MONTANA RECREATIONAL SNOWMOBILES

FUEL-USE AND SPENDING PATTERNS 2013

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BUREAU OF BUSINESS AND ECONOMIC RESEARCH

Introduction

The Bureau of Business and Economic Research's most recent surveys suggest that about 8 percent of the state's households include snowmobile recreationists. Nearly always, the whole family participates. With an average household size of about 2.5, perhaps as many as 100,000 Montanans participate in the sport each winter.

Nonresident snowmobilers are important contributors to the Montana economy. Many winter visitors to West Yellowstone, for instance, use snowmobiles. West Yellowstone has successfully promoted itself as "The Snowmobile Capitol of the World". Since Yellowstone National Park instituted limits to snowmobiling inside the park, visitation has dropped. Nonresident snowmobilers still visit the area but have diversified their snowmobiling areas.

Our estimates suggest that nonresident snowmobilers spend about $147 per activity day, including food, lodging, and often, snowmobile rental costs. Nonresidents accounted for about 97,000 activity days during the 2013-2014 snowmobile season, spending an aggregate of nearly $14.3 million in Montana. That spending supports about 200 winter jobs.

On average, residents spend much less per activity day than non-residents ($56); most of their out-of-pocket costs are for gasoline. Resident yearly spending is about $96.3 million over half spent on gasoline for snowmobiles and transportation.

We estimate that resident and nonresident snowmobilers buy about 4.3 million gallons of gasoline per season. With a base tax of $0.27 per gallon, we estimate that snowmobilers in Montana generate over $1.2 million in revenue for the state highway trust fund.

Access to snowmobiling areas is a concern of Montana snowmobilers. They are also concerned about a lack of personal responsibility affecting access to some areas.

In short, snowmobiling is a popular, revenue-generating winter recreation for Montana. It is popular with a solid share of households in the state, and popular with nonresident tourists.

This project was sponsored by Montana State Parks. Montana State Parks administers the Snowmobile Trails Program. The Snowmobile Trails Program is funded by fuel taxes and vehicle decal fees related to snowmobile use. A primary purpose this research is to estimate the amount of gasoline used by snowmobile users.

Methodology

This project was sponsored by Montana State Parks and the Montana Snowmobile Association. Bureau of Business and Economic Research (BBER) staff conducted the research, using a two-pronged approach, described below.

1. The BBER contacted 694 households with registered snowmobiles by telephone. Three hundred households completed a Computer Assisted Telephone Interview. Another 200 households were sent a paper questionnaire; 29 were returned. The mail questionnaires were sent to compare respondents with listed telephone numbers to those without. Although these characteristics may not be representative of all resident snowmobilers, they do reflect a solid sample of those who register their snowmobiles.

2. Information on nonresident snowmobilers was estimated in another way. Because of budget constraints nonresidents were not interviewed. It is assumed that activity and spending patterns have not changed since earlier surveys. Little change in activities or expenditures was observed among previous surveys conducted in 1997, 2001, 2003, and 2006. Spending data were updated by using UM Institute of Travel and Tourism expenditure reports for First Quarter 2013.

Assumptions

We used several basic items from our survey of Montana snowmobile activity to derive statewide impacts. The following assumptions were applied to data from resident snowmobilers surveyed.

* Based on information from AAA Montana, we assumed an average gasoline price of $3.50 during the winter of 2013-2014. Prices were much higher in West Yellowstone and for non-ethanol high octane gas. Modern snowmobile engines require 91 octane gasoline with no ethanol.

* Fuel usage depends on size and age of machines as well as terrain and snow conditions; based on survey information from active snowmobilers, we assumed an average fuel consumption of 12 miles per gallon of gas.

* According to data from Yellowstone National Park, about 14,000 visitors entered the Park from West Yellowstone between December, 2013 and March, 2014. For comparison purposes, only 629 entered from the north entrance.

Other assumptions pertained to data analysis of impacts generated by **resident** snowmobilers only. Based on interviews with Montana snowmobilers, residents travel about 36 miles per activity day on their snowmobiles, and spend about $24 for snowmobile fuel.

Several important assumptions were made about **nonresident** patterns of snowmobile use and activity. All the following were derived from interviews completed by nonresident snowmobilers in Montana in 2006. Surveys conducted in 1997, 2001, 2003 showed little change. It is assumed that this pattern continued, even though other areas of Montana are experiencing more nonresident snowmobiling.

* Nonresident snowmobilers in Montana travel about 85 miles per activity day -- more miles than residents because non-residents tend to come for one purpose and want their money's worth. This number did not change in previous surveys.

* The average length of a nonresident snowmobile vacation is 6 days. This number did not change over all previous iterations of the survey. There are indications that more nonresidents are visiting border areas, such as Lookout Pass, for day trips.

Snowmobile Numbers

Snowmobile owners who use their snowmobiles on public lands are required to register with the Montana Department of Justice, Title and Registration Bureau. Figure 1 shows the number of snowmobiles registered since 1991. Data are unavailable from 2007 to 2009. Changes in the titling of snowmobiles in 2005 resulted in a large increase in the number of registered snow machines in 2006. Persons with unregistered snowmobiles took advantage of the perpetual license for recreational vehicles and trailers. Montanans owned 56,844 registered snowmobiles in 2013. This is an 81 percent increase in the number of snowmobiles since 2006; the last year snowmobile numbers are available. Between three thousand and five thousand snowmobiles are registered each year.

Figure 1: Number of Registered Snowmobiles, Montana, 1990-2014

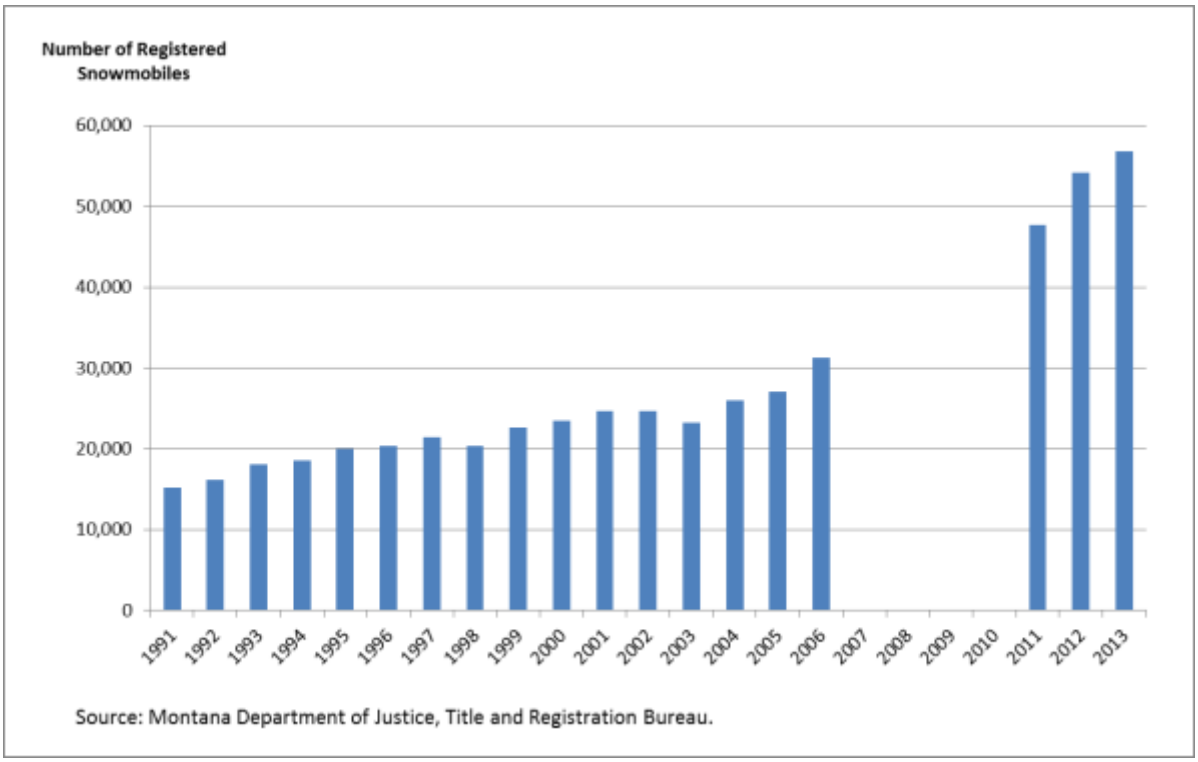
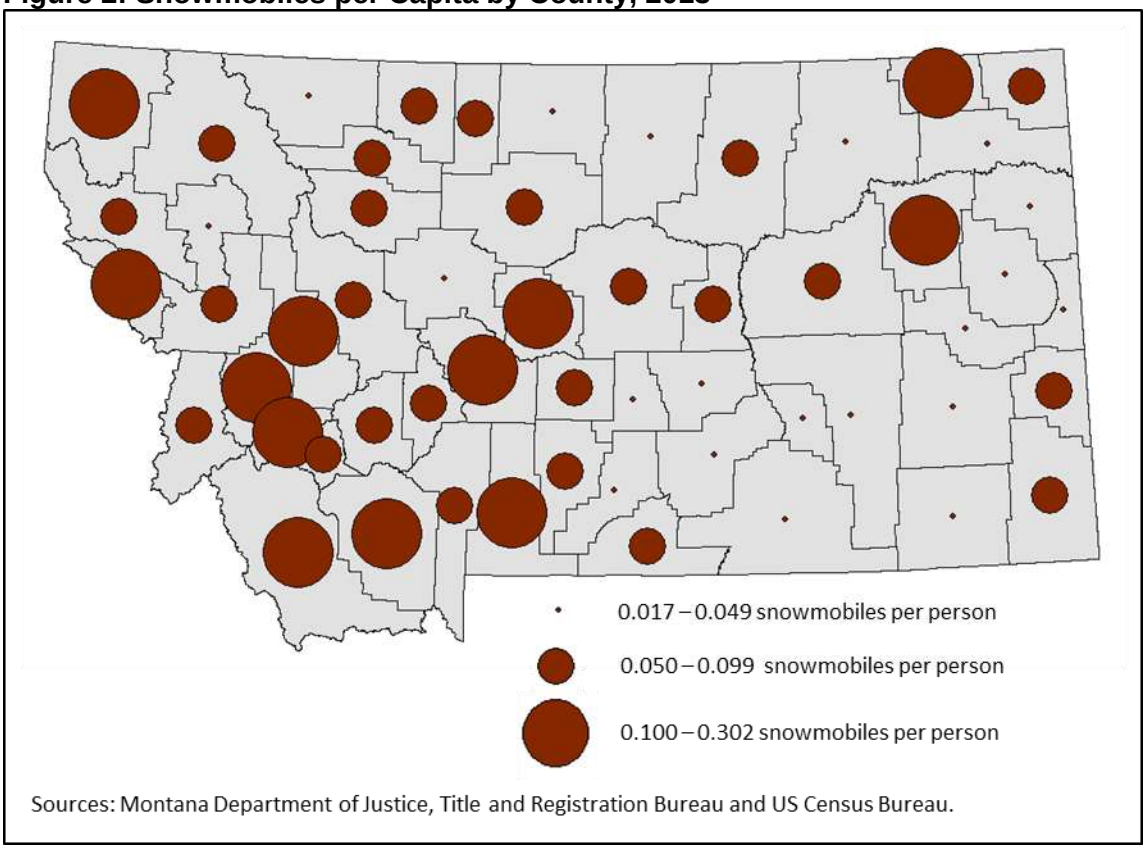


Figure 2 shows the distribution of snowmobiles per capita in 2013. Snowmobile ownership is concentrated in southwestern Montana. The highest concentration of snowmobiles is found in Meagher and Granite counties with 0.302 and 0.226 snowmobiles per person respectively. The lowest concentration is in Custer (0.017), Prairie (0.019) and Yellowstone (0.019) counties.

Figure 2: Snowmobiles per Capita by County, 2013



Activity Days

One measure of the sport's popularity and potential impact is the number of "activity days," a figure roughly defined by the estimated number of snowmobilers and their average number of outings per season. Keep in mind that snowmobiling is a dispersed outdoor activity, so precise counts are virtually impossible; however, we derive an estimate using survey data.

The BBER first estimated participation rates for snowmobiling in 1997-1998. These estimates were repeated for the 2005-2006 snowmobile season. Of those completing our interview in 1998; 10 percent snowmobiled, two household members participated and the median number of outing days per season was 14. In 2006 the corresponding numbers were 8 percent snowmobiling, two household members and the median number of outings was six. Assuming that participation rates have not changed dramatically since 2006; about 100,000 individuals snowmobiled an average of 12 days during the 2013-2014 season resulting in about 1.2 million activity days. This is an increase over the 1 million activity days reported for the 2005-2006 season and about the same as the estimate for the 2001-2003 snowmobile season.

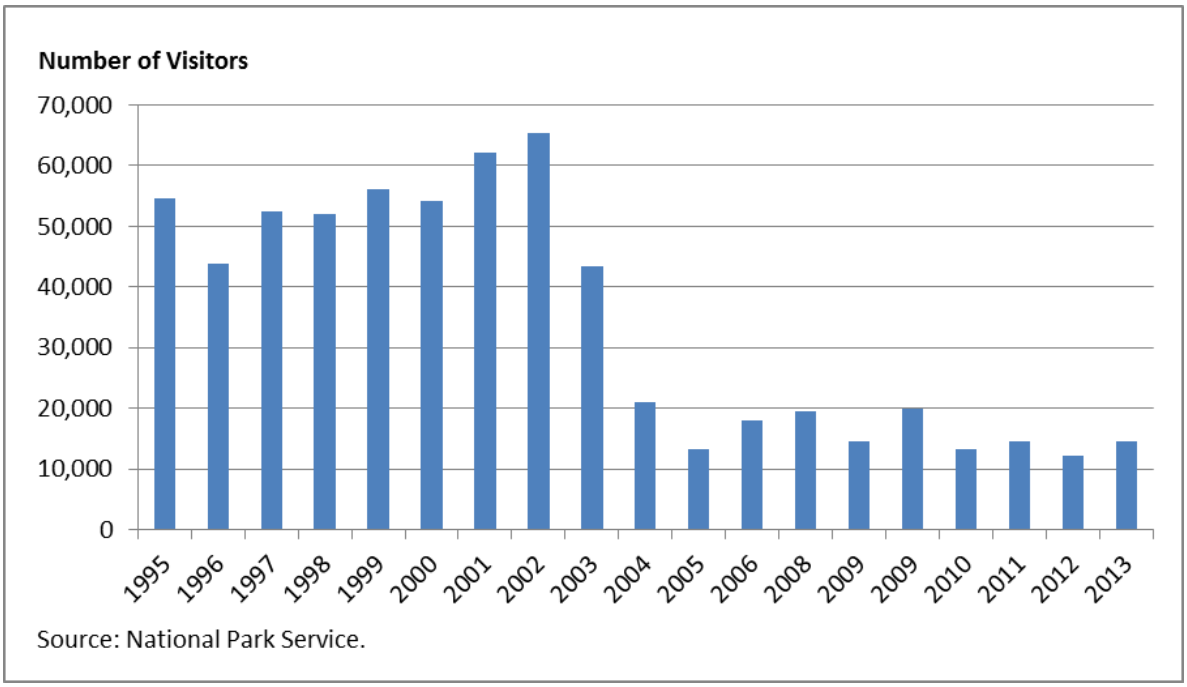
Nonresident snowmobilers used to flock to West Yellowstone, an area with world class facilities and packaged tours. Results from previous Bureau studies suggest that over three-quarters of nonresidents snowmobiling in Montana spent time in or near West Yellowstone. Nearly half of the nonresident snowmobile permits sold during 2005-2006 were sold by West Yellowstone

merchants. Since the majority of snowmobile rental activity also occurs in West Yellowstone, there is no indication that this proportion has changed. We use this estimate to derive the nonresident activity days.

In 2004, The National Park Service limited snowmobiles in Yellowstone National Park to 720 snowmobiles per day in Yellowstone, all commercially guided. These limitations went into effect for the 2004-2005 winter season. The plan was in effect for three winters, allowing snowmobile and snowcoach use through the winter of 2006-2007. Figure 3 shows the precipitous decline in snowmobile visitation to Yellowstone National Park following the announced limitations. The 2013-2014 plan allowed for 318 commercially guided snowmobiles per day.

About 14,000 visitors with snowmobiles entered Yellowstone National Park during 2013-2014. On average, only about 2 percent of resident snowmobiling took place in Yellowstone Park, while previous Bureau survey data of nonresidents tell us that about 25 percent of all nonresident snowmobile activity took place near the park. We use Yellowstone Park visitation as an anchor for calculations; it is the only firm number for a dispersed activity. Nonresidents in previous surveys typically spend one day in the park and the rest on trails in the West Yellowstone area. For this study, we adjusted the amount of nonresident snowmobiling occurring in West Yellowstone to 20 percent. This adjustment accounts for growing use in other areas of Montana. Using these proportions, we arrive at a total of 97,000 activity days for nonresident snowmobilers in Montana during the 2013-2014 season. This is about 18 percent lower than 2005-2006.

Figure 3: Snowmobile Visitation, Yellowstone National Park, 1995-2013



Most other nonresident snowmobiling activity occurs around Lookout Pass where Idaho and Washington residents make day-trips spending little in Montana. Smaller numbers of nonresident snowmobilers also visit Cooke City, Lincoln, and Seeley Lake. Nonresident visits to border areas are shorter, on average one day. Montana expenditures of nonresident border

visitors are very small as gasoline is the primary purchase and most is purchased in their hometown.

Thus, combined resident and nonresident snowmobile activity days amounted to about 1.3 million days during Montana's 2013-2014 season compared to the 1.2 million activity days from the 2005-2006 and 1.4 million activity days estimated for the 2001-2002 snowmobile seasons.

Expenditures

We estimated snowmobile-related spending for residents in our survey of the 2013-2014 season. We were unable to survey nonresidents for budgetary reasons. We make estimates of nonresident snowmobilers from data published by the University of Montana, Institute for Travel and Tourism Research. Nonresident snowmobiler expenditures are part of Montana's important nonresident tourism industry. Like other "basic" industries, tourism brings new dollars into the state economy.

Our estimates for total activity days provided the basis for estimating expenditures per day. We used spending per day, rather than per outing, because outings generally take only one day (for residents), or occupy several days for nonresidents. We also calculated gasoline usage estimates on a per day basis, even though for nonresidents gasoline may be part of a package price.

Table 1 shows that total mean expenditures for nonresidents were about $147 per activity day. Nonresidents spent money in all categories with the largest daily amount for lodging. Other retail, restaurants, taverns and snowmobile dealers also received a portion of the nonresident purchases. Gasoline purchases for snowmobiles and transportation were about 30 dollars per day. Daily nonresident expenditures in 2005-2006 season were estimated at about $170 per person. Differences may be attributed to more one day trips to bordering areas and the use of ITRR expenditures for all winter vacation visitors in 2013-2014.

Table 1: Expenditures per Person per Day, Montana, 2013-2014

	Resident			Nonresident
	Mean	Median	Percent with spending	Mean
Total daily expenditures	$107.53	$56.25		$147.49
Gasoline for snowmobiles	30.64	24.50	100%	$10.70
Gasoline for transportation	33.73	25.00	76%	$19.10
Lodging	6.25	0.00	12%	$32.86
Restaurants, taverns, etc.	12.19	6.75	56%	$21.77
Grocery stores	2.09	0.00	6%	$15.55
Snowmobile dealers	10.96	0.00	8%	$20.00
Other retail	10.43	0.00	7%	$27.52
Other outing expenses	1.24	0.00	10%	$0.00

Table 2 compiles total annual nonresident expenditures for each category, based on the estimate of 97,000 nonresident activity days. Nonresident snowmobilers spent about $14.3 million in Montana during the 2013-2014 snowmobile season compared to $20.4 million 2005-2006 season for daily personal expenses. About $3.2 million of this went for lodging, and another $2.1 million was spent in Montana restaurants and bars. Montana snowmobile dealers received about $2.6 million. Numbers for 2013-2014 are lower because activity days are down and spending per day is lower. Also the prevalence of more nonresident border trips shows in the lower gasoline purchases by nonresidents.

Table 2: Total Nonresident Snowmobiler Expenditures, Montana, 2013-2014

	2005-2006	2013-2014
Total nonresident expenditures in Montana	$20,368,000	$14,331,000
Gas for snowmobiles	2,411,000	1,040,000
Gas for transportation	4,303,000	1,855,000
Lodging	4,297,000	3,193,000
Restaurants, taverns, etc.	1,078,000	2,115,000
Grocery and convenience stores	657,000	1,511,000
Entertainment and recreation	2,048,000	1,943,000
Other retail	5,574,000	2,674,000

The impact of nonresident snowmobile related spending can also be understood in terms of jobs and income. Approximately 25 percent of the nonresident spending becomes direct labor income for Montanans = income earned by people who work in lodging places, restaurants, taverns, and other businesses that service tourists. The remaining percentage is spent on items that must be imported into Montana for sale such as groceries and clothing.

Overall, we estimate that nonresident snowmobilers generate over $3.6 million per year in labor income for Montanans -- or about 200 full and part-time jobs during the winter season.

Residents also spend money to snowmobile in Montana but are not considered part of the economic base since they do not bring new money into Montana. The BBER survey of resident's expenditures suggests that residents typically don't incur lodging costs and spend less on eating and drinking, and other expenses. A majority of residents don't make expenditures in several of the spending categories. As Table1 shows, resident's median expenditures were about $56 per day, about 40 percent of the comparable figure for nonresidents. Residents spent about $26 dollars per day during the 2005-2006 season.

Table 3 summarizes these expenditures. Residents spend about $57 million on trip expenditures mostly for gasoline and another $39 million on yearly expenses. Over 60 percent of yearly expenditures are spent on snowmobiles, trailers and maintenance. Resident expenditures in 2013-2014 are about double the expenditures from 2005-2006. Much of the increase is in spending for gasoline as resident snowmobilers spend more days in the field and prices are higher.

Table 3: Total Resident Snowmobiler Expenditures, Montana, 2005-2006 and 2013-2014

	2005-2006	2013-2014
Total resident expenditures in Montana	$47,929,000	$96,293,000
Total trip expenditures	$26,775,000	$57,375,000
Gas for snowmobiles	12,750,000	24,990,000
Gas for transportation	10,200,000	25,500,000
Restaurants, taverns, etc.	3,825,000	6,885,000
Total yearly expenditures	$21,154,000	$38,918,000
Snowmobiles	4,208,000	6,654,000
Snowmobile trailers	756,000	858,000
Snowmobile clothing	3,400,000	7,049,000
Safety equipment	2,244,000	4,263,000
Snowmobile repair and maintenance	6,222,000	16,940,000
Snowmobile registration and licensing	108,000	84,000
Other yearly snowmobile expenditures	4,216,000	3,070,000

Key Issues

Our survey also offered an opportunity for respondents to comment on what they thought was the most important issue facing snowmobilers. Access to snowmobiling was the most frequently cited issue by residents. Nearly two out of three respondents mentioned access issues. About 12 percent of residents mentioned safety, particularly personal responsibility. Yellowstone Park, a hot issue in 2005-2006 was barely mentioned. A complete listing of comments is available in Appendix 1.

Table 4: The Most Important Issue Facing Snowmobiling?

	1993-1994	1997-1998	2001-2002	2005-2006	2013-2014
Access to snowmobiling areas	43%	46%	40%	53%	62%
Impact on the environment	5%	10%	9%	6%	3%
Safety & personal responsibility	18%	20%	14%	16%	12%
Other	8%	15%	36%	13%	6%
Yellowstone park issues				6%	
No response	19%	5%	1%	6%	18%

Gasoline Used by Snowmobiles

Gasoline usage estimates are important because they suggest tax amounts contributed to the state highway trust fund by snowmobilers. Under current legislation a portion of these revenues are returned to snowmobilers through the trail grooming program.

We asked each respondent the average distance traveled on a typical snowmobile outing. Resident snowmobilers travel an average of about 36 miles per day. Nonresidents travel about 85 miles per day on average.

We used several additional items on the questionnaire to estimate and verify gas usage. Specifically, we asked three questions about each **working** snowmobile a household owned. Table 5 show the questions and the results compiled from respondents' answers

Table 5: Snowmobile Characteristics

Question	Answer
How many days is that snowmobile used per year?	A median of 6 days per year.
How many miles per gallon does the machine achieve?	An average of 12 miles /gallon.
How many gallons of gas are used by the snowmobile each day?	An average of 6 gallons per day.

These results derived from expenditures were then used to calculate the average amount of gasoline used by a Montana snowmobile in a year and this average amount multiplied by the number of privately owned snowmobiles. Estimates of gasoline usage from the expenditure data were also used. Fiver permutations of the data were averaged to arrive at the estimate. Nonresident usage was calculated from a per day basis.

Snowmobilers in Montana used about 4.3 million gallons during the 2013-2014 snowmobile season compared to 3.6 million gallons of gas during the 2005-2006 season. Snowmobilers contributed about $1.2 million to the Highway Trust Fund in 2013-2014 snowmobile season.

Summary

In summary, snowmobiling is a significant sport in the state, with significant economic impacts. Nearly 57,000 snowmobiles are registered in Montana. Residents used these snowmobiles about 1.2 million days during the 2013-2014 winter, Nonresidents added another 97,000 days.

We estimate that nonresident snowmobilers spent over $14 million in Montana during the 2013-2014 winter season accounting for about 200 winter jobs. In addition, residents spent about $96 million, over half for gasoline during the same period.

We estimate that snowmobilers (resident and nonresident alike) used about 3.6 million gallons of gasoline for their snowmobiles and paid about $1.2 million directly into the highway trust fund during the 2013-2014 season via gasoline taxes.

Access to snowmobile areas is a concern for most resident snowmobilers.

APPENDIX 1
COMMENTS

Dwindling access, more and more places are being closed, you're being limited on where you can go. Ability to use older sleds in Yellowstone Park, access in Beartooths, snowmobile access in state; we would be thrilled if there was more accessibility to snowmobiling from within 100 miles of Billings, for it to be more accessible riding.

Road closures and non-accessible way to get to land closures.

Safety.

Access, trail closures, needs to be the same as it used to be, I have done this for 40 years.

Closures of land. They keep closing more and more land.

Closure of all the trails, they are shutting us down all the time.

Not trespassing on private property.

Closing of back county areas that are currently on the supposed closure list by the Federal Government. These forest and fed lands are ours. The Government wants to close them down and that is wrong. If there is snow in the back country running snowmobiles does not harm this. The powers that be do not understand this. Many have not been out on snowmobiles at all. When we are out there often times we are 10-12 feet above the ground on snow. Our presence doesn't hurt the land.

Closures of trails and areas.

Respect for other land owners and people, obeying the rules.

Lots of safety equipment is needed.

Time, just having enough time to go.

Extreme environmental groups and closing of riding areas.

Access.

Restricting people and shutting loops and trails land.

Access to places to snowmobile.

Access, needs more of it.

More riding areas.

Access, don't need to shut down any more trails and roads.

Upkeep of trails.

Ability to go places, land usage, having trails to use.

Keeping trails open for public use.

Machines continue to get quieter and cleaner.

People wanting to know what you're doing and when you're doing it.

Access to trails, not having any place to go, being denied access.

Climate change, whether we'll have snow or not.

I don't have any place to snowmobile.

Land use, availability of land and it remaining open to snowmobile usage.

Riding, we go and open up trails, cross country come in and don't like sound and get it close and we can't ride snowmobiles, should be open for public use.

Wearing a helmet, and other safety equipment.

Different groups are trying to cut down on the access of where people can go.
Access, not enough access to snowmobile trails.
Closed out of areas that we formerly used because trail deemed wilderness area, too much wilderness.
Need to keep having access to the state land. Closing too many state roads to native Montanans to enjoy the country we're born and raised in.
Safety.
Riding in the mountains is open but roads are being closed down and outhouses and other structures are being removed. The government is making it so no one can go out and enjoy the mountains.
More access.
Losing access to areas for riding snowmobiles.
Shutting down roads too early for no good reason to people who properly use them.
Access, maintaining and preserving access to public lands primarily and private somewhat the ability to get out and into those places is shrinking.
Access; don't want any more land to get shut because of grizzly bears. The population of bears is exploding and snowmobiles don't affect them at all.
Lack of snow.
Closing the trails.
Having experience and knowing what to do in avalanches.
Ordinances or any laws against snowmobiling. Hiawatha trail, used to ride on it.
EPA, I think they are going to try to shut snowmobilers down.
Keeping the trails open.
Access, to get into public land.
Trail access, open places to snowmobile.
Trying to keep trails open and money for grooming and safety.
Snow.
More snow.
Keeping land open.
Not chasing wildlife.
Diminishing access they are closing more and more areas.
Got to band together to stop everybody from taking over the land.
Keeping trails open, I hope they don't close us out of the forest.
Snow, there is not enough.
Snow, we're out here in the flat lands we don't get enough snow.
Land closure.
Land closures.
Keeping public lands open.
No snow.
In our area is that they are trying to close everything down, areas with a lot of snow where we leave no trace that are not able to ride because they are closing the areas that we ride in.
Weather, economy, we don’t travel much anymore because of the economy.
Safety and avalanche awareness.
Lack of access, would like to see more access.
Avalanches.

Getting to more accessible areas that are trails that are more groomed. Trails are open and available to ride. Fish and game closing traditional routes.
Land Access.
Taking away the territory.
Government is in our lunchbox and I hate it.
Knuckleheads that go off the trails.
Safety, keeping trails in good condition.
Losing places to be able to snowmobile.
Avalanches.
Yahoos doing what they shouldn't be doing.
Safety.
Safety, if people are going to go out into the country where avalanche potential is present, so making sure people wear beacons.
Ability to be able to continue to ride, areas as well as in general.
fuel prices and land closures.
Use of public lands.
Land closures, lack of access to land, EPA restrictions.
People taking trails out of use.
Probably snow conditions, being able to know them.
Road and area closures due to wilderness designation, too many.
Changing access, has been abused in past but insuring good access for snowmobiling on public lands.
Trail access, should increase the amount of access.
Forest Service, we have had our cabin for several years and they keep moving the wilderness boundary closer. The inability to promote mixed use for land between skiers and snowmobilers.
Access, need more of it, not too many place to go.
People trying to shut down trails and parks.
Trail and road closures, forest service roads closing too much, acting like law enforcement, harassing riders.
All the closures that are being talked about and closing main areas like the peaks at Sparr Lake.
Closed roads, too many of them, not enough open space.
Shutting down areas, need to be left open, restricting them more and more.
Ability to ride, need more open space.
More snow.
Would really like to see all the trails stay open.
Crazy on the weekends, too many people out, too crowded, not being safe, trails too narrow.
Shutting off all the Forest Service trials.
Keeping land open and accessible.
Access, there's not enough.
Riding it, getting out and using it.
Access, would like to see everybody have more access.
Land closures, restrictions.
Safety.
Closures, not letting us ride in our land which is public Forest Service land, can't go anywhere because they have everything blocked off; it seems to be getting worse every year. We pay taxes so we should

be able to use the public land; we are riding 10 feet of snow above ground so we are not damaging anything.
Allowing for more access.
Trails being opened and groomed.
Too many trails getting closed.
Losing access to pre-existing areas.
Areas opened longer and more open to public. Some areas meant to protect wildlife, but when there is 8 feet snow there is not going to be any wildlife in the area. Some areas in particular are ridiculous to be closed for the reasons they are closed.
Land closure.
Closing down the trails, the forests, land.
Access to places to go sledding.
Need more snow.
Access.
Safety.
Use of the trails and parks.
Keeping trails open so people can keep riding.
Keeping some of the back country open.
Land Closures.
Trail access, a lot of the National Forest is being closed off to snowmobilers and other motorized recreation.
Not being to go on certain trails because of regulations regarding snowmobile age, where we used to spend lots of money.
Taking away to many riding areas.
Wilderness.
Continued lack of areas to ride because of wilderness areas.
Groomed trails anywhere you go, more warming huts along the trails.
Trail closures.
Lack of snow.
Lack of terrain and open space, more and more restrictions coming about.
Being careful when they snowmobile, staying where they belong, too much exhaust and noise.
Educate Environmentalist that snowmobiles are safe and conscience of the environment that they are in.
Access.
Access, closing off too many trails.
Being able to ride them where you want to and in certain places.
Keeping trails open.
Access, have no access to the areas that have snow during the season.
Getting kicked out of the woods. Land use and restrictions.
The forest service closing roads that have been here for 140 years. Don't know where they're coming with all this wilderness crap.
People forgetting that it's nice to share.
Where you can actually ride and not ride, and avalanches.
Snow, need more.

Too many snowmobiles come past my property at once, there's too much noise unless they are newer models.
Access, too many trails' that were open are now shut down.
Area closures, more and more of our areas are becoming closed to ride.
Not happy about closing of snowmobile areas.
Closing down the mountains where we go.
Closing down too many areas to snowmobiles.
Environmentalists trying to shut everything down and putting up fences and not letting us not have availability to trails.
Too much government control. They waste my tax money on bullshit like this survey. Let people think for themselves.
Safety.
Access to forest service land and stuff like that. Keeping the public lands open. Getting ridiculous to get to some of this public land. Trying to shut down snowmobiling.
Areas to go, and far away.
Yellowstone Park thing going on. Letting diesel trucks go in all the time and all animals migrate out of the park.
Public land access; worried about trail closure due to environmental and noise concerns.
Open up more land and National Parks.
Greeners trying to shut the country down and not let us ride it. Too much wilderness, too many boundaries.
Access; more access to public land.
Access, closing down too many trails for snowmobiles.
Awareness, avalanches and safety.
Areas that are getting closed down.
Access, closures of public land and National Forest areas.
Access, too many restrictions by the Forest Service about where you can snowmobile.
Too many trails getting shut down.
Trails; make sure they stay open.
Keeping the back country open, shutting people out of areas due to the fact that it is wilderness areas or proposed wilderness areas.
Safety.
Access; like to see more.
Maintaining good access for snowmobilers while preserving the environment.
Running out of places to ride.
Freedom to go where you want to go.
Cost of new snowmobiles is too high.
Environmentalists, they are too one sided, not willing to negotiate to work out a solution generally, not causing a problem just putting up barriers, snowmobile are very concerned about the land.
Maintaining access to public lands and promoting the sport in a positive way.
Getting stuck.
Finding what trails are readable. It's horribly posted and maps are hard to find in my area, unlike ATV, UTV, motorbike maps are.
People going off trails and too near to protected areas.

Access to National Forest, they keep shutting down trails.
Access, making sure that people has access to the trails, areas to ride. Conservationists still take over everything, happy medium, still enjoy the outdoors.
Keeping trails open.
A place to go.
Snow, you need to have snow to snowmobile.
Government won't let you go here or there.
Access, there's enough access now. No need to close or open anymore trails.
Safety.
Open space. Need more access to more trails. Stop the left wing liberals from closing the trails around my house.
More access to quality trails.
Shutting down to many trails, need more access.
Access to U.S. Forest Service land, would like to see more access.
Environmental communities insisting upon eliminating snowmobiles from public land. They are trying hard.
Access in mountains i.e.: Locked Gates.
People staying on officially designated trails.
Access, would like to see more access.
Trail grooming for snowmobiles in areas that need it.
Access, maintaining the level of access currently enjoyed by snowmobilers.
Avalanches, Overall and general safety.
Avalanche awareness.
Access to trail usage.
Access, in our area several trails that closed that we enjoyed and we'd like to see them reopened.
Land closure due to radicals trying to protect endangered animals.
Access, places that used to ride are closed and getting closed.
Closing down areas, we ride along a lot of borders where it is not accessible.
Area availability, closing down of mountain areas to ride in.
Losing land to ride on, losing access to Forest Service lands.
People having the wrong idea about pollution and their impact. They are a great thing and pollute no more than anything else.
Use.
Area closures.
Keep areas open to snowmobile in.
Land access, taking away areas that used to be open. Don't want areas that are currently open to be closed.
Closures.
Having an area to ride, too many places closed off.
Lack of an interconnected trail system that incorporates local towns and businesses.
Worrying about avalanches.
Need snow and need privacy.
Access, would like to see more access.
Keeping trails open for snowmobile use.

Keeping riding areas open.
Practicing safety while snowmobiling.
Lack of access in some areas due to Missoula County voting and closing Lake County trails to open more Missoula County trails. Trading post up in Swan Lake shuts down in winter because customers No longer show up to snowmobile.
Closing of areas. Restricted use
Too many trail closings.
Environmental concerns over snow amounts, seems and hills, there are a lot of people that don't know what they are talking about getting into the middle of it.
Land closure, too much of it.
Trails to ride on.
Better information regarding where is appropriate to snowmobile, with more access for snowmobiles.
Access
Land usage, shared land usage, we are losing areas to ride in, need a compromise so everyone can use public lands.
Inappropriate use in closed areas.
Land out there to ride on doesn't get shut done because of a few people that don't want snowmobilers back there.
Keep the trail systems that we have and not let them get any smaller.
Closing of more and more public lands to ride.
Able to go where you want to go. So many places are starting to shut trails down because of pollution, like Yellowstone.
Conservation, making sure people don't abuse terrain and you know mountains where we're going. Littering and stuff.
Having public lands shut down by environmentalists.
Access to public and private land. Overcoming the stereotype of snowmobilers not caring about environment. Showing that we use the land responsibly.
Permissible land usage and trails.
They are trying to close it down in the future.
Access, too many places that people have bought and shut the trails down to snowmobilers, Forest Service doing to same thing and shutting down trails.
Helmets, beacons, safety, avalanche bags, making sure you have safety equipment.
Federal Government is infringing upon our rights to utilize our public lands, trying to close down many places we have ridden in for several years and now they are closed for some reason. We have politicians that have no idea about land they make laws to cover. Government legislation is biggest thing causing snowmobilers grief. Sensible riders only ride in safe place, not everyone is sensible rider.
Blocking off the roads and closing areas.
EPA regulations and access to land.
After market exhaust.
Safety.
Climate Change.
No Snow (not last year!).
Image, people think snowmobilers don't respect the environment or private property, this is false.
Getting closed out of recreation land.
Parks and usage, plan that is workable for the land and snowmobile users.

Fact that they shut off trails.
Fuel for my machine and fuel to transport to where riding
Access, limited areas and trails being closed.
Pollution from snowmobiles and taking away more trails.
Access, like to see less trail closures, worried about having enough trails for when his children get older.
Access, closing trails that are good for riding and are closed for no good reason and they are closing them too early.
Multiple use issue, we need wilderness and trails in equal portion.
Keeping the trails open. Don't close unnecessarily. Too many environmentalist deciding trail issues
Avalanches, Unsafe conditions, People high marking.
Closures!!! Snowmobiles have little or no impact on forage and surrounding area habitats. WE RIDE ON SNOW!!!
Keep closing everything down, there is nowhere to ride.
Shutting them down and not letting them go where they want to.
Access or safety.
Keeping trails and forest service roads open to snowmobile use. Protecting wildlife.
Hope access is still available for people.
Closures.
Make sure you're always with a group of people or someone else.
Able to go somewhere areas that are available, lands being closed.
Safety probably.
2 strokes being frowned on.
Access.
Lack of accessible, multiple-use land. Too many closed areas and not enough places to ride.
Closing down areas.
Land access, Forest Service is closing down more and more areas to ride.
Land closure.
Lack of snow.
Avalanches.
Space permitted for snowmobile, access.
Federal forest are shutting it down.
Riding Areas are getting fewer and fewer and lack of snow.
Keeping the trails groomed.
Public land availability, closing off too many areas, not enough accessibility.
Lack of trails to use.

APPENDIX 2
METHODOLOGY

This project was sponsored by Montana State Parks. Bureau of Business and Economic Research (BBER) staff conducted the research, using a two-pronged approach, described below:

The BBER sampled 2,500 owners from the list of titled snowmobiles administered by the Montana Department of Justice, Title and Registration Bureau. The BBER was able to locate telephone numbers for 1,433 Montana households whose members own registered snowmobiles. 296 of these households completed a Computer Assisted Telephone Interview asking about their snowmobile use. Table A1 shows the case disposition.

Interviews were conducted June of 2014.

Table A1: Snowmobile Case Disposition

Completions by phone	300
Refusals	188
Non-interviews	9
Unresolved appointments	19
Unable to locate	266
No longer owns snowmobile	178
Other not eligible	473
Total sampled	1,433

An additional 200 were mailed a questionnaire. Of these 36 were completed and returned. The mail completions were compared with the telephone responses to see if those with listed telephone numbers differed from those without listed telephones; there was little difference.

The mail completions were compared with the telephone responses to see if those with listed telephone numbers differed from those without listed telephones. Figures A1, A2, and A3 show the comparisons. Comparisons are shown as ranges around the mean. There was no statistically significant difference between the two samples. It appears those mailed a questionnaire snowmobiled slightly more days, but the difference is not significant.

The cooperation rates of 66.4 percent for the telephone survey and 18.0 percent for the mail survey are typical of such surveys. Although these characteristics may not be representative of all resident OHV owners, they do reflect a solid sample of those who register their OHVs.

BBER used Information on nonresident snowmobilers collected by the Institute for Tourism and Recreation Research (ITRR). ITRR samples non-residents each quarter as to their activities in Montana and how much they spend. BBER used expenditure data from first quarter 2013 vacation traveler expenditures and spending profiles from earlier surveys.

Figure A1: Average Number of Days Snowmobiling in 2013-2014

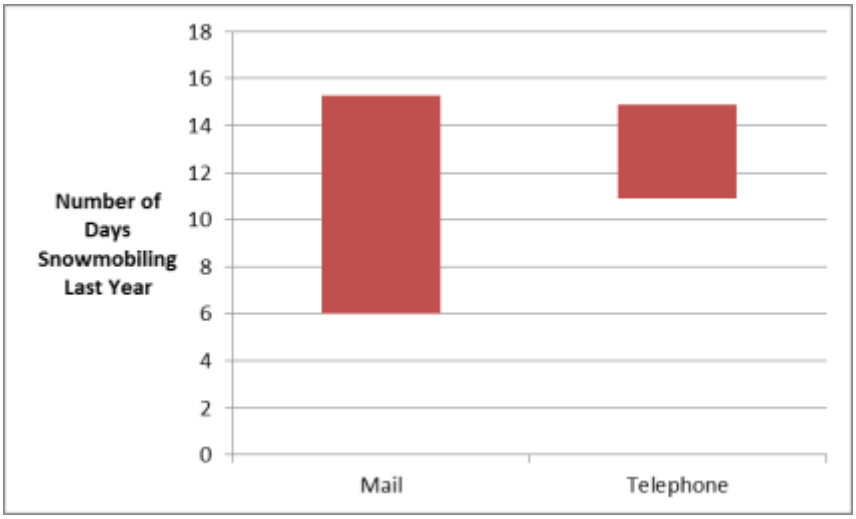


Figure A2: Average Number of Miles per Day

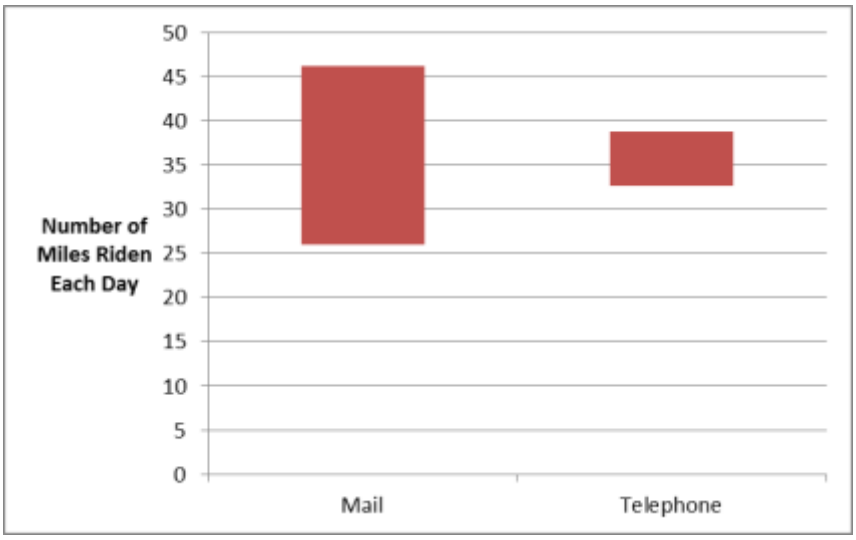
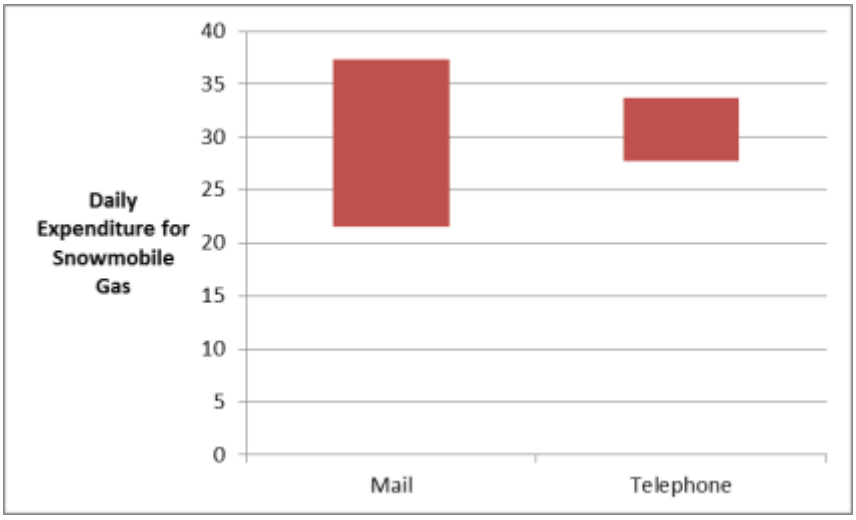


Figure A3: Average Daily Expenditure for OHV Gasoline



APPENDIX 3
QUESTIONNAIRE

Bureau of Business and Economic Research
Gallagher Business Building
The University of Montana
Missoula, Montana 59812-6840

(406) 243-5113
FAX (406) 243-2086

www.bber.umt.edu

June 19, 2014

John Doe
100 First St
Helena, MT 59601

Dear John Doe,

I am writing to ask for your help I an important study is being conducted by the Montana Department of Fish, Wildlife, and Parks. The study seeks to better understand the experiences of Montana's snowmobile users. In the next week or two you will receive a request by mail to participate in this project by answering a few questions about your experiences.

I would like to do everything I can to make it as easy and productive for you to participate in the study. I am writing in advance because many people like to know ahead of time that they will be asked to complete a questionnaire by mail. This research can only be successful with the generous help of people like you.

I hope you will take 15 minutes of your time to help us. Most of all, I hope that you will use the questionnaire as an opportunity to voice your thoughts about snowmobile use in Montana.

The University of Montana's Bureau of Business and Economic Research (BBER) is administering the survey for us. If you have any questions, please Janet Stevens, BBER Survey Field Coordinator, toll free at 1-877-700-2237.

Thank you very much for helping with this important study.

Jim Sylvester
Senior Economist
Bureau of Business and Economic Research, University of Montana
http://www.bber.umt.edu/

Bureau of Business and Economic Research
Gallagher Business Building
The University of Montana
Missoula, Montana 59812-6840

(406) 243-5113
FAX (406) 243-2086

www.bber.umt.edu

July 1, 2014

John Doe
100 First St
Helena, MT 59601

Dear John Doe,

I am writing to ask for your help in an important study being conducted by Montana State Parks. The study seeks to better understand the experiences of Montana's snowmobile users. Most of all, I hope that you will use the questionnaire as an opportunity to voice your thoughts about snowmobile use in Montana.

Your answers are completely confidential and will be combined with responses from other snowmobile users to create a summary report. No individual answers will be able to be identified as belonging to any one person. Participation is voluntary. We hope you will share your opinions and experiences because everyone's responses are important to the study.

I hope you will take a few minutes of your time to help us, and return your completed survey in the included stamped and addressed envelope as soon as you can. If you misplace this envelope, please return the completed survey to: Bureau of Business and Economic Research, Gallagher Business Building room 231, The University of Montana, Missoula, Montana 59812-6840.

The University of Montana's Bureau of Business and Economic Research (BBER) is administering the survey for Montana State Parks. If you have any questions, please call Janet Stevens, BBER Survey Field Coordinator, toll free at 1-877-700-2237.

Thank you very much for helping with this important study.

Jim Sylvester
Senior Economist
Bureau of Business and Economic Research, University of Montana
http://www.bber.umt.edu/

Snowmobile Rider's Survey

Montana State Parks

June 26, 2014

What is this about?

By answering this survey, you will help Montana State Parks to better understand the level of snowmobile usage in the state. Montana State Parks will use the results to support snowmobile ridership throughout the state. Your answers are confidential and will be used in summary form only. No individual answers will be able to be identified as belonging to any one person. Participation is voluntary. If you find a question you don't want to answer, just skip it and go to the next question. It should take 10-15 minutes to complete this survey.

Instructions

Please take a few minutes to complete this important survey and return your completed survey in the included stamped and addressed envelope as soon as you can. If you misplace this envelope, please return the completed survey to: Bureau of Business and Economic Research, Gallagher Business Building Room 231, The University of Montana, Missoula, Montana 59812-6840. The Bureau of Business and Economic Research (BBER), University of Montana-Missoula is administering this survey on behalf of Montana State Parks. If you have any questions please feel free to contact Janet Stevens of BBER toll free at 1-877-700-2237.

Montana State Parks
1420 East Sixth Avenue
P.O. Box 200701
Helena, MT 59620-0701

START HERE

1. Are you familiar with the Montana Snowmobile TRAILS Program administered by Montana State Parks in cooperation with the Montana Snowmobile Association?

☐Yes
☐No

2. Are you familiar with how the TRAILS program is funded?

☐Yes
☐No

3. How many days did you snowmobile in MONTANA during the past season?

_____ days

4. How many miles do you usually ride each day you snowmobile?

_____ miles

6. On the typical snowmobile outing, how many persons from your household go?

_____ persons

7. Does each household member ride their own snow machine?

☐Yes
☐No

8. How many persons do not ride alone?

_____ persons

9. If any don't ride alone, why don't they ride alone?

☐ None ride alone
☐ Too young
☐ Not enough snowmobiles
☐ Do not like to drive own machine
☐ Required by rental
☐ Cost
☐ Other (Please specify on the line below)

_____

10. How many snowmobiles does your household own?

_____ snowmobiles in all

11. How many are (Is it) in working order?

_____ snowmobiles in working order

12. How many are CURRENTLY registered?

_____ snowmobiles currently registered

13. Some people think that exotic fuels are used by snowmobiles. Do you use other fuels, such as aviation gas or alcohol in your snowmobiles?

☐Yes
☐No

14. If you do use exotic fuels, how much per season do you use, and what types do you use? Please answer on the lines below.

_____

_____

15. Please answer each of the following for up to four (4) of the snowmobiles that you own.

<u>Snowmobile 1</u>

a. How many miles per gallon does that snow machine get?

_____ miles per gallon

b. How many days per year is that machine used in an average season?

_____ days used per year

c. How many gallons of gasoline are usually used per day by that machine?

_____ gallons used per day

<u>Snowmobile 2</u>

a. How many miles per gallon does that snow machine get?

_____ miles per gallon

b. How many days per year is that machine used in an average season?

_____ days used per year

c. How many gallons of gasoline are usually used per day by that machine?

_____ gallons used per day

Snowmobile 3

a. How many miles per gallon does that snow machine get?

_____ miles per gallon

b. How many days per year is that machine used in an average season?

_____ days used per year

c. How many gallons of gasoline are usually used per day by that machine?

_____ gallons used per day

Snowmobile 4

a. How many miles per gallon does that snow machine get?

_____ miles per gallon

b. How many days per year is that machine used in an average season?

_____ days used per year

c. How many gallons of gasoline are usually used per day by that machine?

_____ gallons used per day

16. Thinking about your LAST MONTANA outing, what was the general area in MONTANA you snowmobiled?

_____ general area

17. And how many days did that outing last?

_____ days

18. Did you stay in a hotel, motel, B&B, campground, with friends or relatives, or what?

☐ Not applicable
☐ HOTEL, MOTEL
☐ B & B
☐ CAMPGROUND
☐ FRIENDS OR RELATIVES
☐ OTHER

19. How many members of your household were on the trip?

_____ members of my household

20. About how much did you spend for each item or at each type of establishment on your last MONTANA outing? Please enter a dollar amount on each line below.

$ _____ Gasoline for snowmobiles
$ _____ Gasoline for transportation
$ _____ Lodging (hotels, motels, campgrounds, etc.)
$ _____ Eating and drinking places
$ _____ Food, grocery or convenience stores
$ _____ Entertainment and recreation places
$ _____ Snowmobile dealers, rental or repair shops
$ _____ Clothing, souvenir or other retail shops
$ _____ Other expenditures on your outing

21. Snowmobilers also make many major purchases during the year. How much did you spend on any of these items during the 2013-2014 season. Please enter a dollar amount on each line below.

$ _____ Snowmobile(s)
$ _____ Snowmobile trailer
$ _____ Snowmobile clothing
$ _____ Safety equipment
$ _____ Snowmobile repairs and maintenance
$ _____ Snowmobile registration
$ _____ Snowmobile club dues
$ _____ Other snowmobile related expenses or purchases

22. What do you think is the most important issue facing snowmobiling?

_____

_____

_____

_____

23. Including yourself, how many persons live in your household?

_____ persons live in my household

24. How many are children under 16 years of age?

_____ children under 16 years of age

Thank you for your participation!