and non-resident; 2,400 total). The State of Maine Department of Inland Fisheries and Wildlife provided the list of all snowmobiles registered in Maine during the 2018-2019 snowmobiling season. The survey sample was obtained by assigning a unique random number to each registration so that each registration in the two groups has an equal chance of being selected (e.g. 1,200 selected from the 61,661 resident and 1,200 from the 25,504 non-resident). Contact information was examined to remove any instances of multiple surveys being sent to the same household. Removed participants were replaced randomly. The survey mailing administration followed the Dillman Tailored Design Method for surveys (Dillman et. al, 2014). Surveys were initially sent with an invitation letter, an informed consent document, and a prepaid envelope to return the survey. The initial mailing took place in late May 2019 after the 2018-2019 season had come to an end. Approximately two weeks after the first mailing, a reminder post card was sent to every registered snowmobiler who had been selected to participate in the study. As surveys were received, the registration numbers printed on the front were used to remove the participant from the reminder mailing list. A replacement survey was sent to all those in the survey pool who had not yet returned a survey approximately three weeks after the reminder post card was sent. The replacement survey included all the same components as the initial mailing, but the invitation letter included a link and QR code providing an option to take the survey online.

Responses

The response rate over all was 899 useable surveys (37.5%). Several questionnaires (N=5) were unusable due to not being filled out at all, filled out in an unusable manner, or being damaged beyond use before being returned. Of the questionnaires returned 421 (46.8%) were from resident registrations while 478 (53.2%) were from non-resident registrations from 16 states (Massachusetts, Rhode Island, New Hampshire, Vermont, Connecticut, New Jersey, New York, Pennsylvania, Virginia, Georgia, Florida, Alabama, Ohio, Michigan, Illinois, and Texas).

Reported totals of resident and non-resident averages are weighted based on the total number of resident and non-resident snowmobiles registered in the state of Maine during the 2018-2019 snowmobiling season. For example, if a resident spent an average of \$1.00 on snowmobile clothing per snowmobile over the course of the season and there were 61,661 snowmobiles registered by residents during the season, the estimated spending for the season by resident snowmobilers on snowmobile clothing would be \$61,661

Results

Sociodemographic Characteristics

The average age, household size, education level, and income of snowmobilers for resident riders and out-of-state riders is shown in Table 1-4.

Age

The average of resident riders' age obtained by the survey was 54 years old. All participants who filled out the questionnaire were at least 18 years of age. The average age of non-resident riders age was 53 years old. The percent of respondents in each age bracket is displayed in Table 1.

Table 1. Age

Age Bracket	Resident (N=394)	Non-Resident (N=448)
18-19	1.0%	0.7%
20-29	5.3%	4.5%
30-39	9.6%	11.2%
40-49	17.8%	15.8%
50-59	28.9%	38.4%
60-69	25.4%	23.2%
70-79	9.6%	5.1%
80-89	2.3%	1.1%

Household Size

Resident households of snowmobile riders averaged 2.66 members while non-resident households averaged 2.83 members. The percent of respondents residing in households with various numbers of members is shown in Table 2.

Table 2: Number of Household Members

Household Members	Resident (N=395)	Non-Resident (N=448)
1	10.6%	7.6%
2	48.6%	45.3%
3	13.7%	16.7%
4	20.0%	19.9%
5	5.6%	7.6%
6 or more	1.5%	2.9%

Resident households of snowmobile riders averaged 2.66 members while non-resident households averaged 2.83 members.

Education Level

The questionnaire asked for education level in terms of six categories: some high school but no degree, high school degree or equivalent (e.g. GED), some college but no degree, associate degree, bachelor's degree, or graduate degree. The average education level for both residents and non-residents was just above some college but no degree, although slightly higher percentages of non-residents had completed a college degree.

Table 3 below displays the percent of respondents who indicated each education level by residents and non-residents.

Table 3. Education Level

Education Level	Resident (N=394)	Non-Resident (N=448)
Some high school but no degree	2.5%	1.8%
High school degree or equivalent (e.g. GED)	34.0%	33.3%
Some college but no degree	21.8%	22.3%
Associate degree	16.5%	14.1%
Bachelor’s degree	17.5%	20.1%
Graduate degree	7.6%	8.5%

The most frequent answer about education level for both residents and non-residents was “high school degree of equivalent”, as shown in Table 3.

Income

Income levels were assessed in the survey instrument through 11 income brackets in increments of \$10,000 (from \$0-\$59,999), increments of \$20,000 (from \$60,000 to \$119,999), and separate brackets of \$120,000-\$149,999 and \$150,000 or more. Table 4 shows the percent of respondents in each income bracket option on the questionnaire.

Table 4: Income Levels

Income Bracket (per year)	Residents (N=369)	Non-Residents (N=420)
Less Than \$10,000	0.8%	0.0%
\$10,000-\$19,999	2.7%	0.0%
\$20,000-\$29,999	5.1%	0.5%
\$30,000-\$39,999	5.1%	1.2%
\$40,000-\$49,999	7.0%	2.4%
\$50,000-\$59,999	8.9%	3.3%
\$60,000-\$79,999	14.6%	11.0%
\$80,000-\$99,999	14.1%	8.3%
100,000-\$119,999	11.7%	12.9%
\$120,000-\$149,999	12.7%	16.9%
\$150,000 or more	17.1%	43.6%

The median income for residents was in the \$80,000-\$99,999 / year bracket and the median income for non-residents was in the \$120,000-\$149,999 / year bracket. This indicates that in general, non-resident snowmobilers are coming from households with greater incomes than those of resident snowmobilers.

Internet Access

Most survey respondents had access to computers and the internet. The percent of riders who have access to a computer, access to the internet via computer, or access to the internet via smartphone is provided in Table 5.

Table 5. Internet Access

Category	Resident	Non-resident	Average
Personal Computer (% Yes)	90.1%	94.4%	92.4%
Internet Access (% Yes)	96.4%	96.1%	96.2%
Smartphone Internet Access (% Yes)	85.4%	93.1%	89.5%

Camp or Second Home Ownership in Maine

The percent of residents and non-residents who own a camp or second home in Maine is shown in Table 6.

Table 6: Camp or Second Home Ownership

Property	Resident	Non-Resident
Maine Camp or Second Home (% Yes)	37.4%	36.4%

Of residents, 37.4% indicated that they owned a camp or second home in Maine. Of non-residents, 36.4% indicated that they owned a camp or second home in Maine. Based on the number of registered snowmobiles, this indicates that approximately 22,300 residents and 9,150 non-residents own some form of camp or second home in the state. This question on the survey instrument did not ask if the homes were used primarily or exclusively for snowmobiling.

Only five sociodemographic characteristics were directly comparable between the 1998 Maine Snowmobiling Survey and this report. Those characteristics are listed in [Table 7](#).

Table 7. Sociodemographic Comparisons 1998-2019

Characteristic	Resident 1998	Non-Resident 1998	Resident 2019	Non-Resident 2019
Gender (% Male)	86.8	92.2	87.6	93.1
Average Age	42.8	41.1	54	53
Average Number of People in Household	3.1	3.0	2.7	2.8
Average Education (years)	12.8	13.3	>12	>12
Personal Computer Access (% yes)	43.7	49.5	91.1	94.4
Internet Access (% yes)	31.9	43.8	96.4	96.1

Respondents' Snowmobiling History in Maine Riding History

The percent of respondents (resident and non-resident) who began snowmobiling in Maine in each specified time period are displayed in Figure 1.

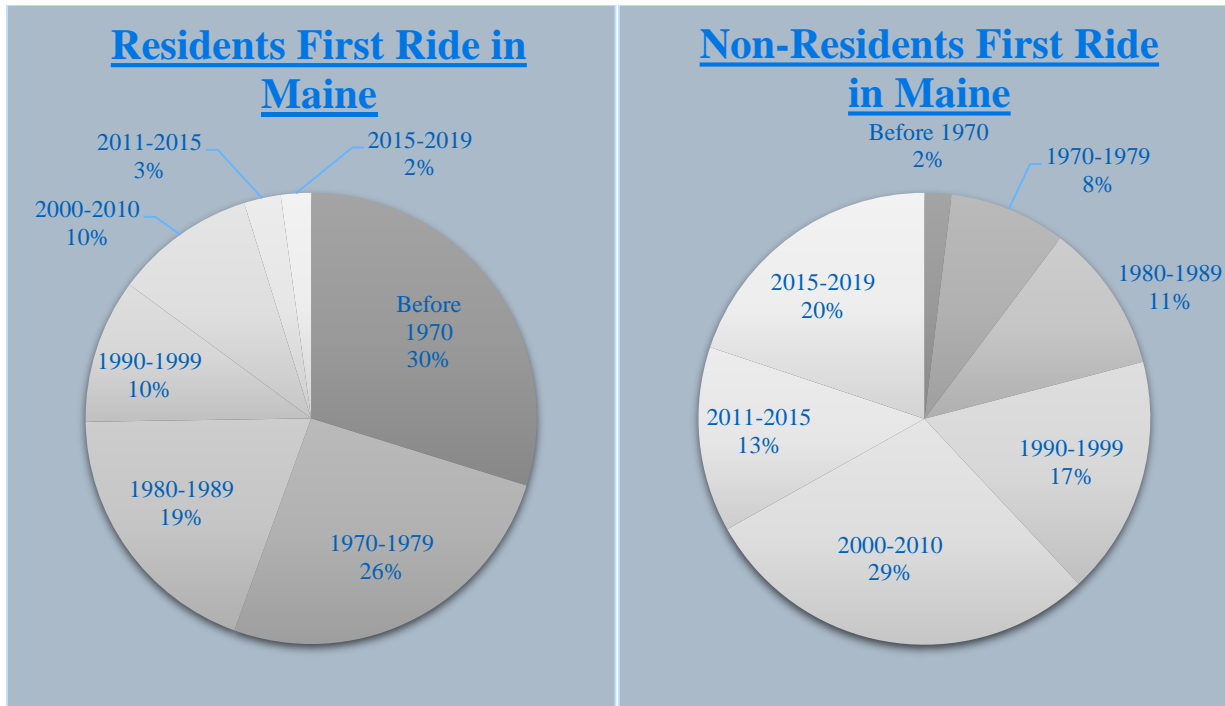


Figure 1. Timing of First Rides in Maine for Residents and Non-Residents.

The majority of resident snowmobilers took their first ride in Maine before 1979 while the majority of non-residents began snowmobiling in Maine after 1990. Resident and non-resident riders were also asked how frequently they have snowmobiled in Maine after their first time snowmobiling in Maine (Figure 2).

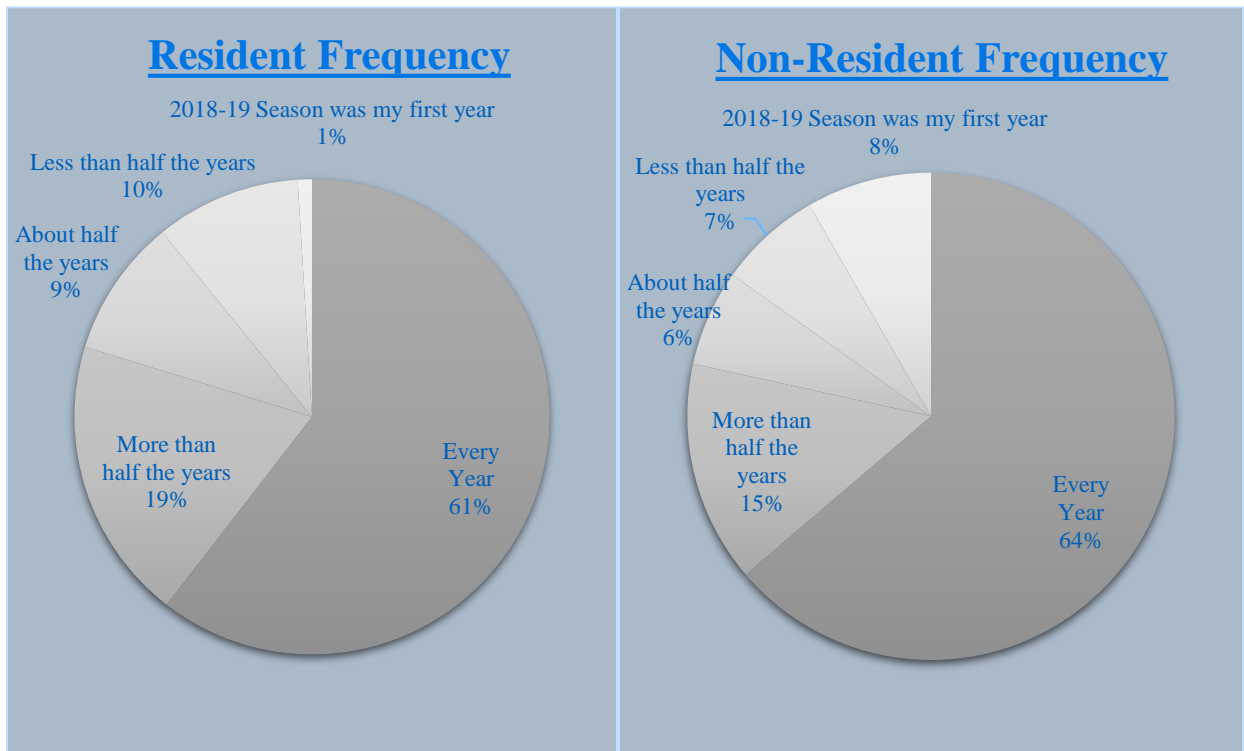


Figure 2. Riding Frequency of Resident and Non-Resident Snowmobilers

Maine remains a popular snowmobiling destination for both residents and non-residents, most of whom snowmobiled in Maine either every year or more than half the years since their first snowmobile trip in the state (80% of residents and 79% of non-residents).

Snowmobile Club & Volunteering History

The percent of respondents who indicated whether or not they had been members of the Maine Snowmobiling Association (MSA) or a Maine snowmobile club, and if they had volunteered for the MSA or a Maine snowmobile club during the 2018-19 season, is shown in Table 8.

Table 8. Snowmobile Club Membership & Volunteering History

Question	Resident	Non-Resident
Member of Maine Snowmobile Club (2018-19)	50%	40%
Member of a Maine Snowmobile Club (Ever)	69%	49%
Member of the MSA (2018-19)	42%	34%
Member of the MSA (Ever)	55%	40%
Volunteered for the MSA or Snowmobile Club (Ever)	49%	16%
Volunteered for the MSA or Snowmobile Club (2018-19)	24%	8%

Fewer non-residents are members of Maine snowmobile clubs and the MSA than resident snowmobilers. This could be due to non-residents spending less time overall in Maine and only coming during the snowmobile season to ride.

Approximately 24% of residents indicated that they volunteered during the 2018-2019 season. The average resident volunteer hours were 39.3 hours per person with a range of 1 hour to 200 hours. Only 8% of non-residents volunteered. Their average volunteer hours were also lower (13.3 hours per person, with a range of 1 hour to 60 hours). This is likely due to most volunteering duties such as trail maintenance taking place in the off season and living away from Maine making it difficult for non-residents to participate. A common response for non-resident riders as to why they did not volunteer or volunteer more was that they “lived too far away”. Using the registration data to extrapolate these findings, residents donated approximately 562,000 volunteer hours during the 2018-2019 snowmobiling season and non-residents donated approximately 27,000 volunteer hours for a total of 589,000 volunteer hours.

Household Characteristics

The number of snowmobiles per household as well as the number of riders per household is shown in Table 9.

Table 9. Number of Snowmobiles and Snowmobilers by Household

Category	Resident	Non-Resident
Number of Snowmobiles per Household	2.3	2.4
Number of Snowmobile Riders per Household	2.4	2.5

The average number of snowmobiles per household registered in Maine for residents was 2.3 snowmobiles and 2.4 snowmobiles for non-residents. Respondents reported averages of 2.4 members of resident households participating in snowmobiling activities, with non-residents averaging 2.5 riders per households.

Miles Traveled by Snowmobile in Maine

Displayed in Table 10 are the average number of miles traveled by snowmobile (per snowmobile) and the average number of snowmobile trips further than 100 miles from the primary residence of the snowmobile owner.

Table 10: Miles Traveled by Snowmobile

Category	Resident	Non-Resident
Average Miles Ridden	780	973
Average Number of 100+ Mile Trips	3.2	4.0

Non-residents are riding a greater distance on average in Maine than residents and took slightly more trips than residents in which they traveled 100 miles or more from their home or primary location in Maine.

Snowmobiling Frequencies

Total Snowmobiling Days

Survey respondents were asked how many total days they snowmobiled in Maine during the 2018-19 season. Figure 3 below shows the response frequencies for both in and out of state riders.

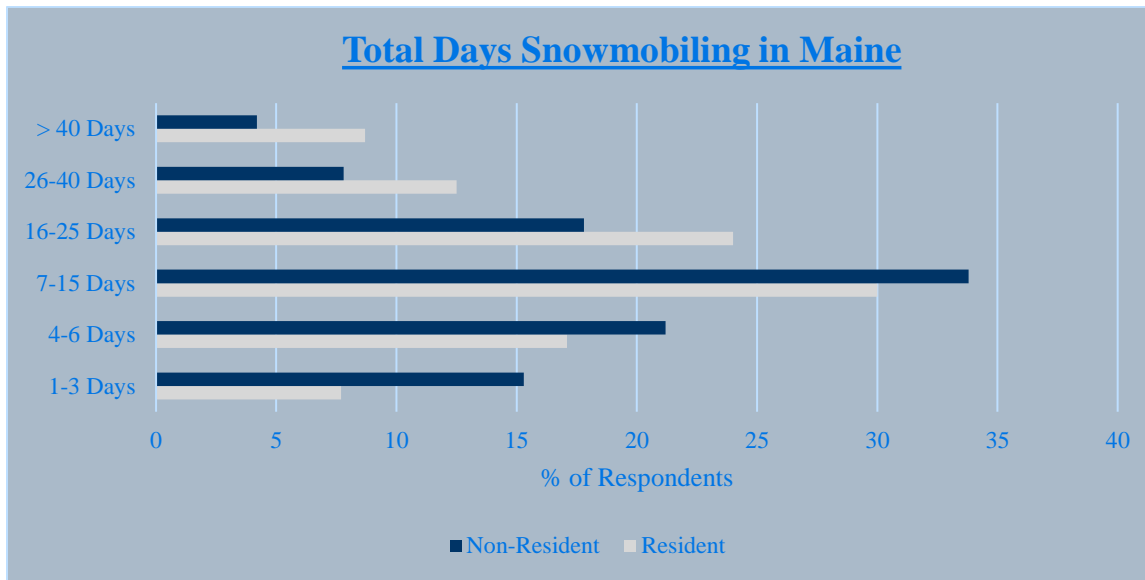


Figure 3. Total Days Spent Snowmobiling in Maine 2018-2019

Non-residents had fewer total days snowmobiling in Maine, with most (over 70%) of respondents snowmobiling 15 days or less in 2018-2019. In contrast, almost 9% of residents snowmobiled more than 40 days over the course of the season.

Overnight Trips

Survey respondents were also asked how many overnight trips they participated in during the 2018-19 snowmobile season. Figure 4 below shows the response frequencies for both resident and non-resident riders.

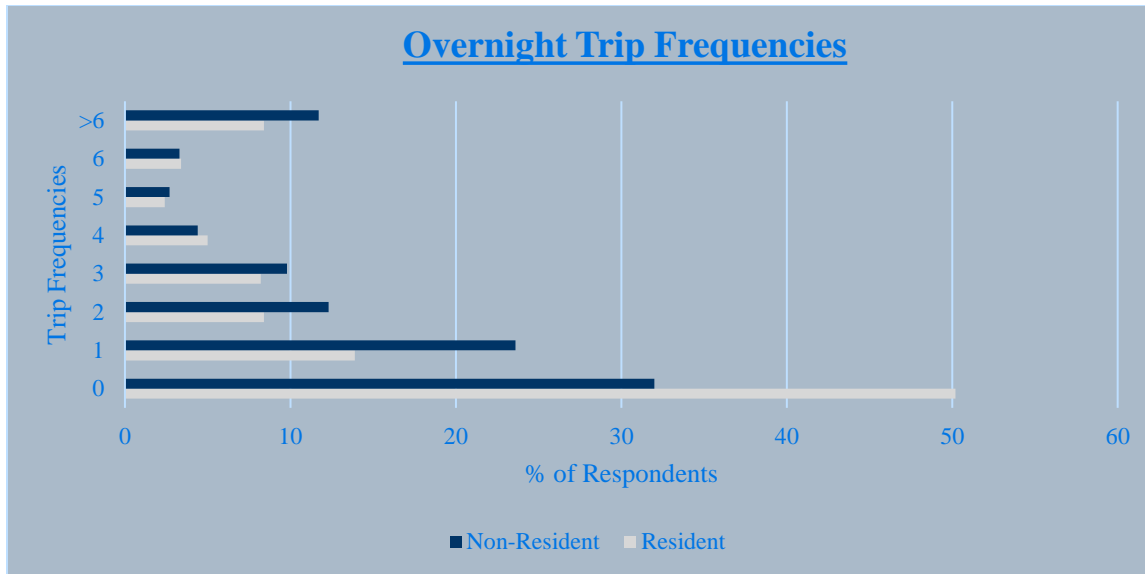


Figure 4. Number of Overnight Trips (of any length)

Not surprisingly, non-residents take overnight snowmobiling trips more often than residents. This is likely due to residents’ ability to snowmobile from, and back to, their own homes in a single day.

Miles Traveled by Snowmobile

Residents traveled on average 780 miles in Maine over the course of the season and non-residents traveled 973 miles on average. Using registration data to extrapolate this, residents traveled approximately 46.5 million miles in Maine by snowmobile, and non-residents traveled approximately 24.5 million miles in Maine.

In the 2018-2019 season, both residents and non-residents reported to have ridden about the same amount in Maine compared to a typical year.

Snowmobiling Use

Survey participants were asked what kinds of activities they utilized their snowmobiles for during the 2018-19 snowmobiling season. They were given nine common options as well as an “other” option which asked for respondents to specify the activity. The percent of survey respondents who participated in each activity is displayed in Figure 5.

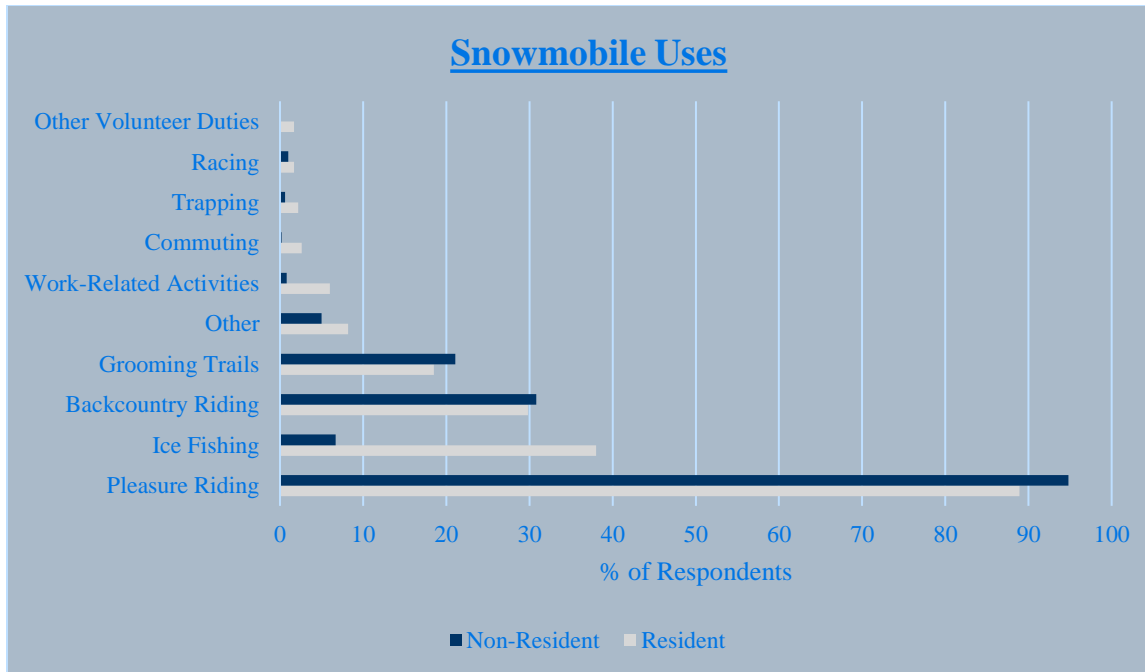


Figure 5. Snowmobile Uses

Snowmobiles are used in Maine predominantly for pleasure riding. The second most common use by residents is for ice fishing. A much smaller proportion of non-residents use their snowmobiles to participate in ice fishing. About one third of riders also use their snowmobiles to help groom trails. Uses for snowmobiles in Maine specified by survey respondents in the “Other” category were: hunting, trail maintenance other than grooming, maple sap collection, and accessing remote camps.

Snowmobiling Groups

Survey participants were asked to specify the types of groups they snowmobiled with during the 2018-19 season. Figure 6 below displays the percent of respondents who reported riding with each type of group.

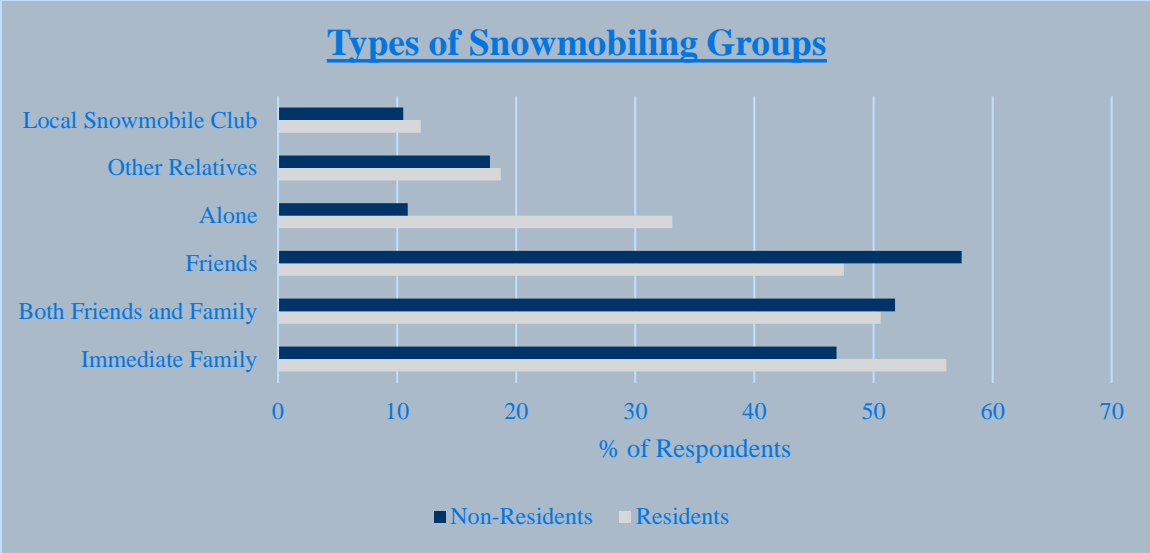


Figure 6. Types of Snowmobiling Groups

Non-residents are much less likely to snowmobile alone than resident snowmobilers. This could be due to the fact that non-resident snowmobilers are less likely to travel alone to the state to ride, or unfamiliarity with the area leading to less desire to ride alone.

Snowmobiling Locations in Maine

Survey respondents were asked to report spending relating to one trip they took during the 2018-19 snowmobiling season. The trip was specified as the trip that had taken place closest to a random date printed on the front of the survey. They were also asked to indicate where this trip took place using a map of tourism regions in Maine (Figure 7).

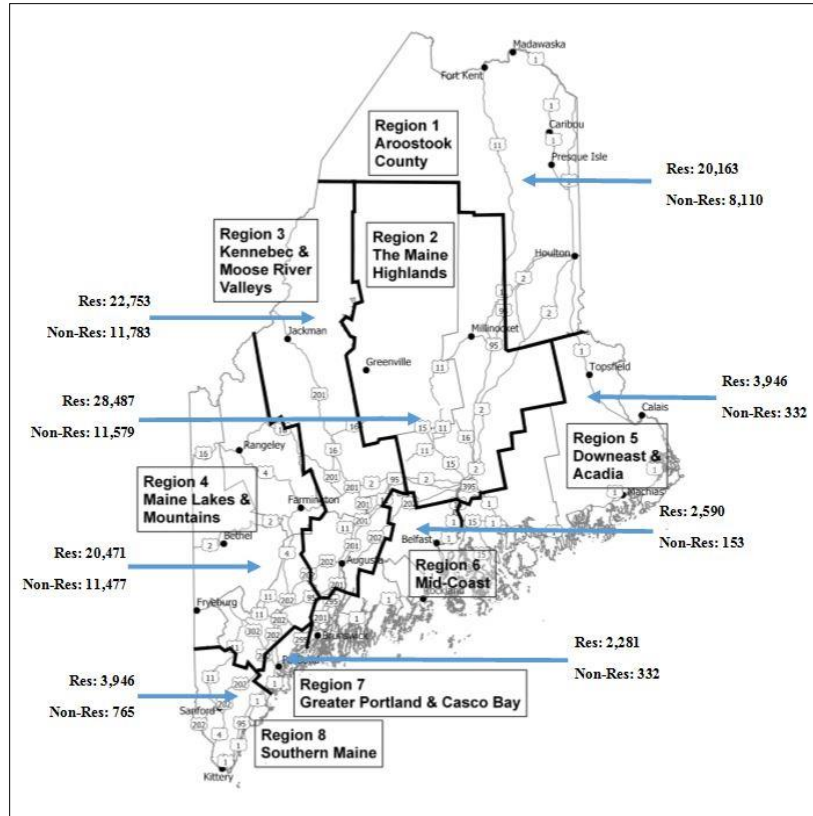


Figure 7. Map of Tourism Regions in Maine

Figure 7 displays the estimated number of total snowmobilers in each region during 2018-2019, based on the number of survey respondents indicating that they rode in each region during their specified trip. The percent of respondents who answered that they had rode in each region was applied to the total number of registrations. Table 11 shows what percent of trips took place in these areas. The percentages total over 100% as many snowmobile trips crossed the boundaries of these areas.

Table 11. Trip Locations of Randomly Selected Trip

Region	Resident	Non-Resident
The Maine Highlands	46.2%	45.4%
Kennebec and Moose River Valleys	36.9%	46.2%
Maine Lakes & Mountains	33.2%	45.0%
Aroostook County	32.7%	31.8%
Downeast & Acadia	6.4%	1.3%
Southern Maine	6.4%	3.0%
The Mid Coast	4.2%	0.6%
Greater Portland and Casco Bay	3.7%	1.3%

Based on the average number of extended trips and length of extended trips in days, the estimated number days of snowmobile traffic was projected into each region. Each snowmobile day represents a single snowmobile visiting this region for some of or the entirety a day. The results of the snowmobile day extrapolation are seen in Table 12. While the total number of snowmobile days was 696,120 for residents and 443,260 for non-residents, the total number of days displayed in Table 12 is greater than these figures as snowmobilers may have visited more than one region in a day.

Table 12: Snowmobile Days by Region

Region	Resident	Non-Resident
The Maine Highlands	321,608	201,240
Kennebec and Moose River Valleys	256,868	204,786
Maine Lakes & Mountains	231,112	199,467
Aroostook County	227,632	140,957
Downeast & Acadia	44,551	5,762
Southern Maine	44,551	13,297
The Mid Coast	29,237	2,660
Greater Portland and Casco Bay	25,757	5,762

Snowmobiling Outside of Maine

Survey respondents indicated whether they had snowmobiled outside the state of Maine during the 2018-19 snowmobiling season. Table 13 shows the portion of snowmobilers who rode outside of the state of Maine and for those who did, how many miles on average they rode in other locations.

Table 13. Snowmobiling Activity outside Maine by Registered Maine Snowmobilers

Category	Resident	Non-Resident
Snowmobiled outside of Maine	6.5%	43.8%
Snowmobile Exclusively in Maine	93.5%	56.2%
Miles snowmobiled outside of Maine by those who did	876	844

Of residents, 6.5% noted that they had snowmobiled outside of the state and 43.8% of non-residents had as well. While only a small portion of Maine resident snowmobilers ride outside of Maine, slightly more than half (56.2%) of non-resident Maine snowmobilers rode exclusively in Maine. Residents indicated they had traveled to New Hampshire, Vermont, Massachusetts, Connecticut, Quebec, New Brunswick, Colorado, and Oregon to snowmobile. Non-Residents indicated that they had traveled to each of these locations as well (excluding Colorado and Oregon), and had also traveled to Rhode Island, Pennsylvania, New York, Ontario, Illinois, Michigan, Wisconsin, and Montana. For those who did snowmobile outside of Maine, residents rode an average of 876 miles outside the state and non-residents rode an average of 844 miles

outside the state. The most common place that Maine registered snowmobile owners rode outside of Maine was New Hampshire.

Snowmobile Rider Opinions

Guided Snowmobile Tours

Maine Guides are available for hire by snowmobilers in several locations throughout the state, through snowmobile rental locations or private guiding businesses. Of resident survey respondents, 2% indicated that they had ever hired a Maine Guide to lead a snowmobile excursion, and less than 1% had hired one during the 2018-19 snowmobiling season. Of non-resident survey participants, 3% reported that they had hired a Maine Guide to lead a snowmobile excursion at some point, and 1% had hired a Maine Guide during the 2018-19 snowmobiling season. All respondents were asked seven statements about tours led by Maine Guides and asked to rate their agreement with each statement using a scale from 1 to 5 corresponding with “strongly disagree” to “strongly agree”, respectively. The closer the number is to five, the more agreement with the statement among respondents. Table 14 reports the average score for each statement.

Table 14. Statements about Maine Guide-led Snowmobile Tours

Statement	Resident (Mean)	Non-Resident (Mean)
I would experience new areas and routes that I would not have ventured on without a Maine Guide.	2.83	2.95
I would be able to safely snowmobile in backcountry conditions because of a Maine Guide.	2.78	3.05
I would feel safer with a Maine Guide leading the tour.	2.63	2.55
A Maine Guide would increase my ability to navigate the trails.	2.62	2.64
A Maine Guide would increase my knowledge of acceptable riding practices.	2.51	2.54
I would be a more confident snowmobiler with a Maine Guide.	2.42	2.46
A Maine Guide would increase my riding enjoyment.	2.33	2.34

1= Strongly Disagree, 2=Disagree, 3= Neither Agree nor Disagree, 4=Agree, 5= Strongly Agree

The average response by residents for all statements fell between 2 (Disagree) and 3 (Neither agree nor disagree). The average response for non-residents for six of the seven statements fell in the same range. The two statements that had the highest average scores were “I would experience new areas and routes that I would not have ventured on without a Maine Guide” and “I would be able to safely snowmobile in backcountry conditions because of a Maine Guide.” This indicates that riders with registered snowmobiles might be most likely to hire a guide to take advantage of

a Guide’s knowledge of the extensive Maine snowmobile trail systems or to ensure safety in a difficult backcountry setting.

Backcountry Riding

Survey participants were asked to indicate their level of agreement with several statements relating to backcountry riding and backcountry activities in Maine. Participants were given the option to score each statement with the 1-5 Likert scale corresponding with “strongly disagree” to “strongly agree”, respectively. Table 15 and Table 16 below show the average responses for both resident and non-resident snowmobilers in Maine.

Table 15. Backcountry Riding Opinions

Statements on Backcountry Riding	Resident	Non-Resident
Backcountry riding should be allowed on public land.	3.98	3.95
Backcountry riders should have written permission to ride on private lands.	3.16	3.41
Backcountry riding should only be allowed in designated areas.	3.03	3.33
Backcountry riders should be required to take a land-owner relations course.	2.89	3.19
Backcountry riders should be required to have insurance for search and rescues.	2.76	3.12
Backcountry riders should be required to take a backcountry-specific safety course.	2.49	2.97
Backcountry riding should not be allowed on private land.	2.46	2.61
Backcountry riders should be required to use a Maine Guide.	1.96	2.18

1= Strongly Disagree, 2=Disagree, 3= Neither Agree nor Disagree, 4=Agree, 5= Strongly Agree

There was strong support for allowing backcountry riding on public lands. Among other policy options, requiring written permission was the most favored.

Table 16. Backcountry Activity Opinions

Statements on Backcountry Activity	Resident	Non-Resident
I have noticed an increase in backcountry riding.	3.49	3.46
I am concerned backcountry riding may lead to a loss of public access to private land.	3.49	3.67
Backcountry riding damages new growth in forest land.	2.90	2.96
Backcountry riding is harmful to wildlife.	2.37	2.53
Backcountry riding is dangerous.	2.85	2.99

1= Strongly Disagree, 2=Disagree, 3= Neither Agree nor Disagree, 4=Agree, 5= Strongly Agree

Although snowmobilers have noticed an increase in backcountry riding and are worried about backcountry riding leading to a loss of access to private lands, riders do not agree that backcountry riding is harmful to wildlife, as shown by Table 16. Both residents and non-

residents on average neither agree nor disagree with the statements that backcountry riding damages new growth in forest lands and that backcountry riding is dangerous.

Trail Conditions, Accommodations, & Infrastructure

When asked about a specific trip, survey respondents were asked to evaluate the conditions of the infrastructure, conditions of the trails, and accommodations they encountered on their trip. Table 17, below, shows the average score from 1 to 5 corresponding to “very dissatisfied” to “very satisfied” respectively, with statements ordered from most satisfaction to least satisfaction for residents.

Table 17. Opinions on Accommodations for Snowmobile Riding in Maine

Factor	Resident	Non-Resident
Scenery/natural beauty of area	4.40	4.63
Trail width	4.12	3.93
Trail grooming	4.03	4.15
Trailside services (gas, food, restrooms, etc.)	4.03	3.88
Variety of terrains	3.95	4.23
Number of other people on trails	3.79	3.96
Proximity to populated areas	3.78	3.94
Availability of lodging	3.73	3.90
Trail signing (Trail numbers, distance, hazard signs)	3.69	3.66
Vehicle parking	3.68	3.58
Availability of regional trail maps	3.67	3.89
Courtesy of other riders	3.47	3.78
Amount of law enforcement on trails	3.46	3.76
Nightlife and entertainment	3.44	3.58
Quality of highway used to travel to trail	3.38	3.73
Availability of unmaintained trails	3.38	3.40
Club houses along trail	3.32	3.45

1= Very Dissatisfied, 2=Dissatisfied, 3= Neither Satisfied nor Dissatisfied, 4=Satisfied, 5= Very Satisfied

Every factor was rated by both residents and non-residents between either “neither satisfied nor dissatisfied” and “satisfied” or between “satisfied” and “very satisfied.” The highest rated factor for both residents and non-residents was the “Scenery/natural beauty of area.” In general, non-residents were more satisfied with all elements listed; the only exceptions were in vehicle parking, trailside services, and trail width.

Other Recreation Activities Engaged in by Maine Snowmobilers

Survey participants were asked what other types of outdoor activities they participated in during the period of April 15, 2018 to April 14, 2019. Table 18 shows the percent of respondents who participated in each activity, ordered from most to least among residents.

Table 18. Other Recreation Activities Engaged in by Maine Snowmobilers

Activity	Residents	Non-Residents
Fishing	69%	44%
Walking/Hiking	68%	56%
Hunting	59%	28%
Swimming	54%	49%
Motorboating	53%	43%
Canoeing/Kayaking	53%	40%
Gardening	53%	20%
Camping	49%	29%
Observing/Photographing Wildlife or Nature	37%	24%
Golf	20%	23%
Downhill Skiing	17%	18%
Mountain Biking	13%	15%
Jet Skiing	12%	15%
X-Country Skiing	8%	4%
Bicycle Touring	6%	6%
Horseback Riding	4%	2%
Sailing	4%	3%
Windsurfing	1%	0%

Table 18 indicates that the most popular outdoor activities besides snowmobiling among non-residents (>50% participation) was walking/hiking. The most popular outdoor activities other than snowmobiling among residents (>50% participation) are fishing, walking/hiking, motor boating, hunting, swimming, canoeing/kayaking, and gardening. Maine resident snowmobilers report participating in a greater diversity of outdoor activities than non-resident snowmobilers.

Snowmobiling Related Spending

Trip Related Expenses

Section four of the questionnaire was used to calculate trip-related expenses. Respondents were asked to record their spending for a single trip. This trip was the trip taken closest to a random date printed on the front of the questionnaire. The first question asked about trip length (# of days) for the randomly chosen trip. The question was phrased “How many days was the snowmobile outing closest to the date specified on the front of this survey?” Unfortunately, and

despite pretesting, this question seemed to be interpreted by some to mean how many days *from* the date on the front of the survey was your *last* trip. We assumed this because many respondents entered trip lengths of more than two weeks and some trip lengths of over 60 days. These trip lengths were assumed to be unreasonable estimates and a result of a misinterpretation of the question. This happened in 130 of the 899 cases. To correct these answers any respondent with a trip length of under two weeks was separated and an estimate of the gas usage per day was taken from these respondents. This estimate was then applied to the respondents indicated a trip length greater than two weeks to create a new estimated trip length. These estimated trip lengths and number of trips were also compared to the total days respondents snowmobiled in Maine during the 2018-2019 season as a final check. The average adjusted result for number of trips and average trip length, along with number of trip days, is displayed in Table 19.

Table 19. Number of Trips and Trip Length

Category	Residents	Non-Residents
Number of Trips	3.21	3.96
Average Trip Length (days)	3.34	4.39
Number of Trip Days	10.72	17.38

Non-residents tend to take more long snowmobile trips on average and snowmobile for a longer period of time. The average number of days spent on snowmobiling trips for residents was 10.7 days, and for non-residents it was 17.4 days. Respondents were also asked to report spending on a specific trip. The breakdown of spending by residents and non-residents for the full 2018-2019 season and for each snowmobiling day is shown in Table 20.

Table 20. Trip-Related Spending per Snowmobile for the 2018-2019 Season

Expenditure Category	Resident per year	Non-Resident per year	Resident per day	Non-Resident per day
Gasoline/Oil for Snowmobile	\$437.11	\$640.62	\$40.77	\$36.85
Gasoline/Oil for Tow Vehicle	\$309.85	\$563.95	\$28.90	\$32.44
Restaurant/Lounge Purchases	\$294.52	\$842.45	\$27.47	\$48.46
Grocery/Alcohol Purchases	\$220.97	\$407.32	\$20.61	\$23.43
Overnight Accommodations	\$194.39	\$1,097.82	\$18.13	\$63.15
Snowmobile Rentals	\$18.87	\$18.08	\$1.76	\$1.04
Guides/Tour Packages	\$1.50	\$2.96	\$0.14	\$0.17
Repairs Performed during Trip	\$44.17	\$103.96	\$4.12	\$5.98
Tolls and Entrance Fees	\$10.94	\$73.19	\$1.02	\$4.21
Souvenirs and Entertainment	\$17.37	\$88.49	\$1.62	\$5.09
Clothing Purchases during Trip	\$48.03	\$99.96	\$4.48	\$5.75
Miscellaneous Purchases	\$24.55	\$102.92	\$2.29	\$5.92
Other Purchases	\$11.04	\$224.26	\$1.03	\$12.90
Total	\$1,633.30	\$4,265.96	\$152.34	\$245.39

Using the spending per snowmobile per year estimates, the spending in each category was multiplied by the total number of registrations for residents and non-residents separately. Total trip related expenses for residents was calculated to be approximately \$101 million for the 59,620 resident registered snowmobiles, and \$109 million for the 25,131 non-resident registered snowmobiles. Although non-residents account for less than one third of total registrations, non-residents spent considerably more per snowmobile in almost every category and take a similar number of extended trips when they traveled to Maine to ride. Spending per year for all residents and non-residents is displayed in Table 21.

Table 21. Total Spending on Snowmobile Trips

Expenditure Category	Resident per year	Non-Resident per year
Gasoline/Oil for Snowmobile	\$26,952,731	\$16,338,249
Gasoline/Oil for Tow Vehicle	\$19,105,566	\$14,382,979
Restaurant/Lounge Purchases	\$18,160,204	\$21,485,794
Grocery/Alcohol Purchases	\$13,625,111	\$10,388,200
Overnight Accommodations	\$11,985,602	\$27,998,925
Snowmobile Rentals	\$1,163,522	\$461,107
Guides/Tour Packages	\$92,553	\$75,373
Repairs Performed during Trip	\$2,723,700	\$2,651,363
Tolls and Entrance Fees	\$674,314	\$1,866,595
Souvenirs and Entertainment	\$1,070,969	\$2,256,762
Clothing Purchases during Trip	\$2,961,693	\$2,549,387
Miscellaneous Purchases	\$1,513,901	\$2,624,761
Other Purchases	\$680,925	\$5,719,495
Total	\$100,710,793	\$108,798,991

Snowmobile Purchase Expenses

Data on snowmobile purchases was drawn from section five of the questionnaire in which respondents were asked if they purchased the snowmobile identified on the front of the survey during the 2018-2019 season. Table 22 shows the total estimated spending based on the average cost of a snowmobile in each category and extrapolated the amount based on the percent of respondents who indicated a purchase and the total number of resident and non-resident snowmobilers.

Table 22. Snowmobile Purchase Expenses (All Sales)

Snowmobile Purchase Type	Resident	Non-Resident
New Purchase	\$40,718,412	\$56,682,380
Used Purchase (Dealer)	\$4,197,878	\$3,683,910
Used Purchase (Private Sale)	\$12,968,738	\$14,159,011
Total	\$57,885,028	\$74,525,301

As Table 22 indicates, although there are fewer non-resident snowmobilers in Maine than resident snowmobilers, non-residents purchase snowmobiles at either a greater frequency, and in the cases of private sales and new sales, spend more on the snowmobiles they are acquiring. A breakdown of purchase frequencies and average costs of new and used snowmobiles can be seen in Table 23.

Table 23. Snowmobile Purchase Statistics

Snowmobile Purchase Type	Resident % Purchased	Resident Average Cost	Non-Resident % Purchased	Non-Resident Average Cost
New Purchase	13.8%	\$11,585	17.4%	\$12,773
Used Purchase (Dealer)	3.8%	\$5,673	2.0%	\$7,222
Used Purchase (Private Sale)	18.0%	\$2,731	11.5%	\$4,827

Trailer Purchase Spending

As with snowmobile purchases in Table 22, total spending on snowmobile trailers was calculated by estimating the average spending on new, used (dealer), and used (private) trailer sales reported by respondents for both resident and non-resident riders. This was then extrapolated to find the total spending based on the percentage of respondents who indicated they purchased a trailer in each sale category and the total percentage of respondents as part of the total registered snowmobiles. Table 24 shows the estimated total spending on trailers in Maine during the 2018-2019 season.

Table 24. Trailer Purchase Expenses (All Sales)

Trailer Purchase Type	Resident	Non-Resident
New Purchase	\$22,661,196	\$7,580,088
Used Purchase (Dealer)	\$1,613,052	\$1,130,677
Used Purchase (Private Sale)	\$7,929,130	\$644,885
Total	\$32,203,378	\$9,355,650

Unlike spending on snowmobiles, residents spend significantly more on trailers in Maine than non-resident snowmobilers. Residents spend significantly more on person to person private used-trailer sales than non-residents. Of new trailer purchases by residents, 64.7% were manufactured in Maine and 70.6% of trailers purchased by non-residents were manufactured in Maine. Trailer manufacturers in Maine include Alcom, On the Road, and Mission Trailers. The breakdown of purchase frequencies of both new and used trailers and the average costs in each category can be seen in Table 25.

Table 25. Trailer Purchase Statistics

Trailer Purchase Type	Resident % Purchased	Resident Average Cost	Non-Resident % Purchased	Non-Resident Average Cost
New Purchase	5.7%	\$6,089	1.5%	\$1,685
Used Purchase (Dealer)	1.2%	\$2,180	0.7%	\$6,333
Used Purchase (Private Sale)	7.3%	\$1,670	4.2%	\$7,076

Snowmobile Maintenance, Accessories, & Insurance Spending

Section five of the survey asked survey participants to indicate spending related to the specific snowmobile identified on the cover of the questionnaire. The average spending per snowmobile for each category was found (for residents and non-residents separately) and multiplied by the total number of registrations in each resident/non-resident group. Table 26 shows the total spending in each category relating to snowmobile maintenance, accessories, insurance, and registration for both snowmobiles and trailers. Insurance for non-residents was not included because non-residents are more likely purchasing insurance in their state of residence.

Table 26. Maintenance Spending outside of Trip-Related Spending

Spending Category	Resident / snowmobile	All Resident Annual Spending	Non-Resident / Snowmobile	All Non-Resident Annual Spending
Snowmobile service start/end	\$151.55	\$9,344,725	\$129.03	\$3,290,781
Snowmobile Insurance	\$134.72	\$8,306,970	\$0.00	\$0
Snowmobile Accessories	\$89.40	\$5,512,493	\$74.91	\$1,910,505
Snowmobile / Trailer Registration	\$82.51	\$5,087,649	\$147.28	\$3,756,229
Expendable parts	\$70.15	\$4,325,519	\$64.74	\$1,651,129
Snowmobile Repairs (Parts)	\$60.60	\$3,736,657	\$31.87	\$812,812
Snowmobile Repairs (Labor)	\$35.36	\$2,180,333	\$30.08	\$767,160
Performance parts	\$22.71	\$1,400,321	\$17.56	\$447,850
Other Maintenance Repairs	\$22.08	\$1,361,475	\$8.08	\$206,072
Snowmobile Storage	\$15.80	\$974,244	\$14.66	\$373,889
Total	\$684.88	\$42,230,386	\$620.41	\$13,216,428

While residents were shown in Table 26 to spend significantly less on extended trips, they are spending almost four times as much on maintenance and accessories in Maine due to the greater number of resident registered snowmobiles, but also spending slightly more on average per snowmobile. As this is their primary residence, it is likely residents are having most repairs performed close to home when not participating in a snowmobile trip.

Rider Accessories and Clothing Purchases

The survey asked in section five for the respondent to report spending on accessories and clothing for the primary rider of the snowmobile identified on the cover of the questionnaire. The research team assumed a one-to-one ratio of riders to snowmobiles and extrapolated the spending based on the number registered snowmobiles.

Table 27. Primary Rider Accessory Spending

Spending Category	Resident	Non-Resident
Snowmobile Clothing	\$7,631,165	\$2,246,647
Helmets	\$4,836,072	\$1,216,541
Specialty Items	\$2,327,086	\$779,402
Other Items	\$792,960	\$225,455
Total	\$15,587,284	\$4,468,046

Residents are spending significantly more on snowmobile clothing and rider accessories than non-resident snowmobilers. Again, non-resident snowmobilers may be more likely to purchase equipment closer to home unless it is immediately necessary for an active snowmobiling trip.

Economic Contribution

Marginal Direct Spending

Survey results shown above are useful for estimating the direct expenditures and contributions that snowmobiling has in the state of Maine. To incorporate the value of the recirculation of money in the economy that occurs due to snowmobiling, IMPLAN was used with assistance from Megan Bailey of the Margaret Chase Smith Policy Center. Input information came directly from survey results and allowed IMPLAN to calculate the indirect and induced effects of the total gross spending on goods and services. IMPLAN uses input on total gross spending, and based on the profit margins of individual businesses, calculates what each dollar spent contributes to the state through indirect and induced effects. Indirect effects are the business taxes, wages, and purchase of goods paid by the recipient of the direct spending, while induced effects arise from the spending of these dollars by households and other businesses. This additional value generated, or “multiplier” is added to capture the total economic contribution. Multipliers are applied to the marginal spending and show how much effect individual sectors have on the greater economy.

Table 28 compares the total gross spending related to snowmobiling calculated from the survey and the marginal spending value input into IMPLAN that was used to calculate how the money will recirculate within the state of Maine.

When calculating indirect and induced effects IMPLAN automatically accounted for the trailer manufacturing industry within the state as a percent of overall trailer sales. To have included Maine manufactured trailer sales separately would be double counting the spending.

Table 28. Total Expenses Placed into Sectors and Spending Margins

Economic Sector / Expenditure Type	Gross Spending	IMPLAN Margins
<u>Retail-Motor Vehicle and Parts Dealers:</u> Snowmobile Sales, Trailer Sales, Expendable Parts, Performance Parts, Snowmobile Repairs (Parts)	\$150,641,882	\$28,170,032
<u>Retail-Gasoline Stores:</u> Gasoline/Oil for Snowmobiles and Tow Vehicles	\$76,779,524	\$10,921,628
<u>Hotels and Motels:</u> Overnight Accommodations	\$39,984,528	\$39,984,526
<u>Household:</u> Private Snowmobile and Trailer Sales	\$35,701,765	\$34,793,529
<u>Retail-Clothing and Clothing Accessories Stores:</u> Clothing Purchased During Trip, Snowmobile Clothing, Helmets, Specialty Items, Other Clothing Purchases	\$25,566,411	\$11,709,416
<u>Food and Beverage Stores:</u> Grocery and Alcohol Purchases	\$24,013,311	\$6,699,714
<u>Automotive Repair and Maintenance:</u> Repairs Performed During Trip, Service at Start/End of Season, Snowmobile Repairs, Other Snowmobile Related Repair	\$22,525,609	\$22,525,609
<u>Full-Service Restaurants:</u> ½ Restaurant Purchases	\$19,822,999	\$19,822,999
<u>Limited Service Restaurants:</u> ½ Restaurant Purchases	\$19,822,999	\$19,822,999
<u>Other Retail Stores:</u> ½ Souvenirs, Gifts and Entertainment, Other Trip Expenses, Misc. Trip Expenses	\$12,202,948	\$5,857,415
<u>Other State Government Enterprises:</u> Maine Turnpike Tolls and Land Entrance Fees, Snowmobile Registration	\$11,384,787	\$11,384,797
<u>Insurance Agencies:</u> Insurance (Resident Only)	\$8,306,970	\$8,306,970
<u>Retail-Sporting Goods, Hobby, Musical Instrument and Book Stores:</u> Snowmobiling Accessories	\$7,422,998	\$3,095,390
<u>Other Amusement and Recreation Industries:</u> ½ Souvenirs, Gifts and Entertainment	\$1,663,866	\$1,663,866
<u>Automotive Equipment Rental and Leasing:</u> Snowmobile Rentals	\$1,624,629	\$1,624,629
<u>Warehousing and Storage:</u> Snowmobile Storage	\$1,348,132	\$1,348,132
<u>Other Support Services:</u> Guides and Tour Packages	\$167,926	\$167,925
Total	\$458,981,285	\$227,899,576

Table 28 shows several major sectors in which the marginal spending is much less than the gross spending. This is due to leakages, or circumstances in which the money being spent is sent directly out of the state economy. For example, the “Motor Vehicle and Parts Dealers” sector drops from just over \$150 million to \$28.2 million because most snowmobiles and snowmobile parts are manufactured and purchased from out-of-state companies and only resold within Maine for a marginal upcharge. This is the case with many retail sectors unless the retail goods are being manufactured within the state.

The economic contribution of snowmobiling to the state of Maine, including gross spending, as well as indirect and induced effects calculated by the IMPLAN software, are shown in Table 29.

Table 29. Indirect Effects, Induced Effects, and Total Contribution

Economic Sector / Expenditure Type	Gross Spending	Indirect and Induced Effects	Total
Retail-Motor Vehicle and Parts Dealers	\$150,641,882	\$1,585,845	\$148,531,382
Retail-Gasoline Stores	\$76,779,524	\$516,221	\$74,806,180
Hotels and Motels	\$39,984,528	\$154,717	\$39,329,234
Households	\$35,701,765	\$0	\$34,793,529
Retail-Clothing and Clothing Accessories Stores	\$25,566,411	\$702,739	\$25,535,551
Food and Beverage Stores	\$24,013,311	\$1,337,353	\$24,715,111
Automotive Repair and Maintenance	\$22,525,609	\$1,363,076	\$23,237,734
Full-Service Restaurants	\$19,822,999	\$2,137,408	\$21,450,527
Limited Service restaurants	\$19,822,999	\$2,537,124	\$21,840,821
Other Retail Stores	\$12,202,948	\$522,173	\$12,483,619
Other State Government Enterprises	\$11,384,787	\$253,156	\$11,358,906
Insurance Agencies	\$8,306,970	\$5,104,339	\$12,985,364
Retail-Sporting Goods, Hobby, Musical Instrument and Book Stores	\$7,422,998	\$298,946	\$7,504,314
Other Amusement and Recreation Industries	\$1,663,866	\$362,284	\$1,983,195
Automotive Equipment Rental and Leasing	\$1,624,629	\$555,753	\$2,121,734
Warehousing and Storage	\$1,348,132	\$1,802,626	\$3,068,284
Other Support Services	\$167,926	\$450,287	\$602,952
Additional Effects		\$127,848,416	\$124,762,446
Totals Economic Contribution	\$458,981,285	\$147,532,463	\$606,513,748

Indirect and induced effects listed in Table 29 represent all other economic sectors which experienced impacts but did not benefit from direct spending related to snowmobiling. Examples of sectors that were affected without experiencing direct spending include equipment food and equipment supply industries, agricultural businesses, electric power transmission and distribution companies, and all other connected to the network of exchanges which stem from snowmobiling. The total economic contribution of snowmobiling to the Maine economy during the 2018-2019 season when accounting for gross direct spending and the indirect and induced effects of marginal direct spending is **\$606 million dollars**. A summary of all spending per snowmobile for the 2018-2019 season in each category organized by sector is available in Table 30.

Table 30. Spending Per Snowmobile for All Sectors

Sector	Resident	Non-Resident
Retail: Gasoline Stores		
Gasoline/Oil Snowmobile	\$437.11	\$640.62
Gasoline/Oil Tow Vehicle	\$309.85	\$563.95
Sector Total	\$746.96	\$1,204.57
Full-Service Restaurants		
50% Restaurant/Lounge Purchases	\$147.26	\$421.23
Limited Service Restaurants		
50% Restaurant/Lounge Purchases	\$147.26	\$421.23
Retail: Food and Beverage Stores		
Grocery and Alcohol Purchases	\$220.97	\$407.32
Hotels and Motels, including Casino Hotels		
Overnight Accommodations	\$194.38	\$1,097.82
Automotive equipment rental and leasing		
Snowmobile Rentals	\$18.87	\$18.08
Other Support Services		
Guides and Tour Packages	\$1.50	\$2.96
Automotive Repair and Maintenance		
Repairs performed during the trip on your snowmobile	\$44.17	\$103.96
Snowmobile service start/end of season	\$151.55	\$129.03
Snowmobile repairs (Labor)	\$35.36	\$30.08
Other Snowmobile Related Repair	\$22.08	\$8.08
Sector Total	\$253.16	\$271.15
Other State Government Enterprises		
Maine Turnpike tolls and Land Entrance fees	\$1.02	\$4.21
Snowmobile Registration	\$82.51	\$147.28
Sector Total	\$83.53	\$151.49
Retail: Clothing and Clothing Accessories Stores		
Clothing purchased during trip	\$48.03	\$99.96
Snowmobile Clothing	\$123.76	\$88.09
Helmets	\$78.43	\$47.70
Specialty Items	\$37.74	\$30.56
Other Clothing Purchases	\$12.86	\$8.84
Sector Total	\$300.82	\$275.15
Warehousing and Storage		
Snowmobile Storage	\$15.80	\$14.66

Table 30. Spending Per Snowmobile for All Sectors (Continued)

Sector	Resident	Non-Resident
Other Retail Stores		
50% Souvenirs, gifts and entertainment	\$8.68	\$44.24
Trip Other	\$11.04	\$224.26
Trip Misc.	\$24.55	\$102.92
Sector Total	\$44.27	\$371.42
Other Amusement and Recreation Industries		
50% Souvenirs, gifts and entertainment	\$8.68	\$44.24
Retail: Sporting Goods, Hobby, Musical Instrument and Books Stores		
Snowmobiling Accessories	\$89.40	\$74.91
Retail - Motor vehicle and parts dealers		
New Snowmobile Sales	\$660.36	\$2,222.49
Used Snowmobile Sales, Dealer	\$68.08	\$144.44
New Trailer Sales	\$367.51	\$297.21
Used Trailer Sales, Dealer	\$26.16	\$44.33
Expendable parts	\$70.15	\$64.74
Performance parts	\$22.71	\$17.56
Snowmobile Repairs (Parts)	\$60.60	\$31.87
Sector Total	\$1,275.57	\$2,822.65
Households		
Private Snowmobile Sales	\$210.32	\$555.17
Private Trailer Sales	\$128.59	\$25.29
Sector Total	\$338.91	\$580.46
Insurance Agencies		
Snowmobile Insurance	\$134.72	

Employment

IMPLAN software also provides information on employment based on the sectors that direct spending occurs in. The direct spending which occurs due to snowmobiling activity in Maine supports 2,279 jobs directly and 3,339 jobs total within the state (including induced and indirect jobs). Table 31 below shows the sectors which benefit directly by way of job creation as a result of snowmobiling. Job estimates are created by IMPLAN based on the amount of money spent in each sector.

Table 31. Employment as a Result of Snowmobiling Activity in Maine

Sector	Direct Jobs
Full-service restaurants	377
Hotels and motels, including casino hotels	376
Retail - Motor vehicle and parts dealers	251
Automotive repair and maintenance, except car washes	249
Limited-service restaurants	214
Retail - Miscellaneous store retailers	194
Retail - Gasoline stores	183
Retail - Clothing and clothing accessories stores	146
Retail - Food and beverage stores	102
Retail - Sporting goods, hobby, musical instrument and book stores	62
Insurance agencies, brokerages, and related activities	45
Other state government enterprises	33
Other amusement and recreation industries	27
Warehousing and storage	13
Automotive equipment rental and leasing	5
Other Support Services	2
Total	2,279

Direct employment primarily occurs in the hotel and motel, restaurant, and retail sectors, and the state government. Indirect and induced employment accounted for an additional 1,060 jobs in Maine but were spread across too many sectors to display in this report. The majority of indirect and induced jobs were contained in three sectors, real estate, maintenance and repair, and construction of nonresidential structures (approximately 11% total).

Direct Gross Spending Comparisons 1998-2019

Spending in 2019 compared to spending reported in the 1998 study has changed dramatically, as seen in Table 32. Displayed are both the spending reported by the 1998 study and the amount adjusted for inflation to 2019 dollars. The inflation rate from 1996 (when the original study was conducted) and 2019 amounted to 164%, meaning \$1 in 1996 had the buying power of \$1.64 in 2019.

Table 32. 1998 Spending vs. 2019 Spending

Economic Sector	Total Expenses 1998	Total Expenses 1998 (Inflated)	Total Expenses 2019
Dealers and Service Stations	\$73,837,291	\$121,093,157	\$244,177,328
Repair and Service	\$9,931,494	\$16,287,650	\$23,612,524
Wholesale and Retail	\$11,191,359	\$18,353,829	\$30,361,518
Insurance	\$4,432,000	\$7,268,480	\$8,306,970
Eating and Drinking Establishments	\$6,952,941	\$11,402,823	\$39,645,998
Food Stores	\$4,474,201	\$7,337,690	\$24,013,311
Non-Profit and Clubs	\$1,191,133	\$1,953,458	Not Accounted
Recreation Services	\$407,568	\$668,412	\$1,792,555
Hotels and Motels	\$4,788,743	\$7,853,539	\$39,984,528
Government	\$1,971,390	\$3,233,080	\$11,384,787
Households	\$33,036,551	\$54,179,944	\$35,701,765
Total	\$152,487,621	\$249,632,060	\$458,981,284

During the 1995-1996 there were 69,000 registered snowmobiles in Maine, 6,500 of which were registered by non-residents. In 2018-2019 there were over 87,000 registered snowmobiles in Maine with approximately 25,000 registered by non-residents. Some of the main factors relating to the greater spending in 2019 are an over 300% increase in out of state registrations and the rising costs of big-ticket items such as snowmobiles, which are frequently purchased in Maine. Modern standards for economic contribution studies attempt to exclude any expenditures which might be considered double counting. Because we have already incorporated the registration fees and other taxes that snowmobile riders pay, it is not appropriate to include club funding in the analysis since much of that funding comes from the State, tracing its origins to the original registration fees and taxes.

Total Contribution Comparison

The economic contributions snowmobiling made to the Maine economy during the 1995-1996 and 2018-2019 snowmobiling seasons are seen in Table 33. The 1998 Economic Evaluation of Snowmobiling in Maine report did not list the indirect and induced effects by sector, only the marginal spending by sector, thus only total contributions for each season are listed.

Table 33. Total Contribution Comparison

	1995-1996 Season	1995-1996 Season (in \$2018)	2018-2019 Season
Total Economic Contribution	\$226 Million	\$366 Million	\$606 Million

Accounting for inflation, the total contribution of snowmobiling to the Maine economy during the 1995-1996 season was \$366 million (in 2018 dollars). This rose to \$606 million during the 2018-2019 snowmobiling season, an increase of nearly 66%.

Appendix 1: Maine Snowmobile Survey

MAINE SNOWMOBILING SURVEY, 2018-2019



Registration: _____

Trip Date: _____

Conducted by:  THE UNIVERSITY OF
MAINE
School of Forest Resources

Section One

In this section we are interested in learning about some of your past snowmobiling activities in Maine.

1. About when was the first time you went snowmobiling in Maine? (CHECK ONE BOX)

- | | |
|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Before 1970 | <input type="checkbox"/> 2000 TO 2009 |
| <input type="checkbox"/> 1970 TO 1979 | <input type="checkbox"/> 2010 TO 2014 |
| <input type="checkbox"/> 1980 TO 1989 | <input type="checkbox"/> 2015 TO 2019 |
| <input type="checkbox"/> 1990 TO 1999 | |

2. Since the first time you went snowmobiling in Maine, about how often have you snowmobiled in Maine? (CHECK ONE BOX)

- EVERY YEAR
- MORE THAN HALF THE YEARS
- ABOUT HALF THE YEARS
- LESS THAN HALF THE YEARS
- 2018-19 SEASON WAS MY FIRST YEAR

3. Were you a member of a Maine snowmobile club during the 2018-19 season? (CHECK ONE BOX)

- YES
- NO

4. Have you ever been a member of a Maine snowmobile club? (CHECK ONE BOX)

- YES
- NO

5. Were you a member of the Maine Snowmobile Association (MSA) during the 2018-19 season? (CHECK ONE BOX)

- YES
- NO

6. Have you ever been a member of the MSA? (CHECK ONE BOX)

- YES
- NO

7. Have you ever volunteered for a **Maine** snowmobile club or **MSA**? (CHECK ONE BOX)

- YES
- NO

8. What would encourage you to begin volunteering or volunteer more? (EXPLAIN BELOW)

9. Did you volunteer for a **Maine** snowmobile club or **MSA** in the 2018-19 season? (CHECK ONE BOX)

- YES → PLEASE ANSWER QUESTION 9a and 9b
- NO → PLEASE SKIP TO QUESTION 10

9a. How many hours did you volunteer in the 2018-19 season? (FILL IN THE BLANK)

_____ HOURS

9b. Was this more, the same or fewer hours than a typical year? (CHECK ONE BOX)

- MORE HOURS
- THE SAME NUMBER OF HOURS
- FEWER HOURS

10. What was the most important reason why you volunteered or did not volunteer for a **Maine** club or the **MSA**? (EXPLAIN BELOW)

11. Have you ever hired a registered Maine Guide to lead a snowmobile trip, or participated in a snowmobile trip a Maine Guide led? (CHECK ONE BOX)

- YES
- NO

11a. Did you hire a Maine Guide to lead a snowmobile trip during the 2018-19 snowmobiling season? (CHECK ONE BOX)

- YES
- NO

11b. Please indicate whether you agree or disagree with the following statements about snowmobiling trips led by registered Maine Guides. (CIRCLE ONE NUMBER FOR EACH ITEM)

Topic	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I would feel safer with a Maine Guide leading the tour.	1	2	3	4	5
A Maine Guide would increase my ability to navigate the trails.	1	2	3	4	5
A Maine Guide would increase my knowledge of acceptable riding practices.	1	2	3	4	5
A Maine Guide would increase my riding enjoyment.	1	2	3	4	5
I would experience new areas and routes that I would not have ventured on without a Maine Guide.	1	2	3	4	5
I would be able to safely snowmobile in backcountry conditions because of a Maine Guide.	1	2	3	4	5
I would be a more confident snowmobiler with a Maine Guide.	1	2	3	4	5

Section Two

In this section we are interested in some of your current snowmobiling activities in Maine. Some questions in this section relate only to the snowmobile with the registration number printed on the front of this survey.

12. How many of the operating snowmobiles owned by you and other people living in your household were registered in **Maine** for the 2018-19 snowmobiling season? (CHECK ONE BOX)

- | | |
|--------------------------------|--------------------------------------|
| <input type="checkbox"/> ONE | <input type="checkbox"/> FOUR |
| <input type="checkbox"/> TWO | <input type="checkbox"/> FIVE |
| <input type="checkbox"/> THREE | <input type="checkbox"/> SIX OR MORE |

13. **Including yourself**, how many members of your household went snowmobiling at least once in Maine during the 2018-19 season? (CHECK ONE BOX)

- | | |
|--------------------------------|--------------------------------------|
| <input type="checkbox"/> ONE | <input type="checkbox"/> FOUR |
| <input type="checkbox"/> TWO | <input type="checkbox"/> FIVE |
| <input type="checkbox"/> THREE | <input type="checkbox"/> SIX OR MORE |

14. On about how many total days did you snowmobile in **Maine** during the 2018-19 season? (CHECK ONE BOX)

- | | |
|------------------------------------|--|
| <input type="checkbox"/> 1-3 DAYS | <input type="checkbox"/> 16-25 DAYS |
| <input type="checkbox"/> 4-6 DAYS | <input type="checkbox"/> 26-40 DAYS |
| <input type="checkbox"/> 7-15 DAYS | <input type="checkbox"/> MORE THAN 40 DAYS |

15. How many overnight trips (in which you did not return to your own home) did you take **in Maine** during the 2018-19 season? (CHECK ONE BOX)

- | | |
|--------------------------------|--|
| <input type="checkbox"/> NONE | <input type="checkbox"/> FOUR |
| <input type="checkbox"/> ONE | <input type="checkbox"/> FIVE |
| <input type="checkbox"/> TWO | <input type="checkbox"/> SIX |
| <input type="checkbox"/> THREE | <input type="checkbox"/> MORE THAN SIX |

16. About how many miles did you ride a snowmobile **in Maine** during the 2018-19 snowmobiling season? (FILL IN THE BLANK)

_____ MILES IN MAINE

17. How many snowmobile trips did you take **in Maine** in which you traveled 100 miles or more from your primary residence during the 2018-19 season? (FILL IN THE BLANK)

_____ TRIPS

18. Compared to a typical year, which statement best describes the amount of snowmobiling you did **in Maine** during the 2018-19 snowmobiling season? (CHECK ONE BOX)

- I SNOWMOBILED A LOT MORE IN MAINE DURING 2018-19 THAN IN A TYPICAL YEAR
- I SNOWMOBILED A LITTLE MORE IN MAINE DURING 2018-19 THAN IN A TYPICAL YEAR
- I SNOWMOBILED ABOUT THE SAME AMOUNT IN MAINE DURING 2018-19 THAN IN A TYPICAL YEAR
- I SNOWMOBILED A LITTLE LESS IN MAINE DURING 2018-19 THAN IN A TYPICAL YEAR
- I SNOWMOBILED A LOT LESS IN MAINE DURING 2018-19 THAN IN A TYPICAL YEAR

19. For what purposes did you snowmobile **in Maine** during the 2018-19 snowmobiling season? (CHECK ALL THAT APPLY)

- PLEASURE RIDING
- BACKCOUNTRY RIDING
- RACING
- GROOMING TRAILS
- ICE FISHING
- TRAPPING
- WORK-RELATED ACTIVITIES
- COMMUTING TO / FROM WORK OR SCHOOL
- OTHER VOLUNTEER DUTIES (E.G. FIREFIGHTING)
- OTHER (PLEASE SPECIFY) _____

20. What type of groups did **you personally** snowmobile with in **Maine** during the 2018-19 snowmobiling season? (CHECK ALL THAT APPLY)

- ALONE, JUST ME
- MEMBERS OF MY IMMEDIATE FAMILY
- OTHER RELATIVES
- LOCAL SNOWMOBILE CLUB MEMBERS
- FRIENDS
- BOTH FRIENDS AND FAMILY MEMBERS
- OTHER (please specify)

21. Did you go snowmobiling in **another state or Canadian province** during the 2018-19 snowmobiling season? (CHECK ONE BOX)

- YES → PLEASE ANSWER QUESTIONS 22 AND 23
- NO → SKIP TO QUESTION 24

22. **Other than Maine**, where did you go snowmobiling during the 2018-19 snowmobiling season? (CHECK ALL THAT APPLY)

- | | |
|--|---|
| <input type="checkbox"/> NEW HAMPSHIRE | <input type="checkbox"/> NEW YORK |
| <input type="checkbox"/> VERMONT | <input type="checkbox"/> QUEBEC |
| <input type="checkbox"/> MASSACHUSETTS | <input type="checkbox"/> NEW BRUNSWICK |
| <input type="checkbox"/> CONNECTICUT | <input type="checkbox"/> ONTARIO |
| <input type="checkbox"/> RHODE ISLAND | <input type="checkbox"/> OTHER (Please Specify) |
| <input type="checkbox"/> PENNSYLVANIA | _____ |

23. About how many miles did you snowmobile **outside Maine** during the 2018-19 snowmobiling season? (FILL IN THE BLANK)

_____ MILES SNOWMOBILED OUTSIDE MAINE

Section Three

In this section, we are interested in your opinions about backcountry snowmobiling in Maine. Backcountry snowmobiling can be considered any snowmobiling off of developed trails, but often takes place on lands that are isolated, undeveloped, remote and difficult to access.

24. Please indicate whether you agree or disagree with the following statements about backcountry snowmobile riding in Maine. (CIRCLE ONE NUMBER FOR EACH STATEMENT)

Topic	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Backcountry riding should not be allowed on private land.	1	2	3	4	5
Backcountry riders should have written permission to ride on private lands.	1	2	3	4	5
Backcountry riding should be allowed on public land.	1	2	3	4	5
Backcountry riding should only be allowed in designated areas.	1	2	3	4	5
Backcountry riders should be required to use a Maine Guide.	1	2	3	4	5
Backcountry riders should be required to take a backcountry-specific safety course.	1	2	3	4	5
Backcountry riders should be required to take a land-owner relations course.	1	2	3	4	5
Backcountry riders should be required to have insurance for search and rescues.	1	2	3	4	5

25. Please indicate whether you agree or disagree with the following statements about backcountry snowmobiling activity in Maine. (CIRCLE ONE NUMBER FOR EACH STATEMENT)

Topic	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I have noticed an increase in backcountry riding.	1	2	3	4	5
I am concerned backcountry riding may lead to a loss of public access to private land.	1	2	3	4	5
Backcountry riding damages new growth in forest land.	1	2	3	4	5
Backcountry riding is harmful to wildlife.	1	2	3	4	5
Backcountry riding is dangerous.	1	2	3	4	5

Section Four

In this section we are interested in your snowmobile outing in Maine closest to the date marked on the front of this survey, during which you stayed overnight away from home or snowmobiled more than 100 miles from your permanent home.



26. Using the map above, please indicate all the regions in Maine where you and/or members of your household snowmobiled during the outing closest to the date on the front of this survey. (CHECK ALL THAT APPLY)

<input type="checkbox"/> AROOSTOOK COUNTY
<input type="checkbox"/> THE MAINE HIGHLANDS
<input type="checkbox"/> KENNEBEC AND MOOSE RIVER VALLEYS
<input type="checkbox"/> MAINE LAKES & MOUNTAINS
<input type="checkbox"/> DOWNEAST & ACADIA
<input type="checkbox"/> THE MID-COAST
<input type="checkbox"/> GREATER PORTLAND AND CASCO BAY
<input type="checkbox"/> SOUTHERN MAINE

27. How many days was the snowmobile outing closest to the date specified on the front of this survey? (FILL IN THE BLANK)

_____ Days

28. For this question, please indicate your level of satisfaction for each of the factors as they relate to the snowmobile outing closest to the date specified on the front of this survey.

(CIRCLE ONE NUMBER FOR EACH FACTOR.)

Factor	Very Dissatisfied	Dissatisfied	Neither Agree nor Disagree	Satisfied	Very Satisfied
Availability of regional trail maps	1	2	3	4	5
Trail grooming	1	2	3	4	5
Trail signing (trail numbers, distance, hazard signs)	1	2	3	4	5
Trail width	1	2	3	4	5
Vehicle parking	1	2	3	4	5
Trailside services (gas, food, restrooms etc.)	1	2	3	4	5
Proximity to populated areas	1	2	3	4	5
Variety of terrains	1	2	3	4	5
Scenery/natural beauty of area	1	2	3	4	5
Number of other people on trails	1	2	3	4	5
Availability of lodging	1	2	3	4	5
Nightlife and entertainment	1	2	3	4	5
Amount of law enforcement on trails	1	2	3	4	5
Courtesy of other riders	1	2	3	4	5
Quality of highway used to travel to trail	1	2	3	4	5
Club houses along trail	1	2	3	4	5
Availability of unmaintained trails	1	2	3	4	5

29. How many members of **your household** participated in the snowmobile outing closest to the date specified on the front of this survey?
(CHECK ONE BOX)

- | | |
|--------------------------------|--------------------------------------|
| <input type="checkbox"/> ONE | <input type="checkbox"/> FOUR |
| <input type="checkbox"/> TWO | <input type="checkbox"/> FIVE |
| <input type="checkbox"/> THREE | <input type="checkbox"/> SIX OR MORE |

30. How many snowmobiles from **your household** were used during the snowmobile outing closest to the date specified on the front of this survey? (CHECK ONE BOX)

- | | |
|--------------------------------|--------------------------------------|
| <input type="checkbox"/> ONE | <input type="checkbox"/> FOUR |
| <input type="checkbox"/> TWO | <input type="checkbox"/> FIVE |
| <input type="checkbox"/> THREE | <input type="checkbox"/> SIX OR MORE |

31. Please report expenditures related to the specific trip defined above for all members of your household who participated in the snowmobile outing closest to the date specified on the front of this survey while also keeping in mind the following. **Only report expenses made in Maine.** Do not report expenses for snowmobiling trips **outside of Maine.** If you drove to Maine from outside the state to snowmobile, only report expenses made **in Maine.**
(FILL IN EACH BLANK. RECORD A ZERO IF YOUR HOUSEHOLD HAD NO EXPENSE FOR A CATEGORY)

Expenditure Category	Amount Spent in Maine
Gasoline/oil for your snowmobile	\$
Gas/other expenses for tow vehicle	\$
Restaurant/lounge purchases	\$
Grocery/Alcohol purchases (supermarket, convenience store, rest stops)	\$
Overnight accommodations (motel, cabin, etc.)	\$
Snowmobile rentals	\$
Guides/tour packages	\$
Repairs performed during the trip on your snowmobile	\$
Maine Turnpike tolls & state land entrance fees	\$
Souvenirs, gifts, entertainment	\$
Clothing purchased during trip	\$
Miscellaneous expenses (PLEASE SPECIFY) _____	\$
Other trip-related expenses (PLEASE SPECIFY) _____	\$

Section Five

In this section we are interested in some information about the snowmobile that was registered for use in Maine for the 2018-19 season, under your name, with the Maine registration number identified on the cover of this questionnaire. Please remember that all the questions in this section are based on the use of the snowmobile identified above, even if you were not the primary user.

32. Did you purchase (new or used) or take possession of the snowmobile identified on the cover page in Maine between April 15, 2018 and April 14, 2019? (CHECK ONE BOX)

- YES, I PURCHASED IT NEW → PLEASE ANSWER QUESTION 32a
- YES, I PURCHASED IT USED FROM A DEALER → PLEASE ANSWER QUESTION 32a
- YES, I PURCHASED IT USED IN A PRIVATE SALE → PLEASE ANSWER QUESTION 32a
- NO → SKIP TO QUESTION 33

32a. Not including the value of your trade in (if any), about how much did you pay for the snowmobile identified on the cover page? (FILL IN THE BLANK)

\$ _____

33. In this question we are interested in all expenditures made in Maine for snowmobile maintenance, repairs, accessories and storage of the snowmobile identified above during the period of April 15, 2018 and April 14, 2019. Please do not include other types of expenses, such as trip-related expenses reported above or clothing expenses to be reported later. Again, remember we are only interested in expenditures made in Maine for the snowmobile identified above during the period of April 15, 2018 to April 14, 2019. **DO NOT INCLUDE ONLINE PURCHASES FROM COMPANIES OUTSIDE OF MAINE.** (FILL IN EACH BLANK. RECORD A ZERO IF YOUR HOUSEHOLD HAD NO EXPENSE FOR A CATEGORY)

EXPENDITURE CATEGORY	Amount Spent In Maine
Snowmobile service at start/end of season	\$
Expendable parts (sparkplugs, belts, etc.)	\$
Performance parts (clutches, etc.)	\$
Snowmobile repairs (parts) not reported in Section 4	\$
Snowmobile repairs (labor)	\$
Snowmobile storage	\$
Snowmobile accessories (covers, saddle/tank bags, ski skins, studs, carbides, mirrors, etc.)	\$
Snowmobile insurance (yearly payment)	\$
Registration (snowmobile and trailer)	\$
Other expenses related to maintenance, repairs and accessories PLEASE SPECIFY _____	\$

34. In this question, we are interested in items purchased in **Maine** specifically for snowmobiling for the **primary rider** of the snowmobile identified on the cover of this survey during the period of April 15, 2018 to April 14, 2019. Such items include snowmobile clothing, helmets, and gloves purchased in **Maine** between April 15, 2018 and April 14, 2019. **DO NOT INCLUDE PURCHASES MADE OUTSIDE MAINE OR ONLINE PURCHASES FROM COMPANIES OUTSIDE THE STATE OF MAINE. (FILL IN EACH BLANK. RECORD A ZERO IF YOUR HOUSEHOLD HAD NO EXPENSE FOR A CATEGORY)**

Expenditure Category	Amount Spent in
Snowmobile clothing (suits, pants, coats, boots, gloves, etc.)	\$
Helmets	\$
Specialty items (balaclavas, face masks, gauntlets, helmet lenses, lens defogger, communicators, etc.)	\$
Other items purchased by/for primary rider	\$

35. Did you purchase a trailer in **Maine** between April 15, 2018 and April 14, 2019?
(CHECK ONE BOX)

- I PURCHASED A NEW TRAILER → PLEASE ANSWER QUESITON 35a & 35b
- I PURCHASED A USED TRAILER FROM A DEALER→ PLEASE ANSWER QUESITONS 35a & 35b
- I PURCHASED A USED TRAILER IN A PRIVATE SALE→ PLEASE ANSWER QUESITONS 35a & 35b
- NO, I DID NOT PURCHASE A TRAILER → SKIP TO QUESTION 36

35a. Not including the value of your trade-in (if any), about how much did you pay for the trailer? (FILL IN THE BLANK)

\$ _____

35b. Was your trailer made by one of the following **Maine** companies: Alcom, On the Road, Mission Trailers? (CHECK ONE BOX)

- YES
- NO

36. For this question, please consider any snowmobile-related purchases you made between April 15, 2018 and April 14, 2019 in another state or online from companies based **outside of Maine**. Do not include any purchases made within the state, or online from companies **from Maine**. (PLEASE FILL IN THE BLANK FOR EVERY CATEGORY. IF THERE WAS NO EXPENSE IN A CATEGORY, PLEASE RECORD A ZERO)

Expenditure Category	Outside of Maine	Online
Snowmobiling clothing (suits, pants, coats, boots, gloves, etc.)	\$	\$
Helmets	\$	\$
Specialty items (balaclavas, face masks, gauntlets, helmet lenses, lens defogger, communicators, etc.)	\$	\$
Parts for maintenance (spark plugs, fuel filters, etc.)	\$	\$
Personal gear (helmets, gloves, jackets, etc.)	\$	\$
Sled accessories (covers, mirrors, saddle bags, etc.)	\$	\$
Other (PLEASE SPECIFY) _____	\$	\$

Section Six

In this last section we would like to ask some questions about your background to help us compare your answers to those of other people.

37. What is your age? (FILL IN THE BLANK)

_____ YEARS OLD

38. Are you? (CHECK ONE BOX)

- MALE
- FEMALE
- PREFER NOT TO SAY

39. What is your five-digit Zip Code? (FILL IN THE BLANKS)

40. How many people, **including yourself**, live in your household? (CHECK ONE BOX)

- ONE
- TWO
- THREE
- FOUR
- FIVE
- SIX OR MORE

41. How many years of school have you completed? (CHECK ONE BOX)

- SOME HIGH SCHOOL BUT NO DEGREE
- HIGH SCHOOL DEGREE OR EQUIVALENT (E.G. GED)
- SOME COLLEGE BUT NO DEGREE
- ASSOCIATE DEGREE
- BACHELOR DEGREE
- GRADUATE DEGREE

42. Do you have a personal computer in your home? (CHECK ONE BOX)

- YES → PLEASE ANSWER QUESTION 42a
- NO → SKIP TO QUESTION 43

42a. Do you have access to the internet on your home computer? (CHECK ONE BOX)

- YES
- NO

43. Do you own a smart phone capable of accessing the internet? (CHECK ONE BOX)

- YES
- NO

44. Do you own a camp or second home **in Maine** used (at least in part) for snowmobiling purposes? (CHECK ONE BOX)

- YES
- NO

45. Which of the following outdoor activities other than snowmobiling did you participate in between April 15, 2018 and April 14, 2019? (CHECK ALL THAT APPLY)

- | | |
|---|--|
| <input type="checkbox"/> FISHING | <input type="checkbox"/> CANOEING/KAYAKING |
| <input type="checkbox"/> WALKING/HIKING | <input type="checkbox"/> JET SKIING |
| <input type="checkbox"/> WINDSURFING | <input type="checkbox"/> X-COUNTRY SKIING |
| <input type="checkbox"/> MOTORBOATING | <input type="checkbox"/> DOWNHILL SKIING |
| <input type="checkbox"/> HUNTING | <input type="checkbox"/> CAMPING |
| <input type="checkbox"/> MOUNTAIN BIKING | <input type="checkbox"/> SAILING |
| <input type="checkbox"/> BYCICLE TOURING | <input type="checkbox"/> GOLF |
| <input type="checkbox"/> HORSEBACK RIDING | <input type="checkbox"/> GARDENING |
| <input type="checkbox"/> SWIMMING | |
| <input type="checkbox"/> OBSERVING/PHOTOGRAPHING WILDLIFE OR NATURE | |

46. Please check the response that comes closest to your total household income before taxes in 2018. (CHECK ONE BOX)

- | | |
|---|---|
| <input type="checkbox"/> LESS THAN \$10,000 | <input type="checkbox"/> \$60,000 TO \$79,999 |
| <input type="checkbox"/> \$10,000 TO \$19,999 | <input type="checkbox"/> \$80,000 TO \$99,999 |
| <input type="checkbox"/> \$20,000 TO \$29,999 | <input type="checkbox"/> \$100,000 TO \$119,999 |
| <input type="checkbox"/> \$30,000 TO \$39,999 | <input type="checkbox"/> \$120,000 TO \$149,999 |
| <input type="checkbox"/> \$40,000 TO \$49,999 | <input type="checkbox"/> \$150,000 OR MORE |
| <input type="checkbox"/> \$50,000 TO \$59,999 | |

If you have any other comments or concerns about snowmobiling **in Maine**, please use the space provided below to explain.

Thank you for completing the Maine Snowmobiling Survey. Your response will provide valuable information for the snowmobiling community in Maine.

Please return this survey using the postage paid envelope provided with this mailing.

Appendix 2: Tourism Satisfaction Ratings by Region

Aroostook County

280/899 Respondents

Factor	Very Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied
Availability of regional trail maps	4	17	33	139	86
Trail grooming	2	13	17	145	100
Trail signing (Trail numbers, distance, hazard signs)	12	31	33	145	58
Trail width	1	9	20	161	89
Vehicle parking	1	11	96	118	48
Trailside services (gas, food, restrooms, etc.)	0	13	31	154	81
Proximity to populated areas	1	60	154	62	277
Variety of terrains	0	1	27	168	84
Scenery/natural beauty of area	0	0	8	98	174
Number of other people on trails	0	7	42	174	55
Availability of lodging	0	6	47	146	78
Nightlife and entertainment	2	3	123	111	38
Amount of law enforcement on trails	3	11	89	129	46
Courtesy of other riders	3	40	50	146	39
Quality of highway used to travel to trail	6	22	73	135	43
Club houses along trail	2	17	114	106	40
Availability of unmaintained trails	0	16	140	90	29

The Maine Highlands

398/899 Respondents

Factor	Very Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied
Availability of regional trail maps	7	42	54	207	88
Trail grooming	2	22	34	229	108
Trail signing (Trail numbers, distance, hazard signs)	15	56	50	209	65
Trail width	1	13	31	259	93
Vehicle parking	1	19	121	196	52
Trailside services (gas, food, restrooms, etc.)	0	18	55	233	91
Proximity to populated areas	0	3	107	226	60
Variety of terrains	0	3	53	242	100
Scenery/natural beauty of area	0	0	8	158	231
Number of other people on trails	1	10	68	255	61
Availability of lodging	0	14	105	201	76
Nightlife and entertainment	2	15	194	146	35
Amount of law enforcement on trails	7	19	129	196	46
Courtesy of other riders	5	50	84	210	46
Quality of highway used to travel to trail	13	33	109	194	48
Club houses along trail	1	26	204	132	33
Availability of unmaintained trails	2	15	224	120	32

Kennebec and Moose River Valleys

360/899 Respondents

Factor	Very Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied
Availability of regional trail maps	5	44	52	190	68
Trail grooming	3	23	24	206	103
Trail signing (Trail numbers, distance, hazard signs)	13	50	48	192	56
Trail width	3	14	32	238	72
Vehicle parking	1	11	142	155	41
Trailside services (gas, food, restrooms, etc.)	0	15	48	219	78
Proximity to populated areas	0	6	96	211	45
Variety of terrains	0	2	41	228	88
Scenery/natural beauty of area	0	0	12	139	207
Number of other people on trails	2	14	66	232	44
Availability of lodging	0	6	92	200	59
Nightlife and entertainment	0	10	168	152	26
Amount of law enforcement on trails	3	8	131	175	41
Courtesy of other riders	4	52	91	173	39
Quality of highway used to travel to trail	12	29	108	176	35
Club houses along trail	2	30	198	111	18
Availability of unmaintained trails	0	15	211	111	20

Maine Lakes and Mountains

343/899 Respondents

Factor	Very Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied
Availability of regional trail maps	6	51	44	173	68
Trail grooming	2	22	24	181	112
Trail signing (Trail numbers, distance, hazard signs)	10	51	47	165	69
Trail width	3	14	35	215	76
Vehicle parking	2	19	144	119	49
Trailside services (gas, food, restrooms, etc.)	1	16	56	185	84
Proximity to populated areas	0	5	96	174	66
Variety of terrains	0	2	44	202	95
Scenery/natural beauty of area	0	0	11	140	191
Number of other people on trails	4	10	72	213	42
Availability of lodging	0	6	105	165	62
Nightlife and entertainment	1	10	162	122	42
Amount of law enforcement on trails	7	19	111	162	42
Courtesy of other riders	8	50	78	163	42
Quality of highway used to travel to trail	7	32	114	152	37
Club houses along trail	3	31	197	89	20
Availability of unmaintained trails	2	16	207	90	25

Downeast and Acadia

32/899 Respondents

Factor	Very Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied
Availability of regional trail maps	1	3	3	13	12
Trail grooming	0	1	3	14	14
Trail signing (Trail numbers, distance, hazard signs)	1	4	5	16	6
Trail width	0	2	2	20	8
Vehicle parking	0	2	8	15	7
Trailside services (gas, food, restrooms, etc.)	0	4	5	15	8
Proximity to populated areas	0	0	9	18	5
Variety of terrains	0	0	5	15	12
Scenery/natural beauty of area	0	0	0	17	15
Number of other people on trails	0	1	5	20	6
Availability of lodging	0	1	9	12	10
Nightlife and entertainment	0	0	16	10	6
Amount of law enforcement on trails	0	0	9	16	7
Courtesy of other riders	0	2	3	20	7
Quality of highway used to travel to trail	3	5	6	14	4
Club houses along trail	0	1	12	14	5
Availability of unmaintained trails	0	0	16	12	4

The Mid-Coast

20/899 Respondents

Factor	Very Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied
Availability of regional trail maps	2	0	5	10	3
Trail grooming	0	1	2	12	5
Trail signing (Trail numbers, distance, hazard signs)	0	2	3	12	3
Trail width	0	0	4	13	3
Vehicle parking	0	1	8	8	3
Trailside services (gas, food, restrooms, etc.)	0	0	4	14	2
Proximity to populated areas	0	0	5	14	1
Variety of terrains	0	0	3	15	2
Scenery/natural beauty of area	0	0	0	7	13
Number of other people on trails	0	0	1	16	3
Availability of lodging	0	1	6	10	3
Nightlife and entertainment	0	1	8	10	1
Amount of law enforcement on trails	0	1	6	13	0
Courtesy of other riders	0	2	2	14	2
Quality of highway used to travel to trail	0	2	5	12	1
Club houses along trail	0	2	13	5	0
Availability of unmaintained trails	0	2	10	7	1

Greater Portland & Casco Bay

21/899 Respondents

Factor	Very Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied
Availability of regional trail maps	2	2	6	10	1
Trail grooming	0	0	2	14	5
Trail signing (Trail numbers, distance, hazard signs)	0	2	3	9	7
Trail width	0	0	4	13	4
Vehicle parking	0	1	9	7	2
Trailside services (gas, food, restrooms, etc.)	0	1	5	12	3
Proximity to populated areas	0	0	8	12	0
Variety of terrains	0	0	3	14	3
Scenery/natural beauty of area	0	0	0	10	10
Number of other people on trails	0	1	2	16	1
Availability of lodging	0	0	8	11	1
Nightlife and entertainment	0	0	11	9	0
Amount of law enforcement on trails	1	0	7	13	0
Courtesy of other riders	0	1	4	14	2
Quality of highway used to travel to trail	0	1	8	12	0
Club houses along trail	0	0	12	7	1
Availability of unmaintained trails	0	0	12	6	2

Southern Maine

38/899 Respondents

Factor	Very Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied
Availability of regional trail maps	1	6	6	20	4
Trail grooming	1	1	1	22	13
Trail signing (Trail numbers, distance, hazard signs)	0	4	7	21	5
Trail width	0	3	6	23	5
Vehicle parking	0	2	15	14	3
Trailside services (gas, food, restrooms, etc.)	0	0	8	22	7
Proximity to populated areas	0	0	12	22	2
Variety of terrains	0	0	6	26	4
Scenery/natural beauty of area	0	0	1	16	19
Number of other people on trails	1	0	4	26	5
Availability of lodging	0	0	12	18	5
Nightlife and entertainment	0	0	23	10	3
Amount of law enforcement on trails	1	4	8	16	9
Courtesy of other riders	0	4	14	16	3
Quality of highway used to travel to trail	1	3	20	9	4
Club houses along trail	1	3	20	9	4
Availability of unmaintained trails	0	1	25	8	1

Appendix 3: Opinions on Maine Guides and Backcountry Riding

Maine Guides

Statement	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I would feel safer with a Maine Guide leading the tour.	166	188	255	92	41
A Maine Guide would increase my ability to navigate the trails.	163	218	269	146	44
A Maine Guide would increase my knowledge of acceptable riding practices.	167	238	293	104	35
A Maine Guide would increase my riding enjoyment.	214	237	302	61	23
I would experience new areas and routes that I would not have ventured on without a Maine Guide	144	172	221	240	54
I would be able to safely snowmobile in backcountry conditions because of a Maine Guide.	124	157	283	216	52
I would be a more confident snowmobiler with a Maine Guide.	196	226	303	85	31

Backcountry Riding

Statement	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Backcountry riding should be allowed on public land.	213	221	252	118	55
Backcountry riders should have written permission to ride on private lands.	102	121	226	268	156
Backcountry riding should only be allowed in designated areas.	35	30	163	344	293
Backcountry riders should be required to take a land-owner relations course.	101	129	263	257	119
Backcountry riders should be required to have insurance for search and rescues.	299	283	235	37	19
Backcountry riders should be required to take a backcountry-specific safety course.	173	180	274	189	57
Backcountry riding should not be allowed on private land.	122	128	292	249	82
Backcountry riders should be required to use a Maine Guide.	144	154	273	208	95

Backcountry Activity

Statement	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I have noticed an increase in backcountry riding.	10	54	403	321	85
I am concerned backcountry riding may lead to a loss of public access to private land.	25	71	288	344	144
Backcountry riding damages new growth in forest land.	76	201	366	169	61
Backcountry riding is harmful to wildlife.	139	308	340	42	23
Backcountry riding is dangerous.	10	54	403	321	85
I have noticed an increase in backcountry riding.	25	71	288	344	144

Appendix 4: Updating the Contribution Estimate

In this section, Table 34 shows the spending per snowmobile during the 2018-2019 season for each sector. Table 34 can be used to update the estimate based on the number of resident and non-resident registered snowmobiles for a specific year and the rate of inflation compared to 2019.

Table 34. Estimate Calculation Worksheet

Sector	Resident Spending/ Snowmobile	Spending x Number of Resident Snowmobiles	Non-Resident Spending/ Snowmobile	Spending x Number of Non- Resident Snowmobiles	Total Resident & Non- Resident
Retail: Gasoline Stores	\$746.96		\$1,204.57		
Full-Service Restaurants	\$147.26		\$421.23		
Limited Service Restaurants	\$147.26		\$421.23		
Retail: Food and Beverage Stores	\$220.97		\$407.32		
Hotels and Motels, including Casino Hotels	\$194.38		\$1,097.82		
Automotive equipment rental and leasing	\$18.87		\$18.08		
Other Support Services	\$1.50		\$2.96		
Automotive Repair and Maintenance	\$253.16		\$271.15		
Other State Government Enterprises	\$83.53		\$151.49		
Retail: Clothing and Clothing Accessories Stores	\$300.82		\$275.15		
Warehousing and Storage	\$15.80		\$14.66		
Other Retail Stores	\$44.27		\$371.42		
Other Amusement and Recreation Industries	\$8.68		\$44.24		
Retail: Sporting Goods, Hobby, Musical Instrument and Books Stores	\$89.40		\$74.91		
Retail - Motor vehicle and parts dealers	\$1,275.57		\$2,822.65		
Households	\$338.91		\$580.46		
Insurance Agencies	\$134.72		\$0.00		

Estimate Calculation Worksheet (Continued)

Multiply values by the rate of inflation starting from 2019

Sector Spending _____ x Rate of Inflation _____ = Direct Spending in Sector _____

If desired, input spending in each sector into IMPLAN after multiplying values by the rate of inflation starting from 2019.

Sum of totals in Table 32 = Total Snowmobile Related Spending

Total Economic Contribution = Total Snowmobile Related Spending + Indirect and Induced Spending Calculated by IMPLAN

Total Snowmobile Related Spending 2018-2019 = \$459 Million