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Gasoline Consumption Attributable to Snowmobile Use in Maine

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Prepared for

The Commission to Study Equity in the
Distribution of Gas Tax Revenues Attributable to
Snowmobiles, All-Terrain Vehicles and Watercraft

Submitted by

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Orono, Maine
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Preface

This report was prepared for the Commission to Study Equity in the Distribution of Gas Tax Revenues Attributable to Snowmobiles, All-Terrain Vehicles and Watercraft, pursuant to a Cooperative Agreement between the University of Maine and the Maine Office of Policy and Legal Analysis, Maine Department of Conservation, Maine Department of Inland Fisheries and Wildlife, Maine Department of Transportation, and Maine Department of Marine Resources, project number 2001160.

The opinions expressed here are those of the authors and do not represent the views of the Margaret Chase Smith Center for Public Policy or the University of Maine.

The authors wish to thank the Maine Departments of Conservation, Inland Fisheries and Wildlife, Transportation and Marine Resources and the Committee Chairs Senator Marge Kilkelly, and Representative Joseph Clark, and Patrick Norton, Office of Policy and Legal Analysis, for their invaluable assistance. We also are grateful to the snowmobile owners and operators who took the time to give thoughtful responses to the survey.

Gasoline Use Attributable to Snowmobiles in Maine
Executive Summary

Prepared for the Commission to Study Equity in the Distribution of Gas Tax Revenues Attributable to Snowmobiles, All-Terrain Vehicles and Watercraft by the Margaret Chase Smith Center for Public Policy, University of Maine, July 2001

This study was conducted by the Margaret Chase Smith Center for Public Policy (MCSC) of the University of Maine at the request of the Maine Legislature's Commission to Study Equity in the Distribution of Gas Tax Revenues Attributable to Snowmobiles, All-Terrain Vehicles and Watercraft. The Commission was created by the Legislature with a charge to collect and analyze information to determine an equitable distribution of gas tax revenues used in the enforcement and enhancement of programs supporting off-road vehicle use in Maine. The Commission concluded that snowmobiling, boating and ATV use has increased significantly over recent years and now constitutes an important part of the economies of many regions of the State. The Commission concluded that more information about the amount of gasoline consumed by boats, snowmobiles and ATVs should be collected before any action was proposed concerning the equitable distribution of gasoline tax revenues.

This report, the second of three, presents the results of a survey of snowmobile users whose snowmobiles were registered in the State of Maine during 2000. In June of 2001, telephone interviews were completed with 635 randomly selected Maine resident and nonresident snowmobile owners. The study had a cooperation rate of 82% among persons who were successfully contacted. The survey data show that the operators of registered snowmobiles purchased an average of 87.4 gallons (rounded to the nearest tenth) of gasoline during the most recent one-year period ending in June 2001. Since there were 95,334 (in-state and out-of-state) registered snowmobiles this means that the total quantity of fuel purchased in Maine in 2000 by Maine-registered snowmobiles was 8,336,275 gallons. The excise tax on gasoline imposed by the State of Maine is $0.22 per gallon. Therefore, the operator of a Maine-registered snowmobile pays *on average* $19.24 per year per snowmobile, and operators of all Maine-registered snowmobiles together pay $1,833,981 per year in Maine gasoline fuel excise taxes. This estimate does not include gasoline use by snow groomers which are included in the snowmobile registration records.

Since these data were gathered from a random sample rather than the entire population of all Maine-registered snowmobiles, the quantity of average and total fuel purchased and average and total taxes paid are subject to error. This sampling error is typically quantified by confidence intervals based upon the sample data. A 95% confidence level means that in 95 out of 100 samples of the same size, the true average of fuel purchases for the population of all resident and nonresident registered snowmobiles will be within the confidence interval. The confidence interval for average fuel purchased in Maine per registered snowmobile ranges from 80.1 to 94.8 gallons per year. The total quantity of tax paid to Maine by operators of Maine-registered snowmobiles falls within the range from $1,679,908 to $1,988,053 with the expected (mean) value of $1,833,981.

Total gas tax collections for fiscal year 2000 were $146,190,243 with $894,842 returned to the Department of Conservation's snowmobile trail fund and $71,537 returned to the Department of Inland Fisheries and Wildlife to support snowmobile registration (Commission report, p. 9, 2000). Gas tax revenues attributable to Maine-registered snowmobiles represent 1.3% of all State gasoline excise tax receipts. At the same time, the revenues returned to support snowmobile programs represent 52.7% of the estimated revenues collected from Maine-registered snowmobiles.

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Introduction

This study was conducted by the Margaret Chase Smith Center for Public Policy (MCSC) of the University of Maine at the request of the Maine Legislature's Commission to Study Equity in the Distribution of Gas Tax Revenues Attributable to Snowmobiles, All-Terrain Vehicles and Watercraft. The Commission was created by the Legislature with a charge to collect and analyze information to determine an equitable distribution of gas tax revenues used in the enforcement and enhancement of programs supporting off-road vehicle use in Maine. The Commission concluded that snowmobiling, boating and all-terrain vehicle use has increased significantly over recent years and now constitutes a significant and important part of the economies of many regions of the State. The Commission concluded that more information on the amount of gasoline consumed by boats, snowmobiles and ATVs should be collected before making any recommendations on the equitable distribution of gasoline tax revenues.

Survey Methodology

Gasoline purchases for Maine-registered snowmobiles was determined through telephone survey interviews with the owners or operators of a random sample of snowmobiles registered in Maine. The snowmobiles whose owners would be interviewed were selected randomly by the Margaret Chase Smith Center for Public Policy, using the file of vehicles with registrations for the immediate past snowmobile season. That file was provided by InforMe, a company that maintains the records for the State of Maine. The sample was an interval sample taken from vehicle registrations ordered by Maine's standard geocodes.[1] The result was a sample implicitly stratified by geography, which means that snowmobiles in all geographic areas of the state as well as those with nonresident season and three and ten-day registrations had a chance of selection directly proportional to the number of snowmobiles in their area. The interviews took place from June 4 through June 26, 2001.

Questionnaire development

A list of potential question topics was developed by the Margaret Chase Smith Center for Public Policy, following a review of the literature on off-road vehicle use, discussion at Commission meetings, and the Center's experience with utilization studies of various types. It was revised following discussion at the April 9, 2001 Commission meeting. Most topics were reflected in the eventual survey instrument, and additional questions were included where clarification was deemed necessary for the analysis. The final survey questionnaire is given in Appendix 3.

Survey implementation

From the State's list of registered snowmobiles, a random sample of registered snowmobiles was drawn, including those with Maine resident registration, nonresident season registration, and

[1]Geocodes are standard five-digit numeric codes for each Maine minor civil division. The first two digits represent the county in which the minor civil division is located.

three- and ten-day nonresident registration, proportional to their numbers on the registration lists. Unregistered vehicles were not included in the sample. Notification letters were mailed to sample members shortly before the interviewing was begun. These letters listed the sponsors, described the reason the study is being conducted and the use that will be made of the data (to measure the amount of gasoline consumed by registered snowmobiles). In addition, the letter described the role of the Margaret Chase Smith Center for Public Policy, and informed potential respondents that their participation would be voluntary and that their individual responses would remain confidential (see Appendix 2). This information was repeated at the beginning of each interview as part of the informed consent process.

The interviews were conducted by telephone from the Margaret Chase Smith Center for Public Policy at the University of Maine.

All interviewers participated in a four-hour training session designed specifically for this study, using a series of study-specific materials (see Appendix 4). They were provided background information on the project, the charge of the Commission, the purpose of the study, and how and when to contact respondents. Interviewers were provided a set of question-by-question instructions on the meaning and intent of each question, potential respondent concerns, and appropriate methods of handling those concerns. In addition, interviewers conducted two hours of practice interviews before implementation of the survey.

A protocol was developed specifying the number of contact attempts to be made on a schedule of varying times of day and days of the week to ensure that all potential respondents had optimal and equal opportunity to participate in the survey. Interviewers documented all attempts to contact respondents.

Data entry and verification

All data were double entered to check for input accuracy. Extreme values of fuel use were also checked by hand.[2] In particular, all reports of zero fuel use were verified to ensure that non-reporting of fuel use was not counted as no fuel use; 5 responses (representing 0.8% of total responses) of no fuel use were verified. All very large values of fuel use (650 gallons per year or more) were hand-checked for accuracy and internal consistency.

The highest reported amount of gasoline used was 1,600 gallons per year. An additional telephone call to the respondent verified that the vehicle in question is a snow groomer, and that it uses gasoline, not diesel fuel. Additional examination of the snowmobile registrations identified 35 snow groomers, seven of which use diesel fuel. The diesel powered groomers were then purged from our registration lists, reducing the number of registered vehicles by seven.

[2]In particular, the data were key entered using a data entry program that forces consistency in following skip instructions in critical portions of the questionnaire (so that gasoline use cannot be inadvertently double-counted), and disallows out-of-range codes (e.g., a code 5, when only codes 1, 2, or 3 are possible).

Survey Disposition and Response Rate

From InforMe, the Margaret Chase Smith Center for Public Policy obtained the Department of Inland Fisheries and Wildlife lists of 80,467 resident, and 15,098 nonresident season and three and ten day snowmobile registrations for the past year, from June 2000 to the end of the snowmobile season in the spring of 2001. From those lists, 196 nonresident duplicate records were identified and removed, and 87 records with Maine addresses in the nonresident file were removed and seven records of known diesel powered snow groomers were removed. From those lists, a random sample of 1,663 registered snowmobiles was drawn. The lists contain no telephone numbers. Although they are collected on the registration application form, they are not key-entered. From the 1,663 in the sample, possible phone numbers were identified for 1,153 individuals from a search using at least two different Internet search engines. Attempts to contact sample members were made between 5:00 and 9:00 p.m. weekday evenings, from 9:00 a.m. to 1:00 p.m. Saturdays, and from 5:00 to 9:00 p.m. Sundays. Some sample members asked to be contacted during the daytime and contact attempts were made when specified. A total of 4,242 contact attempts were made during the survey, which was conducted from June 4 through June 26, 2001. Nearly three-quarters of the completed interviews were conducted within the first three call attempts. An average of 8.1 attempts were made for sample members whom interviewers were eventually unable to contact.

Table 1: Survey Sample Disposition

Outcome	Number	Percent of Sample
Completed an interview	635	38.2 %
No phone # available	510	30.7 %
Unable to contact	167	10.0 %
Refused	136	8.2 %
Wrong number	96	5.8 %
Ineligible	78	4.7 %
Disconnected, not in service	32	1.9 %
Complete, not entered	2	.1 %
Terminated by respondent	7	.4 %
Total in sample	1663	100. %

During the course of attempting to contact sample members, 78 were determined to be ineligible for participation in the survey primarily because they did not own the selected snowmobile during the period covered by the survey or because they would not be available for an interview during the interview period. Thirty-two phone numbers were either not in service or were disconnected and 96 were wrong numbers. An additional 167 sample members could not be contacted after multiple attempts on different days of the week and different times of the day. The final disposition of all sample members is given in Table 1.

Telephone contact was made with a total of 780 eligible individuals. Of those, 136 refused to participate in the survey, seven were terminated at respondents' request before completing the interview, and two interviews were completed after compilation of the final data file and were

not included in the analysis. Interviews were completed with 635 individuals resulting in a survey cooperation rate of 82%. See Table 2 for details.

Table 2: Outcome when Eligible Respondent was Contacted

Outcome	Number	Percent of Those Contacted
Completed an interview	635	81.6%
Refused	136	17.5%
Terminated by respondent	7	.9%
Complete, not entered	2	.3%
Total contacted	780	100.0%

Results from the Survey

Geographic distribution of all Maine-registered snowmobiles

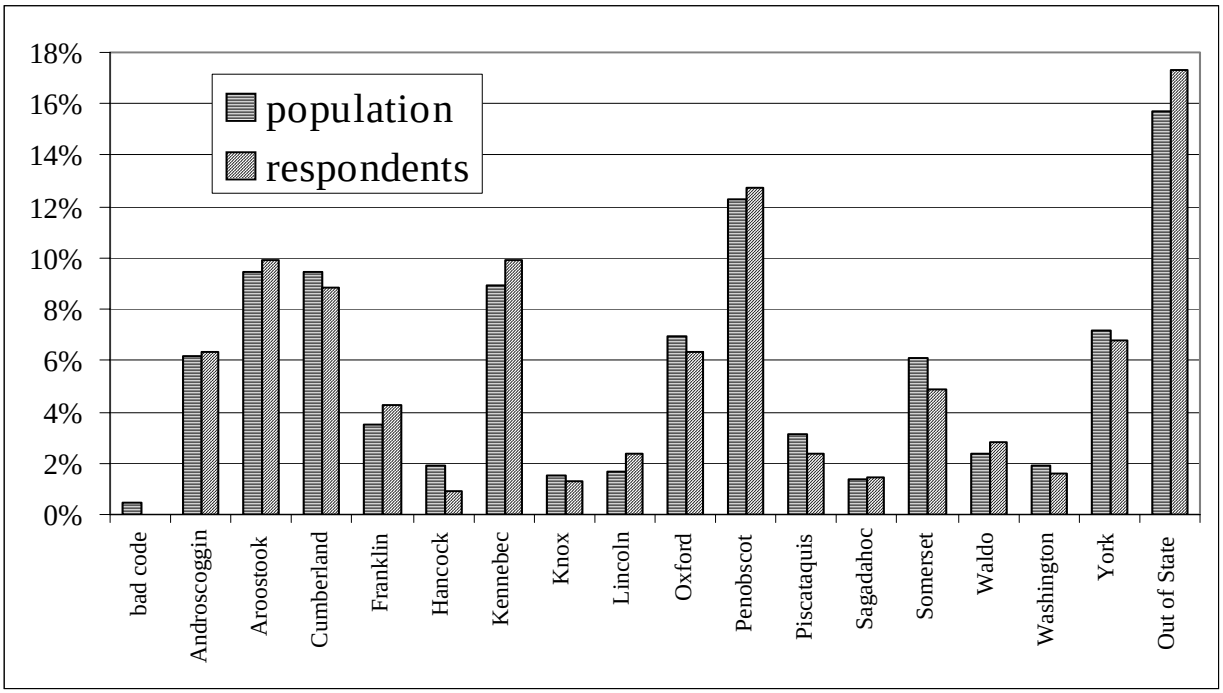
The geographic distribution of the owner-operators of all Maine-registered snowmobiles includes all 16 Maine counties as well as 6% from out of state. As is seen in Table 3 and Figure 1, this same geographic distribution is represented very well in the sample of 635 individuals who completed interviews. This means that our results represent the geographic diversity of snowmobile owners.

Table 3: Geographic Location of Registered snowmobiles and Survey Respondents

County	Population		Respondents	
	number	percent	number	percent
bad code	448	0.47%	0	0.00%
Androscoggin	5,906	6.19%	40	6.30%
Aroostook	8,995	9.43%	63	9.92%
Cumberland	8,989	9.43%	56	8.82%
Franklin	3,335	3.50%	27	4.25%
Hancock	1,837	1.93%	6	0.94%
Kennebec	8,519	8.93%	63	9.92%
Knox	1,441	1.51%	8	1.26%
Lincoln	1,630	1.71%	15	2.36%
Oxford	6,605	6.93%	40	6.30%
Penobscot	11,717	12.29%	81	12.76%
Piscataquis	2,973	3.12%	15	2.36%
Sagadahoc	1,340	1.41%	9	1.42%
Somerset	5,797	6.08%	31	4.88%
Waldo	2,236	2.34%	18	2.83%
Washington	1,834	1.92%	10	1.57%
York	6,813	7.14%	43	6.77%
Out of state	14,954	15.68%	110	17.32%
Total	95,369*	100.	635	100

* includes 7 known diesel powered snow groomers

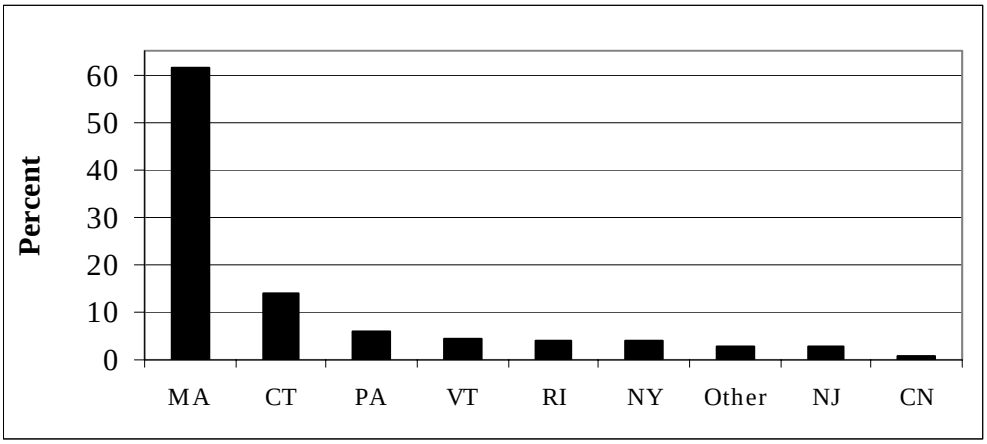
Figure 1: Geographic Location of Registered Snowmobiles and Survey Respondents



Geographic distribution of out-of-state, Maine-registered snowmobiles

As is shown in Figure 2, 61% of all out-of-state snowmobiles that are registered in Maine are from Massachusetts. Nonetheless, there are at least one or more snowmobiles registered in Maine from 29 states and Canada. The absence of a substantial number of registered snowmobiles from New Hampshire reflects the existing reciprocity agreement. It is likely that operators of New Hampshire sleds purchase some gas in Maine as they ride Maine trails. However, it was determined by the Commission that conducting a parallel survey of New Hampshire snowmobile riders was beyond the scope of this study.

Figure 2: Distribution of Out-of-State Maine-Registered Snowmobiles



Gasoline use by snowmobiles

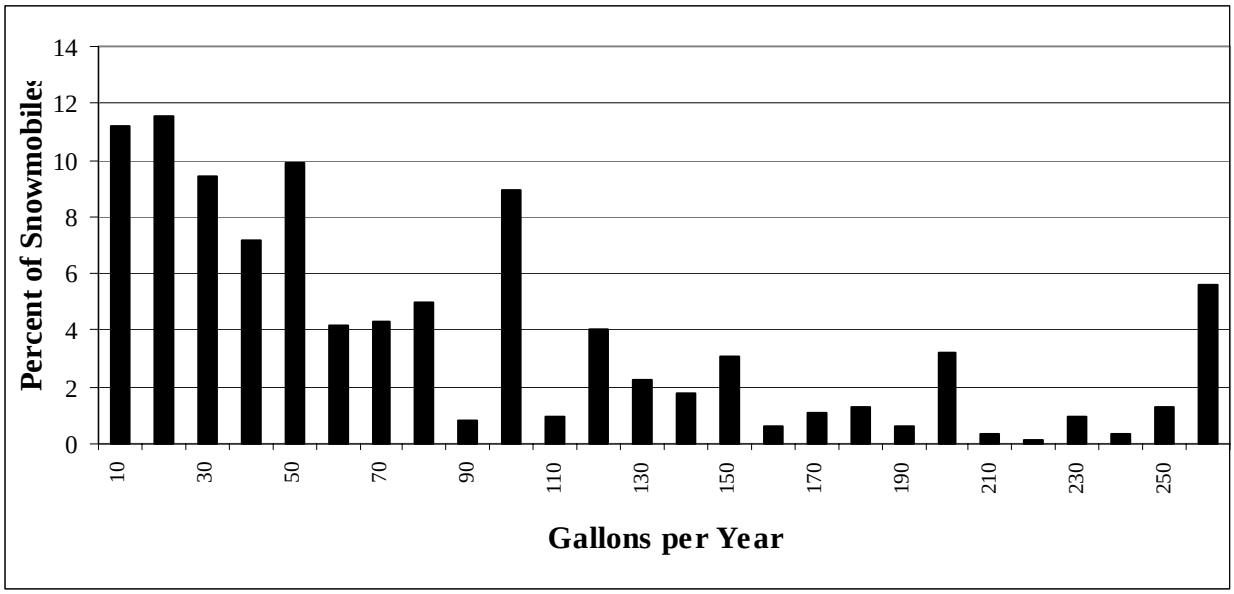
In our sample, the operator of an average registered snowmobile purchased 87.4 gallons of gasoline (rounded to the nearest tenth) in Maine during the most recent one-year period ending in June 2001. Since our sample is a random sample of the population of all registered snowmobiles in the State of Maine, we can estimate the total quantity of gasoline purchased in Maine for use in registered snowmobiles based on our sample. Given that there are 95,334 registered snowmobiles (resident and nonresident registrations), this means that the total quantity of fuel purchased in Maine for Maine-registered snowmobiles was 8,336,275 gallons in the one-year snowmobile season ending in June of 2001.

Since these data were gathered from a random sample rather than from the entire population of all Maine-registered snowmobiles, the quantity of average and total fuel purchased and average and total taxes paid are subject to error. This sampling error is typically quantified by confidence intervals based upon the sample data. A 95% confidence level means that in 95 out of 100 samples of the same size, the true average of fuel purchased for the population of all snowmobiles will be within the confidence interval. See Appendix 1 for additional details on statistical accuracy. The confidence interval for average fuel purchased per registered snowmobile ranges from 80.1 to 94.8 gallons per year. This translates into a 95% confidence interval for total gasoline purchased in Maine of 7,635,946 to 9,036,602 gallons per year in the year ending June 2001.

In addition to what are commonly thought of as snowmobiles, the registration files include snow groomers. The random sample included one of these vehicles, and an interview was conducted with its operator, who reported that it used 1,600 gallons of Maine-purchased gasoline in the past season. In order to avoid giving the fuel used in that vehicle undue weight in the study, an inventory of the likely groomer manufacturers represented in the entire file of registered vehicles was performed, and information was sought from a groomer distributor. As a result, 28 groomers that are likely to use gasoline, not diesel fuel, were identified, and seven known diesel groomers were removed from the base from which total fuel use is calculated. If all 28 gasoline powered groomers used 1,600 gallons on average, then Maine-registered snow groomers would have consumed 44,800 gallons of gasoline during the last season. We do not know whether the randomly selected groomer's gasoline consumption is typical of all groomers. We, therefore, have not included this vehicle in the calculations of gasoline used and revenue generated from the gasoline, except as noted here.

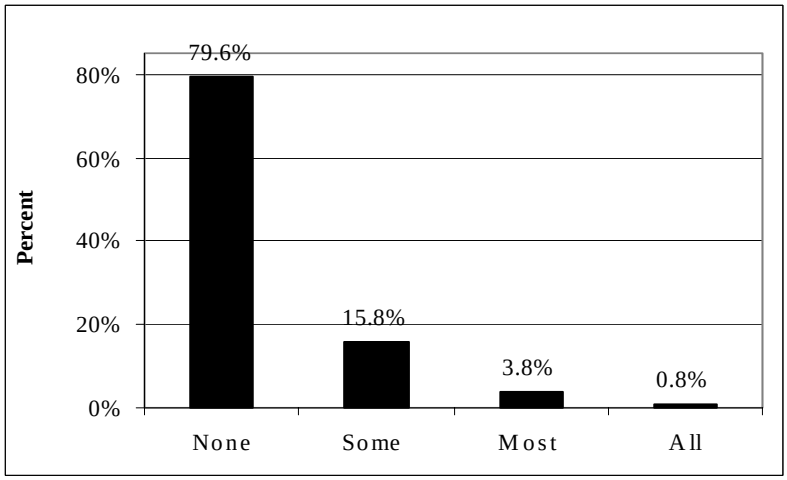
The distribution of Maine annual gasoline purchases in snowmobiles is shown in Figure 3. The average number of gallons purchased is 87.4, and it is clear that the average (or mean) reflects a large number of vehicles that use fewer than 87.4 gallons of gas bought in Maine. A very small number use far more. Employing the mean for the calculation of gasoline purchases and confidence intervals is appropriate because of its statistical properties. To describe typical gasoline use by snowmobiles, the median is also helpful. The median for this distribution is 55.5 gallons. That means that half the vehicles use more than 55.5 gallons of Maine-purchased gasoline, and half use less.

Figure 3: Snowmobile Gasoline Purchased in Maine



Most of the gasoline consumed by Maine resident and nonresident registered snowmobiles was purchased in Maine; 80% of respondents stated that they bought none of their gasoline out of state (see Figure 4).

Figure 4: Snowmobile Gasoline Purchases Out of State



The excise tax on gasoline imposed by the State of Maine is $0.22 per gallon. This means that the gasoline purchased in Maine for a Maine-registered snowmobile contributes *on average* $19.24 (rounded to the nearest cent) per year, and all Maine resident and nonresident registered snowmobiles, excluding known groomers, contribute $1,833,981 per year in Maine gasoline fuel

excise taxes. Using the confidence interval for gasoline sales in Maine shown above, this means that the total quantity of Maine gasoline tax paid by owners/operators of Maine-registered snowmobiles ranges from $1,679,908 to $1,988,053 with the expected value of $1,833,981.

Total gas tax collections for fiscal year 2000 were $146,190,243 with $894,842 returned to the Department of Conservation's snowmobile trail fund and $71,537 returned to the Department of Inland Fisheries and Wildlife to support snowmobile registration (Commission report, p. 9, 2000). Gas tax revenues attributable to Maine-registered snowmobiles, excluding groomers, represent 1.3% of all State gasoline excise tax receipts. At the same time, the revenues returned to support snowmobile programs represent 52.7% of the estimated revenues collected from Maine-registered snowmobiles.

Characteristics of snowmobile-owning households

The sampling procedure used in this study targeted individual vehicles, not owners, households, or businesses. Therefore, questions about the household, the snowmobile riders, and other vehicles owned by persons in the household were included to provide a more complete picture of snowmobile ownership, ridership, and use in Maine. Forty-four of the 635 study snowmobiles are used at least occasionally for commercial purposes, and only one is reserved exclusively for commercial use. Because so few of the snowmobiles are used for anything other than home-based activities, we refer here to snowmobile-owning "households."

Seventy-three percent of the households in this study have more than one snowmobile. The number of snowmobiles in the households ranges from zero (the selected sled was sold during the past season) to a high of twenty-five, with an average (mean) of 2.3 snowmobiles per snowmobile-owning household. In at least two instances (the household with twenty-five sleds and one with twenty) the owners are collectors of antique and older snowmobiles. When the two collector households are excluded, the mean number of snowmobiles per household is slightly lower, but it still rounds to 2.3 per household. Snowmobiles are used by an average of 2.4 persons per household, and by persons outside the household in 21% of the cases.

The average age of snowmobile riders in the snowmobile-owning households is 34 years, ranging from infants to age 88. Most (87%) of the respondents to the survey, who are the persons in whose name the vehicles were registered or the persons most knowledgeable about the selected vehicles, are male. They have been riding snowmobiles for an average of 19 years, ranging from new riders with less than one year of experience to a veteran of sixty-eight years. Almost half (46%) belong to a snowmobile club.

Slightly less than half (48%) of the snowmobile-owning households own one or more gasoline-powered boats, and 39% own one or more all-terrain vehicles (ATVs).

Characteristics of the selected snowmobiles

The predominant manufacturers are Arctic Cat (25%), Polaris (32%), Ski Doo (29%), and Yamaha (13%). Fewer than 1% of the sleds are made by other manufacturers. The snowmobile make is recorded in the files maintained by InforMe only for vehicles with regular Maine resident registration, not for nonresident registrations. The nonresident manufacturer information is obtained from the respondents' interviews. The percentages of vehicle makes among respondents to the study correspond closely to the percentages of manufacturers represented in the file of Maine resident registrations as transmitted by InforMe.

Half the vehicles in the survey were manufactured in 1995 or later. Their owners have had them for an average of four and a half years. Most (90%) are two-stroke vehicles. Most (92%) have an odometer.

The most common engine size is 500 cc (16% of the snowmobiles in the study), and 95% of the machines have 700 cc engines or smaller. One in ten is a small machine with an engine size of 340 cc or less.

How the snowmobiles are used

In 34% of the households with more than one snowmobile, the selected snowmobile is used more than the other(s); in 43% it is used about the same; and in 23% it is used less than the others. Although one might expect that the three figures would be roughly equal for the sample, it is quite possible (although the question was not asked) that relatively fewer of the selected snowmobiles are used *less* than the other snowmobiles because a household's *least* used machines may not be registered, and therefore would not have been eligible for the study.

Respondents were asked to indicate the activities for which they use their vehicles. Many of the vehicles are clearly used for multiple purposes. Almost all (97%) of the sleds are at least sometimes used in recreation (defined in the question as "riding for fun"), and 36% are used exclusively for that purpose. Only 7% of the vehicles are ever used for commercial purposes in a job or business. Less than half (43%) are used at least sometimes for hunting, ice fishing, or trapping (not as part of a job), and 15% are used often or only for that purpose. Few (14%) are ever used in land management. More than one-quarter are used in trail maintenance and grooming: one vehicle is used exclusively for that purpose, 5% are often used, and 21% are sometimes used in grooming work.

Most snowmobile use is clearly recreational. Half the owners (51%) say they often ride the vehicles for fun, and another 36% use them for that purpose exclusively. Nine percent say they only "sometimes" ride the selected snowmobile for fun, and only 3% of the vehicles are never used for recreation.

Where the snowmobiles are ridden

Just as the snowmobiles are used for multiple purposes, their owners ride them in multiple types of venues. Much snowmobile riding is done on the owner's private land, or that of others: 43% ride often on their own land or that of their family, and an additional 32% say they do so sometimes. Three-quarters (75%) ride at least sometimes on public lands. Most (92%) ride on private land that belongs to others. Almost all (93%) ride on designated snowmobile trails.

Most riders (85%) at least sometimes trailer their snowmobiles to a place to ride them, and 20% always do so.

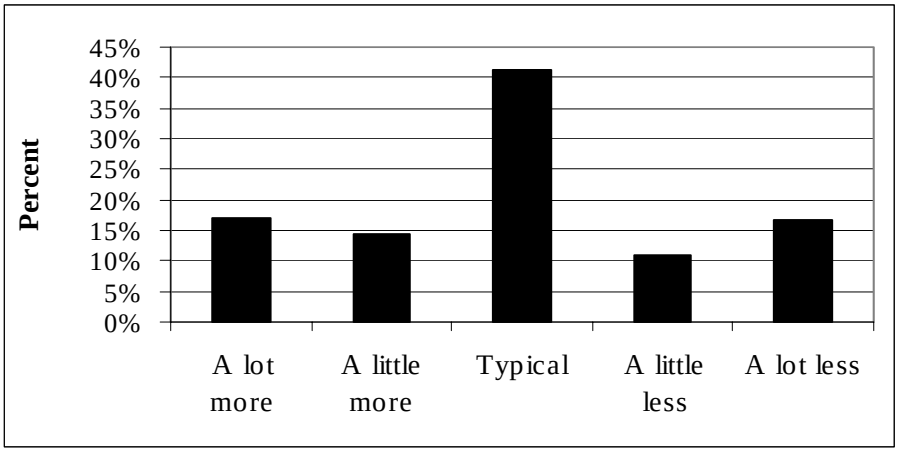
Most of the operators (80%) buy all of their gas for the selected sled in Maine. Among the remainder, 16% buy some gas outside Maine, and 4% buy most of their gas outside Maine. When only the operators of sleds with regular Maine resident registrations are considered, 89% say they buy all their gas within Maine. The low frequency of out-of-state-gas purchases means that most of the gasoline used by the snowmobiles in this study produces gasoline tax revenues in Maine. Snowmobilers are mobile: only one-third (33%) generally buy gas at the same place each time.

The analysis of gasoline purchases in Maine, described in detail elsewhere in this report, is based on questions that emphasize purchase and use *in Maine*. Therefore, while many of those with nonresident registrations may operate their sleds in states besides Maine, they were asked to report only their purchase and use of Maine gasoline in this study.

Riding patterns: outings and trips

Snowmobile riders travel an average of 73 miles at an outing, with trips ranging from less than a mile to 700 miles. Half the trips are fifty miles long or more. On average, the snowmobiles were ridden on an average 23 days in the 2000-2001 season. Use varied from none to a reported 218 days.

Figure 5: Riding This Year Compared to Other Years



Riding patterns: was 2000-2001 a typical year?

The past winter, 2000-2001, is often described as producing much more snow, for a longer period of time, in a more extensive geographic area, than other recent winters. There has been speculation that there may have been more snowmobile riding in the past year than in less snowy years. These data do not show an overall increase in riding by those who have ridden these particular sleds more than a year: 17% said they rode this sled a lot more this past year than other years, 14% said they rode a little more, 41% said their riding was typical, 11% said they rode a little less, and 17% said they rode a lot less, see Figure 5.

Riding habits: safety

Most (84%) snowmobilers more often ride in a group, rather than alone. Half (51%) carry a passenger at least sometimes.

Many (85%) at least sometimes ride their sleds at night.

More than nine in ten (92%) snowmobile riders wear a helmet all the time. A small percentage (3%) never wear one.

When asked which of four options is the best way to ensure that trails are safe for everyone, the operators selected education (39%) most often, followed by trail design (29%), presence of law enforcement officers (14%), and rules and regulations (10%). Some operators were unable to select among the offered choices and volunteered other responses or insisted that all of the choices were equally important. Some mentioned specific rules, such as speed limits and tougher OUI laws; others suggested better or more signs.

Riding habits: long trips

Snowmobilers are fairly evenly divided among those who like best to ride near home (42%), or far away (44%). The remaining 14% volunteered that the distance from home does not matter to them.

Slightly more than half (53%) took a weekend or longer trip primarily for snowmobile riding during the past season. Almost two-thirds (63%) of those who took the trips stayed in commercial lodging (the remainder probably stayed with relatives or friends). The average stay in commercial lodging was 6.4 nights, ranging from 1 to 90 nights. Half the stays were of 4 nights duration or more. In all, the 207 respondents in this study who occupied commercial lodging spent a total of 1,333 person-nights in those accommodations while they were on trips for snowmobiling. A simple extrapolation from these figures indicates that an estimated 201,774 nights of commercial lodging were attributable to snowmobiling in the past season.

Riding preferences: trail riding and preferred facilities

Most (93%) snowmobilers ride on trails specifically designated and groomed for snowmobiles. Half (51%) of the few who do not currently ride designated trails would like to do so. Among those who use designated trails, there is considerable support for both major and local trails: when asked to choose, 60% prefer the major trails such as the Interconnected Trail System, and 40% prefer smaller local club trails.

Those who ride on trails made specifically for snowmobiles say that the closest such trail to their home is 20 miles or less (82%); 21 to 50 miles (4%); or more than 50 miles (14%). Those who ride the trails made specifically for snowmobiles rate the trail and facilities of the closest trail they ride (which may not be their favorite or the one they frequent the most) as excellent (31%), good (44%), fair (18%), or poor (7%). They rate the safety of that trail as excellent (27%), good (53%), fair (16%), or poor (5%).

Among snowmobile riders who use trails made specifically for snowmobiles or who would like to use such trails, two-thirds (67%) would travel at least fifty miles to use a good trail, while the remainder say that fifty miles is too far to travel. Opinions about the length of an adequate trail vary widely, from a mile or two to ten thousand or more miles. The average (mean) length suggested is 218 miles (the mean is affected by the few respondents who want trails thousands of miles long), and half the riders say that 80 miles or fewer (the median) would be adequate. The most frequently mentioned length is 100 miles (the mode). Ninety percent of the respondents said trails of 225 miles or fewer would be adequate.

Respondents were asked to describe one characteristic that a good snowmobile trail or facility should have. Many had difficulty selecting only one, and interviewers used neutral probes to help them select a single feature that they would like trails or facilities to have. The open-ended responses were content-analyzed for common themes, and grouped into code categories. An appropriate resulting code was then assigned to the answer given by each respondent. The most frequently mentioned characteristics are signs, markers, and directions (30%); followed by smooth, well-groomed surface (21%); restrooms, rest areas, and picnic areas (10%); gasoline pumps (7%); and wide trails (7%). Other desirable characteristics include snack bars, scenery, easy access and parking, warming huts, bridges, and presence or absence of speed limits. One person, appropriately enough, named snow as the most important feature.

Plans for future snowmobile purchases

Nearly two-thirds (63.7%) of the operators thought they would buy another snowmobile in the next few years. There is an increasing research emphasis on emissions and noise pollution, and some sleds are being marketed as cleaner and quieter machines. Almost four in ten (39%) of those who thought they would be buying new sleds described themselves as very likely to look specifically for one of the cleaner and quieter sleds, and another 32% said it was somewhat likely

they would do so. The remaining 28% thought it was somewhat unlikely (7%) or not very likely (22%) that they would be looking for the cleaner, quieter machines.

Appendix 1: Statistical Accuracy - A Note

Accuracy and confidence. All statistical studies are subject to error. The term "error," as used in data analysis, does not mean "mistake." Rather, it is a way of expressing the likelihood that the results obtained from a sample of a population are very similar to the results that would theoretically have been obtained if one were to collect data from absolutely every member of the population of interest (in this case, snowmobile owners). The degree of certainty of results based on a sample is expressed as a confidence interval. The confidence interval shows that the results obtained from a sample of a certain number of randomly selected snowmobile owners are likely to be within a specific margin of error of the results one would have obtained if an interview were completed with every snowmobile owner in Maine. The level of confidence for this study has been set at 95%: that is, if we were to conduct this study 100 times, with samples of 635 persons all drawn in the same way, in 95 of the 100 samples the results will be very close to the results that would have been obtained if we had interviewed all the snowmobile owners in the state. The actual width of the confidence interval for any particular data item depends upon the data distribution obtained from the study.

UNIVERSITY OF MAINE
Land Grant University
Sea Grant College

MARGARET CHASE SMITH C•E•N•T•E•R for Public Policy
5715 Coburn Hall
Orono, ME 04469-5715
207-581-1646
Fax: 207-581-1266

Year: XX Make: XXXXX Reg# XXXX

Firstname Lastname
Street, Town, State

May, 2001

Dear Snowmobile owner:

No one really knows how much gasoline is used by all the off-road vehicles in Maine. We are trying to find out, and we need your help. We are conducting a study to estimate the total number of gallons of gasoline used by all the snowmobiles, ATVs, and boats in Maine. We have completed a survey of ATV owners and we are now calling the owners of a random sample of snowmobiles. **A snowmobile registered to you is in that sample. It is the one whose registration number appears on the label above.** An interviewer will probably call you soon to ask you to do a ten-minute interview over the phone.

This study is being done by the Margaret Chase Smith Center for Public Policy at the University of Maine. We were asked to do the study by the Maine Legislature's Commission to Study Equity in the Distribution of Gas Tax Revenues. The study is being paid for by the State of Maine Departments of Conservation, Inland Fish and Wildlife, Transportation, and Marine Resources. The Commission and the Legislature will use the information we gather to help decide how to allocate gasoline tax money fairly among all users of various forms of transportation.

We think you will find the interview interesting. The questions will cover topics such as:

- the features of your snowmobile
- what kind of riding you like
- how much gasoline you bought in Maine for this sled in the past season.

We realize that you may not know right off hand how much gas you used. The interviewer will be ready to figure that out with you. **The interview will go more quickly if you think ahead of time about the amount of gas you used and the number of miles you rode in the last year on the snowmobile above.**

The information that you give us will be kept confidential. We will not use your name in any way. Our report to the Commission will add everyone's answers together so no one can be identified. When our interviewer calls, we hope you will participate. In the interview, if we come to a question that you don't want to answer, you can just say so and the interviewer will move on to the next question.

We hope you will agree to be part of this effort to help the Maine Legislature better understand how much gasoline is used in Maine's off-road vehicles.

Yours truly,

Jonathan Rubin, Study Director

(Non-Resident Registration)

UNIVERSITY OF MAINE

Land Grant University
Sea Grant College

MARGARET CHASE SMITH C•E•N•T•E•R for Public Policy

5715 Coburn Hall
Orono, ME 04469-5715
207-581-1646
Fax: 207-581-1266

June, 2001

Dear snowmobile owner:

The records of the State of Maine Department of Inland Fish and Wildlife indicate that you registered one or more snowmobiles for use in Maine during the past season. No one really knows how much gasoline is used by all the off-road vehicles in Maine. We are trying to find out, and we need your help. We are conducting a study to estimate the total number of gallons of gasoline used by all the snowmobiles, ATVs, and boats in Maine, including those used by visitors to our State. **A snowmobile registered to you is in our sample of vehicles.** An interviewer will probably call you soon to ask you to do a ten-minute interview over the phone.

This study is being done by the Margaret Chase Smith Center for Public Policy at the University of Maine. We were asked to do the study by the Maine Legislature's Commission to Study Equity in the Distribution of Gas Tax Revenues. The study is being paid for by the State of Maine Departments of Conservation, Inland Fish and Wildlife, Transportation, and Marine Resources. The Commission and the Legislature will use the information we gather to help decide how to allocate gasoline tax money fairly among all users of various forms of transportation.

We think you will find the interview interesting. The questions will cover topics such as:

- the features of your snowmobile
- what kind of riding you like
- how much gasoline you bought in Maine for this sled in the past season.

We realize that you may not know right off hand how much gas you used. The interviewer will be ready to figure that out with you. **The interview will go more quickly if you think ahead of time about the amount of gas you bought in Maine and the number of miles you rode in Maine during the past season.**

The information that you give us will be kept confidential. We will not use your name in any way. Our report to the Commission will add everyone's answers together so no one can be identified. When our interviewer calls, we hope you will participate. In the interview, if we come to a question that you don't want to answer, you can just say so and the interviewer will move on to the next question.

We hope you enjoyed your stay in Maine and will agree to be part of this effort to help the Maine Legislature better understand how much gasoline is used in Maine's off-road vehicles.

Yours truly,

Jonathan Rubin, Study Director

Appendix 3: Questionnaire with Frequency Results

How to read the frequencies, percentages, and other statistics inserted in this survey instrument

The univariate frequencies and percentages as well as some other statistics are inserted in the following copy of the survey instrument. The frequencies and percentages show the number and percentage of respondents who gave each of the possible substantive answers to the questions (i.e., the variables) in the survey. For some questions, where respondents give actual numbers (such as the number of snowmobiles they own), the appropriate average(s)—mean, median, and/or mode—are shown, with the range of values (the lowest answer and the highest).

"Substantive answers" are those that contain information. Non-substantive answers are not included in the percentages. Known colloquially as "missing data," although they are not "lost," these include DK (the code assigned when respondents don't know what answer to give, even after probes), NA (for questions in which the respondent declined to answer or the data were improperly recorded or implausible), and INAP (for questions that not appropriate for an individual respondent and are correctly skipped by an interviewer according to the GO TO instructions on the questionnaire).

The results are shown in *italics*. Where two columns of numbers are shown to the left of the questions, the left column shows the number of persons giving each answer (the frequencies), and the right column shows the percentage of persons giving that answer. The missing data are not included in those percentages. In tables, the top number in each cell is the frequency, and the bottom number is the percentage.

Measures of central tendency (the averages) are displayed in or near the question to which they pertain. They are in italics. We have selected an appropriate average for each question. The *mean* is the familiar arithmetic average: the sum of all the answers, divided by the number who answered. The *median* is the answer value that divides the whole array of answers in half: half the persons gave an answer lower than that value, and half gave a higher answer. The median is useful to show a "typical" answer when there are some very large or very small answers that would distort a mean. The *mode* is the single value that is given by the highest number of respondents: it is the most frequently occurring answer.

Survey Instrument — Snowmobile Gasoline Use

Hello, This is _____, calling from the Margaret Chase Smith Center for Public Policy at the University of Maine. May I speak with _____?

We are talking with snowmobile owners to see how much gasoline they use in their snowmobiles. Did you get a letter telling about the study? (IF YES, CONTINUE. IF NO: "Let me tell you about it"; IF R WANTS ANOTHER LETTER SENT, WE WILL DO SO). The Maine Legislature's Gas Tax Equity Commission asked us to find out how much gasoline is used in off-road vehicles. This study is sponsored by several government departments — Conservation, Inland Fish and Wildlife, Transportation, and Marine Resources. The Commission and the Legislature will use the information we get to see that gas tax money is allocated fairly. We've already done a survey of people who operate an ATV. Later on, we'll be interviewing people who own boats. Right now we're talking with people who have registered snowmobiles in Maine.

Your participation is entirely voluntary, and your name will not be connected with your answers in any way.

Do you have any questions? May we proceed?
(ANSWER ANY QUESTIONS; PROCEED IF R CONSENTS.)

We randomly selected vehicles to ask about, and my instructions are that we have selected the (BRAND) _____ with vehicle plate number (READ NUMBER) _____. Are you the person who knows the most about that vehicle?
(IF YES, PROCEED; IF NO, THEN ASK FOR THAT PERSON, AND START AGAIN AT THE TOP.)
****

1. ENTER TIME NOW: ___ ___: ___ ___

2. Do you still own this vehicle?

No. of cases 603	*94.96%*	YES. . . . . .(GO TO Q4)	1
32	*5.04%*	NO	2

3. (IF DOES NOT OWN NOW) Did you have it at any time during this past snowmobiling season?
("SEASON" = NOVEMBER '00 TO APRIL '01)

33	*94.29%*	YES. . . . . .(GO TO Q4)	1
2	*5.71%*	NO	2

IF NO: FIND OUT WHAT HAPPENED:

- **IF R HAD THE SNOWMOBILE DURING SOME PART OF THE SEASON, CONTINUE THE IW, EVEN IF IT WASN'T USED.**
- IF R **DID NOT** HAVE THE SNOWMOBILE DURING ANY PART OF THE YEAR, MAKE IWER NOTE AND TERMINATE:
  "Thank you, but we're only talking with people who had registered snowmobiles this past year. I'll make a note here." EXIT

INAP (CODED 1 IN Q2) 0

4. **Counting this sled with Registration #_____, how many snowmobiles** do you have in your household? *N=631; mean=2.32; range=0-25*

ENTER NUMBER. . . . . (IF 0 OR 1 GO TO Q6)	___ ___
DK	98
NA	99

5. (ASK ONLY IF THERE ARE OTHER SNOWMOBILES IN THE HOUSEHOLD: Q4 IS MORE THAN ONE) Does this snowmobile **get used more**, about the **same**, or **less** than the other sleds in your household?

158	*34.13%*	THIS ONE USED MORE	1
200	*43.20%*	THIS ONE ABOUT THE SAME	2
105	*22.68*	THIS ONE USED LESS	3
		DK	8
		NA	9
		INAP (NO OTHER SNOWMOBILES IN HOUSEHOLD)	0

6. How many people **in your household** use (this/these) snowmobile(s)?

N=633; mean=2.4; range=0-12

ENTER NUMBER:	___ ___
DK	98
NA	99

6a. What are their **ages**? I don't need to know who they are, just their ages.

ENTER AGE, OR CODE FOR DK--98; NA--99; INAP--00

INCLUDE R IF R USES THE SNOWMOBILE

N=1,522 persons; mean=34.32; range=1-88

PERSON #	AGE	PERSON #	AGE
1		5	
2		6	
3		7	
4		8	

7. Are there any people **outside** your household who regularly use these snowmobiles? (How many?)

497	*78.52%*	NO, NONE	0
56	*8.85%*	ONE	1
42	*6.64%*	TWO	2
38	*6.00%*	THREE OR MORE	3
		DK	8
		NA	9

8. Does anyone in your household own any **gasoline-powered boats**? (IF YES: How many boats?)

N=631; mean=0.72; range=0-7

ENTER # OF BOATS	___ ___
NONE	00
DK	98
NA	99

9. Does anyone in your household own any **ATV's -- all-terrain vehicles**? (IF YES: How many ATVs?)

N=633; mean=0.56; range=0-4

ENTER # OF ATVs	___ ___
NONE	00
DK	98
NA	99

10. How many years have you yourself been **riding snowmobiles**?

N=628; mean=19.39; range=<1-68

ENTER # YEARS (ROUND HALF YEAR TO NEAREST EVEN)	___ ___
LESS THAN ONE	00
DK	98
NA	99

11. Thank you. Now, let's **go back to that snowmobile that we randomly selected**. That's the one with registration tag (READ TAG NUMBER)_____.
That's a **(MAKE/BRAND NAME)**, right? Let me get that down here...

159	*25.04%*	ARCTIC CAT	1
1	*0.16%*	BOMBARDIER	2
205	*32.28%*	POLARIS	3
185	*29.13%*	SKI DOO	4
81	*12.76%*	YAMAHA	5
4	*0.63%*	OTHER (ENTER BRAND NAME_____)	7
		DK	8
		NA	9

12. What **model** is it? *(These data are recorded in text format and are not included here.)*

ENTER MODEL_____ AND CIRCLE "1"	1
DK	8
NA	9

13. What is its **engine size in cc's**? *N=580; mean=515; median=500; mode=600, range=*80-1000

ENTER ENGINE SIZE IN CC'S.	___ ___ ___
DK	998
NA	999

14. Is it a **2-stroke or a 4-stroke** engine?

554	*90.38%*	2-STROKE	1
54	*8.81%*	4-STROKE	2
5	*0.82%*	SOMETHING ELSE (VOL.) (What is it?_____)	7
		DK	8
		NA	9

15. This sled is a (**YEAR**), right? *N=635; median=1995; mode=1998; range=1969-2001*

ENTER YEAR (USE ALL 4 DIGITS)	___ ___ ___ ___
DK	0008
NA	0009

16. For **how many years** have you owned it? *N=631; mean=4.4; median=3.0; range=0-27*

ENTER # OF YEARS:	___ ___
LESS THAN ONE YEAR (CIRCLE 00, AND ENTER MONTHS, BELOW)	00
DK	98
NA	99

16a. IF LESS THAN A YEAR, # OF MONTHS ___ ___
(LESS THAN 1 MONTH, ENTER 01)

DK	98
NA	99
INAP, ENTERED YEARS	00

17. Does it have an **odometer**? (mileage meter)

578	*92.19%*	YES	1
43	6.86%	NO	2
6	*0.96%*	YES, BUT IT DOESN'T WORK (VOL.)	7
		DK	8
		NA	9

18. Thank you. Now I have some questions about **where** and **how** you use this sled. I'm going to read you a list of things that people often do with their snowmobiles, and for each one, please tell me if you use it **only** for that purpose, or **often**, **sometimes**, or **never** use this snowmobile for that purpose.
First,...

	ONLY*	OFTEN	SOME-TIMES	NEVER
a. Commercial use in your job or business	*1 0.16%*	*6 0.95%*	*37 5.85%*	*589 93.05%*
b. Hunting, icefishing, trapping — but not as part of a job	*7 1.11%*	*88 13.90%*	*176 27.80%*	*362 57.19%*
c. Land management on your land	*0 0.00%*	*13 2.06%*	*74 11.71%*	*545 86.23%*
d. Trail grooming, trail maintenance	*1 0.16%*	*33 5.22%*	*131 20.73%*	*467 73.89%*
e. Recreation — riding for fun	*229 36.23%*	*323 51.11%*	*60 9.49%*	*20 3.16%*
f. (UNLESS ONE ABOVE IS "ONLY") Anything else? (What?)_____	*3 0.49%*	*9 1.48%*	*5 0.82%*	*593 97.21%*

(*IF ONE ITEM IS "ONLY," THE REST SHOULD BE "NEVER.")

19. Now I'd like to know **where** you ride this snowmobile. For each item I read, please tell me if you **often**, **sometimes**, or **never** ride your sled there.

	OFTEN	SOME TIMES	NEVER
a. Public lands owned by the state or the town. (EXPLAIN: That includes State Parks, game management areas, public reserved areas)	*215 34.13%*	*258 40.95%*	*157 24.92%*
b. Private land that is yours or your family's	*272 42.97%*	*205 32.39%*	*156 24.64%*
c. Private land belonging to someone else	*395 62.50%*	*184 29.11%*	*53 8.39%*

20. Do you **truck or trailer** your snowmobile to take it somewhere to ride **always**, **often**, **sometimes**, or **never**?

124	*19.65%*	ALWAYS	1
125	*19.81%*	OFTEN	2
286	*45.32%*	SOMETIMES	3
96	*15.21%*	NEVER	4
		DK	8
		NA	9

21. Now I'm going to ask you some questions about buying gasoline **for this vehicle** — where you get gas, how much you use, how often you buy it, and so forth. In all these questions, **I'm asking just about this one snowmobile**.

First, do you usually **buy gas** for this vehicle **at the same place**, or do you buy it at **different places**?

210	*33.23%*	USUALLY SAME PLACE	1
422	*66.77%*	DIFFERENT PLACES	2
		DK	8
		NA	9

22a. How much gas do you buy for this sled **outside of Maine**: **none** of it, **some**, **most**, or **all** of it from **outside** of Maine?

503	*79.59%*	NONE FROM OUTSIDE	1
100	*15.82%*	SOME	2
24	*3.80%*	MOST	3
5	*0.79%*	ALL	4
5	*	BOUGHT NO GAS AT ALL, IN OR OUT OF MAINE (VOL.)	7
		DK	8
**not incl. in percentages*		NA	9

22b. What kind of snowmobile registration did you have for this sled this past season: was it...

523	*83.02%*	a regular Maine resident registration,	1
76	*12.06%*	a nonresident season registration, or	2
31	*4.92%*	nonresident 3 or 10 day pass(es)?	3
		DK	8
		NA	9

23. Now we are coming to some questions about **how much gas you bought in Maine for this snowmobile in the past year**; that is, from (THIS MONTH 2000) until today. Then, we're also going to be looking for your best estimate of the number of miles you traveled, the hours you rode, and so forth.

IWER NOTE: WE WANT REPORTS OF ONLY **MAINE-BOUGHT** GAS. IF R HAS A **NON-RESIDENT** REGISTRATION OR SHORT-TERM PASS (Q22b), BOUGHT AT LEAST SOME GAS OUT OF STATE (Q22a), OR HAS AN OUT-OF-STATE ADDRESS, SAY "We are interested only in the gas you bought in Maine — not gas bought outside of Maine."

Before I go any further — do you happen to **know how many gallons of gas** you bought for this snowmobile in the past year (in Maine)?

YES (How many is that?) ENTER#, GO TO Q31 (NEXT WHITE PAGE) . . . . ___ , ___ ___ ___
NO OR DK 9998
===>That's OK — we find that people often know some things that will help get to the number of gallons of gas. We can work with you to get there. I have my calculator ready here.

24. How do you think about the amount of gas you use in this vehicle? Do you usually think about the **miles you get per gallon**, or do you think about the **hours of riding time**, or do you think about the **gallons you buy**, or **the amount of money you spend**, or what?

MILES PER GALLON. . . . . .==>GO TO Q25 (BLUE) 1
HOURS OF RIDING TIME. . . . . ===>GO TO Q26 (GREEN) 2
GALLONS ALONE. . . . . ==>GOTO Q29 (PINK) 3
AMOUNT OF MONEY. . . . . .===> GOTO Q30 (YELLOW) 4

OTHER (VOL.) EXPLAIN BELOW_____. .==>GOTO CLOSEST METHOD 5
DK (IF R IF NOT ABLE TO HELP CALC. GAS USE, THANK AND EXIT.) 8
NA (IF R REFUSES, THANK AND EXIT) 9
INAP (KNEW GALLONS IN Q23) 0

The data from the questions concerning gasoline use were extracted from the responses given to questions Q23 to Q30. While there are several methods by which respondents could arrive at their estimates of the amount of gasoline they bought in Maine, only one estimate was obtained from each respondent. A summary of the derived measures is presented below.

Gasoline bought in Maine by snowmobile operators

The mean number of gallons of gas bought in the 2000-2001 season by the operators of non-groomer snowmobiles in the study is 87.4 gallons, with a range of 0 to 800 gallons. The gas usage calculations are based on 621 cases. One gasoline-using snow groomer was identified among the responses. Including its Maine-purchased gasoline in the data yields an average gasoline-purchase figure of 89.9 gallons.

Miles the snowmobiles were ridden

Respondents indicated the number of miles they rode in Q25b if they used miles per gallon to calculate their gas use, as 93 respondents did. If respondents did not use that method to calculate their gas use, they were asked the number of miles they rode in Q32; 466 respondents provided a number of miles in response to that question. If a respondent was not able to give a number of miles, and approximation was obtained in Q33; those frequencies are reported at Q33 in this presentation.

The sum of miles ridden by the 559 respondents in Q25b and Q32 combined is 533,353; the mean is 954.1 miles, and the range is 0 to 7,300.

BLUE PAGE

*****MAINE GAS ONLY******

25. IF MILES PER GALLON(CODED 1 IN Q24):

a. Approximately how many **miles per gallon**, on average, did you get from your snowmobile in the last year?

ENTER # OF MILES PER GALLON **(A)** . . . . . ___ ___ ___ • ___

b. And about how many **miles** did you drive (in Maine)?

ENTER # OF MILES **(B)** . . . . . ___ ___ , ___ ___ ___

B ÷ A = GALLONS

IWER: B÷A=GALS. CALCULATE: NUMBER OF MILES (B) DIVIDED BY THE NUMBER OF MPG (A). READ THE VALUES FOR A AND B TO R, AND ENTER THE RESULT IN THE BLANK IN THIS QUESTION:

c. If you got **(A) miles per gallon**, and drove **(B) miles**, then my calculation shows you used **(B÷A)** _____ gallons of gas over the past year (in Maine). **Does that sound right?**

YES. . . ====>CIRCLE CODE 1 1
====>ENTER # OF GALLONS R SAYS
"SOUNDS RIGHT" . . . . . ___, ___ ___ ___
====>GO TO Q31.

NO. . . . ====>GO BACK AND CHECK FIGURES WITH R,
====> MAKE ANY INCREMENTAL ADJUSTMENTS R THINKS ARE NEEDED,
====>AND/OR TRY ANOTHER MEASUREMENT METHOD,
====>UNTIL R IS SATISFIED THAT THE ANSWER REASONABLY REFLECTS THE NUMBER OF GALLONS OF GAS USED.

GREEN PAGE #1

*****MAINE GAS ONLY*******

IF HOURS OF RIDING TIME (CODED 2 IN Q24):
26. Would that be **hours of riding per gallon**, or **gallons per hour of riding**?

HOURS PER GALLON 1
GALLONS PER HOUR----> GO TO Q28 2
DK--TRY ANOTHER METHOD 8
NA--TRY ANOTHER METHOD 9

27. IF HOURS PER GALLON (CODED 1 IN Q26)

a. Approximately how many **hours per gallon**, on average, **did you get** from your snowmobile in the last year?

ENTER # OF HOURS PER GALLON **(A)** . . . . . ___ ___ ___ • ___

b. And about how many **hours did you ride** (in Maine)?

ENTER # OF HOURS **(B)** . . . . . ___ , ___ ___ ___

B ÷ A = GALLONS

IWER: B÷A=GALS. CALCULATE: NUMBER OF HOURS **(B)** DIVIDED BY THE NUMBER OF HOURS PER GALLON **(A)**. ENTER THE RESULT IN THE BLANK IN Q27c, BELOW:

c. If you got **(A)** hours per gallon, and drove **(B)** hours, then my calculation shows you used **(B÷A) _____** gallons of gas over the past year (in Maine). **Does that sound right**?

YES. . •CIRCLE CODE --------> 1
•ENTER # OF GALLONS R SAYS "SOUNDS RIGHT" . . . . . ___, ___ ___ ___
•GO TO Q31.

NO---->GO BACK AND CHECK FIGURES WITH R, MAKE ANY INCREMENTAL ADJUSTMENTS R THINKS ARE NEEDED, AND/OR TRY ANOTHER MEASUREMENT METHOD, UNTIL R IS SATISFIED THAT THE ANSWER REASONABLY REFLECTS THE NUMBER OF GALLONS OF GAS USED.

GREEN PAGE #2

****MAINE GAS ONLY*****

28. IF GALLONS PER HOUR (CODED 2 IN Q26)

This means that you use more than one gallon per hour, right?

a. Approximately how many **gallons per hour**, on average, did you use in your snowmobile in the last year?
ENTER # OF GALLONS PER HOUR **(A)** . . . . . ___ ___ ___ • ___

b. And about how many **hours did you ride**(in Maine)?
ENTER # OF HOURS **(B)** . . . . . ___ , ___ ___ ___

A x B = GALLONS

IWER: A x B=GALS. CALCULATE: NUMBER OF GALLONS PER HOUR **(A)** TIMES THE NUMBER OF HOURS **(B)**. ENTER THE RESULT IN THE BLANK IN Q28c, BELOW:

c. If you got **(A)** gallons per hour, and drove **(B)** hours, then my calculation shows you used **(A x B) _____** gallons of gas over the past year (in Maine). **Does that sound right**?

YES. . •CIRCLE CODE --------> 1
•ENTER # OF GALLONS R SAYS "SOUNDS RIGHT" . . . . . ___, ___ ___ ___
•GO TO Q31.

NO---->GO BACK AND CHECK FIGURES WITH R, MAKE ANY INCREMENTAL ADJUSTMENTS R THINKS ARE NEEDED, AND/OR TRY ANOTHER MEASUREMENT METHOD, UNTIL R IS SATISFIED THAT THE ANSWER REASONABLY REFLECTS THE NUMBER OF GALLONS OF GAS USED.

PINK PAGE

*****MAINE GAS ONLY*****

29. GALLONS (CODED 3 IN Q24)

a. Let's see if we can estimate the number of gallons you used. Do you usually fill the snowmobile tank **directly from a pump**, or use a **gas can**?

FILL snowmobile TANK DIRECTLY FROM PUMP 1
FILL snowmobile TANK FROM GAS CAN 2
ABOUT EQUALLY TANK AND CAN (VOL.) 3
DK 8
NA 9

b. About **how many gallons** do you usually get when you fill up?

ENTER # OF GALLONS **(B)** . . . . . ___ ___ • ___

c. About **how many times** did you **fill it** last year (in Maine)?

ENTER # OF TIMES **(C)** . . . . . ___ ___ ___

B x C = GALLONS

IWER: MULTIPLY THE # OF GALLONS **(B)** BY THE # OF TIMES **(C)**, AND ENTER THE RESULT IN THE BLANK IN **Q29d** BELOW:

d. My calculation shows that you bought about _____ gallons of gas for that vehicle last year (in Maine). **Does that sound right**?

YES. . •CIRCLE CODE --------> 1
•ENTER # OF GALLONS R SAYS "SOUNDS RIGHT" . . . . . ___, ___ ___ ___
•GO TO Q31.

NO---->GO BACK AND CHECK FIGURES WITH R, MAKE ANY INCREMENTAL ADJUSTMENTS R THINKS ARE NEEDED, AND/OR TRY ANOTHER MEASUREMENT METHOD, UNTIL R IS SATISFIED THAT THE ANSWER REASONABLY REFLECTS THE NUMBER OF GALLONS OF GAS USED.

YELLOW PAGE
*****MAINE GAS ONLY*****

30. AMOUNT OF MONEY (CODED 4 in Q24)

a. Do you know **how much you spent** on gas for this vehicle over the past year (in Maine)? (What was that?) (ROUND CENTS TO NEAREST $)

ENTER DOLLAR AMOUNT **(A)** -------->GO TO Q30e . . . . . $___ ___ ___ ___
DK YEAR'S $ AMOUNT 9998

b. IF NOT KNOWN: How much do you usually **spend** on gas when you **gas up?**

ENTER DOLLAR AMOUNT **(B)** . . . . . $___ ___ ___.
(ROUND TO NEAREST DOLLAR)

c. About **how many times** last year did you gas up (in Maine)?

ENTER # TIMES **(C)** . . . . . ___ ___ ___

IWER: MULTIPLY THE $ AMOUNT **(B)** BY THE # OF TIMES **(C)**, AND ENTER IN BLANK IN **Q30d** BELOW:

d. My calculations show that you spent about $_____ on gas for this vehicle last year (in Maine). **Does that sound right**?

YES: ENTER $ **(D)** . . . . . $ ___ , ___ ___ ___
NO: GO BACK AND RE-FIGURE

e. The average price of gas in Maine was $1.52 per gallon last year. I'm going to do some arithmetic here — **should I use $1.52** per gallon, or should it be **higher** or **lower** to be close to the average you paid **where you fill up** (in Maine)? (IF HIGHER OR LOWER: What should I use for a price?)

ENTER PRICE PER GALLON USED **(E)** . . . . . $___ • ___ ___
ROUND TO NEAREST CENTS (e.g., $1.499 ===> $1.50)

(A or D) ÷ E = GALLONS

IWER: DIVIDE $ SPENT **(A) or (D)** BY THE PRICE PER GALLON **(E)**. ENTER IN BLANK IN **Q30f** BELOW:

f. My calculation shows that you bought about _____ gallons of gas for that vehicle last year (in Maine). **Does that sound right**?

YES. . •CIRCLE CODE --------> 1
•ENTER # OF GALLONS R SAYS "SOUNDS RIGHT" . . . . . ____, ____ ____ ___
•GO TO Q31.

NO---->GO BACK AND CHECK FIGURES WITH R, MAKE ANY INCREMENTAL ADJUSTMENTS R THINKS ARE NEEDED, AND/OR TRY ANOTHER MEASUREMENT METHOD, UNTIL R IS SATISFIED THAT THE ANSWER REASONABLY REFLECTS THE NUMBER OF GALLONS OF GAS USED.

****

31. ☞ GIVE FEEDBACK: Thank you. That's very useful information.

IWER CHECK POINT

ON THIS SCALE OF 1 TO 4, HOW CERTAIN WAS R ABOUT HIS/HER ANSWERS TO THE GAS USE QUESTIONS?

345	*54.33%*	1--VERY CERTAIN	1
226	*35.59%*	2--	2
47	*7.40%*	3--	3
17	*2.68%*	4--VERY UNCERTAIN	4

IWER COMMENTS:

_____

_____

_____

****

32. **IF R HAS ALREADY GIVEN YOU MILES RIDDEN IN Q25b, GO TO Q33**.

Do you know about **how many miles** this vehicle was ridden **in Maine** in the past year? (How many?) *N=466; mean=857.77; range=0-7,300*

ENTER. # OF MILES. . . . . .=====>.(GO TO Q34)	___ ___ ,___ ___ ___
DK.	99998
NA. . . . =====>(GO TO Q34)	99999
INAP (MILES GIVEN IN Q25b)	00000

33. IF R DK NUMBER OF MILES: I have some **ranges** here. Would you say it was 1,000 miles or more, or less than that?

====> MORE THAN 1,000: Was it 1,500 or more, or less than that?

- 1,500 OR MORE . . . 6
- LESS THAN 1,500:
  - ===>Was it 1,250 or more, or less than that?
    - 1,250 OR MORE . . . 5
    - LESS THAN THAT . . . 4

====>LESS THAN 1,000: Was it 500 or more, or less than that?

- 500 OR MORE . . . 3
- LESS THAN THAT:
  - ===>Was it 250 or more, or less than that?
    - 250 OR MORE . . . 2
    - LESS THAN THAT . . . 1

DK	8
NA	9
INAP (MILES REPORTED IN RESPONSE TO Q25b or Q32)	0

Number		
18	*27.27%*	*<250 miles*
12	*18.18%*	*250-499 miles*
17	*25.76%*	*500-999 miles*
8	*12.12%*	*1,000-1,249 miles*
1	*1.52%*	*1,250-1,549 miles*
10	*15.15%*	*1,500 miles or more*

34. Was the time you spent and the distance **this snowmobile** was ridden in Maine this year **typical** of other years that this snowmobile was ridden, or was it ridden more this year, or less this year than other years?

		--RIDDEN **MORE** THIS YEAR. ASK: **A lot** more, or a **little** more?	
96	*16.90%*	A LOT MORE THIS YEAR	1
82	*14.44%*	A LITTLE MORE THIS YEAR	2
234	*41.20%*	--**TYPICAL** USE THIS YEAR	3
		--RIDDEN **LESS** THIS YEAR, ASK: **A lot** less, or a **little** less?	
62	*10.92%*	A LITTLE LESS THIS YEAR	4
94	*16.55%*	A LOT LESS THIS YEAR	5
		HAD IT ONLY A YEAR/LESS (VOL.)	7
		DK	8
		NA	9

35. On about how many **days of the past year** did someone ride this snowmobile in Maine?
IWER: IF NECESSARY, HELP R ARRIVE AT A NUMBER OF DAYS THROUGH FINDING OUT PATTERNS OF USE (WEEKENDS IN DECEMBER, VACATION, ETC.)
N=610; mean=23.47; median=16; range=0-218 days

ENTER # OF DAYS	___ ___ ___
DK	998
NA	999

36. When you (or someone else) ride(s) this snowmobile, what is the average number of **miles** that it is ridden **at an outing**? *N=606; mean=73.00; median=50; range=0-700*

ENTER # OF MILES	___ ___ ___
DK	998
NA	999

37. In this past season, did you travel for a **weekend or longer trip** in Maine, primarily for the purpose of riding your snowmobile?

334	*53.02%*	YES	1
296	*46.98%*	NO. (GO TO Q39)	2
		DK (GO TO Q39)	8
		NA (GO TO Q39)	9

38. Did you pay for any nights in **a motel or other lodging** in Maine on those snowmobiling trips? (IF YES: How many nights?)

ENTER NUMBER OF NIGHTS	___ ___ ___
DK	998
NA	999
INAP (CODED 2, 8, OR 9 IN Q37)	997

Number of respondents with long trips but no nights in paid lodging: 127
For those with nights in paid lodging: N=207; mean=6.44; median=4; mode=2; range=1-90.

39. Now I have some general questions about snowmobile trails and facilities for recreation. From now on, we're talking about **all** the snowmobile riding in Maine or elsewhere **you yourself** do on **any snowmobile** — including the one we picked, but not limited to that one.

When you ride a snowmobile-- any snowmobile -- do you more often ride **alone**, or in a **group**?

102	*16.29%*	MORE OFTEN ALONE	1
524	*83.71%*	MORE OFTEN IN A GROUP	2
		DK	8
		NA	9

40. When you ride, how often do you ride **with a passenger** on the snowmobile— always, usually, sometimes, or never?

21	*3.33%*	ALWAYS	1
55	*8.72%*	USUALLY	2
243	*38.51%*	SOMETIMES	3
312	*49.45%*	NEVER	4
		DK	8
		NA	9

41. How often do you ride at **night** — always, usually, sometimes, or never?

16	*2.54%*	ALWAYS	1
86	*13.63%*	USUALLY	2
433	*68.62*	SOMETIMES	3
96	*15.21%*	EVER	4
		DK	8
		NA	9

42. How often do you wear a **helmet** — always, usually, sometimes, or never?

581	*91.79%*	ALWAYS	1
16	*2.53%*	USUALLY	2
16	*2.53%*	SOMETIMES	3
20	*3.16%*	NEVER	4
		DK	8
		NA	9

43. Which do you like better: riding near your home, or far away?

265	*41.93%*	NEAR	1
281	*44.46%*	FAR	2
86	*13.61%*	DOESN'T MATTER (VOL.)	3
		DK	8
		NA	9

44. Do you ride on **trails** that are **specifically designated and groomed for snowmobiles**?

589	*93.05%*	YES. . . . . (GO TO Q46)	1
44	*6.95%*	NO	2
		DK. . . . . .(GO TO Q46)	8
		NA. . . . . .(GO TO Q46)	9

45. (IF R DOESN'T USE TRAILS)Would you **like** to use trails made specifically for snowmobiles?

23	*51.11%*	YES . . . . . .(GO TO Q50)	1
22	*48.89%*	NO. . . . . (GO TO Q54)	2
		DK. . . . . (GO TO Q54)	8
		NA. . . . . (GO TO Q54)	9
		INAP (CODED 1, 8, OR 9 IN Q44)	0

46. Which kind of trail do you like **better** — **major designated trails** like the I.T.S., or **smaller local or club trails**? (NOTE: I.T.S. = INTERCONNECTED TRAIL SYSTEM)

326	*60.48%*	MAJOR TRAILS	1
213	*39.52%*	SMALLER LOCAL OR CLUB TRAILS	2
		DK	8
		NA	9
		INAP (CODED 1, 2, 8 or 9 IN Q45)	0

47. **How far away** from your home is the closest trail made specifically for snowmobiles that you ride? Is it...

483	*81.59%*	20 miles or less, ...	1
24	*4.05%*	21-50 miles, or	2
85	*14.36%*	more than 50 miles?	3
		DK	8
		NA	9
		INAP (CODED 1, 2, 8 or 9 IN Q45)	0

48. Thinking of the **closest trail** made for snowmobiles that **you use**, in general, how would you **rate** the trail and any facilities — would you call them **excellent, good, fair, or poor**?

185	*31.36%*	EXCELLENT	1
260	*44.07%*	GOOD	2
106	*17.97%*	FAIR	3
39	*6.61%*	POOR	4
		DK	8
		NA	9
		INAP (CODED 1, 2, 8 or 9 IN Q45)	0

49. On the trail you use that is **closest to you**, how would you rate the **safety** of riding on that trail: excellent, good, fair, or poor?

156	*26.40%*	EXCELLENT	1
311	*52.62%*	GOOD	2
96	*16.24%*	FAIR	3
28	*4.74%*	POOR	4
		DK	8
		NA	9
		INAP (CODED 1, 2, 8 or 9 IN Q45)	0

50. How **far** would you be likely to **travel** to use a good trail — would you go **at least 50 miles**, or is that **too far**?

408	*67.22%*	WOULD GO AT LEAST 50 MILES	1
199	*32.78%*	50 MILES IS TOO FAR	2
		DK	8
		NA	9
		INAP (CODED 2, 8 or 9 IN Q45)	0

51. In your opinion, **how long** should a **trail system** be to be **adequate for snowmobile recreation**? *N=479; mean=218.15; median=80; mode=100; range=2-10,000 or more*

ENTER # MILES	___ ___ ___ ___
DK	9998
NA	9999
INAP (CODED 2, 8 or 9 IN Q45)	0000

52. If you could pick **one thing** that a good snowmobile trail or facility should have, what would that be?

DESCRIBE_____ *See next page for the frequency distribution*	___ ___
DK	98
NA	99
INAP (CODED 2, 8 or 9 IN Q45)	00

53. What do you think is the **best** way to make sure that trails are safe for everyone (START AT RED STAR). *The "red star" was randomly assigned to rotate the order in which the list was asked.*

174	*28.67%*	trail design	1
63	*10.38%*	rules and regulations	2
83	*13.67%*	law enforcement officers	3
239	*39.37%*	education?	4
48	*7.91%*	OTHER (SPECIFY)_____	5
		DK	8
		NA	9
		INAP (CODED 2, 8 or 9 IN Q45)	0

54. (FOR ALL Rs) Do you belong to a **snowmobile club**?

293	*46.43%*	YES	1
338	*53.57%*	NO	2
		DK	8
		NA	9

55. Do you think you will buy another snowmobile **in the next few years?**

401	*63.65%*	YES	1
166	*26.35%*	NO .....(GO TO Q57)	2
63	*10.0%*	MAYBE (VOL.)	3
		DK .....(GO TO Q57)	8
		NA .....(GO TO Q57)	9

56. (IF YES OR MAYBE BUY NEW SNOWMOBILE) Some of the newest snowmobiles are said to be **quieter and run cleaner**. How likely is it that you would be looking **specifically** for one of those sleds — very likely, somewhat likely, somewhat unlikely, or not very likely?

181	*39.43*	VERY LIKELY	1
148	*32.24%*	SOMEWHAT LIKELY	2
30	*6.54%*	SOMEWHAT UNLIKELY	3
100	*21.79%*	NOT VERY LIKELY	4
		DK	8
		NA	9
		INAP (CODED 2, 8, OR 9 IN Q55)	0

This page is inserted to display the univariate frequencies for open-ended question Q52, "If you could pick one thing that a good snowmobile trail or facility should have, what would that be?" The answer categories were developed from an analysis of the verbatim responses, which were grouped according to their common themes.

24	*4.12%*	*Rest areas, picnic areas*
176	*30.19%*	*Signs, markers, directions*
33	*5.66%*	*Restrooms*
137	*23.49%*	*Smooth trails, good riding surface, grooming*
43	*7.38%*	*Gasoline*
7	*1.20%*	*Scenery*
12	*2.06%*	*Well-maintained (branches trimmed, etc.)*
2	*0.34%*	*Easy access, parking*
40	*6.86%*	*Width, wide trails*
22	*3.77%*	*Snack bar*
7	*1.20%*	*Speed limit*
7	*1.20%*	*Bridges, bridge maintenance*
74	*12.67%*	*Other, not elsewhere classified*

57. And finally, in what **year were you born**? *N=633; median=1958 (age 43); range=1912-1984.*

ENTER YEAR	___ ___ ___ ___
DK	9998
NA	9999

EXIT: Thank you. Those are all the questions I have. We really appreciate your taking the time to help us with this research project.

Enter time now ___ ___ : ___ ___ Circle: a.m. p.m.

DON'T FORGET TO COMPLETE THE IWER RECORD!

****

INTERVIEWER RECORD

Recorded, but not asked of respondent

Respondent's gender

554	*87.24%*	*Male*
81	*12.76%*	*Female*

Respondent's mailing address

527	*82.99%*	*Maine*
108	*17.01%*	*Out of state*

Appendix 4: Snowmobile Interviewer Manual

INTERVIEWER MANUAL

Survey of Gasoline Use among Users of ATVs, Snowmobiles, and Boats

Margaret Chase Smith Center for Public Policy
University of Maine

Snowmobile Survey

A study conducted for the
Maine State Legislature
Commission to Study Equity in the Distribution of Gas Tax Revenues
Attributable to Snowmobiles, All-Terrain Vehicles, and Watercraft

June 2001

INTERVIEWER MANUAL

Survey of Gasoline Use among Users of ATVs, Snowmobiles, and Boats

Margaret Chase Smith Center for Public Policy
University of Maine

June 2001

Introduction to the study

Background and purpose of the study

This study is being conducted by the Margaret Chase Smith Center for Public Policy of the University of Maine at the request of the Maine Legislature's Commission to Study Equity in the Distribution of Gas Tax Revenues Attributable to Snowmobiles, All-Terrain Vehicles and Watercraft. The Commission was created by the Legislature with a charge to collect and analyze information to determine an equitable distribution of gas tax revenues which are used in the enforcement and enhancement of programs supporting off-road vehicle use in Maine.

The tax on gasoline imposed by the State of Maine, $.22 per gallon, is used to support transportation infrastructure (highways, roads, trails, marinas, etc.) in Maine. It is to be allocated fairly among on-road vehicles (cars, trucks), and off-road vehicles (ATVs, snowmobiles, and boats), according to the proportion of the tax that is paid by the operators of those vehicles. The State of Maine knows how much money is collected from the tax for all gasoline sales, but no one really knows how much of the tax is paid by the off-road operators. We are trying to find out. We have completed the interviews with ATV operators, and now are starting the snowmobile portion of the study.

We expect to interview boat operators at the end of the boating season in the fall.

Your role

Because we don't have the time or money to ask everyone, we have drawn a large random sample of registered snowmobiles from the Department of Inland Fish and Wildlife records. The registration records are maintained and disseminated by a company called InforME. You, as interviewers, will call the owners of those snowmobiles to interview them by telephone. You will use a structured questionnaire, called a survey instrument, to ask the questions and record the answers.

Sponsors

The study is a cooperative agreement among the University of Maine and the State of Maine Departments of Conservation, Inland Fish and Wildlife, Transportation, and Marine Resources. A cooperative agreement is a contract among the sponsors that recognizes that the University (in this case, the Margaret Chase Smith Center) and the state departments involved have a common interest in some research that will benefit them all. In this case, the state Departments and the Commission will use the results of the research to answer their public policy questions, and the Margaret Chase Smith Center will have an opportunity to participate with the Commission and learn more about transportation tax allocation policies and about gasoline consumption by those vehicles.

The Margaret Chase Smith Center for Public Policy

The Margaret Chase Smith Center for Public Policy (MCSC) is a neutral, nonpartisan research unit of the University of Maine, reporting to the Vice President for Research. It is supported by a combination of University funds, and research grants and contracts from government agencies, foundations, and nonprofit organizations. It does research in the areas of environmental policy, health policy, economic and community development, and civic and community life. It publishes *The Maine Policy Review*, a peer-reviewed journal about critical public policy issues in Maine. The Center's mission is to improve the quality of public dialogue about state, regional, and national policy.

Your role as interviewer

The only acceptable role for an interviewer is that of a professional researcher. To depart from this role may introduce bias and compromise research objectives. You may not attempt to counsel a respondent or sell any goods or services to a respondent or enter into any but a professional interviewing relationship with a respondent. You must never ask for advice, counseling, or goods or services from a respondent or in any way exploit the research situation for personal advantage.

The careful respondent protection procedures observed by the Margaret Chase Smith Center for Public Policy will be undermined if you do not maintain professional ethical standards of confidentiality regarding what you learn from or about respondents. All information obtained during the course of the research that concerns respondents, their families, or the organizations they represent is privileged information, whether it relates to the interview itself or is extraneous information learned by interviewers during the performance of their work.

Because this is a random sample of public records, you may encounter persons whose names you recognize. You are to treat them as any respondent whom you do not know. You may not disclose the identity of the respondents with whom you speak.

You may discuss situations you encounter with other interviewers and with staff to help us all become better interviewers. When you have those discussions, be sure not to reveal details that would allow identification, or even speculation, about the identity of individual respondents. In processing the data, we will remove and destroy the identifying coversheets as soon as we are through with them.

You will be asked to sign a confidentiality agreement as a condition of your working as an interviewer. A copy of that agreement is included in your manual.

Margaret Chase Smith Center for Public Policy
University of Maine

Confidentiality Agreement
Statement of Professional Standards

The Margaret Chase Smith Center for Public Policy and the interviewers share the responsibility for maintaining high professional standards.

As professional researchers, all interviewers must agree:

1. Never to attempt to bias respondents' answers by introducing their own beliefs or opinions or by implying that any response is more acceptable than another;

2. To record respondents' responses clearly, accurately, and thoroughly;

3. Never to use the interview situation for personal advice, counseling, or commercial purposes;

4. To take all necessary precautions to keep information confidential;

5. Not to provide any referral, advice, or counseling to any respondents except as instructed in the study procedures and protocols;

6. To inform respondents honestly of the study purposes and of the voluntary nature of responding;

7. To refrain from discussing the information obtained, including information about individual respondents, and information about overall study findings;

8. To avoid any discussion of who has and who has not responded to a study;

9. To represent the Margaret Chase Smith Center for Public Policy and the University of Maine in a professional and responsible manner.

The research staff members of the Margaret Chase Smith Center for Public Policy in turn, must agree:

1. To maintain the confidentiality of all information given us by interviewers and respondents;

2. To protect the rights of human subjects in study design and implementation;

3 To report all data in a manner that prevents identification of individual respondents.

4. To include interviewers as full partners in our research efforts, and to provide them with the skills and information they need to conduct their interviews in a responsible and professional manner.

I, _____, as an interviewer with the Margaret Chase Smith Center for Public Policy agree to maintain, in accordance with all the provisions stated above, high professional standards and to protect the rights of human subjects in all work that I do with the Margaret Chase Smith Center for Public Policy.

I, _____, as a professional researcher with the Margaret Chase Smith Center for Public Policy, agree to maintain, in accordance with all the provisions stated above, high professional standards and to protect the rights of human subjects in all our research.

_____ _____

Interviewer Date Project staff member Date

Off-road Vehicle Gasoline Use Study Staff

At the Margaret Chase Smith Center for Public Policy

Jonathan Rubin, Ph.D., Principal Investigator, 1-1528

Suzanne Hart, Research Associate, 1-1631

Charlie Morris, Research Associate, 1-4135

Chris Boynton, Project Assistant, 1-1648

Eva McLaughlin, Administrative Associate, 1-1646

Ann Acheson, Ph.D., EpiInfo Programmer

Erin Bock, Graduate Assistant

At the Maine Legislature's Office of Policy and Legal Analysis

Patrick Norton, Project liaison, 287-1670

Interviewers
ATV and Snowmobile Surveys

Name	*Telephone*	*E-mail*	*Interviewer #*
XXXX	XXXX	XXXX	1
XXXX	XXXX	XXXX	2
XXXX	XXXX	XXXX	3
XXXX	XXXX	XXXX	4
XXXX	XXXX	XXXX	5
XXXX	XXXX	XXXX	6
XXXX	XXXX	XXXX	7
XXXX	XXXX	XXXX	8
XXXX	XXXX	XXXX	9
XXXX	XXXX	XXXX	10
XXXX	XXXX	XXXX	11
XXXX	XXXX	XXXX	12
XXXX	XXXX	XXXX	13
XXXX	XXXX	XXXX	14

Emergency numbers at the University of Maine

You are in **Coburn Hall.**

Public Safety

EMERGENCY ONLY 911

Other business, Dispatcher 1-4040 or 311

Survey project supervisor, based in Room 22 (“the library”), Coburn Hall, x 1-3661.

Using the Snowmobile Gasoline Use survey instrument

Reading the questions. Read the questions in the **numerical order** in which they are written, unless a GO TO instruction is associated with the particular answer given by the respondent. When there is a **GO TO** associated with the answer the respondent gave you, record the response and follow the instruction by skipping to the question indicated.

Read to the respondent the question text material in **regular upper and lower case** as it is written**.** Text in **UPPER CASE** is for your use as the interviewer, and it is not to be read to the respondent. It provides instructions, information, and summaries of expected possible answers.

Emphasize words in **bold** when you read the questions. The placing of emphasis helps to make administration of the questions uniform among all the interviewers.

Another section of this manual describes good interviewing techniques for reading the questions and dealing with respondents' questions of you.

Recording the answers. There are two columns on each page of the survey instrument. The questions and instructions are contained in the larger, left column. The right column is the **coding strip**, where you will record most of the answers by circling a code number or entering the digits of a numerical response. In some questions, you will record the respondent's answers in cells in a **table**. In those cases, the vertical line separating the coding strip and the body of the questionnaire is discontinued in the area of the table. When we enter the data into the computer, we will read it from the coding strip and the tables.

Some common abbreviations and terms used throughout the survey instrument

R = Respondent.

IW = Interview.

IWER = You. (Interviewer.)

DK = Don't Know. This means that the respondent says s/he doesn't know, even after you read the question again, and probe in a neutral fashion for an answer.

NA = Not Ascertained. This usually means that the respondent refused to give an answer, even though s/he may know what the answer should be. This response is rarely used. It is distinctly different from "Don't know." Respondents always have the right to decline to answer any questions they do not want to answer. NA is also used in the rare instances in which data are missing because of error in administration of the instrument or in processing.

INAP = Inappropriate. This means that the GO TO instructions have directed you to skip this question, based on a response or responses to earlier question(s). It does NOT mean that you or the respondent thought the question didn't apply. When you skip just one or two questions because of a GO TO, you can circle the code for INAP in the coding strip in the questions you skipped, or you can leave that for the editor/coder to do later. The editor will check for appropriate use of INAP codes.

VOL = An answer that we anticipate may be given by a few respondents, but which is not among the responses to be read to R.

EX = Example.

CODE = The number that you circle associated with the given response.

Q = Question.

ID = A unique number assigned to each sample member (respondents and nonrespondents).

General interviewing skills

Your job as an interviewer is to:

1. Be neutral.

2. Be accurate.

3. Help the respondent be accurate.

4. Be efficient.

How to be a good interviewer

Be accurate: Asking the questions

•Read the questions exactly as they are written.
•Read the entire question, and the answer choices if they are in upper/lower case.
•Ask the questions without explanation unless the respondent asks. If you need to clarify, do these, in order:

Restate for clarification.
Use emphasis to clarify.
Use the information in the QxQs.
Tell R "Whatever it means to you."

•Use a steady pace.
•Speak clearly. Do not chew gum or eat while you are interviewing.

Be accurate: Recording the answers

•Circle the number of the response neatly and completely in the coding strip or table.
•Do not allow your circles to run over onto other adjacent codes.
•Write numbers and letters neatly.
•Make any numbers you write clear and simple: remember your First Grade teacher.
•If you abbreviate, use commonly accepted abbreviations, not your own inventions.
•In calculating gallons, be sure to show all your work in the spaces provided.
•Use your calculator carefully. Make sure your answers make sense.

Be neutral

•By your professional manner you will reinforce the neutral nature of this research project.
•A professional manner will reassure R that answers are kept confidential.
•Do not interject your own opinions and reactions, verbally or non-verbally.
•Give appropriate feedback and reinforcement for the task, not the content of the answers.
•Do not volunteer too much information about the study or about any particular question.
•Reinforce the respondent's responding, not the responses themselves.
•Record most answers without comment. See the page with good and bad feedback for examples.

Help the respondent be accurate

•"I don't know" is usually just a time-filler. Wait it out.
•Don't take DK for an answer without an attempt to probe for a response.
•If you think R didn't understand the question, read it again.
•For numbers, if R gives a range and you need one number, probe: "Which is closest?" "What's your best estimate?" It's OK to say "I can't put a range here — what's your best estimate?"
•Silence on your part is a great probe. It's perfectly neutral. It lets R think, and R will feel compelled to fill the void.
•In calculating the amount of gasoline used, it's OK to start with one method of calculating and abandon it to start another.

Be efficient

•Know the interview script well.
•As you dial the phone, be ready to do the interview
•Focus on the interview and the business at hand. Model good interview performance for the respondent.
•Be pleasant, but not overly friendly or familiar.
•Provide appropriate feedback that rewards Rs for staying on task. Say thank you, emphasize the usefulness of the information.
•Discourage digression and long-winded or argumentative, hair-splitting answers: "I don't want to take up too much of your time tonight." Or, "Let me make a note of that." OR simply don't comment. Wait one second, enough to show that you are not going to comment, and then read the next question.
•Record the call disposition and fill in the interviewer's record quickly and accurately right after you finish the call.
•Move quickly and smoothly from one call to another.

Feedback Phrases
for Acceptable Respondent Behavior

Good Feedback.....Use this!

Short

I see....
Uh-huh/Um-hmm.
Uh-huh/Um-hmm, I see.
Thank you.
Thanks.

Long

That's useful/helpful information.
It's useful to get your ideas/report/recollection on this.
Thanks, it's important to get your ideas/report/recollection on that.
I see, that's helpful to know.
It's important to find out what people say about this.
That's useful for our research.

Iwer task-related comments

Let me get that down.
I need to get that all down.
I want to make sure I have that right: (REPEAT ANSWER).
We may have touched on this before, but I need to ask every question in the order that it appears on the questionnaire.

Bad feedback. ..... DO NOT USE!

Great!
Okay.
Right.
Right on.
Me too.
I'll say.
You bet.
I know.
Good for you/him/her.
I hear you.
Oh, yeah.
No way.
You're kidding.
You don't say.
I know where you're coming from.
I gotcha.
I like that, too.
I don't like that, either.
Good.

Excellent.
Cool.
Way cool.
Ain't it the truth.
Awesome!!

Snowmobile Gasoline Use
Question-by-question explanations and instructions
QxQs

Introduction

Read the introduction as closely as possible to the way it is written. You must include in your introduction:

•Whom you represent: the Margaret Chase Smith Center for Public Policy at the University of Maine

•For whom the study is being done: the Maine Legislature's Gas Tax Equity Commission, and the Departments of Conservation, Inland Fish and Wildlife, Transportation, and Marine Resources. It's OK to use this shortened form of the Commission name because the notification letter contains the full legal name of the Commission.

•That R's participation is entirely voluntary.

•That the information from any individual is confidential. No one's name will be used, and they will not be identified in any way.

•The question: May we proceed?

Do not ask "Is this a good time?" It makes you sound tentative. That gives the respondent a perfect excuse for putting you off, and you or someone else will have to call him/her back later. However, you should be ready to accept reasonable requests for scheduling a call-back ("I'm on my way out the door..." "We're eating dinner.") Say — "I see it's a bad time. I can call you back in about forty-five minutes." Suggest a definite time for a call back: a time when you know that interviewing will be taking place. You can schedule a call back for another shift even if you won't be working that shift.

Make sure you get the person to do the interview who knows the most about the snowmobile. If you need to speak with someone who is not home, find out when he/she will be home and schedule an interview. The person who is actually going to answer the questions must hear the whole introduction.

It is quite likely that some of the people you interview will be teenagers. That's appropriate if the teenager is the one who knows the most about the vehicle.

What is a snowmobile?

'Snowmobile' means any vehicle propelled by mechanical power and supported in part by skis, belts or cleats that is primarily designed to travel over ice or snow.

Snowmobilers often call the vehicle a "sled." You may use this term as an alternative to "snowmobile" if R uses the word "sled."

Question-by-question through the instrument

Q1. Enter the time. Use leading zeros if necessary (07:30). Don't worry about a.m./p.m. We'll know that from the ending time you'll enter later.

Q2. We have used current registration lists, but it is possible that the snowmobile has been sold. If R isn't the literal owner, but is the one who knows the most about the snowmobile, record the answer with reference to the owner. For example, suppose the registration is in the name of a teenager's father, and the teenager is the one who knows the most about the snowmobile's gas use. If the snowmobile is still owned by the father, record 1 for YES and interview the teenager.

Q3. Conduct the interview if the this R and/or someone connected to this household had the vehicle during at least some part of the past snowmobiling season. The season is the snow season, generally November '00 to April '01. Some of these sleds will probably have had no gas use: that is OK: continue the interview..

Q4. Count all snowmobiles that are reasonably operational and are owned by the household, even if some of them were not functional during the past season. Be sure to count the one that you're going to be asking about.
--Count both registered and unregistered snowmobiles.
--Count only those snowmobiles that are currently owned. If the sled you're asking about was sold during the past registration year, do not count it in the total.
--Enter the number of snowmobiles in the blanks in the coding strip.
A household is the dwelling unit and all the related and unrelated people who live in it at least some part of the year. Let R be the judge of whether someone "regularly" lives there.

Q5. In this question we want to know how much this sled is used relative to others in the household. Be aware of the response to Q4 before you ask this one. Ask this question only if the household has more than one snowmobile. If the household has only one snowmobile, select INAP (INAPPLICABLE) because there are no other snowmobiles in the household to compare with. We may have selected the sled that is used the least, which will be puzzling to some Rs. Explain that we took a random sample, and that to make the results useful, we really do need to know about that particular machine.

Q6. Count as people in the household those who live there at least some part of the year. For example, a college student who lives in a dorm most of the year, but who is home for vacations and summers is a member of the household. If R is in doubt about whether to count someone as a member of the household, you should ask: "Do you want me to count him?"

Q6a. We want to know the ages of persons who use snowmobiles to better understand the characteristics of people who use them, and to help plan recreational facilities.

In the table, enter the ages of the persons in the household who use the snowmobiles in the household. Make sure that R knows you don't want or need names.

Q7. If anyone else — outside R's household — uses any of the snowmobiles, record how many of those people there are. Anyone who doesn't spend some portion of the year living in R's house is not in R's household.

Q8. Count only gasoline-powered boats, not diesel, wind, or muscle-powered. Enter 00 if no one in the household has any gasoline-powered boats. Count the number of boats, not motors.

Q9. Count any reasonably operable ATVs. Enter 00 if there are none.

Q10. This question refers to R alone, not to other members of the household. If the answer is exactly a half year — 8 and a half, say — then round to the nearest even year, in this case, 8. Enter with a leading 0 as 08. If R has been riding exactly one half year, round to the nearest even, and enter 00. If the fraction of a year is less than half, round down; more than half, round up.

Examples of rounding exact halves to the nearest even number:
•4.5 becomes 4 (4 is the nearest even number to 4.5);
•5.5 becomes 6 (6 is the nearest even number to 5.5).
•5.3 becomes 5 because .3 is not an exact half (only .5 is an exact half), so you round to the nearest whole number;
•5.7 becomes 6 because .7 is not an exact half, so you round to the nearest whole number;
•4.7 becomes 5 because .7 is not an exact half, so you round to the nearest whole number.

If R gives a range, tell him/her you can enter only one number, and ask how many years you should "put down here."

Q11. From this point, you will be asking about the selected snowmobile only, until after you get past the gasoline use questions. Read the registration tag number from the label in the blank in the question.

Read the make from the label and circle the code on the list. If it is a make not on the list, circle the code for "other" and write in the make. If the make differs from the label, use the make that R says the vehicle is. If a vehicle has been modified to include parts of several makes, ask R which make to record.

Q12. Ask for the model and record it in the blank.

Q13. Engine size is measured in cc's. Engine sizes range from about 120 to 1,000 cc, and are usually in the 500 to 800 cc range. The smaller ones are for younger riders.

Although engine size is often very close to the number in a model name, the actual engine size is often a number such as 785 cc (for a machine with "800" in the model name), 999 (for a 1000), 231 (a 230), 599 (a 600), 497 (a 500), etc. If R knows the actual number of cc's, then record it; however, it is also correct to use the approximate number.

Do not assume that the model number represents the engine size. If R doesn't know engine size, do not suggest that the model number may contain a clue.

Q14. A 2-stroke engine burns the lubricating oil and gas together. In older machines, you mix the gas and oil by pouring them together in the gas tank. In newer ones, an oil injection system mixes them.

A 4-stroke engine is more like a car. The lubricating oil and the gas are kept separate. Two-stroke engines emit more pollutants than 4-stroke engines.

Some of the newest snowmobile model lines include machines with 4-stroke engines.

Q15. The year is the model year, not the year R acquired it.

Q16. Enter the number of years R has owned the snowmobile. If R has owned it less than a year, circle the 00 in Q15 and enter the number of months in 15a.

Q17. An odometer is a mileage meter, as in a car. Note that if there is one and it doesn't function, circle the VOL response code 7.

Q18. In Q18 we want to know the ways in which the selected snowmobile is used. If the snowmobile is used ONLY for a specific purpose, the other purposes must logically be NEVER. Make sure you read all the type-of-use categories before you accept ONLY as a response. As you read the categories, R may be reminded of some use that s/he didn't think of before. These categories are not mutually exclusive. One could use the snowmobile in one's job (a) and also ride it for fun (e). R could use the sled for recreation (e), and also use it to help with trail maintenance (d).

Q19. The categories are not mutually exclusive. Most people probably ride in more than one type of location.

Public lands owned by the state or town include many types of land that may or may not be marked for snowmobile use, and may or may not have designated trails.

Private land that is yours or your family's means one's own land — fields and woods, farmland, or one's own backyard.

Private land belonging to someone else is land that may be owned by a neighbor, a paper company, or any other individual or commercial interest. It is not generally illegal to ride on land that belongs to someone else, unless it is posted or you have asked to ride there and been told you cannot.

Q20. Many people take their snowmobiles on trailers or in the back of pickup trucks to ride them somewhere away from where they are stored. Even taking them a short distance in a truck or on a trailer counts as something other than NEVER.

Q21. From this point through Q36, we will be asking some very specific questions that will help us find out about gasoline usage. Make sure that R is talking about the snowmobile we selected.

Ask all the questions carefully. The answers are crucial to our ability to estimate the overall amount, in gallons, of gasoline bought and used in Maine in all the snowmobiles that we selected for this survey.

In Q21, we want to help R start thinking about buying gasoline. An easy way to do this is to think about the places s/he buys gas.

Q22a. We want to be able to account for the gallons of gas bought out-of-state. Therefore, we want to know how much of the gas used in the selected sled is bought outside of Maine. Some of the selected vehicles will have been registered in Maine on 3- or 10-day passes. Therefore, the sled may have had considerable use in another state, and the amount of gas bought in Maine will be small relative to the amount R used for the season. R will have bought MOST of the gasoline outside of Maine.

Q22b. There are several categories of snowmobile registration in Maine. There is a resident registration for Maine residents, a nonresident season registration for out-of-staters, and short-term three-day and ten-day registrations for visitors to Maine.

In this question the responses are in lower case, which means that you read them to R as part of the question (unlike most of the questions). Because the responses here are mutually exclusive, you can stop reading when you reach a YES. It is likely that the Rs with Maine addresses will have regular in-state registrations and the out-of-staters will have either nonresident registrations or the short-term registrations. There may be exceptions, however, so don't assume you know what the response will be.

Q23. In this question you explain clearly to R what we want to do in the study. You will be using this language to explain where you're going with the questions. That will help R follow along with you in the interview.

There is an additional clarification to be read to Rs who have, or may have, bought gas out-of-state. If you are interviewing an out-of-stater, or someone who bought some gas out-of-state, read the part of the question that emphasizes that we want to know only about gas bought in Maine. Use the answers to Q22a and Q22b, together with an out-of-state address and comments that R may have volunteered as clues to the possibility that R may have bought gas out of state.

There is a crucial component to Q23. It is the point at which you ask R if s/he knows how many gallons of gas s/he has used in this snowmobile in the past year. Snowmobilers are often hobbyists who are proud of their machines and enjoy keeping records about them and comparing notes with other snowmobilers. It is quite possible that R already knows the number of gallons of gas s/he has used. Many keep a trip and gasoline log. Because R has been alerted to the purpose of the survey by the advance letter, you may be pleasantly surprised by a clear and definitive answer to that question at this point. If so, you may skip all the "calculation" questions on the colored pages, and go directly to Q31 where you will record your impression of the readiness with which R answered the question about the amount of gas used.

If R doesn't know gallons of gas without further questions, use the language below "NO OR DK" to assure R that you and s/he will work together to arrive at an estimate. Do not

let R go on about having "no idea" because s/he will just reinforce to him/herself that the task is too difficult.

Circle the 9998 code for DK.

Be prepared to use probes to help R narrow a range if s/he gives a range in answer to Q23. Explain "Thank you. I have space here for just one number, and I can't record a range. Do you think it was closer to X or Y, or somewhere in between?"

A response of zero gallons is appropriate if R didn't buy any gas in Maine. That can happen if R did not use the sled, did not use it in Maine, or bought gas over the state line in New Hampshire or Canada. Continue the interview with an R who didn't buy any gas in Maine.

Q24. Respondents do best when we can use their own way of thinking to do tasks that require recall. You will use this question text, and you may have to discuss the task with R by describing the ways he/she can help you do the calculations. It's OK to start with a method and see how far you get, and try something else. Tell R that you will work with him/her to arrive at an answer that sounds right to him/her. If R is unwilling to try to calculate gas use (R actually refuses) then thank R and exit the interview. Make notes on this page about why R doesn't think s/he could arrive at an answer.

Q25-Q30. There are the "calculation" questions. Along with Q24, they are the most important part of the interview from the Commission's perspective. It is extremely important that these questions are asked carefully and that the responses are as close as we can possibly come to R's gas use during the past year. In these questions you will help R be as accurate as possible.

There is a phrase "(in Maine)" added to some of the questions to help you remind R that we are interested only in gas bought in Maine. Use it when you are speaking with an R who may have bought gas elsewhere. It is never wrong to include the clarifying phrase, no matter with whom you are speaking.

The instructions are contained on the pages with the questions. Practice following them until you are very comfortable doing all variations of the calculation.

There are some techniques you can use to help R think carefully and accurately.
•Silence on your part is a very effective probe.
•Letting R get a pencil and paper may help.
•Letting R tell a story out loud about the number of trips taken, or the number of miles ridden may help jog R's memory. While we don't need a travelogue here, some of that apparent digression is actually R thinking out loud. Listen for cues, and try to make the cues concrete. "You usually ride around the neighbor's field on weekends? How often do you have to get gas — every weekend, or less often?" "How far out on a trip can you go before you know that you need to stop for gas?" "About how many miles is that?"

•If R responds with a range, help him/her arrive at an answer that is one number that you can put in the answer blank in the coding strip. You can say "I need to put just one number here. Do you think it was closer to 50 or to 75, or somewhere in the middle?" If R says "closer to 50," you can ask "Was it between 50 and 60?" and so forth until you both agree on a number. Do not just enter "50" as the final answer until you have made sure that R has settled on that number.

Make this a puzzle the two of you can solve.

It is very important that you enter the numbers you use in calculations in the blanks. Don't do all the work of arriving at an estimate and then forget to write it down.

When R agrees that an amount "sounds right," circle the code 1 in the coding strip and enter in the blanks the number of gallons that represents R's "final answer."

Q31. Be sure to thank R for working through the numbers to get a solution. Remember not to say "Great!" or "Excellent!" or anything that rewards the answer content. Reward the effort and the contribution to the study.

Indicate *in your judgment* how certain R was about the final answer chosen, using the scale of 1 (very certain) to 4 (very uncertain). Do not read this question to R or comment upon it.

In the "comments" space, write any notes that you think will help us analyze the data for this respondent. The notes could include mention that R consulted a log of gas use, or that he asked someone else in the household to help estimate (that's OK), or that this year was a really unusual one for his snowmobile riding. It is not required that you put any notes here.

If you recorded the number of miles ridden in Q24 in calculating the gasoline use, and if that method was the one that actually resulted in R's final answer about gas use, skip to Q34.

Q32. This question is for those who have not already told you how many miles the selected vehicle was ridden in the past year. Use the techniques described above to help R arrive at one figure for an answer. If R really can't estimate the number of miles, even with some help, continue to Q33 for some ranges that will give an approximation.

Q33. This question format lets you arrive at a range by a method of successive approximations. Follow the arrows. When you come to a dotted line that ends in a code number, circle it, and you've finished the question.

Q34. We know that the year and the snowmobile we are asking about is not necessarily typical of the riding that has been done in Maine on this snowmobile in prior years. Note that this is a two-step question. First, you ask if the amount of riding was typical, more, or less than other years. Then, if MORE or LESS, you ask how much more or less.

Q35. In this question we want to know on how many days this snowmobile was ridden in Maine. Riding around in the yard counts as a ride.

Q36. In this question, we want to know how far this snowmobile is ridden at an outing. An outing is a ride from where you start riding the snowmobile until you return at the end of the trip or arrive at a destination. Do not count the miles that the snowmobile is trailered to a starting point. A trip of several days may have several outings. We're looking for an "average" here— that is, an estimate, the usual distance.

Q37. We want to know the extent of travel for the primary purpose of riding snowmobiles. The trips referred to here are longer than day trips. They include at least one overnight stay, which could be camping out, staying in a motel, visiting someone, etc. Make sure the trips are in Maine. Don't count trips in other states or Canada.

Q38. We would like to know many nights people pay for lodging, as a very rough indicator of some of the contribution to economic activity that is made by snowmobilers. Count lodging that one has to pay for: motels, hotels, bed-and-breakfasts, etc. Count nights in lodging in Maine on the way to the snowmobiling site: e.g., count a night spent in a motel in Freeport on the way to a snowmobiling site in northern Maine. Do not count nights spent for free with friends or relatives.

Count only nights spent by R and those staying in R's room. Do not "double-count" for others traveling with R who stayed in other rooms.

If R spent NO NIGHTS in commercial lodging, record 00. (Coders: note that the INAP code here is 997, to accommodate a true 00 code as a valid response.)

Q39-56. Starting with Q41, through to the end of the survey instrument, you will be asking about any and all snowmobile riding that R does on *any snowmobile, in Maine or elsewhere*. Heretofore, the emphasis in all the questions was about the *selected snowmobile*. From here to the end, it's about the Respondent. Be sure you read the lead-in to Q39, and in the questions make sure R understands that now you're talking about any snowmobile riding that R does.

Q39. "Riding alone" means without a passenger, and without any other riders on their snowmobiles going along with R as a group. Count all riding that R does, including any commercial purposes, such as R's job.

Q40. R can be the passenger or the driver.

Q41. "Night" means during hours of darkness, which shifts a little throughout the season.

Q42. Helmets are not required for snowmobile riders.

Q43. "Near" and "far" are whatever they mean to R.

Q44, Q45. Watch the skip patterns here. They are marked in the questions. Remember, read the questions *in order* unless a GO TO instruction associated with an answer tells you to skip some questions. If R *doesn't* ride trails (Q44), ask if s/he would *like to* (Q45). If R *does* ride trails (Q44), *skip* to questions about the trails (Q46 and those questions following).

If R doesn't ride trails (Q44), and *doesn't want to* (Q45), *don't ask* about trails. *Skip* ahead to Q54 (belong to club?).

If R doesn't use trails (Q44), but *would like to* (Q45), *don't ask* about current trail use (Q46-49). *Skip* to Q50 to begin asking about characteristics of trails that R would like.

Q44. Trails made specifically for snowmobiles are marked, usually mapped, and may have facilities along the trail. There are over 12,000 miles of groomed trails in Maine. They may be carefully and continuously groomed by paid municipal or volunteer groomers using heavy equipment, or maintained less rigorously. Some trails are maintained by local clubs. Some less formal trails are maintained by snowmobile enthusiasts who keep them groomed for their own use. Some of the trails may be maintained for mixed use such as skiing, hiking, dog walking, etc. Mixed-use trails qualify as those made specifically for snowmobile use, as long as snowmobile riding is one of the intended uses.

The Interconnected Trail System (I.T.S.) is a 3,000- mile long network of groomed trails which crosses the state from the Allagash to southern Maine. The New England Snowmobile Trail (NEST) runs from New Brunswick through Maine to New York.

Q45. Ask this question only of Rs who do not use snowmobile trails.

Q46. This question asks trail-using respondents to select their one preference: Large major trails, or smaller local ones? The major trails are wide (12-14'), and even have median strips in some places. The major trails are the "highways." The local trails are the "back roads." They are narrower (4' or so).

R may say "both." If so, restate the first part of the question: "Which kind of trail do you like **better**?"

Q47. Note that the question asks for the distance to an snowmobile trail **that R rides**, not necessarily the closest trail. Trails can be hundreds of miles long. The question refers to the point of the trail where R usually begins riding.

Q48. This question refers to the closest trail that R uses. If R asks for a definition of the rating terms ("excellent," etc.), you can say "Whatever it means to you." Sometimes "in general" also seems to clarify those terms for Rs.

Q49. This question refers to the closest trail that R uses. Safety includes whatever aspects of safety that is important to R. It can include characteristics of the trail or of the usual riders and their behavior.

Q50. The travel can include trailering or trucking the snowmobile, or riding it to a point where R could join a trail. If R says "It depends (on the trail, the facilities, the time R has, etc.)," then the probes "In general," or "All other things being equal" may clarify for R.

Q51. The probes "In general," "What do you think?," "There's no right or wrong answer here, just let me know what you think" will often clarify the question.

Q52. This is an open-ended question. Encourage R to pick **one thing,** not several. If R begins a long description, you can say "I have just enough space here to write down a couple of words. If you could pick **one thing**, what would it be?" Record the response in the blank provided. We will code the responses later.

Q53. There are many ways to increase safety on trails. These are some that are frequently mentioned. We want R to pick the one that is "best," whatever "best" means to R. This question has a "START AT RED STAR" instruction. Ask the red starred item first, then the one below it until you reach the bottom of the list (do not read the OTHER, DK, etc. responses), then go to the top of the list and read down until you reach the item before the red star. Using this method will randomize the order in which the answer options are presented, to ensure that all the items have an equal chance to be the first and last items read.

Q54-Q58. These questions are about R. We ask them to make sure that our sample represents all the snowmobile riders in the state. If necessary, assure R again that we won't identify him/her in any way. We will put all the answers together from all the people who took part in the survey, and will report only the pooled statistics.

Q54. Snowmobile clubs are formal membership organizations formed for the purpose of promoting and enjoying snowmobile riding, and grooming trails. Groups of riders are not clubs unless they have actually formed a formal organization.

Q55. The snowmobile could be a replacement for a current one, or an additional one. It need not be a replacement for the one whose registration we selected for the sample. It could be a new or used snowmobile.

Q56. The major manufacturers are beginning to offer one or two models that are built to reduce noise and exhaust emissions. We want to know to what extent those factors are specifically considered in the decision about which vehicle to purchase. There are of course many other factors to consider in a purchase.

Q57. We ask R's year of birth. That is a reliable way to obtain R's age

THANK YOU. Be sure to tell R when the interview is over, and thank R for taking the time to speak with you.

Do not ask R if s/he wants a copy of the results. However, some may spontaneously mention wanting a copy. You can say that copies of the report can later be obtained from the

Legislature's Office of Legal and Policy Analysis when the Commission issues the report. If R wants, you can take down his/her name and address on another piece of paper, not on the coversheet, and we will mail a copy or see that it is mailed by someone else.

The interviewer record

After you finish the interview, fill in the information required on the last page of the survey instrument.

QA. The length of the interview in minutes can be determined from the starting and ending time of the interview, which you should have recorded as you started and ended the interview.

QB. Enter the ID number from the upper left corner of the label on the coversheet.

QC. Enter the three-digit exchange (the first three digits of the respondent's local telephone number; e.g., 989) at which the interview was conducted.

QD. The respondent's gender. Note that this is not necessarily the same person whose name appears on the label. For example, the snowmobile might have been registered to the husband in a family, but the person who knows the most about its gas use is his wife who is the primary rider of the vehicle.

QE. From the coversheet, count the number of times that the phone was dialed to obtain this interview, including the call you just concluded.

QF. Record the number of the month in which the interview was done (May=05).

QG. Record the date on which the interview was done (May 2nd = 02).

QH. Enter your interviewer number.

QI. Circle the code for the location of R's address.

Don't forget to put a "C" for "Completed" in the Disposition column of the coversheet.

Sample Cover Sheet

SNOWMOBILE

ID: 02714 GEOCODE: 03300
Happy Sledder
153 Happy Trails Road Houlton, ME 04730
Year: 99 Make: POLARIS Reg# 9792B

Logged_____
Edited_____
Coded_____
Entered_____
Verified_____

Maine Legislature
Commission to Study Equity in the Distribution of Gas Tax Revenues

Call Slot	Day of week	Date	Time, with am/pm	Notes	Disp. code	Iwer #

Using the Cover Sheet

The coversheet is a log of all the attempts that have been made to contact and interview each person in the sample. It is also a record of notes that will help you or another interviewer to complete and interview with the person who knows the most about the selected snowmobile.

Keep the coversheet separate from the rest of the instrument until after you have completed the interview. **When you have finished an interview**, **staple the coversheet** to the completed instrument, and complete the entries on the coversheet and the interviewer record at the end of the instrument. The supervisor will pick up the completed instruments from you as you finish, or you can take them to the box in the supervisor's room if you accumulate a pile of them.

Parts of the Coversheet

Information about the respondent. The coversheet has a label in the upper-left corner which has the name of the person you are to contact, his or her address, the make and year of the snowmobile, the registration (plate) number, a "geocode" which is a standard code for Maine geographic locations, and a randomly-generated identification (ID) number that we will use to keep track of the records in this study. There is also a hand-written telephone number that represents our best attempt to find contact information for this respondent.

If someone has already tried to contact this R, you will find notes made by the interviewer(s) about those attempts, perhaps including good times to call, definite appointments for calls, new phone numbers, and so forth.

Information about the call attempts. Log each call attempt as described below. Use as many lines as you need on the sheet.

Call slot. Call slots are the times at which calls are attempted. By distributing call attempts across varying times of the day and days of the week we maximize the chances of finding someone at home to be interviewed. The supervisor will use the slots to identify work to be done for each shift. The slots are numbered as follows:

#1. Early evening on a weekday, 5:00-7:00 p.m.
#2. Late evening on a weekday, 7:00-9:00 p.m.
#3. Saturday, 9:00 a.m.-1:00 p.m.
#4. Saturday, 1:00-5:00 p.m.
#5. Sunday, 1:00-5:00 p.m.
#6. Sunday, 5:00-9:00 p.m.
#7. Monday--Friday, daytime (before 5:00 p.m.)
#8. Additional call in any time slot (used only at direction of supervisor).

Day of the week. Enter the abbreviation of the day of the week on which the call was dialed.

Date. Enter the month and day: 5/2 for May 5th.

Time. Enter the time of day that the call was made. Indicate a.m. or p.m.

Notes. Use this field to make notes about anything that will allow you, another interviewer, and the supervisors to know when and how to reach R. If R says "call back at 7:30," then write that in the notes. Other kinds of notes may be "Saturdays are not good," or "R very interested, hard to catch. Works nights."

If R refuses, write why in the notes.

Ignore the "Phone #" note on the first line. The initial phone numbers are written at the top of the page.

Disposition (Disp.) code. These codes tell what the outcome ("disposition") was for each call attempted. Use the codes described below, and make notes to explain further if that will clarify the situation for the next interviewer.

C	A completed interview. The best!
Ref	A final refusal. Not to be confused with a situation in which R is busy right now, and we will call back later. In the notes, explain why R refused.
NA	No answer. (Let telephone ring 10 or more times.)
CB	Respondent says Call Back at a specific time, or is busy now and will probably do the interview later. Try to arrange a specific time to call back. In your notes, indicate the appointment time ("Call back at 7:30 Thursday"; "Try later this evening (Monday)"; "Call next Sunday after 3:00 p.m.").
BZ	Phone line (not the respondent!) is busy. Try again in about fifteen minutes. Someone's home, and that's a good chance to get a "C."
Mach	Answering machine. The first time you reach a machine or voice mail, do not leave a message. Try again later. After the first time, leave a message: "This is (IWER FIRST NAME) calling from the University of Maine to do a research interview about gas use in your snowmobile. Sorry we missed you. We'll try again later." Make a note about whether you did, or did not, leave a message.
DISC	Got a recorded phone company message. Try again in a day or so. If a new number is given, record it in the notes and try that number.
NIS	Not in service. May mean that there is trouble in the phone line. Try again that day or the next.
WR#	Wrong number. Try to get the correct one or any clues to it, if you can. Make sure you dialed correctly. In some cases, you will get a recording that the number has been changed to a new number, which the recording then gives you. If you get a Fax machine (long piercing tome), note that and try again soon. A one-line phone may have been switched to the Fax position.
DA	Dead air. Nothing happens. Try again right off, and then in a few minutes.

Iwer #. Put your interviewer number on the log.

Information about processing the data. At the top of the page are some items that indicate steps in data processing. As an interviewer, you don't need to pay attention to these. However, we will ask some of you to help with these tasks as interviews are completed. "Logged" means that the case has been checked of as having a final disposition in the project master log. "Edited" means that someone has checked the completed instrument for completeness and clarity of the information as it was recorded by the interviewer, the INAP codes have been checked, and that the arithmetic in the gas use section has been checked. "Coded" means that any open-ended ("write-in") answers have been assigned codes. "Entered" means that the data have been entered into the computer, and "Verified" means that the data have been entered twice to assure accuracy.

Snowmobiles from out of state

Approximately 15% of the selected snowmobile registration records are from out of state. Their owner-operators registered them for 3-day and /or 10-day, or nonresident seasonal use in Maine. They may have registered more than once, and/or may have brought in several sleds for use in Maine, each of which had a separate registration. We have taken the out-of-state sample in such a way that no one would be selected more than once, but they may have had multiple vehicles and/or registrations in Maine.

Unlike the in-state registrations, the Maine out-of-state records from which we drew our sample do not contain the model or year of the snowmobile, nor the type of registration for out-of-state registrants, nor a registration tag number. They contain a serial number, which may or may not have been accurately recorded. Some of those numbers are 15 characters long, and look like automobile VIN numbers.

Therefore, when a person with a nonresident registration and an out-of-state address is to be interviewed, there are a few differences in the interview. They are:

1. **Selecting a specific snowmobile to ask about;**
2. **Variations on some question wording;**
3. **Emphasizing that we are interested only in gas bought in Maine.**

1. Selecting a snowmobile to ask about.

In the in-state snowmobile sample, as in the ATV sample, the vehicle that you were to ask about was already selected and indicated on the label. For the nonresident registrations you will have to select a vehicle. The instructions for making that selection are below.

The letter to the respondent did not mention a specific sled. It said that if the owner had registered more than one sled we would select one to ask about.

Therefore, before you ask the first questions, and after you read the introduction, you will select a sled.

Use this script:

All together, how many snowmobiles did you and anyone else in your household bring to Maine in the past season; that is, the 2000-2001 snowmobiling season?

--IF ONLY ONE — that is the one you ask about.

--IF MORE THAN ONE:

Make a quick list of the vehicles in the space at the left of Q3 and pick one using the random number table. Circle it once you've picked it. The list can be of any vehicle characteristics, as long as it is clear to you and R which order the sleds are in.

For example, in many families, each family member has his or her "own" sled. For these families, it will work to make a list of the riders (and hence, their vehicles), then pick one of the vehicles through identification with its primary rider:

I have to pick one sled to ask you about. To do that scientifically, I'm going to make a list of them, and then I'll pick one using the sampling rules we have here. Let's make a short list of who rides them: Does that include you? I'll put you here, then who else — I don't need names. (R SAYS "MY WIFE, AND OUR SON.") *I have three vehicles here:*

(1) yours,
(2) your wife's, and
(3) your son's.

Were all these sleds ridden in Maine? (IF YES, CONSULT CHART) *My chart says that I need to ask about your wife's sled. Is she the one who knows the most about the amount of gas used in that sled, or would you be able to answer those questions?"* (ASK TO SPEAK TO HER, IF APPROPRIATE)

Using the random number table: A random number table is just a big collection of numbers in no particular order, generated by a computer. They are used to make random selections as a scientific version of the "pick a number between 1 and 10" method. The numbers are in groups of two for ease of reading. Use just one digit at a time ("98" is just a "9" next to an "8"). Start at the point indicated, and proceed in a straight line in the direction indicated (horizontally or vertically) until you reach a number from (including) 1 to and including the number of snowmobiles in this family (in the example, 3). Conduct the interview about the snowmobile with that number. On the random number table, mark through the "trail" you followed so no one will use it again. When you use the table again, start where you (or the interviewer before you) left off.

When you hit the edge of the table, start again in the next row or column, which ever you were using.

At the end of a shift, turn in your random number table. In your next shift, you might get your own table back, or you might get someone else's.

Ways of making the list of sleds in multiple-sled families (where all the sleds have been to Maine):

- who rides them, if family members have their "own"
- vehicle year (oldest to newest)
- serial number (if R knows them)
- engine size (largest to smallest).

2. Variations on question wording

If you have had to select one of several vehicles in an out-of-state household, you will have already asked some of the questions about how many snowmobiles there are in the family, who rides them, and so forth. You can just check with R ("You have just the three snowmobiles, right?") when you come to these questions, but don't assume without asking that you know the answers.

Q11. You won't have a registration tag number, so don't use that wording. You can say "That's your sled" or "That's your wife's sled."

Q11 and 15. Unlike the in-state registrations, we do not have the vehicle make, model, and year. Therefore, you will have to ask these questions instead of checking with R:

Q11. "What make is that?"

Q15. "What year is that sled?"

3. Emphasize that we are interested in the riding done *in Maine* (until you reach Q39).

The questions already contain emphasis on Maine riding, for all respondents. That distinction is even more critical when you know that you are asking about a sled that is based out of state. In particular, *we only want to know about gas purchased in Maine*. That should not be a difficult question for people who had only short-term passes. You may help them think about their gas purchases by asking about their 3-day or 10-day registrations, or season passes.

In Q39 to the end, you will be asking about all their snowmobile riding, in Maine and elsewhere.