

# MONTANA RECREATIONAL OFF-HIGHWAY VEHICLES

## FUEL-USE AND SPENDING PATTERNS 2013



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Prepared for:  
Montana State Parks

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**BUREAU OF  
BUSINESS  
AND ECONOMIC  
RESEARCH**

## **Introduction**

About 77,200 off-highway vehicles (OHVs) were registered for off-highway use in Montana during 2013. These vehicles are used both for pleasure and work. OHV-owning households own an average of two machines, and two family members usually participate in outings. Montana OHV users spend between 4.2 million and 5.9 million days recreating.

Residents spend about \$208 million per year on OHV activities, and nearly all their entire out-of-pocket trip costs are for gasoline. We estimate that OHV users buy about 6.6 million gallons of gasoline per year. With a base tax of \$0.27 per gallon, resident OHV users in Montana generate over \$1.8 million in revenue for the state highway trust fund.

Nonresidents also participate in OHV activities in Montana, particularly during hunting season. The dispersed nature of OHV use makes estimating nonresident OHV use extremely difficult. Any estimates of aggregate use are low when nonresident use is considered.

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

## **Methodology**

Bureau of Business and Economic Research (BBER) staff conducted the research, using a two-pronged approach, described below. For a more complete description of methodology see Appendix 2.

1. The BBER contacted 523 Montana households whose members own registered OHVs or off-road motorcycles. 281 of these households completed a Computer-Assisted Telephone Interview asking about their OHV use. An additional 200 OHV households were mailed a questionnaire, and 33 were returned. Although these characteristics may not be representative of all resident OHV owners, they do reflect a solid sample of those who register their OHVs and use them for recreation.
2. BBER planned to use information on nonresident OHV users collected by the Institute for Tourism and Recreation Research (ITRR). ITRR samples nonresidents each quarter as to their activities in Montana and how much they spend. ITRR only obtained data from one group that participated in OHV activities during 2013. Reliable estimates of nonresident OHV activity are not possible because of budgetary restrictions and the dispersed nature of OHV activity.

## Assumptions

We used several basic items from our survey of Montana OHV owners to derive statewide impacts. The following assumptions derived from the OHV survey data were used.

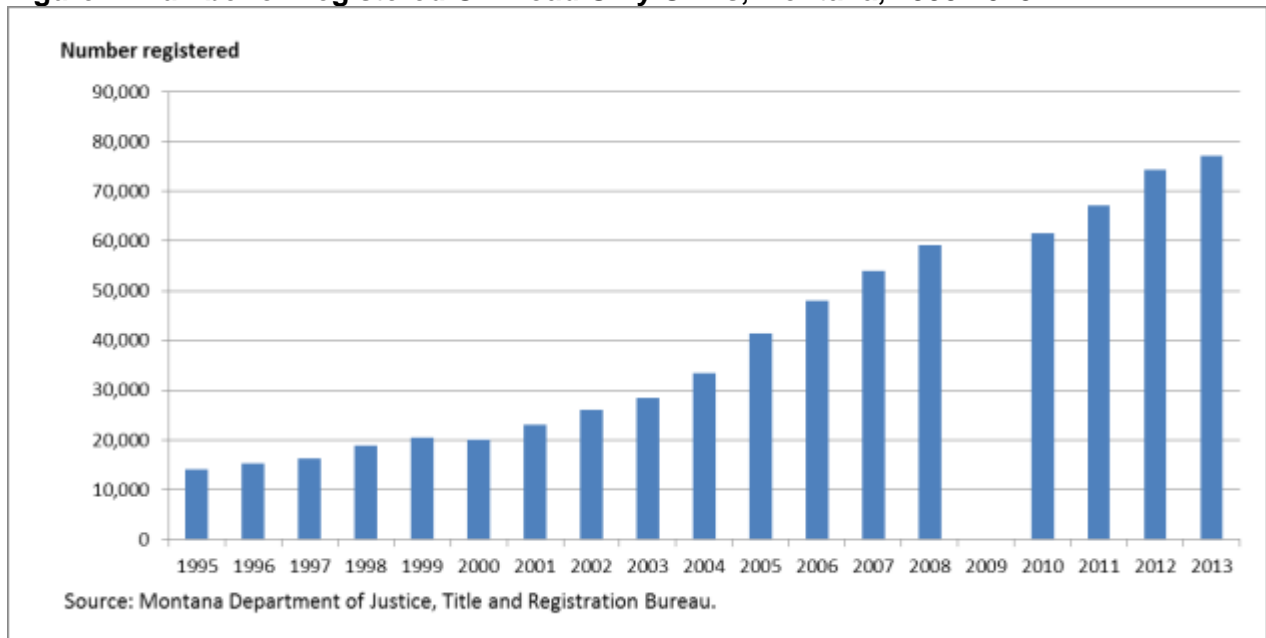
Fuel usage depends on size and age of machines as well as the speed and terrain the machine is used on. We assumed an average fuel consumption of 27 miles per gallon of gas. This assumption is based on 2013 OHV survey on Montana OHV users.

Based on interviews with Montana OHV users, residents travel between 17 and 22 miles per activity day on their OHVs and spend about \$12 for OHV fuel per activity day.

## OHV Numbers

OHV owners who use their OHVs on public lands are required to register with the Montana Department of Justice, Title and Registration Bureau. Figure 1 shows the number of OHVs registered since 1995. Changes in the titling of OHVs in 2005 resulted in a large increase in the number of registered machines, as persons with unregistered OHVs took advantage of the permanent license for recreational vehicles and trailers. In 2007, about 54,000 OHVs were registered with the state of Montana. Data are unavailable for 2009. There were 77,200 off-road only OHVs registered in Montana in 2013. About 5,000 off-road only vehicles are registered each year in Montana. These yearly registrations are a combination of newly purchased machines and used OHVs being registered by new owners. OHVs for commercial use are also included.

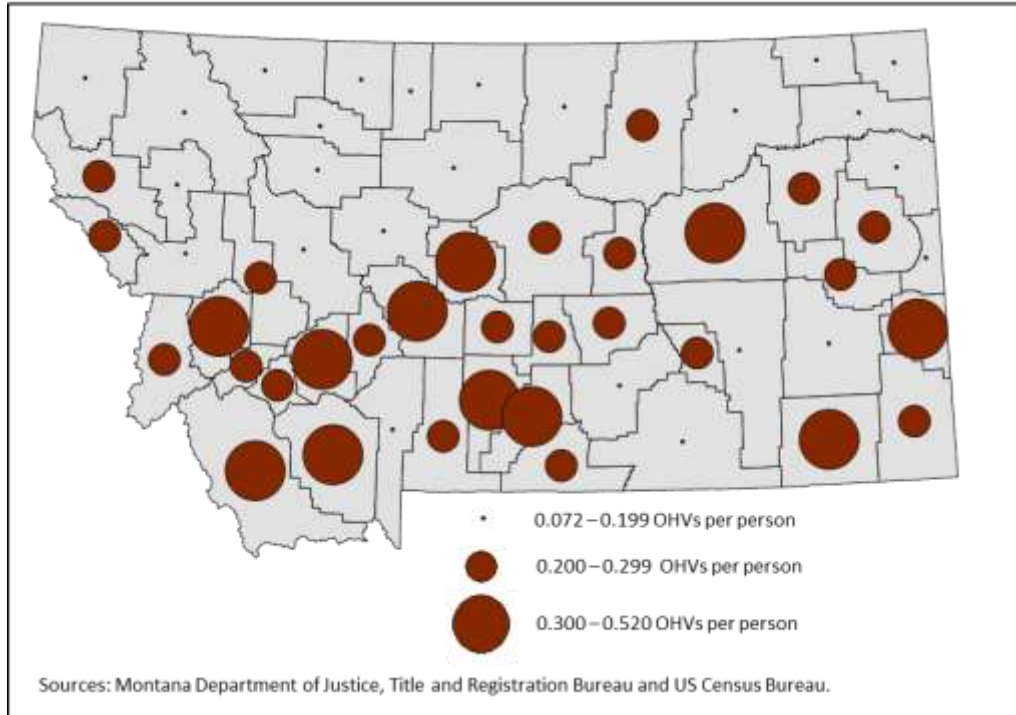
**Figure 1: Number of Registered Off-Road Only OHVs, Montana, 1995-2013**



Residents of rural southern Montana counties are more likely to own an off-road only vehicle as shown in Figure 2. Urban areas have very low per capita ownership. Per capita ownership of

OHVs in Granite County is 0.52 per person. In other words, about half of Granite County residents own an OHV. Madison County per capita ownership is 0.43 OHVs per person. The counties with the lowest OHV ownership are Big Horn, Roosevelt, and Glacier Counties.

**Figure 2: Registered OHVs per Capita by County, 2013**



## Activity Days

One measure of the sport's popularity is the number of "activity days," a figure roughly defined by the estimated number of OHV users and their average number of outings per season. Keep in mind that OHV riding is a dispersed outdoor activity, so precise counts are virtually impossible; however, we derive an estimate using survey data. Using the number of OHVs and the average number of days the typical participant uses his or her machine, we estimate the number of activity days for resident OHV use is between 4.2 million and 5.9 million days, an increase over the 2007 estimate of 1 million and 1.5 million days. The increase is caused by the number of registered OHVs growing from about 54,000 in 2007 to about 77,200 in 2013 and the average number of days they were used increasing from 42 days per year in 2007 to 65 days per year in 2013. The range of activity days is derived from the lower and upper bounds around the mean derived from survey data. Survey data are not precise and have errors associated with them.

Nonresidents also participate in OHV activities in Montana, particularly during hunting season. The dispersed nature of OHV activities makes any estimate of nonresident OHV activity extremely difficult. The University of Montana Institute for Travel and Recreation Research (ITRR) samples nonresidents each quarter as to their activities in Montana and how much they spend. ITRR was unable to provide estimates of nonresident OHV use in 2013; only one group surveyed participated in OHV activities on their 2013 trip.

## Expenditures

We estimated OHV-related spending for residents in our 2013 survey. The sample size for non-residents was too small to make reliable estimates of nonresident expenditures.

Our estimates for total activity days provide the basis for estimating expenditures per day. We used spending per day, rather than per outing, because OHV outings generally are only one day.

The BBER survey of resident expenditures suggests that residents typically don't incur lodging costs and spend little on eating and drinking and other expenses. A majority of residents (Table 1) don't make expenditures in most of the spending categories. Residents' median expenditures were about \$37 per day, all on gasoline for machines and transportation. This number is lower than the \$41 per day reported in 2007. The difference may be due to improved performance in mileage, both OHVs and transportation vehicles. The median is that number where half of the population is above and half is below. Medians are used for calculations because averages are skewed by a few outliers.

**Table 1: Resident OHV Expenditures per Person per Day, Montana, 2013**

|                             | Percent of respondents with expenditures | Median |
|-----------------------------|--|--------|
| Total                       |  | \$37   |
| Gasoline for OHVs           | 100%                                     | \$12   |
| Gasoline for transportation | 69%                                      | 23     |
| Lodging                     | 7%                                       | 0      |
| Campgrounds                 | 27%                                      | 0      |
| Restaurants, taverns, etc.  | 51%                                      | 2      |
| Grocery stores              | 6%                                       | 0      |
| Entertainment               | 4%                                       | 0      |
| OHV dealers                 | 5%                                       | 0      |
| Other retail                | 9%                                       | 0      |
| Other outing expenses       | 6%                                       | 0      |

Even though resident OHV users are not considered part of the economic base, residents spend substantial money using OHVs in Montana. Table 2 summarizes residents' annual expenditures. Residents spend about \$175 million on trip expenditures, nearly all for gasoline. In 2007, trip expenditures were about \$43 million. The increase in trip expenditures between 2007 and 2013 is a result of nearly four times the number of activity days in 2013 and higher fuel prices.

Montana recreational OHV users spend about \$33 million on yearly expenses. Over three-quarters of yearly expenditures are spent on OHVs, trailers, and maintenance. This spending contributes to the well-being of businesses catering to OHV users in Montana. These numbers show an increase over 2007. More OHVs, used more often by "super users," are the reason for

the increase. One notable discrepancy between 2007 and 2013 is the difference in OHV repair and maintenance and other yearly OHV expenditures; when combined there is little change.

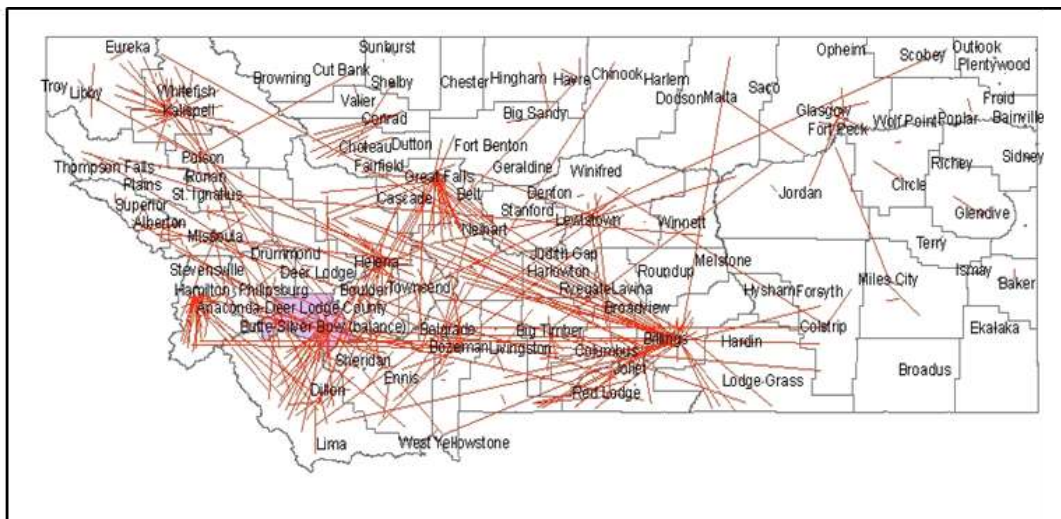
**Table 2: Total Resident OHV Expenditures, Montana, 2007 and 2013**

|  | <u>2007</u>  | <u>2013</u>   |
|--|--------------|---------------|
| Total resident expenditures in Montana | \$69,712,000 | \$207,923,000 |
| Total trip expenditures                | \$42,900,000 | \$175,000,000 |
| Gas for OHVs                           | \$21,900,000 | \$60,000,000  |
| Gas for transportation                 | 21,000,000   | 115,000,000   |
| Total yearly expenditures              | \$26,812,000 | \$32,923,000  |
| OHVs                                   | \$4,734,000  | \$9,665,000   |
| OHV trailers                           | 1,934,000    | 1,415,000     |
| OHV clothing                           | 2,700,000    | 3,628,000     |
| Safety equipment                       | 1,674,000    | 2,162,000     |
| OHV repair and maintenance             | 7,344,000    | 15,208,000    |
| OHV registration and licensing         | 110,000      | 305,000       |
| Other yearly OHV expenditures          | 8,316,000    | 540,000       |

### OHV Destinations

Figure 3 shows the areas where most OHV activity occurs in Montana. These lines represent where each OHV survey respondent took their latest outing. Southwestern Montana is the hub of OHV activity in Montana, from a participant standpoint as well as a destination. Billings' residents travel substantial distances to OHV.

**Figure 3: Areas of Montana OHV Activity, 2013**



## Key Issues

The BBER survey also offered an opportunity for respondents to comment on what they thought was the most important issue facing off-highway vehicle recreation (Figure 4). All the comments solicited can be found in Appendix 1. Access to trails was the most frequently cited issue, with 58 percent mentioning access issues. About 12 percent of residents mentioned safety, and another 10 percent personal responsibility. Many of the personal responsibility comments reflected a view that the activities of a few were ruining riding opportunities:

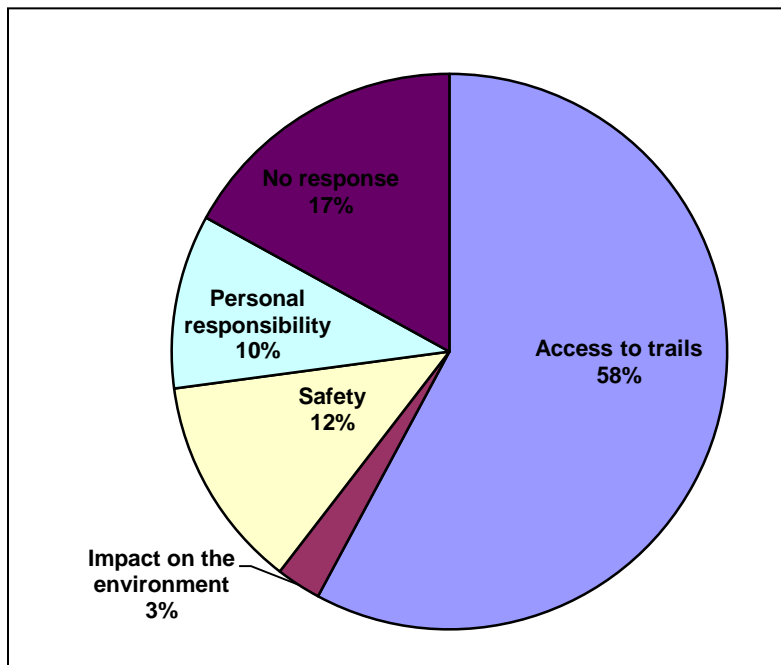
“Education on proper use and respect of land, not tearing up countryside with off road vehicles.”

“A lot of users pick places they shouldn't go; ones that don't follow the rules are issues for off road vehicle users.”

“OHV safety and land destruction through improper OHV use.”

“People [are] not abiding to rules in state and national Parks so the rest of us have to put up with things being closed because of their stupidity.”

**Figure 4: The Most Important Issue Facing Off-Highway Recreation?**



## Gasoline Used by OHVs

Gasoline usage estimates are important because they suggest tax amounts contributed to the state highway trust fund by OHV users. We asked each respondent the average distance traveled on a typical OHV outing. Resident OHV users travel a median of about 20 miles per day.

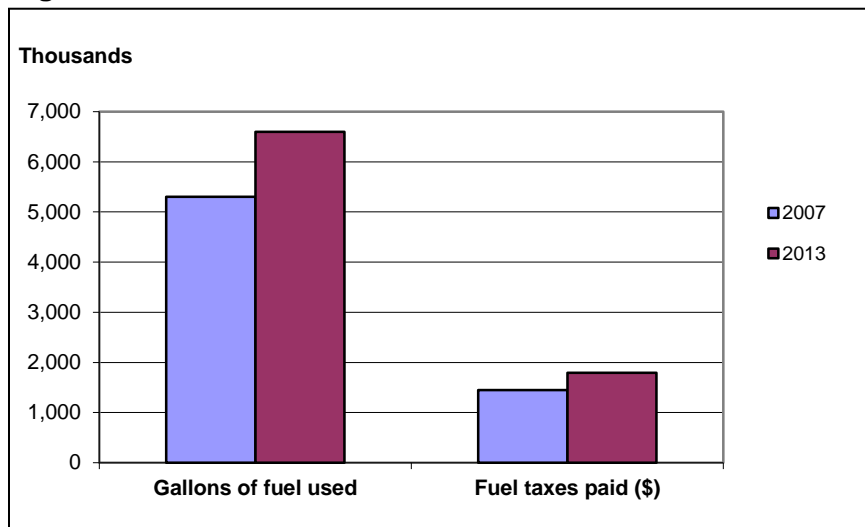
We used several additional items on the questionnaire to estimate and verify gas usage. Specifically, we asked three questions about each **working** OHV a household owned. Table 3 shows the questions and the results compiled from respondents' answers.

**Table 3: OHV Characteristics**

| Question  | Answer                             |
|---|------------------------------------|
| How many days is that OHV used per year?              | A median of 24 days per year.      |
| How many miles per gallon does the machine achieve?   | An average of 27 miles /gallon.    |
| How many gallons of gas are used by the OHV each day? | An average of 2.5 gallons per day. |

These results were then used to calculate the average amount of gasoline used each year by OHVs in Montana and this average amount multiplied by the number of privately owned OHVs (Figure 4). OHV users in Montana used about 6.6 million gallons of gas during 2013. OHV users contributed more than \$1.8 million to the Highway Trust Fund, both increases over 2007.

**Figure 4: OHV Fuel Use and Taxes Paid, Montana, 2007 and 2013**





## **Summary**

Montana residents continue to purchase and register about 5,000 OHVs per year, demonstrating growth in OHV activity. The dispersed and unorganized nature of OHV activity makes estimating how many OHVs are used recreationally with precision difficult. Montana survey estimates show recreational activity days in Montana nearly quadrupling between 2007 and 2013 to between 4.2 million and 5.9 million days.

We estimate that OHV users spent about \$208 million in Montana during 2013, nearly triple the amount spent in 2007. This spending contributes to the well-being of businesses catering to OHV users. We estimate that OHV users paid more than \$1.8 million directly into the highway trust fund during 2013 via gasoline taxes.

Montana OHV users are very concerned about access, safety, and personal responsibility. Personal responsibility concerns were primarily about rogue behavior, which gives opponents of OHVs ammunition to close more areas.

Nonresident OHV activity also impacts Montana but estimates are unavailable. OHVs are also used for work purposes, especially ranching.

## **APPENDIX 1: MONTANA RESIDENT OHV RESPONDENT COMMENTS**

Restriction of access to roads and trails.

Closing down riding trails.

More restricted all the time no place to go.

Keeping trails open for recreational use and places to go.

Trail closures for riding, there should be more places to ride.

Not enough access.

They are closing all the trails and stuff down and we have been riding them for years, it is getting frustrating.

Access to public land, it should be increased.

People going off trails.

Access, public land needs to be more accessible.

Forest service is closing all the trails and I guess it is going through the Department of Interior and now they got all kinds of rules and regulations and giving all the trails to horses and bikes.

Not having access, too much private area not accessible.

Safety, safety is the most important.

Not having enough space to go.

Access, areas that they are shutting off.

Access, more places to ride.

Closing too many of the trails.

Keeping trails open for off road vehicle use.

Access, most people would like more access.

Constant access to Forest Service and public land where there are trails, I don't want them to shut them down.

Safety.

Where you can go, not enough trails.

Too many closures, lack of public access.

A person riding off trail and it's not patrolled very well.

Practicing safety by wearing proper safety gear.

Not enough access, Forest Service is shutting too much down.

Safety.

Road closures and lack of public access and too many road closures on public access.

Education on proper use and respect of land, not tearing up countryside with off road vehicles.

Access to forest land, shouldn't lose what we have.

Like to see more access for OHV's.

Restrictions, tell us where we can and can't go, a lot of trails are being closed. So many restrictions on where vehicles can be used on mountains and public land.

Using them for unauthorized trails, misuse.

Trail closures, too many being closed.

Paying attention to safety.

Not appropriate trails, not usable enough.

Knowing where to go, clearer rules/guidelines.

Not enough public access, way too many shut down.  
Limited restrictions.  
Access, place to go, access to federal property.  
Access.  
Accessibility to trails and roads.  
Place to ride in mountains and hills.  
Closing gates and closing down land, making it wilderness and not able to ride.  
They keep closing down trails and need to open up more places to ride.  
People being unsafe, not using their heads.  
Access to land.  
Availability to ride not enough trails; motorcycles get more trails than 4 wheelers.  
Lack of public access.  
Keeping people on established trails.  
Accessibility.  
Time to do it, lack of permission, and lack of public access.  
Need to open the parks back up.  
Access is being limited by feds, fewer and fewer places to ride.  
Using them properly, being at the right place with your Off Road Vehicle.  
Wearing proper safety equipment when riding OHV's.  
Access in mountains for recreation.  
Restriction of trails, gated roads during certain seasons. It would be nice to have them be more accessible now that I'm getting older.  
People not abiding to rules in State and National Parks so rest of us have to put up with things being closed because of the stupidity.  
Closing of the forest and roads.  
Changing laws and regulations.  
Have to be right age, too many underage kids who are not driving safe.  
Access to land that we own. Too many government regulations on off-road vehicles, pertaining to access and environmental issues.  
Having trails to use them on.  
Maintain access to public lands.  
Access to roads.  
Having more access for OHV's.  
Safety.  
Access, people misusing the resources, people leaving garbage, giving others a bad name.  
Access, trails grew up riding are closed or limited and in some cases good and a lot of cases it is unreasonable.  
Access, not be able to go where we want to go.  
Having trails to ride on.  
Having places to ride, accessibility.  
Trails getting closed.  
Knuckleheads that abuse it.  
Access or something.  
Use on public land.

Safety.

Wearing protective stuff and to be safe with what you are doing.

A lot of users pick places they shouldn't go; ones that don't follow the rules are issues for off road vehicle users.

Misuse.

Like to see more access.

Safety

Being open to use really, over 500 just in fuel just to drive to a place where you can use them legally "over road".

Road closures.

Snow amount.

Impact to the environment, rider safety

Knowing where to go, heard some things are changing but access is being limited, having a safe place for persons to go.

Where you can use them, there could be more usage and trails.

People run them where they shouldn't, we ride on the trails.

Safety; making sure people know how to properly use OHV's.

Access, closing too many roads for OHV's.

Off road vehicle safety, people too young riding with no experience.

Access to trails.

Lack of access, would like to see more access.

Like to see more access.

Respect for environment and picking up after ourselves and each other.

Idiots who screw it up for Montana.

They keep closing places we used to ride.

Access to trails, they replace horses.

Proper use of them, a lot of people don't respect the land they drive on and where they are driving and it will impact our ability to go different places, driving in areas they are not supposed to drive.

People from California trying to get the trails closed down by being irresponsible, because people are too lazy to get out and walk. Equal usage should be mandated.

Safety.

Loss of trails to ride.

Areas and Trails being closed.

Staying on the trails.

Able to go on different roads, road openings.

Closure of trails.

Trails; need more of them.

Trails should be open longer than they are in a year.

Whether or not the trails are open for usage. We use them a lot when we go hunting. That's the primary use for it.

Lack of access and people misusing the trails that are open.

Being able to use them in our state or our state land.

Driving where they are not supposed to be, I caught some kids one time on back roads where they weren't supposed to be with an ATV which is unfair to people who are hunting on foot.

Closure of accessible land. They're closing everything up; you have nowhere to go anymore. They're closing all the off road areas, the forest service. We have nowhere to drive my off road vehicles anymore. We need more areas for multiple use. I own horses too. I do a lot of horse activities, horse people can go anywhere, off road people have very few.

Nice to have places to ride, there is not a lot of public access to trails, there is not much provided for recreational use.

Access to roads and trails, it is getting hard to get to, state has closed off, where can and can't ride.

Safety, safe use of them.

More access to public trails.

Safety, make sure everyone is trained to use them.

Land closure shutting us out, government shutting down trails.

People need to respect the land.

Lack of open trails and place to ride.

Being careful.

Safety, knowing how to run the machine correctly and where you are.

Safety.

Safety.

Safety.

Closing areas to anything motorized.

Would like to see more access not less.

There is not enough access to more areas.

Need more access for OHV's.

Using trails in the mountains.

People not going off road when not supposed to.

Keeping trails open.

Avalanches high speed.

Not enough access, people going off trail, people going recklessly, kids without protective gear.

Limited trail use and closing of more trails.

Accessibility to roads, not closing off trails and roads.

Following rules and regulations.

Keep closing off more roads and trails.

They are trying to close too many trails and they are catering to walkers, they pick on people with OHV's.

Having enough area to ride in.

Multi-use with other outdoor users, people getting along

Ability to get to trails and condition of trails.

Battle for equal use of trails and roads in wildness.

Jeep trails open for use in mountains.

Lack of public access, too many closed areas.

Little kids driving them without helmets.

Public access; Forest Service need to allow the trails to remain open.

People that want to close all the trails.

Safety in general.

Safety in general.

OHV safety and land destruction through improper OHV use.

People who leave marked trails.

Closing trails.

State wanting to close off roads and people who have bought land and close it off.

Improper use of vehicles.

Irresponsibility for: speed, property of others, loud going thru community, and drinking.

Too many Trails closings.

Closing of public lands to OHV use and other vehicle use.

Loss of areas to ride, trail closings.

Trail closings.

Reliability. We have lots of places to ride.

People leaving authorized off road trails.

Access to trails.

Access to trails.

People using roads not legally accessible and not following rules on accessible roads.

There's a big push to eliminate them and have the Forest Service control them more. If you're young and have good legs and get out and hike, if you're old and have disability you're shit out of luck.

Road closure and land closure.

Protecting the land.

Avalanches

OHV safety, properly worn protective gear for OHV's.

Land access rules and regulations in general.

Forest Service and state closing trails.

Courtesy, obeying laws by staying on trails and obeying speed limits.

Access, getting more access for people to go.

Closing of trails.

Safety for children.

Accessibility, would like more.

Access.

Accessibility, closing of formerly open trails for OHV's.

Safety, younger riders need to know what they're doing, follow rules.

Not getting stricter about access.

Trail maintenance

Getting stuck

Accessibility to land, less and less grounds to ride on.

Limitations on public land access. Don't like Kelly humps, too old to walk, can't afford a horse. Needs to be opened up for seniors.

Keeping public land open so people who pay taxes get to use trails in mountains.

Too many closures, not enough public access.

People are not riding safely.

Public access, need more of it.

Places to ride.

Pressure from environmentalist to shut down the sport.

Avalanche education

Safety and using vehicles respectfully; don't go out there and rip country up.

Lack of respect for private property.

Expense of going

Places to ride, National Parks, Forest, etc. It would be nice for there to be areas designated for off road vehicles.

Access to trails, and for people to stay on trails so privileges are not lost.

To keep our trails open!

Avalanches.

Keep closing up more and more areas.

Access, I understand that there are multiple users on trails but they are restricting a lot of places compared to Canada and other states. When you are hunting it would be nice to be able to take your four-wheeler in trees without being arrested.

Public access

Public access, BLM land is foot or horseback, need more places to go.

Public access.

Trail Availability.

Blockheads that are making laws to close trails.

Access, keep closing all the trails.

Not enough access, too many closures.

Public access.

Public access problems.

Lack of trails access.

Lack of access to trails for OHV and Forest Service road shutdowns.

Falling in lake while ice fishing due to poor ice.

Lack of a place to go, lots of places shut down.

Being shut out of places by the government.

No real issues here, I ride on my own property. I believe others are concerned about where they can ride.

Stay on designated trails and roads, not tear up the country side.

Closures and gates; primarily that is why we go to Idaho.

Getting people to stay on trails and follow rules.

Whatever these mud bogging racing things they do are, start on public roads but then go onto private roads and tear them up, Missouri Rivers, Bootlegger Trail, drive on county roads and leave huge furrows, axle-deep ruts, and then there's no one to maintain them.

Access to roads and trails.

Ability for off road vehicles to keep using trails will stay open regardless of rumors of off road vandalism by OHV's.

Public land availability.

Lack of places to go.

Land access.

Closure of areas and trails for off-road riding.

Public access needs to increase.

When going on trails that are marked, which all good, but the people go through and are not

supposed, during hunting season.

Locked gates.

Lack of public trails, restrictions, trails in the mountains.

Condition of trails, western, they are terrible they were all rocks.

Encroachment on our wild places.

A place go; that involves public land, afraid that the government will shut down Little Belt and will have nowhere to go.

Safety of drivers.

Safety, people ride machines too young and don't have a clue what they are doing.

Idiots that think they own the whole world, we drive county roads and people hog the entire road instead of respecting the center line.

Restrictions on where you can ride.

State and federal government closing off lands to ride on, restricting access for riders.

Lack of riding area, too many closed areas.

Lack of public access.

Lack of a place to ride.

Way they are closing down more roads.

Safety for children on OHV's, teaching children and families are properly trained on OHV's and are using proper safety equipment.

Need more public access, they closed too many trails.

Too many closed areas and people that go off the trails.

Not enough public access.

Other riders are rude and they go off trail.

Too little access, the one near Babb should be open.

Not enough public access, too much closure of current trails.

Access, more trails are being closed every year, such as on federal land.

Abuse of land, we are losing a lot of areas due to people not following rules.

Lack of access.

Access, more access to land.

Place to ride, not enough places to ride, areas are shrinking.

People wanting to close trails and not taking care of what they got. Instead of people taking care of the spot.

Road closures.

Road closure, they are closing a lot of roads that were already there, they should not be closed because they were already there.

Lack of knowledge of where we can ride; access and knowledge of where the trails are and fees.

No place to go, limited access.

Public access, need more of it.



## 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 OHVs administered by the Montana Department of Justice, Title and Registration Bureau. The BBER was able to locate telephone numbers for 1,198 Montana households whose members own registered OHVs or off-road motorcycles. 281 of these households completed a Computer-Assisted Telephone Interview asking about their OHV use. Table A1 shows the case disposition.

Nearly a third of those contacted did not use their OHV for recreational purposes. Many of the respondents were ranchers or construction company employees.

Interviews were conducted April-June of 2014.

### Table A1: OHV Case Disposition

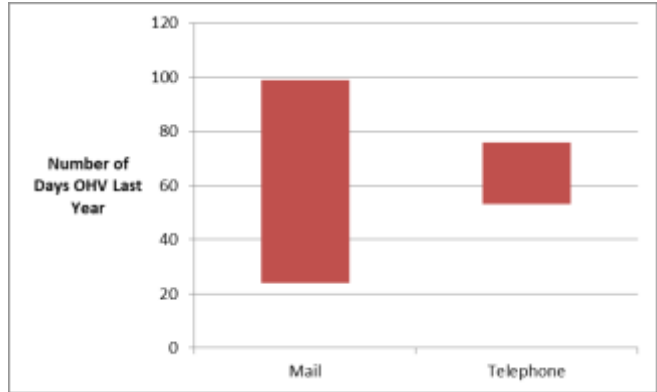
|                         |       |
|-------------------------|-------|
| Completions by phone    | 281   |
| Refusals                | 242   |
| Non-interviews          | 10    |
| Unresolved appointments | 31    |
| Unable to locate        | 366   |
| No longer owns OHV      | 83    |
| OHV for work only       | 183   |
| Other not eligible      | 2     |
| Total sampled           | 1,198 |

An additional 200 were mailed a questionnaire asking for the same information as those contacted by phone. Of these 33 were completed and returned. Each OHV owner sampled was sent a presurvey letter and a questionnaire in a second mailing (Appendix 3). The prevalence of cell phones in younger households necessitated the mail component of the survey.

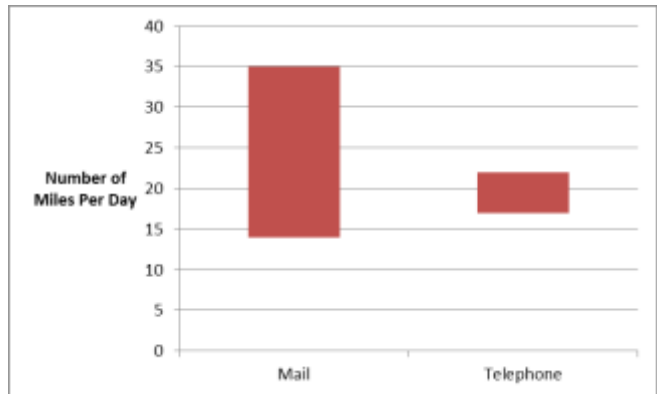
The mail completions were compared with the telephone responses to see if those with listed telephone numbers differed from those without listed telephones. Figures A1, A2, and A3 show the comparisons. Comparisons are shown as ranges around the mean. There was no statistically significant difference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

The cooperation rates of 53.7 percent for the telephone survey and 16.6 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.

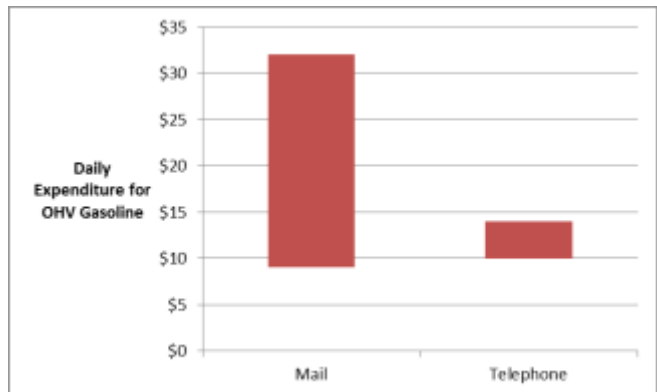
**Figure A1: Average Number of Days Riding OHVs in 2013**



**Figure A2: Average Number of Miles per Day**



**Figure A3: Average Daily Expenditure for OHV Gasoline**



BBER planned to use information on nonresident OHV users collected by the Institute for Tourism and Recreation Research (ITRR). ITRR samples nonresidents each quarter as to their activities in Montana and how much they spend. ITRR only obtained data from one group that participated in OHV activities during 2013. Reliable estimates of non-resident OHV activity are not possible because of budgetary restrictions and the dispersed nature of OHV activity.

**APPENDIX 3  
OHV 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](http://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 in an important study being conducted by Montana State Parks. The study seeks to better understand the experiences of Montana's off-road vehicle 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 off-road vehicle use in Montana.

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/>





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Gallagher Business Building  
The University of Montana  
Missoula, Montana 59812-6840

(406) 243-5113

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[www.bber.umt.edu](http://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 off-road vehicle users. Most of all, I hope that you will use the questionnaire as an opportunity to voice your thoughts about off-road vehicle use in Montana.

Your answers are completely confidential and will be combined with responses from other off road vehicle 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/>



# Off-Road Vehicle Rider's Survey

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**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 off-road vehicle usage in the state. Montana State Parks will use the results to support off-road vehicle 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 Off-road vehicle TRAILS Program administered by Montana State Parks?**

Yes

No

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

Yes

No

**3. How many days did you ride an off-road vehicle in MONTANA during the past season?**

\_\_\_\_\_ days

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

\_\_\_\_\_ miles

**6. On a typical off-road vehicle outing, how many persons from your household go?**

\_\_\_\_\_ persons

**7. Does each household member ride their own off-road vehicle?**

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 off-road vehicles
- Do not like to drive own machine
- Required by rental
- Cost
- Other (Please specify on the line below)

\_\_\_\_\_

**10. How many off-road vehicles does your household own?**

\_\_\_\_\_ off-road vehicles in all

**11. How many are in working order?**

\_\_\_\_\_ off-road vehicles in working order

**12. How many are CURRENTLY registered?**

\_\_\_\_\_ off-road vehicles currently registered

**13. Please answer each of the following for up to four (4) of the off-road vehicles that you own.**

**Off-road vehicle 1**

a. How many miles per gallon does that off-road vehicle 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

**Off-road vehicle 2**

a. How many miles per gallon does that off-road vehicle 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

**Off-road vehicle 3**

a. How many miles per gallon does that off-road vehicle 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

**Off-road vehicle 4**

a. How many miles per gallon does that off-road vehicle 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

**14. Thinking about your LAST MONTANA outing, what was the general area in MONTANA where you rode your off-road vehicle?**

\_\_\_\_\_ general area

**15. And how many days did that outing last?**

\_\_\_\_\_ days

**16. 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

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

\_\_\_\_\_ members of my household

**18. 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 off-road vehicles
- \$ \_\_\_\_\_ Gasoline for transportation
- \$ \_\_\_\_\_ Lodging (hotels, motels, campgrounds, etc.)
- \$ \_\_\_\_\_ Eating and drinking places
- \$ \_\_\_\_\_ Food, grocery or convenience stores
- \$ \_\_\_\_\_ Entertainment and recreation places
- \$ \_\_\_\_\_ Off-road vehicle dealers, rental or repair shops
- \$ \_\_\_\_\_ Clothing, souvenir or other retail shops
- \$ \_\_\_\_\_ Other expenditures on your outing

**19. Off-road vehicle riders also make many major purchases during the year. How much did you spend on any of these items during 2013? Please enter a dollar amount on each line below.**

- \$ \_\_\_\_\_ Off-road vehicle(s)
- \$ \_\_\_\_\_ Off-road vehicle trailer
- \$ \_\_\_\_\_ Off-road vehicle clothing
- \$ \_\_\_\_\_ Safety equipment
- \$ \_\_\_\_\_ Off-road vehicle repairs and maintenance
- \$ \_\_\_\_\_ Off-road vehicle registration
- \$ \_\_\_\_\_ Off-road vehicle club dues
- \$ \_\_\_\_\_ Other off-road vehicle related expenses or purchases

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

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

\_\_\_\_\_ persons live in my household

**22. How many are children under 16 years of age?**

\_\_\_\_\_ children under 16 years of age

**Thank you for your participation!**