

Michigan Licensed ORV Use and Users - 2010

by

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Executive Summary

This is the fourth statewide Michigan off-road vehicle (ORV) use and user study conducted. It builds on studies published in 1977, 1989 and 2000. Each study used a mail questionnaire and randomly sampled a portion of registrants (1977, 1989) or licensees (2000 and current study). Technological innovation adds complexity to ORV use and users. Some machines are focused on specific situations and others are “jack of all trades” vehicles that perform well on trails, two-tracks and ice, doing a myriad of recreation, land management and transportation tasks. Better understanding ORV use and users has implications for outdoor recreation, tourism, accommodating the disabled, environmental quality and public land and roadway management.

In license year 2007-08 (last year of complete ORV license sale records), there were 181,659 ORV licenses sold. On average, an ORV owning household had 1.37 licensed ORVs, resulting in an estimate of 132,598 households with one or more Michigan licensed ORVs. Of these, 115 thousand are Michigan households and 17 thousand are non-resident households.

There was an estimated 5.5 million ORV use days (use of one ORV for any portion of a day) in a 12-month period in 2008-09. Of those uses, 44% were to support private land management and enjoyment, 26% were to ride the designated public ORV system, 16% were to use county/forest roads open to use and 14% was to support hunting and fishing activities. Regionally, 40% of the use days were in the Upper Peninsula (UP), 40% in the southern Lower Peninsula (NLP) and 20% in the southern Lower Peninsula (SLP). The average licensed ORV had almost 31 uses per year. Of all ORV use days, 95% were by residents and 5% were by non-residents. Annually, one in every four ORV licensees rode at one of the five designated scramble areas in Michigan with the most at Silver Lake State Park near Shelby.

By vehicle type, 67% of the licensed 181,659 ORVs were ATVs, 14% motorcycles, 14% SUVs and 5% UTVs. In terms of total ORV use days in a 12 month period in 2008-09, 71% of ORV use days were by ATVs, 14% were by UTVs, 8% by SUVs and 7% by motorcycles. However, on the designated system 61% of use was by ATVs, 15% by motorcycles, 15% by SUVs and 9% by UTVs. When asked the primary reason they purchased an ORV, 38% reported it was for trail/scramble area riding, 26% to support hunting or fishing, 25% for a utility vehicle on private land, 5% as a combination of these uses that can't be prioritized one over another, 4% for local transportation and 2% to compensate for a disability.

Annual ORV use in Michigan generated \$1.1 million in state motor fuel taxes, \$1.1 in federal motor fuel taxes and \$0.7 million in state sales taxes, providing more than two million dollars for Michigan road construction and maintenance and hundreds of thousands of dollars for Michigan K-12 education. No fuel or sales tax funds directly fund the Michigan ORV program. ORV related spending by licensees was significant. Resident ORV households spent \$212 million annually on ORV equipment and related services such as repairs, insurance and storage.

Of the 1.8 million annual public land ORV riding days, almost one million (54%) were out of the region of residence of the rider. These one million riding days involved 203 thousand trips with public land ORV riding as the primary purpose of the trip. More than 17% of these trips were by non-residents. Of the 83% of trips by residents, 93% were by licensees from SLP going to the NLP or the UP. Those ORV riding trips out of the region of the licensee's residence accounted

for \$143 million in trip spending in a 12 month period in 2008-09. Of this spending, 24% was at home in preparation for the trip, 22% en route and 53% in the local area where ORV riding occurred. In destination areas, grocery, lodging and restaurant/bar expenditures accounted for 63% of the destination area spending.

Excluding at home spending and the portion of the en route spending that occurred in other states, this annual ORV trip spending brought \$82 million to Michigan travel corridors and destination regions. Of this, 53% went to the NLP, 34% to the UP and 13% to the SLP. The economic significance of this trip spending (all economic activity associated with the spending) was that it supported 800 jobs and generated an additional \$54 million in economic activity. When only considering non-resident portion of trip spending, non-residents annually generated \$17 million of spending in Michigan, supporting 174 jobs and an additional \$11.6 million in economic activity.

Average rating of selected aspects of the Michigan ORV program (e.g. designated system, regulations, law enforcement, etc.) was between “OK” and “Good”. The highest rated aspects were designated system staging/parking areas, the DNR ORV webpage and ORV safety education. Lowest rated aspects were state forest camping opportunities related to the designated system and designated system maintenance. When asked if they used the designated system, 60% of respondents had used the system one or more times and 40% had never used the designated system. Motorcycle and SUV riders were most likely to have used the system, ATV and UTV riders much less likely.

When asked an open-ended question about the most important aspect of the current ORV program to leave as is, licensees overwhelmingly responded they wanted to keep the ORV access they currently have. This includes both the designated system and access to county roads provided by PA 240 of 2008 and subsequent actions by NLP and UP counties. When asked the most important change to make in the Michigan ORV program, the four most common responses in descending order of frequency were more access/larger designated system, allow use of road shoulders like snowmobiles, improved trail maps and signage and reduced license fee (especially for those not using the designated system). These are the same four changes desired in 1998-99.

Seventy percent of members of households with one or more ORV licenses operate an ORV. Of those, one in five has completed an ORV safety class. Of members aged 12-15 who operate an ORV, 45% have completed a safety class and of members aged 10-11, 17% have completed a safety class. When asked about ORV regulations, most licensees were not knowledgeable about where it was and was not legal to ride in the NLP or the UP. Only 21% knew that it was illegal to ride on a forest road in the NLP marked only by orange diamonds (a designated snowmobile trail only). The most common answer to specific situations about where it was legal to ride was “I don’t know”. Respondents were more knowledgeable about the need for an ORV safety training certificate for riders under 16 on public lands or frozen waters (67%) and about the need for direct adult supervision of a youth with proper certification under 16 riding on public lands or frozen waters (62%).

ORV licensee households segmented by vehicle type showed 61% of all households were ATV only households. Those with a motorcycle 14%, SUV only 10%, those with at least two of

SUV/ATV/UTV 9% and UTV only households were 5%. The motorcycle segment was most likely to have started riding an ORV as a youth and the UTV segment were most likely to start riding as an adult. Members of each segments were more likely to reside in the UP and NLP than Michigan's population, with ATV only and UTV only most likely to live in northern Michigan.

Segmenting ORV license households by residency, 87% resided in Michigan and 13% in other states. Of the origins of non-residents, 40% were from Wisconsin, 22% from Illinois, 15% from Ohio, 15% from Indiana, 3% from Minnesota and 5% from all other states. Non-residents differed from residents in that they rode fewer days per licensed ORV (10.8 vs. 33.6), were more likely to spend their ORV riding days on the designated system (87% vs. 29%) and were more likely to have bought their ORV(s) primarily for trail/scramble area riding (55% vs. 36%).

A number of key trends are apparent since the last (1998-99) statewide ORV licensee study.

1. 46% increase in the number of ORV licenses
2. ATVs still account for almost 2/3 of all licensed ORVs, while motorcycles are declining in proportion and UTVs are increasing.
3. Only 38% of ORV licensees primarily own their machine(s) for trail/scramble area riding
4. Non-resident went from 5% of licenses to 13%
5. Annual number of ORV use days increased 31%
6. Annual number of ORV public land riding days increased 38%
7. ORV equipment spending per household declined, but total ORV equipment spending increased as the number of resident households with an ORV license increased by 75%.
8. ORV public land riding trips out of region of residence increased from 152 thousand to 203 thousand.
9. Number of jobs support by ORV trip spending stayed similar at around 800
10. ORV riders want the same things they wanted in 1998, more places to ride without paying more.
11. ORV riders still rate all ORV program aspects between "OK" and "good"
12. Only 38% were willing to pay more for an ORV license to improve Michigan's ORV program and, of those willing to pay more, only 46% supported an increase beyond \$5
13. Almost half the ORV licensees still don't use the designated system
14. A majority of youth aged 10-15 who ride ORVs still have not completed an ORV safety course and received certification

The continued change in ORV use and users necessitates regular monitoring of this growing, changing group of recreational uses and users. As more ORV use occurs on public lands, successful integration of this use with other recreational and commodity uses, while protecting environmental integrity and living resources will become more challenging. As more ORV use occurs across the landscape on public and private lands as well as county roadways, public safety challenges are likely to increase, especially in the continued lack of compliance with safety education requirements for youth that ride ORVs.

INTRODUCTION

In 2008, through a competitive bidding process, the Michigan Department of Natural Resources (DNR) contracted with the Department of Community, Agriculture, Recreation and Resource Studies of Michigan State University to conduct the fourth statewide study of Michigan off-road vehicle (ORV) use and users. This builds on three previous statewide studies: Alexander and Jansen (1977), Nelson (1989), Nelson et al. (2000).

In 1976, Michigan Public Act 319 of 1975 first required off-road vehicle (ORV) registration. By then, motorcycles, trucks, converted military surplus vehicles and dune buggies had ridden off-road for half a century. Since registration, ORVs have continued to evolve. Today they are used as trail riding vehicles, support vehicles to facilitate work/property management, support vehicles for hunting or fishing (especially ice fishing), vehicles to compensate for mobility impairments and alternate motor vehicle transportation. Likewise, the amount and character of ORV use and users have grown more complex. Since 1976, four statewide studies of ORV users employing mail surveys have been conducted to facilitate manager understanding of ORV use and users, assess operator opinions about management issues and estimate annual statewide fuel consumption by ORVs.

1976 Study

The first study by Michigan Department of Natural Resources (DNR) researchers Alexander and Jansen (1977) used a very short questionnaire and focused on the amount and distribution of ORV use and ORV fuel consumption. The researchers estimated that in 1976, of the 26,419 ORVs registered, almost three quarters were motorcycles, with the rest four wheel drive trucks and dune buggies. Registrants used those vehicles an estimated 855 thousand user days (use of one vehicle for any portion of a day to ride off-road). That riding resulted in the use of 1.6 million gallons of gasoline and generated motor fuel taxes of \$146 thousand. User days were divided across the state: 6% Upper Peninsula; 58% northern Lower Peninsula (north of Bay City to Muskegon line) and 36% southern Lower Peninsula. Only ORVs that were not registered in another state were required to be Michigan registered. Hence, little was learned about non-resident use.

1987-88 Study

Nelson (1989) conducted the second statewide ORV study in 1988. The objectives of this study were broader and included operator household demographics, plans for future ORV ownership, estimated ORV use by region and type of vehicle, estimated statewide gasoline consumption from off-road activities, spending on ORV oriented trips and preferred characteristics and location of potential new ORV facilities. During the period from 1977 – 1988, the all terrain vehicle (ATV) became popular, resulting in a dramatic shift in ORV ownership and use patterns. The Michigan Secretary of State estimated that approximately half of the 113,513 ORVs registered in July 1988 were ATVs, one quarter were motorcycles and the rest a variety of four wheel drive trucks, early sport utility vehicles and dune buggies. Regulation of where ORVs could be used on state and national forest land relied on an “open unless posted closed” policy.

ORV registrant demographics showed that they were overwhelmingly likely to be male, had income and education levels higher than the Michigan adult population and were more likely than the population as a whole to live in the northern two thirds of Michigan. When asked about plans to buy or sell an ORV within the next year, the largest apparent net gain in ownership was

projected to be in four wheel ATVs. Registrants and those operating ORVs with permission logged 4.1 million user days over a 12-month period in 1987-88. Of that use, 19% was by motorcycles, 68% by ATVs and 13% by four wheel drive trucks and dune buggies. Regionally, 14% of the use days were in the Upper Peninsula, 46% in the northern Lower Peninsula and 40% in the southern Lower Peninsula.

Two thirds of ORVs had persons besides the registrant operating the vehicle. Of those people, about 20% were under 16 and 5% under 12. ORVs consumed an estimated 7.9 million gallons of gasoline and generated an estimated \$1.2 million of un-refunded state gasoline sales taxes. Registrants reported spending an average of \$17.19 per day on themselves on ORV related trips of 50 or more miles from home in the local area where they rode. When extrapolated to the estimated 1.5 million such ORV use days, ORV related trip spending was estimated to be more than \$25 million annually.

When asked about preferred riding locations and desired changes in the Michigan ORV program, the largest proportion of motorcycle registrants wanted new riding opportunities in the southern Lower Peninsula, while ATV and four wheel truck/dune buggy registrants were more likely to want new facilities in the northern Lower Peninsula. In terms of riding preference, motorcyclists were most favorable to forest roads and loop ORV trails, while ATV and four wheel truck/dune buggy registrants were most supportive of forest roads. When asked in an open-ended format about the change they would most like to see in Michigan's ORV program, the largest percentage of respondents favored more riding opportunities, followed by better signage on ORV trails and improved information about ORV riding opportunities.

1998-99 Study

Nelson et al. (2000) conducted the third statewide ORV study in 1998-99. The objectives of this study were even broader than the 1989 study and besides operator household demographics, estimated ORV use by region and type of vehicle, estimated statewide gasoline consumption from off-road activities, spending on ORV oriented trips and preferred characteristics and location of potential new ORV facilities also included an assessment of ORV regulations, rating of DNR ORV programs, services and facilities and a detailed economic analysis of ORV trip and equipment spending in Michigan.

The ATV continued to be the most common ORV among the 124,723 licensed ORVs for license year 1998-99 (April 1-March 31) comprising an estimated 57% of licensed ORVs. Motorcycles were estimated to be 23% of ORV licensed vehicles and trucks, dune buggies and other full sized vehicles were 19%. ORV registrant demographics showed that they were overwhelmingly likely to be male, had income and education levels higher than the Michigan adult population and were more likely than the population as a whole to live in the northern two thirds of Michigan.

ORV licensees and those operating ORVs with their permission logged 4.2 million user days over a 12-month period in 1998-99. Of that use, 17% was by motorcycles, 67% by ATVs and 20% by four wheel drive trucks and dune buggies. Regionally, 41% of the use days were in the Upper Peninsula, 41% in the northern Lower Peninsula and 18% in the southern Lower Peninsula. So, while the amount of ORV use was similar to 1987-88 and the proportion of use by type of vehicle only changed moderately (decline in motorcycle use and increase in truck/dune

buggy use), there was a major shift northward with use in the Upper Peninsula almost tripling and use in the Southern Lower Peninsula declining by 2/3.

During a 12-month period in 1998-99, ORVs consumed an estimated 4.5 million gallons of gasoline and generated as estimated \$0.85 million in state motor fuel taxes. On trips of 100 or more miles from home or those that involved an overnight stay and that were primarily for ORV riding, not hunting, fishing or private land property management respondents reported spending an average of \$264 per day for en route expenses and in the local area where they rode. Those spending the most stayed at motels. Most ORV use days on these trips (88%) were on the designated trail ORV system of trails, routes and scramble areas. The typical trip involved 4.3 ORV public land riding days by 2.5 people.

The trip expenditures, when extrapolated over the estimated 152,000 such ORV trips taken July 1998-June 1999, generated \$40 million in trip spending en route and in the local area. These trip expenditures for ORV use in public land riding (not on private lands and not primarily to support hunting or fishing), supported 822 jobs and generated more than \$2.4 million in state sales and use taxes and another \$336 thousand in state income taxes. ORV equipment spending in Michigan was even more substantial with \$134 million spent in a 12-month period, with \$108 million spent on vehicles and trailers, \$16 million on repairs and \$10 million on insurance. This does not include those who spent more than \$10,000 on equipment (e.g. purchase of new four wheel drive truck that may have seldom been used as an ORV) so it is very conservative.

When asked about preferred riding locations and desired changes in the Michigan ORV program, the largest proportion of motorcycle registrants wanted new riding opportunities in the southern Lower Peninsula, while ATV and four wheel truck/dune buggy registrants were more likely to want new facilities in the northern Lower Peninsula. In terms of riding preference, motorcyclists were most favorable to forest roads and loop ORV trails, while ATV and four wheel truck/dune buggy registrants were most supportive of forest roads. When asked in an open-ended format about the change they would most like to see in Michigan's ORV program, the largest percentage of respondents favored more riding opportunities, followed by better signage on ORV trails and improved information about ORV riding opportunities.

ORV Trends in Technology and Law

In the past 40 years ORV technology, uses and regulations have undergone considerable change. While more single purpose vehicles such as off-road motorcycles and dune buggies have become lighter and more powerful, entire new classes of vehicles have been developed. The most significant in terms of sales and use is the all terrain vehicle (ATV), a three or four wheeled single person vehicle with a tread width of up to 48 inches. They began providing a versatile machine for trail riding and more utilitarian purposes such as transporting people, equipment and supplies for recreation, work or land management by the late 1970s. Since then the ATV concept has been expanded to side-by-side vehicles with a greater width (54-58 inches) characterized as utility vehicles (UTVs). In addition, many vehicles have been adapted for wider ranges of use than originally intended, such as golf carts. Finally, road oriented vehicles such as four wheel and all-wheel drive trucks and sport utility vehicles are now in common use and may be occasionally or regularly used off-road. This has resulted in a wider range of uses for ORVs,

often not connected to a designated trail system. It also makes management of ORV use and users a much more challenging endeavor than managing snowmobiling.

In terms of regulations, Public Act 71 of 1990 as amended and subsequent administrative rules and facility development implemented a “closed unless posted open” system for ORV use on public forest lands in the Lower Peninsula. In the Upper Peninsula, ORV use is still allowed on unposted state forest roads as well as the designated system. The Upper Peninsula national forests, the Ottawa and Hiawatha had differing rules, with the Ottawa less restrictive of ORV use. However, in 2006 the Forest service implemented a travel management rule that requires each national forest to designate roads, trails and areas open to motor vehicles. These designations are shown on a motor vehicle use map.

In 1990, Michigan law also shifted from a 3-year registration of ORVs with the Michigan Secretary of State to annual DNR licensing. This provided additional program funding from ORV licensees for trail development and maintenance, restoration of environmental damage by illegal or unwise ORV use and increased law enforcement.

In 2003, Public Act 111 transferred the ORV safety education program from the Michigan Department of Education to the DNR. This program uses cooperating governmental entities to provide safety education and certification. The costs of this program are reimbursable through safety education grant assistance. This typically involves county sheriffs, DNR and public schools. In addition, safety education may be provided by non-profit ORV organizations, but they are not eligible for reimbursement. Certification of safety education is required for those 10-15 years of age to operate an ORV on public lands or frozen waters. In addition, youthful riders must be under the direct visual supervision of an adult.

From 2004-2008, the DNR developed and formally adopted an updated state ORV plan (Nelson 2005, DNR 2008). The process included substantial public involvement and involved the array of grant partners including ORV organizations, county sheriffs, and county road commissions as well as investigating approaches taken around the country in ORV management. The primary focus of the plan was to continue to improve safety in ORV operation, protect public lands from unwise and illegal ORV use and subsequent environmental damage and to provide direction for further development and management of the designated ORV trail, route and area system.

In 2008, Public Act 240 allowed local units of government in the northern two-thirds of Michigan to adopt ordinances authorizing ORV operation on the maintained portion of county and local (but not state and federal) streets and roads within their jurisdiction. By May 1, 2010 39 counties had opened some portion of their county road shoulders to ORV use (pers. comm. D. Ranney). Amendments to PA 240 in 2010 have extended this option to more counties in central Lower Michigan and the Thumb.

In 2010, the size of the designated ORV system is 3,512 miles of ORV trail/route and 5 major scramble areas covering 2,500 acres (pers. comm. Steve Kubisiak). Eighty-two percent of the designated system is within the 3.9 million acre Michigan state forest system, with the other 18% is in national forests within Michigan. Of the trail/route system, 40% is motorcycle trail cleared to a 24-inch treadway, 43% is ATV trail cleared to a 50-inch treadway and 17% is route cleared

to a 72-inch treadway. The ORV system is maintained by the DNR and US Forest Service in partnership with non-profit cooperating organizations through a DNR grant program, administered by the DNR and funded solely by ORV license fees. In addition, dozens of ORV damage sites have been restored through grants to cooperators that include non-profit natural resource and environmental organizations and quasi-government organizations such as conservation districts. Finally, the DNR Law Enforcement Division, cooperating county sheriffs and the US Forest Service enforce ORV laws. Enforcement grants are available for county sheriffs, but not for US Forest Service enforcement.

Current 2008-09 Study

2008-09 Study Objectives

1. Examine and develop study methodology to acquire data comparable to Nelson et al. 2000 ORV report.
2. Design, distribute, and analyze data from distribution of questionnaire to sample of Michigan ORV license holders.
3. Provide demographic and socio economic profile of ORV users.
4. Update use patterns by frequency of activity, type of machine, trip characteristics, and fuel use including un-refunded state fuel taxes, federal fuel taxes and state gasoline sales tax generated by non-highway ORV use.
5. Update segmentation of ORV market by resident/non-resident and type of ORV ownership.
6. Assess trends in statewide and regional economic impacts of ORV use on public lands using comparable economic modeling techniques to Nelson et al. 2000.
7. Determine public acceptance of a range of current and potential ORV program efforts and their associated costs.
8. Assess attitudes in levels of support for ORV license fees.
9. Examine ORV fatality records and assess perceptions of risk from a range of potential hazards encountered when riding.
10. Determine public acceptance of a range of current and potential programmatic efforts and associated costs to reduce these hazards.

METHODS

To provide comparability to Nelson et al. (2000), a 6-page, 36-question survey mailed to three randomly selected samples of 1,000 ORV licensees each during spring, summer and fall of 2009. Ninety percent of the sample was selected from the Retail Sales System (RSS) the computerized license sale network that sells the full array of DNR licenses and permits including hunting and fishing licenses. For license year 2007-08, there were 181,659 ORV licenses purchased. Of that, 138,650 (76%) were entered into the RSS and 43,009 (24%) were sold in the prepaid form, not entered into the RSS. To provide a representative sample that included prepaid form ORV license purchasers, 300 prepaid license purchasers at the largest retail source for pre-paid licenses, Silver Lake State Park, were selected during their ORV license purchase in May 2009. Of the prepaid form licenses sold by 118 different dealers, Silver Lake sells 40% of all prepaid form ORV licenses.

In terms of the questionnaire, many questions were identical to those in the 1998-99 study to promote trend analysis. Additional questions were inserted regarding UTVs and their use as well

as the implications of PA 240 of 2008, which allowed for counties in the northern 2/3 of the state to open county roadways to ORV use.

Definitions of ORV Types

ORV manufacturers are continuously innovating machine design. There are now platforms that are two wheeled motorcycles, both those specifically designed only for off-road situations and those designed for dual purpose use both on and off road. All terrain vehicles (hereafter ATVs) are four wheeled vehicles with a tread width of 48” or less that are designed for one operator are continually used for wider array of applications. The basic platform has seen innovation in suspension, braking, horsepower and fuel efficiency. In addition, many after- market products are designed to assist in a growing range of land management, transportation and recreational pursuits as well as trail and scramble area riding. These include winches, tow behind machinery to cut, mulch, till, spray and haul as well as many devices that fasten on the vehicle to provide ice fishing shelters, racks to transport items, etc. Utility vehicles (hereafter UTVs) are side by side vehicles wider than 50” (typically 54 to 65 inches) which allow an operator and one or more passengers. While these meet the many of the same needs as an ATV, they are designed for multiple occupants. This increased capacity comes along with greater width, making ATV trails inaccessible, greater weight and a lighting, braking and roll cage system more like a car than an ATV. Finally full size four wheel drive trucks, sport utility vehicles and specialty vehicles such as dune buggies (hereafter all referred to as SUVs) are characterized by a width of 60” or more. Many of these vehicles are licensed by the Secretary of State and off-road use is often secondary to transportation or work uses.

RESULTS

Responses were weighted to account for the greater likelihood of those with multiple licensed ORVs being sampled. After two mailings and removal of those with inaccurate addresses, 30% (861) of those with valid addresses completed and returned the questionnaire. Unlike the past two ORV surveys that used certified mail to contact non-respondents, the DNR chose not to use this approach to reduce irritation by those who did not wish to respond and to limit costs.

Licensed Vehicles Types, Uses and Ownership Characteristics

When the 1999 survey was conducted there were 124,591 licensed ORVs. When this study was conducted in 2009, there were 181,659 licensed ORVs in the 2007-08 license year, an increase of 57,068 (46%). In 2009, ATVs continue to be the most common licensed ORV and their proportion in the licensed vehicle population has increased since the 1999 study (Table 1).

Table 1. Estimated distribution of Michigan licensed ORVs in 2009 by machine type for 2007-08 licensees (a).

Machine type	Percent(b)	Total number
Cycle	14.2	25,832
ATV	67.0	121,530
UTV	5.3	9,555
SUV	13.6	24,742
Total (b)	100.0	181,659

(a) Total number of 2007-08 ORV licenses as of October 1, 2009.

(b) Total percent may not add to 100.0% due to rounding.

For the first time in any statewide Michigan ORV study, the proportion of UTVs was estimated. This rapidly growing segment especially appeals to riders who expect passengers and still want to perform utilitarian tasks, in essence a multi-passenger ATV. Proportionally, motorcycles and SUVs declined from 1999 (from 22% and 16% respectively) as ATVs increased (62% previously) and UTVs were assessed for the first time.

The mean number of ORVs per ORV owning household declined from 1.8 in 1999 to 1.6 in 2009. Of those 84% were ORV licensed, with 1.37 licensed ORVs per household (Table 2).

Table 2. Selected 2009 ORV ownership characteristics by 2007-08 Michigan ORV licensees.

ORV ownership characteristics	Cycle	ATV	UTV	SUV	Total
Percent licensees owning one or more machines	12.3%	64.9%	7.0%	16.9%	NA
Percent original owner	42.0%	63.0%	81.0%	44.0%	59.9%
Median model year	2002	2002	2006	1999	2002
Percent street licensed	31.0%	6.0%	6.0%	90.0%	23.4%

As a type, UTVs were likely to be the newest machines and most likely to still be licensed by the original owner. All other ORVs had a median age of that was slightly older than found in the 1999 study. The total median age of ATVs were that half the vehicles were 7 years old or older and that two in five were still owned by the original owner. Nine percent reported that they owned a golf cart and 21% of those stated that the cart was ORV licensed. These were included in this report as UTVs.

Trail/scramble area riding is the primary reason licensees own an ORV for less than two in five licensees (Table 3).

Table 3. Licensee holder's primary reason for ORV ownership, 2009.

Trail/scramble area riding	38.5%
Support hunting or fishing activities	25.6%
Utility vehicle on private property	25.2%
Local transportation near home/2 nd home	4.1%
Compensate for disability in one or more uses	1.9%
Other (typically could not pick one primary reason)	4.7%
Total	100.0%

Half of ORV licensees reported that their primary reason for ownership was either support for hunting/fishing activities or as a private land utility/management vehicle. With PA 240, local transportation near home/second home is likely to become an increasingly important reason for ownership. Almost 5% of respondents were unable to choose a single reason for ownership, with most noting other citing a mixture of many equally important uses for their ORV.

The average licensed ORV was operated almost 31 days during a 12-month period in 2008-09 (Table 4). An ORV riding day is defined as the use of one ORV for any portion of one day.

Table 4. Mean Michigan use per ORV by type during a 12- month period in 2008-09 by Michigan licensed ORVs.

Use characteristics	Cycle	ATV	UTV	SUV	All
Mean days driven off-road	15.4	32.3	81.0	16.8	30.9
Mean percentage of off-road days on designated trails/routes/areas/forest roads where open	69.3%	28.8%	20.5%	67.1%	32.8%
Mean miles driven off-road	351.3	300.8	475.4	346.3	326.2
Mean gallons of gasoline used for off-road riding	18.9	28.2	46.7	62.2	31.8

Of this ORV use, respondents estimated that 33% was on the designated ORV system. Some of this use on the designated system is done other than for the purposes of trail riding including in support of hunting (e.g. scouting, transport to hunting site, etc.) and also included use of the forest road system where legal. Definition of the designated system is also challenging as where it is legal to ride (e.g. forest roads in Upper Peninsula state forests) is a larger area than the sub-set of trail/forest road/area where it is signed with orange triangles legal to ride.

All off road riding resulted in consumption of 31.8 gallons of fuel per licensed ORV. When extrapolated to the total population of 181,659 licensed ORVs, in 2008-09, annual gasoline consumption was estimated to be 5.8 million gallons, providing \$1.1 million in state motor fuel taxes (\$0.19/gallon). In addition in 2008-09, ORVs when operated off-road also generated \$1.1 million in annual federal gasoline taxes (\$0.184/gallon) and an additional \$0.7million annually in the state 6% general sales tax. The general state sales tax is applied to the cost of gasoline once the state motor fuel tax has been removed. For example, if the price of gasoline is \$2.00 per gallon once the state motor fuel tax is removed, each gallon generates general sales tax revenue of \$0.12. In total, in a 12-month period in 2008-09, these three taxes amounted to \$3.0 million in tax revenue from ORV gasoline sales, with $\frac{3}{4}$ earmarked to state and federal transportation programs and none directly to Michigan ORV program management. This contrasts with snowmobiling, where essentially all state motor fuel taxes from fuel purchased in Michigan and used in snowmobiles is allocated to the DNR snowmobile program. However, with the implementation of PA 240 of 2008, ORV users now are more able to benefit from their fuel tax payments as they legally can ride on many county road shoulders in the northern 2/3 of the state.

There were more than 5.5 million total annual ORV days in Michigan during a 12-month period in 2008-09 (Table 5).

Table 5. Total estimated days of off-road use in Michigan by licensed ORVs during a 12-month period in 2008-09.

ORV type	Estimated days off-road in Michigan	Estimated days on designated trail/route/area system
Cycle	397,813	275,684
ATV	3,925,419	1,130,521
UTV	773,955	158,661
SUV	415,666	278,912
Total	5,512,853	1,843,778

In 2008-09, motorcycles spent 69% of their 398 thousand off-road use days on the designated trail system. The proportion of trail use is slightly higher than the 63% of the 700 thousand motorcycle off-road use days estimated in the 1998-99 study. However, total motorcycle use off-

road declined considerably. ATVs had 3.9 million use days with 29% of them on the designated system, while in 1998-99 they logged 2.8 million use days with 21% on the designated system. This is an increase of one million days by ATVs annually in a decade. In 2008-09 SUVs logged 67% of their 416 thousand off-road days on the designated system. Since most SUVs are street licensed and much of the designated system is too narrow for their vehicles, off-road riding is often focused on the major scramble areas of Silver Lake, Bull Gap and St. Helens. In 1998-99, SUVs had 42% of their 680 thousand off-road days on the designated system. UTVs were only separately accounted in 2008-09 and had 774 thousand use days, 20% on the designated system.

The five major public scramble areas, with 2,500 acres of public lands set aside for cross-country ORV travel, were used by 26% of all licensees during a 12-month period in 2008-09 (Table 6).

Table 6. Percent Michigan ORV licensees using selected designated public ORV areas during 12-month period in 2008-09.

ORV areas	Percent using
Silver Lake State Park	15.9
Bull Gap	6.9
St. Helens Motorsport Area	5.8
The Mounds	5.1
Black Mountain Motorsport Area	2.0
Using one or more areas	25.8

In descending order from most to least visited they were Silver Lake State Park near Shelby, US Forest Service's Bull Gap near Mio, the St. Helens Motorsports area near St. Helens in the AuSable State Forest, Genesee County Park the Mounds near Flint and Black Mountain State Forest Recreation Area scramble bowl in Cheboygan County (2%). During a similar 12-month period in 1998-99, 29% visited one or more scramble areas.

Of the 5.5 million ORV use days in a 12-month period in 2008-09, the largest proportion (44%) was riding on private lands for purposes other than to support hunting and fishing (Table 7).

Table 7. Proportion of Michigan off-road use days by region and activity during 12-month period in 2008-09 by ORV licensees.

Type of use	% of total days			
	UP	NLP	SLP	Statewide
Public riding days (a)	11.6%	11.0%	2.9%	25.5%
Private riding days (b)	14.6	16.9	12.7	44.2
Hunting days (c)	6.0	2.7	1.2	9.9
Ice fishing days (d)	1.4	2.4	0.6	4.4
Road riding days (e)	6.3	7.4	2.5	16.2
Total days (f)	39.9	40.4	19.9	100.2

(a) Riding public forest roads, designated ORV trails/routes & scramble areas not in support of hunting or ice fishing.

(b) Riding on private property not in support of hunting or ice fishing.

(c) Riding to support hunting on public or private land including scouting, baiting, & riding to/from hunting site. May include use of the designated system.

(d) Riding to support ice fishing including on ice travel.

(e) Riding on county roads. May include use of the designated system due to lack of knowledge of road ownership.

(f) Percent columns or rows may not add exactly due to rounding.

In 2008-09, 26% of ORV riding days were for trail/scramble area riding on the public lands designated system. Of the other proportions of total ORV use, 14% was riding to support ice fishing or hunting on public or private lands and 16% road riding (per PA 240 of 2008 and local ordinances as well as some portion of use on the forest road system for other than trail/scramble area riding purposes). In a similar 12-month period in 1998-99, 31% of ORV use days were riding on public lands, 44% were riding on private lands and the remaining 25% was to support hunting or ice fishing on public or private lands. Road riding was not legal at that time in the Lower Peninsula. Perhaps the greatest change that occurred between these two studies, besides road riding becoming legal in many northern Michigan jurisdictions, was the banning of baiting and feeding of deer in the Lower Peninsula due to concerns about chronic wasting disease. These baiting and feeding activities had entailed considerable ORV use before, during and after hunting seasons and had been attributed to hunting use of ORVs.

ORV Related Spending and Economic Significance and Impact

ORV related spending includes spending for ORV riding trips and for ORV equipment and other related services that are not tied to a particular trip. For trip spending, economic significance and impact are estimated at the state level. Economic significance measures all economic activity in the state associated with ORV trip spending to ride the public ORV system. This includes spending by Michigan residents and therefore does not represent “new dollars” to the state economy. Economic impacts cover the economic activity resulting from spending by non-resident ORV riders within Michigan, “new dollars” brought to Michigan by ORV use on public lands. This economic activity would be lost to the state in the absence of these trips and public riding opportunities.

ORV Equipment Spending

Average ORV expenditures that were not trip related were \$1,850 per licensed ORV owning household over a 12-month period in 2008-09 (Table 8).

Table 8. Mean ORV annual expenses not related to ORV trips during 12-month period in 2008-09 by Michigan ORV licensees.

Expense categories	Mean expenditures	Percent spending something
Purchase of new ORV equipment	\$ 1,058	47.8
Purchase of used ORV equipment	\$ 429	19.8
ORV repair and maintenance not done during MI ORV trips	\$ 201	62.3
Insurance on ORV(s)	\$ 146	51.7
Off-season storage	\$ 16	5.7
Total	\$ 1,850	92.5

An average of 1.37 licensed ORVs per ORV licensee household yields a total of 132,598 households with one or more licensed ORVs (181,659 ORV licenses divided by 1.37 average number of licensed ORVs per household). Of these households, 87% are Michigan households yielding 114,858 Michigan households with one or more ORV licenses. This yields a total annual

spending of \$212 million on ORV equipment, repairs, insurance and storage in Michigan (Table 9).

Table 9. Total annual spending on equipment (\$000's).

Category	Spending (\$000's)
New ORV equipment	121,508
Used ORV equipment	49,201
Repair/maintenance	23,068
Insurance on ORV	16,812
<u>Off-season storage</u>	<u>1,806</u>
Total ORV expenses	212,395
Excludes spending by out-of-state residents	

These annual expenses are not included for non-resident license holders, although some will make these purchases within Michigan as 37% of out-of-state households with license own a second home in Michigan. This suggests the non-trip spending estimate is conservative.

In a comparable 12-month period in 1998-99, the average licensee spent \$1,944 on his/her ORV(s) on the same items and services not related to trips when not adjusted for inflation. When extrapolated over the estimated 68,908 households with one or more Michigan DNR licensed ORVs at that time, it amounted to \$134 million annually in equipment related spending. It is important to note that Michigan economic conditions were very good in 1998-99 and very poor in 2008-09, when Michigan led the nation in unemployment at levels up to 15%. While equipment spending per ORV owning household declined since the late 1990s, ORV owning households almost doubled.

ORV Public Land Riding Days by Origin Destination

There were 181,659 machines with ORV licenses in license year 2007-08. The average household had 1.37 licenses. Total households with one or more licenses is therefore 132,598. Fifty percent of these households are in the southern Lower Peninsula (SLP), 17% in the northern Lower Peninsula (NLP), 19% in the Upper Peninsula (UP) and 13% are registered to out-of-state addresses (Table 10).

Table 10. Mean ORV households (HH) by number of licenses and region of residence.

Region	Licenses	Households with licenses	Licenses per HH
UP	33,129	25,608	1.29
NLP	29,324	22,780	1.29
SLP	94,910	66,471	1.43
<u>Out of state</u>	<u>23,727</u>	<u>17,740</u>	<u>1.34</u>
Total	181,659	132,598	1.37

Licensee households in Michigan's Upper Peninsula had the highest mean number of public land riding days (Table 11). Non-resident households had the lowest.

Table 11. Mean public land ORV riding days per household by origin and destination.

Destination	Origin			
	UP	NLP	SLP	Out of state
UP	17.2	1.8	3.7	5.3
NLP	0.1	9.2	7.8	3.5
<u>SLP</u>	<u>0.0</u>	<u>0.5</u>	<u>2.8</u>	<u>0.8</u>
Total	17.2	11.6	14.3	9.7

Total public land (PL) riding days (Table 12) were estimated by multiplying the number of households with licenses (Table 10) by the average number of public land riding days per household (Table 11).

Licensed ORVs spent 1.8 million public land riding days riding in a 12 month period in 2008-09, roughly 800,000 each in NLP and UP and 211,000 in SLP. The UP received 45% of the public land riding days, followed closely by the NLP (43%). Over half (52%) of the public land riding days were generated in southern Michigan (SLP), 24% in the UP, 14% in NLP and 9% from out-of-state (Table 12).

Table 12. Total public land ORV riding days by origin and destination.

Destination	Origin Region				Total	Pct
	UP	NLP	SLP	Out of state		
UP	439,470	41,981	245,309	94,089	820,848	45%
NLP	1,286	210,547	516,836	62,956	791,625	43%
<u>SLP</u>	<u>343</u>	<u>10,631</u>	<u>185,824</u>	<u>14,585</u>	<u>211,383</u>	<u>12%</u>
Total PL riding days	441,099	263,159	947,969	171,630	1,823,856	100%
Pct by Origin	24%	14%	52%	9%	100%	
Total PL riding days outside region	1,629	52,612	762,145	171,630	988,015	

Fifty-four percent of the public land riding days involved trips going outside the region of residence. The vast majority of these out of region of residence trips originated in southern Michigan or out-of-state and went to the NLP or UP.

Spending on Trail Riding Trips

Households with at least one licensed ORV reported spending on their most recent PL trail riding trip of 100 miles or overnight. The average trip involved \$541 in spending of which 24% was at home, 22% en route and 53% near the destination (Table 13).

The greatest percentage of spending was for groceries (29%), tow vehicle expenses (24%), restaurant/bar (14%), ORV expenses (13%) and lodging (12%).

Table 13. Mean ORV trip spending by category and location of spending (a).

Dollars				
Category	At Home	En Route	Destination	Total
Groceries	\$64.47	\$24.25	\$68.78	\$157.49
Tow vehicle expenses	36.78	58.91	35.94	131.63
ORV expenses	25.66	9.14	35.88	70.68
Restaurant/bar	0.00	19.69	55.47	75.16
Sporting goods	3.56	1.60	9.33	14.48
Lodging	0.00	4.63	60.87	65.49
<u>Other items</u>	<u>0.99</u>	<u>2.84</u>	<u>22.66</u>	<u>26.49</u>
Total	\$131.44	\$121.07	\$288.92	\$541.43

(a) Spending on trips of 100 miles or more and outside the region of residence.

Total spending on trips outside the region of residence was \$110 million in 2009 (Table 14).

Table 14. Total spending on trips for public land riding (\$000's) in 12 month period in 2008-09 (a).

Category	At Home	En Route	At Destination	Total	Pct
Groceries	13,068	4,915	13,942	31,925	29%
Tow vehicle expenses	7,455	11,942	7,286	26,683	24%
ORV expenses	5,201	1,854	7,273	14,328	13%
Restaurant/bar	0	3,992	11,244	15,236	14%
Sporting goods	721	324	1,891	2,935	3%
Lodging	0	938	12,338	13,276	12%
<u>Other items</u>	<u>200</u>	<u>576</u>	<u>4,593</u>	<u>5,369</u>	5%
Total	26,644	24,541	58,566	109,751	100%
Pct	24%	22%	53%	100%	

(a) Spending on trips of 100 miles or more and outside the region of residence.

Trips and Spending by Region

For a regional analysis of spending and economic impacts, the state was divided into three regions:

- Southern Lower Peninsula (SLP) covering counties south of the Bay City/Muskegon line.
- Northern Lower Peninsula (NLP) covering counties north of the Bay City/Muskegon line.
- Upper Peninsula (UP)

To estimate spending on trail riding trips for each region, trips were divided into six trip types:

- In region trips
- Trips Going South from UP or NLP
- Trips from NLP to UP

- Trips from SLP to UP
- Trips from SLP to NLP
- Trips originating from out of state

Since spending is on a trip basis, while ORV activity was measured in riding days, the average number of public land riding days per trip is used to convert riding days to trips. On average, there were 5.0 public land riding days per trip. Fifty-six percent (203 thousand) of the 365 thousand trips went outside the region of residence. Spending and economic impacts are estimated for these trips (Table 15).

Table 15. ORV riding days, trips and spending by trip type.

	In Region Trips	Trips Going South	NLP to UP	SLP to UP	SLP to NLP	<u>Out of State Origin</u>	Total
Machine Days and Trips							
PL ORV riding days	835,841	12,260	41,981	245,309	516,836	171,630	1,823,856
PL ORV riding days/trip	5.15	5.00	5.54	5.94	4.35	5.28	5.00
Trips	162,202	2,452	7,579	41,292	118,862	32,520	364,908
Spend/trip							
At home	65.43	131.44	148.62	135.71	123.34	151.62	119.61
En route	43.28	121.07	152.42	190.14	88.32	145.77	108.02
<u>At destination</u>	<u>90.08</u>	<u>288.92</u>	<u>361.21</u>	<u>328.04</u>	<u>234.97</u>	<u>419.59</u>	<u>256.41</u>
Total	198.79	541.43	662.25	653.89	446.63	716.98	484.04
Total spending (in \$000's) by trip type (excludes in region trips)							
At home		322	1,126	5,604	14,661	4,931	26,644
En route		297	1,155	7,851	10,497	4,741	24,541
<u>At destination</u>		<u>708</u>	<u>2,738</u>	<u>13,546</u>	<u>27,930</u>	<u>13,645</u>	<u>58,566</u>
Total		1,328	5,019	27,001	53,088	23,317	109,751

Trip spending varied across the six types of trips. Trips from out-of-state had the highest per trip spending (\$717) while trips remaining in the region of residence had the lowest average trip spending (\$198). Trip spending varied with distance traveled with trips to the UP involving more spending than trips to NLP.

Total spending on public land riding trips outside of the region of residence in 2008-09 was \$110 million. Roughly three fourths (\$80 million) of this total was spent on trips originating in the SLP. In estimating economic impacts, all at home spending is excluded. Further one quarter of the en route spending for trips from out-of-state are excluded as it is assumed that this portion of trip expenditures occurred outside of Michigan. Including $\frac{3}{4}$ of these en route expenditures is realistic, considering that the vast majority of non-resident trips to Michigan originated in states bordering Michigan. With these exclusions, spending in Michigan on ORV public land riding trips outside the region of residence in 2009 is estimated at \$82 million. The NLP received slightly more than half (52%) of trip spending (Table 16) with \$43 million, followed by the UP (\$28 million) and SLP (\$11 million).

Table 16. Mean trip spending by region of spending in 12-month period in 2008-09(a, b).

Spending Category	UP	NLP	SLP	Total
Groceries	6,493	9,941	2,251	18,686
Tow vehicle expenses	5,105	8,713	4,686	18,505
ORV expenses	2,978	5,061	1,023	9,062
Restaurant/bar	4,788	8,396	1,861	15,045
Sporting goods	1,116	920	149	2,185
Lodging	5,676	6,759	799	13,234
<u>Other items</u>	<u>1,823</u>	<u>3,011</u>	<u>301</u>	<u>5,135</u>
Total	27,980	42,801	11,069	81,850

(a)Excludes all at home spending and a fourth of en route spending for trips originating out-of- state

(b)Only covers trips for public land ORV riding that go outside the region of residence.

Economic Significance and Impacts of Trip Spending

State and regional economic impacts of ORV trip spending is estimated by applying the spending to input-output models of the state and three regional economies. I-O models are estimated with the IMPLAN system using 2008 economic data for the state and Michigan’s 83 counties.

Multipliers for 23 travel-related sectors were extracted from the I-O models and applied to the spending in Table 16.

At the state level, both economic significance and impact are estimated. Economic significance measures all economic activity in the state associated with the \$82 million in ORV trip spending (Table 17). Note that the majority of this spending is by Michigan residents and therefore does not represent “new dollars” to the state economy. Economic impacts cover the economic activity resulting from \$16.8 million spent by out-of-state ORV trail riders within Michigan (Table 18). This economic activity would be lost to the state in the absence of these trips.

Impacts are reported in terms of the sales, jobs, labor income, and value added resulting from trip spending. Direct effects cover economic activity in firms selling directly to ORV trail riders. Total effects include secondary or multiplier effects as this spending circulates within the state or regional economies.

Including secondary effects, ORV trip spending supported 800 jobs in the state in 2009. The largest number of direct jobs was in restaurants and bars (227), lodging (157) and retail trade (59). ORV trip spending supported \$17.4 million in direct labor income and \$28.9 million in direct value added. Including secondary effects total labor income was \$31.7 million and total value added was \$54.2 million.

Table 17. Economic significance to Michigan economy of trip spending in 12 months in 2008-09 (a, b).

Sector/Spending category	Sales \$000's	Jobs	Labor Income \$000's	Value Added \$000's
Motel, hotel cabin or B&B	11,911	144	3,969	7,208
Camping fees	1,323	13	366	685
Restaurants & bars	15,045	227	4,854	7,235
Other vehicle expenses	925	9	351	520
Grocery stores	4,727	20	1,798	3,087
Gas stations	5,941	25	2,259	3,880
Other retail	3,317	14	1,261	2,166
Wholesale Trade	4,507	19	1,714	2,944
<u>Local Production of goods</u>	<u>6,490</u>	<u>7</u>	<u>792</u>	<u>1,149</u>
Total Direct Effects	54,186	477	17,364	28,875
<u>Secondary Effects</u>	<u>43,806</u>	<u>323</u>	<u>14,358</u>	<u>25,333</u>
Total Effects	97,993	800	31,722	54,208
Multiplier	1.81	1.68	1.83	1.88

(a)Excludes all at home spending and a fourth of en route spending for trips originating out-of- state

(b)Only covers trips for public land ORV riding that go outside the region of residence.

Focusing just on the \$16.8 million spent by non-resident public land riders, the statewide impact was 174 jobs, \$6.8 million in labor income and \$11.62 million in value added (Table 18).

Table 18. Economic impact on Michigan economy of trip spending in 12 months in 2008-09 (a, b).

Sector/Spending category	Sales \$000's	Jobs	Labor Income \$000's	Value Added \$000's
Motel, hotel cabin or B&B	3,408	41	1,136	2,063
Camping fees	379	4	105	196
Restaurants & bars	2,838	43	916	1,365
Other vehicle expenses	166	2	63	93
Grocery stores	872	4	332	569
Gas stations	1,196	5	455	781
Other retail	565	2	215	369
Wholesale Trade	850	4	323	555
<u>Local Production of goods</u>	<u>1,261</u>	<u>1</u>	<u>150</u>	<u>219</u>
Total Direct Effects	11,535	105	3,694	6,211
<u>Secondary Effects</u>	<u>9,350</u>	<u>69</u>	<u>3,070</u>	<u>5,405</u>
Total Effects	20,886	174	6,764	11,617
Multiplier	1.81	1.66	1.83	1.87

(a)Excludes all at home spending and a fourth of en route spending for trips originating out-of- state

(b)Only covers trips for public land ORV riding that go outside the region of residence.

Impacts on the three regional economies are estimated using only spending on trips originating outside each region (Table 19). In terms of jobs, the greatest impacts were on the NLP (446 jobs) and the UP (299 jobs). More detailed impact tables for the three regions are reported in Appendix C.

Table 19. Summary of economic impacts on Michigan by region in 12 months in 2008-09 (a, b).

Impact Measure	State Significance	State Impact	UP	NLP	SLP
Spending (000's)	81,850	16,821	27,980	42,801	11,069
Direct Effects					
Sales (000's)	54,186	11,535	16,110	25,769	5,810
Jobs	477	105	238	328	67
Labor Income (000's)	17,364	3,694	5,276	8,190	1,933
Value Added (000's)	28,875	6,211	8,998	13,798	3,325
Total Effects					
Sales (000's)	97,993	20,886	22,702	39,471	10,042
Jobs	800	174	299	446	99
Labor Income (000's)	31,722	6,764	7,234	12,386	3,312
Value Added (000's)	54,208	11,617	12,676	21,772	5,829
Sales Multiplier	1.81	1.81	1.41	1.53	1.73

(a) Excludes spending on trips staying within the region of residence and at home spending.

(b) Only covers trips for public land ORV riding that go outside the region of residence.

Michigan ORV Program Management

All aspects of Michigan's ORV program have a mean rating from "OK" to "Good" (Table 20).

Table 20. Rating of selected aspects of Michigan ORV program by 2007-08 Michigan ORV licensees.

ORV program aspect	Mean	Percent					
	Rating (a)	Very good	Good	OK	Poor	Very poor	No knowledge
Parking areas	3.7	16.4	25.7	18.6	5.6	2.1	31.6
DNR ORV webpage	3.6	9.3	18.6	20.0	2.3	2.5	47.3
Safety Education	3.6	13.3	27.1	26.0	5.0	2.9	25.8
Trail design	3.5	12.8	28.5	23.6	6.1	4.2	24.8
Trail maps	3.4	13.0	24.0	21.7	10.3	6.2	24.8
Law enforcement	3.4	10.5	29.1	32.1	8.4	5.2	14.6
Camping opportunities	3.2	6.9	13.7	18.6	8.7	3.7	48.4
Trail maintenance	3.3	11.2	25.7	24.8	9.7	6.9	21.7
Regulations	3.4	10.1	34.9	34.4	9.8	4.5	6.4
Signage	3.4	11.9	25.7	24.1	10.2	5.7	22.6

(a) Rating scale: 5= very good; 4= good; 3= OK; 2= poor; 1= very poor.

For many aspects of the program however, from a quarter to a half of respondents have no knowledge or experience with that particular aspect. In particular, the DNR ORV program

webpage and camping opportunities related to the designated trail/route/area system are unknown to almost half of ORV licensees. Conversely, less than 7% reported no knowledge of ORV regulations, which impact each rider who uses public lands, roads or frozen waters.

Of those who provided ratings, the most highly rated aspect of the program is ORV trailheads. Others with an average rating at or above 3.5 include the DNR ORV webpage, safety education and trail design. Areas with the highest level of concern (rated either poor or very poor by 15% or more of respondents) were trail maps, trail maintenance and trail signage. These 2009 ratings are similar, but slightly better than those using the same questions and scales in 1999, where the highest average ratings (3.5) were again for trailhead parking areas, the DNR ORV website and ORV safety education. However, almost half couldn't rate trailhead parking areas and safety programs as they had no knowledge of them and over 85% had no knowledge about the ORV website. The lowest ratings were for ORV regulations, ORV trail/route/area maintenance and near ORV trail developed camping opportunities (3.0, 3.1 and 3.1 respectively).

When asked in an open-ended question what one most important aspect of the Michigan ORV program should not be changed, 51% responded. The most frequent response was maintaining access to the current designated system statewide and the additional option of riding the forest road system in Upper Peninsula state forests (Table 21).

Table 21. One most important thing that should not be changed with Michigan's ORV program (a).

Factor	Percent
Do not reduce current trail/route system and ORV access	18.8
Support PA 240 allowing riding on county roads as permitted by county	17.8
Maintain current licensing system/fee levels	11.4
Maintain current safety standards (e.g. helmet law, spark arrestors, etc.)	8.5
Keep current rules/regulations	7.1
Keep current age requirements for use	4.8
Maintain current level of law enforcement	2.4
Maintain current safety education program	2.2
Keep current trail maintenance/trail marking system	1.2
Keep current alcohol restrictions	0.8
Non-responsive (responded with proposed change, not something to keep the same)	25.0
Total	100.0

(a) Open ended responses.

The most common aspect to keep the same was not to reduce the designated system or any ORV access to any lands or frozen waters. Unlike in 1998-99, recently PA 240 has provided considerable additional access to the county road system, which at the time of the 1999 study was closed to ORV use. Riders did not want to give up this gain in access to a larger riding network. However, all other responses on what to keep the same are very similar to 1998-99.

When asked in an open-ended question what is the one most important thing to change in Michigan's ORV program, 57% responded. They primarily sought more places to legally ride (e.g. trail/route connections to goods and services in towns, more areas open to riding in northern Michigan and the development of ORV areas in southern Lower Michigan) and the use of road shoulders in a manner similar to that provided to snowmobiles in many counties (Table 22).

Table 22. One most important thing that should be changed with Michigan's ORV program (a).

Factor	Percent
Develop more trails/routes/area and connections to services	24.8
Allow use of road shoulders like snowmobiles	16.3
Improve trail maps and signage	6.0
Reduce license fee	5.4
Eliminate helmet requirement for hunting/ice fishing/private land use	5.0
Improve safety requirements (e.g. life jacket on ice)	4.6
Eliminate/reduce age restrictions for use	4.4
Improve trail maintenance	3.5
Open snowmobile trails to ORV use	3.4
Open forest roads for ORV use in northern Lower Peninsula	3.2
Increase law enforcement	3.1
Offer more/improved safety education program	3.1
Develop One-way trail system	2.1
Develop state-wide rules for ORV use	1.7
Put a greater emphasis on ORV tourism	1.0
Allow for more local control/Reduce DNR control	0.9
Increase the number of/improve camping facilities along trails	0.7
Reduce the amount of law enforcement	0.6
Allow disabled persons to ride anywhere they need to	0.6
Non-responsive, nonsensical	9.4
Total	100.0

(a) Open ended response.

Other single most important changes sought included upgrades to the designated trail system including improved signage, maps and maintenance. Another segment of comments focus on those who are not connected to the designated trail system seeking a reduction in license fees as they don't wish to pay for the trail system and reduction in safety equipment requirements for non-trail uses. A third area of focus is one group who wants more of a service (e.g. law enforcement, more safety equipment requirements) and another that wants less of the same service. When compared to 1998-99, changes requested are very similar with more access the dominant change desired. Public Act 240 of 2008 as amended has indeed provided additional access when coupled with county level authorization to open county road shoulders. Surprisingly only 48% of ORV licensees were aware of the new law. However, 88% were in support of it after reading its provisions in the questionnaire.

The majority of ORV licensees however are unwilling to pay any additional amount on their ORV license fee to improve the ORV program. Sixty-two percent were not willing to pay any additional amount, 38% were. Of those that were, 54% would pay only \$5 additional, 31% would pay no more than \$10 additional, 5% no more than \$15 additional and 10% were willing to pay more than \$15 dollars additional.

Demographic Profile of ORV Licensee Households

A majority of household members in ORV licensee households operated an ORV in the past year, while only a minority had completed an ORV safety training course at any time (Table 23).

Table 23. Selected characteristics of 2007-08 Michigan ORV licensee households.

Age category	Mean number	Percent	
		Operated ORVs	Completed ORV safety class
Adults ≥ 18 years old	2.1	81.0	12.5
Children 16 - 17 years old	0.1	90.0	40.0
Children 12 - 15 years old	0.2	55.0	25.0
Children 10 - 11 years old	0.1	60.0	10.0
Children ≤ 9 years old	0.2	23.3	3.3
Total	2.7	70.4	14.8

The most likely age group to have completed an ORV safety course is those aged 16-17, while the least likely who are legally able to operate on public lands is those aged 10-11. In 1999, 2/3 of the members in a licensed ORV household operated an ORV. Of the licensee and other household members that drive ORVs, a total of 23% have completed an ORV safety education course. For children 12-15, 71% operate household ORVs and 34% have completed safety education, while for 10-11 year olds, 57% operate household ORVs and 18% have completed an ORV safety class.

New for the current study, the proportion of those who were disabled in a household and the proportion of disabled members who operated an ORV were assessed. In 2009, 11.4% of the households have one or more disabled members. Of those disabled members, 80% operated an ORV and additionally 14% reported being passengers in a 12-month period in 2008-09.

ORV licensees are overwhelmingly likely to be male and Michigan residents. (Table 24).

Table 24. Selected demographics of 2007-08 Michigan ORV licensees.

Demographic characteristics	Response
Mean age	49.2 years
Percent male	93.0%
Percent with 1 or more years of college education	56.0%
Percent resident of Michigan	89.7%
Percent owning a second home in Michigan	27.0%

A majority has completed at least 1 year of college and they are more likely than the general population to own a second home in Michigan. Compared to the 1998-99 study, the proportion of non-resident licensees has more than doubled from 5% to 13% and the percentage of second home owners and those who have attended college increased moderately.

The average ORV licensee first rode an ORV at 24 years of age (Table 25).

Table 25. ORV riding history of Michigan ORV licensees.

Characteristics	Response
Mean age respondent first rode ORV	24.5
Type of ORV respondent first rode	
Cycle	38.0%
ATV	47.0%
SUV	5.3%
UTV	4.7%
Dune Buggy	2.6%
Other (a)	2.4%
Total	100.0%
Percent participating in competitive sanctioned ORV event in past 5 years	6.0%

(a) Includes mini-bike, motor bike, golf cart or non-responsive (e.g. snowmobile)

However, 24% had not ridden any ORV until they turned 40 years of age. The most common type of ORV first ridden was an ATV, while the second most common was a motorcycle. Only 6% rode in sanctioned ORV events in the past five. In 1998-99, the average age of initial ORV riding was similar, but the most commonly first ridden ORV was a motorcycle. Also, participation in sanctioned events was more common as more than 10% rode in the past 5 years.

ORV licensees are involved in many outdoor recreational pursuits besides ORV riding. Surprisingly, slightly more than 4 in 5 licensees reported they were involved in ORV riding in a 12-month period in 2008-09 (Table 26). This may indicate that licensees may license the vehicle for use by others (e.g. children, relatives, etc.) or not view their riding as ORV riding, but rather part of another recreational activity.

Table 26. Participation in selected outdoor recreation activities during a 12-month period in 2008-09 by Michigan ORV licensees.

Activity	Percent participating
ORV riding	83.0
Hunting	63.0
Open water fishing	53.0
Camping	45.0
Wildlife viewing	40.0
Ice fishing	36.0
Canoeing/ kayaking	33.0
Snowmobiling	32.0
Pick wild mushrooms/ berries	32.0
Power boating	29.0
Hiking	25.0
Paved trail/ road biking	21.0
Mountain biking	11.0
Cross country skiing	9.0
Trapping	6.0
Horseback riding	3.0

Hunting and open water fishing were activities that more than half of licensees participating in during a 12-month period in 2008-09. From one quarter to one half participated in many other outdoor activities including camping, wildlife viewing, ice fishing, canoeing/kayaking, snowmobiling, picking wild edibles, power boating and hiking. In 1998-99 participation rates were similar for many activities.

The region of residence for in-state Michigan ORV licensees is skewed northward on a per capita basis with residents of the UP much more likely to have an ORV license than residents of the Southern Lower Peninsula (Table 27).

Table 27. Region of residence in 2009 of in-state Michigan ORV licensees.

Region (a)	Percent
Upper peninsula (UP)	22.3
Northern lower peninsula (NLP)	19.8
Southern lower peninsula (SLP)	57.9

(a) Five counties with greatest percentage of in-state licenses by region:

UP – Marquette (4.9%), Delta (3.2%), Houghton (1.9%), Chippewa (1.8%), and Alger (1.7%).

NLP – Bay (2.2%), Newaygo (1.7%), Alpena (1.5%), Osceola (1.5%), and Cheboygan (1.1%).

SLP – Oakland (6.4%), Macomb (5.2%), Saginaw (3.9%), Genesee (3.7%), and Kent (3.6%)/Wayne (3.6%).

However, in absolute terms, the majority of ORV licenses are held by those living in southern Michigan. Since only one site provides legal, public ORV riding within the region in 2009, those in the SLP who want to ride on public lands are forced to travel north unless they ride at the Mounds County Park in Genesee County. In 1999, the in-state distribution of licensees was very similar with 20.8% in the UP, 21.1% in the NLP and 58.1% in the SLP. Thirteen percent of ORV licensees in 2009 were from other states and are further discussed in resident/non-resident portion of the report.

More than one in four ORV licensees has a second home in Michigan (Table 28).

Table 28. Location of second homes owned by 2007-08 Michigan ORV licensees.

Location (a)	Percent
Upper peninsula (UP)	41.4
Northern lower peninsula (NLP)	48.1
Southern lower peninsula (SLP)	10.5
Total	100.0

(a) Five counties in each region with the greatest percentage of ORV licensee second homes:

UP – Iron (5.6%), Alger (4.7%), Marquette (4.6%), Baraga (3.4%), and Luce (3.4%).

NLP – Lake (6.2%), Oceana (3.9%), Montmorency (3.6%), Ogemaw (3.3%), and Gladwin (3.2%).

SLP – Barry (1.3%), Oakland (1.3%), Montcalm (1.1%), Van Buren (0.9%), and

Branch/Genesee/Jackson/Lapeer/Lenawee/Wayne (0.6%).

Second home ownership for ORV licensees is concentrated in the northern 2/3 of Michigan with 41% of second homes in the Upper Peninsula and 48% in the northern Lower Peninsula.

One in four ORV licensees is a member of one of the selected organizations that focuses on ORV issues (Table 29).

Table 29. Membership in selected ORV related organizations by 2007-08 Michigan ORV licensees.

Organization	Percent member
Michigan United Conservation Clubs (MUCC)	6.0
Cycle Conservation Club of Michigan (CCCM)	2.0
American Motorcyclist Association (AMA)	5.0
Michigan Snowmobile Association (MSA)	5.0
Local ORV organization (a)	4.0
Great Lakes 4-Wheel Drive Association (GLFWD)	0.1
Michigan ATV Association	0.1
Michigan ATV Off-road Club	0.1
Michigan Sport Buggy Association (MSBA)	0.0
Respondents member one or more ORV related association	25.0

(a) Includes mostly local chapters of Michigan Cycle Conservation Club (MCCC).

However, the organization with the most membership, the Michigan United Conservation Clubs has a primary focus on hunting, fishing and conservation. Organizations that are primarily focused on ORVs with the highest membership are the American Motorcyclist Association and the Cycle Conservation Club of Michigan and its affiliate chapters. Compared to 1998-99, the proportion with membership in organizations other than local ORV clubs has declined by 50% or more. The percentage with memberships in one or more of the listed organizations has declined from 29% to 25%. The shift especially appears to reflect fewer licensees being members of multiple organizations. However, with almost twice as many distinct licensees, memberships are not likely to have fluctuated drastically in ORV organizations.

Safety, Regulations and Law Enforcement Interaction

When asked about the legality of selected ORV riding behaviors on state forest lands, frozen waters and public lands in general, many respondents were not sure of the rules (Table 30). Only in the case of knowing the illegality of cross-country travel in the Lower Peninsula, the need for an ORV safety certificate for one under 16 to operate an ORV on public lands or frozen waters or the need for direct supervision of a person under 16 operating an ORV on public lands or frozen waters, did a majority of licensees correctly assess the legality of a situation. The most frequent response to almost all situations was “I don’t know”. The highest proportion of incorrect answers related to three situations: mistakenly seeing it as legal to ride on a designated snowmobile trail (orange diamonds only) in the Lower Peninsula; mistakenly seeing it as legal to ride cross country on state forest land to reach a hunting site in a state forest in either peninsula; not understanding it is legal to retrieve large game (deer, bear, elk) with an ORV operated at a slow, non-impacting speed.

Table 30. Knowledge of legality of selected ORV riding behaviors (a).

ORV Riding Situation for non-Secretary of State licensed (no license plate) ORVs	Lower Peninsula			Upper Peninsula		
	Legal	Illegal	Don't know	Legal	Illegal	Don't know
On state forest trail/road marked only with orange diamonds	27.2	20.6	52.2	33.7	9.6	56.6
On state forest trail/road marked only with orange triangles	40.9	6.8	52.3	39.4	2.4	58.3
On state forest trail/road marked with orange diamonds & triangles	41.4	6.5	52.2	40.6	1.9	57.5
On state forest trail/road with no orange diamonds or triangles	14.5	34.7	50.9	27.0	17.0	56.0
On state forest land with no trail/road to access hunting site	16.8	38.3	44.9	20.5	30.5	49.1
On state forest land with no trail/road to retrieve game	26.5	28.7	44.8	28.9	22.1	49.0
On state forest land with no trail/road for a non-hunting purpose	7.0	52.5	40.5	11.0	42.9	46.0
On public lands or frozen waters a person under 16 operating an ORV without a safety certificate	5.3	66.7	28.0	5.9	64.8	29.3
On public lands or frozen waters a person under 16 operating an ORV without direct adult supervision	7.7	62.7	29.6	8.4	60.7	30.9

(a) Highlighted responses denote legally correct answers.

The ORV riding behavior that licensees consider most dangerous is driving while legally intoxicated, which is also illegal (Table 31).

Table 31 . Mean rating for the level of danger to ORV riders from a specific situation.

Behavior/situation	Mean Rating (a)
Operation of an ORV by person who has been drinking but is not legally intoxicated (0.01-0.07 blood alcohol)	3.30
Operation of an ORV by a legally intoxicated person (0.08 or higher blood alcohol)	4.28
Speed of ORV	3.59
Driver lacking skill in operating ORV	3.86
Public trail conditions	2.24
Public trail design	2.05
Mixing types of vehicles on designated ORV trails (e.g. motor cycle, ATV and 4 wheel drive truck)	2.69
Non Secretary of State licensed ORVs (e.g. ATVs, motocross bikes) operating on county/local road shoulders	1.94

(a) Rating scale: 5= extremely dangerous; 4= highly dangerous; 3= moderately dangerous; 2= slightly dangerous; 1= not dangerous.

Other behaviors rated as more than moderately dangerous include operators lack ORV riding skills, excessive speed and alcohol consumption with a blood alcohol level below 0.08. Behaviors they consider less than moderately dangerous include Public trail design, public trail conditions, operating non- Secretary of State licensed vehicles on county/local road shoulders and mixing types of vehicles on the designated ORV system. Unlike accident investigation with snowmobiling, where since 1998 the DNRE has investigated every fatality, no similar data base exists to analyze ORV fatalities. As ORVs can legally be used in more places and the number of licensed ORVs has increased to almost 200,000, the need to objectively and uniformly assess factors involved in ORV fatalities has grown. Currently there is not agreement among various enforcement and data recording agencies about what constitutes an ORV (e.g. does this include

dual purpose motorcycles?) and data sometimes is kept about ATVs (e.g. federal Consumer Products Safety Commission) but not about motorcycles, UTVs, etc.

A total of 28.3% of licensees reported that they or a member of their household was stopped by the law enforcement officer in Michigan while using an ORV during a 12-month period in 2008-09. Of those stopped, 70% of the stops were by a conservation officer, 22% by a county sheriff, 3% by a US Forest Service officer and the other 5% weren't sure of the type of officer that stopped them. The most common location for the stop was on the designated ORV trail/route/area system (32%), with 23% on a county or local road, 16% at a designated system trailhead, 10% on public lands not on a road or the designated trail system, 1% on a state or federal highway and the other 17% in a variety of locations including forest roads, on the ice or at a private residence or commercial establishment. Forty-four percent of respondents also reported that they or a member of their household had seen, but had not been stopped by, a law enforcement officer while riding.

Segmentation of ORV Licensees by Vehicle Type

Michigan's ORV licensees can be effectively segmented based on the types of ORVs within their household. In 1998-99, seven segments were identified: motorcycle only (12%), ATV only (53%), SUV only (8%), ATV/SUV (13%), motorcycle/ATV (7%), motorcycle/SUV (3%) and motorcycle/ATV/SUV (3%). For 2008-09, the segments were modified to five: Any licensee with a motorcycle (14%), ATV only (61%), SUV only (10%), UTV only (5%), SUV only (10%) and ATV/SUV/UTV (9%). Considering that 25% of the ORV households in 1998-99 had one or more motorcycles, the proportion of ORV households with motorcycles has declined by almost half.

For 2009, five segments were defined. The most common segment is households which own one or more ATVs only (Table 32).

Table 32. Michigan ORV licensees segmented by ORV ownership and perception of crowding.

Ownership type	Percent			Don't use ORV system
	Of licensee households	Crowded	Not crowded	
ATV only	61.4	7.2	45.5	47.4
UTV only	4.8	4.4	46.7	48.9
SUV only	10.3	16.6	53.6	29.8
ATV/UTV/SUV	9.1	11.5	59.0	29.5
Any licensee with a motorcycle (motorcycle segment)	14.4	9.2	75.6	15.2
Total (a)	100.0	8.6	52.0	39.5

(a) Total households may not add to 100.0% due to rounding.

Across the ORV segments, when asked about whether the designated system was crowded, the majority of every segment that uses the designated system reports that it is not crowded. However, the ATV only and UTV only segments report that almost half their members have never used the designated system. The motorcycle segment is most likely to have used the designated system. Those most likely to perceive crowding of the designated system are members of the SUV only segment, where one in four who use the system perceive it to be crowded. This segment often focuses their riding on designated scramble areas, especially Silver Lake. In

addition, they have access to the smallest portion of the designated system as motorcycle trails and ATV trails are not accessible to them. Compared to 1998-99, the perception of crowding has declined by half and the proportion of the total ORV licensee population that has used the designated system has slightly increased. In addition, total use of the designated system has increased by 38% over 1998-99.

The designated scramble area system is a key part of the designated ORV system and is used by all segments except the UTV only segment (Table 33).

Table 33. Use of designated public ORV areas during a 12-month period in 2008-09 by ORV ownership types.

Ownership type	Percent using ORV area					Respondents using one or more areas
	Bull Gap	Silver Lake State Park	St. Helens Motorsport Area	The Mounds	Black Mt. Motorsport Area	
ATV only	7.5	6.9	5.6	3.5	2.7	16.9
UTV only	0.0	0.0	0.0	0.0	0.0	0.0
SUV only	1.9	64.0	3.9	8.8	0.0	67.5
ATV/UTV/SUV	7.8	30.7	10.6	4.2	1.9	38.3
Any segment with a motorcycle	10.4	21.0	10.0	7.2	3.3	36.8

Each area is open to all types of ORVs, with the exception of the small 40 acre scramble area at Black Mountain that does not allow full-size vehicles. The greatest proportional use of scramble areas by a segment is SUV only riders. For all segments except ATV only, Silver Lake State Park attracts the largest share of riders of scramble area riders. As reported in Table 6, almost 26% of ORV licensees used one or more of the designated scramble areas, suggesting their great popularity with licensees.

The age of initiation for ORV riding varies among segments, with the motorcycle segment being the earliest adopters and most likely to ride in sanctioned events (Table 34).

Table 34. ORV riding history by ORV ownership type for Michigan ORV licensees.

Ownership type	Mean					Percent	
	Age first rode ORV	First rode cycle	First rode ATV	First rode UTV	First rode SUV	First rode "Other" (b)	Rode in sanctioned event (a)
ATV only	27.5	30.4	49.7	4.9	1.9	1.4	2.4
UTV only	32.0	12.2	32.7	25.0	4.1	15.0	6.7
SUV only	17.2	27.7	15.3	2.8	25.8	6.4	8.9
ATV/UTV/SUV	18.9	36.1	46.7	0.0	11.1	1.2	6.0
Any segment with a motorcycle	16.1	76.2	22.0	0.7	0.7	0.4	24.3

(a) Sanctioned event occurred in past 5 years.

(b) Includes mini-bike, motor bike, golf cart or non-responsive (e.g. snowmobile)

Motorcycles were the most common initial ORV ridden by the motorcycle segment and the SUV only segment. For all other segments, ATVs were the most common ORV initially ridden. Considering the recent innovation of the UTV, many new riders (especially the UTV only segment) appear to have been brought into the ORV market by the UTV. A similar pattern was seen in 1998-99 with motorcycle riders having the earliest age of initiation. However, the influence of the ATV as the first vehicle ridden has now surpassed motorcycles across the other segments, whereas in 1999, the most common first ridden ORV was a motorcycle for all segments. The use of UTVs as the first ridden ORV was not measured in 1998-99 as they were too new.

Region of residence by segment considered on a per capita basis is most skewed northward for UTV only, but all segments are skewed northward with the SUV only segment most like the current population distribution of Michigan (Table 35).

Table 35. Region of residence of in-state Michigan ORV licensees by ORV ownership type.

Ownership type	Percent		
	Upper peninsula (UP)	Northern lower peninsula (NLP)	Southern lower peninsula (SLP)
ATV only	25.3	20.2	54.5
UTV only	31.1	24.5	44.4
SUV only	5.9	13.0	81.1
ATV/UTV/SUV	24.5	19.1	56.4
Any segment with a motorcycle	12.7	17.8	69.5

However, the majority of all segments, with the exception of UTV only, reside in the SLP. These distributions are similar to 1998-99 with ATV oriented segments more oriented to the northern 2/3 of Michigan and SUV only segment primarily in the SLP.

Second home location may influence where ORVs are ridden as more than a quarter of ORV licensee households own a second home. Of those, 41% are in the UP, 48% in the NLP and 11% in the SLP. ATV only second home ownership is most concentrated in the UP, while UTV only, SUV only and motorcycle segment second home ownership is concentrated in the NLP (Table 36).

Table 36. Region of Michigan second home ownership by ORV licensees by ORV ownership type.

Ownership type	Percent		
	Upper peninsula (UP)	Northern lower peninsula (NLP)	Southern lower peninsula (SLP)
ATV only	50.3	40.6	9.1
UTV only	10.0	90.0	0.0
SUV only	6.7	80.0	13.3
ATV/UTV/SUV	36.5	48.9	14.6
Anyone with a motorcycle	23.8	51.5	24.7
All	41.4	48.1	10.5

This distribution is similar to that for second homes reported in 1998-99 for all segments.

ORV licensees are active in many forms of natural resource recreation. Those with a motorcycle are more likely to participate non-motorized trail activities (hiking, mountain biking, paved trail bicycling, canoeing/kayaking and cross country skiing), power boating and camping than other segments (Table 37). Conversely, segments with ATVs are most likely to participate in hunting, open water fishing and ice fishing. The UTV only segment is most likely to participate in picking wild edibles, wildlife viewing and trapping. The SUV only segment does not have the highest participation level for any of the selected activities.

Table 37. Participation in selected outdoor recreation activities during a 12-month period in 2008-09 by ORV ownership type for Michigan ORV licensees.

Percent participating in activity	Ownership Type					All
	ATV Only	UTV Only	SUV Only	ATV/UTV/SUV	Anyone with a Motorcycle	
Snowmobiling	32.4	42.6	18.5	42.1	41.0	32.0
Camping	43.3	36.2	45.8	48.3	60.6	45.0
Hiking	23.3	25.5	24.4	25.0	36.8	25.0
Cross Country Skiing	7.2	12.8	5.8	4.9	21.4	9.0
ORV Riding	82.3	72.3	73.7	92.8	95.1	83.0
Canoeing/Kayaking	34.0	29.8	30.2	37.8	42.0	33.0
Wildlife Viewing	38.3	59.6	43.8	46.5	38.2	40.0
Paved Road/Trail Biking	16.5	10.6	31.2	25.1	42.0	21.0
Open Water Fishing	56.5	48.9	42.9	58.2	48.7	53.0
Power Boating	26.4	29.8	33.1	22.4	41.1	29.0
Ice Fishing	41.7	34.0	17.5	36.9	22.5	36.0
Wild Berry Picking	36.2	44.7	16.6	36.9	28.1	32.0
Hunting	68.1	61.7	42.9	65.3	51.5	63.0
Horseback Riding	1.6	4.3	1.9	3.4	2.2	3.0
Mountain Biking	8.0	19.1	11.7	7.2	25.4	11.0
Trapping	7.0	8.5	1.9	3.4	2.3	6.0

Resident/Non-Resident Segments

More than one in ten (13%) Michigan ORV licensees were residents of other states in 2009. This suggests Michigan has a growing opportunity to expand ORV tourism. A total of 17,740 non-resident households and 114,858 Michigan households are currently involved in ORV riding in Michigan. The proportion of ORV licenses purchased by non-residents has more than doubled since 1999, when it was 5%. The mix of ORVs owned by non-resident licensees, like residents, is skewed toward ATVs (Table 38).

Table 38. Proportion and number of Michigan licensed ORVs by type for resident and non-resident licensees, 2009.

Machine type	Percent		Total number licensed ORVs (% in column)	
	MI Residents	Non-residents	MI Residents	Non-residents
Cycle	83.8	16.2	21,632 (13.7)	4,200 (17.7)
ATV	87.6	12.4	106,463 (67.4)	15,067 (63.5)
UTV	91.3	8.7	8,725 (5.5)	830 (3.5)
SUV	85.3	14.7	21,112 (13.4)	3,630 (15.3)
Total	87.0	13.0	157,932 (100.0)	23,727 (100.0)

However, non-residents are proportionally more likely than residents to have licensed motorcycles and SUV, and less likely to have licensed ATVs and UTVs. Considering this, it is not surprising that non-residents with Michigan ORV licenses are more likely than residents to own their ORV for trail/scramble area riding (Table 39) as motorcycles and SUVs have a higher proportion of their mean ORV days on the designated public system than ATVs and UTVs as shown in Table 4.

The majority of non-resident licensees own ORVs primarily for trail riding (Table 39).

Table 39. Licensees reason for ORV ownership, 2009.

	Percent	
	MI Residents	Non-residents
Trail/scramble area riding	36.3%	55.2%
Support hunting or fishing activities	27.0%	19.2%
Utility vehicle on private property	26.1%	14.4%
Other	4.8%	7.1%
Local transportation near home/2 nd home	3.5%	4.0%
Compensate for disability in 1 or more uses	2.2%	0.0%
Total	100.0%	100.0%

This differs markedly from residents where almost 2/3 own ORVs primarily for purposes other than trail riding. It also demonstrates the importance of the designated ORV system to attracting the non-residents who currently purchase Michigan ORV licenses.

Resident and non-resident ORV licensee households are similar in many respects (Table 40).

Table 40. Selected characteristics of Michigan ORV licensee households, 2009.

Age category	Mean number		Percent			
	MI Residents	Non-residents	Operated ORVs		Completed ORV safety class	
			MI Residents	Non-residents	MI Residents	Non-residents
Adults ≥ 18 years old	2.1	2.2	77.0	80.5	13.0	6.4
Children 16 - 17 years old	0.1	0.1	75.0	70.0	41.7	10.0
Children 12 - 15 years old	0.2	0.2	66.7	70.0	33.3	30.0
Children 10 - 11 years old	0.1	0.1	66.7	33.3	11.1	0.0
Children ≤ 9 years old	0.2	0.3	33.3	15.6	9.5	0.0
Total	2.7	2.9	72.9	72.1	14.9	7.3

One area of similarity and concern is that a minority of youth in both groups, ages 10-15 who ride ORVs, have completed an ORV safety course. With additional opportunities to ride on the road in many counties, this could exacerbate safety concerns. This is also surprising considering the

need for youth under 16 years of age to undergo safety training and certification to ride on public lands and frozen waters is well known (see Table 30).

The demographic characteristics of the licensees themselves are also similar for residents and non-residents (Table 41).

Table 41. Selected demographics of Michigan ORV licensees, 2009.

Demographic characteristics	Response	
	MI Residents	Non-residents
Mean age	49.6 years	46.0 years
Percent male	93.0%	93.3%
Percent with ≥1 years of college education	56.0%	60.7%
Percent owning a second home in Michigan	26.0%	36.4%

Most are male, have attended college and have an average age in the late 40s. While one in four residents reported owning a second home in Michigan, an even higher percentage of non-residents (one in three) have one.

Non-residents spend a higher proportion of their off-road vehicle days in Michigan on the designated system than residents (Table 42).

Table 42. Mean Michigan use per ORV by type during 12 month period in 2008-09 by Michigan ORV licensees.

Use characteristics	MI Residents	Non-residents
Mean days driven off-road	33.6	10.8
Mean percentage of off-road days on designated trails/routes/areas	28.7%	87.3%
Mean miles driven off-road	331.1	236.0
Mean gallons of gasoline used for off-road riding	31.9	21.7

On an annual basis, non-residents ride fewer days than residents, but appear to ride longer and farther per day as evidenced by their greater number of miles off road per ORV day. In terms of total Michigan ORV days, non residents accounted for 4.6% of the more than 5.5 million days with 246 thousand Michigan ORV days.

A higher percentage of non-residents visited a designated scramble area than residents (Table 43).

Table 43. Percent Michigan ORV licensees using selected designated public ORV areas during 12 month period 2008-09.

ORV areas	Percent using	
	MI Residents	Non-residents
Silver Lake State Park	14.8	26.0
Bull Gap	7.3	4.8
St. Helens Motorsport Area	6.3	1.7
The Mounds	5.7	0.0
Black Mountain Motorsport Area	1.8	4.0
Using one or more areas	25.3	32.2

Silver Lake State Park is the most common resident and non-resident scramble area riding location and often the only location used by non-residents. Residents were more likely than non-residents to ride at more than one scramble area.

Non-resident spending is higher on trips where ORV riding is the primary purpose and the licensees and his/her party were more than 100 miles from home or on an overnight trip (Tables 44-45). As was also reported earlier in Table 18, non-resident spending is especially valuable as it provides new dollars to the entire state, creating an economic impact on the entire state, whereas resident spending, even if far from home, is not new money to the state, rather it keeps money in Michigan rather than having it be spent in another state.

Table 44. Mean non-resident licensee expenditures for most recent Michigan trip where ORV riding was primary purpose involving an overnight stay or day trip more than 100 miles from principal residence during 2008-09.

Expenditure category	Dollars (% spending something)		
	At home	En route	Local area
Grocery	\$ 47.29 (62.5%)	\$ 19.89 (45.9%)	\$ 82.72 (83.5%)
Restaurant	NA	\$ 25.77 (53.3%)	\$ 89.34 (91.9%)
Lodging	NA	\$ 14.40 (4.4%)	\$ 146.16 (50.4%)
Tow vehicle	\$ 44.52 (49.6%)	\$ 87.70 (73.6%)	\$ 66.80 (73.6%)
ORV expenses	\$ 9.63 (24.4%)	\$ 8.25 (12.8%)	\$ 80.20 (79.5%)
Sporting goods	\$ 0.00 (0.0%)	\$ 0.00 (0.0%)	\$ 4.46 (6.9%)
All other	\$ 0.00 (0.0%)	\$ 0.74 (1.5%)	\$ 23.19 (31.6%)
Total	\$ 101.45 (75.3%)	\$ 156.75 (92.3%)	\$ 492.86 (96.3%)

Table 45. Mean resident licensee expenditures for most recent Michigan trip where ORV riding was primary purpose involving an overnight stay or day trip more than 100 miles from principal residence during 2008-09.

Expenditure category	Dollars (% spending something)		
	At home	En route	Local area
Grocery	\$ 50.70 (61.7%)	\$ 20.24 (47.7%)	\$ 54.25 (70.0%)
Restaurant	NA	\$ 18.75 (43.5%)	\$ 51.68 (66.5%)
Lodging	NA	\$ 2.37 (2.9%)	\$ 51.63 (33.1%)
Tow vehicle	\$ 32.39 (42.8%)	\$ 51.04 (50.8%)	\$ 25.69 (40.5%)
ORV expenses	\$ 26.19 (49.1%)	\$ 8.99 (21.1%)	\$ 32.31 (58.3%)
Sporting goods	\$ 0.81 (3.6%)	\$ 0.72 (3.4%)	\$ 2.73 (9.9%)
All other	\$ 0.82 (0.9%)	\$ 1.14 (3.8%)	\$ 21.88 (24.8%)
Total	\$ 110.91 (73.6%)	\$ 103.51 (76.8%)	\$ 240.17 (87.8%)

A non-resident trip excluding at home spending provided for \$650 in spending, with 76% spent in the local area. More than half of en route spending was for tow vehicle expenses. In the local area, lodging was the largest sector of expenditure, accounting for 30% of local spending. Ninety two percent spent something en route and 96% had expenditures in the local area. The sectors for local spending where non-residents were most likely to spend were restaurant, grocery and ORV expenses. While lodging spending was only done on 1/3 of the non-resident trips, it accounted for substantial spending. If the proportion spending on lodging increases, it is likely to be accompanied by increases in restaurant spending.

Excluding spending at home, on average a resident trip resulted in \$344 of spending, with 70% of expenditures in the local area. Half of en route spending was focused on the tow vehicle while local spending was much more diversified with no sector accounting for more than 23% of local spending. A total of 77% spent something en route and 88% spent something in the local area. The most common sectors for local expenditures by residents were grocery, restaurant and ORV expenses, with less than half of respondents spending in any other sector.

The most common type of lodging on overnight ORV trips for residents was with friends or relatives, while it was a motel/hotel/rental cabin for non-residents (Table 46).

Table 46. Lodging used during most recent Michigan overnight ORV trip during in 2008-09 by resident and non-resident Michigan ORV licensees.

Lodging type	Percent (a)	
	MI Residents	Non-residents
Friends or relatives home or land	29.8	24.5
Public campground	14.8	22.4
Motel/hotel/rental cabin	19.5	37.0
Own second home/land	23.6	13.0
Public land with no campground	6.1	0.0
Private campground	11.4	3.1

(a) Total of all options exceeds 100% as some stayed at more than one type of lodging.

This greater reliance on commercial lodging is one key reason for the higher spending by non-residents.

The origin of 94% of the non-resident ORV licensees is the western Great Lakes states (Table 47).

Table 47. State of principal residence for non-resident ORV licensees, 2009.

States	Percent
Wisconsin	40.3
Illinois	21.7
Ohio	14.7
Indiana	14.7
Other	3.9
Minnesota	3.1
Iowa	1.7

One key implication is to link the nearest Michigan public ORV riding opportunity with the non-resident origin. This yields as follows:

- Illinois, Indiana and southern Wisconsin - Silver Lake State Park and designated trail/route opportunities in Lake and Newaygo counties;
- Ohio - The Mounds in Genesee County and the ORV trails/routes in Midland, Gladwin and Clare counties;
- Northern and Central Wisconsin and Minnesota - The western Upper Peninsula designated ORV system, state forest roads and national forest roads/trails as allowed.

In addition, in the UP and the NLP, many counties have used the authority of PA 240 to open county roads to ORV use.

Across an annual period in 2008-09, non-trip ORV spending is slightly higher by non-residents than residents (Table 48). It is important to note that non-trip spending by non-residents is unlikely to occur in Michigan, although those with second homes in Michigan would be more likely to both purchase equipment and repair ORVs in Michigan than other non-residents.

Table 48. Mean resident and non-resident ORV expenses not related to ORV trips during a 12-month period in 2008-09 by Michigan ORV licensees.

Expense categories	Mean expenditures		Percent spending something	
	MI Residents	Non-residents	MI Residents	Non-residents
Purchase of new ORV equipment	\$ 1,037	\$ 1,368	47.2	48.0
Purchase of used ORV equipment	\$432	\$ 407	19.8	18.2
ORV repair/maintenance not done on MI ORV trips (e.g. at home)	\$ 203	\$ 186	62.2	61.6
Insurance on ORV(s)	\$ 151	\$ 120	51.4	59.7
Off-season storage	\$ 16	\$ 16	5.3	8.1
Total	\$ 1,839	\$ 2,097	92.4	93.8

Michigan resident licensees tended to participate in a wider range of natural resource based recreation activities than non-residents (Table 49).

Table 49. Participation of resident and non-resident Michigan ORV licensees in selected outdoor recreation activities during a 12-month period in 2008-09.

Activity	Percent participating	
	MI Residents	Non-residents
ORV riding	81.8	95.2
Hunting	65.9	39.1
Open water fishing	55.6	31.4
Camping	46.1	33.5
Wildlife viewing	40.5	38.6
Ice fishing	38.5	17.1
Canoeing/ kayaking	33.8	28.1
Snowmobiling	31.4	41.9
Pick wild mushrooms/ berries	34.0	19.5
Power boating	29.1	23.7
Hiking	25.1	27.8
Paved trail/ road biking	21.7	19.2
Mountain biking	11.0	9.7
Cross country skiing	8.3	12.7
Trapping	6.4	0.0
Horseback riding	2.7	4.2

One key attraction of Michigan is the complementary set of other natural resource recreation opportunities the state provides. While non-residents are generally less likely to participate in these activities, there were exceptions. In particular, a higher proportion of non-residents snowmobiled and considered that they were ORV riders. Never the less, with more than a third of non-residents involved in hunting, fishing and camping, Michigan may offer many opportunities to lengthen their stay, make a return trip or visit in another season (e.g. snowmobile, cross country ski).

SUMMARY AND CONCLUSIONS

Since 1976 and the first statewide Michigan ORV study, the complexity of ORV management has significantly increased. The current study illustrates that it will continue to be even more complex in the future. The number of licensed ORVs increased 46% from 1999-2008. Use in a 12 month period of 2008-09 was 5.5 million ORV days, a 31% increase in total ORV days since a comparable 12 month period in 1998-99. Of those annual use days, the number on public lands increased from 1.3 to 1.8 million from 1998-99 to 2008-09.

With this additional number of licensed ORVs and amount of use comes an additional ORV type, the UTV. These vehicles are becoming more common and they have the advantage of behaving in many ways like a “workhorse” ATV with the capability to have multiple people aboard. To accomplish this range of functions and capability for transporting multiple riders, the width of a UTV is 54-58”. This does not fit the dimensions of most of the designated trail system (24” for a motorcycle trail and 50” for an ATV trail).

When asked the most important reason they own their ORV(s), 38% of licensees responded for trail/scramble area riding and 62% cited other reasons, with 26% primarily to support hunting/fishing, 25% for private land use/management, 5% for a combination of these uses that can’t be prioritized, 4% for local transportation and 2% to compensate for a disability. When asked if they used the designated trail system, 40% of respondents had never used the designated system. Public land use of ORVs for trail/scramble area riding is less than 1/3 of all ORV use days, with the single largest use of ORVs on private lands (44% ORV use days), as it was in the 1998-99 study.

This lack of use and attachment to the designated system may have influenced the 62% of licensees who said they are not willing to pay any more for an ORV license than they currently do to improve the Michigan ORV program. Of the 38% of respondents willing to pay more, 54% were only willing to pay a maximum of \$5 more per license, per year. By formula, at least half of the ORV license money goes to develop and maintain the designated system, with most of the rest for enforcement of ORV laws and restoration of environmental damage caused by ORV use.

Where it is legal to ride an ORV in Michigan has greatly expanded per PA 240 of 2008 as amended. This legislation has made it possible for counties to open some or all county road shoulders to ORV use. Surprisingly, only 48% of licensees were aware of the legislation. However, 88% of respondents supported the law.

Tourism related to travel primarily to ride ORVs on the designated system is increasing, as the proportion of licensees from out-of-state went from 5% in the 1998-99 study to 13% in this one. Those non-residents are much more oriented to the designated system than the average Michigan resident licensee. They are also likely to spend more in Michigan and have an important economic impact by using commercial lodging, patronizing restaurants/bars and purchasing fuel and supplies in the area where they ride. These “new” dollars are vital to growing Michigan’s tourism economy.

In terms of ORV safety education, little improvement has been noted in the proportion of youth who ride ORVs who have completed an ORV safety certification course from 1998-99. With

additional riding opportunities on county roads coupled with a lack of educated youthful riders, this has the potential to create additional challenges for public safety, both for ORV riders and other users of county roads in much of Michigan. It will be critical to improve compliance with educational requirements to protect public safety. It will also be crucial to accurately assess fatalities with ORVs in all places including the designated system, roads, private lands and frozen waters. Any vehicle with an ORV license should be considered an ORV and a fatality involving that vehicle should be investigated by DNRE Law Enforcement Division in a manner similar to that which has been done in snowmobile fatalities since 1998.

Another interesting challenge will come with the growing number of disabled persons desiring to use ORVs to access public recreational resources and opportunities and for local transportation. Eleven percent of the ORV licensee households had one or more disabled members. Of those 80% operated an ORV in the past year and another 14% rode on the ORV as a passenger. This trend is likely to continue as our state's population further ages and those with disabilities are more common.

Finally, over a third of respondents provided additional comments about ORV use and users in Michigan. They are found verbatim (except names, expletives have been removed) in Appendix A.

These situations described above suggest the need to continue to regularly assess Michigan ORV use and users to best manage the designated system, provide environmental protection, meet the needs of licensees and understand their impact on Michigan and local economies as well Michigan's transportation system.

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Appendix A - Open Ended Comments

- I think there is a big increase in the use of ATV's by private owners/managers of wildlife/hunting properties. They are extremely effective for this application.
- I own an ARGO 6: Bigfoot. I use to hunt & trap around the property.
- The new laws passed to allow ORV's on the shoulder of public roads was a great decision and those involved in that decision should know that it will help local economy by bringing back dirt bike and ORV riders from everywhere.
- Great way to see different towns in MI and fun for the whole family. Overall fun for all to enjoy the out of doors. My husband does a lot of ice fishing with the ORV all winter.
- I wish all regulations were made using common sense instead of painting everything with a broad brush. It was hard to fill out your survey as I only use my HW ATV on my own land in the summer at my hunting cabin, and in the winter I use it to plow my driveways and sidewalk.
- ORV is used mainly for enjoying the outdoors which would otherwise be impossible due to age and walking problems.
- We enjoy the wider easier trails and find them more relaxing. Some of the trails have so many hoop de do's that you can barely ride them on a bike. We are still looking for the perfect trail. A trail book with trail types, trail conditions (sand, wet , steep, etc.) would be nice.
- Higher prices will only force my family and others on to private land. I pay far too much for my family to ride the trails 3 to 5 times a year. We have not used the trails this year but still paid for 2 state park permits and 4 ORV permits. I should get my money back if I don't use the trails.
- Helmet law should not apply to hunters. We average 5-10 MPH. Helmet is restrictive and hot when riding at slow speeds. My ATV is heavy and slow- not a high speed racer. Should be classified separately.
- How we ride, system works for us, we enjoy our time/experience.
- Thanks for Silver Lake, Lincoln Hills, Tin Cup, Little Manistee Trail Systems and for maintaining them so well. Raise the ORV license price to create trails closer to the southern state line!
- Keep up the good work.
- If trails were more available, or connections to other local cities, more tourism would be interesting, there is no clear way of knowing which trails can be used by both snowmobiles on 4W,4.
- Gladwin is the closest place to ride for us, but the trails are poorly marked as to which direction you are traveling. For example Mio trails are marked to Bull Gap, etc. Gladwin is not. Also the south loop in Gladwin is poorly groomed too many whooped dedoo's. We spend good money on our trips to Gladwin-please improve the trails there.
- Very unhappy with youth laws, if you come from out of state how are they supposed to take classes. Kentucky and Ohio you just show up and ride.
- There are simply not enough trails in lower MI.

- Here is a great opportunity for the state of Michigan to attract business and money from other states. Just like snowmobiling during the winter months brings money into communities so could ATV/ORV users. Please do not allow the faults of some users, to ruin this opportunity for all. Thanks for the opportunity to give my thoughts.
- The Upper Peninsula is a great place to ride and enjoy the outdoors. The people, the facilities, and the local environment is super! Wisconsin has no state trails and this makes Michigan a yearly destination for my family.
- We have a lot of trails in our area. Do not ride out ATV in Lower Michigan too many people.
- Need less strict laws for riding on roads. We have a lot of forestry roads available to us that would open a good area for riding. Most people do not tear up the forests and obey speed on these roads.
- I do not support the new rules/enforcement of riding on forest service trails.
- You guys got that right. In Indiana they hurt their ORV sales by making us register the vehicle by mail and we get a three year permit. The problem is that it is not very user friendly like the tags we can buy in the gas stations.
- We really enjoyed the sand dunes but the trails need way more maintenance they don't even compare to the trails in Wisconsin.
- I feel paying for an ORV license is unfair. I never rode a designated trail and never will. Helmet law also unfair- explained above. This survey does not cover my use of ORV. Used as a work horse 95% of the time.
- Need more places to ride for goods. Can't stand when a forest trail is designated motorcycle only. Should be allowed to ride 2 tracks on state land.
- You may be breaking the law of public act 240 by not knowing which road is large and which road is not.
- I'm not sure why we only open half the trails. I guess so we can write tickets and scare future business out of our state. You would think out of states spending money in Michigan would be more than one ticket so they never come back. I myself have heard too many stories of friends tax payer friends getting tickets because the open trails are hard to identify. Makes me not want to use the trails and spend my money doing it.
- Sometimes there is confusion about which trails are designated for non-ORV use and which are designated for ORV use. More information would be helpful in the form of signage, literature or website.
- Change the laws on youth riding quads on state land. I have an educated, tested 8 year old that owns a quad (correct size from which the state was happy to accept taxes) but he has to ride his dirt bike on state land. Makes no sense at all!
- With the laws changing every year. It is more of a pain to keep track instead of using Michigan's great landscape. I feel you people do that to catch people like me, who are just trying to have fun. Confuse the laws for little kids. It should be the parent's responsibility to teach their kids. After all you know who is going to get the ticket- I'd rather ride on my friends property than ride on state land.
- I ride my ORV to enjoy the woods and wildlife of Michigan. The Upper Peninsula is spectacular in the fall. We enjoy the relaxed atmosphere of the Upper Peninsula.
- The first two thirds of this survey is poorly designed and discouraged me from filling it out the first time it was sent to me. I have yet to take advantage of an ORV safety course but plan to. ORV's are great for our local economy.

- My concerns are the same concerns I have previously noted please contact me so I can further explain the situations that I have been involved in so that we can work in cooperation to see that ORV rights and privileges are maintained and protected. Thank you for the opportunity to express my concerns. I hope that it helps to protect this sort of misguided regulation from a widespread occurrence.
- Our 4X4 are mostly a tool- like the fact the fine trail system is close by and I can use it if/when I want to. That is the reason I buy a tag- also for the hunting/fishing needs if I need it.
- I do not use off road trails- only use on private land and ice fishing.
- Why can't we get any trails south of Bay City? Thus sport is huge and growing everyday. Why not use more snowmobile trails? I ride Atlanta and Luther and I don't see any damage caused by ATV to snowmobile trails.
- We own two jeeps. We use them for transportation about 6 months of the year. We mostly ride off road on private land and a few trails near our cabin.
- Most people who make the laws don't own or ride ORV's. They are politicians worried about reflection.
- I love the comradery of fellow riders when we ride together and get away to have fun.
- Vouchers at Silver Lake should be online, on Thursday charge 20-30 dollars per , eliminate 5-6 state employees, fuel wasted sitting in line. This money could be used for better things.
- All money for the ORV stickers should be used on the trail system and nothing else. The DNR officers should be friendlier. They act like the "Gestapo". Most of the time we're out in the middle of no where, you come out of the trail onto the road and get hassled.
- My gripe with ORV guidelines is that only marked trails are open. The state allows gas companies and clear cutting on public lands to permanently scar the land but will not let an ATV use any of this property. Open up more land and control usage with better enforcement and higher fines.
- It seems to me that moving the trail more often would spread usage impact and reduce damage by allowing more frequent recovery. Allow us to ride on roadside.
- I would like to see access to Deford State Game Area for ORV(s). I have only met 1 DNR officer that was nice in 30 years of riding, and I have met many. Most have very bad attitudes. They leave a bad taste in my mouth.
- I think ORV is a very pristine program. Good for recreation and good for Michigan. We all just need to behave.
- Law enforcement seems to be only concerned with giving tickets to raise more money- when this happens I never return to that area.
- Michigan needs more consistent laws on ORV use! Very confusing from one county to another! Some counties will arrest you for riding a local road to buy gas/food. Michigan do you want our money the legal way or should we spend it in another state?
- Helmets should not be required for utility type roads and the DNR/local law enforcement should not practice selective enforcement!! Be fair with all! Thank You.
- ORV is used primarily on my own property. The sticker is for use on hunting trips into Canada and trail riding in Ontario with friends.
- With the opening of the road in Roscommon County there are more people and money coming into our streets, restaurants, and gas stations.
- We mostly use our 4-wheelers on our own land. Once a year we trail ride with family to a restaurant.

- We are very respectful of the land when we ride, but it would be nice to have an area where you could go and tear it up (hills, mud, etc.) without any impact on the environment. Just a play area so people could still be respectful of the trails.
- Open FR G30 to ATV traffic.
- Please keep the costs as low as possible.
- More trails and wider ones.
- The \$16.25 fee is too high. Some year the fee stops me from using my ORV. I only buy the ORV tag every third year.
- My whole family rides ORV's or dirt bikes and a lot of my friends also ride.
- Thanks for your interest and keep up the fine work you do.
- No 4 wheelers during hunting season Sept. 10th thru Jan. 1st!!!!
- The best thing that I totally agree with, is riding on the allowed road for ORV to get gas & food while you're riding. This helps me spend more money in the local are that I ride in. Thanks!
- Need to allow double riders if riders are riding slow & responsible on trails so families can enjoy the trails and make Michigan more family friendly.
- Please don't turn Michigan into a police state with too many rules & regulations (like Wisconsin). Example: speed limits, helmet laws. Most riders are very responsible and don't need more rules.
- I think as a whole the Michigan ORV trails, rules & regulations are good, but the age limit should be left up to the parents. I don't see that a quad is more dangerous than a motorcycle. I know the rule changed because of 3 wheelers but those are almost non existent anymore, but the rule remains.
- I can not stress enough how much I'd like to see the ORV system end up like the snowmobile trails where you can legally ride town to town and have safe well managed trails. Just because an ORV is less than 50" doesn't mean the trails for them have to be 50". Most of the actual ORV trails are dangerous & not for beginners or families with less experienced riders/children. I'd pay a lot of money to have good ORV routes for ATV's to ride town to town. Despite the new law allowing the use of county roads you can't get around without riding on miles of pavement.
- We are planning on using the trail system more in the next few years than in the past, so keep up the good work.
- We go up north 2-3 times a year. We ride at my parent's cabin with other family members. My brothers also bring up their motorcycles.
- More areas in lower MI need trails, parks, or scramble areas. Better trail access from Mi State Park Campgrounds. ORV's should be allowed on all snowmobile trails.
- Laws are too restrictive for kids under 16 with parents supervising. More "back roads" should be open to ATV's.
- I never keep close count of monies spent on ORV riding, but I realize that it is a privilege and that needs to be stressed in all classes and traffic stops.
- 2 way trail systems should not be allowed on mixed ORV trails with trucks/SUV access. More open area ORV system riding. Eg. Silver Lake
- There are trails galore within half a mile of my house (just down a dirt road) and I can't legally ride on them because they are not ORV roads. I have been ticketed for it that is how I know. I think that that is just crazy.
- To me ORV riding has made me feel like a kid again & I wish I would have done it sooner.

- Why not use some of our west wilderness to make parks and charge to get in like Silver Lake Dunes.
- My ORV has good brakes and lights, and has been registered with the state of Michigan. I can't understand why I can't drive on the roads, but skateboards with chainsaw motors and golf carts (not registered) can? How safe are they?
- It is my experience that state officials do not listen to the public, so I offer only this comment.
- The use of ORV's in the Upper Peninsula is almost as vital as the use of automobiles. The regulations and law enforcement should reflect this open use of ORV's.
- We need maps so we know what roads are open for ORV use. I would use mine in other areas if I knew what was open so I don't get a ticket riding forest roads that are not open.
- Every year we lose more riding area, ORV owners spend a huge amount of money in Michigan and should have the same rights and respect as others such as biking, hiking, and horseback riding.
- I think we should be allowed to ride ATV's on the shoulders of the roads as long as we obey the laws. We can ride snowmobiles all over. Why not an ATV?
- It's a great sport when approached with maturity and respect for others.
- Need more cross country trails & connector trails, for touring, "Adventure Trails". Promote local tourism via ORV's. Like snowmobile trails in the U.P. and Canada.
- Ride with common sense and go slow. Watch for wildlife.
- You can not idiot proof ORV's or people by passing laws.
- Michigan is only hours away and is great fun that's great exercise and will challenge a person at their own pace of riding. Thank you for having these areas.
- When was the last time you gave someone 20 min. and it didn't help you!
- Michigan's DNR is a joke, open up the fire trails and roads again like it used to be, more of us would go north to ride again like we use to, doesn't make sense, here we can ride on the road (county) but not in the woods (tail roads).
- Open up more of our state land for us to ride on. Let us use ORV's to hunt. To and from stands and pull out game. Let kids be kids again! We go to Canada to ride where they are still free to ride on their land. I spent over \$3,000 there last year.
- I would very much enjoy a slower moving ORV trail through a wooded area u=in the U.P. One with more straight-aways and not so tight and twisty with lots of moguls. I would enjoy a ride and look at scenery without having to go down a dusty dirt road. I'm talking about an old folks trail.
- I am disabled and I like to ride my 4 wheeler so I can still get out and enjoy Michigan I just wish there were more places to ride and I was able to ride on the side of the road.
- I am a responsible business owner in Michigan and I love to go on snowmobile and quad trips to the U.P. mostly. I would volunteer to help clean and maintain trails if given the opportunity.
- We have a group of 6-10 riders that travel to Michigan 2-3 times per year since 1988.
- I wish they would take out some of the "hoopededoos".
- If more trails open up north it will help those people in northern Michigan economically (stores, gas stations, etc.) Southern Michigan! We need places to ride locally. Sometimes I do not have a complete weekend but have one day. We would ride much more and spend a lot more money too!
- I would like to do some recreational riding but I want to find out where I can ride & what the rules/laws are before someone with a badge has to tell me.

- I just can not walk or move like I used to.
- Been riding for 19 years, I'm in my 50's and still love it! Ride with my grandson now we live in the Detroit area so a lot of day trips to St. Helen. Thanks for all the great times!
- Thanks for having ORV trails!
- I think that this is an outstanding way to get feedback from people. The trails I ride in Michigan are in great shape overall, and provide a great source of entertainment.
- We have a wonderful system! Fine tuning is always good. Directional days would save a lot of problems. My 2 cents. Thanks!
- I rarely drive my Honda 4 wheeler over 20 mph. Primary use is deer hunting and ice fishing.
- Your dates did not agree with my riding, due to a busy year with sick parents so I did not ride as much during that time. I supported and went to all county or most for riding on side of road.
- Seems that some roads could be used when travel is necessary due to handicap.
- It is a great amenity for our state! (recreation)
- If you don't need an ORV license on a car to go on the ice, why should you with an ATV?
- There are getting to be too many limits where we can ride. Like not allowing us to ride old logging roads etc.
- The trail systems do not get the attention that snowmobile trails get.
- We love the Michigan trail system. It is the most beautiful in the U.S. Since I started riding I've made some wonderful friends and memories. Without the riding I wouldn't have the chance to enjoy nature since my abilities to walk are limited.
- Would have ridden much more since last summer, but Oscoda City did not pass the new ordinances until May of 2009.
- My daughter received this survey, but went off to college. I am the primary ORV user. She has only rode once on the trail system. I have been riding since the mid 1970's. I love riding in northern Michigan woods, but I ride enduros so I don't have to ride the same worn out trails. It looks like the DNR would rather log off timber areas in the trail system, not allowing us to use or reopen trails. Tight rugged trails are slower and safer. Sharing trails with quads is a higher risk. Please try to keep quads and cycles separate. I think quads should be allowed to use snowmobile two tracks in the off season in the U.P. Thanks.
- Love the beautiful views while riding the trails. Traffic where trails go is not bad!
- Please provide free ORV stickers for discharged veterans.
- Michigan should embrace the use of ORV. There are more of them than snowmobiles yet Michigan caters to snowmobile groups and shuns the ORV community; make more enjoyable trails to beautiful sites throughout the Upper Peninsula instead of some sandy circle through Jack Pine or on straight old railroad tracks. People who use ORV's on trails tend to stay within 80 miles of where they started so more local money is spent.
- I think this survey would be more accurate if you asked participants to record data rather than recall data.
- It's a lot of fun, there's definitely more people on the trails now than when I started riding so you just need to be aware and more careful.
- The opening of county road shoulders was a big step in the right direction for ORV's in Michigan. Developing more trails and allowing use of existing snowmobile trails and forest roads is the next step. States like Kentucky and Virginia provide much more for the ORV rider if we want a portion of those tourist we need to provide more areas to ride in.

- Michigan does a great job at promoting ORV/ATV riding. Like to see more counties adopt road riding. More DNR controlled trails in southern lower peninsula. Put mileage estimates on the trails.
- Against high fees, the U.P. has lots of logging roads.
- Charge horseback riders and mountain bike riders \$16.25 per year!
- I have ridden the Paiute Trails in Utah. 5 times to Ewart, KY. 4 times to Gilbert, WV. 4 times to MI's U.P. Open trails to ATV's. I have \$19,500 in ATV's we use elsewhere due to some off the trail laws in Michigan. P.S. I also have had 3 snowmobiles in my lifetime.
- ATV should have same road rights as snowmobiles.
- I only recently discovered that Michigan has these ORV trails- up there I thought there was nothing like here in the southern part. But thank goodness it's there and even though it's a long trip its great and worth it. Thanks.
- Due to physical limitations, I have lost interest in ORV riding. My inputs to this survey provide limited information. Sorry!
- #33 can't be answered by anyone.
- I noticed I wasn't clear on laws regarding use on State Forest land, so shame on me. When I hunt in the U.P., I pretty much follow the bear guides. I use my quad mainly as a means to an end- hunting and fishing. I enjoy riding but not as some do and I have some resentments (note question #19 comments), but I was in the Army and drove everything from 8 in. howlers to humvees to APC's- you name it (got it out of my system). Mainly I feel this way about the ORV program: Not enough places where you can go. And I get the feeling that in order to provide more opportunities will require a huge hike in cost for licenses- not necessary. Open the door, mark it and we'll do the rest. We just need to know where we can go. Then we'll trail blaze, yet responsibly.
- I have rode 2W trail bikes my whole life. I really enjoy the limited time I get to ride Michigan's ORV trails. I hope riders will be able to continue to ride legally without a plate on county roads in counties where the community wants it. Good for tourism.
- I don't care for the law that requires you to purchase a 2 person ATV or snowmobile to be legal. I like to ice fish with a partner and I cannot afford to buy a whole machine.
- Allowing shoulder use for ORV would be a boost to Michigan tourism if promoted properly.
- I only ride it on private land to get to and from hunting blind and retrieve game.
- For families with multiple ORV's, there should be a declining cost for the ORV stickers.
- Good Luck eh!
- Need more trails on the south end of Michigan.
- Go Spartans! Alumnus class of '79! Thanks!
- Awesome work guys! Would love to be on a board to assist in changes & gov. of rules and expanding. This is a great sport in Michigan!
- Double riding (driver and one passenger) should be allowed for speeds less than 30 mph.
- I would like to thank the staff at Silver Lake State Park for helping us and doing a great job!
- If the state had more trails, then it would generate a lot of economic benefits, especially in southeast Michigan.
- Thanks for listening to people and trying to make systems better.
- I work 60 hrs. per week, have two son, and I'm raising a niece. I also have 4 grandchildren and riding our ORV's is the best family time we spend. The grand kids love to ride and will drive when they have been trained. Thanks for supporting ORV's.

- I have a jeep. I used to ride ATV & 2 wheel bikes on the trail systems.
- I still see many people drinking alcohol at trailhead parking lots, and then go riding their ATV. Not safe, more enforcement needed. I like to drink also, but this aint the place or time.
- Silver Lake Dunes should create a separate lane for dune ready vehicles to save on the long lines to enter the dunes.
- Stricter rules- speeds, no parking. More DNR police! They are needed.
- Some rules and regulations are needed, especially in highly populated areas. But please I am sick and tired of the safety, safety, safety mentality trying to save me from myself! And that includes the safety from others harming me, from their actions card also. All motorized sports are dangerous. Don't let a shuffle board player make rules for a mountain climber. Hell, I'm not supposed to stand on the top step of my ladder anymore. Our ancestors sailed here so they could be INDIVIDUALS; some of us still want to be. P.S. my oldest daughter graduated from MSU this past spring and said she would give you similar comments as I.
- Trails marked so you don't get lost. 2 people/ especially parent and child being able to ride on 1 ORV the is equipped with an add on accessory that forms a second seat. Not just the 2-up rider machines.
- Thanks for doing this.
- I would like to see a curfew as to daily riding times for ORV.
- Great job marking trails in L.P. not so for U.P. would like to see more spurs to towns for fuel and food.
- I think passing ORV ordinances by county to allow riding the shoulders of roads coming off of trails to our business- keep it going. I would also like to see Silver Lake Dunes expanded to the south!
- Sorry but this was way too time consuming.
- The Cedar River Trail is very well maintained, marked, and mapped. The trail on road 69 is poorly maintained, marked, and mapped. Both of these trails are in the upper peninsula. Menominee and Dickinson counties.
- This survey seems geared for people living in the lower peninsula. Therefore, many of the questions do not apply or have no good answer!
- It is much improved in counties that allow riding on road shoulders. Most ORV's are inexpensive to operate and can be a good alternative transportation to cars. I would drive my ORV to work to save gas cost if it were legal.
- If riding on the shoulder is legal noise level should be regulated.
- There is no where to ride in the lower peninsula and all public land is either for hunting or wildlife preserves.
- Law abiding, tax payers are not a problem. Some others are responsible for beer cans, abuse of state & private property. Ticket the abusers. Do not over regulate all.
- Please make more trails in southern L.P.
- I just use mine 99.9% of the time on my own land.
- Apparently this questionnaire is geared toward people or tourist that are going to spend money in the state while using an ORV- Some of us who by ORV stickers have no intention of using an ORV trail. I suspect you won't include my survey because I don't spend enough money.
- Need some directional trails. Need some new trails.
- Sold ORV early 2008, bought, but had to sell other ORV early 2009- filled out questionnaire the best I could.

- This questionnaire should have been sent to a person who uses the ORV trail system, or is a member of a ORV club. Their information would have been more vital to the questions asked. Being a senior citizen I'm not up on the trail rules and regulations. My ORV is used for work purposes of making wood on my private property or taking a joy ride on my own property.
- Great fun!
- We have been riding in Indiana for years and love the Michigan system of roads and trails to ride on. Keep up the good work!
- The U.S. Forest Service recently closed all US Forest roads in the Bitely area. Nearly every resident owns a vehicle and now can not enjoy the national forests. Closing of roads has damaged the economy far beyond usage over the past 20 years.
- The counties are now seeing how much of an impact ORV users are to the economy. They are now welcoming us with open arms. The bad thing is the DNR continues to harass us (ORV'ers) every chance they get. Local cops and State police are fine it's only the boys in green that are the issue. This is especially true in Ogemaw and Roscommon counties. The only other group that can't seem to leave us alone are the Rangers (federal).
- Many snowmobile trails are closed to ORV's in the Lower Peninsula. Would like to see more open at least to ATV's and motorcycles in the summer months. This summer I have noticed many trails ruined by logging. These companies must be held accountable to repair these trails. Thank You.
- I think it has improved 100% many improvements from 10 years ago! Thank You!
- The state of Michigan has a very good trail system. Allowing the use of ORV's on county roads is a good thing. We have used county roads to access the trail system from friends cottages and routed cabins & motels and it works out nicely. Since most of the money and time to create our current trail system has come from motorcycle riders, I feel that many of the trails should remain cycle use only. I feel new trails should be created which are wide enough to fit quads. Thanks for keeping our state the destination for people from other states to come for riding.
- Because I ride very little, I appreciate the low cost of the ORV stickers. I can't stress enough in my case and people by me, we have got to trailer our quads to go ¼ mile to ice fish.
 - Any type of licenses should not be charged fishing, hunting, orv, etc. The government does not take care of the lakes like they should fish reproduce a lot and so do deer. It's not right to charge people for leisure activities especially in these times of economic trouble. I don't believe in charging American's anything that supports leisure activities: (while foreigners can come into our country and not pay any type of taxes.)
 - I only use my ORV on our own private property in MI. It is used mainly for hunting in Canada and other states.
 - We obey all laws, would love to be able to use our ATV's more than hunting the U.P. need land in our area (Allegan county) to ride. Thank you.
 - I just enjoy using my quad while trapping and makes for easier access. Thank you.
 - ATV's are a tool in the U.P. to accomplish the lifestyle of the U.P.
 - I am not your typical ATV owner. The past 5 years I have used my ATV for dragging ball fields for the local Legion baseball team.
 - The laws seem to be very vague. I have talked to sheriff deputies in the county I ride in and they can't tell me what the laws are. Riding into a town to get gas and something to eat. They

couldn't tell me if it was legal or illegal. There is no way to know everybody's own laws every time you cross a boundary line. It's not like they have them posted.

- I would like to point out that we have purchased ORV trail passes every year up until this year to ride Michigan trails- we didn't this year because we never felt as welcomed to use the trails visible past off our backyard- we used the Wisconsin system 100% the ATV season- Hope you are not too late!
- Cooperation seems to be good among riders on public ORV trails.
- Very confusing and complicated. Almost impossible to know of your legal right especially when crossing county lines.
- What a great way for my family to enjoy Michigan. One reason we continue to reside in Michigan is the ORV opportunities. Fewer rules would be nice. We are still able to afford the sport if taxes and fees increase we will move west where residents have more freedom to ride.
- I first rode in a four wheel drive truck at Silver Lake when I was 15 – In 1993, I had my own dune buggy, then moved onto my own four wheel drive trucks. Silver Lake is the only ORV area I use. Past years we had as many as 25 trips to the dunes during the ORV season- economy and home improvement projects have limited the time to go up to Silver Lake over the last 2 summers.
- I don't think I have to buy 2 ORV stickers and 2 State Park Passes just to go into Silver Lake Sand Dunes one time a year. It is expensive, if gas goes up or prices on ORV increase I will not go anymore! That's not counting the State Park pass on my everyday family car.
- Love the Silver Lake sand dunes. Please keep this area open for ORV use.
- Thanks!
- ORV was sold and will not be replaced- therefore this is mostly irrelevant. I do mountain bike, but I don't need an ORV permit for that.
- Would like information about how you go about changing the ordinance's for our county. I think that ORV's should be able to ride along side the road in Newaygo County as they can in Lake county, etc.
- I purchased an ORV sticker to use the Silver Lake Dunes with my pick up truck. I've taken motorcycles in the state forest occasionally but have never gotten a sticker for the bikes. I ride on sanction mix tracks mostly.
- I wish I hadn't bought ATV's. The whole experience has been lacking; this view is expressed by my entire family. If I could sell all this crap and not use the trail system I'd do it tomorrow. I should have bought a snowmobile, much better system.
- Used on farm – hunting and fishing.
- I think there should be an ORV sticker for each type of ORV vehicle and those the trails should be marked for which type of ORV can use that trail and it should not matter whether it is state or federal land. Uniform signage would be a huge benefit. For example I could envision a motorcycle ORV sticker, a snowmobile ORV, an ATV ORV, and a jeep and dune buggy ORV, then on the trails that are motorcycle only the sign should match the graphic on the motorcycle only ORV stickers so that all other ORV's know they should not use that trail. Additionally on "all ORV OK" sign should be made a "no ORV" sign should be made.
- It's a great family time to ride on Michigan trails let's keep them forever. No taking it away from us. Thanks.

- I reside in Mackinaw County approximately 6 months out of the year most use is for transportation on county roads. Sporadic use of both ATV's. E.g.: may use 20 hours on one w/e and not use again for 2 weeks or as needed depending on number of guests at residence. So unable to really answer questions 11-13.
- This sport has allowed us access to nature that we could not have had otherwise and seeing that expanded would be great for us and tourism. Allow younger operators after safety training as long as they are with adult family members. Allow double riding with a parent.
- Last year using my DNR provided map, I went near Evart, MI to ride. I called first and was directed to the trail. Evidently there had been a storm some time ago that had closed the trail though no one seemed to know that. No signage (closed) and an impossible route made me ready to ask for my money back for the ORV sticker. Later I got a hold of another guy who seemed to know it had been closed and directed me to Newaygo County. Trail there were great and everyone was safe. Thanks.
- Most of my riding is on a snowmobile. I did not include that information because I did not see a category for it.
- We ride on Horseshoe Lake trail quite a bit and really enjoy it, but have noticed it is getting quite beat up and whooped up. Still fun, but could use some work. We also ride endures and wish those clubs that put races on weren't hassled so much by the DNR to get permits to race.
- To me the trail system seems to be run very inefficiently. All I see is forestry service people sitting around at bull gap hill, or they are driving around making sure we are not on snowmobile trails, which are fine, but some trail maintenance is long overdue. Me and my buddy's have camped and rode there for over 10 years on memorial weekend. Starting next year we will be going to Logon, West Virginia to ride instead, because e Bull Gap Trail Systems are too rough.
- I would like to see a trail system in the southern Lower Peninsula closer than the Gladwin Area.
- The trails in the U.P. that interconnect from city to city are nice but they are snowmobile trails which is great. If we could get more trails like that in the lower peninsula that would be nice the more like snowmobiling we could make it than maybe it could be another billion dollar deal like the sleds are to our economy. I actually am hired by a small village in Oceana County that lets me plow the side walk with a 4-wheeler it works awesomely and people think it is a great way to do it. It's quick and quiet. I get thumbs up everyday. It's great!
- I couldn't answer most questions as I don't do much anymore on ATV's.
- I should be able to get a license for a street legal 4-wheel ATV. If you are hunting or fishing on ice you should not be required to wear a helmet.
- Money spent in the U.P. should stay there!
- I have made several trips to Michigan to travel 4x4 type trails on Drummond Island and Silver Lake Sand Dunes. Great trails. I would like access to more of these (4x4) roads and trails in Mi and WI.
- Should not have to pay to ride on ice.
- My family and I enjoy riding I am not a fan of anyone telling me where we can and can not go.
- I would like to see trails/scramble areas in the lower part of the state. Wouldn't mind helping one weekend per year maintaining trails.

- All state land should allow ORV use! Thus are motorcycles, ATV's, trucks, campers. Does no good if you can't use it.
- Way too many questions make a smaller survey.
- Common signage between ORV and snowmobile trails. Snowmobile only trails need to be marked significantly different. We observe many ORV riders riding these snowmobile only trails because signage confusion.
- I love ORV trail systems; keep up the good work!
- Need trail system for ORV's like the trail system for snowmobiles. We ATVers should be able to take our family out and be able to ride all over like snowmobiles.
- We had great trail riding north of Lake City. The trail riding north of Muskegon was difficult and the trails were in terrible condition.
- Good job. Many good experiences with friends and family throughout the years.
- Require those counties, townships to enforce the laws they enacted. More patrolling needed, especially on county roads. Speeds used by those that travel by breaking laws, is excessive. Dirt bikes and snowmobile traffic in residential areas, county roads. No one travels the speed limit.
- I have not used the public trails because rightly or wrongly so I perceive them to be quite dangerous from reckless and or speeding vehicles.
- I procrastinated in doing this survey as I felt I didn't have much to offer. Sorry! My ORV is strictly a small tractor that saves wear/tear on my farm tractor. I don't have any experience on trails, state land, etc. My wife also runs our ORV but only on the farm.
- I do not mind paying for something I use, but this is the same way it went with snowmobiles. First everyone had to have a trail permit. Then they did the right thing and only required it if you were on a trail. If people want a state trail system let the people on the trail pay for it, not everyone who owns an ORV.
- I wish there were more (or any?) areas to ride that were south of Baldwin. Somewhere in the Allegan State Forest would be excellent. A combination of trails and open riding would get me out a lot more if it was closer, as well as generate local revenue. There are plenty of campgrounds in the area and lots and lots of riders that could use this.
- A wonderful sport for families to come together and enjoy the wildlife scenery just be part of nature and have fun. Thank You!
- Would like to see trails in Waterloo State Park area.
- All of our vacations are planned around ORV trails or areas. We really enjoy the dunes, Grayling, and Drummond Island the most.
- I primarily use Silver Lake. The pit parking area for trailers is way too small given the popularity increase very few "off" weekends anymore. Need more parking for tow rigs.
- People who use Michigan ORV clearly spend a lot of money to do so. The ORV industry is huge we should try to keep people coming back and new people coming. Making us pay more fees is not the way. My husband and I have cut back ORVing by 1/2 because it's just so expensive. If anything I think we need to relax some of the rules. ORV is huge income for the state. Look at Silver Lake on a holiday weekend there is millions of dollars just rolling around in the sand. Mears, Hart, Shelby, and Silver Lake depend on that ORV area! We need to keep people happy.

- We have not yet played with our quad but plan to start in 2010. We do snowmobile on the trails but since they do not require an ORV sticker, we answered for only our truck we use at Silver Lake and use of our quad at home.
- We do enjoy off road trail riding in 4x4 and snowmobiling but have too many restrictions. Mostly due to people not using common sense. No training, too young, alcohol & drugs, a few make it hard on the rest. I feel punished for others inabilities.
- Don't send me any more of these because I feel this info only helps the DNR close areas that people can use. Have the DNR do their jobs and not close areas because they can't do their job.
- They should let us ride more where they tell us to ride but keep up the good work. Thank You.
- I would like to continue the freedom of riding my ORV in the state of Michigan without any future restrictions. I respect the forest, wildlife, present laws, and private property. This is important to me. Thank You.
- Do not own or operate an ATV or ORV. I only bought an ORV sticker for my truck to take my family out on the sand dunes because it was cheaper than paying for a tour ride.

Use of all ORV licensed Motorcycles (If none owned or not used during 10/08 – 9/09, leave blank)

Region	Num. public land riding days	Num. private land riding days	Num. Hunting days with ORV	Num. ice fishing days with ORV	Num. local road riding days (if not SOS licensed)
1 Upper Peninsula					
2. NLP (N. of Bay City/Muskegon)					
3 SLP (S. of Bay City/Muskegon)					
TOTAL DAYS					

Use off road of all ORV licensed 4WD TRUCKS, SUVs, DUNE BUGGIES & FULL SIZE ORVs (If none owned or not used during 10/08-9/09, leave blank)

Region	Num. public land riding days	Num. private land riding days	Num. hunting days with ORV	Num. ice fishing days with ORV	Num. local road riding days (if not SOS licensed)
1 Upper Peninsula					
2. NLP (N. of Bay City/Muskegon)					
3 SLP (S. of Bay City/Muskegon)					
TOTAL DAYS					

4. What were your household's total ORV expenses other than on ORV trips during 10/08-9/09 in the following categories?

Purchase of new ORV equipment (ORV, trailer, helmet, clothing, etc.).....	\$_____	.00
Purchase of used ORV equipment (ORV, trailer, etc.).....	\$_____	.00
ORV repair/maintenance NOT done during MI ORV trips.....	\$_____	.00
Insurance on your ORV(s).....	\$_____	.00
Off-season storage costs.....	\$_____	.00

5. Please rate the following services/situations regarding Michigan's ORV program. Use a scale of 1 to 5, with 5 as very good, 4 as good, etc. (Please **circle** the number for each item and provide an explanation for your rating directly below.)

Services/Situations	Very Good	Good	OK	Poor	Very Poor	No Use or Knowledge
ORV Regulations	5	4	3	2	1	0
Why this rating? _____						
ORV Law Enforcement	5	4	3	2	1	0
Why this rating? _____						
ORV Safety Education	5	4	3	2	1	0
Why this rating? _____						
DNR ORV Website:	5	4	3	2	1	0
Why this rating? _____						
Public Trail/Route Maintenance	5	4	3	2	1	0
Why this rating? _____						
Public Trail/Route Design	5	4	3	2	1	0
Why this rating? _____						
Public Trail/Route Signage	5	4	3	2	1	0
Why this rating? _____						
Trailhead Parking	5	4	3	2	1	0
Why this rating? _____						
Maps of ORV trails/routes/areas	5	4	3	2	1	0
Why this rating? _____						
Designated Campsites near ORV Trails	5	4	3	2	1	0
Why this rating? _____						

6. Would you be willing to pay more than the current \$16.25 annual ORV license fee to improve one or more of these aspects of the MI ORV program?

___Yes ___No

6a. If yes, how much more would you annually be willing to pay per MI licensed ORV? ___\$5 ___\$10 ___\$15 ___More than \$15

What would be the ONE most important improvement you would seek with these additional license funds? _____

Please describe your **MOST RECENT MICHIGAN ORV RIDING TRIP with an overnight stay or that was more than 100 miles from your home.** (If you had no outing like this in the past 12 months, please skip to question 13)

7. What were the date(s) of your **MOST RECENT TRAIL/SCRAMBLE AREA RIDING** outing? From _____ To _____

8. Was ORV riding the primary purpose for your trip?.....Yes ___ No___(what was? _____)

9. In what ONE Michigan County was it primarily focused? _____

10. How many miles was this from your primary home?.....# miles

11. How many ORVs from your household were used ___# ORV licensed motorcycles ___# ORV licensed ATV
during the outing? If none in a category, leave blank. ___# ORV licensed UTV ___#ORV licensed full size veh.

For all of your ORVs listed above that were used on the MOST RECENT TRIP, please complete the table below FOR THE MOST RECENT TRIP. For example, if 2 ORVs were used for 3 days to primarily ride public trails areas in a region, write 6 public land riding days for that region. If there are no days for a region or a use, leave the appropriate boxes blank.

Region	Num. public land riding days	Num. private land riding days	Num. hunting days with ORV	Num. ice fishing days with ORV	Num. local road riding days
1 Upper Peninsula					
2 NLP (N. of Bay City/Muskegon					
3 SLP (S. of Bay City/Muskegon					
TOTAL DAYS					

12. Was this an overnight trip? ___yes ___no 11a. If yes, how many nights were you away from home? _____#nights

12b. Where did you stay? (Please check all that apply)

___ Own second home/vacant land ___ Camped in public campground ___ Friend or relative's home or land
___ Motel/hotel/rental cabin ___ Camped in private campground ___ Camped on public land with no development

13. How much money did your household spend on the entire trip during that **MOST RECENT** outing? Please complete the table below for spending at home in preparation, travel to and from the ORV activity area, and in the local area (within 30 miles of where you rode). If you spent nothing on an item, please leave it blank.

	At Home	En Route	Local Area
Grocery/convenience store food/drink	\$.00	\$.00	\$.00
Tow vehicle expenses (gas, repairs)	\$.00	\$.00	\$.00
ORV expenses (gasoline, repairs)	\$.00	\$.00	\$.00
Restaurant and bar (meals and drinks)	NA	\$.00	\$.00
Sporting goods (bait, fishing tackle)	\$.00	\$.00	\$.00
Lodging (motel, campground, etc)	NA	\$.00	\$.00
All other items (souvenirs, etc)	\$.00	\$.00	\$.00

12a. How many people did these expenditures cover?.....# _____people

Now I'd like to ask some questions about you and your Michigan ORV use.

14. Did you use any of your ORVs during 10/08 –9/09 at any of the following public scramble areas? (Please check all that apply)

- St. Helens Motor Sport Area near St. Helens The Mounds ORV Area: Genesee Co. Park near Flint
 Black Mountain Scramble Area near Onaway Silver Lake State Park near Shelby and Hart
 Bull Gap: US Forest Service ORV area near Mio

15. Please check **all** of the recreation activities in which you participated during the past 12 months.

- Snowmobiling ORV riding Open water fishing Hunting
 Camping Canoeing/kayaking Power boating Horseback riding
 Hiking Wildlife viewing Ice fishing Mountain biking
 Cross country skiing Paved trail/road bicycling Pick wild mush./berries Trapping

16. Would you characterize the MI designated ORV trail/route/area system over-crowded? Yes No Don't use system

Please explain the PRIMARY reason for your response? _____

17. How many times during 10/08 – 9/09 were you or members of your household checked or stopped by a law enforcement officer while riding an ORV in Michigan?.....# _____times checked/stopped

17a. If you or another household member were stopped or checked by an enforcement officer one or more times, please check which type of officer(s) was involved in the most recent check/stop.

- DNR Conservation Officer US Forest Service Officer County/Other local gov. officer Don't know type of officer

17b. What ONE location best describes where the most recent stop occurred?

- Designated trailhead On a county or local roadway
 On the designated ORV trail system On public lands away from the designated ORV trail system
 On a state or federal roadway Other (please explain _____)

18. Did you or any member of your household see, but were not stopped or checked by a law enforcement officer while riding an ORV in Michigan during 10/08 – 9/09?? Yes No

19. Please rate the level of danger to ORV riders from the following, based on your ORV riding experiences. Use a rating scale of 1 to 5, with 5 being extremely dangerous, 4 highly dangerous, etc. and **circle the appropriate number for each.**

Behavior/Situation	Extremely Dangerous	Highly Dangerous	Moderately Dangerous	Slightly Dangerous	Not Dangerous
Operation of an ORV by person who has been drinking but is not legally intoxicated (0.01-0.07 blood alcohol)	5	4	3	2	1
Operation of an ORV by a legally intoxicated person (0.08 or higher blood alcohol)	5	4	3	2	1
Speed of ORV	5	4	3	2	1
Driver lacking skill in operating ORV	5	4	3	2	1
Public trail conditions	5	4	3	2	1
Public trail design	5	4	3	2	1
Mixing types of vehicles on designated ORV trails (e.g. motor cycle, ATV and 4 wheel drive truck)	5	4	3	2	1
Non Secretary of State licensed ORVs (e.g. ATVs, motocross bikes) operating on county/local road shoulders	5	4	3	2	1

20. What other behaviors/situations are extremely/highly dangerous. _____

21. Public Act 240 of 2008 allows local units of government in certain northern Lower Michigan counties (including Mason, Lake, Osceola, Clare, Gladwin, Arenac and Bay and northward) and across the Upper Peninsula to adopt ordinances authorizing ORV operation on the maintained portion of county and local (but not state and federal) streets and roads within their local jurisdiction. This new law took effect July 17, 2008. Under the new law, counties must provide a 45-day comment period to their county road commissioners. All previously approved local ordinances regarding ORV use are null and void, and any new ordinance won't take effect until it is officially adopted by the local unit of government following the 45-day comment period.

Were you aware of this legal change? Yes No Do you support this legal change? Yes No

22. The following statements concern where it is legal to ride a DNR licensed ORV on state lands that is not street legal (does not have a license plate from the MI Secretary of State e.g. ATV, motocross motorcycle, etc.). Your responses will help clarify how ORV riders understand the rules governing ORV use of such lands in the Upper Peninsula and the Lower Peninsula. Please answer each statement separately for the UP and the Lower Peninsula by checking whether you believe the practice is legal, illegal or don't know.

ORV Riding Situation for non-Secretary of State licensed (no license plate) ORVs (e.g. ATVs, UTVs, motocross motorcycles, etc.)	Lower Peninsula			Upper Peninsula		
	Legal	Illegal	Don't know	Legal	Illegal	Don't know
On state forest trail/road marked only with orange diamonds						
On state forest trail/road marked only with orange triangles						
On state forest trail/road marked with orange diamonds & triangles						
On state forest trail/road with no orange diamonds or triangles						
On state forest land with no trail/road to access hunting site						
On state forest land with no trail/road to retrieve game						
On state forest land with no trail/road for a non-hunting purpose						
On public lands or frozen waters a person under 16 operating an ORV without a safety certificate						
On public lands or frozen waters a person under 16 operating an ORV without direct adult supervision						

23. In which organization(s) are **YOU** currently a member? (please check all that apply.)

- Cycle Conservation Club of Michigan Michigan Sport Buggy Association
 Michigan United Conservation Clubs Great Lakes 4 Wheel Drive Association
 American Motorcyclist Association Michigan ATV Association
 Michigan Snowmobile Association ATV Off-Road Club of Michigan
 Local ORV Club or clubs (name or names) _____

24. Please describe your household (including yourself) by age group and their ORV riding. If none in group, leave blank.

Age group	Number in household	Number who operated an ORV in MI during 10/08-9/09	Number who have completed an ORV safety class and received MI ORV safety certification
Children 9 and younger			
Children 10-11			
Children 12-15			
Children 16-17			
Adults 18 and over			

24a. How many in your household are disabled (have valid temporary or permanent handicapped parking permit, permit to hunt from a standing vehicle, physician's certification for a disability or an obvious severe disability)? Please write 0 if none are disabled.

_____ # disabled in household (if 0 skip to 24)

24b. Of those disabled, how many used an ORV during 10/08-9/09: as an operator? _____ #
as a passenger? _____ #

25. At what age did **YOU** begin ORV riding? _____ years

26. What type of ORV did **YOU** first operate? (Please check **ONLY ONE**)

- Motorcycle 4 W UTV (50" or more wide) Dune buggy
 3/4W ATV (Less than 50" wide) Truck/SUV Other type ORV (list _____)

27. Do you own a golf cart? Yes No If yes, is it licensed as an ORV in Michigan? Yes No

28. Have **YOU** participated in a competitive sanctioned ORV event during the past five years? Yes No

29. How old are **YOU**? Years

30. What is **YOUR** gender? Male or Female

31. What was the highest grade or year **YOU** have completed in school or college? (Please circle the number.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Elementary through High School												College				Graduate School			

32. Where is **YOUR** principal residence? State County

33. Do you have a second home in Michigan? Yes No If yes, in what county?

34. What is the **ONE MOST IMPORTANT** thing that should **NOT BE CHANGED** with the Michigan ORV Program?

35. What is the **ONE MOST IMPORTANT** thing that should **BE CHANGED** with the Michigan ORV Program and what change should be made?

36. Have **YOU** had conflicts with others using the MI public ORV trail/route/area system?

Yes No Don't Use Trail/Route System If yes, please describe the most serious conflict.

Please provide any other comments you have about ORV riding in Michigan below.

THANKS FOR YOUR INPUT! Please mail the completed questionnaire back to me in the postage paid envelope provided. Thanks again for your time and assistance in improving the Michigan ORV program.

Dr. Chuck Nelson, 131 Natural Resources Building.
Michigan State University
East Lansing, Michigan 48824-1222
(517) 432-0272 or nelsonc@msu.edu

Appendix B – Cover Letter on MSU Stationary

October 15, 2009

Dear Michigan ORV License Purchaser:

The Michigan Department of Natural Resources (DNR) and Michigan State University (MSU) are cooperating to better understand Michigan ORV use and users. This research study is a follow-up to two done ten and twenty years ago by MSU for the DNR. Using that baseline information, it provides the opportunity to track trends in ORV riding since the late 1980s. You have been randomly selected as one of the 3,000 ORV license purchasers to be sampled from the 2008 list of approximately 175,000 Michigan ORV license purchasers or the 20,000 pre-printed ORV licenses purchased at Silver Lake State Park.

The enclosed questionnaire asks about your household's ORV use in Michigan during last twelve months for any purpose including trail riding, supporting hunting or fishing, private land use, etc. It also asks about your most recent Michigan outing where an ORV was used. In addition, it provides the opportunity for you to evaluate Michigan's ORV program, suggest program improvements and enhance ORV riding safety. Please take the 15-20 minutes needed to complete the questionnaire and mail it back to me in the postage paid envelope.

Your participation is voluntary. You can withdraw or refuse to answer any question without penalty. There are no known risks associated with your participation in this study. Rather, your participation in this study will contribute to a better understanding of Michigan ORV riding and provide guidance for future program direction.

Your responses will be kept confidential and your name will not be associated with any results. Your privacy will be protected to the maximum extent allowable by law. If you have any questions about this project at any time, please call Dr. Chuck Nelson, Associate Professor at MSU by phone (517) 432-0272 or by email at nelsonc@msu.edu.

Thanks for helping to better understand and improve Michigan ORV riding.

Sincerely,

Dr. Chuck Nelson,
Associate Professor
Enc.

Appendix C – Regional Economic Impacts from ORV Trips by Those Riding on Public Lands Outside of Their Region of Residence

Table A1. Economic Impacts on UP Economy

Sector/Spending category	Sales \$000's	Jobs	Labor Income \$000's	Value Added \$000's
Motel, hotel cabin or B&B	5,108	70	1,669	3,036
Camping fees	568	7	145	272
Restaurants & bars	4,788	83	1,374	2,048
Other vehicle expenses	255	3	93	137
Grocery stores	1,643	27	675	1,035
Gas stations	1,746	21	525	1,205
Other retail	1,294	23	535	820
Wholesale Trade	689	4	254	437
<u>Local Production of goods</u>	<u>19</u>	<u>0</u>	<u>6</u>	<u>8</u>
Total Direct Effects	16,110	238	5,276	8,998
<u>Secondary Effects</u>	<u>6,592</u>	<u>61</u>	<u>1,958</u>	<u>3,678</u>
Total Effects	22,702	299	7,234	12,676
Multiplier	1.41	1.26	1.37	1.41

Table A2. Economic Impacts on NLP Economy

Sector/Spending category	Sales \$000's	Jobs	Labor Income \$000's	Value Added \$000's
Motel, hotel cabin or B&B	6,083	78	2,011	3,652
Camping fees	676	7	186	349
Restaurants & bars	8,396	134	2,599	3,873
Other vehicle expenses	436	5	157	232
Grocery stores	2,515	37	1,053	1,609
Gas stations	2,975	32	897	2,053
Other retail	1,821	28	776	1,172
Wholesale Trade	1,191	7	441	757
<u>Local Production of goods</u>	<u>1,677</u>	<u>1</u>	<u>69</u>	<u>101</u>
Total Direct Effects	25,769	328	8,190	13,798
<u>Secondary Effects</u>	<u>13,702</u>	<u>118</u>	<u>4,197</u>	<u>7,975</u>
Total Effects	39,471	446	12,386	21,772
Multiplier	1.53	1.36	1.51	1.58

Table A3. Economic Impacts on SLP Economy

Sector/Spending category	Sales \$000's	Jobs	Labor Income \$000's	Value Added \$000's
Motel, hotel cabin or B&B	719	9	239	434
Camping fees	80	1	22	41
Restaurants & bars	1,861	28	596	889
Other vehicle expenses	234	2	90	133
Grocery stores	570	8	241	368
Gas stations	1,221	13	365	842
Other retail	201	3	85	130
Wholesale Trade	662	3	252	432
<u>Local Production of goods</u>	<u>263</u>	<u>1</u>	<u>42</u>	<u>55</u>
Total Direct Effects	5,810	67	1,933	3,325
<u>Secondary Effects</u>	<u>4,232</u>	<u>32</u>	<u>1,379</u>	<u>2,504</u>
Total Effects	10,042	99	3,312	5,829
Multiplier	1.73	1.47	1.71	1.75