

MOTORCYCLE SAFETY PROGRAM

TECHNICAL ASSESSMENT

for the

STATE OF NEVADA



November 13 - 18, 2011

National Highway Traffic
Safety Administration
Technical Assistance Team

Terry J. Butler
Richard O. Davis
Lawrence J. Lippolis
Carol A. Montoya, CAE
Brett Robinson

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The Technical Assessment Team also acknowledges the National Highway Traffic Safety Administration (NHTSA) staff for their assistance in making this assessment possible. The Technical Assessment Team believes that this report will contribute to the State's efforts to develop an effective motorcycle safety program to prevent crashes and injuries, save lives, and reduce the economic costs of motorcycle-related crashes on Nevada's highways and roads.

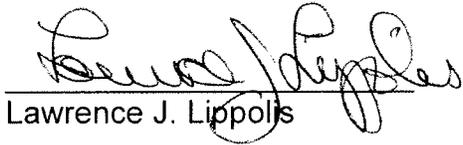
The Technical Assessment Team also extends a special thanks to all of the persons who provided information, data, and documents that were necessary to conduct an effective assessment. Their candor and thoroughness in discussing activities associated with motorcycle safety in Nevada greatly assisted the Technical Assessment Team in completing its review and making its recommendations. The Technical Assessment Team also recognizes the dedication and passion of all those involved in making motorcycling safer in Nevada and hopes that this report will further those efforts.

NOTE: The information included in this document has been collected from a variety of sources, such as interviews, official documents, websites, and other materials. Sources may not be consistent. Some copyrighted information has been used under the "fair use" doctrine of the U.S. copyright statute.

Nevada Technical Assessment Team Members


Terry J. Butler


Richard O. Davis


Lawrence J. Lippolis


Carol A. Montoya, CAE


Brett Robinson

Introduction

Each State should have a comprehensive program to promote motorcycle safety and prevent motorcycle crashes and related injuries. To assist States in determining whether their programs are truly comprehensive, NHTSA developed a motorcycle safety program technical assessment process based on Highway Safety Program Guideline Number 3, Motorcycle Safety.

According to Highway Safety Program Guideline Number 3, Motorcycle Safety, a comprehensive motorcycle safety program is comprised of 11 program areas: Program Management; Motorcycle Personal Protective Equipment; Motorcycle Operator Licensing; Motorcycle Rider Education and Training; Motorcycle Operation Under the Influence of Alcohol or Other Drugs; Legislation and Regulations; Law Enforcement; Highway Engineering; Motorcycle Rider Conspicuity and Motorist Awareness Program; Communication Program; and Program Evaluation and Data. The Technical Assessment Team addresses all of these subject areas in this report.

At a State's request, NHTSA assembles a multi-disciplinary Technical Assessment Team of national experts that conducts a thorough review of the State's motorcycle safety efforts, identifies strengths and areas for improvement, and provides recommendations to enhance the program. This approach allows States to use highway safety funds to support the Technical Assessment Team's evaluation of existing and proposed motorcycle safety efforts.

NHTSA's assistance in assessing Nevada's motorcycle safety efforts was requested by OTS. NHTSA discussed issues of concern with representatives from the State prior to the assessment.

The Motorcycle Safety Program Technical Assessment for Nevada was conducted in Reno, NV, from November 13-18, 2011. Arrangements were made for program subject matter experts and key stakeholders to deliver briefings and provide support materials to the Technical Assessment Team over a three-day period. The Technical Assessment Team interviewed 24 presenters, with some being contacted following their presentations to provide additional technical information and clarification.

Analysis of Nevada's motorcycle safety effort is based solely upon the oral and written information provided to the Technical Assessment Team during the assessment process. The Technical Assessment Team emphasizes that this report is only as accurate as the information received. Every effort was made to develop recommendations after considering what could and should reasonably be accomplished within Nevada, with short- and long-term applicability.

The Technical Assessment Team strongly encourages Nevada and all stakeholders in the motorcycling community to implement the recommendations made in this report. There continues to be a need for Nevada to enhance its motorcycle safety program by adopting and incorporating all of the emphasis areas associated with a comprehensive

motorcycle safety program. Aggressive pursuit and implementation of the recommendations will significantly improve the overall safety of motorcyclists and reduce the likelihood of suffering fatal injuries while enjoying the roadways and scenic locations of Nevada.

Demographics

Nevada has an area of 110,561 square miles (286,350 km²) and is the 7th largest State. Approximately 86% of the state’s land is owned by the US government under various jurisdictions, both civilian and military.

Nevada has a population of about 2.7 million. It is the 35th most populous state. There are two major metropolitan areas in Nevada: Las Vegas in the south and Reno in the north. Over two-thirds of Nevada’s people live in the Las Vegas metropolitan area, which contains its three largest incorporated cities. The balance of Nevada (roughly 300 miles by 500 miles) has less than 4% of the population.

The traffic safety problems within Nevada are the typical problems of a metropolitan area. OTS classifies Clark County as an urban county, (98% of Clark County’s population is in the greater Las Vegas Metropolitan Area). Washoe, Carson City, Lyon, and Douglas Counties are also considered as urban in character (population over 50,000). Storey and Churchill counties in the Reno area and a small corner of Nye County in the Las Vegas area are growing as “bedroom” communities, leading to significantly increased commuter traffic on predominately two-lane roads and highways.

Riding Season

Nevada is made up of mostly desert and semiarid climate regions; daytime summer temperatures sometimes may rise as high as 125°F (52°C) and nighttime winter temperatures may reach as low as -50°F (-46°C). Most parts of Nevada receive scarce precipitation during the year. The winter season in the southern part of the State tends to be of short duration and mild, allowing for a year-round riding season. However, in the northern part of the State, the riding season runs from March through early November.

Nevada Traffic Injury and Fatality Issues

TRAFFIC FATALITIES – NEVADA 2004 – 2010

(from Nevada’s 2012 Highway Safety Plan)

Year	Motor Vehicle	Motorcycle	Pedestrian	Bicyclists	Other	Total
2004	270	48	62	14	0	395
2005	283	56	63	10	15	427
2006	312	50	51	10	8	432
2007	254	51	52	10	6	373
2008	196	59	56	7	6	324
2009	150	42	35	7	9	243
2010	163	45	41	6	4	257

According to Fatality Analysis Reporting System (FARS) data, in the United States during 2009 (the most recent year for which data are available), 33,808 people were killed in traffic crashes. Of those fatalities, 4,462 (13%) were motorcyclists. According to Nevada data, there were 243 traffic fatalities in 2009, 42 (17%) of which were motorcyclists.

There were a total of 427 traffic-related fatalities in Nevada in 2005. That number remained relatively static in 2006 (432 fatalities), dropped to 373 fatalities in 2007, dropped again to 324 in 2008, fell to 243 in 2009, and increased to 257 in 2010. In the same period, motorcyclist fatalities fluctuated from 56 in 2005, to 50 in 2006, 51 in 2007, and 59 in 2008. There was a significant drop in 2009, to 42 motorcyclist fatalities. In 2010, there were 45 motorcyclist fatalities.

Although passenger motor vehicle fatalities have declined dramatically between 2006 to 2010 (312 down to 163), motorcycle fatalities have decreased by a much smaller number (50 down to 45). In this five-year period, passenger motor vehicle fatalities have declined by 48%, but motorcycle fatalities have only fallen by a total of 10%

According to Federal Highway Administration (FHWA) data, total motorcycle registrations in Nevada have steadily increased each year, from 50,648 in 2005 to 68,738 in 2009. But during the same period of time, motorcyclist fatalities per 100,000 motorcycle registrations have decreased, from 110.6 in 2005, to 90.5 in 2009.

Ninety-three percent of the 2009 motorcyclist fatalities in Nevada were helmeted riders, although data do not indicate whether the helmets were compliant with Federal Motor Vehicle Safety Standards (FMVSS) No. 218, Motorcycle Helmets. NHTSA estimates that helmet use by motorcyclists in Nevada prevented 24 fatalities during 2009, with an estimated economic cost savings to the State of \$45,049,706.

From 2005-2009 in Nevada, an average of 5% of motorcyclist fatalities were under age 20; an average of almost 26% were ages 20-29; an average of 19.6% were ages 30-39; an average of 21.6% were ages 40-49; an average of 17.1% were ages 50-59; and an average of 8.9% were over age 59.

Summary of Major Recommendations

Program Management

- Create a coalition to increase stakeholder involvement in the analysis, planning, and implementation of a comprehensive motorcycle safety program. Members of the coalition, appointed by the Office of Traffic Safety, should represent State agencies, private organizations, rider groups, dealers, medical groups, highway engineers, etc. This coalition could serve as an extension of the Advisory Board or as full members should NRS 486.376 be amended.
- Establish defined Office of Traffic Safety ownership of the Nevada Rider Motorcycle Safety Program by taking a leadership role in every aspect of a comprehensive motorcycle safety program, including evaluation, planning, management, and marketing.
- Integrate motorcycle safety activities into the Strategic Highway Safety Plan, as well as into other related highway safety activities, including impaired driving, occupant protection, speed management, and driver licensing programs.
- Amend Nevada Revised Statute 486.372.3, replacing “For any other purpose authorized by the Legislature,” with “only to.”
- Establish a formal planning process for the implementation and evaluation of motorcycle safety countermeasures that include detailed action steps with assigned responsibilities, identification of partners, funding requirements, and objective evaluation criteria to measure success, effectiveness, and value.

Motorcycle Personal Protective Equipment

- Conduct regular motorcycle helmet use observational studies to collect data and determine the use percentage of Federal Motor Vehicle Safety Standards No. 218 compliant versus non-compliant helmets.
- Conduct an information and education campaign on the results of the helmet use study, including detailed information on how to determine the differences between compliant and non-compliant motorcycle helmets to increase awareness among motorcycle riders, law enforcement personnel, prosecutors, and judges.
- Conduct a comprehensive communications campaign to promote the use of full protective gear.

Motorcycle Operator Licensing

- Ensure the Motorcycle Operator Manual and Motorcycle Operator Manual knowledge test versions are aligned. Update the Motorcycle Operator Manual and Motorcycle Operator Manual knowledge test to the MSF 16th edition.
- Develop a process to determine the unlicensed/unendorsed rider population and determine appropriate programs to address the unlicensed rider problem and encourage riders in Nevada to complete the licensing process.
- Adopt the new Motorcycle Safety Foundation Rider Skills Test for skills testing motorcycle and three-wheel operators.
- Conduct oversight of the rider education end-of-course test for the licensing waiver system, including a “secret shopper” technique.
- Amend the Department of Motor Vehicles administrative procedures to require the instruction permit to be valid for only 90 days and allow the instruction permit to be renewed a maximum of two times to encourage riders to complete the licensing process.

Motorcycle Rider Education and Training

- Revise the Program Manual before the current Administrator retires to document all of the program policies and procedures currently in effect.
- Adopt, under the authority granted to the Director in Nevada Revised Statute 486.372, the Model National Standards for Entry-Level Motorcycle Rider Training (DOT HS 811 503) to ensure that rider education curricula offered in Nevada provides all foundation content to entry-level motorcycle riders.
- Conduct and document a needs assessment to determine the demand for rider education courses in Nevada and develop a plan to meet that demand.
- Revise the Program Manual to require that every instructor be formally evaluated at least once before recertification. Strive for annual evaluation of each instructor. Utilize out-of-state RiderCoach Trainers and/or Nevada site coordinators to meet the new Quality Assurance Review requirements. Utilize the Motorcycle Safety Foundation Quality Assurance Training Course to ensure consistency in evaluations.
- Establish additional pre-course requirements for RiderCoach Preparation Courses to reduce the number of candidates who do not successfully complete the course. For example, require instructor candidates to successfully complete the entire BRC before attending the RiderCoach Preparation Course or require instructor candidates to serve as range aides.

- Establish and implement a plan to replace training motorcycles every 3 to 5 years.

Motorcycle Operation Under the Influence of Alcohol or Other Drugs

- Include impaired motorcyclist enforcement as a specific component of enforcement grants and in the Highway Safety Plan.
- Capitalize on the enthusiasm, expertise, and passion of law enforcement partners to develop and implement impaired riding prevention efforts. Organize and conduct law enforcement saturations, checkpoints, and operations with an emphasis on motorcycles.
- Provide training on prosecuting impaired riding offenders during all law enforcement, prosecutor, and judicial training or conferences. Consider outreach to judges and prosecutors to educate state and local courts on the problem of impaired riding.
- Enhance and distribute impaired riding informational materials to State and local law enforcement, Department of Motor Vehicles stations, rider education sites, dealerships, highway rest areas, State and national parks, special events, and motorcycle rallies.

Legislation and Regulations

- Maintain the existing motorcycle helmet law, Nevada Revised Statute 486.231.
- Revise Nevada Administrative Code 486.015, Helmets, to incorporate the recommendations contained in the 2002 Attorney General's opinion. Propose follow-up changes to Nevada Revised Statute 486.231 as appropriate to give full force and effect to the regulatory changes.
- Require moped and trimobile operators and passengers to wear of Federal Motor Vehicle Safety Standards No. 218 compliant helmets by repealing NRS 486.057, definition of Trimobile and by removing mopeds from the list of excluded vehicles in NRS 486.041, Motorcycle Defined.
- Revise the statutes to classify two-wheel and three-wheel vehicles as motorcycles. Simplifying the statutes to include all two-wheel and three-wheel vehicles, including mopeds, in the definition of motorcycles will lessen the burden of enforcing the license and endorsement requirements.

Law Enforcement

- Identify motorcycle enforcement as a specific component of enforcement grants.

- Incorporate motorcycle-specific messages into Joining Forces enforcement activities.
- Develop and distribute motorcycle crash statistics and motorcycle-specific informational materials to law enforcement agencies to aid them in planning and training.
- Develop data-driven countermeasures and implement selective enforcement where fatal and injury motorcycle crashes are occurring.

Highway Engineering

- Provide advanced warning signs to alert motorcyclists to unusual or irregular roadway surfaces and adopt or develop standards for signage used for motorcycles.
- Adopt and implement the Manual on Uniform Traffic Control Devices for Streets and Highways standards for Warning Signs and Plaques for Motorcyclists W8-15P, W8-15, and W8-16.
- Evaluate the Nevada Department of Transportation Strategic Highway Safety Plan to determine how motorcycle characteristics related to highway engineering and design, including pavement traction factors, can be considered.
- Establish a collaborative relationship between the Advisory Board, the Office of Traffic Safety, and Nevada Department of Transportation to address highway engineering issues related to motorcycle safety.

Motorcycle Rider Conspicuity and Motorist Awareness Programs

- Develop motorcyclist conspicuity messages and materials with greater detail of what motorcyclists can do to be more visible, defensive driving techniques, and the benefits of rider training.

Communications Program

- Build a new Nevada Rider website, to include safety information, rider education class schedules and registration/training site links, licensing information, sharing the road, motorcyclist conspicuity, and relevant motorcycle crash and fatality data. The National Association of State Motorcycle Safety Administrators (SMSA) can host State program websites at no charge.
- Create community-based coalitions, using motorcycle dealers and rider groups as the primary base. Utilize their networks to distribute motorcycle safety messages and materials, and engage them to help staff the Office of Traffic

Safety booth at rallies to take advantage of peer to peer contact at these community events.

- Develop Nevada-specific motorcycle safety materials addressing helmet and personal protective equipment use, impaired riding, licensing, and rider education.
- Expand distribution channels for motorcycle safety information and materials, e.g., during rider education classes, at point of sale, in Department of Motor Vehicles offices, and with annual motorcycle registration/license renewal mailings, and at rallies and events. In addition, capitalize on Department of Motor Vehicles' willingness to help and print rider education information on the back cover of the Nevada Motorcycle Operator Manual.

Program Evaluation and Data

- Examine all motorcycle crash data, not just fatal crashes, to identify and address crash causation factors and establish Nevada Rider Motorcycle Safety Program initiatives. For example, contract with the Center for Traffic Safety Research at the University of Nevada School of Medicine, or similar research institution, to analyze and report on motorcycle crash factors.
- Create a system to identify and collect critical information to assist with problem identification, establish priorities, and develop countermeasures to reduce motorcycle crashes, injuries, and fatalities.
- Establish a formal planning process for the implementation and evaluation of motorcycle safety countermeasures that includes detailed action steps with assigned responsibilities, identification of partners, funding requirements, status and objective evaluation criteria to measure success, effectiveness, and value. Refer to Volume 22, NCHRP Report 500, Objective 11.1 H—Improve Motorcycle Safety Research, Data, and Analysis for guidance.
- Evaluate all countermeasures for their impact on reducing motorcycle crashes, injuries, and fatalities.

I. Program Management

Each State, in cooperation with its political subdivisions and stakeholder community, should have a comprehensive program to promote motorcycle safety and prevent motorcycle crashes and related injuries. To be effective in reducing the number of motorcycle crashes, injuries, and fatalities, state programs should support centralized program planning, implementation, and coordination to identify the nature and extent of its motorcycle safety problems, to establish goals and objectives for the State's motorcycle safety program, and to implement projects to reach the goals and objectives. State motorcycle safety plans should:

- Designate a lead agency for motorcycle safety;
- Develop funding sources;
- Collect and analyze data on motorcycle crashes, injuries, and fatalities;
- Identify and prioritize the State's motorcycle safety problem areas;
- Encourage collaboration among agencies and organizations responsible for, or impacted by, motorcycle safety issues;
- Develop programs (with specific projects) to address problems;
- Coordinate motorcycle safety projects with those for the general motoring public;
- Integrate motorcycle safety into State strategic highway safety plans and other related highway safety activities including impaired driving, occupant protection, speed management, and driver licensing programs; and
- Routinely evaluate motorcycle safety programs and services.

Status

The lead agency for Nevada's motorcycle safety program is the Department of Public Safety (DPS). The DPS Director has selected OTS to develop, administer, and manage the overall program. The program exists under the authority of Nevada Revised Statute (NRS) 486.370 through 486.377. The motorcycle safety program is advertised to the public as the Nevada Rider Motorcycle Safety Program (NRMSP).

OTS has appointed a program Administrator, through contract, and a program assistant to manage the NRMSP. The Administrator reports to the Chief of the OTS. The program's focus areas and priorities are motorcycle operator training for the public, the effects of alcohol and drugs, and public awareness.

The current program Administrator, Mr. Ken Kiphart, has announced his intent to retire after 11 years with OTS and more than 18 years supporting the NRMSP. The Team would like to recognize his significant contributions.

OTS sought and received approval for a new full-time position within OTS for responsibility of the NRMSP. The position will be that of an Education and Information Officer. The Team has two concerns regarding this position: the amount of time needed to manage a comprehensive motorcycle safety program and the salary allocated for the position. If adjustments to staffing and salary cannot be made, OTS should contract out

the rider education component of the NRMSP.

The NRMSP administrator also consults with an Advisory Board on Motorcycle Safety (Advisory Board), consisting of five members appointed by the Governor, created under NRS 486.376. The duties of the Board include:

- Advise and assist in developing, establishing and maintaining the program;
- Regularly review the program and make recommendations relating to the administration and content of the program, and
- Submit program reports to the Governor and Legislative Council Bureau

The Advisory Board is an effective resource for the NRMSP, however it may be limited by the size and make-up of its members. It could benefit from participation by persons representing highway engineering, Department of Motor Vehicles (DMV), Nevada Department of Transportation (NDOT), operator licensing, and rider education. In lieu of a statutory amendment, consideration should be given to increase stakeholder participation by creating liaison or ex officio members.

The NRMSP is funded through a legislative mandate authorizing the collection of a \$6 fee with the registration of each motorcycle other than a trimobile. This additional fee must be deposited in the State Highway Fund for credit to the account for the education of motorcycle riders (NRS 482.480.4). On an annual basis, approximately \$400,000 is credited to this fund. These funds may be used to pay the expenses of the program, including reimbursement to instructors for services provided to the program or for any other purpose authorized by the legislature (NRS 486.372.3). The interest and income earned on the money in the account, after deducting applicable charges, must be credited to the account. A detailed accounting of the expenses for the NRMSP is included in the biennial program report. It should be noted that during the last legislative session, NRS 486.372.3 was amended by eliminating the words “only to” and substituting “for any other purpose authorized by the legislature” and then the legislature reduced the fund by \$126,418. After this reduction, the fund balance at the end of fiscal year 2010 was \$317,606.

In addition to the NRMSP fund, OTS proposes three federally funded motorcycle safety projects for fiscal year 2012:

Section 2010 – \$260,500

Section 402 – \$50,450

Section 406 – \$8,358

The NRMSP conducts motorcycle rider training using contractors and private authorized training sites, as well as directly through DPS. Presently, all contract training is conducted by the Nevada System of Higher Education through individual agreements with local colleges. The NRMSP provides a training subsidy to its contract providers in

an effort to keep tuition affordable. Currently, the per-student subsidies (for Nevada residents only) are \$40 for a Basic RiderCourse (BRC) and \$20 for an Experienced RiderCourse (ERC). Actual site costs are not considered. The contract providers accepting the subsidies are subject to a tuition cap of \$100 (NRS 486.373.2), established in 1991. Without an increase to the tuition cap, the possibility of expanding the training program is questionable due to the increased costs associated with providing such training.

OTS is responsible for collecting and analyzing data on motorcycle crashes, injuries, and fatalities. OTS only looks at fatalities when analyzing and evaluating motorcycle data. This is attributed to a lack of personnel and resources, however OTS has access to the following data sources:

- FARS
- NDOT Annual Crash Summary
- Nevada Citation and Accident Tracking System (NCATS)
- DMV
- Occupant Protection Observational Survey Reports
- Nevada Highway Patrol (NHP) 'Safe Stat' Reports
- University of Nevada Las Vegas (UNLV) Transportation Research Center
- NHTSA and National Center for Statistics and Analysis Traffic Safety Fact Sheets
- Emergency Medical Services NEEDS/NEMESIS
- State demographer reports
- University Medical Center trauma records for motor vehicle crash victims from all of the State's trauma centers (Levels I, II, and III)

With Nevada's considerable population growth and renewed popularity of motorcycles, OTS has determined that enforcement and education of both motor vehicle and motorcycle operators has become more critical. This is particularly true in southern Nevada where the weather is conducive to year-round riding. The NRMSP continues to increase student enrollment when possible. Lack of suitable locations/facilities, availability of instructors, and fiscal resources were cited as constraints to conducting more courses.

Within the 2012 Highway Safety Plan, the following motorcycle safety performance goals have been established:

- Decrease the number of motorcycle fatalities from 45 in 2010 to 40 by 2012.
- Decrease the percentage of un-helmeted fatalities from 5.13% in 2010 to 2% by calendar year end 2012.

The strategies to be used in an effort to reach these performance goals are:

- Provide public education on the importance of heightened awareness of

motorcycles on our highways by other motorists.

- Develop a coalition of motorcycle safety advocates to review and identify new strategies to educate the driving public (motor vehicle and motorcyclists) on how to share the road.
- Increase the number of BRC and ERC motorcycle training courses being offered in Nevada.

OTS has focused efforts and resources on Nevada's rider education program, as well as a motorist awareness campaign. However, these two components alone do not constitute a comprehensive motorcycle safety program as outlined by NHTSA's Highway Safety Program Guideline No. 3, Motorcycle Safety. Limited evidence was presented to indicate that OTS collaborates with other agencies and organizations responsible for, or impacted by, motorcycle safety issues. An additional strategy should be to integrate motorcycle safety into the State Strategic Highway Safety Plan (SHSP), as well as into other related highway safety activities, including impaired driving, occupant protection, speed management, and driver licensing programs. Routine evaluation of motorcycle safety programs and services is another strategy currently not in use, but is essential to the success of a comprehensive motorcycle safety program.

The Team notes what appears to be an overall lack of ownership for the State's motorcycle safety program. There is confusion among motorcyclists, motorcycle training providers, and staff from State agencies concerning the ownership and responsibility for the motorcycle safety program. Interviewees frequently referred to the program as "the MSF [Motorcycle Safety Foundation] program." Efforts should be made to establish ownership and brand the NRMSP, clearly identifying it as Nevada's comprehensive motorcycle safety program.

Recommendations

- **Create a coalition to increase stakeholder involvement in the analysis, planning, and implementation of a comprehensive motorcycle safety program. Members of the coalition, appointed by OTS, should represent State agencies, private organizations, rider groups, dealers, medical groups, highway engineers, etc. This coalition could serve as an extension of the Advisory Board or as full members should NRS 486.376 be amended.**
- **Establish defined OTS ownership of the NRMSP by taking a leadership role in every aspect of a comprehensive motorcycle safety program, including evaluation, planning, management, and marketing.**
- **Integrate motorcycle safety activities into the SHSP, as well as into other related highway safety activities, including impaired driving, occupant protection, speed management, and driver licensing programs.**

- **Amend NRS 486.372.3, replacing “For any other purpose authorized by the Legislature,” with “only to.”**
- **Establish a formal planning process for the implementation and evaluation of motorcycle safety countermeasures that include detailed action steps with assigned responsibilities, identification of partners, funding requirements, and objective evaluation criteria to measure success, effectiveness, and value.**
- Amend NRS 486.373.2 to increase the tuition cap to \$200 for the program. In lieu of such an increase, consider adjusting the training subsidy based on individual audits of each program sponsor, thereby providing a subsidy for each sponsor site based on operating expenses.
- Determine the feasibility of contracting out the rider education component of the program to increase OTS staff efficiencies.

II. Motorcycle Personal Protective Equipment

Each State should support passage and enforcement of mandatory all-rider motorcycle helmet use laws. In addition, each State should encourage motorcycle operators and passengers to use the following protective equipment through an aggressive communication campaign:

- Motorcycle helmets that meet the Federal helmet standard;
- Proper clothing, including gloves, boots, long pants, and a durable long-sleeved jacket; and
- Eye and face protection.

Personal protective equipment is the most effective method of reducing the risk of injury or death when motorcyclists are involved in traffic crashes. All States should enact laws requiring all motorcycle operators and passengers to wear motorcycle helmets (universal helmet use laws). Helmet use has been identified as the single most important factor in the reduction and prevention of head injury in motorcycle crashes. Over-the-ankle boots, full-fingered leather gloves, long pants, and long-sleeve shirts or durable jackets offer motorcyclists protection from the environment and from injury in case of a crash. Additionally, bright-colored clothing and retro-reflective materials enhance a motorcyclist's visibility to other motorists in traffic. States should encourage use of these items in their helmet use and other motorcycle safety campaigns.

Status

Nevada has a universal law for both protective headgear and eye protection. NRS 486.231 requires drivers and passengers of motorcycles, except a trimobile or moped, to wear protective headgear securely fastened on the head as well as protective glasses, goggles, or face shields that meet adopted standards. Nevada has adopted by reference the regulations contained in 49 CFR 571.218 as the standards for protective headgear.

Drivers and passengers of trimobiles are only required to wear protective glasses, goggles, or face shields. When a motorcycle or trimobile is equipped with a transparent windscreen, the driver and passenger are not required to wear protective glasses, goggles, or face shields. When a motorcycle is being driven in a parade authorized by a local authority, the driver and passenger are not required to wear such protective devices. For a three-wheel motorcycle on which the driver and passengers ride within an enclosed cab, such protective devices are not required.

The Team recognizes the fact that the motorcycle helmet use law is a politically and culturally sensitive issue in Nevada. In addition, the standard for a compliant motorcycle helmet is currently being challenged, resulting, in some jurisdictions, in a reduced willingness to prosecute riders cited for wearing a non-compliant helmet. Use of FMVSS No. 218 compliant helmets has been identified as the single most important factor in the reduction and prevention of head injury in motorcycle crashes. Between 2000 and 2009,

according to FARS data, a total of 413 motorcyclists died on Nevada roads, of which 78 were not wearing helmets.

Nevada does not currently conduct motorcycle helmet use observational surveys. It is important for the State to collect such data and determine the usage percentage of FMVSS No. 218 compliant versus non-compliant helmets. This data can be valuable when defending against future helmet legislation repeal attempts. Once the State determines the extent to which non-compliant motorcycle helmets are used, an information and education campaign can be developed. This will increase awareness about this critical safety issue among motorcycle riders, law enforcement personnel, prosecutors, and judges.

The benefits of using full personal protective equipment, including an FMVSS No. 218 compliant motorcycle helmet as well as all other protective gear, is taught during the NRMSP education courses and is required during all rider education lessons. NRMSP instructors are required to meet and maintain the professional standards outlined in the NRMSP Program Manual, which includes always wearing protective gear when riding to, from, and during rider training activities, or when representing the program in any capacity. It goes on to say that, ideally, all protective gear is worn at all times.

The only evidence of protective gear promoted through the work place was that of Harley Davidson of Las Vegas, which requires its employees to wear protective gear, over-the-ankle shoes, and long pants when riding a motorcycle on Harley Davidson property.

There is no evidence of a coordinated plan for communicating messages to the motorcycling public about the benefits of the use of personal protective equipment. An opportunity exists to make all riders aware of the differences between a compliant and non-compliant motorcycle helmet.

Recommendations

- **Conduct regular motorcycle helmet use observational studies to collect data and determine the use percentage of FMVSS No. 218 compliant versus non-compliant helmets.**
- **Conduct an information and education campaign on the results of the helmet use study, including detailed information on how to determine the differences between compliant and non-compliant motorcycle helmets to increase awareness among motorcycle riders, law enforcement personnel, prosecutors, and judges.**
- **Conduct a comprehensive communications campaign to promote the use of full protective gear.**

III. Motorcycle Operator Licensing

States should require every person who operates a motorcycle on public roadways to pass an examination designed especially for motorcycle operation and to hold a license endorsement specifically authorizing motorcycle operation. Each State should have a motorcycle licensing system that requires:

- Motorcycle operator's manual that contains essential safe riding information;
- Motorcycle license examination, including knowledge and skill tests, and State licensing medical criteria;
- License examiner training specific to testing of motorcyclists;
- Motorcycle license endorsement;
- Cross-referencing of motorcycle registrations with motorcycle licenses to identify motorcycle owners who may not have the proper endorsement;
- Motorcycle license renewal requirements;
- Learner's permits issued for a period of 90 days and the establishment of limits on the number and frequency of learner's permits issued per applicant to encourage each motorcyclist to get full endorsement; and
- Penalties for violation of motorcycle licensing requirements.

Status

The Nevada DMV uses the Motorcycle Safety Foundation's (MSF) 15th edition (the most current edition is the 16th) of the Motorcycle Operator's Manual (MOM) and Three-Wheel Supplement. The MOM is available electronically on the DMV website and in printed form at the DMV offices. The DMV distributed 44,120 printed copies of the manual in 2010. It is not known whether the number of hits for the MOM link on the DMV website can be tracked.

The MOM is printed yearly, which allows for regular updates. The MSF is responsible for the validation of the manual content. The DMV Public Information Officer is responsible for updates of the Nevada-specific information. The Nevada MOM does not contain information unique to the operational challenges of riding a motorcycle in Nevada (e.g., mountain and desert riding). The DMV does not work with the MSF on updates to the MOM. The DMV does not seek input on specific content and updates from the motorcycle rider community.

DMV is utilizing the 14th edition of the MOM knowledge test and has not yet migrated to the 15th or 16th edition. DMV contracts with Solution Thru Software (STS) for its automated knowledge testing system. DMV works with STS on updates required for the knowledge test questions. It does not appear that DMV does an item analysis of the knowledge test questions, however, STS is capable of providing a detailed item analysis if requested.

In 2010, DMV conducted a total of 4,715 knowledge tests and 1,087 skills tests. DMV utilizes the MSF Alternate Motorcycle Operator's Skills Test (ALTMOST). A road test is

used for three-wheel vehicles. The road test route and scoring criteria are the same as those used for non-commercial vehicles.

DMV, with assistance from NRMSP, conducts training for DMV motorcycle license examiners. DMV utilizes the MSF ALMOST Instructor's Guide and Examiner Workbook for conducting the training. Motorcycle license examiners are trained utilizing the standards set by the American Association of Motor Vehicle Administrators (AAMVA) International Driver Examiner Certification Program and are certified through the program as Certified Motorcycle Examiners (CME). All State examiners are required to achieve and maintain the CME certification. Initial training of the examiner is a minimum of 8 hours and each motorcycle license examiner must receive 20 hours of refresher training over the 4-year certification period to qualify for recertification.

Examiner oversight and quality control is conducted by the examiner's supervisor through a yearly performance appraisal. This performance appraisal is conducted for all types of vehicles/tests the examiner is qualified to conduct.

Successful completion of a rider education course waives the requirement to take any additional license tests at DMV. There has been no use of the secret shopper technique, where a staff person of the DMV attends and participates in rider education courses to ensure the knowledge and skills tests are administered correctly. DMV has given the rider education program carte blanche authority over the waiver system program with no oversight of the end-of-course riding and written examination processes.

Nevada issues a Class M Endorsement to operate a motorcycle as defined in NRS 486.038. There are 123,555 Nevada residents with an M Endorsement on their Class C license. A Moped is defined in NRS 486.038, for which a Class M Endorsement is issued with an X restriction.

Nevada issues the follow restrictions for an M Endorsement:

U – An applicant who is administered a test of driving ability on a motorcycle which does not exceed 6 ½ horsepower or a displacement of 90 cubic centimeters will be issued a Class M Endorsement with a U restriction as identified in Nevada Administrative Code (NAC) 483.110 paragraph 8.

X – An applicant who is administered a test of driving ability on a motorcycle which has three wheels in contact with the ground will be issued a Class M driver's license with an X restriction as defined in 483.110 paragraph 9. This section is confusing considering that a trimobile can be operated with a Class C license even though it is a three-wheel vehicle.

Z – An applicant who is administered a test of driving ability on a moped will be issued a Class M driver's license with a Z restriction as identified in 483.110 paragraph 10.

X – An applicant who is administered a test of driving ability in a low-speed vehicle will be issued a Class C driver's license with an X restriction as identified in 483.110 paragraph 11.

XL – an XL restriction is placed on the Class M license of any person who completes the drive test in a trimobile. This is only required if the applicant does not have a valid Class A, B, C or M license, as stated in paragraph B of the DMV Policies and Procedures Manual Chapter 18 Motorcycles/Mopeds/Trimobiles.

Testimony indicated that an operator of a motorcycle with a side car is issued an M Endorsement with an XE restriction. Other three-wheel vehicle operators are issued an M Endorsement with an X restriction with a detailed form stating that they can only operate a motorcycle with two wheels in the front and one in the rear. The Team does not understand the reason for differentiating between three-wheel vehicles with two wheels in the front compared to two wheels in the back. Both types of vehicles should be considered a type of motorcycle and included in the M Endorsement licensing process with appropriate restrictions applied.

DMV has not considered the strategy of cross referencing motorcycle registrations with motorcycle endorsements to identify motorcycle owners who may not have the proper M Endorsement. This strategy has been conducted in Maryland, New York, Pennsylvania, Virginia, West Virginia, and other States with success. Programming changes in the DMV database system would be needed to link vehicle registrations to the driver's licenses.

DMV has not attempted to determine the unlicensed/unendorsed rider population in Nevada. Using injury and fatality data, as well as citation data, DMV could estimate, based on the available data, the State's unlicensed rider population to determine appropriate programs to address the unlicensed rider problem and encourage riders in Nevada to complete the licensing process.

As stated in NRS 486.161, every original motorcycle driver's license, or license that is being renewed, expires on the fourth anniversary of the licensee's birthday. Every motorcycle endorsement to an existing driver's license expires simultaneously with the expiration of the driver's license. The four-year license cycle is consistent with the recommendations from AAMVA for license validity periods.

As stated in Section C of the DMV Policies and Procedures Manual Chapter 18 Motorcycles/Mopeds/Trimobiles, the instruction permit is valid for one year. The instruction permit may be renewed indefinitely. The AAMVA/NHTSA Guidelines for Motorcycle Operator Licensing recommend that States issue an instruction permit valid for only 90 days and that the instruction permit can only be renewed a maximum of two times to encourage riders to complete the licensing process. DMV does not track whether rider education students complete the licensing process. In 2010 1,442 class M instruction permits were issued.

To obtain an M instruction permit, applicants must pass a vision examination and the Class M written examination. A Class C General Knowledge test must also be taken if no Class C license is currently held. Applicants also need to pass the Class C General Knowledge examination if they have had three or more moving violations in the four years immediately preceding the date of the instruction permit application.

The following restrictions are placed on every Class M or M-Z Instruction Permit:

D – Daylight Driving Only

V – No passengers

W – Direct visual supervision of a 21 year old holding a Class M license.

X – May not operate a motorcycle on limited access freeways or other high speed roadways

The skills test can be waived if (1) the applicant is surrendering a Class M license from another state; or (2) if the applicant presents a certificate of completion from a course of motorcycle safety from a DPS-approved course, regardless of the State of issuance. Any person who presents a certificate of completion from a course of motorcycle safety will not need to complete either the written or driving test to obtain a motorcycle endorsement. This would include the ERC Suite License Waiver Course. Completion certificates from approved courses will be accepted up to one year from the date of completion. There are no exceptions for the acceptance of a course completion card beyond one year.

The only courses that are approved by DPS are those coordinated with the MSF. Riders are not required to have a class M instruction permit to attend the rider education course. Several individuals said the State should require participants of the rider education program to obtain the instruction permit prior to participation in the rider education program.

Course completion cards submitted by applicants are not verified on a regular basis. DMV has the ability to note in the record that an applicant took a rider education course and to key-in the certificate number. If DMV staff suspects a fraudulent course completion card, they generally contact College of Southern Nevada to verify the certificate number. NRMSP also tracks the certificate numbers from each card issued by sponsors, but its records can be as much as three months behind. Cases involving fraudulent course completion cards are turned over to the DMV Compliance and Enforcement Division. Law enforcement officers are present in the main DMV offices and can provide assistance when fraudulent cards are presented. Testimony indicated that fraudulent completion cards are not common, but because DMV cannot verify how often they are used, it should be studied.

Nevada is a central issuance state; licenses are mailed to the person's home address to ensure the license is sent to the person on file. The course completion card is photocopied, allowing any necessary follow up investigation prior to mailing the new license. DMV should consider utilizing the AAMVA Commercial Skills Testing Information Management System (CSTIMS), when it becomes available for rider education, for electronically reporting course completion/testing results from the rider education providers to the DMV via a secure web-based reporting system.

DMV has not considered a Graduated Driver Licensing (GDL) program for motorcycle operators. The current Nevada GDL program applies to a motorcycle operator under the age of 18 without a Class C license or instruction permit.

Operating a motorcycle, moped, or three-wheel vehicle without a valid endorsement or license requires a mandatory suspension. Fines related to the citation are determined by the court. Once the suspension has been released, the driver/rider must pay DMV reinstatement fees. The person must then complete the licensing process for the M Endorsement to legally operate a motorcycle, moped, or three-wheel vehicle.

Enforcement options for dealing with unlicensed riders are often judgment calls. The ideal practice should be to cite riders and not allow them to continue to ride.

The State does not do enough to encourage riders to obtain the proper endorsement. Completing rider education as a means of obtaining an endorsement is not publicized enough.

Recommendations

- **Ensure the MOM and MOM knowledge test versions are aligned. Update the MOM and MOM knowledge test to the MSF 16th edition.**
- **Develop a process to determine the unlicensed/unendorsed rider population and determine appropriate programs to address the unlicensed rider problem and encourage riders in Nevada to complete the licensing process.**
- **Adopt the new MSF Rider Skills Test for skills testing motorcycle and three-wheel operators.**
- **Conduct oversight of the rider education end-of-course test for the licensing waiver system, including a "secret shopper" technique.**
- **Amend the DMV administrative procedures to require the instruction permit to be valid for only 90 days and allow the instruction permit to be renewed a maximum of two times to encourage riders to complete the licensing process.**

- Utilize the AAMVA CSTIMS, when made available for rider education, to electronically report course completion/testing results from rider education providers to the DMV via a secure web-based reporting system.
- Include and update information in the MOM on the unique challenges of operating a motorcycle in Nevada.
- Solicit input for additions and revisions to the MOM from the Advisory Board and the motorcycling community.
- Conduct an on-going item analysis of knowledge test questions.
- Cross reference motorcycle registrations with motorcycle licenses and notify motorcycle owners who may not have the proper endorsement.
- Cite all riders who are stopped and do not have a valid M Endorsement. Do not allow them to continue to ride.
- Promote rider education as a means of getting properly endorsed.

IV. Motorcycle Rider Education and Training

Rider education is an essential component of a statewide motorcycle safety program and requires specialized training by qualified instructors. Motorcycle rider education should be readily available to all new and experienced motorcyclists who wish to participate. While nearly all States have some type of rider training component, only a small percentage of riders actually receive training, and many programs report long waiting lists. If rider education courses are not easily available to new riders, they will often bypass formal training and operate their motorcycles without the knowledge and skills needed to do so safely. It is important that all States, including those just beginning motorcycle safety programs as well as those with established programs, offer rider training courses in sufficient numbers to meet the needs of the motorcycle riding population in the State.

The State agency should provide a comprehensive plan for stable and consistent rider education programs in which motorcyclists have access to training programs conducted by State-approved personnel at facilities that are appropriately equipped and staffed and adequately funded. Each State motorcycle rider education program should also provide for:

- A source of program funding;
- A State organization to administer the program;
- A mandate to use the State-approved curriculum;
- Reasonable availability of rider education courses for all interested residents of legal riding age and varying levels of riding experience;
- A documented policy for instructor training and certification;
- Incentives for successful course completion such as licensing test exemption;
- A plan to address the backlog of training, if applicable;
- State guidelines for conduct and quality control of the program; and
- A program evaluation plan.

Status

Nevada community colleges began offering formal rider education during the 1980s. Nevada enacted legislation to create and fund a State-sponsored rider education program, known as NRMSF, in 1991. The license waiver received upon successful completion of the BRC or the ERC Suite License Waiver Course is a major incentive to take an approved course.

The 1991 legislation establishing the NRMSF specified that the DPS Director would “approve courses of instruction provided by public or private organizations” and “appoint an Administrator to carry out the Program.” The Director adopted courses created by the MSF and, for three-wheeled vehicles, the Evergreen Safety Council. The current Program Manual (policies and procedures) requires the use of the “most current versions” of specific MSF and Evergreen Safety Council courses, and also authorizes the adoption of other curricula to facilitate mission accomplishment. The most current

version of the Program Manual is the 2005 edition.

In August 2011, NHTSA published the Model National Standards for Entry-Level Motorcycle Rider Training (Model Standards). The Model Standards establish foundation content that all entry-level riders should be taught in motorcycle rider training classes. In addition to providing that foundation, the Model Standards provide States with greater flexibility to modify course content to address jurisdictional-specific motorcycle crash problems. The Model Standards can be found on NHTSA's Web site at <http://www.nhtsa.gov/staticfiles/nti/pdf/811503.pdf>.

There is no established curriculum review and approval process to evaluate other rider education courses as they become available or as the needs of the State may change. The rider education program may adopt state-specific curriculum enhancements and some enhancements are in use. There is no procedure for proposing, reviewing, or adopting enhancements to existing curricula or the adoption of other courses, including those created by MSF and the Evergreen Safety Council. The Nevada Rider BRC Range Guide provides clarification and additional information for the conduct of BRC range exercises. The Range Guide provides solid, practical advice that promotes consistency in teaching range exercises.

State-approved rider education is offered by three community colleges, two military bases, and three private providers, including Harley Davidson dealerships that offer the Riders' Edge program. In addition, DPS delivers training to rural areas through a mobile training program that travels to six locations in the state. In combination with the 17 static sites operated by the colleges, military, and private providers, the rural training program ensures that no Nevada resident need drive more than 2 hours to obtain rider education.

Data appearing in the 2009-2010 Program Report indicate that the program offered:

- 493 BRC, 49 ERC and 1 Sidecar/Trike classes in 2007;
- 581 BRC, 68 ERC and 2 Sidecar/Trike classes in 2008;
- 496 BRC, 72 ERC and 1 Sidecar/Trike classes in 2009; and
- 438 BRC, 44 ERC and 2 Sidecar/Trike classes in 2010.

The Report states the program trained:

- 4,788 BRC and 429 ERC students in 2007;
- 5,570 BRC and 554 ERC students in 2008;
- 5,130 BRC and 423 ERC students in 2009; and
- 4,716 BRC and 608 ERC students in 2010.

Nevada is to be commended for the number of students trained.

Anecdotal comments made during Assessment presentations suggest there is a need to increase the number of courses offered in Nevada, but no specific examples were provided to support expending substantial resources to do so. For example, one site coordinator expressed a concern that people might have to wait two weeks to get into a class, but in most states this would be considered a highly desirable situation. A review of websites maintained by rider education sites in southern Nevada indicate that openings are currently available in classes scheduled to begin within two weeks.

Of greater concern, perhaps, is the distance some students may have to travel to attend a course. Residents of Western states may be more comfortable driving long distances than those in the East, but traveling time raises concerns for safety as well as convenience. Recognizing this, the program operates a rural area mobile training program that includes a trailer that can haul motorcycles and serve as a classroom when set up at a DMV office in a location that is distant from the permanent sites operated by community colleges and private organizations. If the program obtained another trailer, it could double the number of mobile classes offered. The additional mobile resource could be used to reduce driving distance and provide surge capacity to meet short-term demand, such as at the start of the riding season, that existing permanent sites cannot meet without putting people on waiting lists that exceed one month.

Increasing the number of students trained per year involves coordination of instructor, training motorcycle, and facility (classroom and range) resources. An increasing number of States are teaching two range sessions per day, enabling them to double the number of students taught in the same number of days (over a weekend, for example). This can be an effective means of meeting peak seasonal demand for courses, such as what may be expected at the start of the riding season.

The 2005 Program Manual provides specific policy and guidance for the selection, training, licensing, observation, and recertification of personnel authorized to teach approved courses. In general, the policy and guidance adheres to the minimum standards established by MSF or the Evergreen Safety Council. Potential areas for strengthening the program overall include the following:

Selection: The rider education program usually offers two MSF RiderCoach (motorcycle instructor) Preparation Courses per year. The dropout rate during the course may be as high as 50%. This suggests that the minimal pre-course preparation requirements are insufficient.

Observation (Instructor Quality Assurance): The Program Manual provides for the conduct of Quality Assurance (QA) by MSF certified RiderCoach Trainers using Technical Assistance Review documents developed by MSF in the 1980s. The Program Manual provides that every site will be reviewed two times a year. A portion of the review consists of observing the instructors teach range and classroom segments of the

BRC. Given the limited number of reviews, no more than 40 of the approximately 100 Nevada instructors are likely to be observed each year. Because the dates for site visits are not selected on the basis of who will be teaching the class, there is a good chance that some instructors may be observed more than one time a year, thereby decreasing the number of different instructors that will be observed in any given year.

Discussions with program personnel demonstrate that when instructors who may not be teaching in accordance with curriculum requirements are identified, informal mechanisms exist to ensure these instructors are quickly scheduled for observation by RiderCoach Trainers who identify and document deficiencies, and recommend timely and pertinent remedial measures. However, one purpose of a QA program that focuses on instructors rather than sites is to provide documented evidence that each instructor is observed on a periodic basis and is determined to be teaching the course in accordance with the curriculum standards. The ability to produce documented evidence of observed compliance is particularly valuable in the event of an injury during the riding portion of a class. A QA program should require every instructor be formally evaluated at least once before recertification and strive for annual evaluation of each instructor.

With only three RiderCoach Trainers in Nevada, the program cannot perform enough site visits to ensure every RiderCoach is evaluated at least once every two years, the current Nevada recertification period. The MSF offers a two-day Quality Assurance Training Course for non-RiderCoach Trainers.

Recertification: Consistent with minimum MSF standards, Nevada requires an instructor to teach at least two courses during a two-year recertification period. The program offers annual instructor workshops and requires an instructor to attend at least one every two years.

Training motorcycles are a critical component of an effective rider education program. The program purchases the motorcycles for use by the sites, but retains ownership of them. Sites are responsible for paying the costs of maintenance and insurance. In addition, absent mechanical failure or damage to a motorcycle that makes it economically impracticable to repair, the program does not have a specific plan to replace training motorcycles that are less than 10 years old. Some program motorcycles are more than 10 years old. A best practice is to replace training motorcycles every 3 to 5 years, or as needed.

Recommendations

- **Revise the Program Manual before the current Administrator retires to document all of the program policies and procedures currently in effect.**
- **Adopt, under the authority granted to the Director in NRS 486.372, the Model National Standards for Entry-Level Motorcycle Rider Training (DOT HS 811 503) to ensure that rider education curricula offered in Nevada provides all foundation content to entry-level motorcycle riders.**

- **Conduct and document a needs assessment to determine the demand for rider education courses in Nevada and develop a plan to meet that demand.**
- **Revise the Program Manual to require that every instructor be formally evaluated at least once before recertification. Strive for annual evaluation of each instructor. Utilize out-of-state RiderCoach Trainers and/or Nevada site coordinators to meet the new Quality Assurance Review requirements. Utilize the MSF Quality Assurance Training Course to ensure consistency in evaluations.**
- **Establish additional pre-course requirements for RiderCoach Preparation Courses to reduce the number of candidates who do not successfully complete the course. For example, require instructor candidates to successfully complete the entire BRC before attending the RiderCoach Preparation Course or require instructor candidates to serve as range aides.**
- **Establish and implement a plan to replace training motorcycles every 3 to 5 years.**

V. Motorcycle Operation Under the Influence of Alcohol or Other Drugs

Each State should ensure that programs addressing impaired driving include an impaired motorcyclist component. The following programs should be used to reach impaired motorcyclists:

- Community traffic safety and other injury control programs, including outreach to motorcyclist clubs and organizations;
- Youth anti-impaired driving programs and campaigns;
- High visibility law enforcement programs and communications campaigns;
- Judge and prosecutor training programs;
- Anti-impaired-driving organizations' programs;
- College and school programs;
- Workplace safety programs;
- Event-based programs such as motorcycle rallies, shows, etc.; and
- Server training programs

Status

Nevada's legal limit for impaired driving is .08 BAC. Current published statistics indicate that 54% of all motorcycle fatalities in Nevada involve alcohol. Impaired riding is a serious issue as it relates to motorcycle fatality rates in Nevada. Although passenger motor vehicle fatalities have declined dramatically between 2006 to 2010 (312 down to 163), motorcycle fatalities have decreased by a much smaller number (50 down to 45). In this five-year period, passenger motor vehicle fatalities have declined by 48%, but motorcycle fatalities have only fallen by a total of 10%.

OTS places a funding priority and emphasis on rider education and cites it as an effective means to reduce serious injury and fatalities for both the returning rider and young inexperienced riders.

Nevada's impaired driving program does not incorporate motorcycle-specific countermeasures in its Highway Safety Plan or Selective Traffic Enforcement Project grant agreements. Motorcycle-specific Public Service Announcements (PSAs) have been created but the effectiveness of those efforts has not been evaluated.

There is no legislation that specifically addresses impaired motorcycle operators; motorcyclists are included in statutes addressing all drivers. OTS has established partnerships and outlined leadership and progress in the areas of law enforcement training, community-based programs, college and youth programs, and focused enforcement activities. These initiatives do not address motorcycle operation under the influence of drugs and/or alcohol. OTS was praised for their presence and outreach efforts during major motorcycle rallies held each year, specifically for actively engaging attendees and delivering timely and effective motorcycle safety messages.

In 2007, Nevada's Peace Officer Standards and Training (POST) program added the NHTSA Standardized Field Sobriety Testing (SFST) course of instruction and certification as a requirement for all officers. The certification training includes a segment that is motorcycle-specific. In addition to the SFST certification program, the State also has a Drug Recognition Expert (DRE) program as a resource. It was estimated that there are 280 certified DREs statewide, with approximately 212 that are active. These programs are not funded by OTS.

OTS awards grants to city, county, and State law enforcement agencies to conduct statewide, year-round Driving Under the Influence (DUI) enforcement activities. The enforcement contracts fund sobriety checkpoints and DUI enforcement in all areas of the State. All Nevada law enforcement officers have enforcement and arrest powers statewide, and are able to participate in any multi-agency enforcement task force event. Nearly all of Nevada's law enforcement agencies participate in the Joining Forces program, which is a statewide, ongoing, selective enforcement initiative. This enforcement initiative is funded by the OTS. Joining Forces includes a focus on motorcycle events for high visibility enforcement during annual motorcycle rallies. Law enforcement also focuses efforts in areas where data analysis indicates a particular problem. These efforts are accomplished even though there is no specific motorcycle enforcement language included in the operational plans, directives, or enforcement reports. During other saturation patrols, or enforcement periods, motorcycles are simply included as "another vehicle."

During December, a Home for the Holidays campaign is conducted in southern Nevada. The program provides transportation for both the impaired rider and the motorcycle. There are no statistics to evaluate the effectiveness of the program, but anecdotal evidence indicates there are fewer impaired fatalities during that period.

Testimony indicates that law enforcement agencies are very attentive to the issues related to motorcycles in traffic safety and impaired riding efforts. OTS funds provide some equipment to law enforcement such as radar, Portable Breath Test Devices, and sobriety checkpoint signage. A Breath Alcohol Testing Mobile (BATmobile) has not been considered by OTS or law enforcement as an equipment option to enhance and support enforcement efforts. Las Vegas Metro has a mobile unit for its exclusive use. It is considered successful and the concept is well-received, but it is not made available to other parts of the State. Nevada Highway Patrol provides the only available mobile testing unit during checkpoints or high visibility enforcement activities to facilitate on-site BAC testing.

Training for judges or prosecutors is available but has not specifically addressed impaired motorcyclists. There are opportunities to provide this training during an annually OTS-funded judges and prosecutors conference.

Mothers Against Drunk Drivers (MADD) was reported as being essentially non-existent in Nevada. An off-shoot group called, "Stop DUI", is somewhat active.

Servers and sellers of alcoholic beverages in counties with a population of 100,000 or more are required to complete responsible server training within 30 days of being hired. Smaller counties can elect to mandate training and several have done so. Compliance checks are conducted and violations can result in serious sanctions.

A college-based program, "Do the Ride Thing," strongly discourages impaired driving on campuses, but has not been very successful on the UNLV campus. This is possibly attributed to UNLV having fewer on-campus residents.

Recommendations

- **Include impaired motorcyclist enforcement as a specific component of enforcement grants and in the Highway Safety Plan.**
- **Capitalize on the enthusiasm, expertise, and passion of law enforcement partners to develop and implement impaired riding prevention efforts. Organize and conduct law enforcement saturations, checkpoints, and operations with an emphasis on motorcycles.**
- **Provide training on prosecuting impaired riding offenders during all law enforcement, prosecutor, and judicial training or conferences. Consider outreach to judges and prosecutors to educate state and local courts on the problem of impaired riding.**
- **Enhance and distribute impaired riding informational materials to State and local law enforcement, DMV stations, rider education sites, dealerships, highway rest areas, State and national parks, special events, and motorcycle rallies.**
- Further develop creative motorcycle safety campaigns focused on impaired riding. Incorporate materials available from NHTSA, MSF, American Motorcyclist Association (AMA), and other State programs.
- Add the specific consequences of an impaired riding conviction to the impaired riding information in the MOM.
- Distribute NHTSA's "Detection of DWI Motorcyclists" materials to law enforcement agencies Statewide.
- Support and direct law enforcement special enforcement efforts that are data driven, that address target areas where high volume motorcycle fatalities and serious injury crashes are occurring.
- Fund a BATmobile to support the Joining Forces task force enforcement efforts.

VI. Legislation and Regulations

Each State should enact and enforce motorcycle-related traffic laws and regulations, including laws that require all riders to use motorcycle helmets compliant with the Federal helmet standard. Specific policies should be developed to encourage coordination with appropriate public and private agencies in the development of regulations and laws to promote motorcycle safety.

Status

Nevada enacted a motorcycle helmet use law in 1971 (NRS 486.231). It adopted the Federal helmet standard, FMVSS No. 218 (49 CFR 571.218) in 1994 (NAC 486.015). Nevada is commended for this action, which is a major contributor to reducing motorcycle related death and injury. However, the Nevada statute does not apply to the operators and passengers of some two or three wheel vehicles, such as mopeds and trimobiles (trikes) because they do not fall within the statutory definition of a motorcycle.

A proposal to eliminate the requirement for riders over 21 years old who have at least one year of riding experience was defeated during the last legislative session. It is likely that similar changes will be proposed in future legislative sessions.

Nationwide evidence demonstrates that when a State repeals a motorcycle helmet law, fatalities, severe head injuries and costs that are shared by the State's non-riding population dramatically increase. An ongoing study of Nevada riders being performed by the Center for Traffic Safety Research (CTSR), University of Nevada School of Medicine, provides documented evidence of the loss that may be anticipated in Nevada should the current motorcycle helmet law be repealed or weakened. The State's duty to protect the health and safety of its citizens requires the Nevada Legislature reject such efforts.

Lawsuits seeking to overturn Nevada's motorcycle helmet statute on constitutional grounds have not succeeded. More recently, opponents of the statute have attempted to nullify it indirectly by wearing helmets that do not meet the FMVSS No. 218 standard and challenging the standard when issued a citation for wearing a "non-compliant helmet." This tactic has proven successful in some jurisdictions and many Nevada law enforcement officers are reluctant to enforce the requirement. This, in turn, provides motorcycle helmet law opponents the opportunity to argue the law is applied inconsistently when other Nevada law enforcement officials do attempt to enforce it. The result is an erosion of the rule of law and respect for law enforcement personnel. The filing of law suits such as Stillwell v. Clark County, a class action lawsuit for damages and injunctive relief filed in the US District Court of Nevada against several jurisdictions in the Las Vegas area at the end of September 2011 is the inevitable result.

In 2002, the Chief of the Nevada Highway Patrol requested the Attorney General provide an opinion "to assist both Nevada Highway Patrol troopers and the motorcycle riding public in recognizing motorcycle helmets that are legal for use in the state of

Nevada.” In an opinion dated November 5, 2002, the Attorney General stated that while the standard adopted by Nevada (FMVSS No. 218), was sufficient to “allow troopers and riders to make a preliminary assessment of helmets,” it would be necessary to “contact the manufacturer of the helmet listed on the sticker inside the helmet” to “determine with certainty whether a helmet complies with federal and state safety standards.”

Acknowledging that the “current state of the law makes enforcement and compliance somewhat confusing,” the Attorney General went on to suggest practical changes to Nevada law to address the situation. With respect to the issue of compliance, the Attorney General recommended Nevada law establish a presumption of non-conformance if a helmet (1) lacks the labels required by FMVSS No. 218 or (2) lacks a thick impact-absorbing material between the shell and the comfort lining of the helmet, which is a required material component necessary to meet the performance test measures outlined in FMVSS No. 218. Either presumption could be rebutted by showing that the helmet conforms to the standard. The opinion also suggested the law might impose only a small fine the first time a rider is found to be wearing a non-conforming helmet, with increased fines for subsequent offenses.

The Attorney General recommendations appear reasonable to the Team. None of the presenters could state whether the Department of Public Safety and/or the State Highway Patrol ever attempted to implement the Attorney General’s recommendations, or, if they had, why such attempts were not successful.

At a special March 3, 2011, Advisory Board meeting, recommendations to amend selected provisions of Chapter 486, Motorcycles and Similar Vehicles were discussed.

One proposal would amend the definition of a trimobile, NRS 486.057, so that the Can Am Roadster (Spyder) meets that definition. One effect of this change would be to exempt riders and passengers of a Spyder, which has two front wheels and one power driven rear wheel, from the requirement to wear a FMVSS No. 218 compliant helmet.

NRS 486.041 defines a motorcycle as “every motor vehicle ... designed to travel on not more than three wheels in contact with the ground ...” The Team was not provided a logical rationale for excluding trikes or Spyders from this definition, for not requiring the use of a helmet, or for permitting riders of these three-wheel vehicles to entirely bypass the licensing requirements for other motorcycles and operators. Currently, mopeds are also excluded from this definition of a motorcycle. Operators or passengers of such vehicles are just as likely to suffer head injuries when involved in crashes.

NRS 486.057 defines a trimobile as a motor vehicle designed to travel with three wheels in contact with the ground, two of which are power-driven. A trimobile may be operated on a Class C license, although the operation of a three-wheel vehicle requires special skills for handling (e.g., cornering and turning). Other States define this type of vehicle as a motorcycle and issue a restriction on operating a two-wheel motorcycle if the licensing test is taken on a three-wheel vehicle. The Team does not understand the

reason for differentiating between three-wheel vehicles with two wheels in the front compared to two wheels in the back. Both types of vehicles should be considered a type of motorcycle and included in the M Endorsement licensing process with appropriate restrictions applied.

Recommendations

- **Maintain the existing motorcycle helmet law, NRS 486.231.**
- **Revise NAC 486.015, Helmets, to incorporate the recommendations contained in the 2002 Attorney General's opinion. Propose follow-up changes to NRS 486.231 as appropriate to give full force and effect to the regulatory changes.**
- **Require moped and trimobile operators and passengers to wear FMVSS No. 218 compliant helmets by repealing NRS 486.057, definition of Trimobile and by removing mopeds from the list of excluded vehicles in NRS 486.041, Motorcycle Defined.**
- **Revise the statutes to classify two-wheel and three-wheel vehicles as motorcycles. Simplifying the statutes to include all two-wheel and three-wheel vehicles, including mopeds, in the definition of motorcycles will lessen the burden of enforcing the license and endorsement requirements.**
- **Encourage the Advisory Board to communicate its statutory recommendations and efforts with appropriate stakeholders.**

VII. Law Enforcement

Each State should ensure that State and community motorcycle safety programs include a law enforcement component. Each State should emphasize strongly the role played by law enforcement personnel in motorcycle safety. Essential components of that role include:

- Developing knowledge of motorcycle crash situations, investigating crashes, and maintaining a reporting system that documents crash activity and supports problem identification and evaluation activities;
- Providing communication and education support;
- Providing training to law enforcement personnel in motorcycle safety, including how to identify impaired motorcycle operators and helmets that do not meet FMVSS 218; and
- Establishing agency goals to support motorcycle safety.

Status

There are 38 State, county, and local law enforcement agencies in Nevada. OTS provides grant funding to nearly all of them.

All law enforcement officers receive their certification through the POST Academy. Once certified, Nevada officers have arrest and enforcement jurisdiction statewide. In 2007, Nevada's POST training academy added the NHTSA SFST course of instruction and certification as a requirement for all officers. The certification training includes a segment that is motorcycle-specific.

Having statewide jurisdiction, and through support from their respective agencies and OTS, officers are able to participate in year round, comprehensive and aggressive multi-agency task force enforcement events in a program called Joining Forces. The effort does not appear to identify or establish law enforcement agency goals that specifically support motorcycle safety. Motorcycle enforcement is simply included in the overall motor vehicle enforcement effort.

Selected officers have received training in accident reconstruction, including motorcycle crashes. This program is very beneficial in identifying motorcycle crash causation factors. This training was supported by OTS with funding and donated rider education surplus motorcycles to be used in a variety of actual crash scenarios to enhance the practical and realistic aspect of the reconstruction training.

The Henderson Police Department Traffic Bureau published a "Motorcycle/Moped Quick Reference Guide," to assist with law enforcement efforts specific to motorcycles. The guide highlights some of the more common observable violations that are easy to detect and helps identify specific violations and the applicable State statute. This guide is made available to law enforcement agencies Statewide and has been well received.

Nevada has a universal helmet law. The compliance standard for helmets is an issue of current debate and controversy. Consequently, enforcement efforts have been constrained until a remedy can be established and adopted. Non-use of helmets is strictly enforced.

Various law enforcement agencies use information from their internal and State records management systems for problem identification and evaluation. This information is used to establish special emphasis and enforcement programs in problem areas. Joining Forces provides an increased law enforcement presence at rallies and large gatherings of motorcycle riders. The focus during these events is not always on enforcement. Officers spend time interacting with attendees to talk about rider education, injury prevention, conspicuity, safety, and riding strategies.

Law enforcement mentioned SafeKids Coalition events, where child passenger safety seats and education are provided. It was suggested to do something similar, but motorcycle-related. Examples included providing U.S. Department of Transportation-approved/compliant helmets for those in need or coupons for helmet discounts through local dealerships.

Law enforcement would like to see licensing endorsements, helmet and eye protection requirements, and scooter definitions all legislatively clarified. This would provide them standardized, easy to understand guidelines to aid in enforcement efforts.

Recommendations

- **Identify motorcycle enforcement as a specific component of enforcement grants.**
- **Incorporate motorcycle-specific messages into Joining Forces enforcement activities.**
- **Develop and distribute motorcycle crash statistics and motorcycle-specific informational materials to law enforcement agencies to aid them in planning and training.**
- **Develop data-driven countermeasures and implement selective enforcement where fatal and injury motorcycle crashes are occurring.**
- Distribute NHTSA's Detection of DWI Motorcyclists materials to law enforcement agencies statewide.
- Partner with the Nevada Sheriffs' and Chiefs' Association to educate law enforcement about motorcycle safety issues and crash causation factors.
- Conduct in-service training on the Detection of DWI Motorcyclists utilizing materials that are available through NHTSA. Publicize this training to the media.

VIII. Highway Engineering

Traffic engineering is a critical element of any crash reduction program. This is true not only for the development of programs to reduce an existing crash problem, but also to design transportation facilities that provide for the safe movement of motorcyclists and all other motor vehicles. Balancing the needs of motorcyclists must always be considered. Therefore, each State should ensure that State and community motorcycle safety programs include a traffic-engineering component that is coordinated with enforcement and educational efforts. This engineering component should improve the safety of motorcyclists through the design, construction, operation and maintenance of engineering measures. These measures may include, but should not be limited to:

- Considering motorcycle needs when selecting pavement skid factors;
- Providing advance warning signs to alert motorcyclists to unusual or irregular roadway surfaces.

Status

NDOT uses center line rumble strips and has received positive comments about them from riders. NDOT uses open grade and chip seals that provide a friction factor for pavement markings. However, some of the local municipalities may not use the chip grades. The northern part of the State primarily uses paint for lane marking while the southern part of the State uses lane buttons. Painted lane lines on normal roads use a 4-inch strip; on the main roads an 8-inch strip is used. NDOT is extending the safety edge on travel lanes to 30 degrees and widening shoulders, expanding them as much as possible.

Lips or drop-offs in construction zones are required to be no more than a maximum of 2 inches and a 6-1 slope is utilized. When using steel plates in construction zones, pavement is dispensed around the edges and signage is placed to alert motorists. The local utility companies may not follow the same procedures as NDOT. In District 1 only, roads with milled surfaces are closed until the final pavement process is finished, in response to a fatal motorcycle crash.

Nevada utilizes cattle guards in rural areas and NDOT paints the devices to make them more visible to road users. NDOT is working to move these devices to the end of expressway on- and off-ramps or to place them on the cross streets. NDOT has not received comments from the motorcycle community concerning the use or placement of cattle guards.

Nevada uses cable barriers. There have been no reported problems, and they have not received any comments regarding them from motorcycle riders.

NDOT is using mulch rock and boulders in interchange areas as required by State beautification efforts. NDOT has not considered the potential impact on motorcyclists, but indicated that it is something that can be considered.

The Team received testimony that designated bus lanes with vertical curbs in the Las Vegas area are difficult to differentiate from regular painted lines at night. Riders have attempted to change lanes and collided with the vertical curbing. NDOT indicated a willingness to examine the issue and determine what corrective action can be taken to prevent motorcycle crashes resulting from this design.

Overall, NDOT does not regularly consider motorcycle operations separate from other vehicles when designing and improving highways.

Signage is used to warn motorists of uneven road surfaces. NDOT does not use any plaques or signs specific to motorcycle. FHWA has included standards for signage in the 2009 edition of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) that can be used to warn motorcycle riders of hazardous conditions ahead. Specific references to the motorcycle plaque in the MUTCD can be found on page 597 Section 6F.54 Motorcycle Plaque (W8-15P) and page 123 Section 2C.33 Warning Signs and Plaques for Motorcyclists (W8-15, W8-15P, and W8-16).

NDOT monitors all motor vehicle crashes to identify where signs should be placed, but does not do so specifically for motorcycles. Via the NDOT website or telephone, members of the public may submit requests for specific signs to be placed or highway engineering designs to be evaluated. A special reporting mechanism for motorcycle-specific issues is not available.

In the SHSP, NDOT evaluated injury and fatality data and determined that motorcycle crashes are not declining, but notes that the overall population of motorcycle riders is low by comparison to other types of vehicle drivers. However, NDOT is planning to incorporate motorcycle strategies within each of the five engineering emphasis areas contained in the SHSP. The Lane Departure Committee includes local municipality chairpersons who participate in the strategic planning process. The committee meets annually to review crash statistics.

NDOT does not have a representative on the Advisory Board. Engineering and highway design, as they relate to motorcyclists, could be better addressed if NDOT were represented on the Advisory Board. NDOT expressed interest in inviting an Advisory Board representative to serve on the Lane Departure Committee to present issues related to motorcycle safety.

Recommendations

- **Provide advanced warning signs to alert motorcyclists to unusual or irregular roadway surfaces and adopt or develop standards for signage used for motorcycles.**
- **Adopt and implement the MUTCD standards for Warning Signs and Plaques for Motorcyclists W8-15P, W8-15, W8-15P, and W8-16.**

- **Evaluate the NDOT SHSP to determine how motorcycle characteristics related to highway engineering and design, including pavement traction factors, can be considered.**
- **Establish a collaborative relationship between the Advisory Board, OTS, and NDOT to address highway engineering issues related to motorcycle safety.**
- Examine designated bus lanes with vertical curbs and the impact they have on motorcyclists.

IX. Motorcycle Rider Conspicuity and Motorist Awareness Programs

State motorcycle safety programs, communication campaigns and State motor vehicle operator manuals should emphasize the issues of rider conspicuity and motorist awareness of motorcycles. These programs should address:

- Daytime use of motorcycle headlights;
- Brightly colored clothing and reflective materials for motorcycle riders and motorcycle helmets with high daytime and nighttime conspicuity;
- Lane positioning of motorcycles to increase vehicle visibility;
- Reasons why motorists do not see motorcycles; and
- Ways that other motorists can increase their awareness of motorcyclists.

Status

Data show that about half of Nevada's motorcyclist fatalities are caused by another driver. OTS requested and received Section 2010 funds to implement a motorist awareness campaign during motorcycle events and in areas with large numbers of registered motorcycles. A television PSA, "I Am a Motorcyclist," was produced with cooperation from media partners. An out-of-home campaign includes static and mobile billboards. Motorcyclist conspicuity messages are also rotated into the billboard campaign.

Motorcyclists share the responsibility on the road and should be informed of the benefits of making themselves visible to motorists. Motorcyclist conspicuity tactics such as wearing bright and reflective clothing and lane positioning are addressed in the MOM.

Testimony indicated that some rider groups place an emphasis on teaching riders defensive riding techniques and encourage riders to wear bright clothing and reflective clothes.

Recommendations

- **Develop motorcyclist conspicuity messages and materials with greater detail of what motorcyclists can do to be more visible, defensive driving techniques, and the benefits of rider training.**
- Evaluate the awareness and impact of share the road messages and materials to determine whether distribution channels are effective and sufficient. This can be done through the Attitudinal Survey. Modify the messages, materials and distribution if needed.

X. Communications Program

States should develop and implement communications strategies directed at specific high-risk populations as identified by data. Communications should highlight and support specific policy and progress underway in the States and communities and should be culturally relevant and appropriate to the audience. States should:

Focus their communication efforts to support the overall policy and program;
Review data to identify populations at risk; and
Use a mix of media strategies to draw attention to the problem.

Status

Public information and education is an integral component of a comprehensive motorcycle safety program that supports each of the other program areas. It is imperative for motorcyclists to know how to ride safely, to be aware of laws relevant to motorcyclists and the need for, availability, and value of rider education, and for motorists to understand the different behaviors of motorcyclists and how to share the road.

OTS's media and marketing staff have responsibility for motorcycle safety outreach. Communications activities relating to motorcycle safety are typically combined with other traffic safety outreach efforts. A communications plan is prepared each year; at that point decisions are made about which issues will be addressed. OTS manages a very full communications calendar to meet the needs of all traffic safety programs.

OTS has developed an innovative approach to producing and distributing television PSAs by partnering with a coalition of local stations. OTS identifies traffic safety issues and provides target audience demographics to the stations. The group works together to develop PSA concepts and storyboards. The stations produce the spots and share them with the other stations; OTS pays for the airtime. The spots are aired during times that will reach the target audience. Standalone spots addressing impaired riding and motorist awareness have been produced.

What started as a cost-saving measure has led to strong media partnerships, where the stations make traffic safety a priority. OTS also re-tags and uses NHTSA occupant protection and impaired driving PSAs.

OTS participates in a number of motorcycle rallies each year. A program representative staffs an interactive booth where riders sign pledges not to drink and ride, can spin a wheel to win prizes, and receive premium items and rider education information.

OTS has purchased billboard space and alternates motorist awareness and motorcyclist conspicuity messages on them. OTS has also produced gas pump toppers with motorcycle safety messages.

There are no State-specific materials or campaigns to encourage the use of a proper helmet and personal protective equipment, promote rider education, or promote rider licensing. There are few consumer-focused printed materials promoting any motorcycle safety issues. NHTSA materials are used for law enforcement education (detecting impaired riders and detecting improper helmets).

The Advisory Board does not provide input on issues to be addressed via outreach or on the development of messages to reach the rider population.

OTS translates its communications materials into Spanish. Testimony indicated that the Southern Nevada Confederation of Clubs and Iron Eagle have Spanish-language materials as well, and conducts some rider education programs in Spanish.

OTS does not conduct any outreach in conjunction with Motorcycle Safety Awareness Month.

Motorcycles are addressed during Joining Forces enforcement efforts. OTS shares NHTSA media planners with participating law enforcement agencies. Some use these materials and some have their own public information officers that prepare their own releases.

The program's website, NevadaRider.com, is a poor representation of the program's brand. It does not include any safety information, has outdated information, contains broken links, does not list upcoming classes or all rider education sites, and has no search functionality. The program administrator has limited access to site pages in order to make updates and the website hosting vendor no longer provides update services. There has been some discussion of using social media to communicate with the rider population, but it was determined that a contract to do so would be cost prohibitive.

OTS is not utilizing community groups, motorcycle dealers, or DMV to distribute motorcycle safety information. Partnering with these groups can expand the reach of the program's communications efforts. Testimony indicated that dealerships address personal protective equipment at point of sale, but they are not using any State-provided materials.

Public information and education efforts are not data-driven. The impact of communications efforts is not formally evaluated.

Recommendations

- **Build a new Nevada Rider website, to include safety information, rider education class schedules and registration/training site links, licensing information, sharing the road, motorcyclist conspicuity, and relevant motorcycle crash and fatality data. The National Association of State Motorcycle Safety Administrators (SMSA) can host State program websites at no charge.**

- **Create community-based coalitions, using motorcycle dealers and rider groups as the primary base. Utilize their networks to distribute motorcycle safety messages and materials, and engage them to help staff the OTS booth at rallies to take advantage of peer to peer contact at these community events.**
- **Develop Nevada-specific motorcycle safety materials addressing helmet and personal protective equipment use, impaired riding, licensing, and rider education.**
- **Expand distribution channels for motorcycle safety information and materials, e.g., during rider education classes, at point of sale, in DMV offices, and with annual motorcycle registration/license renewal mailings, and at rallies and events. In addition, capitalize on DMV willingness to help and print rider education information on the back cover of the Nevada MOM.**
- Include motorcycle messages (helmets) in existing occupant protection campaigns.
- Develop a comprehensive motorcycle safety communications plan that includes the items below. Evaluate whether such a plan needs to be supported with an external contract for marketing services.
 - Budget needs;
 - A research component to identify problem areas to ensure that appropriate themes and messages are developed;
 - Goals and objectives with realistic and measurable outcomes;
 - Messages regarding the importance and availability of rider training, proper helmet and protective gear use, sharing the road, licensing, and the effects of alcohol on motorcyclists;
 - Definition of target audiences, including motorists, independent riders, sport bike riders, returning riders, etc.;
 - Use of appropriate multi-media channels;
 - Earned media calendar (beginning of riding season, holiday weekends, Motorcycle Safety Awareness Month, etc.);
 - A distribution plan for printed materials;
 - A plan to maintain community outreach through events; and
 - An evaluation component to measure pre- and post-campaign awareness and impact on motorist and motorcyclist behavior.

XI. Program Evaluation and Data

Both problem identification and continual evaluation require effective record keeping by State and local government. The State should identify the frequency and types of motorcycle crashes. After problem identification is complete, the state should identify appropriate countermeasures. The state should promote effective evaluation by:

- Supporting the analysis of police accident reports involving motorcyclists;
- Encouraging, supporting and training localities in process, impact and outcome evaluation of local programs;
- Conducting and publicizing statewide surveys of public knowledge and attitudes about motorcycle safety;
- Maintaining awareness of trends in motorcycle crashes at the national level and how trends might influence activities statewide;
- Evaluating the use of program resources and the effectiveness of existing countermeasures for the general public and high-risk population;
- Collecting and reporting accurate motorcycle vehicle miles traveled data; and
- Ensuring that evaluation results are used to identify problems, plan new programs and improve existing programs.

Status

Motorcycles are often overlooked during crash data gathering efforts. As in most States, the frequency of Nevada motorcycle crashes is considerably lower than the frequency of automobile crashes; therefore, OTS focuses only on fatal crashes and the evaluation of rider compliance with legislated safety measures (e.g., helmets, licensing, and impaired riding). The collection, data coding, data entry, and analysis of crash data requires the assistance of many different groups and the scope of the crash data collection effort is affected by budget and other resource limitations. Many States are recognizing the benefits of analyzing all available crash data as a tool for monitoring highway safety efforts and for the development of safety countermeasures. Such Nevada-specific data would serve as a useful tool to better understand the causes of motorcycle crashes and determine the effectiveness of comprehensive motorcycle safety program efforts.

OTS is responsible for collecting and analyzing data on motorcycle crashes, injuries, and fatalities, and has access to the following data:

- FARS
- NDOT Annual Crash Summary
- NCATS
- DMV
- Occupant protection observational survey reports
- Nevada Highway Patrol 'Safe Stat' reports
- UNLV-TRC
- NHTSA and NCSA Traffic Safety Fact Sheets

- Emergency Medical Services NEEDS/NEMESIS
- State demographer reports
- University Medical Center trauma records for motor vehicle crash victims from all the state's trauma centers (Levels I, II, and III)

OTS conducts minimal motorcycle crash data analysis, with the exception of fatalities since the collection of FARS is done in-house. It should be noted that OTS is planning to track serious injuries as a new performance measure. A "Nevada Traffic Book" of crash data is published annually by NDOT. Traffic violation reports are currently being housed at the local law enforcement agency. The Team learned that NDOT plans to implement NCATS in 2012, as a streamlined and comprehensive database that can be made available to any State agency. OTS will have access to the data warehouse, which will provide a greater opportunity for comprehensive analysis.

Strategies and projects included in Nevada's Highway Safety Plan are based on: 1) the analysis of Nevada highway safety information system data, 2) program assessments and management reviews conducted by NHTSA, and 3) the SHSP. The SHSP provides policy guidance on traffic safety issues, identifies and effectively allocates resources, and leverages opportunities for diverse groups to support each other in an integrated systems approach to reducing roadway deaths.

Training data, including end-of-course evaluations, is collected and maintained by training site sponsors, rather than by the Administrator. Training sites submit reports that include basic course completion data (e.g., student names, pass/fail results, and course completion certificate numbers). A review of the complete training reports can be made during the first of two annual site visits when necessary. The only analysis of the education program is the manual cross-referencing of the list of students trained against FARS data to determine whether motorcyclists that have completed rider education have died while operating a motorcycle.

Recommendations

- **Examine all motorcycle crash data, not just fatal crashes, to identify and address crash causation factors and establish NRMSP initiatives. For example, contract with the CTSR at the University of Nevada School of Medicine, or similar research institution, to analyze and report on motorcycle crash factors.**
- **Create a system to identify and collect critical information to assist with problem identification, establish priorities, and develop countermeasures to reduce motorcycle crashes, injuries, and fatalities.**
- **Establish a formal planning process for the implementation and evaluation of motorcycle safety countermeasures that includes detailed action steps with assigned responsibilities, identification of partners, funding requirements, status and objective evaluation criteria to measure success,**

effectiveness, and value. Refer to Volume 22, NCHRP Report 500, Objective 11.1 H—Improve Motorcycle Safety Research, Data, and Analysis for guidance.

- **Evaluate all countermeasures for their impact on reducing motorcycle crashes, injuries, and fatalities.**

Credentials of Technical Assistance Team

Terry J. Butler

Director, Missouri Safety Center, University of Central Missouri, Warrensburg, MO

Experience

- DOT, NHTSA, Technical Team Member, States of California, Hawaii, Michigan, Minnesota, Nevada, New York, North Carolina, North Dakota, Washington, and Wisconsin (2)
- Director, Missouri Safety Center, University of Central Missouri (2007-present)
- Program Director, Missouri Motorcycle Safety Program (2000-2006)
- State Coordinator, Missouri Motorcycle Safety Program (1991-2000)
- Facility Manager/Training Specialist, Missouri Safety Center, Central Missouri State University, Warrensburg, MO (1989-2006)
- Program Development Specialist, Missouri Safety Center, Central Missouri State University, Warrensburg, MO (1986-1989)
- Transportation Safety Instructor, Missouri Safety Center, Central Missouri State University, Warrensburg, MO (1983-1986)

Organizations/Appointments

- AAMVA CDL Examiner Trainer Instructor (2006)
- Coach Trainer Facilitator, Motorcycle Safety Foundation (2002)
- DirtBike Coach - Trainer Facilitator, Motorcycle Safety Foundation (1998)
- ATV Safety Chief Instructor Trainer, Specialty Institute of America (1998)
- Executive Committee and Central Regional Representative, National Association of State Motorcycle Safety Administrators (1997-1999)
- Chief Instructor, Motorcycle Safety Foundation (1986)

Richard O. Davis

Director, Arkansas State Fusion Center, Arkansas State Police, Little Rock, AR

Experience

- DOT, NHTSA, Technical Team Member, States of Indiana, Missouri, Nevada, and North Carolina
- Director, Arkansas State Fusion Center (2008 - present)
- Arkansas State Police Policy/Procedures Manager, Director's Office (2008 - 2009)
- Arkansas State Police, Highway Safety Office Manager (2004-2008)
- Program Manager, Law Enforcement Management Center for the Criminal Justice Institute, University of Arkansas System & National Center for Rural Law Enforcement (1999-2004)
- DRE/SFST Certification Program Manager
- DRE State Coordinator
- 32 years law enforcement experience in Arizona and Arkansas, including mid and upper level management

Organizations/Appointments

- Coordinated and established the Arkansas State Motorcycle Safety Program
- Former Chairperson and current member of the Arkansas Motorcycle Safety Advisory Committee (2007-Present)
- Motorcycle Safety Foundation, Certified RiderCoach
- Harley Davidson' Rider's Edge Academy of Motorcycling Instructor
- Governor's appointment to the Arkansas Commission on People With Disabilities (2005-2008)
- Member of the Joint Terrorism Task Force, Executive Committee, Little Rock FBI

Lawrence J. Lippolis

RiderCoach Trainer, Springfield VA

Experience

- DOT, NHTSA, Technical Team Member, States of Indiana, Massachusetts, Nevada, New York, North Carolina, and Ohio
- Instructor/RiderCoach (1979-present)
- Chief Instructor/RiderCoach Trainer (1987-present)
- Throughout the years he has worked with the Virginia, Florida, Georgia, and Department of the Navy motorcycle training programs.
- Currently conducts and provides legal advice on inspections and investigations

Organizations/Appointments

- Participated in Department of Defense Private Motor Vehicle Accident Reduction Taskforce and Defense Safety Oversight Council (DSOC)
- Member, National Association of State Motorcycle Safety Administrators (SMSA)
- Member, Virginia Coalition of Motorcyclists
- Member, American Motorcyclist Association

Carol A. Montoya, CAE

President, Potomac Management Resources, Alexandria, VA

Experience

- DOT, NHTSA, Technical Team Member, States of Arizona, Florida, Hawaii, Indiana, Massachusetts, Missouri (2), Nevada, North Dakota, Wisconsin (2), and Washington
- Certified Association Executive credential achieved, January 2007 (highest professional credential in association industry)
- President, Potomac Management Resources; includes serving as Executive Director, Advertising Club of Metropolitan Washington (2000-present) and Executive Director, American Marketing Association-DC Chapter (2001-2008); event planner for NHTSA Ignition Interlock Forum (2007); event planner for NHTSA Data Driven Approaches to Crime and Traffic Safety meeting (2008)
- Outreach Director, Literacy Council of Northern Virginia (1999-2000)

- Vice President, Marketing & Advertising, ZGS Communications, government social marketing contracts for motorcycle safety and aggressive driving (1998-1999)
- Account Supervisor, Lisboa Associates, Inc., government social marketing contracts for Campaign Safe & Sober, child seat safety, motorcycle safety, aggressive driving awareness, pedestrian safety, and airbag education (1994-1998)

Organizations/Appointments

- Clarion Awards Judge, Association for Women in Communications (2008)
- Member, American Society of Association Executives (2003-present)
 - Greater Washington Network Leadership Council (2008-2009)
 - CAE Action Network (2008-2009)
- Member and Chair, Hood College Magazine Editorial Board, (2002-2006)
- Member & Board Member, Association for Women in Communications-DC Professional Chapter (2001-present)
- Member and Board Member, Women in Advertising & Marketing, (1998-2001)
- Member & Board Member, Advertising Club of Metropolitan Washington (1996-2000)

Brett Robinson

Vice President & Co-Owner, Highway Safety Services, LLC, Indiana, PA

Experience

- DOT, NHTSA, Technical Team Member, States of Arizona, California, Florida and Nevada
- Highway Safety Services, LLC – Co-Owner & Vice President: Provides consultation in the development and planning of programs to ensure that agencies, companies and jurisdictions implement effective highway safety countermeasures. (2005-present)
- American Association of Motor Vehicle Administrators – Vice President of Driver Licensing (1996-2005)
- Maryland Motorcycle Safety Program – Chief Instructor (1995 – 2002)
- Indiana University of Pennsylvania – Highway Safety Center [motorcycle safety, driver education, advanced driver training, truck driver training, Commercial Driver License Third Party Tester, curriculum development, teacher training] (1990-1996)
- Pennsylvania Motorcycle Safety Program – Regional Director and Chief Instructor (1992-1995)
- Pennsylvania Motorcycle Safety Program – Training Center Site Coordinator and licensing tester. (1988-1992)
- Pennsylvania Motorcycle Safety Program – Instructor (1985-1995)
- Pennsylvania Motorcycle Safety Program – Instructor (1985-2002)

Organizations/Affiliations/Certificates

- American Association of Motor Vehicle Administrators (1996-present)
- American Driver and Traffic Safety Education Association (2009-present)
- National Association of State Motorcycle Safety Administrators (2011)
- Transportation Research Board – Driver Training Committee (2006-present)
- Examining Drivers w/ Disabilities Certificate
- Driver Education and Training Certificate
- Truck Driver Training Certificate
- Emergency Vehicle Operation Course Certificate
- American Association of Motor Vehicle Administrators CDL Train-the-Trainer Instructor
- Highway Safety Services Instructor Development Trainer

Assessment Agenda

Sunday, November 13

5:00 – 7:00 p.m. **Welcome and State Briefing**
Traci Pearl, Division Administrator, Nevada Office of
Traffic Safety
Ken Kiphart, Administrator, Nevada Motorcycle Safety Program

Monday, November 14

8:00–9:30 a.m. **State Program Presentation**
Geographic & Demographic Overview of the State
General Overview of Motorcycle Safety Program
Traci Pearl, Division Administrator, Nevada Office of
Traffic Safety
Ken Kiphart, Administrator, Nevada Motorcycle Safety Program
Hal Lichtenwald, RiderCoach Trainer; Board Member,
Governor’s Advisory Board on Motorcycle Safety

9:30–9:40 a.m. **Break**

9:40–10:35 a.m. **Motorcycle Personal Protective Equipment**
Fred Harrell, Director, Purchasing and Facilities, Las Vegas
Harley Davidson; Board Member, Governor’s Advisory Board on
Motorcycle Safety
Sgt. Blair Harkleroad, Nevada Highway Patrol
Roger Kirkland, Member, Iron Butt Association

10:30–10:45 a.m. **Break**

10:45 a.m.–12:00 p.m. **Program Management**
Traci Pearl, Division Administrator, Nevada Office of
Traffic Safety
Ken Kiphart, Administrator, Nevada Motorcycle Safety Program

12:00–1:00 p.m. **Lunch**

- 1:00–2:30 p.m. **Communication Program**
 Valerie Evans, Community & Marketing Services Programs
 Manager, Nevada Office of Traffic Safety
 Fred Harrell, Director, Purchasing and Facilities, Las Vegas
 Harley Davidson; Board Member, Governor’s Advisory Board on
 Motorcycle Safety
 Traci Pearl, Division Administrator, Nevada Office of
 Traffic Safety
 Ken Kiphart, Administrator, Nevada Motorcycle Safety Program
- 2:30–3:30 p.m. **Motorcycle Operations Under the Influence of
 Drugs/Alcohol**
 Valerie Evans, Community & Marketing Services Programs
 Manager, Nevada Office of Traffic Safety
 John Johansen, Highway Safety Representative, Office of
 Traffic Safety
- 3:30–3:45 p.m. **Break**
- 3:45–5:00 p.m. **Rider Education and Training**
 Fred Harrell, Director, Purchasing and Facilities, Las Vegas
 Harley Davidson; Board Member, Governor’s Advisory Board on
 Motorcycle Safety
 Traci Pearl, Division Administrator, Nevada Office of
 Traffic Safety
 Ken Kiphart, Administrator, Nevada Motorcycle Safety Program
- 5:00–7:00 p.m. **Day One Wrap-up**

Tuesday, November 15

- 8:00–10:00 a.m. **Program Evaluation**
 Kim Stalling, Transportation Analyst III, Nevada Department of
 Transportation
 Bill Brown, Project Director, Center for Traffic Safety Research
 Deborah Kuhls, M.D., Assistant Dean of Medical Education,
 University of Nevada School of Medicine
 Traci Pearl, Division Administrator, Nevada Office of
 Traffic Safety
 Ken Kiphart, Administrator, Nevada Motorcycle Safety Program
- 10:00–10:15 a.m. **Break**

10:15 a.m.–12:00 p.m. **Motorcycle Operator Licensing**
Duane Blank, Training Officer, Nevada Department of Motor Vehicles
Tim Bayouth, Driver Examiner, Nevada Department of Motor Vehicles
Jude Hurin, Driver Program Manager, Nevada Department of Motor Vehicles
Heather Hawkins-Fancher, Management Analyst, Nevada Department of Motor Vehicles
Ken Kiphart, Administrator, Nevada Motorcycle Safety Program

12:00–1:00 p.m. **Lunch**

1:00–2:00 p.m. **Highway Engineering**
Ken Mammen, Principle Safety Engineer, Nevada Department of Transportation
Chuck Reider, Chief Safety Engineer, Nevada Department of Transportation
Traci Pearl, Division Administrator, Nevada Office of Traffic Safety

2:00–3:00 p.m. **Law Enforcement**
Sgt. Kevin Honea, Nevada Highway Patrol
Sgt. John Gayer, Henderson Police Department
Sgt. James Farmer, Nevada Highway Patrol

3:00–3:15 p.m. **Break**

3:15–4:45 p.m. **Motorcycle Rider Conspicuity and Motorist Awareness Programs**
Roger Kirkland, Member, Iron Butt Association
Valerie Evans, Community & Marketing Services Programs Manager, Nevada Office of Traffic Safety
Sgt. Kevin Honea, Nevada Highway Patrol
James Kimsey, Iron Eagle, Fraternal Order of Eagles
Darrell Rall, Iron Eagle, Fraternal Order of Eagles

5:30–6:00 p.m. **Day Two Wrap-up**

Wednesday, November 16

8:30–8:45 a.m. **Regulations**
Ken Kiphart, Administrator, Nevada Motorcycle Safety Program

- 8:45–10:00 a.m. **Law Enforcement & Motorcycle Personal Protective Equipment**
Sgt. Michael Gross, Washoe County Sheriff's Department
- 10:15–10:50 a.m. **General Questions**
Ken Kiphart, Administrator, Nevada Motorcycle Safety Program
- 10:50 a.m.–12:00 p.m. **Rider Education and Training**
Linda Whitehill, Site Coordinator, Western Nevada College
- 12:00–1:00 p.m. **Lunch & Day Three Wrap-up**

Thursday, November 17

- 10:00 a.m. –10:00 p.m. **Team Deliberations**

Friday, November 18

- 9:00–10:00 a.m. Draft Recommendations Report Out

Abbreviations Key

The Team	Technical Assessment Team
AAMVA	American Association of Motor Vehicle Administrators
Advisory Board	Advisory Board on Motorcycle Safety
ALTMOST	Alternate Motorcycle Operator's Skills Test
AMA	American Motorcyclist Association
BAC	Blood Alcohol Concentration
BATmobile	Breath Alcohol Testing mobile
BRC	Basic RiderCourse
CME	Certified Motorcycle Examiners
CSTIMS	Commercial Skills Testing Information Management System
CTSR	Center for Traffic Safety Research
DPS	Department of Public Safety
DRE	Drug Recognition Expert
DUI	Driving Under the Influence
DWI	Driving While Intoxicated
ERC	Experienced RiderCourse
FARS	Fatality Analysis Reporting System
FHWA	Federal Highway Administration
FMVSS	Federal Motor Vehicle Safety Standards
GDL	Graduated Driver Licensing
MOM	Motorcycle Operator Manual
MSF	Motorcycle Safety Foundation
MUTCD	Manual on Uniform Traffic Control Devices for Streets and Highways
NAC	Nevada Administrative Code
NCATS	Nevada Citation and Accident Tracking System
NDOT	Nevada Department of Transportation
NHTSA	National Highway Traffic Safety Administration
NHP	Nevada Highway Patrol
NRMSPP	Nevada Rider Motorcycle Safety Program
NRS	Nevada Revised Statute
OTS	Nevada Office of Traffic Safety
POST	Peace Officer Standards and Training
PSA	Public Service Announcement
QA	Quality Assurance
SFST	Standardized Field Sobriety Testing
SHSP	Strategic Highway Safety Plan
SMSA	National Association of State Motorcycle Safety Administrators
STS	Solution Thru Software
UNLV	University of Nevada-Las Vegas