

MOTORCYCLE SAFETY PROGRAM

TECHNICAL ASSESSMENT FOR

THE STATE OF CALIFORNIA

September 22-26, 2008

Technical Assessment Team

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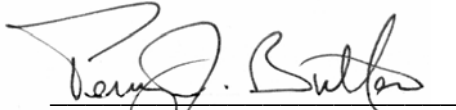
Acknowledgments

The Technical Assessment Team acknowledges and thanks Christopher Murphy, Director of California's Office of Traffic Safety and Governor's Highway Safety Representative, and his staff, specifically David Doucette, Michele Meadows, Julie Schilling, Ron Miller, and Patty Wong, for their support in making this assessment possible.

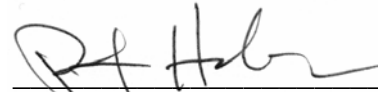
The Technical Assessment Team also acknowledges the National Highway Traffic Safety Administration (NHTSA) staff for their assistance in making this assessment possible. The Assessment Team believes that this report will contribute to the State's efforts to develop an effective motorcycle safety program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

The Technical Assessment Team also extends a special thanks to all of the people 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 California greatly assisted the Assessment Team in completing its review and making its recommendations. The Assessment Team also recognizes the dedication and passion of all those involved in making motorcycling safer in California and hopes that this report will further those efforts.

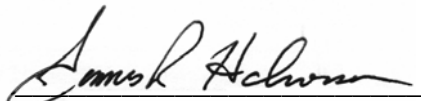
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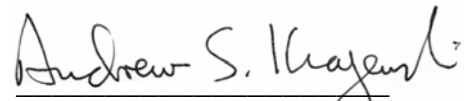
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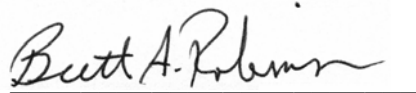
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Introduction

In 2007, 41,059 people were killed and 2,490,000 were injured nationwide in motor vehicle crashes. Recent national data published by NHTSA indicate that deaths and injuries attributable to motorcycle crashes are becoming a larger portion of this serious public health problem. Motorcyclist fatalities have been increasing since 1997, and motorcyclists injured have been increasing since 1999. The effects of a crash involving a motorcycle can often be devastating.

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. This is based on NHTSA's Highway Safety Program Guideline Number 3, Motorcycle Safety.

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 weaknesses, 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 California's motorcycle safety efforts was requested by the California State Office of Traffic Safety. NHTSA discussed issues of concern with the State prior to the assessment.

The California State Motorcycle Safety Program Technical Assessment was conducted in Elk Grove, California, September 22–26, 2008. 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 more than 30 presenters, with some being contacted following their presentations to provide technical information and clarification.

According to Highway Safety Program Guideline Number 3, Motorcycle Safety, published by NHTSA, 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.

Analysis of California'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 California, with short- and long-term applicability.

Geography and Climate

California is 770 miles long and 250 miles wide at its most distant points, covering land areas of 155,973 square miles. California is the third largest landmass in the United States. Located on the Pacific Coast of North America, California is bordered by the States of Oregon, Nevada, and Arizona, with Mexico on its southernmost border. While not well defined, the State is generally divided geographically into two regions, northern and southern. There are distinct geomorphic regions that range from alpine mountains, foggy coastlines, hot deserts, and fertile valleys. California's climate is varied, ranging in monthly average temperatures from a high of 92.2 degrees to a low of 14.3 degrees. The climate along the southern coast is mild, cooler along the central and northern coast. The climate in southeastern California is hot and dry. Most of California has a rainy season and a dry season. The rainy season runs from October to April in northern California and from November to March/April in southern California.

Population

California is the most populous State in the United States. According to the U.S. Census Bureau Population Estimates, there were more than 36,553,215 people living in California in 2007.

Highway Safety

In California, according to data from the National Center for Statistics and Analysis (NCSA) Fatality Analysis Reporting System (FARS), there were a total of 3,974 traffic-related fatalities during 2007. During the past five years, traffic-related fatalities have declined in the State by 5.9 percent, from 4,224 in 2003.

Regrettably, fatal crash data associated with motorcyclists do not indicate a similar decline during the past five years, or the past decade. Motorcyclist fatalities in California have increased by 153.4 percent over the past decade, from 204 fatalities in 1998 to 517 fatalities in 2007. With respect to the increase in the number of motorcycle registrations during the past decade, taking into consideration that motorcycle registration data for 2007 was unavailable at the time of this assessment, motorcyclist fatalities are continuing to increase at a far greater rate than the number of motorcycles registered in the State each year. See the following table.

**MOTORCYCLIST FATALITIES, REGISTERED MOTORCYCLES, AND FATALITY RATE
PER 10,000 REGISTERED MOTORCYCLES BY YEAR**

*Source: Fatalities - FARS 1998-2006(Final) & 2007(ARF)
Registrations - FHWA*

Calendar Year	Fatalities	% Change	Registered Motorcycles	% Change	Fatality Rate
1998	204	-----	403,971	-----	5.05
1999	236	+15.7	419,572	+3.9	5.62
2000	276	+16.9	448,501	+6.9	6.15
2001	299	+8.3	488,042	+8.8	6.13
2002	324	+8.4	535,424	+9.7	6.05
2003	383	+18.2	562,176	+5.0	6.81
2004	432	+12.8	626,529	+11.4	6.9
2005	469	+8.6	675,336	+7.8	6.94
2006	506	+7.9	726,096	+7.5	6.97
2007	517	+2.2	N/A	-----	N/A

One major factor contributing to the increase in motorcyclist fatalities in California is the number of improperly licensed motorcyclists involved in fatal crashes. During 2007, 36 percent of motorcycle operators killed in fatal motorcycle crashes in California were improperly licensed at the time of the crash. See the following table.

MOTORCYCLE RIDERS (OPERATORS) KILLED BY LICENSE STATUS AND YEAR

Source: FARS 1998-2006(Final) & 2007(ARF)

Calendar Year	License Status						Total	
	Properly Licensed		Improperly Licensed		Unknown			
	#	%	#	%	#	%	#	%
1998	112	58	76	40	4	2	192	100
1999	143	65	75	34	2	1	220	100
2000	176	68	79	31	3	1	258	100
2001	199	72	77	28	0	0	276	100
2002	202	66	100	33	5	2	307	100
2003	239	67	116	32	2	1	357	100
2004	251	62	152	38	2	0	405	100
2005	310	68	142	31	2	0	454	100
2006	303	64	165	35	8	2	476	100
2007	308	62	178	36	9	2	495	100

During 2007, the greatest number of improperly licensed motorcycle operators killed in fatal motorcycle crashes in California were in the 20 to 29 age group, followed by the 30 to 39 age group and the 40 to 49 age group. See the following table.

**MOTORCYCLE RIDERS (OPERATORS) KILLED BY AGE GROUP
AND LICENSE STATUS**
Source: FARS 2007(ARF)

Age Group	License Status						Total	
	Properly Licensed		Improperly Licensed		Unknown			
	#	%	#	%	#	%	#	%
< 20	5	38	7	54	1	8	13	100
20-29	73	47	80	51	3	2	156	100
30-39	64	62	38	37	1	1	103	100
40-49	74	69	33	31	0	0	107	100
50-59	64	76	17	20	3	4	84	100
60 & Above	28	88	3	9	1	3	32	100
Total	308	62	178	36	9	2	495	100

Properly Licensed: A valid driver license (Non-CDL License Status) with a motorcycle endorsement; a motorcycle only license, a learner's permit, or a temporary license; or a no license required for operating a motorcycle type vehicle like mopeds.

Improperly Licensed: Not licensed, not licensed to operate a motorcycle, or a license that is suspended revoked, expired, or canceled or denied.

Another major factor contributing to the increase in motorcyclist fatalities in California is the number of alcohol-impaired motorcyclists involved in fatal crashes. During 2007, 24 percent of motorcycle operators killed in fatal motorcycle crashes in California had a blood alcohol concentration (BAC) at or above .08 grams per deciliter (g/dL) at the time of the crash. See the following table.

MOTORCYCLE RIDERS (OPERATORS) KILLED BY YEAR AND THE RIDER'S BAC
Source: FARS 1998-2006(Final) & 2007(ARF)

Calendar Year	Motorcycle Riders Killed Number	BAC =.00		BAC =.01 - .07		BAC =.08+		BAC =.01+	
		Number	% of Total Killed	Number	% of Total Killed	Number	% of Total Killed	Number	% of Total Killed
1998	192	119	62	12	6	62	32	73	38
1999	220	148	67	11	5	61	28	72	33
2000	258	171	66	19	7	68	26	87	34
2001	276	193	70	22	8	62	22	83	30
2002	307	211	69	25	8	71	23	96	31
2003	357	250	70	20	5	87	24	107	30
2004	405	287	71	22	5	96	24	118	29
2005	454	333	73	26	6	96	21	121	27
2006	476	330	69	32	7	114	24	146	31
2007	495	346	70	31	6	118	24	149	30

During 2007, the greatest number of alcohol-impaired (BAC of .08 or higher) motorcycle operators killed in fatal motorcycle crashes in California were in the 20 to 29 age group, followed by the 40 to 49 age group and the 30 to 39 age group. See the following table.

**MOTORCYCLE RIDERS (OPERATORS) KILLED BY AGE GROUP
AND THE RIDER'S BAC**
Source: FARS 2007(ARF)

Calendar Year	Motorcycle Riders Killed Number	BAC=.00		BAC=.01 - .07		BAC=.08+		BAC =.01+	
		Number	% of Total Killed	Number	% of Total Killed	Number	% of Total Killed	Number	% of Total Killed
< 20	13	12	88	0	2	1	10	2	12
20-29	156	117	75	4	3	35	22	39	25
30-39	103	66	64	9	9	28	27	37	36
40-49	107	66	62	11	10	30	28	41	38
50-59	84	58	70	5	6	21	25	26	30
60 & Above	32	27	85	1	4	4	11	5	15
Total	495	346	70	31	6	118	24	149	30

Summary of Major Recommendations

I. PROGRAM MANAGEMENT

- **Actively use the Advisory Committee to assist in the establishment of a comprehensive motorcycle safety plan.**
- **Increase the OTS leadership role for a comprehensive motorcycle safety program by providing grant support to further goals and objectives of the Strategic Highway Safety Plan (SHSP) Challenge Area 12.**
- **Focus resources in the top 10 counties for motorcycle fatalities. Identify countermeasures that work in these counties then provide as best practices for use statewide.**
- **Evaluate the rider training funding model and the possibility of eliminating the reimbursement fee currently paid to the contractor by CHP. Consider raising the cap and tuition fee so that the training providers (sub-contractors) have enough to pay the reimbursement fee directly to the contractor. Reallocate reimbursement fee funds for other motorcycle safety efforts.**
- **Request legislative appropriations from the California motorcycle safety fund balance to be used to support Challenge Area 12 strategic initiatives for a more comprehensive approach to motorcycle safety.**

II. MOTORCYCLE PERSONAL PROTECTIVE EQUIPMENT

- **The California Highway Patrol (CHP) and other law enforcement agencies should aggressively enforce California's motorcycle helmet law.**

III. MOTORCYCLE OPERATOR LICENSING

- **Revise the California Motorcycle Handbook to be current and accurate.**
- **Revise and update current information in the California Driver Handbook on sharing the road with motorcycles.**
- **Revise the current motorcycle operator testing system (operator's manual, knowledge test, and skills tests). The Department of Motor Vehicles (DMV) should develop a state-of-the-art testing system that reflects the needs and challenges of California motorcycle operators.**

- **Begin collecting and tracking pass/fail rates for all tests administered by the DMV and tests conducted for the rider training waiver program for data collection and analysis, as well as quality control for rider education contractors providing waiver certificates.**
- **Implement a system which will allow for the collection of data relating to motor vehicle operators, including motorcycles, for the purpose of data collection and analysis statewide.**
- **Allow for the license skill test waiver with successful completion of the Experienced Rider Course (ERC) Skills Test Waiver Course to encourage unlicensed riders to attend the course, complete the licensing requirements, and increase training capacity.**
- **Enter information from the course completion certificate into the driver record, collect the certificate, and dispose of certificate properly.**
- **Develop and implement an online electronic reporting system for rider training course completion certificates. The team encourages the DMV to develop and implement an electronic system. Allocate funds intended for the development of an enhanced paper document to the development of an electronic reporting system.**
- **Add a requirement or task to the next California Motorcycle Safety Plan (CMSP) contract to include development of the electronic reporting system by the contractor, and provide sufficient funding to support the development, implementation, and maintenance of the system.**
- **Take administrative actions against riders who fail to follow licensing and permit restriction requirements.**

IV. MOTORCYCLE RIDER EDUCATION AND TRAINING

- **Eliminate the current course tuition fee cap to allow training sites to make improvements, ensure profitability, and pay the Motorcycle Safety Foundation (MSF) the per-student administrative fee currently being paid by CHP.**
- **Eliminate the per-student administrative fee being paid by CHP to the MSF and allow the CHP to more effectively allocate the annual appropriation to enhance motorcycle safety by establishing an effective comprehensive motorcycle safety program that can reduce crashes, injuries, and fatalities in California.**

- Determine what the expected outcomes should be of rider training efforts and create an ongoing evaluation process to determine the value and effectiveness of rider training.
- Create a real-time electronic course reporting system that updates MSF and DMV data files, and, if possible, issue the successful course participant a motorcycle license.
- Approve the ERC Skill Test Waiver Course as part of the CMSP training effort to encourage unlicensed experienced riders to obtain a motorcycle endorsement, encourage returning riders to complete training, and increase training capacity.
- Waive the DMV knowledge test and skill test for individuals successfully completing a CMSP license waiver course.

V. MOTORCYCLE OPERATION UNDER THE INFLUENCE OF ALCOHOL/OTHER DRUGS

- Conduct in-service training for law enforcement personnel on the detection of DUI motorcyclists utilizing materials that are available through NHTSA. Publicize this training through the news media.
- Create a motorcycle DUI enforcement campaign, including sobriety checkpoints, with representation by law enforcement officers/agencies statewide, targeting areas that motorcyclists frequent or congregate, in addition to crash locations with high alcohol involvement. Promote this effort through the news media.
- Incorporate motorcycle-specific messages into all impaired-driving campaign materials and enforcement activities, such as *Drunk Driving. Over the Limit. Under Arrest.*
- Create and distribute impaired-riding informational materials to State and local law enforcement, license exam stations, third-party testers, motorcycle dealers, highway rest areas, State and national parks, special events, and motorcycle rallies.

VI. LEGISLATION AND REGULATIONS

- Increase the penalty for operating a motorcycle without the proper license or endorsement, and for the wearing of a noncompliant motorcycle safety helmet or no helmet at all, to include impounding the motorcycle for up to 30 days.

VII. LAW ENFORCEMENT

- **Develop a uniform, statewide traffic citation form and a central repository.**
- **Require all law enforcement academies to adopt 16-hour NHTSA-certified SFST training, with the impaired-motorcyclist component as part of the core curriculum.**
- **Create regional or countywide traffic safety boards or associations for networking, information sharing, joint operations, and coordination to more effectively solve traffic safety problems instead of displacing them.**
- **Train all law enforcement officers to take a zero-tolerance approach to unendorsed motorcycle operators and to exercise towing and impoundment privileges when possible.**

VIII. HIGHWAY ENGINEERING

- **Include motorcycles and their specific handling characteristics when designing and improving highways and structures.**
- **Establish a system to allow the public to report problem areas and unsafe highway locations for motorcycles to the California Department of Transportation (Caltrans).**
- **Review motorcycle-specific signage in other States for application in California to alert motorcycle riders to dangerous or high-crash areas for motorcycles.**

IX. MOTORCYCLE RIDER CONSPICUITY AND MOTORIST AWARENESS PROGRAMS

- **Revise the MC0702 grant, and ideally all subsequent 2010 fund grants, to contain a motorist awareness component.**
- **Analyze crash data and coordinate a motorist awareness “blitz” in the top 10 motorcycle crash counties to highlight the busiest time period for motorcycle crashes. Invite agencies, communities, and organizations statewide to participate.**
- **Create a public information campaign to promote motorist awareness of motorcycles, emphasizing the reasons why motorists do not see motorcycles, and motorcyclists’ vulnerability in traffic crashes.**

X. COMMUNICATION PROGRAM

- **Create a permanent, full-time position and operating budget for a motorcycle safety communications program.**
- **Establish an annual communications plan to coordinate all motorcycle safety efforts including paid media, earned media, special events, and production and distribution of collateral materials.**
- **Identify key safety and awareness messages annually using crash data, and promote statewide through the Office of Traffic Safety (OTS), CHP, DMV, public and private stakeholders, and CMSP.**
- **Focus communications budget and programs on the counties with the majority of motorcyclist fatalities. Promote successful enforcement projects and education programs to stakeholders outside of these counties.**
- **Create and maintain ongoing public information campaigns to promote rider training, motorist awareness, proper licensing, protective gear, conspicuity, and the dangers of impaired riding.**
- **Include motorcycle-specific messages in larger impaired-driving campaigns commensurate with the number of impaired-motorcycle-riding fatalities.**

XI. PROGRAM EVALUATION AND DATA

- **Convene a data summit involving the Office of Traffic Safety, California Highway Patrol, Department of Motor Vehicles, California Motorcyclist Safety Program, and Emergency Medical Services to identify key data elements and information regarding motorcycle crashes, training, licensing, and registration that should be stored in a central database that is easily accessible and analyzed so an accurate picture of the motorcycle crash problem can be identified.**
- **Review the Traffic Collision Report to ensure needed motorcycle-related information is being gathered, and develop an electronic Traffic Collision Report that can assist in the accuracy and timeliness of crash reporting.**
- **Develop evaluation protocols in concert with the creation of strategies and countermeasures that can determine the value and effectiveness of implemented strategies and countermeasures.**

- **Communicate the effectiveness of strategies and countermeasures so other organizations, agencies, and communities can use them as best practices and adapt for their use.**

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 and support 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

Designated lead agency for motorcycle safety

Through legislation passed in 1986, now California Vehicle Code (CVC) 2930 through 2935, the California Highway Patrol (CHP), was designated the lead agency for the California Motorcyclist Safety Program (CMSP). The CHP has a CMSP coordinator who is the primary contact person for the program. The current CMSP coordinator is assigned to the Special Projects Section within Planning and Analysis Division of the CHP. The enabling legislation allows the lead agency to:

- Provide financial or other support to projects aimed at enhancing motorcycle operation and safety, including, but not limited to, motorcyclist safety training programs;
- Sponsor and coordinate efforts aimed at increasing motorist awareness of motorcyclists;
- Sponsor research into effective communication techniques to reach all highway users on matters of motorcyclist safety;
- Establish an advisory committee of people from other State and local agencies with an interest in motorcycle safety;

- Adopt standards for course content, contact hours, curriculum, instructor training and testing, and instructional quality control, and set forth a maximum amount for course fees;
- Adopt standards for course content, contact hours, curriculum, instructor training and testing, and instructional quality control, for a premier motorcyclist safety training program; and
- Provide a core curriculum approved for the novice rider training course specified in subdivision (e);

Additional course requirements established by the commissioner:

- On and after January 1, 2008, the commissioner shall not impose a maximum amount for course fees for courses provided under the premier motorcyclist safety training program.
- All administrative costs of a premier motorcyclist safety training program shall be paid for by the provider, and none of the costs shall be paid for by the State.

While there is a provision for expanding into a more comprehensive motorcycle safety program, the Team has learned the majority of funding and effort is, and historically has been, focused on rider education which has become synonymous with “the program,” otherwise known as CMSP. Although CHP does not directly manage or provide program services, it is ultimately responsible for the program’s overall administration. Responsibilities related to this include monitoring and evaluating any program contract to ensure the provisions of the contract are adhered to by participants. All curricula, including subsequent changes, must first be submitted in writing to CHP for review and approval prior to implementation. The Primary Contractor shall submit all invoices to CHP on a monthly basis for review prior to receiving payment, and all materials within the CMSP shall be approved by the Primary Contractor in consultation with the CHP CMSP coordinator. CHP CMSP staff may visit each and every administrative, classroom, and range site, announced or unannounced, to monitor site activity, and CHP may perform financial audits of Contractor’s financial records concerning CMSP.

CVC 2932(d) created an advisory committee of persons from other State and local agencies with an interest in motorcycle safety; persons from the motorcycle industry; motorcycle safety organizations; motorcycle enthusiast organizations; and others with an interest in motorcycle safety, to assist in the establishment of a comprehensive program of motorcycle safety. The current CMSP Advisory Committee meets a minimum of once every year to discuss and review the policy of CMSP. Meetings are called at the discretion of the CHP commissioner. Historically, the committee has met only once per year to evaluate the annual report and review any necessary policy changes. While the committee is currently made up of 12 members from several key agencies and motorcycle safety stakeholders, it appears that the committee’s resources and influence are underutilized.

CHP works in concert with the California OTS to address traffic safety issues through various grant projects. Additionally, CHP maintains a close working relationship with the California DMV through the CMSP Advisory Committee, task forces, various challenge areas within the State's Strategic Highway Safety Plan (SHSP), and other programs. Additionally, while CHP administers the CMSP, the California motorcycle safety fund – the special fund dedicated to CMSP – is collected by the DMV, maintained by the Department of Finance, and administered by CHP.

Funding

CMSP and other motorcycle-safety-related initiatives derive funds from four individual sources:

1. A dedicated funding source for CMSP known as the California motorcycle safety fund, established through the same 1986 enabling legislation. The California motorcycle safety fund is primarily supported through a \$2 fee charged for the initial registration and renewal of registration of every motorcycle subject to registration fees.
2. The California motorcycle safety fund receives an annual transfer of \$250,000 from the State Penalty Assessment Fund.
3. Section 2010 funds are currently being used to enhance motorcycle safety efforts in California. CHP has acquired Section 2010 funding to widely increase and enhance public awareness of CMSP. CHP has a contract with the departmental public awareness contractor to: a) restructure the existing CMSP Web site to draw widespread public attention; b) purchase advertising space on motorcycle-related Web sites and search engines; and c) develop and deliver public service announcements highlighting CMSP.
4. CHP enjoys a close working relationship with OTS. Because OTS understands the importance of increasing motorcyclist safety in the State it is routinely supportive of CHP grant funding requests relating to motorcyclist safety.

The California motorcycle safety fund does not expire; however, CMSP expenditures cannot exceed a specified amount of \$1,365,000 during any State fiscal year (July 1– June 30). Any unspent funds remain in the California motorcycle safety fund. Information indicates that a balance of approximately \$1,500,000 remains in the California motorcycle safety fund but cannot be used without legislative appropriation. It is the recommendation of the team that a justification plan be drafted and a budget change proposal be submitted for use of the California motorcycle safety fund balance, toward areas of a comprehensive motorcycle safety program, other than training.

The current administrative model allocates almost all of the annual appropriation toward rider education with a small portion set aside for travel and administrative costs. As outlined in the current CMSP contract, CHP reimburses the contractor \$22.50 per student trained, which, if reimbursed up to the maximum contract limit, allows for the training of approximately 60,667 students total. When the contract limit is reached, the CMSP contractor is required to continue the training but does not receive the per-

student reimbursement. In 2007, more than 62,000 students were trained at CMSP sites throughout the State, and it is estimated that the training numbers will top 68,000 for 2008. The CHP has indicated they would like to see a 10-percent increase in the number of individuals trained each year, consequently adjustments to the contract limit and reimbursement rate need to be considered.

Because of the obvious increase in ridership and demand for training, the Team feels that a review of this business model should be conducted with the goal of allowing for more training to occur, as well as allocating funds for the other areas of a comprehensive motorcycle safety program. One possible approach would be to allow the CMSP contractor to raise the tuition cap enough to charge each training site sponsor the \$22.50 per-student reimbursement fee (currently reimbursed by CHP). These funds could be used to support the administrative costs of CMSP, thereby freeing up more of the \$1,365,000 – currently used only for rider training – for a comprehensive motorcycle safety program. A second approach, requiring legislative action, would be to increase the fee charged for the initial registration and renewal of registration of every motorcycle subject to registration fees.

While CHP is responsible for administering CMSP, it cannot directly manage or provide program services; rather it must deliver the program via contracts with public or private entities.

Data Collection and Analysis

The central agency responsible for collecting motorcycle crash information for California as required by CVC 20007(a) is CHP. CHP has a dedicated unit that collects and inputs data into a specialized database known as Statewide Integrated Traffic Records System (SWITRS). CHP collects information on all reported fatal/injury crashes in California on public property, as well as some property-damage-only crashes, including motorcycle collision, injury, and fatality data; helmet usage; and alcohol involvement. SWITRS motorcycle crash data are available at three different levels of detail, which can be integrated together for research purposes:

- a) crash-level information such as the time-of-day of the crash or roadway speed limit, and counts of motorcyclists killed or injured
- b) party-level information such as the rider's sobriety, drug use, and helmet use
- c) victim-level information such as age, sex, and injury severity

Other types of motorcycle data are also collected, which include the DMV biannual (January and July) censuses of licensed motorcyclists by age group, sex, and county. The Motorcycle Safety Foundation (MSF) maintains databases of all persons who enroll in the basic and experienced rider courses, as well as the course outcome (i.e., pass, fail, or drop). MSF also maintains a database of all certified instructors and training sites. While a great deal of data is collected on all aspects of motorcycle activity it is unclear who, if anyone, is responsible for analyzing the data.

Problem Identification

Information provided to the Team indicates that due to the CMSP's status as a specially funded program administered by CHP, CHP has historically not requested placement of motorcycle safety training issues in the OST SHSP. However, as motorcyclist-involved fatalities and injuries continue to rise in California, CHP is examining the viability of developing focused motorcycle safety grant programs for inclusion in the OST SHSP. James McLaughlin, Chief, CHP Planning and Analysis Division, indicated a desire to expand CMSP into a more comprehensive approach to motorcycle safety.

The 2009 "Implementation of the California Strategic Highway Safety Plan," includes a list of high-priority action items for implementation to address California's most pressing safety issues including motorcycle safety. Specifically, Challenge Area 12: Improve Motorcycle Safety includes 12 priority action items. The SHSP Executive Leadership is another example of the ability and willingness of State agencies to work together on safety issues. This Executive Leadership is made up of representatives from the DMV, CHP, OTS, Caltrans, Department of Alcoholic Beverages Control, California Department of Public Health, and the Emergency Medical Services Authority.

The agencies involved in data collection do a good job of using crash data to identify problem areas, but there was little evidence or testimony that indicates whether or how data is used to plan, implement, and evaluate strategies that could positively impact the problem areas. Some presenters stressed the need for the strategies and countermeasures to be more targeted, focused, and coordinated.

Countermeasures that are properly pilot-tested, carefully evaluated, and proven successful should be considered best-practiced and documented so others can analyze, plan, modify, and implement it for use in their specific areas. Likewise, if the countermeasure is proven to be unsuccessful it should be discontinued so that resources can be reallocated to more effective approaches.

Collaboration

An excellent example of collaborative efforts is the first California Motorcycle Safety Summit, organized by the CHP Special Projects Unit, with a theme of working together to reduce motorcycle rider injuries and fatalities by 10 percent by 2010.

OTS is also a valuable resource for California and its motorcyclists. The primary goal of OTS is to reduce deaths, injuries, and economic losses resulting from traffic-related collisions. They do this by funding traffic safety programs that impact individual communities and the State. OTS is a member of the CMSP Advisory Committee. Additionally, Motorcycle Safety Task 2 of the 2008 OTS highway safety plan provides for a comprehensive evaluation of motorcycle programs in order to improve and develop effective countermeasures to reach the growing population of motorcyclists. A look at the OTS 2009 grant program funding areas indicates that only 0.91 percent of the total

funds are to be specifically used for motorcycle safety. However, motorcycles are included as part of the target audience in all alcohol and police traffic services grants that include efforts in enforcement for DUI and/or speed, as well as public education and prevention programs.

In addition, CHP has established an OTS-funded grant goal to increase the number of motorcycle riders completing the CMSP class. OTS has also established “Impact Program/Strategies” that include:

- Funding CHP to develop an educational awareness campaign using Web-based media;
- Reviewing recommendations in partnership with CHP, DMV, and other stakeholders, and prioritizing possible strategies developed from the 2008 Motorcycle Safety Summit;
- Planning, with CHP, the agenda for the 2010 Motorcycle Safety Summit; and
- Reviewing, with other stakeholders, the 2008 technical motorcycle safety assessment report for recommended strategies and best practices.

Finally, three specific ongoing projects are being funded by OTS indicating their desire to take a leadership role in addressing motorcycle safety issues and expanding CMSP activities. Specifically:

- MC0701 – “Training and Rider Experience Among Motorcyclists in California” is an OTS grant to the University of California, Berkeley, to review training programs and scientific literature, explore SWITRS and Fatality Accident Reporting System (FARS) data on motorcycle crashes, and conduct a telephone survey and recommend optimal use of available strategies to decrease motorcycle crashes in California.
- MC0702 – “Promoting Motorcycle Safety Training” is an OTS grant to CHP to provide a targeted public awareness campaign to increase public knowledge of CMSP’s availability to motorcyclists.
- PT0826 – “Saving Lives in California (SLIC) II” is an OTS grant to CHP to implement an enforcement program to combat fatal/injury speed-caused collisions, including those involving motorcycles.

Implementation of the 2006 Challenge Area 12 priority action items are an excellent example of the multi-agency cooperation required to implement a comprehensive motorcycle safety program, including Caltrans, CHP, the DMV, MSF, and the Snell Memorial Foundation. While this effort is to be commended as a good start toward a comprehensive approach to motorcycle safety, additional problem analysis, identification, and countermeasures are needed.

Evaluation of Program Services

Routine evaluation efforts have primarily been conducted only on the rider training aspect of CMSP. CMSP contractor operates and maintains a quality assurance

program with components that are designed to monitor both short-term and long-term aspects of training in a comprehensive fashion. The contractor continues to monitor standards through multiple methods including quality assurance site visits, site visit notes, non-compliance reports, site-based mini-updates, a regular newsletter, a secret shopper program, regular student feedback surveys, and periodic student follow-up surveys. A student satisfaction survey is employed to capture and report participant perceptions and opinions regarding the nature of the program and quality of the personnel. Lastly, the CMSP contractor uses an outside vendor to complete a comprehensive evaluation of the program during the second year of the two-year contract. The evaluation measures the standard benchmarks and compliance issues that have been a part of day-to-day performance measures. In addition, the survey attempts to gather information regarding the riding experiences of course participants and how those experiences have been affected by their course participation. A random sampling procedure is utilized in order to account for the voluntary basis of the regular student feedback surveys.

Recommendations

- **Actively use the Advisory Committee to assist in the establishment of a comprehensive motorcycle safety plan.**
- **Increase the OTS leadership role for a comprehensive motorcycle safety program by providing grant support to further goals and objectives of the Strategic Highway Safety Plan (SHSP) Challenge Area 12.**
- **Focus resources in the top 10 counties for motorcycle fatalities. Identify countermeasures that work in these counties then provide as best practices for use statewide.**
- **Evaluate the rider training funding model and the possibility of eliminating the reimbursement fee currently paid to the contractor by CHP. Consider raising the cap and tuition fee so that the training providers (sub-contractors) have enough to pay the reimbursement fee directly to the contractor. Reallocate reimbursement fee funds for other motorcycle safety efforts.**
- **Request legislative appropriations from the California motorcycle safety fund balance to be used to support Challenge Area 12 strategic initiatives for a more comprehensive approach to motorcycle safety.**

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 communications 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 campaigns and other motorcycle safety campaigns.

Status

California has a Universal helmet use law for all riders and passengers. The law and requirements for compliance, such as identifying FMVSS 218 as the standard and requiring that the helmet be secured to the rider's head, are more explicit than in most States. The helmet law, recent court rulings aside, is extremely difficult for CHP officers to enforce. They do, however, focus enforcement actions on motorcyclists not wearing helmets and motorcyclists wearing helmets which are obviously not motorcycle helmets, such as styrofoam bicycle helmets or football helmets.

The California Motorcyclist Safety Program (CMSP) promotes the use of full protective gear in rider training classes. The Motorcycle Handbook details required and recommended riding gear. The Motorcycle Safety Foundation (MSF) distributes materials to educate riders on the use of full protective gear. CHP also distributes a brochure that details how to identify a noncompliant helmet as well as a general motorcycle brochure that identifies all the recommended gear, including eye protection, boots, gloves, snug clothing, and brightly colored and reflective clothing. Other than that, little coordinated effort is shown by CHP, CMSP, California OTS, or allied agencies in promoting the use of full protective gear.

Recommendations

- **CHP and other law enforcement agencies should aggressively enforce California's motorcycle helmet law.**
- Create a public information campaign promoting the use of full protective gear.
- Promote the use of brightly colored and reflective clothing at all times, not just after dark.
- Create a public information campaign to educate riders in helmet compliance and penalties for noncompliance.

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

Motorcycle Handbook

The State has a motorcycle operator's manual called the California Motorcycle Handbook which is updated annually. The DMV's Communications Program Division is responsible for updating the Handbook. Several departments and individuals may request that information be included in the Handbook. Any information is reviewed by upper management in the Driver Licensing Policy area as well as the Communications Programs Division and must be approved before being added to the Handbook. The Handbook is distributed through DMV field offices throughout the State and is available on the DMV Web site.

The Handbook does not contain information unique to the challenges of operating a motorcycle on California roadways, nor does it prescribe penalties for noncompliance with the Universal helmet use law or for violating licensing or permit restrictions. The Handbook is intended to provide general information for motorcycle operators to help them apply and test for a motorcycle operator's license.

The information contained in the Motorcycle Handbook should be reviewed to determine if the information is current and accurate. By comparison, the graphics in the Driver Handbook are of a higher quality than those in the Motorcycle Handbook. The Driver Handbook contains information on sharing the road with motorcycles; however, the content needs to be updated with more current information.

License Examination

The DMV has the responsibility for administering the licensing test for motorcycle operators, which are conducted by State examiners. The State does not allow for third-party testing of motorcycle license applicants, outside of CMSP-approved training.

Individuals applying for a motorcycle license are required to pass a written test and a motorcycle skill test before being allowed to operate a motorcycle without restriction. Motorcycle operators under age 21 must attend the CMSP standard novice training course and present a DMV-DL 389 (Completion of Motorcycle Safety Training certificate) to obtain their licenses.

The DMV utilizes the “Lollipop” skills test. Only one other State still uses this test, and in a slightly different format. The test was originally developed in the 1970s and is generally considered to be antiquated and does not adequately evaluate the riding skills necessary for safe operation of a motorcycle on the roadways.

The current knowledge test represents an evolution of the enhanced written test based on the Motorcycle Task Analysis, following numerous psychometric evaluations and revisions of the test conducted over the years. The most recent published evaluation of the motorcycle operator written test was conducted in 2003. For original and renewal applicants on the first test attempt, the study found the failure rates to be 76 percent and 87 percent, respectively.

Pass/fail rates for the knowledge and skills tests are not maintained by the DMV, as it does not collect this information as a part of its driver database. This information can be valuable to determine problems with the testing system. The DMV needs to begin collecting and tracking pass/fail rates within its database for all tests administered by the DMV, as well as tests conducted for the rider education waiver program. These results can be used for data analysis, as well as quality control for rider education courses that provide waiver certificates. Currently, the CMSP contractor is capable of providing this information to the DMV.

While the knowledge test has been revised and evaluated, the skills test has not. The DMV needs to consider evaluating the current testing system (operator’s manual, knowledge test, and skill test) for needed revisions and/or enhancements. The DMV should consider developing a state-of-the-art testing system reflective of the needs and challenges of California motorcycle operators.

The team concluded that most data, such as course completion, pass/fail rates, etc., that may be requested by other departments for research purposes is not collected, either on the individual rider or the riding population as a whole. The DMV should implement a system which will allow for the collection of data relating to motor vehicle operators for the purpose of statewide data analysis.

The DMV will waive the motorcycle skill test for the successful completion of the CMSP standard novice training course. The State, through CHP, contracts with a private vendor, the Motorcycle Safety Foundation (MSF), to train individuals who want a license to operate a motorcycle. Upon satisfactory completion of this course, CMSP issues a DMV-DL 389 that when presented to the DMV, waives its motorcycle skill test requirement. Currently, the knowledge test cannot be waived. To provide enhanced customer service and to reduce walk-in traffic the DMV should waive the knowledge test upon successful completion of the CMSP standard novice training course.

The Rider's Edge program also issues waivers for successful completion of the approved rider education course. Currently, Rider's Edge reports the results to MSF and the Harley-Davidson Corporate Office that oversees Rider's Edge. These results should be reported directly to MSF, Rider's Edge, and the DMV.

Currently, the Experienced Riders Course (ERC) Skill Test Waiver Course is not eligible to provide a waiver for the skill test. The DMV and CHP should reconsider this policy and allow for the skill test waiver for successful completion of the ERC Skill Test Waiver Course. Providing a waiver at the end of the ERC Skill Test Waiver Course should help encourage unlicensed riders to attend the course and complete the licensing requirements and increase training capacity.

The DMV produces the test waiver form DL 389, with a control number. The applicant is required to present the form at the DMV, and the examiner gives it a cursory review; then the form is given back to the applicant. A record of the waiver is not maintained nor entered into the system or driver record. This form should be collected by the DMV, recorded in the driver record, and then disposed of properly.

The team heard testimony that DL 389 forms were being sold on the Internet and that fraud cases had occurred with use of the form. The DMV has investigated fraud cases, but the fraud unit is reluctant to take action as there is not enough information or evidence to prosecute, nor is there a perjury statement on the form. The practice of taking action for fraud cases would also require training of DMV staff to recognize counterfeit certificates. The DMV will contact CMSP to verify certificates suspected to be fraudulent, but it is not a regular occurrence. The team was informed that the DMV is looking at enhancing the security (e.g., secure counterproof paper) of the form and is planning to collect the form at the licensing office. A risk assessment for fraud vulnerabilities with the certificate and waiver process has not been conducted.

The team inquired whether the DMV was considering development and implementation of an electronic reporting system for course completion certificates to eliminate the occurrence of paper certificate fraud. The team was informed that a similar system is used for the alcohol program and that the DMV was not considering the development and implementation of such a system, but rather they planned to move forward with development of a more secure paper document. The DMV should develop and implement an electronic system. Funds for development of an enhanced paper

document should be allocated to the development of an electronic reporting system.

Additionally, the team was informed that MSF currently utilizes an electronic reporting system for their course providers to report course completion results directly to MSF, but that MSF cannot report the result electronically to the DMV without an interface program in place. The DMV should work with CHP to consider adding a requirement or task to the next contract for the rider education program to include development of the electronic reporting system by the contractor and provide sufficient funding to support the development, implementation, and maintenance of the system.

While the provider for CMSP provides a comprehensive quality assurance program for course providers and rider coaches, there is no quality assurance program for the administration of the rider education program and control of the waiver certificate after it is issued to the student. A quality assurance program must be implemented to ensure the reliability of the waiver program. The legislation allows for the waiver and gives control to CHP. However, the DMV accepts the certificate for waiver of the skills test. While the relationship and cooperation is good between CHP and the DMV, the DMV must implement measures to confirm the quality of the waiver program by actively taking a role in the monitoring and oversight of the administration of the end-of-course tests used by the CMSP and its contractor(s). A quality assurance program for the waiver should be a high priority for the DMV.

License Examiner Training

Licensing Registration Examiners (LREs) receive training to conduct all driving tests given by the department, including a course section in which they are trained to conduct tests for motorcyclists. The motorcycle portion of the training consists of four hours of classroom instruction. Examiner training materials are provided for the training. Refresher training or in-service training for motorcycle testing is not offered. The training is conducted by the Departmental Training Branch which is responsible for the training of all the LREs employed in the State. The LREs are not issued a specific certification in order to administer motorcycle exams. The DMV does not participate in the American Association of Motor Vehicle Administrators (AAMVA) International Driver Examiner Certification (IDEC) program, which certifies driver examiners in their field of profession. The certification program includes a component for motorcycle examiners.

The team feels the training provided to motorcycle examiners is not sufficient and that training efforts should be improved. Refresher training needs to be conducted. The DMV should participate in the AAMVA-IDEC Certified Motorcycle Examiner (CME) program.

Motorcycle Licensing

Those applying for a motorcycle license must pass a written knowledge test and skills test, and applicants under 21 must complete an approved motorcycle training course.

Operators of motorcycles, motor-driven cycles, mopeds, and motorized bicycles must pay a license fee of \$28.

The definitions for two- and three-wheel vehicles are as follows:

A motorcycle:

- Has a seat for the rider and is designed to travel on two or not more than three wheels; and
- Can also be electrically powered with a maximum speed of 45 miles per hour and weigh less than 2,500 pounds.

A motor-driven cycle is:

- A motorcycle with a 49 cc or less engine size.

NOTE: You may not operate a motor-driven cycle on a freeway if signs are posted to prohibit motor-driven cycle operation.

A motorized bicycle (moped) is:

- A two- or three-wheeled device, capable of no more than 30 mph on level ground, and equipped with:
 - fully operative pedals for human propulsion;
 - an internal combustion engine producing less than two gross brake horsepower and an automatic transmission; and
 - an electric motor, with or without pedals for human propulsion. (VC §406[a])
- A vehicle with pedals and an electric motor (not more than 1,000 watts) which cannot be driven at speeds of more than 20 mph on level ground even if assisted by human power. The motor must stop when the brakes are applied or the starter switch is released (VC §406[b]).

If you operate a motorized bicycle which meets the definition of VC §406[b], you:

- Must be 16 years of age or older;
- Must wear a properly fitted and fastened bicycle helmet;
- Are exempt from the motor vehicle financial responsibility, driver license, and moped plate requirements (VC §12804.9); and
- May ride a moped in a bicycle lane at a reasonable speed. Be careful of bicyclists using the lane.

A motorized scooter is defined as any two-wheeled “device” with:

- A motor, handlebars, and a floorboard for standing on when riding;
- The options of having:
 - a driver seat which cannot interfere with the operator’s ability to stand and ride; and
 - the ability to be powered by human propulsion; and
- An exhaust system that has not been modified or altered.

The team was informed that the current law allows a motorcycle with a sidecar to be operated with a Class C (automobile) license, requiring no special license. In 2005 it came to the attention of the DMV that trikes and sidecars could cause a problem with the registration and testing process for licensure. Since then, the DMV has been working with CHP and the Motorcycle Dealers Association to set up dialogue between the three parties to determine how to define the category. The DMV should continue to evaluate the California motorcycle licensing definitions to ensure they are current and applicable with today's licensing needs for both two-wheel and three-wheel vehicles.

Cross-Referencing Registrations With Licenses

It does not appear that the DMV has attempted to determine the extent of the unlicensed rider population. Unlicensed riders figure prominently in California's crash, injury, and fatality statistics. Testimony indicated that the DMV has not compared registered vehicles against licensed riders to determine if there are motorcycles registered to riders who are not licensed, and the two databases that house this data are not currently linked. However, the team was informed that the DMV has begun discussions to undertake such an effort in the future.

Renewal Requirements

Renewal of a motorcycle license requires a \$28 fee and may involve taking written and vision tests. The license must be renewed every five years. Renewal applicants with a clean driving record receive a written test waiver by mail. A skills test is not normally required. The DMV has the discretion to require a skills test if there are obvious concerns about an individual's ability to operate a motorcycle.

Learner's Permits

A learner's permit is issued after the applicant has satisfactorily passed the written test. The permit is valid for a period of 12 months from the application date. Motorcycle operators with a learner's permit are restricted to driving only during daylight hours, may not carry a passenger, and may not operate on a highway or freeway. The learner's permit is valid for 12 months. Upon expiration the rider can apply for a new permit. The rider can in theory continue to apply for a new learner's permit every twelve months without ever taking the skills test for full licensure. The validity periods for a learner's permit should be examined and be reflective of NHTSA and AAMVA recommendations for motorcycle permit validity periods.

Penalties for Violations

The California Vehicle Code does not have specific penalties for violations occurring on motorcycles. All moving violations which become convictions and appear on the driving record may generate specific sanctions, according to statute. These penalties may result in fines, impoundment, suspensions, or revocation. Violations occurring on a

motorcycle are not coded as such in DMV's database. However, the DMV may be able to distinguish the type of vehicle by the license plate number configuration. An unlicensed motorcycle operator may be issued a citation and/or have the motorcycle stored or impounded.

Information received indicates that the DMV does not take direct administrative action upon riders who fail to follow licensing or restriction requirements and receive citation/convictions, however, a conviction may result in administrative action by the DMV if there are prior points on the individual's driving record. Any action taken against the rider is left to the judicial process, sometimes resulting in no action being taken. The team was informed that in order for the DMV to take action, a legislative change would be required. Most States have the authority to take administrative action against operators who fail to follow licensing and restriction requirements. The team encourages the DMV to pursue authority to take administrative actions.

The California Motorcycle Dealers Association (CMDA) has sought to reduce the number of unlicensed individuals from riding newly purchased motorcycles through education by placing signage in dealerships that indicates riders are required by law to have a valid M1 endorsement for legal operation.

Summary

While the team has identified a number of areas requiring improvement within the motorcycle licensing system, we would like to note that the DMV recognizes the issues and is open to considering the recommendations provided within this report.

Recommendations

- **Revise the California Motorcycle Handbook to be current and accurate.**
- **Revise and update information in the California Driver Handbook on sharing the road with motorcycles.**
- **Revise the current motorcycle operator testing system (operator's manual, knowledge test, and skills test). The DMV should develop a state-of-the-art testing system that reflects the needs and challenges of California motorcycle operators.**
- **Begin collecting and tracking pass/fail rates for all tests administered by the DMV and tests conducted for the rider training waiver program for data collection and analysis, as well as quality control for rider education contractors providing waiver certificates.**

- **Implement a system which will allow for the collection of data relating to motor vehicle operators, including motorcycles, for the purpose of data collection and analysis statewide.**
- Allow for the waiver of the knowledge test at the DMV with successful completion of an approved rider training course.
- Require test results from Rider's Edge to be reported directly to the MSF and the DMV.
- **Allow for the license skill test waiver with successful completion of the ERC Skills Test Waiver Course to encourage unlicensed riders to attend the course, complete the licensing requirements, and increase training capacity.**
- **Enter information from the course completion certificate into the driver record, collect the certificate, and dispose of certificate properly.**
- **Develop and implement an online electronic reporting system for rider training course completion certificate. The team encourages the DMV to develop and implement an electronic system. Allocate funds intended for the development of an enhanced paper document to the development of an electronic reporting system.**
- Conduct a risk assessment of the rider education completion certificate and waiver process to determine vulnerabilities for fraud, and add a perjury statement to facilitate prosecution of fraud. This will not be necessary if an electronic reporting system is used as recommended above.
- **Add a requirement or task to the next CMSP contract to include development of the electronic reporting system by the contractor, and provide sufficient funding to support the development, implementation, and maintenance of the system.**
- Implement a DMV quality assurance program for the waiver certificate to ensure proper end-of-course testing by rider education providers certifying successful course completion for a testing waiver.
- Enhance and improve current motorcycle examiner training. Provide refresher training on at least a semiannual basis.
- Participate in the AAMVA-IDEA certification program for motorcycle examiners.

- Evaluate California motorcycle licensing definitions to ensure they are current and applicable with today's licensing needs for both two-wheel and three-wheel vehicles.
- Cross-reference motorcycle registrations with motorcycle operator licenses to identify riders who may not be licensed. Send a message to the registered owner reminding them that if they are riding, they are required to be properly licensed.
- Examine validity periods for a learner's permit. The validity period should be examined and be reflective of NHTSA/AAMVA recommendations to include a permit validity period of 90 days which can only be renewed two times.
- **Take administrative actions against riders who fail to follow licensing and permit restriction requirements.**

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:

- Formal curriculum review and approval process;
- A mandate to use the State-approved curriculum;
- Reasonable availability of rider education courses for all interested residents of legal riding age;
- 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

The CMSP rider education and training effort is administered by CHP (California Vehicle Code [CVC] 2930-2935). CHP cannot directly manage or provide the rider education and training courses. The rider education and training must be provided by a contractor. Since 2004, CHP has contracted with the Motorcycle Safety Foundation (MSF) to manage and provide the CMSP rider education and training effort. CHP monitors and evaluates the contractor and establishes the standards for course content, contact hours, curriculum, instructor training, quality control, and the maximum allowable tuition for the novice rider training courses. CHP reimburses the MSF \$22.50 per student participating in the CMSP standard novice training course up to the maximum contract limit of \$1,365,000 per year (approximately 60,666 students). The \$22.50-per-student reimbursement covers MSF administrative costs for quality assurance, instructor certification, professional development, course promotion, and record keeping.

The annual maximum contract limit of \$1,365,000 is not established by law or regulation. Testimony indicated this annual contract limitation was based on the performance of the previous contractor and the information provided in the Request for Proposal. The MSF proposed plan, as required by the contract, is to train a minimum of 45,000 individuals per year. In the last two years, MSF has exceeded this minimum (62,298 in 2007 and potentially 68,000 in 2008). When the contract limit is reached, MSF is required to continue the training but does not receive the per-student reimbursement. Since CHP stated that they would like to see a 10-percent increase in the number of individuals trained each year, adjustments to the contract limit and the reimbursement rate need to be considered.

CHP, by law, is responsible for evaluating and monitoring the rider education and training contract. MSF provides CHP with monthly reports on its activities and the number of students trained. These reports are used by MSF to request reimbursement from CHP. CHP and MSF have a good working relationship and there is no evidence of misconduct by the contractor. However, considering the amount of reimbursement provided each year to MSF, it would seem appropriate for CHP to routinely conduct a formal audit and evaluation of this contract. Testimony from both CHP and MSF indicated no such audit or evaluation has taken place.

Delivery System

There are 51 Site Administrators under contract with MSF to provide the approved CMSP standard novice training course. These Site Administrators provide courses at 86 locations on 123 ranges. It is estimated that individuals in approximately 38 counties have reasonable access to the rider training courses. These 86 locations include 19 military locations with 26 ranges. All Site Administrators are required to comply with the standards and policies established for CMSP by CHP and MSF.

The civilian providers are independent businesses that must rely on student tuition to cover their training costs. These providers must purchase the instructional materials, do their own advertising, provide the approved range area and classroom, be properly insured, purchase and maintain their fleet of training motorcycles, and hire and pay MSF-certified RiderCoaches. These providers receive no subsidy from CHP or MSF to operate. The tuition they may charge is controlled by CMSP. For individuals under age 21 the maximum fee is \$150 because they are required to complete the CMSP standard novice training course to obtain a motorcycle license endorsement. Individuals 21 and older pay a maximum of \$250. The tuition fees are established in the CHP contract with MSF. There is no law or regulation specifying the CMSP course tuition fees.

The military sites are not open to the public and do not charge a tuition fee. Individuals completing the CMSP standard novice training course on a military site are eligible for the licensing waiver. The CHP \$22.50 reimbursement rate to MSF also applies to individuals participating in the military site courses.

State Curricula

CMSP has adopted the MSF Basic Rider Course (BRC) as the approved standard novice training course and licensing waiver course. The MSF Experienced Rider Course (ERC) Skill Test Waiver Course is not part of the CMSP rider training effort. The ERC is primarily used by the military sites for individuals returning from deployment. CMSP sites may offer the ERC, provided it does not interfere with the standard novice training course schedule and it may not be used for the licensing waiver. Only a limited number of civilian sites offer the ERC because of low enrollments and lack of participant incentives. MSF estimates that approximately 700 individuals, mostly military, completed the ERC in 2007. Several presenters felt the ERC Skill Test Waiver Course should be part of CMSP as an incentive to encourage unlicensed experienced riders to obtain a motorcycle license and returning riders to update their skills.

Recently, CHP and CMSP approved a Premier Motorcyclist Safety Training Program. The Premier Program is authorized by the enabling legislation provided it meets the core curriculum requirements for the standard novice training course and any additional requirements established by CHP. There are only five sites offering the CMSP Premier Program. These sites are operated by Harley Davidson dealerships through the Rider's Edge Program. CMSP Premier Program sites must comply with all CMSP standards and policies and are approved for the motorcycle license waiver.

The Premier Program sites do not have a CMSP-imposed maximum course tuition fee, but they are required to pay MSF the \$22.50-per-student administrative fee. This fee covers CMSP costs for quality assurance, instructor certification and professional development, informational materials, and record-keeping. Currently, Premier Program sites charge \$395 and trained approximately 750 individuals in 2008.

Availability and Meeting Demand

The MSF is required by the CHP to meet customer demand for the course. The maximum allowable wait time for individuals to participate in a course is 90 days. The current average statewide wait time (based on the July 2008 customer survey) is 22 days. During the fall and winter months, this wait time can be as low as seven days. In 2006 and 2007, CMSP sites experienced a 10- and 16-percent increase, respectively, in the numbers trained. At this time, the CMSP does not seem to have a backlog and the Site Administrators are constantly looking for approaches to expand their training. However, continued expansion of the training effort may require additional annual funding to the CMSP contractor or an adjustment in the reimbursement rate. The CHP may need to explore other approaches for supporting the CMSP contractor.

Participant Incentives

Individuals successfully completing the CMSP standard novice training course or the Premier Program course are issued a Department of Motor Vehicles Driver License (DMV-DL) 389 form. Submitting this form to the Department of Motor Vehicle (DMV) waives the motorcycle licensing skills test. Individuals are still required to complete the licensing knowledge test. This waiver program is an excellent incentive for individuals to complete training. However, continuing to require the completion of the knowledge test is a customer service and DMV resource issue. Since completion of a 50-question knowledge test is part of the CMSP standard novice training course and Premier Program courses, it may be more customer-friendly and efficient to waive both the DMV knowledge and skill tests when an individual completes the approved course.

Security of the paper DMV-DL 389 is a concern. Presenters indicated that the current form is supposedly available on eBay and the DMV does not have a process to track or collect submitted forms. The DMV is considering revising the form on security paper, but this still may not eliminate the need for tight security and accounting of the forms. It may be more cost-effective to implement an electronic reporting system that can update the CHP, MSF, and DMV databases. The information coming to the DMV could be recorded on the participant's driving record allowing the DMV to issue the motorcycle license by mail. This would allow more accurate accounting of the waivers, create data for future research, and reduce customer volume in the DMV offices.

Instructor Certification and Recertification

CMSP RiderCoaches must adhere to MSF and the CMSP standards and guidelines for certification and recertification to be a CMSP recognized RiderCoach.

To maintain MSF national certification, a RiderCoach must conduct two complete BRCs or equivalent Rider Education and Training System (RETS) courses (example: four ERC Suite *RiderCourses*) or modules, participate in one professional development activity by MSF or CMSP, and complete one personal learning activity every two years. In addition, CMSP-recognized RiderCoaches are required to hold current certifications in basic first aid and CPR, complete training in sexual harassment prevention, dealing with difficult people and stressful situations, complete a California Department of Justice (DOJ) criminal background check and a registered sex offender check, and attend all technical or professional development updates mandated by CMSP. Currently recognized CMSP RiderCoaches are not required to submit a DMV driver license verification or to maintain an acceptable driving record. Driving records are only checked when individuals apply to become a RiderCoach.

Individuals seeking CMSP RiderCoach recognition must complete a screening and specialized training process. The screening process includes a telephone interview, a DOJ background check, DMV license records verification, and accept the MSF Rules of Professional Conduct.

CMSP RiderCoach candidates that successfully complete the application process are required to complete a 60-hour training workshop that requires development and verification of the necessary mental, physical, communicative, and organizational skills to be a quality facilitator, including the ability to incorporate audio-visual training aids and other supplementary materials. The RiderCoach candidates are required to pass a written knowledge test, a riding skill test, and successfully conduct student teaching assessments in a regularly scheduled BRC. RiderCoach Preparation Workshops are conducted by certified MSF RiderCoach Trainers.

Individuals certified outside the California program, including those certified in other States and the military, are required to complete a program to bring them into alignment with CMSP policies and procedures. When MSF-certified RiderCoaches or RiderCoach Trainers move to California, they must contact the MSF to change their address. MSF then manages their transition into the CMSP program.

RiderCoaches trained in another State are given a CMSP Policies and Procedures Manual and fingerprinted by the DOJ for a criminal background check. Any prospective CMSP RiderCoach found to be a registered sex offender pursuant to California Penal Code Section 290 is denied employment. RiderCoaches must teach two *RiderCourses* as an intern RiderCoach under the supervision of a CMSP RiderCoach. Upon completion of two internship *RiderCourses*, it is the responsibility of the training site administrator to notify the MSF of additional training or developmental needs. This may require the out-of-State RiderCoach to take part in regularly scheduled RiderCoach Preparation Workshops to supplement their skills. To meet the requirement for training in sexual harassment, dealing with difficult people and stressful situations, first aid, and CPR certifications, MSF requires the training site administrator to use the approved curricula or such training will be covered as part of a CMSP RiderCoach Preparation Workshop.

Quality Assurance

CMSP has, in addition to the Project Manager, a Quality Assurance Manager and a Quality Assurance Field Team consisting of approximately 20 part-time CMSP RiderCoaches, Site Administrators, and Site Managers who have been trained and mentored to conduct on-site Quality Assurance Visits (QAV). Members of the Quality Assurance Field Team are qualified to conduct site visits, range assessments, and re-designs, and to conduct site-based professional development workshops. The CMSP annual plan calls for each CMSP site, Standard and Premier, to be visited a minimum of twice per year. In 2008, this plan called for approximately 236 site visits.

The site visit evaluates the classroom and range condition, RiderCoach behavior and performance, and areas of contract compliance. The QAVs are tracked using an interactive online system. All the reports are reviewed by the CMSP project manager. Noncompliance issues are identified to the site administrator, manager, and any involved RiderCoaches generally within two weeks of the visit. Required corrective

action and a timeline for the completion of the corrective action are identified at this time. Follow-up visits are scheduled to ensure corrective actions have been completed. In the event corrective action has not been completed, the Site Administrator is notified of impending action, including the possible termination of the contract. CMSP provides copies of all the site visit reports, corrective action, and impending action reports to CHP.

In addition to the site visits, CMSP uses secret shoppers, random follow-up calls or letters to students, and student feedback surveys as assessment tools to ensure the quality of the program. This customer feedback helps identify customer service issues that may need to be addressed. CHP also conducts random unannounced site visits. The Premier Program sites are also visited by the Rider's Edge quality assurance staff.

Completion Reports and Data Files

All CMSP sites are required to forward course information electronically to the CMSP by the tenth of each month for the training conducted the previous month. The course information database contains the student's name, address, phone number, e-mail address, driver's license number, course dates, course location, pass/fail status, assigned DMV-DL 389 (license skill test waiver), and Certificate of Completion of Motorcycle Training control number. This is a secured and backed-up database. CMSP is compliant with all California privacy laws and only CHP and MSF have access to this information.

Some presenters would like to see electronic reporting be done in real-time, possibly immediately after the course is completed. It was also mentioned that this reporting process should include the DMV so the course participant's course completion and DMV-DL 389 could be recorded to the individual's driving record. Currently the DMV does not record or have access to this information.

Program Evaluation

Currently, there is no process to evaluate the effectiveness of the CMSP rider education and training effort. Both the CHP and the MSF would like to create an ongoing evaluation effort, but neither have been able to commit funding or resources to such a project. The MSF and the CHP are relying on the current quality assurance process and student feedback surveys to evaluate this rider training effort.

Recommendations

- **Eliminate the current course tuition fee cap to allow training sites to make improvements, ensure profitability, and pay MSF the per-student administrative fee currently being paid by CHP.**
- **Eliminate the per-student administrative fee being paid by CHP to the MSF and allow the CHP to more effectively allocate the annual appropriation to enhance motorcycle safety by establishing an effective comprehensive motorcycle safety program that can reduce crashes, injuries, and fatalities in California.**
- **Determine what the expected outcomes should be of rider training efforts and create an ongoing evaluation process to determine the value and effectiveness of rider training.**
- **Create a real-time electronic course reporting system that updates MSF and DMV data files, and, if possible, issue the successful course participant a motorcycle license.**
- **Approve the ERC Skill Test Waiver Course as part of the CMSP training effort to encourage unlicensed experienced riders to obtain a motorcycle endorsement, encourage returning riders to complete training, and increase training capacity.**
- **Waive the DMV knowledge test and skill test for individuals successfully completing a CMSP license waiver course.**
- **Review RiderCoach driving record at the time of recertification to ensure they are maintaining an acceptable record.**

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:

- Workplace safety programs;
- 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;
- Motorcycle rallies, shows, etc.; and
- Event-based programs such as server training programs.

Status

According to an Analysis of California Motorcycle Fatalities 1995-2007, alcohol involvement was found in 27 percent of motorcycle fatalities. Since 2000, this represents a 2-percent decrease in alcohol involvement.

Nothing in the Strategic Highway Safety Plan (SHSP) was found to address impaired riding, yet according to the Office of Traffic Safety (OTS), approximately 80 percent of their funding in 2009 went toward impaired driving.

OTS offers extensive support for DUI enforcement through awards to deter impaired driving. They introduced their "Grants Made Easy" in 2006, which is designed to significantly reduce the paperwork and time required to submit a proposal and finalize a grant agreement. OTS offered this new process to over 400 law enforcement agencies in the State and over 100 agencies were awarded funding. Although none of the grants are specifically aimed at impaired motorcyclists, law enforcement responses indicate that they seek out impaired motorists regardless of the types of vehicle being operated.

OTS requires that a certain number of officers participating in impaired-driving grants be trained in standardized field sobriety testing (SFST). Each grant will specify a number to be trained, based on the size of the agency and or amount of the grant.

Training on detecting and evaluating suspected impaired drivers is taught to all police recruits as part of their basic training, but only CHP requires the 16-hour NHTSA-certified SFST training as part of its core curriculum for recruits. This basic-level training is focused on detecting impaired drivers, with no specific component regarding impaired motorcyclists. Other law enforcement agencies perform DUI details without focusing

specifically on motorcycles but seek out all motorists suspected of operating impaired. CHP has provided training to law enforcement officers on recognizing impairment for alcohol and other drugs. In 2008 they trained 30 new DUI/SFST instructors and 10 new Drug Recognition Expert (DRE) Instructors. Together with the existing instructors they have trained 1,925 officers from over 100 different agencies in DUI/SFST and 210 officers as DREs. This training segment includes visual detection of DUI motorcyclists based on DOT studies.

In 2007 CHP partnered with the California District Attorney's Association to offer DUI/SFST training to prosecutors. The curriculum included impaired-motorcyclist detection cues and studies. Five classes were presented, training over 200 prosecutors. In 2008, four prosecutor training events were held by CHP that included detection of DUI motorcyclists. Over 250 prosecutors attended.

ABATE Safety and Awareness Program (ASAP) is aware of the problem of impaired riding and is attempting to create opportunities to get motorcyclists home safely if they have consumed too much alcohol. They are exploring "Taxis for Impaired Riders" where members of ASAP would be called to assist impaired riders by taking them home and bar owners would agree to store motorcycles for the patrons. Afterwards ASAP would intervene with providing information on alcohol counseling and/or substance abuse. The idea showed great initiative but was unsuccessful in finding area bars to participate.

MSF provides staffing and a booth presence utilizing the MSF's Ride Straight module featuring Fatal Vision Goggles at motorcycle events across the State. The events include dealership open houses, charity rides, race events, CHP Field Office open house events, and motorcycle safety days. Motorcycle safety days are set aside for motorcycle dealers to display safety-related equipment at public locations such as mall parking lots. The Bay Area Riders Forum (BARF) is a grassroots motorcycle safety organization that partners with CHP, MSF, and high schools to promote their "Walk the Line" demonstration where students are encouraged to wear "Drunk Goggles" and experience what it is like to walk a straight line while being impaired by alcohol.

The Orange County Traffic Officers Association provides training to officers for motorcycle violations, such as impaired riding, illegal helmets, and licensing and registration. All officers have been trained in the NHTSA curriculum for detecting impaired drivers, including detection of impaired motorcyclists. Orange County is one of California's "Top 5" counties that accounts for 50 percent of the total motorcycle fatalities in California from 2003 to 2006.

The Assessment Team did not receive information concerning outreach programs targeting businesses in the State for the distribution of impaired driving or traffic safety materials to employees who are motorcyclists. However, the Network of Employers for Traffic Safety (NETS) recently launched a section on its Web site (www.trafficsafety.org/worklife/motorcycle/main.html) that offers motorcycle-specific

safety materials and messages to employers, which could be a valuable resource for the distribution of safety messages to the motorcycling community.

The Impaired Driving Technical Assessment of the State of California was conducted in September 2007. This document indicated that California does not require responsible service training for employees of licensed outlets. However, the California Department of Alcohol Beverage Control (ABC) conducts the Responsible Beverage Service training program providing server training to over 100,000 employees of licensed establishments. The Assessment also indicated that the California State University Alcohol and Traffic Safety (ATS) Program provides multi-component impaired-driving prevention programs on 10 campuses. The project relies heavily on a Social Norms campaign. In addition, ATS collaborated with ABC to provide server training, sponsor on-campus presentations by law enforcement officers, and develop 23 campus-community coalitions.

Recommendations

- **Conduct in-service training for law enforcement personnel on the detection of DUI motorcyclists utilizing materials that are available through NHTSA. Publicize this training through the news media.**
- **Create a motorcycle DUI enforcement campaign, including sobriety checkpoints, with representation by law enforcement officers/agencies statewide, targeting areas that motorcyclists frequent or congregate, in addition to crash locations with high alcohol involvement. Promote this effort through the news media.**
- **Incorporate motorcycle-specific messages into all impaired-driving campaign materials and enforcement activities, such as *Drunk Driving. Over the Limit. Under Arrest.***
- **Create and distribute impaired-riding informational materials to State and local law enforcement, license exam stations, third-party testers, motorcycle dealers, highway rest areas, State and national parks, special events, and motorcycle rallies.**
- Encourage and recognize motorcycle groups who self-police and have a culture of zero tolerance for drinking and riding.
- Capitalize on the leadership, expertise, and resources of CHP to develop and implement anti-impaired-riding efforts.
- Inform and distribute to local law enforcement impaired-riding detection materials, including pocket cards, available from NHTSA and State programs.

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

California Vehicle Code §27803 – motorcycle safety helmet law:

California has a universal motorcycle helmet law, California Vehicle Code (CVC) §27803(a), which states a driver and any passenger shall wear a safety helmet meeting requirements established pursuant to Section §27802 when riding on a motorcycle, motor-driven cycle, or motorized bicycle.

(b) It is unlawful to operate a motorcycle, motor-driven cycle, or motorized bicycle if the driver or any passenger is not wearing a safety helmet as required by subdivision (a).

(c) It is unlawful to ride as a passenger on a motorcycle, motor-driven cycle, or motorized bicycle if the driver or any passenger is not wearing a safety helmet as required by subdivision (a).

(d) This section applies to persons who are riding on motorcycles, motor-driven cycles, or motorized bicycles operated on the highways.

(e) For the purposes of this section, "wear a safety helmet" or "wearing a safety helmet" means having a safety helmet meeting the requirements of Section §27802 on the person's head that is fastened with the helmet straps and that is of a size that fits the wearing person's head securely without excessive lateral or vertical movement.

(f) This section does not apply to a person operating, or riding as a passenger in, a fully enclosed three-wheeled motor vehicle that is not less than seven feet in length and not less than four feet in width, and has an unladen weight of 900 pounds or more, if the vehicle meets or exceeds all of the requirements of this code, the Federal Motor Vehicle Safety Standards, and the rules and regulations adopted by the United States Department of Transportation and the National Highway Traffic Safety Administration.

(g) In enacting this section, it is the intent of the Legislature to ensure that all persons are provided with an additional safety benefit while operating or riding a motorcycle, motor-driven cycle, or motorized bicycle.

Vehicle Codes relating to the California Motorcyclist Safety Program (CMSP) are generally found in, CVC §2930 through §2935.

Vehicle Codes relating to motorcycle definitions are generally found in, CVC §400 through §407.7, §436 and §473. It should be noted that a potential problem exists within definition CVC §400(b) which defines a motor vehicle that has four wheels in contact with the ground, two of which are a functional part of a sidecar, as a motorcycle if the vehicle otherwise comes within the definition of subdivision (a).

Vehicle Codes relating to motorcycle licensing are generally found in CVC §4150.2, §4850, §4852, §5101, §12500(b), §12509(e), §12804.9, §38010 through §38030 and §38041. In addition, there are a variety of Vehicle Codes identifying requirements and specifications for motorcycles, motor-driven cycles and motorized bicycles found in §25451, §25650, §25650.5, §26311, §26700, §26701, §26705 and §26709.

California Fatality Analysis Reporting System (FARS) data indicates that between the years 2004 and 2007, an average of 59 percent of all motorcycle operators killed had BAC of .01 or more, with a high of 62 percent in 2006 and a low of 54 percent in 2005. A motorcycle is inherently more difficult to operate and more unstable than a four-wheel passenger vehicle, thus the BAC tolerance of motorcycle operators should be less than that of passenger vehicle drivers. The precedent has been established in CVC §23152(d) which makes it unlawful for any person who has .04 g/dL or more, by weight, of alcohol in his or her blood to drive a commercial motor vehicle, as defined in Section §15210.

CHP contracts with MSF to administer the CMSP. To carry out the administration of CMSP, MSF has created the "CMSP Policies and Procedures Manual, January 1, 2008," which is provided to each MSF-approved site administrator as written reference to the policies and procedures established for CMSP.

Recommendations

- **Increase the penalty for operating a motorcycle without the proper license or endorsement, and for the wearing of a noncompliant motorcycle safety helmet or no helmet at all, to include impounding the motorcycle for up to 30 days.**
- Improve the definition of a motorcycle, specifically CVC §400(b), to better clarify the configuration of a sidecar.
- Take administrative action on motorcycle permit holders who violate licensing requirements or restriction requirements of the learner's permit.
- Work with judges and prosecutors to require motorcycle traffic violators to attend a motorcycle safety training course, appropriate for their license status and experience level, as an additional penalty option established in CVC §42005(a).
- Support legislation to make it unlawful for any person who has a BAC of .04 g/dL or more to operate a motorcycle.

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

Crashes

Various law enforcement agencies use information from crash data for problem identification and evaluation. This information proves valuable in establishing special emphasis programs in problem areas. CHP does not single out motorcyclists as a specific target but in general includes them in their overall enforcement efforts. Individual commanders are empowered to seek out stakeholders and explore solutions to unique problems within their jurisdictions. Several examples were provided to reduce motorcycle crashes on a specific canyon road (Operation Safe Canyons) and on the scenic mountain roads along coastal areas in San Mateo County. A California OTS grant called Saving Lives in California (SLIC) assisted with the enforcement effort.

After the “Operation Safe Canyons” presentation an inquiry was made by the panel seeking information about displacing the motorcyclists rather than solving the problem. It was reported that adjacent area commanders saw increases in motorcycle volume and crashes during this campaign.

In 2006, 37 percent of motorcycle operators in fatal crashes were not properly licensed. Approximately 43 percent of operators up to age 44 involved in crashes did not have valid motorcycle permits. California law requires all motorcycle operators to be properly licensed. An unlicensed rider, stopped by law enforcement, may be issued a citation and proceed, but the officer has discretion and the more standard practice is to cite and tow, however department guidelines vary widely. California Vehicle Code (CVC) Section 22651(p) VC gives peace officers the authority to tow a motorcycle when the rider is unlicensed, however it does not have legislation that requires law enforcement to impound motorcycles when riders are not properly licensed. Testimony indicated that

CHP and local agencies adhere to a very low, if not zero, tolerance, for unlicensed riders, and towing and or impounding is sought where possible.

Most California law enforcement agencies appear to offer specific motorcycle crash investigation courses to those officers tasked with specific traffic-related duties or to those officers trained in higher levels of crash investigation, such as collision reconstructionists. CHP uses the Statewide Integrated Traffic Records System (SWITRS) for some of their motorcycle crash statistics. The information gleaned from this system can be used to assist in targeted enforcement and the information is available to local agencies. Since almost every local agency (except LA Police Department) reported that they do not keep motorcycle-specific statistics, this information is critical to their effectiveness. Local agencies interviewed indicated they could query the data for their specific needs.

Communication and Education Support

Information from written responses received from CHP and local agencies all indicate that there are no organized public information and education campaigns coordinated on a statewide basis. A consistent safety message delivered by all stakeholders is needed. Any motorcycle safety effort will not enjoy success without the holistic approach of enforcement, education, engineering, and mass media. A few local departments (Vacaville and Indio) reportedly work with local motorcycle dealerships to perform safety and education outreach. Livermore Police Department places a high emphasis on education over enforcement by participating in safety awareness programs and working in conjunction with Bay Area Riders Forum (BARF). Vacaville Police Department and CHP have worked together to bring in additional partners for a Motorcycle Safety Day at a local mall that provides space in their parking lot. MSF and local motorcycle dealers participate by displaying safety-related equipment. Each dealer is allowed to bring one motorcycle. CHP lands a helicopter and a local CHP motor officer also participates.

The only known group of California law enforcement agencies that are active in an overall traffic safety program is the Orange County Traffic Officers Association. This association often provides training to officers for motorcycle violations, such as impaired riders, illegal helmets, and licensing and registration. All officers have been trained in NHTSA curriculum for detecting impaired drivers, which includes detection of impaired motorcyclists. Orange County is one of California's "Top 5" counties that accounted for 50 percent of the total motorcycle fatalities in California from 2003 to 2006. These types of regional associations can be effective in solving rather than displacing traffic safety problems.

Training for Impaired Riding & Helmets

At the time of this assessment there was little evidence presented that would indicate any local California law enforcement agencies receive training on motorcycle-specific

issues, although CHP curriculum requires all recruits to receive training in SFSTs. Only the Vacaville Police Department and those officers in the Orange County Traffic Officers Association indicated they use NHTSA's video regarding noncompliant helmets for training. CHP's Special Projects Section (SPS) has published a brochure regarding noncompliant motorcycle helmets which is available to all uniformed officers responsible for issuing citations. CHP reportedly uses the NHTSA video for the detection of impaired motorcyclists.

CHP officers are hamstrung by departmental policy that states officers "can only stop an individual for wearing a noncompliant helmet when it is evident the helmet is not U.S. DOT approved." Specifically: Officers shall focus enforcement action on:

- (a) Motorcyclists not wearing helmets; and
- (b) Motorcyclists wearing helmets which are obviously not motorcycle helmets, such as Styrofoam bicycle helmets or football helmets.

The Garden Grove Police Department reports that case law (*Quigley v. CHP*) requires that the officer has to establish that the rider had knowledge that the helmet was illegal.

CHP confirms this; however, it is not binding in all judicial districts in the State, nor is it binding upon allied agencies. These regulations and case law need to be addressed through legislation to allow officers to strictly enforce helmet laws without fear of reprisal from their own department or a civil tribunal. OTS reports that preliminary data for 2007 shows a helmet use rate of 89.8 percent in fatal crashes, yet this figure does not indicate what percentage of those helmets are DOT-compliant. During CHP interviews it was stated that helmet use was at 99 percent, but an interviewed analyst reported the use rate at 85 percent. The inconsistency appears to come from the fact that the 85 percent figure reflects the rate associated with those individuals involved in crashes where their helmets were deemed to be noncompliant and therefore considered as not having worn helmets at all.

The Quigley decision was adjudicated in 2003. Data indicate that the number of CHP citations issued for noncompliant helmets in 2004 was 935 and has decreased every year since. In 2007, 485 citations for noncompliance were issued by CHP. If compliance is suspected to have increased since this decision, resulting in fewer non-compliant helmet citations being issued, an observational study should be embarked upon to justify this hypothesis.

Goals

There are few established law enforcement agency goals that support motorcycle safety initiatives; however, Challenge Area 12 of the Strategic Highway Safety Plan (SHSP) does address some recommendations for goals in this area. CHP's recommended goal was "By 2010, decrease the number of motorcycle rider fatalities by 10 percent from their 2004 level." This goal seeks to achieve a 35-fatality reduction (based upon 350 in 2004) to 315 in 2010. However, recent data indicate that from 2005 through 2007 there

were 411, 429, and 463 (CHP SWITRS) motorcycle fatalities, respectively. It may be more appropriate to reconsider this goal by seeking to slow the rate of increase in fatalities rather than to aspire to reach levels below that of 2004.

Testimony was received indicating that there is no State uniform citation used for traffic violations. Each jurisdiction is free to design its own citation that conforms to a judicial standard within the agency's jurisdiction. A uniform, statewide traffic citation is needed to ensure complete and accurate data analysis and consistent information across agencies and jurisdictions.

Recommendations

- **Develop a uniform, statewide traffic citation form and a central repository.**
- **Require all law enforcement academies to adopt 16-hour NHTSA-certified SFST training, with the impaired-motorcyclist component as part of the core curriculum.**
- **Create regional or countywide traffic safety boards or associations for networking, information sharing, joint operations, and coordination to more effectively solve traffic safety problems instead of displacing them.**
- **Train all law enforcement officers to take a zero-tolerance approach to unendorsed motorcycle operators and to exercise towing and impoundment privileges when possible.**
- Include an instructional module on the unique characteristics of motorcycle crashes in law enforcement crash investigation training at the basic levels of training, not just for crash investigators or reconstructionists.
- Encourage all law enforcement agencies to develop realistic, attainable agency goals specific to motorcycle safety based upon data.
- Incorporate statewide motorcycle-specific messages into current enforcement activities.
- Conduct in-service training on the detection of DUI motorcyclists utilizing materials that are available through NHTSA. Publicize this training to all law enforcement and to the news 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 traction factors; and
- Providing advance warning signs to alert motorcyclists to unusual or irregular roadway surfaces.

Status

Caltrans does not have specific standards or policies for constructing or maintaining highways that address the unique requirements of single-track vehicles (motorcycles). Motorcycles are often more vulnerable to surface and other roadway characteristics than other vehicles.

All roadway users including bicyclists, pedestrians, motorcyclists, etc., should be considered by Caltrans and local transportation agencies for highway engineering design factors. Generally, agencies are conscientious about sweeping debris (sand and gravel) during construction.

Caltrans highway engineers utilize and follow the California Highway Design Manual which specifies the requirement to monitor every 1/10 of a mile of roadway in California for roadway design and improvements. The manual does not contain specific motorcycle-related guidance of these issues.

All 12 Caltrans districts are responsible for investigating unsafe roadway locations identified on the California Highway Patrol (CHP) Collision report identified by the Traffic Accident Surveillance Analysis System (TASAS), a subset of the Statewide Integrated Traffic Records System (SWITRS). Problem locations (state highways only) identified by TASAS is investigated.

In high crash areas, Caltrans must be able to utilize a system which provides real time crash data in a timely manner. Caltrans' responses to public complaints are treated with the same emphasis as areas identified by TASAS. Complaints are generally received from the public through letters and phone calls.

Caltrans does not have an easy-to-use system for the public to report unsafe roadway conditions, such as a toll-free hotline. A 511 telephone number is available in the Bay Area for motorcyclists to report unsafe conditions; however, the practice is not utilized in other areas of the State. The team was unable to determine if unsafe roadway conditions identified by the public could be reported on the Caltrans Web site.

The team heard testimony from a number of stakeholders indicating that Caltrans could do more to assist the public in reporting problems and unsafe areas. This would include the use of a standard reporting system and representation of riders on engineering task force groups.

To assist with keeping work zones safer for motorcycles, Caltrans should team up with CHP and local agencies to provide a motor officer to ride through a construction zone to evaluate the safety of the work zone for motorcycles. The results should be reported to the lead engineer assigned to that location.

The State Highway Safety Plan (SHSP) Challenge Area 12 Motorcycle Safety Implementation Team is promoting a Motorcycle Safety Monitoring Program that would identify motorcycle high-collision concentration locations on both State highways and local roads. It is hoped that this will highlight the need to address motorcycle issues at least at these locations. Caltrans SR-24 Ortega Highway Safety Improvement Project provides an excellent example.

The SHSP collaboration philosophy is bringing the four E's (engineering, education, enforcement, and emergency medical services) together to promote roadway design safety. The Road Safety Audit uses the 4E collaboration concept for a multi-disciplinary investigation process of roadways (not only engineers, but enforcement, human behavior specialists, etc.). Caltrans has worked cooperatively with other agencies on motorcycle safety issues and is encouraged to continue doing so, and to play a major role in the effort to improve motorcycle safety in California.

Training programs for highway engineers in California are generic for all roadway users. Highway engineers are responsible for reviewing applicable existing crash data as part of the maintenance or enhancement process. A training program for pedestrian highway design factors is available, but no training program exists for motorcycles. The Federal Highway Administration (FHWA) brochure "Roadway Safety for Motorcycles" does not appear to have been disseminated among the highway engineering community in California, nor does there appear to be means to disseminate pertinent information on highway design issues and best practices. Caltrans should keep abreast of recommendations from the FHWA Motorcycle Advisory Council on highway design and engineering factors for motorcycles.

The program "Safe Routes to School" appears to be a model program from which practices for highway engineering and design for motorcycles, and the dissemination of pertinent information, could be duplicated.

The California Manual on Uniform Traffic Control Devices (CA MUTCD) provides for signs to communicate with motorcyclists (e.g., uneven lanes, loose gravel, skewed railroad crossings, and steel bridge decking).

Recommendations

- Educate the highway engineering and maintenance workforce on roadway conditions that may be hazardous to motorcycles. Establish a process for a periodic review of other State programs, procedures, and best practices to improve highway engineering design. Identify proven training programs for use in training Caltrans engineers.
- **Include motorcycles and their specific handling characteristics when designing and improving highways and structures.**
- Include motorcycles in testing of surface treatments, such as rumble strips, thermoplastic markings, steel plates, utility coverings, crack sealant, and other treatments/surfaces that can become slick when wet. Use only those road surface treatments found to be safe for all vehicles including motorcycles.
- Continue to examine crash data to identify and correct possible crash causation factors involving motorcycles and roadway design, maintenance, or treatments.
- Examine current practices for maintaining highway construction and maintenance project areas to ensure they are continuously free of debris and surface hazards that may be hazardous to motorcycles.
- Continue to collaborate with other State agencies, law enforcement, and motorcycle user groups to share information and concerns about hazardous roadway conditions.
- Establish a system for reporting all crash locations to identify specific problem locations from a statewide perspective.
- **Establish a system to allow the public to report problem areas and unsafe highway locations for motorcycles to Caltrans.**
- Use the ongoing resources and best practices being provided by the FHWA Motorcycle Advisory Council.
- Utilize motor officers to ride construction zones to evaluate the safety of the work zone for motorcycles and report the results to the lead engineer assigned to that location.

- **Review motorcycle-specific signage in other States for application in California to alert motorcycle riders to dangerous or high-crash areas for motorcycles.**

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

The enabling legislation for the California Motorcyclist Safety Program (CMSP) allows for programs that promote motorist awareness of motorcyclists, but the CMSP does not have active communications plans or programs for rider conspicuity or motorist awareness.

SWITRS and FARS data show that multi-vehicle motorcycle crashes account for about one-third of fatal motorcycle crashes in California. While two-thirds of crashes are single-vehicle and point squarely at the motorcycle rider for countermeasures, the remaining one-third involve other drivers. In many cases, the driver of the other vehicle never saw the motorcyclist, or didn't see him or her until it was too late. These crashes can be reduced by increased conspicuity on the part of motorcycle riders and increased driver awareness of the presence and vulnerability of motorcyclists. Further, conducting motorist awareness activities in the counties that represent the majority of motorcycle registrations or fatalities is part of a criterion that may help the State qualify for SAFETEA-LU Section 2010 grant funding to further promote motorist-awareness activities.

The California Motorcycle Handbook contains information about why other drivers don't see motorcyclists, as well as basic suggestions of motorcycle lane positioning for visibility. Also discussed is wearing brightly colored and reflective riding gear, using the headlight at all times of day and night, using turn signals, and flashing the brake light. The CMSP rider training classes also cover this material in the classroom.

The California Driver Handbook contains information about sharing the road and tips for interacting with motorcycles, including information about the additional dangers motorcyclists face from otherwise ordinary road conditions. This short section also references motorcyclists' use of the headlight during daylight hours. No information is included outlining the reasons why motorists do not see motorcycles. It is unknown what driver training curricula include regarding motorist awareness of motorcyclists.

MSF produces and distributes motorist-awareness brochures to thousands of locations statewide, and makes its “Intersection” video available free to the Department of Education for use in public high school driving programs. It is unknown how many schools use this tool. Some motorcycle clubs and organizations conduct motorist awareness activities at the local level, and the month of May is generally designated Motorcycle Safety Awareness Month. It is unclear the extent of the motorist awareness activities conducted during this time.

Staff of OTS and CHP, the motorcycle safety advisory committee, attendees of the motorcycle safety summit meeting, and most participants in this assessment all cited a motorist awareness program as a critical step in reducing motorcycle crashes, injuries, and fatalities in California. Minutes from advisory committee meetings also show that motorist awareness was recommended in 2003, 2005, 2006, and 2007.

The MC0702 “Promoting Motorcycle Safety Training” grant derives from Federal 2010 funds and can be used for rider training and/or motorist awareness activities. Specific details regarding MC0702 were not available at the time of this assessment, but the primary focus appears to be raising awareness of the rider training program. With more than 600,000 riders trained to-date, and more than 62,000 trained last year alone, there does not appear to be a lack of awareness of the CMSP. However, based on the crash statistics, there does seem to be a lack of awareness of the presence and vulnerability of motorcycle riders.

OTS conducts a Sports and Entertainment Marketing campaign, partnering with professional sports teams and entertainment venues to promote key programs such as seat belts, impaired driving, bicycle safety, and child passenger safety. These efforts, however, contain no motorcycle safety events or messages, even during Motorcycle Safety Awareness Month (May).

Recommendations

- **Revise the MC0702 grant, and ideally all subsequent 2010 fund grants, to contain a motorist awareness component.**
- **Analyze crash data and coordinate a motorist-awareness “blitz” in the top 10 motorcycle crash counties to highlight the busiest time period for motorcycle crashes. Invite agencies, communities, and organizations statewide to participate.**
- **Create a public information campaign to promote motorist awareness of motorcycles, emphasizing the reasons why motorists do not see motorcycles, and motorcyclists’ vulnerability in traffic crashes.**

- Use motorist awareness of motorcycles as the topic in at least one OTS Sports and Entertainment Marketing campaign event each year, ideally at the onset of the time period with the highest motorcycle crashes.
- Revise the Motorcycle and Driver Handbooks to emphasize conspicuity and motorist awareness information.
- Create public information campaigns to promote rider conspicuity strategies, garments, and motorcycle modifications (e.g., headlight modulators, reflective tape, etc.).
- Require that motorcycle safety and motorist awareness information be included in driver training curricula.

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

The enabling legislation for the California Motorcyclist Safety Program (CMSP) allows for communications efforts, including motorist awareness of motorcyclists and research into effective communications strategies, but the CMSP does not have a formal communications program component.

A comprehensive motorcycle safety program should have not only a day-to-day operation of communicating motorcycle safety issues to the general public through education, outreach, and media relations, but also a formal communications component with a written communications and evaluation plan. The State of California has an active and purposeful approach to working through Office of Traffic Safety (OTS) for earned media, but no comprehensive, statewide motorcycle safety communications plan or activities.

Motorcycle fatalities represent more than 12 percent of all traffic fatalities in California, but motorcycle programming outside of rider training accounts for less than 1 percent of OTS funding distribution. Motorcycles, which represent less than 5 percent of all registered vehicles, are included as a target audience in all OTS Alcohol (AL) and Police Traffic Services (PT) grants. However, these programs use no motorcycle-specific messaging. OTS grants receive both administrative evaluations (i.e., grant objectives have been met) and effectiveness evaluations (i.e., a reduction in crashes, injuries, or fatalities). While one-third of motorcycle crashes involve another vehicle, CMSP also undertakes no motorist awareness activities.

In some cases, enforcement of areas known for motorcycle crashes is conducted as part of larger enforcement projects. In all cases, AL grantees are required to provide SFST training, which contains the NHTSA DWI motorcyclist detection cues, to officers assigned to the project. This indicates that State and local law enforcement are aware of motorcycle safety issues, and OTS grant activities are generally announced with a media kickoff event and news releases pre- and post-activity. However, OTS grant funding is not commensurate with the ratio of motorcycle fatalities to traffic fatalities overall, or alcohol-related motorcycle fatalities to alcohol-related traffic fatalities overall.

OTS delivers traffic safety information, trends, and key messages to the media, stakeholders, and general public. Since the increase in motorcycle fatalities has begun to overshadow the successes in reducing fatalities through seat belt use and DUI enforcement in California, OTS has been able to help steer the news media into covering motorcycle safety issues. This media interest is also partially due to the increased popularity of motorcycles and scooters, high fuel prices, and the overall trend nationwide of high motorcycle fatalities. The key messages stressed to media include the trend of increasing deaths and injuries, the problem demographics (younger riders on sport bikes and older, returning riders), the need for rider training, proper licensing, and the need for motorists to watch for motorcycles.

The California Highway Patrol (CHP) uses public affairs officers (PAOs) at State, regional, and office levels to interact with the news media and general public. Crash trend information and overall messages are delivered from headquarters to the regional PAOs, which then provide direction to local PAOs. The PAOs are generally informed on the trends and consistently emphasize rider training as a key countermeasure to the motorcycle safety problem. From an agency-wide perspective, however, they have no concise, predetermined “key messages” from CHP headquarters. Having every PAO repeating the same message over and over, all across the State, all year long, would help generate consistent public awareness of motorcycle safety issues.

OTS conducts a Sports and Entertainment Marketing campaign, partnering with professional sports teams and entertainment venues to promote key programs such as seat belts, impaired driving, bicycle safety, and child passenger safety. Venues include the Los Angeles Angels of Anaheim, San Diego Padres, Oakland Raiders, and the San Francisco Giants, among others. Each venue provides different marketing opportunities, including radio commercials, in-stadium messaging, OTS traffic safety family booths, radio interviews, permanent and scoreboard signage, posters, collateral giveaways, item co-branding, etc. These efforts, however, contain no motorcycle safety message, even during Motorcycle Safety Awareness Month (May).

There is no communications director or communications plan for motorcycle safety in California. Grants are funded through OTS to conduct projects that oftentimes have a communications component, but there is no master plan to guide OTS coordinators, CHP, and grantees. Such a plan would address key motorcycle crash factors identified by OTS such as rider training, motorist awareness, proper licensing, impaired riding, protective gear, and conspicuity, as well as geographical problem areas. The plan would also identify goals, strategies, target audiences, tactics, and evaluation methods for each project developed as educational countermeasures to these factors. Neither OTS staff assigned to manage grants nor CHP motorcycle safety coordinators have formal communications training, such as that available from NHTSA. However, OTS staff members are scheduled to receive communications training in the near future.

The motorcycle safety fund has a balance in excess of \$1,500,000 due to a legislated spending cap of \$1,365,000 million a year that could pay for a CMSP communications

director and activities, if an appropriation from the State legislature is made. Additional funding for this position and project could be sourced from an OTS grant to another agency, such as CHP.

Staff of OTS and CHP, the motorcycle safety advisory committee, attendees of the motorcycle safety summit meeting, and most participants in this assessment process all cited a comprehensive public information and education (PI&E) program as a critical missing component of the CMSP.

The State of California engages the motorcycle community through the advisory committee, but for the most part limits the riding community's involvement with the program to providing feedback for rider training program activities. CHP recently convened a motorcycle safety summit that brought many stakeholders together to generate ideas regarding motorcycle safety problems. For the purposes of designing and testing motorcycle safety public information and education materials, the advisory committee and summit participants could serve as a willing and knowledgeable focus group.

It is understood that California has four of the top 20 media markets in the country, and paid media funding of \$10 million or more is required to even adequately have a favorable impact in public awareness. This presents significant challenges to any State program relying on limited resources, but these challenges can be overcome to some degree with sharply focused targeting of problem areas and audiences, grassroots education efforts, and the Internet. Conducting motorist awareness activities in the counties that represent the majority of motorcycle registrations or fatalities is part of one criterion that may help the State qualify for SAFETEA-LU Section 2010 grant funding.

The CMSP Web site is an effective tool currently used to connect motorcycle riders with rider training courses. Unfortunately, there is little other motorcycle safety information available on the site. A comprehensive Web resource for riders would include California-specific information about impaired riding, protective gear, conspicuity strategies, and moped and scooter safety information. The Web site should also contain information about advanced rider training, motor officer civilian motorcycle courses, track schools, lane-splitting, crash data, speed enforcement and impaired riding saturation patrols, riding clubs and organizations, and links to other motorcycle safety-related Web sites, including the California Motorcycle Handbook and CHP Web site. It should be noted that some of this information is available on the MSF Web site, which is linked from the CMSP site.

CMSP currently provides very little safety information to motorcycle riders in printed format. A brochure with general motorcycle, licensing, and safety information is available through CHP and DMV offices. Another brochure detailing helmets and compliance information is available to law enforcement officers. CMSP does respond to requests to attend events, talk to riders, or distribute information.

Recent Grant Activity

The MC0702 Promoting Motorcycle Safety Training 2010 fund grant is a significant effort on the part of the CHP to raise awareness among riders of CMSP. The grant's objective is to increase enrollment in motorcycle safety training by 10 percent per year, with the overall goal of reducing the number of improperly licensed riders. Due to legislative issues, work on this grant—such as an operation plan and communications plan that identifies strategies, tactics, tasks, and evaluation methods—has not yet begun. The grant is in place and ready to be executed as soon as funding is released.

This grant derives from Federal Section 2010 grant program funds and can be used for rider training and/or motorist awareness activities. Specific details regarding MC0702 were not available at the time of this assessment, but appear to be focused solely on raising awareness of the rider training program and providing sharing-the-road information to motorcycle riders through traditional media the via the CMSP Web site. Rider training student surveys were used to determine that younger riders required to take a State rider training course were not aware of the rider training program, or learned about it from family or friends. However, with more than 600,000 riders trained to-date, and more than 62,000 trained last year alone, there does not appear to be a lack of awareness of CMSP. It is unclear what effect increasing the number of riders licensed through the rider training program would have on the numbers of crashes, injuries, and fatalities—while the CMSP trains thousands of riders every year, deaths and injuries continue to rise.

The PT0735 Saving Lives in California grant focuses on speeding, motorcycles, and seat belt enforcement. This project's objectives provided for both enforcement and public awareness. Of note was the CHP Operation Safe Canyons element of this project, which used a combination of enforcement and media outreach to reduce the growing problem of speeding motorcyclists on the freeways and in the canyons in the Los Angeles area, as well as reducing motorcycle fatalities and injuries there.

The MC0601 Be on the Lookout (BOL) for Motorcyclists grant provided for enhanced enforcement and public awareness activities to reduce fatal and injury motorcycle crashes. News releases were issued to announce and publicize results from the program. CHP staff attended motorcycle events and distributed informational and promotional materials, including the informational video "Thrill? Or Buzz Kill?" It is unclear if a communications plan was developed for these activities. While all tasks were completed, fatal and injury crashes increased that year—though in a time when motorcycle fatalities and injuries are increasing across the country, it should be acknowledged that the CHP efforts of MC0601 may have kept those increases from being more dramatic.

Other Activity

MSF provides the vast majority of printed safety information to motorcycle riders in California through 11,000 locations. These locations include high schools, community colleges, State colleges, universities, DMV offices, CHP field offices, and motorcycle dealerships. These items include promotional materials for CMSP in addition to impaired riding, licensing, group riding, and motorist awareness brochures and posters. MSF also licenses motorist-awareness materials to the Department of Education for use in public high schools at no charge.

Various public and private agencies around the State have undertaken special motorcycle safety awareness projects and enforcement. Some examples include law enforcement teaming up with local businesses and rider groups for safety events, “bike night” outreach and enforcement in Inglewood and other areas, the Redwood City area task force, the Bay Area Riders Forum’s 1Rider campaign, and ABATE’s motorist awareness and impaired riding activities.

Of note is Caltrans’ SR-74 Ortega Highway Safety Improvement Project, which was successful through a combination of public awareness, media outreach, and grassroots education.

The initiative shown by these types of activities suggest that the local communities, businesses, law enforcement, motorcycle dealers, rights organizations, and the motorcycle community in general are highly motivated to help find a solution to the increasing problem of motorcycle crashes. The positive peer pressure exerted on individual riders through motorcycle riding clubs, forums, and organizations can be very effective in establishing a culture of safe riding.

Recommendations

- **Create a permanent, full-time position and operating budget for a motorcycle safety communications program.**
- **Establish an annual communications plan to coordinate all motorcycle safety efforts including paid media, earned media, special events, and production and distribution of collateral materials.**
- **Identify key safety and awareness messages annually using crash data, and promote statewide through OTS, CHP, DMV, public and private stakeholders, and CMSP.**
- **Focus communications budget and programs on the counties with the majority of motorcyclist fatalities. Promote successful enforcement projects and education programs to stakeholders outside of these**

counties.

- **Create and maintain ongoing public information campaigns to promote rider training, motorist awareness, proper licensing, protective gear, conspicuity, and the dangers of impaired riding.**
- **Include motorcycle-specific messages in larger impaired-driving campaigns commensurate with the number of impaired-motorcycle-riding fatalities.**
- Use motorcycle safety as the topic in at least one OTS Sports and Entertainment Marketing campaign event each year (May).
- Invite participants from the motorcycle safety summit to advisory committee meetings to use as a focus group for PI&E campaign and materials development.
- Expand the CMSP Web site to make it a comprehensive motorcycle safety resource for California riders.

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 crash 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; and
- Ensuring that evaluation results are used to identify problems, plan new programs, and improve existing programs.

Status

CHP is responsible for collecting and analyzing crash information (California Vehicle Code (CVC) §2408). Crash information is collected through the Traffic Collision Report, CHP 555. The (paper) form is then entered into the Statewide Integrated Traffic Records System (SWITRS). SWITRS collects all the information associated with the collision including time, date, location, fatality and injuries, helmet usage, and alcohol involvement primarily for injury and fatal crashes, but not for property-damage-only crashes. The process has been used for several years and most presenters felt that the final corrected crash data was accurate and useful. However, the process to ensure the accuracy of the information is labor-intensive and time-consuming. Improving collection, accuracy, analysis, and access of safety data is one of the challenge areas in California's Strategic Highway Safety Plan (SHSP). CHP is working on updating SWITRS. They have grants to develop technical enhancements to allow allied agencies to develop interface capabilities for collision reporting.

The DMV is responsible for licensing and vehicle information. This information is critical to many motorcycle safety projects. Unfortunately, these data files are not linked, not easily accessible, and may not include all the needed information. For example, the DMV cannot create a report of individuals that own motorcycles but do not hold valid motorcycle licenses. The DMV could eventually produce this report, but it would require special programming and a substantial amount of staff effort. The DMV currently is also unable to track the number of instructional permits an individual obtains, how many individuals complete the licensing process from the instructional permit, or how many motorcycle licenses are issued through the rider training waiver.

The CMSP is responsible for maintaining rider training databases. Although this information is shared with CHP, it was not clear who is responsible for maintaining the central database and if all the student information was shared with CHP. This training database is not easily available and accessible by the DMV and the CHP crash data files. Again, to complete any analysis of training, licensing, and crash data would require computer programming and a commitment of resources. Ideally, all this information should be transmitted and stored in a central database that allows ad hoc queries, cross-data analysis, and easy access for needed research and review.

Accurately identifying major crash causation factors is essential for problem identification and the development of targeted strategies and countermeasures. Although the current analysis of the crash data can identify problem areas, it may not be able to identify causation factors. Since improving collection, accuracy, analysis, and access is a challenge area in the Strategic Highway Safety Plan, it is hoped that attention be given to motorcycle crashes so critical causation factors can be identified.

Concern was also voiced regarding the change in the Traffic Collision Report (CHP 555). In 2003, the general categories of vehicle types with accompanying checkboxes was removed and replaced with the CHP Vehicle Type (71 specific vehicle types and no accompanying checkboxes). This change produced an increase in missing vehicle type data that makes it difficult to identify all motorcycle crashes and to make meaningful historical comparison of motorcycle crashes.

It was suggested that the collision report include space to gather accurate information on helmet use. The collision report should allow checkboxes to indicate helmet, no helmet, noncompliant helmet, or unknown.

It is also unclear if any evaluation is being done on the effectiveness of the strategies and countermeasures implemented. Some presenters thought the strategies and countermeasures need to be more targeted, focused, and coordinated. Once implemented, completed, and proven successful then they should be considered a best practice and shared so others could implement or modify them for use in their areas. If proven unsuccessful, they should be discontinued and the resource rededicated to more effective or proven approaches.

Presenters identified varying (85 to 99%) usage rates for motorcycle helmets. Several claimed that they rarely see anyone not wearing a helmet or wearing a noncompliant helmet while others claimed noncompliant helmets are heavily used. Since there was such a variance, it is suggested that a helmet observational study be completed to more accurately determine the use of compliant and noncompliant helmets, and the nonuse of helmets.

Recommendations

- **Convene a data summit meeting involving OTS, CHP, DMV, CMSP, and Emergency Medical Services to identify key data elements and information regarding motorcycle crashes, training, licensing, and registration that should be stored in a central database that is easily accessible and analyzed so an accurate picture of the motorcycle crash problem can be identified.**
- **Review the Traffic Collision Report to ensure needed motorcycle-related information is being gathered, and develop an electronic Traffic Collision Report that can assist in the accuracy and timeliness of crash reporting.**
- **Develop evaluation protocols in concert with the creation of strategies and countermeasures that can determine the value and effectiveness of implemented strategies and countermeasures.**
- **Communicate the effectiveness of strategies and countermeasures so other organizations, agencies, and communities can use them as best practices and adapt for their use.**
- **Conduct a helmet usage study to accurately determine the use of compliant and noncompliant helmets, and helmet nonuse in California.**

Credentials of Technical Assistance Team

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EXPERIENCE

Director, Missouri Safety Center (2007 – present)
Assistant Director/Development, Missouri Safety Center (2006 – 2007)
Project Director and Facility/Fleet Manager, Highway Safety Instructional
Park/Marshall Building, Missouri Safety Center (1990 – 2006)
State Coordinator – Missouri Motorcycle Safety Program (1989 – 2000)
ATV Safety Institute Chief Instructor Trainer Facilitator (2000)
Motorcycle Safety Foundation DirtBike School Coach Trainer Facilitator (1999)
National Youth Program Using Motorcycles (NYPUM) Coach Trainer (1995)
ATV Safety Institute Chief Instructor Certification (1988)
Motorcycle Safety Foundation Chief Instructor Certification (1986)
Has served on seven previous state motorcycle program assessments (2000 –
present)

ORGANIZATIONS/AFFILIATIONS

National Cooperative Highway Research Program
Transportation Research Board
National Highway Traffic Safety Administration
Transportation Safety Institute
American Association of Motor Vehicle Administrators
Motorcycle Safety Foundation
Specialty Vehicle Institute of America

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EXPERIENCE

Public Information and Education Coordinator, Motorcycle Safety, Minnesota Department of Public Safety (1999 – present)
Motorcycle Safety Foundation-certified Instructor/RiderCoach, Minnesota Motorcycle Safety Center (1996 – present)
Author: *How to Ride a Motorcycle; A Rider's Guide to Strategy, Safety, and Skill Development* (2005) and *Ride Hard, Ride Smart; Ultimate Street Strategies for Advanced Riders* (2004)
Contributor, Minnesota Motorcycle Monthly (et al.), motorcycle safety
Freelance writer/editor, Motorbooks International

ORGANIZATIONS/APPOINTMENTS

Department of Public Safety staff advisor, Minnesota Motorcycle Safety Advisory Committee (1999-present)
Honda Sport Touring Association member (2002-present)
TP Racing/Hedonistic Enthusiasm Cornering and Safety Seminar coordinator/instructor (2004-present)
Central Roadracing Association Timing and Scoring chief (2005-present)
National Association of State Motorcycle Safety Administrator Communications Committee (Present)

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EXPERIENCE

Maryland State Trooper on Maryland's Eastern Shore, assigned to the Berlin Barracks (1985 – 1988)
New York Trooper - assigned to road patrol and collision reconstruction (1988 – 1998)
Sergeant of Division Headquarters as the Aggressive Driving Enforcement Coordinator (1998 – 2007)
Lieutenant at Division Headquarters Traffic Section (2007 – Present)
Commanding Officer for the motorcycle unit (2002 – Present)
Created and designed New York's Motorcycle Enforcement Program

ORGANIZATIONS/AFFILIATIONS

National Association of Professional Accident Reconstructionists
New York Statewide Traffic Accident Reconstruction Society
Publications: Accident Reconstruction Journal
Friction Zone Magazine

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EXPERIENCE

Director, Driver Safety, Maryland Motor Vehicle Administration (Present)
Program Director, Driver Education and Licensing, Maryland Motor Vehicle Administration (1997 – 2008).
Division Director, Driver Services, Maryland Motor Vehicle Administration (1997).
Division Director, Motorcycle Safety Program, Maryland Motor Vehicle Administration (1983 – 1997)
Regional Manager, Education Department, Motorcycle Safety Foundation (1977 – 1983)
Area Transportation Supervisor, Montgomery County Public Schools (1975 – 1977)
Instructor, Safety Education, University of Maryland (1974 – 1975)
Chairman, Department of Health, Physical Education and Driver Education, Bradford Area High School (1966 – 1974)

ORGANIZATIONS/ APPOINTMENTS

American Driver and Traffic Safety Education Association (1998 – present)
Maryland Occupant Protection Task Force (1984 – present)
National Association of State Motorcycle Safety Administrators (1984 – present)
Maryland Motorcycle Safety Task force (2001 – present)
Impaired Driver Coalition (2005 – present)

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EXPERIENCE

Indiana University of Pennsylvania – Highway Safety Center [motorcycle safety, driver education, advance driver training, truck driver training, curriculum development, teacher training] (1990 – 1996)

Pennsylvania Motorcycle Safety Program – Regional Director and Chief Instructor (1992 – 1995)

Pennsylvania Motorcycle Safety Program – Instructor (1985 – 1995)

Maryland Motorcycle Safety Program – Chief Instructor (1995 – 2002)

American Association of Motor Vehicle Administrators – Vice President of Driver Licensing (1996 – 2005)

Highway Safety Services, LLC – Vice President & Co-Owner (2005 – present)

ORGANIZATIONS/AFFILIATIONS

American Association of Motor Vehicle Administrators (1996 – present)

Transportation Research Board – Driver Training Committee (2006 – present)

Examining Drivers w/ Disabilities Certificate

Truck Driver Training Certificate

Emergency Vehicle Operation Course Certificate

AAMVA CDL Train-the-Trainer Instructor

HSS Instructor Development Trainer

Motorcycle California Assessment Agenda September 22-26, 2008

Monday, September 22, 2008

9:00 am – 10:00 am - Program Management and Leadership

State Highway Safety Plan
Michele Meadows, Assistant Director (Northern Division), California Office of Traffic Safety

Motorcycle Grant Management Process, 2010 Funds
Michele Meadows, Assistant Director (Northern Division), California Office of Traffic Safety

California State Motorcycle Advisory Committee
James McLaughlin, Chief, California Highway Patrol

California Motorcyclist Safety Program
James McLaughlin, Chief, California Highway Patrol

10:15 am – 11:15 am - Public Information and Education

Statewide Overview
Chris Cochran, Public Information Officer, California Office of Traffic Safety

Statewide Current and Past Campaigns
Ryan Stonebraker, Lieutenant, California Highway Patrol

“Thrill, or Buzz Kill?” DVD Presentation
Ryan Stonebraker, Lieutenant, California Highway Patrol

Public Awareness Campaign on Ortega Highway
Robert Chevez, Westbound Communications

11:30 am – 12:30 pm - Training

Basic Rider Course/Experienced Rider Course
Robert Gladden, Motorcycle Safety Foundation

Rider's Edge Training Program
Tim Becker, Harley-Davidson Motor Corporation
Becky Tillman, Harley-Davidson Motor Corporation

1:30 pm – 3:00 pm - Licensing and Registration

Driver License Policy
Patrick Barrette, Manager, California Department of Motor Vehicles
Earl Jackson, Policy Analyst, Driving Licensing, Department of Motor Vehicles

License Testing
Robert Hagge, Research Manager, Research and Development Branch, California
Department of Motor Vehicles

Scott Masten, Research Program Specialist II, Research and Development Branch, California
Department of Motor Vehicles

3:15 pm – 4:00 pm - Legislation/Regulation/Policy

Enforcement of California Helmet Laws
Avery Browne, Captain, California Highway Patrol

Prosecution of California Helmet Laws
David Radford, Traffic Safety Resource Prosecutor, California District Attorney's Association

4:15 pm – 5:00 pm - Improvement Efforts

State Highway Safety Plan, Challenge Area 12, Motorcycle Safety
Janice Campbell, Sergeant, California Highway Patrol

Tuesday, September 23, 2008

8:30 am – 12:00 pm - Law Enforcement

Officer Training
Jeff Rodriguez, Motorcycle Officer & Instructor, Daly City Police Department

Impaired Rider Training
Daniel Lamm, Sergeant, California Highway Patrol, Impaired Driving Unit

Specialized Enforcement Efforts
Stephen Webb, Assistant Chief, California Highway Patrol, Inland Division

Specialized Enforcement Efforts
Ed Ridens, Sergeant, Inglewood Police Department

Specialized Enforcement Efforts
Roger Archambault, Sergeant, Valley Traffic Division, Los Angeles Police Department

Public Education Efforts
Terry Cates, Sergeant Livermore Police Department
J.T. Mulholland, Retired CHP Sergeant

Specialized Enforcement, Education, and Outreach Efforts
Bridget Lott, Captain, California Highway Patrol, Redwood City Area

1:00 pm – 4:00 pm - Crash Data and Evaluation

Statewide Integrated Traffic Records System (SWITRS) Data
Reginald Chappelle, Chief, California Highway Patrol, Information Technology

Statewide Data Collection and Analysis
David Ragland, Professor of Epidemiology, School of Public Health, UC Berkeley

Analysis of California Motorcycle Fatalities
Al Crancer, Statistician, Crancer and Associates

Statewide Data Collection and Analysis
Scott Masten, Research Program Specialist II, Research and Development Branch,
California Department of Motor Vehicles

4:00 pm – 4:30 pm - Medical Community

Emergency Personnel Training, Policies, and Procedures
Roxanne Wood, Registered Nurse, BSN, University of California, Davis Medical Center

4:30 pm – 5:00 pm - Highway Engineering

California Department of Transportation (Caltrans)
Greg Tom

5:15 pm – 6:00 pm

Bay Area Riders Forum (BARF)
John Hurd, Sergeant, Livermore Police Department
Dennis "Bud" Kobza Jr., Owner, Bay Area Riders Forum

ABATE Safety and Awareness Program (ASAP)
Larry Pfaffly, Chairperson of the Board

Wednesday, September 24, 2008

9:00 am – 9:30 am - Motorcycle Riders/Rights Organizations

American Brotherhood Aimed Towards Education (ABATE) of California
Jean Hughes, Legislative Director
James E Lombardo, Sr, Legislative Advocate

9:30 am – 10:00 am - Dealers/Distributors

California Motorcycle Dealers Association
John Paliwoda, Executive Director

10:15 am – 11:00 am - Highway Engineering

Federal Highway Administration
Matt Schmitz, Traffic Engineer, Federal Highway Administration, California Division