more designated riding opportunities in southern Michigan. In 2000, these two were replaced in the top five by reduce ORV license fees for those only using ORVs for hunting/fishing and who do not use the designated system and increase ORV law enforcement. With provision of ORV information on the DNR website including the availability of maps there and the shift in ORV use northward, the study authors suggest that the need for better information may have been at least partially met and riders are increasingly used to using the designated system and other opportunities in northern Michigan. New concerns about reduced fees for those solely supporting hunting and fishing (in particular deer hunting and ice fishing) with ORV use may be linked to the quarter of all ORV use for this purpose. Further, requests for increased ORV enforcement may be linked to concerns about environmental damage from illegal ORV use and illegal riders giving legal ones a bad reputation. As always, there is a desire to have more places to ride.

Statewide Economic Impacts

The economic impact of ORV use in Michigan was also studied in Nelson et al. 2000. The average licensee spent \$1,944 from July 1998-June 1999 to support ORV use on items not related to ORV oriented trips. This included ORVs and trailers (equipment), insurance and storage. Equipment accounted for 80% of these expenditures. In total this non-trip spending was estimated to amount to \$134 million annually. Considering that the number of ORVs has since almost doubled, it is reasonable to assume this non-trip spending has risen in a similar manner. However, because most ORVs (other than some full-size vehicles) are manufactured outside of Michigan, the economic benefit of much of this equipment spending to the state is limited to dealer markups on vehicles.

Concerning ORV trips of 100 or more miles from home or those involving an overnight stay **and** where the primary purpose was ORV riding (not hunting, fishing, working around one's property, etc.), it was estimated that licensees and their friends and family took 152,000 such trips during July 1998-June 1999. Those trips generated \$40 million in spending in the local area where riding took place and en route to and from riding area. The spending does not include spending at home in preparation for the trip and thus is conservative in its estimate of economic impact.

Coupled with the \$134 million in equipment spending, this was estimated to have supported 822 Michigan jobs, provided \$16.4 million of income to Michigan workers, generated \$ 2.4 million in state sales taxes (at the former 4% level) and generated \$336,000 in state income taxes. This provides a substantial economic benefit to economies in northern Michigan. In particular, many businesses that support outdoor recreationists such as private campgrounds, motels, convenience stores, restaurants, parts and repair facilities, etc. are locally owned, providing substantial local economic benefit to small towns and rural areas.

Recent Surveys of Michigan Local Government Entities

County Sheriffs

All 83 Michigan county sheriffs received a mail survey in 2004 asking about their willingness to participate in ORV safety education on a basis similar to marine safety education. A copy of survey instrument is found in Appendix A. In 2004, 80 of 83 counties were involved in marine safety enforcement with the vast majority providing safety education using a classroom model with a standardized, mandatory and proctored classroom test. A total of 60 (72%) responded. Of those, 63% said they were interested in participating in such an ORV safety education program, 4% responded maybe, 25% were not interested and 7% didn't respond to the question.

Of the 60 counties that responded, 16 participated in the 2003 ORV Law Enforcement Grant program. This is 76% of the counties 21 counties that participated in the ORV Law Enforcement Grant Program in 2003. Those responding and participating reported they spent an average of 77% of ORV patrol time on the designated ORV system trails, routes and areas, while the other 23% was spent at trailheads. Key ORV violations targeted by the participating sheriffs were: operation under the influence of drugs/alcohol, operation by a non-certified youth without adult supervision, trespass on private lands, ORV operation on public lands/roadways where prohibited and lack of an approved helmet/safety equipment. They cited public safety need, citizen concerns about trespass, increasing ORV use and increasing illegal ORV use on roadways as the key reasons for their participation in ORV enforcement. If additional money were available for county sheriff ORV enforcement, they would provide additional patrol hours or purchase new/appropriate ORV patrol equipment. A number questioned why certified police officers are needed for ORV patrol when for marine safety and snowmobile enforcement deputies with substantially less training are legally empowered to enforce a limited set of applicable laws. Further, many marine deputies are school teachers, who are also effective marine safety instructors, coupling knowledge of safe boating with professional teaching knowledge and educational skills from years of experience in their primary job. There was interest in a similar situation for ORV enforcement by some participating sheriffs.

Northern Michigan County Road Commission Managers

A 2004 mail survey was conducted of the road commission managers of the northernmost 56 Michigan counties. A copy of survey instrument is found in Appendix A. Of these, 33 (59%) responded. A slight majority, 17 (52%) did not allow ORV use on any road shoulders, 10 allowed ORV use on all county road shoulders and 6 on some county road shoulders. A number were at pains to point out that these decisions were made by the county board of commissioners, not the road commission.

Of those counties that allowed no access to county roads, key concerns were liability, safety of ORV and other motor vehicle operators/occupants and additional road maintenance costs. Of those who allowed some access to road shoulders, the concerns mentioned above were weighed against the need/interest in connecting trail loops, promoting tourism through linking the designated system through targeted access routes to goods and services, cooperating with ORV organizations and achieving balance in the county between those supporting access to all road shoulders and those opposed to any access to road shoulders. For those counties that opened all county road shoulders for

ORV use, key supporting rationale was that it promoted tourism, assisted agriculture, was supported by many local people and complemented road shoulders already open to snowmobile use.

Where it is illegal to ride county road shoulders, citizen comment received by the road commission about such riding were that the illegal use damaged road shoulders, led to trespass on private lands and ORVs traveling on road shoulders at excessive speeds in an attempt to evade citation, leading to safety concerns for ORV riders and operators of street legal vehicles. Conversely, where it was legal, road commission managers reported citizen comments that legal use had reduced speeding by ORVs on road shoulders, had benefited service businesses, had led to road and shoulder damage and was often confusing to older motorists, creating a safety risk. As a group, road commission managers were more supportive of having the DNR acquire land or designate existing forest roads to link together existing ORV trail loops than to use the county road system for such purposes.

ORV Programs in Other States

State trail coordinators in other states were surveyed in 2004 to better understand approaches taken elsewhere that may benefit Michigan. A copy of the survey instrument is found in Appendix A. A total of 26 of 49 (53%) other states responded. Only 6 (23%) have a state ORV plan. Twenty-five (96%) had some public land ORV riding opportunity with 77% having federal land opportunities, 73% having state land opportunities and 46% having local public land opportunities. Michigan also has public land riding opportunities at all three levels of government. About half (52%) used a "closed unless posted open" approach, such as Michigan uses in the Lower Peninsula, while 48% had a more "open unless posted closed" approach. In many states this "open unless posted closed" approach is likely to change if the US Forest Service is the provider of public ORV riding opportunity. The agency has announced a nationwide direction toward a "closed unless posted open" approach that is currently being built into forest plan revisions.

In regards to trail systems, most states were unlike Michigan in that the majority of trail miles (79%) were open to all types of ORVs, while in Michigan the system has developed in a manner that provides a significant amount of motorcycle trail and ATV trail. Trail maintenance involved non-profits in 69% of the states, 35% used for-profit contractors, 58% involved the state government, 62% involved the federal government and 23% had some local public maintenance. In Michigan, all the above except for for-profit contractors are directly used and supported by the ORV Trail Maintenance grant program. Relatively few states (27%) were involved in restoring environmental damage from ORV use. Michigan has dedicated funds to annually be spent on restoring environmental damage to public lands caused by ORV use. In addition, Michigan has distinct priorities targeting the protection of surface waters, designated wilderness, federal wild and scenic rivers, state natural rivers and sensitive and aesthetic areas.

Bob Walker (MT), chair of the National Association of Off-Highway Vehicle (OHV) State Program Managers, annually gathers and distributes information about state OHV