

**MOTORCYCLE SAFETY PROGRAM**

**TECHNICAL ASSESSMENT**

for the

**STATE OF TEXAS**



**February 23 - 28, 2014**

National Highway Traffic Safety Administration  
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## **Acknowledgments**

This report is intended to assist Texas's efforts to enhance the effectiveness of its motorcycle safety program with specific recommendations for identifying, implementing, or improving their strategies and programs. The Technical Assessment Team believes that this report will contribute to the State's efforts to develop an effective motorcycle safety program to prevent crashes and injuries, save lives, and reduce the economic costs of motorcycle-related crashes on Texas's highways and roads.

The Technical Assessment Team acknowledges and thanks Terry Pence, Director, Traffic Safety Division, Texas Department of Transportation (TxDOT), for his leadership in making this assessment possible. The team acknowledges Daniel Jeffries, Motorcycle Program Manager, Traffic Safety Division, TxDOT, for his efforts and support in bringing this assessment process together.

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

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

## Introduction

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

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

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

NHTSA's assistance in assessing Texas's motorcycle safety efforts was requested by the Traffic Safety Division of the Texas Department of Transportation. NHTSA discussed issues of concern with representatives from the State prior to the assessment.

The Motorcycle Safety Program Technical Assessment for Texas was conducted in Austin, TX, from February 23-28, 2014. 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 38 presenters, with some being contacted following their presentations to provide additional technical information and clarification.

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

The Technical Assessment Team strongly encourages Texas and all stakeholders in the motorcycling community to implement the recommendations made in this report. There continues to be a need for Texas to enhance its motorcycle safety program by

adopting and incorporating all of the emphasis areas associated with a comprehensive motorcycle safety program. Aggressive pursuit and implementation of the recommendations will significantly improve the overall safety of motorcyclists and reduce the likelihood of suffering fatal injuries while enjoying the roadways and scenic locations of Texas.

## Background

Texas is the second most populous and the second largest of the 50 States. Geographically located in the south central part of the country, Texas shares an international border with Mexican states to the south, and borders the U.S. states of New Mexico to the west, Oklahoma to the north, Arkansas to the northeast, and Louisiana to the east. Texas has an area of 268,820 square miles.

The 2010 U.S. Census recorded Texas as having a population of 25.1 million; an increase of 4.3 million since the year 2000, involving an increase in population in all three subcategories of population growth—natural increase (births less deaths), net immigration, and net migration.

Motorcycle fatalities and crashes in Texas have followed the national trend for the previous 10 years and motorcycle crashes are heavily overrepresented in the total number of motor vehicle crashes. Motorcycles registrations comprise approximately 2% of the motoring public in Texas, yet they account for approximately 15% of all traffic fatalities. This trend has remained constant with little to no statistically significant change over the last 10 years.

### All Crashes, 2003-2010

	Motorcycle crashes	Total traffic crashes	% of total	Motorcycle fatalities	Total traffic fatalities	% of total	Motorcycle injuries	Total traffic injuries	% of total
2003	6,425	459,725	1.4	345	3,822	9.0	6,024	308,360	2.0
2004	6,542	447,037	1.5	294	3,700	7.9	6,144	288,228	2.1
2005	7,894	463,830	1.7	359	3,558	10.1	7,285	292,655	2.5
2006	8,268	437,290	1.9	351	3,521	10.0	7,632	271,126	2.8
2007	8,617	458,289	1.9	408	3,463	11.8	7,814	266,318	2.9
2008	10,642	439,527	2.4	531	3,477	15.3	9,719	243,866	4.0
2009	9,044	428,667	2.1	432	3,089	14.0	8,213	232,580	3.5
2010	7,701	391,101	2.0	435	3,050	14.2	7,043	217,381	3.2

Texas CR-3 Crash Reports

The Texas Department of Transportation districts of Houston, Dallas, Fort Worth, Austin, San Antonio, Waco, and Tyler are comprised of 62 Counties, 24.4% of all the counties in Texas. Yet these seven districts represent 70.6% of all motorcycle registrations in the State. Seventy percent of all motorcycle crashes occur in these seven districts, as well as 66.2% of all motorcycle fatalities.

U.S. Census data from 2010 indicate that 7.7% of Texas's population is less than 5 years old, 27.3% is under 18, and 10.3% is aged 65 and older. Females made up

50.4% of the population.

Of all the motorcyclists who are involved in fatal crashes in Texas, 20-29 year olds have the highest percentage of deaths overall, followed closely by the 40-49 years of age range. Fatality data show that the 20-29 year old age group is overrepresented, garnering 25.8% of the total number of fatalities, followed by 40-49 year old operators at 20.8%.

**Texas Motorcycle Crashes, Fatalities, by Age, 2010 - 2012**

2010 - 2012		Motorcycle Fatalities			Totals	% of Totals
Age Range	Rider					
	Helmet	No Helmet	Unk			
< 19	21	16	0	37	2.9%	
20-29	188	131	9	328	25.8%	
30-39	86	135	10	231	18.2%	
40-49	76	180	9	265	20.8%	
50-59	110	145	10	265	20.8%	
60-69	65	55	11	131	10.3%	
70+	8	6	1	15	1.2%	
<b>TOTALS</b>	<b>554</b>	<b>668</b>	<b>50</b>	<b>1272</b>	<b>100.0%</b>	
<b>%</b>	<b>43.6%</b>	<b>52.5%</b>	<b>3.9%</b>	<b>100.0%</b>		

Texas CR-3 Crash Reports

Serious injury motorcycle crashes show that the 20-29 years of age group is again overrepresented. While helmet use might be slightly higher for the 20-29 year olds, there are still a much higher raw number of deaths and serious injuries than the other age groups.

**Texas Motorcycle Crashes, Serious Injuries, by Age, 2010 - 2012**

2010 - 2012		Motorcycle Serious Injury			Totals	% of Totals	% Un-Helmeted
Age Range	Rider						
	Helmet	No Helmet	Unk				
< 19	458	261	59	778	4.90%	33.5%	
20-29	2,566	1,377	455	4,398	27.90%	31.3%	
30-39	1,484	1,278	323	3,085	19.60%	41.4%	
40-49	1,464	1,463	333	3,260	20.70%	44.9%	
50-59	1,396	1,276	272	2,944	18.70%	43.3%	
60-69	613	404	90	1,107	7.00%	36.5%	
70+	133	57	13	203	1.30%	28.1%	
<b>TOTALS</b>	<b>8,114</b>	<b>6,116</b>	<b>1,545</b>	<b>15,775</b>	<b>100.00%</b>		
<b>%</b>	<b>51.40%</b>	<b>38.80%</b>	<b>9.80%</b>	<b>100.00%</b>			

Texas CR-3 Crash Reports

Texas' statistics regarding un-helmeted riders who are killed in crashes mirrors the national numbers, and lack of helmet usage in Texas continues to be an aggravating factor in fatal Texas motorcycle crashes. The 20-29 year old age range shows the most crashes overall of all age groups, followed by 40-49 year olds. While the 40-49 years of age group shows lower helmet use, sheer volume of numbers is held by the 20-29 year old group.

As of the 2010 US Census, the racial distribution in Texas was as follows: 70.4% of the population of Texas was White American; 11.8%, African American; 3.8%, Asian American; 0.7%, American Indian; 0.1%, native Hawaiian or Pacific Islander only; 10.5% of the population was of some other race only; and 2.7% were of two or more races. Hispanics (of any race) were 37.6% of the population of the state, while Non-Hispanic Whites composed 45.3%.

Texas has experienced growth in the number of motorcycles on its roads over the course of time, as well as additional licensed operators. As of June, 2013, Texas shows 403,632 vehicles registered as a motorcycle, which has almost doubled since 2000.

## **Summary of Major Recommendations**

### **Program Management**

- Strengthen the Texas Strategic Action Plan for Motorcycles 2013-2018 with more in-depth collision analysis and problem identification, identification of specific entities to be accountable for specific actions, and specific dates for accomplishment.
- Develop evaluation protocols for all activities to measure their effectiveness and value.
- Provide guidance to the Texas Motorcycle Safety Coalition, if grant funding continues, to ensure it does not function as a lobbying organization.
- Continue the collaborative efforts of the Texas Department of Transportation and the Texas Department of Public Safety motorcycle rider training program and deploy available resources to improve and expand the training capabilities and access to training.

### **Motorcycle Personal Protective Equipment**

- Seek legislation to pass a universal helmet law, compliant with Federal Motor Vehicle Safety Standard (FMVSS) 218, for all riders and passengers.
- Provide law enforcement training to recognize and enforce, as a primary offense, helmet violations.
- Coordinate efforts between public, private, and nonprofit groups to encourage the use of proper protective gear by motorcyclists.

### **Motorcycle Operator Licensing**

- Integrate the information from the Motorcycle Operator Manual (MOM) into the required rider education course, revise the rider education course knowledge test to include information from the MOM and eliminate the motorcycle knowledge test at the Driver Licensing Division.
- Increase the fine and penalties for operating a motorcycle without a Class M license.
- Evaluate the value of maintaining the “J” motorcycle license restriction since the applicant must request this restriction and has already met the minimum standards for full licensing.

- Update the Driver Licensing Division's driver licensing system so course completion information can be entered as data instead of a digital image. This would allow information to be linked to other data files like vehicle registration, rider education, and crash data and make data extraction, review, and analysis for research and developing traffic safety projects easier.
- Eliminate the "1" restriction since it only restricts 15 year olds from operating a motorcycle over 250cc for one year. There is no evidence that this one-year delay makes these individuals safer or more responsible motorcycle operators.
- Eliminate the on-street licensing test for applicants under the age of 18. There is no evidence that the current on-street licensing test evaluates skills or behaviors not already being evaluated in the rider education course.
- Establish an expiration date of one year for the rider education completion card, MSB-8.
- Study and determine the reasons why motorcycle operators are not completing the motorcycle licensing process and use this information to develop data-driven, measurable projects to effectively reduce the unlicensed operator crash problem.

### **Motorcycle Rider Education and Training**

- Establish a formal curriculum review and approval process.
- Conduct in-depth analysis of Texas motorcycle crash data to identify significant crash causation factors. Prioritize and incorporate emphasis in problem statements, rider training curriculum and public information campaigns.
- Conduct research to identify the cause of declining course enrollments and implement efforts to remedy.
- Create a five-year training forecast by each community served. Evaluate effectiveness at reaching training goals.
- Establish an expiration date of one year for the rider education completion card, MSB-8.
- Revise the RiderCoach Preparation (RCP) to accommodate more participants, schedules and locations. Expand RCP course offerings to meet future goals.
- Waive the Driver Licensing Division knowledge test for Basic RiderCourse course graduates.
- Establish a comprehensive Statewide quality assurance program that includes new RiderCoach support and guidance, formal updates and technical assistance,

peer review, and tougher compliance standards to assure conformity with state guidelines.

- Identify rider training course performance measures to determine course effectiveness. Create an ongoing evaluation process to determine the value and effectiveness of rider training.
- Provide capital improvements for Texas motorcycle program providers, including:
  - Motorcycle purchase and fleet renewal
  - Range area purchase/lease and/or installation; establish long-term property leases to assure program sustainabilityIn the absence of capital improvements, eliminate the tuition cap and sponsor financial support. Allow Texas providers to meet free market conditions.
- Create a web services data linkage between the Motorcycle Safety Unit student record database and Crash Reporting and Analysis for Safety Highways System.

### **Motorcycle Operation Under the Influence of Alcohol or Other Drugs**

- Incorporate motorcycle-specific messages into all current impaired driving campaign materials and enforcement activities.
- Conduct a motorcycle safety campaign focused on impaired riding. Consider utilizing free materials available from the National Highway Safety Administration, Motorcycle Safety Foundation, American Motorcyclist Association, and individual state programs, including Texas A&M Transportation Institute.
- Identify areas that are overrepresented in alcohol-involved motorcycle crashes. Organize and conduct law enforcement saturations and operations with an emphasis on motorcycles.
- Provide funds to support a focused and concentrated impaired riding media campaign during Texas' Motorcycle Safety Awareness Month and during national mobilizations.
- Encourage and recognize motorcycle groups who self-police and have a culture of zero tolerance for drinking and riding.

### **Legislation and Regulations**

- Encourage the reinstatement of the mandatory universal motorcycle helmet law for all operators and passengers
- Seek guidance regarding the status of the Motorcycle Education Account to determine if funds may be appropriated from the account to support the

motorcycle operator training program and other projects to improve the safety of Texas motorcyclists.

### **Law Enforcement**

- Identify motorcycle enforcement (impaired riding, proper license, excessive speed, helmet use for minors, etc.) as a specific component of enforcement grants.
- Incorporate motorcycle-specific messages into current enforcement activities.
- Develop data-driven countermeasures and implement selective enforcement where fatal and serious injury motorcycle crashes are occurring.

### **Highway Engineering**

- Develop an awareness presentation or training for State and local highway and traffic engineers to make them aware of roadway conditions that could impact motorcycle operation.
- Encourage the use of motorcycle specific warning signs in construction zones and locations where road conditions could impact motorcycle operation.

### **Motorcycle Rider Conspicuity and Motorist Awareness Programs**

- Conduct detailed analysis of multi-vehicle and intersection-related fatal motorcycle-involved collisions to determine why the collisions occurred and to identify specific motorist awareness and rider conspicuity strategies that could prevent future collisions.
- Conduct collision analysis to determine geographical trends for where multi-vehicle, driver-at-fault collisions occur and focus future motorist awareness activities in those areas.
- Communicate to motorcyclists the responsibility they have in preventing multi-vehicle crashes, which includes not speeding and making sure their lane placement and following distance allows for them to be seen and to identify and react to potential dangers.
- Evaluate the awareness and impact of share the road messages to determine whether distribution channels are effective and sufficient. Modify the messages and distribution, and develop new materials, if needed.

### **Communications Program**

- Build the Texas Motorcycle Safety Coalition's contact database and utilize it to

send information, updates, safety messages, etc. Utilize these networks to distribute materials and engage representatives to help staff booth/tables at rallies to take advantage of peer-to-peer contact at these community events.

- Develop Texas-specific motorcycle safety materials addressing impaired riding, licensing, and rider training. Utilize the relationship with the Texas A&M Transportation Institute to develop printed materials, create website resources, and cultivate grassroots efforts.
- Expand existing outreach plans to include:
  - A research component to identify problem areas to ensure that appropriate themes and messages are developed;
  - Goals and objectives with realistic and measurable outcomes;
  - Messages regarding the importance and availability of rider training, proper helmet and protective gear use, sharing the road, licensing, and the effects of alcohol on motorcyclists are included;
  - Definition of target audiences, including motorists, independent riders, sport bike riders, returning riders, etc.;
  - Use of appropriate multi-media channels;
  - A distribution plan for printed materials;
  - An evaluation component to measure pre- and post-campaign awareness and impact on motorist and motorcyclist behavior.

### **Program Evaluation and Data**

- Conduct an in-depth analysis of Texas motorcycle crash data to identify significant crash causation factors. Prioritize and incorporate emphasis in problem statements, rider training curriculum, and public information campaigns. Based upon these data, bring stakeholders together to collaborate on key factors that each entity can advance. Create a plan with measurable goals.
- Develop evaluation protocols in concert with the creation of strategies and countermeasures that can determine the value and effectiveness of implemented strategies and countermeasures.
- Share and 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 collaboration among agencies and organizations responsible for, or impacted by, motorcycle safety issues;
- Develop programs (with specific projects) to address problems;
- Coordinate motorcycle safety projects with those for the general motoring public;
- Integrate motorcycle safety into State strategic highway safety plans and other related highway safety activities including impaired driving, occupant protection, speed management, and driver licensing programs; and
- Routinely evaluate motorcycle safety programs and services.

### **Status**

The Texas Department of Transportation (TxDOT) Traffic Operations Division, Traffic Safety Section (TSS) serves as the lead agency for the purposes of developing funding sources, motorcycle safety problem identification, and direction of countermeasures for a comprehensive coordination of effort. Pursuant to the Texas Transportation Code, Title 7, Subtitle G, Chapter 662, Section 662.001, the Governor shall designate a State agency to establish and administer a motorcycle operator training and safety program. The Texas Department of Public Safety (TxDPS) is the State agency designated by the Governor to establish and administer the motorcycle operator training and safety program pursuant to Texas Administrative Code, Chapter 31.1(5). TxDOT partners with TxDPS by meeting to discuss and address motorcycle safety issues.

TxDOT utilizes National Highway Traffic Safety Administration (NHTSA) funding to support programs to inform and educate motorcycle riders and vehicle drivers. TxDPS utilizes general State budget funding to administer the motorcycle operator training program.

The TxDOT Traffic Safety Section obtains data from the Crash Data & Analysis Section to analyze motorcycle crashes, injuries, and fatalities in order to identify and prioritize the State's traffic safety problems. Through the process of issuing a request for proposals and evaluating submissions, the TxDOT TSS selects appropriate grant

programs. TxDOT, with technical assistance from Texas A&M Transportation Institute (TTI), identifies motorcycle safety problem areas and countermeasures, as well as potential collaborators. Specific projects are developed to address identified problems and reduce the number of motorcycle-involved collisions, injuries, and fatalities.

TxDOT Traffic Safety Section has used NHTSA Sections 402, 2010, and 405(f) funding to support selected programs. The State's personnel and administration costs are not supported with NHTSA funds.

The current and previous grant cycles resulted in grants awarded to media contractors for motorist awareness campaigns. The Federal Fiscal Year 2013 grant for motorist awareness reached a great number of people with "Share the Road" and "Look Twice for Motorcycles" and rider vulnerability messaging. It is, however, not clear from the data what share of multi-vehicle crashes are due to motorist inattention, distraction, or carelessness. It is possible that a significant portion of the multi-vehicle motorcycle collisions are due to motorcycle operator error, excessive speed, or alcohol/drug impairment. More detailed analysis of collisions would help to ensure optimal deployment of resources.

The current and previous grant cycles resulted in grants awarded to TTI for Statewide motorist awareness efforts, motorcyclist safety outreach, and facilitation of the Texas Motorcycle Safety Coalition (TMSC).

The TMSC was formed in 2008, with the overall goal of reducing fatalities and injuries resulting from crashes involving motorcycles in Texas. The TMSC is an excellent example of collaboration to find commonalities within which diverse groups can work together for the benefit of all. The TMSC has demonstrated potential to allow communication and distribution of important rider-specific information and material. Care must be taken to ensure that the TMSC is not a body, administered with grant funding, with the purpose of influencing legislation.

The Texas Strategic Action Plan for Motorcycles 2013-2018 has the potential to guide motorcycle safety stakeholders toward positive change, though it does not identify parties responsible for action—members of the TMSC may be looking for others to take action—so it is possible that little is accomplished because no stakeholders take ownership of the required tasks.

## **Recommendations**

- **Strengthen the Texas Strategic Action Plan for Motorcycles 2013-2018 with more in-depth collision analysis and problem identification, identification of specific entities to be accountable for specific actions, and specific dates for accomplishment.**
- **Develop evaluation protocols for all activities to measure their effectiveness and value.**

- **Provide guidance to the Texas Motorcycle Safety Coalition, if grant funding continues, to ensure it does not function as a lobbying organization.**
- **Continue the collaborative efforts of the Texas Department of Transportation and the Texas Department of Public Safety motorcycle rider training program and deploy available resources to improve and expand the training capabilities and access to training.**

## **II. Motorcycle Personal Protective Equipment**

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

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

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

### **Status**

Texas's universal helmet law was repealed in 1997. Since that time, motorcycle rider deaths have increased. Lack of a helmet and other protective equipment increases the risk of death or serious injury, even in low speed motorcycle crashes.

Prior to the repealed law, observed helmet use was reported to be at or above 99%. From 1998 through 2012, the observed helmet use dropped to a 15-year average of 59.6%. The most current (2012) helmet use survey reported use at 61.1%. Helmet use surveys made no distinction between a novelty helmet and a Federal Motor Vehicle Safety Standard (FVMSS) 218 compliant helmet.

Texas transportation code, Title 7, Section 661.003, stipulates that operators and/or passengers on a motorcycle who are under the age of 21 are required to wear approved protective headgear. A person who is at least 21 years old and has successfully completed a motorcycle operator training and safety course, or is covered by a health insurance plan that provides the person with medical benefits for injuries incurred as a result of an accident while riding a motorcycle, is not required to wear protective headgear.

A violation of this section is a misdemeanor punishable by a fine of not less than \$10 or more than \$50. Law enforcement reported that violations of the limited helmet law are enforced.

Title 7, Section 661.004, grants authority to any police officer to stop and detain a person who is a motorcycle operator or passenger to inspect the protective headgear for compliance with the safety standards prescribed by the department. In 2013, the Texas Department of Public Safety issued 64 citations for helmet violations.

Eye protection is not required. A passenger seat is required, but passenger footrests are not.

In order to obtain a motorcycle license or an "M" endorsement to a driver's license, a person must complete an approved motorcycle rider education course. While there is no Texas law requiring the use of protective clothing when operating or riding on a motorcycle, the topic is addressed as part of the curriculum of these courses. While taking part in rider education, students are required to wear helmets designed to meet FVMSS standards, proper eye protection, gloves, and other protective clothing.

The Texas Department of Transportation has partnered with Ben Spies, a professional motorcycle racer to produce "Gear Up, Texas!" an initiative that promotes the use of helmets, eye protection, jackets, and pants, footwear, and gloves.

The Texas A&M Transportation Institute (TTI) highlights the nonuse of helmets as a major factor in rider crash fatalities in its motorcycle safety outreach plan. The plan calls attention to the value of safe riding behaviors that include wearing a helmet. TTI delivers these messages at community events, conferences, and various motorcycle events. Details about this program are also available on the LookLearnLive.org website.

Representatives from Texas motorcycle dealers reported that some dealerships include helmets, jackets, and gloves with motorcycle sales.

## **Recommendations**

- **Seek legislation to pass a universal helmet law, compliant with Federal Motor Vehicle Safety Standard (FMVSS) 218, for all riders and passengers.**
- **Provide law enforcement training to recognize and enforce, as a primary offense, helmet violations.**
- **Coordinate efforts between public, private, and nonprofit groups to encourage the use of proper protective gear by motorcyclists.**
- Enact legislation requiring all riders to wear protective glasses, goggles, or a transparent face shield.
- Enact legislation requiring that motorcycles carrying a passenger have a passenger seat and footrests, and the motorcycle passenger's feet must reach the footrests.



### 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

A Class M (motorcycle) license is required to operate a motorcycle on Texas roadways. Individuals over the age of 18 holding an unrestricted Texas Class A, B, or C driver's license seeking a motorcycle license must complete the Texas Department of Public Safety (TxDPS) approved motorcycle rider education course and pass a motorcycle knowledge test to obtain the license. In addition to the approved motorcycle rider education course, individuals under the age of 18 with a Class C learner's permit or license must complete the classroom phase of a driver education course and pass the motorcycle knowledge and on-street test. In 2013, 23,780 original Class M licenses were issued. Most of these licenses were issued to individuals over the age of 18. Very few individuals between 15 and 18 receive a Class M license.

The motorcycle knowledge test is based on the information in the TxDPS Motorcycle Operator's Manual (MOM). The MOM and the knowledge test were prepared in cooperation with the Motorcycle Safety Foundation (MSF). The MOM is available electronically and in hardcopy from the TxDPS. The TxDPS also provides the MOM to rider education course providers for distribution to students.

A panel consisting of Driver Licensing Division (DLD) examiners, trainers, and staff from the Motorcycle Safety Unit review, update, and approve the MOM and knowledge tests. The current MOM and knowledge tests were last reviewed in 2008. The DLD is currently reviewing the new MSF MOM and knowledge tests for approval. The current MOM does not include Texas-specific information regarding unique riding situations or crash information. The information promoting rider training on the last page of the current MOM states: "Research shows the motorcycle operator training is equal to two

years of riding experience.” This statement may be inaccurate and unless the research verifying this statement can be cited, the statement should be deleted from the MOM.

The pass rate for the knowledge test is approximately 83%. The knowledge test is administered on a computerized testing system. Questions are randomly selected and the test stops once the applicant correctly answers 70% of the questions. Most passing applicants do not complete all 25 questions. Individuals have three opportunities or 90 days from their first attempt to pass the knowledge test. Applicants are required to wait one day before retaking the test. According to testimony, most applicants pass the test on their second attempt. Anyone failing the test three times or exceeding the 90-day time limit must pay another \$16 licensing fee.

Only individuals under the age of 18 are required to pass the on-street motorcycle licensing test. The rationale for this requirement is this age group may not have sufficient driving experience to waive the licensing test. However, no information was provided justifying the value or effectiveness of the on-street testing requirement. The DLD does not administer many on-street motorcycle licensing tests because there are few applicants between the ages of 15 and 18. These applicants are also required to provide another vehicle and driver so the examiner can follow the applicant during the on-street test. The trail vehicle’s horn is the only communication system between the applicant and the examiner. The examiner directs the driver when to use the horn to signal the applicant.

The DLD developed the on-street licensing test to evaluate the applicant’s ability to exercise ordinary and reasonable control of the motorcycle. The test has two parts: a vehicle inspection to ensure the motorcycle is operational and legal to operate on the street; and the on-street test that evaluates four skill areas—control, observation, position and signaling. The test includes parallel parking, backing, turns, obeying traffic signs and signals, intersection approach, posture, use of the clutch, lane use and positioning, following vehicles, overtaking vehicles, and use of the horn. The score sheet and route are the same used for the Class C (automobile) on-street test. The motorcycle on-street test takes approximately 15 minutes to complete and has a 95% pass rate.

Applicants qualifying for a Class M license receive a temporary license valid for approximately six weeks. The DLD mails the official Class M license to successful applicants.

Two rider education courses are currently approved by TxDPS for licensing: the MSF Basic RiderCourse (BRC) and the Three-Wheeled BRC. Annually, approximately 34,000 individuals complete the BRC and 100 complete the Three-Wheeled BRC. Individuals completing the Three-Wheeled BRC for licensing receive a “T” restriction on the license. Individuals with a “T” restriction may only operate a three-wheeled motorcycle.

Applicants verify completion of the approved rider education course by submitting a

TxDPS standardized motorcycle operator training course completion card, MSB-8. This completion card has no expiration date and will be accepted by the DLD anytime. The DLD also accepts MSF completion cards issued in other states.

The DLD scans the completion card and attaches the digital image to the driving record. Since this is a digital image and not a data entry, electronic review or extraction of this information is not possible; any review of this information must be done manually.

The submitted completion card is shredded by the DLD unless the applicant requests its return. The only security check done on the completion card is recording the card's serial number. The DLD does not track the number of completion cards received annually.

Applicants may request the DLD to issue them a Motorcycle Learner License ("J" restriction) even though they met all the requirements for full licensure. The "J" restriction requires individuals to practice operating a motorcycle while under the supervision (in sight and watching) of a licensed driver who is 21 years of age or older. Applicants 18 or older may have the J restriction removed anytime by requesting the DLD to remove it. Individuals under the age of 18 must pass the on-street test to have this restriction removed.

Individuals may obtain an M license at age 15, but will have an "I" restriction on the license. The "I" restricts the individual to operating a motorcycle with a maximum engine displacement of 250cc. This restriction may be removed at age 16. When the restriction is removed, the individual may operate any type of motorcycle. No information was available to verify the "I" restriction reduced crashes involving young motorcyclists. The DLD does not issue many "I" restricted licenses.

The DLD examiners are trained to administer the motorcycle knowledge and on-street tests by DLD trainers and their supervisors. Their supervisors are responsible for evaluating their testing performance. No refresher training is required unless there are changes to the testing procedures.

In 2013, approximately 46% of the motorcycle operators involved in a fatal crash and 43% involved in reported non-fatal crashes did not have a motorcycle license. TxDPS identified improperly licensed motorcyclists as the second-most frequently cited violation. The violation is a Class C misdemeanor, and the fine for riding without a Class M license is not significant enough to be a deterrent.

Unlicensed or improperly licensed motorcycle operators is a serious problem in Texas. Ensuring proper licensing of all motorcycle operators is a goal in the Texas Strategic Action Plan for Motorcycles 2013-2018. The four initiatives identified in the plan to address this problem are:

- Revise the regulations to require specific license for operators of 3-wheel motorcycles

- Enact legislation to require a motorcycle license before registering a motorcycle
- Encourage law enforcement to use zero tolerance approach regarding unlicensed riders
- Require proof of motorcycle licensing before issuing parking permits (large employers, state and local government agencies, university campuses, etc.)

In 2014, the Texas Motorcycle Safety Coalition, through the Texas Transportation Institute at Texas A&M University will assign responsibility, develop projects, and identify completion dates for these four initiatives.

## Recommendations

- **Integrate the information from the Motorcycle Operator Manual (MOM) into the required rider education course, revise the rider education course knowledge test to included information from the MOM and eliminate the motorcycle knowledge test at the Driver Licensing Division.**
- **Increase the fine and penalties for operating a motorcycle without a Class M license.**
- **Evaluate the value of maintaining the “J” motorcycle license restriction since the applicant must request this restriction and has already met the minimum standards for full licensing.**
- **Update the Driver Licensing Division’s driver licensing system so course completion information can be entered as data instead of a digital image. This would allow information to be linked to other data files like vehicle registration, rider education, and crash data and make data extraction, review, and analysis for research and developing traffic safety projects easier.**
- **Eliminate the “I” restriction since it only restricts 15 year olds from operating a motorcycle over 250cc for one year. There is no evidence that this one-year delay makes these individuals safer or more responsible motorcycle operators.**
- **Eliminate the on-street licensing test for applicants under the age of 18. There is no evidence that the current on-street licensing test evaluates skills or behaviors not already being evaluated in the rider education course.**
- **Establish an expiration date of one year for the rider education completion card, MSB-8.**
- **Study and determine the reasons why motorcycle operators are not completing the motorcycle licensing process and use this information to**

**develop data-driven, measurable projects to effectively reduce the unlicensed operator crash problem.**

- Include state-specific crash causation data and information on the unique riding conditions found in the State in the Motorcycle Operator Manual.

## **IV. Motorcycle Rider Education and Training**

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

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

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

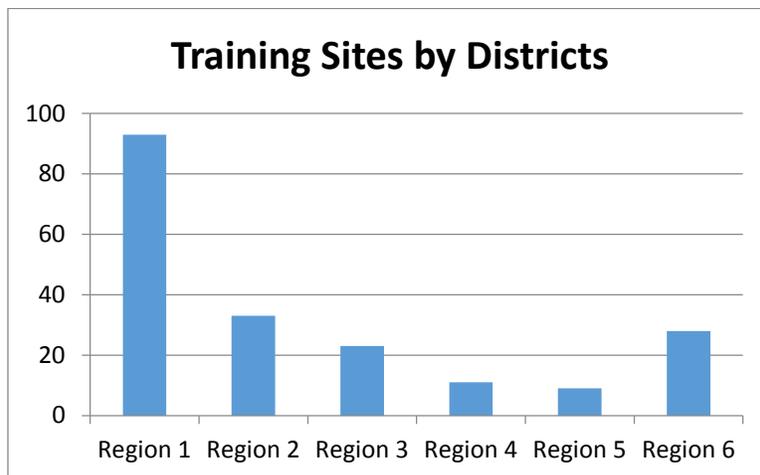
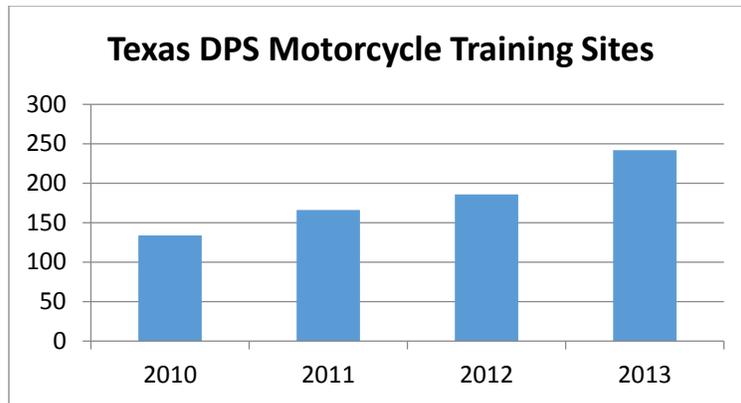
### **Status**

The Texas rider education and training effort is administered by the Texas Department of Public Safety (TxDPS) and is set forth in Transportation Code, Title 7. Vehicles and Traffic, Subtitle G. Motorcycles and Off-Highway Vehicles, Chapter 662. Motorcycle Operator Training and Safety. This section prescribes the purpose of program and curriculum; defines the program director, motorcycle safety coordinator, contracts, fee assessment, restrictions, denials, suspensions, and cancellations of approvals; rules, reports, and the motorcycle education account. This designated fund (Sec. 662.011) directs the TxDPS to send \$5 to the comptroller for deposit to the credit of the motorcycle education fund account. This section prescribes that "Money deposited to the credit of the motorcycle education fund may be used only to defray the cost of administering the motorcycle operator training and safety program." It is reported that there's a fund balance of approximately \$14 million dollars. The annual TxDPS Motorcycle Safety Unit (MSU) appropriation is approximately \$800,000, which funds 9.0

FTE program personnel, but fails to adequately support statewide rider training program providers. Additional funds are required to meet future needs.

The Texas Department of Transportation (TxDOT) Traffic Safety Section administers National Highway Transportation Safety Administration (NHTSA) grants that could be used by the MSU for equipment purchase, RiderCoach training, and public awareness campaigns. However, MSU has not applied for any grants from TxDOT in the past three years.

In 2009, the Texas legislature enacted legislation requiring all first-time motorcycle operators to complete a basic motorcycle safety class. The MSU has responded admirably to the significant challenges of program expansion and RiderCoach training and readiness. The MSU boasts 242 training locations in over 80 cities, operated by 57 contractors, 32 licensees, and 10 military bases. The MSU has trained and supports 400 RiderCoaches, and has dispersed a fleet of 900 training motorcycles to training providers Statewide. A cadre of 10 RiderCoach Trainers fan across the state to train new RiderCoaches, conduct Technical Assistance Visits (TAV) and provide site and material support. With a state of the geographic immensity of Texas, this is an impressive accomplishment.



### Approved Curriculum

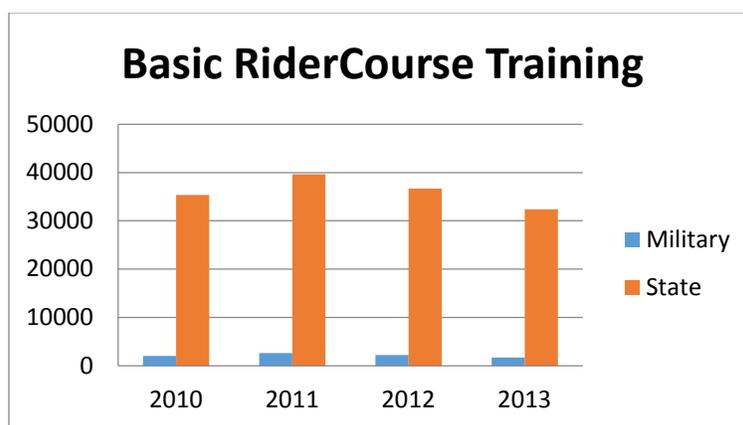
Texas Transportation Code Title 7, Subtitle G, Chapter 662, Section 662.002(b) establishes that the program “shall include curricula developed by the Motorcycle Safety Foundation” (MSF). Testimony was provided that this statute had been changed from “curricula developed by the Motorcycle Safety Foundation” to “curricula approved by the Department.” However, the Assessment Team was provided no evidence of this formal change.

The MSU has approved the MSF’s Basic RiderCourse (BRC) as the authorized beginning rider training program for Texas riders seeking to comply with the mandatory rider training requirement. The BRC and all out-of-state beginning rider training programs are the only approved offerings. Other rider training programs available across Texas include the BRC2, Three-Wheeled BRC, Advanced RiderCourse, Total Control, and other advanced courses offered by rider training sponsors and on military bases and tracks. Several presenters felt that an intermediate or experienced rider course should be approved curricula to serve as an incentive for unlicensed riders to complete the endorsement process and refresh skills and awareness.

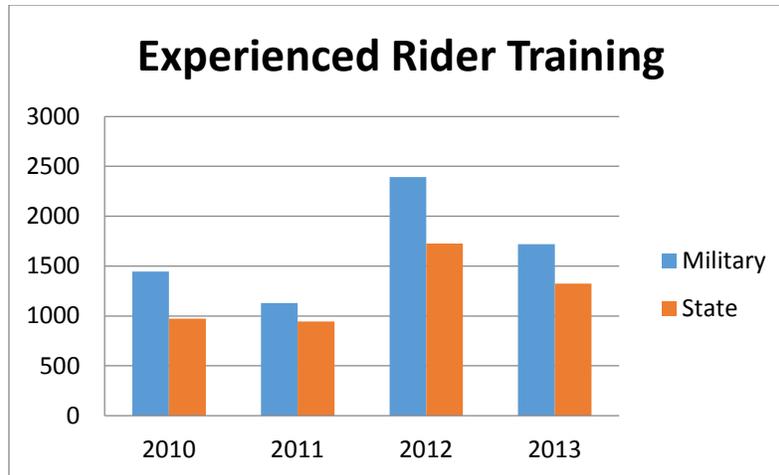
There is no formal quantitative approval process for curricula evaluation and approval. Critical priority factors overrepresented in Texas motorcycle crashes, such as alcohol use, helmet use, and curve negotiation, are presented in the approved curriculum but without priority or uniform emphasis. There is a general lack of priority needs assessment in the analysis of Texas motorcycle crash data.

### Students Trained

The introduction of mandatory training brings an expectation of significant growth, but that has not occurred. The number of BRC riders trained in Texas has declined 10% from 2010 through 2013, as shown in the graph below. There was no data presented to explain this decline.



Experienced rider training is provided. Texas military installations account for a greater percentage of these students trained. While several presenters urged “life-long learning,” there’s no evidence from these figures that riders share that desire or interest.



### Contracts and Compliance

The MSU identifies site contractors and establishes agreements. The MSU is responsible for evaluating and monitoring rider education and training contracts, which is completed through a series of TAVs. All training sites received a contract compliance TAV in 2013. The training compliance TAV evaluates course content and technical delivery, contact hours, range and classroom readiness, and motorcycle inventory and readiness. These TAVs are conducted over the period of the entire BRC. Eighty-eight courses will be evaluated in 2014, and the remaining approved sites will receive a training compliance TAV in 2015. Section §31.10, Technical Assistance Visits, details formal remedial processes for follow-up. However, it's unknown if the training compliance TAV is an effective tool that provides permanent remedies for chief concerns. This should be evaluated.

### Authority to Establish a Fee

Texas Transportation Code Title 7, Subtitle G, Chapter 662, Section 662.007 establishes the authority to charge a fee for the course that “is reasonably related to the costs of administering the course.” The MSU sets the maximum allowable tuition for BRC courses statewide; currently the cap is \$235. There is no formal review and approval process for determining this fee amount.

Civilian providers are independent businesses that must rely on student tuition to cover most of their training costs. These providers must purchase the instructional materials, conduct advertising, provide the approved range area and classroom, be properly insured, purchase and maintain a fleet of training motorcycles, and hire and pay MSF-certified RiderCoaches. These providers receive an initial subsidy from TxDPS, including range paint and layout assistance, helmets, cones, and materials. Motorcycles have been provided in the past, but funds are not available to continue that practice. RiderCoach training is provided by TxDPS, but RiderCoach candidates or sponsors often have to incur travel expenses to fulfill these training requirements.

Several providers expressed concern about the financial viability of the program. It was clear that these providers are committed to the program and continue to provide training

because they believe in it, not because it's financially viable. Concerns were raised about motorcycle availability, purchase, and maintenance, RiderCoach attrition and succession, and the availability of parking lots suitable for ranges. Failure in any one of these areas could put a provider out of business. The future of the program rides on these variables. If significant additional financial support cannot be provided to course sponsors, the course fee limit should be eliminated. A thorough assessment with clear goals is warranted.

### Policy and Procedures Manual

The MSU supports an Administrative Guide, revised October 2013. This guide is distributed to both sponsors and RiderCoaches during initial training. Online access to this resource is provided in the password protected area of the MSU website.

### RiderCoach Training

The MSU conducts two RiderCoach Preparation Workshops (RCP) each year, optimally resulting in 24 newly-trained RiderCoaches. However, reports indicate that these RCPs are not filling. Several presenters characterized this failure due to generational differences, lack of interest, and better paying opportunities elsewhere. With 400 RiderCoaches in the State and mandatory training, this condition is unsustainable. The rate of RiderCoaches added, even at the optimal rate, will not keep up with an aging RiderCoach demographic and student demand.

MSU is using a seven-day RCP schedule, typically conducted over three weekends. This schedule calls for great sacrifice and expense from the candidates, especially when travel and lodging expenses must be covered. Applying a more user-friendly schedule with limited scope objectives will yield better results.

### Availability and Meeting Demand

In most areas of the State, other than west Texas, training site/location saturation has been met with respect to supporting each training business. It was reported that the average wait time from registration to training is two weeks. There were no complaints registered about the wait time for a BRC, and one presenter remarked that "classes are accessible and reasonably priced."

### Participant Incentives

Individuals successfully completing the BRC are issued a TxDPS standardized motorcycle operator training course completion card, MSB-8. Presenting this card at the Driver Licensing Division (DLD) 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 DLD resource issue. Since completion of a 50-question knowledge test is part of the TxDPS standard novice training course, it may be more customer-friendly and efficient to waive both the DLD knowledge and skill tests when an individual completes the approved course.

Security of the paper MSB-8 is a concern. It may be more cost-effective to implement an electronic reporting system that can update the TxDPS and DLD databases. The information coming to the DLD could be recorded on the participant's driving record allowing the DLD 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 DLD offices.

There is no timeline limit for the BRC completion card. The MSB-8 should be valid for one year.

#### RiderCoach Certification and Recertification

RiderCoaches must adhere to MSF and MSU standards and guidelines for certification and recertification to be a TxDPS-recognized RiderCoach. On initial application, applicants must meet minimum driving and Texas and FBI criminal history standards. To maintain MSF national certification, a RiderCoach must:

- Within the two-year certification period, conduct two complete BRCs or equivalent Rider Education and Training System courses or modules,
- Participate in one professional development activity by MSF or TxDPS
- Complete one personal learning activity every two years

The MSU provides these additional requirements:

- Sign the Texas RiderCoach Rules of Professional Conduct
- Hold current certifications in basic first aid and CPR
- Maintain minimum driving record standards. Driving records are reviewed:
  - Upon scheduling or upon receipt of a TAV report if done by a contracted RiderCoach Trainer, and;
  - When the RiderCoach requests advanced curriculum training
- The Texas criminal history process provides real-time updates on any new criminal activity and is monitored by TxDPS staff.

#### Completion Reports and Data Files

All TxDPS-approved sites are required to complete course reporting electronically within three working days from the completion of the course. The student record database contains the student's name, address, phone number, e-mail address, driver's license number, course dates, course location, pass/fail status, and Certificate of Completion of Motorcycle Training control number. This is a secured and backed-up database. The system is compliant with all Texas privacy laws and only TxDPS has access to this information.

#### Program Evaluation

Currently, there is no process to evaluate the effectiveness of the TxDPS rider education and training effort. The MSU is relying on the current quality assurance process of TAVs to evaluate the rider training effort. With 200 training locations, it's impossible to meet program evaluation and quality assurance goals with this method alone. A different plan, with measurable goals, should be considered.

The issue of RiderCoach “drift” was a recurring theme from RiderCoaches and staff. Most RiderCoaches reported adding emphasis and information and the TxDPS cited “drift” and failure to achieve underlying principals as the reason for the development of the TTI on-line RiderCoach recertification activity. This resource should be evaluated to determine effectiveness of meeting desired goals.

## **Recommendations**

- **Establish a formal curriculum review and approval process.**
- **Conduct in-depth analysis of Texas motorcycle crash data to identify significant crash causation factors. Prioritize and incorporate emphasis in problem statements, rider training curriculum and public information campaigns.**
- **Conduct research to identify the cause of declining course enrollments and implement efforts to remedy.**
- **Create a five-year training forecast by each community served. Evaluate effectiveness at reaching training goals.**
- **Establish an expiration date of one year for the rider education completion card, MSB-8.**
- **Revise the RiderCoach Preparation (RCP) to accommodate more participants, schedules and locations. Expand RCP course offerings to meet future goals.**
- **Waive the Driver Licensing Division knowledge test for Basic RiderCourse course graduates.**
- **Establish a comprehensive Statewide quality assurance program that includes new RiderCoach support and guidance, formal updates and technical assistance, peer review, and tougher compliance standards to assure conformity with state guidelines.**
- **Identify rider training course performance measures to determine course effectiveness. Create an ongoing evaluation process to determine the value and effectiveness of rider training.**
- **Provide capital improvements for Texas motorcycle program providers, including:**
  - **Motorcycle purchase and fleet renewal**
  - **Range area purchase/lease and/or installation; establish long-term property leases to assure program sustainability**

**In the absence of capital improvements, eliminate the tuition cap and sponsor financial support. Allow Texas providers to meet free market conditions.**

- **Create a web services data linkage between the Motorcycle Safety Unit student record database and Crash Reporting and Analysis for Safety Highways System.**
- Evaluate online RiderCoach professional development resource for success at reaching goals.
- Create a real-time electronic course reporting system that updates the Driver Licensing Division database, and if possible, incorporate a 30-day motorcycle permit with the MSB-8.
- Expand the list of approved program offerings to include a course for intermediate or experienced riders.
- Establish routine training in West Texas.

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

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

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

### **Status**

In Texas, the legal limit for impaired driving is .08 Blood Alcohol Concentration (BAC). The Texas Strategic Action Plan for Motorcycles 2013-2018 reports that, "Riding under the influence of alcohol is a major problem. In 2010, 36% of Texas motorcycle riders killed had a BAC of 0.08 g/ml or higher, compared to 29% in the U.S. (FARS, 2011)". The action plan also reports that, "69% of surveyed riders stated that during the past year, they had not consumed any alcohol within an hour of riding. Another 28% had consumed one to two drinks within an hour of riding; 3% had consumed three or more drinks."

There is no legislation specifically addressing impaired motorcycle operators; motorcyclists are included in the statute addressing all drivers. The Texas impaired driving program does not incorporate motorcycle-specific countermeasures. The Texas Department of Transportation (TxDOT) Traffic Safety Section (TSS) has established partnerships with law enforcement, community-based programs, and the Texas Motorcycle Safety Coalition, but initiatives conducted via these partnerships do not specifically address motorcycle operation under the influence of drugs and/or alcohol.

The Texas A&M Transportation Institute (TTI) has addressed impaired riding in their motorcycle safety outreach plan. As outlined in the plan, TTI identifies a goal to reduce the number of motorcycle crashes due to rider impairment, and calls for outreach to address the dangers of riding while intoxicated. This includes a "Drink.Ride.Lose" initiative that is delivered at community events, conferences, and motorcycle events. Details about "Drink.Ride.Lose" are available through a link on the LookLearnLive.org website.

Law enforcement representatives reported that they are attentive to the issues related to motorcycles in traffic safety and impaired riding efforts.

The TxDOT TSS drafts agreements to fund city, county, and State law enforcement agencies to conduct statewide, year-round impaired driving enforcement activities. There is no specific motorcycle enforcement language included in the operational plans, directives, or enforcement reports. There was no testimony that law enforcement agencies develop plans specifically aimed at impaired motorcyclist enforcement. The use of sobriety checkpoints are not utilized anywhere in the State.

The 2013 Texas Highway Safety Annual Report, Section 8 Traffic Safety Outlook, states that Share the Road efforts will include additional attention placed on motorcycle impaired riding. However, the team heard testimony that impaired operation of motorcycles is not specifically addressed in selective traffic enforcement programs or saturation patrols, but are instead included under the broad category of “motor vehicles.”

The Texas Department of Public Safety Motorcycle Operator’s Manual includes a section on alcohol and other drugs. This section highlights the effects of alcohol on the body and consequences of an impaired riding conviction in Texas. The manual also encourages riders to intervene when others have been drinking and plan to ride. It is important to note that while males represent almost all alcohol-related motorcycle fatalities, females are an equally important target audience when it comes to targeting anti-impaired riding efforts. While women may not necessarily be part of the problem of drinking and riding, wives, mothers, sisters, and girlfriends have a great deal of influence over the motorcycle riders in their lives.

Motorcycle organizations in Texas seem to be aware of the problem of impaired riding but not enough is being done to create a culture of separating drinking and riding. It is unclear how much success these groups have had. ABATE of Texas has taken the initiative to create an impaired riding education and motorist awareness program. The initiative will be launched soon.

## **Recommendations**

- **Incorporate motorcycle-specific messages into all current impaired driving campaign materials and enforcement activities.**
- **Conduct a motorcycle safety campaign focused on impaired riding. Consider utilizing free materials available from the National Highway Safety Administration, Motorcycle Safety Foundation, American Motorcyclist Association, and individual state programs, including Texas A&M Transportation Institute.**
- **Identify areas that are overrepresented in alcohol-involved motorcycle crashes. Organize and conduct law enforcement saturations and operations with an emphasis on motorcycles.**

- **Provide funds to support a focused and concentrated impaired riding media campaign during Texas' Motorcycle Safety Awareness Month and during national mobilizations.**
- **Encourage and recognize motorcycle groups who self-police and have a culture of zero tolerance for drinking and riding.**
- Distribute NHTSA's "Detection of DWI Motorcyclists" materials to law enforcement agencies statewide.
- Develop and distribute impaired riding informational materials to State and local law enforcement, driver's license stations, rider training centers, dealers, highway rest areas, state and national parks, special events, and motorcycle rallies. Evaluate the impact of the materials on affecting behavior change.

## **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**

A person operating or a passenger on a motorcycle traveling on public streets or highways is required to wear a helmet (protective headgear) unless the individual is at least 21 years old and has successfully completed a motorcycle operator training and safety course. Since completing a motorcycle operator training course is a requirement for obtaining a motorcycle license, wearing a motorcycle helmet becomes voluntary. It was reported that in 53% of the fatal crashes in 2013, the motorcyclist was not wearing a helmet. Several presenters felt a mandatory universal helmet law would reduce fatalities. In the Texas Strategic Action Plan for Motorcycles 2013-2018, under the goal to encourage and support legislative initiatives that promote motorcycle safety, there is an initiative to reinstate the universal helmet use law.

Texas Transportation Code 661.002 (b) states “The department may adopt any part or all of the American National Standards Institute’s (ANSI) standards for protective headgear for vehicular users.” ANSI does not have standards for motorcycle protective headgear. The accepted standard for motorcycle protective headgear is Federal Motor Vehicle Safety Standard 218.

The Texas Strategic Action Plan for Motorcycles 2013-2018 also has an initiative to re-examine and update the laws and administrative rules applying to motorcycles and their operation. The intent is to modernize and streamline the terminology and the laws so they may have a positive impact on Texas’s motorcycle safety efforts. A committee comprised of Texas Department of Transportation, Texas Department of Public Safety, the Department of Motor Vehicles, Driver Licensing Division and representatives from the Texas Motorcycle Safety Coalition will review the laws and rules. This committee will make recommendations for changes and the Texas Motorcycle Safety Coalition will partner with the appropriate State agencies and other organizations to encourage the Texas Legislature to make the modifications. This review committee will start in 2014 and is projected to finish this effort in three to five years.

Several presenters identified a concern with the Motorcycle Education Account. The funds deposited in this account are to be used only to defray the cost for administering the motorcycle operator training and safety program. It was reported that no funds from the account have been appropriated in several years and the account has a balance of almost \$14 million. Motorcycle groups and organizations would like to see these funds released to expand and improve the motorcycle operator training program and possibly fund other motorcycle safety initiatives. The Texas Motorcycle Safety Coalition will be

working to have these funds appropriated.

## **Recommendations**

- **Encourage the reinstatement of the mandatory universal motorcycle helmet law for all operators and passengers**
- **Seek guidance regarding the status of the Motorcycle Education Account to determine if funds may be appropriated from the account to support the motorcycle operator training program and other projects to improve the safety of Texas motorcyclists.**
- Correct Texas Transportation Code 661.002 (b) by deleting American National Standards Institute's and replacing it with Federal Motor Vehicle Safety Standard 218 (49 CFR Sec. 571.218) Motorcycle Helmets.
- Review and update statues and Administrative Rules, as needed, to improve Texas's motorcycle safety effort.

## **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**

During this assessment, in-person law enforcement interviews were limited to a single agency, due to unavoidable scheduling and priority assignment conflicts. Some of the information for this section of the report was found via open source research.

Texas peace officers are licensed through Texas Commission on Law Enforcement (TCOLE). The TCOLE website states that there are 75,367 licensed Peace Officers and 2,650 law enforcement agencies throughout the State.

The Texas Department of Transportation (TxDOT) Traffic Safety Section provides grant funding to law enforcement for highway safety programs.

The National Highway Traffic Safety Administration-approved Standardized Field Sobriety Testing (SFST) certification training is available to Texas law enforcement officers through a variety of venues around the State. SFST refresher training is also made available for free, and is funded through TxDOT. Due to time constraints and limited access to law enforcement representatives, a better understanding of law enforcement's exposure as well as the level and availability of SFST training was not determined during this assessment. The traffic officers that provided testimony did indicate familiarity with SFST certification and detection indicators of impaired driving.

Traffic safety enforcement efforts are sustained around the State in an effort to reduce crashes caused by speeding, alcohol and other drugs, or running red lights and stop signs. TxDOT funds 83 year-long Selective Traffic Enforcement Program (STEP) grants, STEP wave grants, and grants for impaired driving mobilizations. The effort does not identify or establish law enforcement agency goals that specifically address motorcycle safety. Motorcycle enforcement is simply included in the overall "motor vehicle" enforcement effort.

A program is being developed to provide advanced training to law enforcement that is specific to motorcycle crash investigations. This program may be beneficial in identifying motorcycle crash causation factors.

Testimony indicated that law enforcement officers are more attentive to motorcyclists that may be impaired or exhibit aggressive driving behavior during heavily attended motorcycle rallies or events, and in May during Motorcycle Safety Awareness Month. They added that during motorcycle-related events, contact is not always enforcement-driven. Officers spend time interacting with attendees and riders to talk about rider education, injury prevention, conspicuity, safety, and riding strategies. Law enforcement recognizes that unlicensed riders are a problem and testified that when contact is made with an unlicensed rider, enforcement action is taken that includes citing for the offense and in some cases towing the motorcycle when a licensed or responsible person is not available to take possession of the violator's motorcycle.

Law enforcement representatives indicated they would like to see an ongoing or advanced training program offered.

## **Recommendations**

- **Identify motorcycle enforcement (impaired riding, proper license, excessive speed, helmet use for minors, etc.) as a specific component of enforcement grants.**
- **Incorporate motorcycle-specific messages into current enforcement activities.**
- **Develop data-driven countermeasures and implement selective enforcement where fatal and serious injury motorcycle crashes are occurring.**
- Develop and distribute motorcycle crash statistics and motorcycle-specific informational materials to law enforcement agencies to aid them in planning and training.
- Encourage all law enforcement agencies to develop agency goals specific to motorcycle safety.
- Conduct in-service training on the detection of impaired motorcyclists utilizing materials that are available through the National Highway Traffic Safety Administration. Publicize this training to the news media.
- Include motorcycle safety enforcement operations in STEP grants.

## **VIII. Highway Engineering**

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

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

### **Status**

Testimony regarding highway engineering was provided by a consultant from a highway barrier company. The presenter was a former Texas Department of Transportation (TxDOT) employee, a former Federal Highway Administration employee, and a member of the International SCAN team. The presentation on barriers was informative, but not specific to Texas highway engineering.

TxDOT considers all vehicle types when constructing and maintaining the highway system. Currently, there are no specific motorcycle safety activities. A TxDOT District Office staff person participates in the Texas Motorcycle Safety Coalition (TMSC) meetings.

Motorcycle-specific warning signs are not currently being used in Texas. All warning signs are standard signage for all motor vehicles.

Motorcyclists and other road users can communicate concerns to TxDOT District Offices through their web page. No information was provided on how the District Offices address these concerns.

State and local highway and traffic engineers may not be aware of how roadway conditions impact motorcyclist and motorcycle operations. It was suggested that a highway engineer awareness presentation be created. This presentation would identify common Texas roadway conditions that impact motorcycle operation. This awareness could encourage engineers to consider motorcyclists needs when constructing and maintaining roadways.

Roadway/Infrastructure is focus area in the Texas Strategic Action Plan for Motorcycles. The goal is to accommodate the safety needs of motorcyclists in road design, construction, and maintenance. The three initiatives to achieve this goal are:

- Communicate roadway information (construction, maintenance, hazardous locations) on TxDOT websites, social media, and 511.
- Include information regarding fresh seal-coat and milled surfaces areas. Add potential for crowd-sourcing roadway condition information. Develop a smartphone application.
- Post specific warning for motorcyclists where unavoidable hazardous conditions exist (reduced traction, roadway surface irregularities).

In 2014, the TMSA, through the Texas A&M Transportation Institute will assign responsibility, develop projects, and identify completion dates for these three initiatives.

### **Recommendations**

- **Develop an awareness presentation or training for State and local highway and traffic engineers to make them aware of roadway conditions that could impact motorcycle operation.**
- **Encourage the use of motorcycle specific warning signs in construction zones and locations where road conditions could impact motorcycle operation.**

## **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**

From 2010 through 2013, approximately half of all fatal collisions involving a motorcycle included another vehicle. Over the same period, slightly more than 30 percent of all fatal collisions involving a motorcycle were intersection-related. It is unknown the extent to which the multi-vehicle collisions were caused by inattention or violation of the driver or due to rider error or a violation by the motorcycle operator. This information would assist in developing appropriate targets and messages for future awareness and education activities.

Motorist awareness programs in Texas are conducted and promoted by public and private entities. The Texas Department of Transportation (TxDOT) Traffic Safety Section (TSS) funds two reoccurring grants addressing motorist awareness of motorcycles. One grant, to a public relations/media vendor, coordinates motorist awareness activities during the month of May (Motorcycle Safety Awareness Month). This grant, in Federal Fiscal Year (FFY) 2013, included an elaborate kick-off media event for "May is Motorcycle Awareness Month," the planning and delivery of six outreach events at major and minor league baseball games, web banner ads, billboards, a social media component, and paid airtime for radio and television ads, all with the intent of increasing motorist awareness of motorcycles. Messaging and visuals included, "Share the Road - Look Twice for Motorcycles," as well as interactive activities and messages directed at highlighting the vulnerability of motorcyclists. There was no pre- or post-campaign evaluation of effectiveness.

The second reoccurring grant, to Texas A&M Transportation Institute (TTI), in FFY 2013, focused on outreach to motorcyclists via the LookLearnLive.org website, facilitation of the Texas Motorcycle Safety Coalition, and hosting of the annual Motorcycle Safety Forum. The FFY 2014 version of the grant includes outreach to motorists as well as continued outreach to motorcycle riders. Outreach to motorists will focus on the need to be alert for the presence of motorcycles on the road and ways to share the road safely with motorcycles. Outreach to motorcycle riders will address the dangers of riding while intoxicated, the importance of completing the required motorcycle rider training course, the importance of increasing motorcyclist conspicuity

on the roadway, and the value of safe riding behaviors (including wearing a helmet). The grant calls for the development of an outreach plan that details the activities to be conducted—such as attendance at more than 20 fairs, festivals, motorsport events, and motorcycle rallies—as well as methods to evaluate the success of the outreach activities, which includes questions within the annual statewide traffic safety survey.

Most of the outreach generated from the TxDOT TSS is during the month of May. Earned media at other times of the year is limited to press releases distributed at the discretion of TxDOT District Offices. At least one such press release included information on why motorcyclists are difficult for drivers to see, stating, “Because motorcycles have a much smaller profile than other vehicles, it can be difficult for drivers to judge the speed and distance of an approaching motorcycle. As a result, drivers involved in crashes with motorcycles say they never saw the motorcyclist and were unable to react in time to prevent the crash.”

From the private sector, motorist awareness messages are promoted by riding groups such as the Confederation of Clubs and Independents. They have also been advocating for permanent, static, “Share the Road” signs to be placed on state and local roadways. ABATE and other groups had advocated for, and applaud TxDOT for the placement of, “Share The Road-Look Twice For Motorcycles” messages on the more than 700 dynamic message signs throughout the State during the month of May.

Through partnerships and cooperation with the TxDOT TSS, members of the Texas Motorcycle Safety Coalition (TMSC) and rider groups distribute educational materials that promote rider conspicuity via bright colored clothing and skilled lane placement and following distance. The outreach plan developed by TTI includes an Objective/Desired Outcome, “To increase the visibility of motorcyclists.”

The Texas Motorcycle Operators Manual (MOM) addresses increasing rider conspicuity through the use daytime headlights, lane position and space cushion, and wearing brightly colored clothing and reflective materials for motorcycle riders and motorcycle helmets. In one instance, the manual references “proper” clothing without identifying it as bright, reflective, or protective.

The MOM mentions nighttime riding and provides tips to help improve nighttime conspicuity and reduce the effect of other vehicle lights obscuring the motorcycle’s lights.

The Texas Driver’s Handbook address the reasons why motorists do not see motorcyclists (blind spots, large vehicles, and that a motorcyclist’s frequent lane movements made to adjust to road conditions could obscure visibility), and provides tips on how to safely share the road with motorcycles.

## Recommendations

- **Conduct detailed analysis of multi-vehicle and intersection-related fatal motorcycle-involved collisions to determine why the collisions occurred and to identify specific motorist awareness and rider conspicuity strategies that could prevent future collisions.**
- **Conduct collision analysis to determine geographical trends for where multi-vehicle, driver-at-fault collisions occur and focus future motorist awareness activities in those areas.**
- **Communicate to motorcyclists the responsibility they have in preventing multi-vehicle crashes, which includes not speeding and making sure their lane placement and following distance allows for them to be seen and to identify and react to potential dangers.**
- **Evaluate the awareness and impact of share the road messages to determine whether distribution channels are effective and sufficient. Modify the messages and distribution, and develop new materials, if needed.**
- Develop opportunities to include motorist awareness messages in earned media outside the month of May, such as a secondary messages in press releases announcing motorcycle safety enforcement operations.
- Include motorist awareness messages along with other messaging, for example, “Don’t drink and drive, and look twice for motorcyclists.”
- Develop materials and messages to riders about the importance of lane positioning and following distance in order to see and be seen, as well as strategies to prevent involvement in left-turn collisions with other vehicles.
- Ensure that messages to motorists explain why motorists do not see motorcycles.
- Update the Motorcycle Operator’s Manual to define “proper” clothing.

## **X. Communications Program**

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

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

### **Status**

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

The Texas Strategic Action Plan for Motorcycles 2013-2018 includes several key focus areas supported with goals that involve communications and outreach efforts:

- Motorcycle/Rider Conspicuity (educate riders about conspicuity products, and increase use of conspicuity products)
- Motorist Awareness of Motorcycles (increase motorist knowledge/awareness about sharing the road)
- Rider Education and Training (promote importance of rider training, educate riders on roadway obstacles)
- Impaired Riding (encourage peer-to-peer outreach among riders, promote Bikers Responsibility Initiative)
- Speeding (develop outreach/education to riders about dangers of excessive speed, educate riders about selecting a motorcycle compatible with skill level)
- Personal Protective Gear (conduct a campaign to promote the use of safety gear)
- Roadway/Infrastructure (communicate roadway condition information)

Motorcycle safety communications campaigns are conducted through the Texas Department of Transportation (TxDOT), through grants to the Texas A&M Transportation Institute (TTI) and the funding of an ad agency contract; through the Texas Department of Public Safety, to promote rider training; and through the efforts of rider groups.

TTI manages the LookLearnLive.org website, which is focused on informing riders about motorcycle program activities and safety issues, in an effort to help them be better riders. Members of the Texas Motorcycle Safety Coalition (TMSC), which is facilitated by TTI, are encouraged to share updates to the website to their

constituencies via their own social media accounts. Website traffic was reported to be about 1,000 visits a month. TTI staff attends general interest public events to reach motorists with Share the Road messages and motorcyclist events to reach riders with safe riding messages. While high-volume events are targeted, there are no stated goals for the number of people to be reached through these efforts, desired results of the outreach, or evaluation of the efforts.

TxDOT has partnered with professional motorcycle racer Ben Spies for a series of campaign materials. Currently, Spies is featured in the brochure, Gear Up, Texas! Selecting the Proper Personal Protective Equipment. A Gear Up, Texas! brochure addressing selecting an appropriate helmet will soon be released.

In 2013, TxDOT awarded a contract to an ad agency to conduct motorist awareness issues. The contract included a requirements for earned media and value-added contributions. The defined target audience was motorists between the ages of 25 and 54, with a focus on the State's six largest population centers. The communications campaign used a combination of existing materials (broadcast public service announcements [PSAs]) and updated creative for the Look Twice for Motorcycles/Share the Road messages. Campaign components included paid media placement of billboards, website banners, and television and radio PSAs. Approximately 30% of the media buy was made in Spanish-language media. A significant amount of value-added placement was achieved through cable outlets running additional spots, buy-one get-one on radio and online buys, and PSA distribution. The campaign capitalized on May as Motorcycle Safety Awareness Month with a press conference in Austin and Statewide media outreach, both direct and through public information officers in District Offices. In person events were also a significant portion of ad agency's outreach; a display was set up at six baseball games throughout the state. Motorists were given the opportunity to take their photo on a motorcycle and sign a pledge to Look Twice for Motorcyclists.

TxDOT places Share the Road messages on dynamic message signs throughout the state and places stickers on bridge ice signs in the off season. Motorcycle riders expressed gratefulness for these efforts.

TxDPS and rider education site sponsors conduct outreach efforts to promote the requirement and availability of rider education.

Texas ABATE is in the process of launching the ABATE Motorcycle Safety Education Program. There is great potential in a campaign that utilizes peer-to-peer tactics to change behavior. ABATE has identified three target areas for countermeasures outreach:

- Single vehicle motorcycle crashes
- Multi-vehicle crashes
- Impaired riding (self-policing)

There was no indication that any collaboration takes place between the various entities conducting outreach efforts. The TMSC, which is representative of motorcyclists across the State, is not engaged to provide input or feedback on materials, and the networks of the representatives are not used to distribute materials and messages. With the many cooperative relationships established by TTI and the TMSC, there are many outlets by which outreach messages and educational materials could flow:

- Texas Confederation of Clubs & Independents
- Texas Motorcycle Roadriders Association
- Texas Motorcycle Rights Association
- TxDPS
- TxDOT District Offices
- Texas Education Agency
- Austin Police Department and other local law enforcement agencies
- Motorcycle safety instructors
- Motorcycle dealers
- Driver education instructors

Data is not used to determine messages or distribution outlets. There is no formal process for the identification of problem areas. The messages in the ad campaign were based on what was previously used and placement was made in high population areas. While this reaches a significant number of motorists, the concentration of messages may not be enough for impact. For example, two billboards were placed in each of the six population centers, but the location was not determined by crash locations. Instead, placement was based on availability of billboard space. There is no data to support the sole focus on motorist awareness; other crash causation factors—rider conspicuity, proper licensing, rider impairment, and helmet use—are not addressed at any significant level.

While there is ample data demonstrating the reach of the advertising campaign, there is no evaluation of the impact of the message or whether behaviors were changed as desired. The team also questions the return on investment for activities such as the public events and social media efforts. Information provided indicated that \$17,000 was spent to implement the six displays, where 583 pledge cards were signed. This is a cost of \$29 per card, with no indication that signing the pledge causes a driver to change behavior. There should be a plan to evaluate the media buy since it exceeds NHTSA's threshold of \$100,000 and requires evaluation.

TxDOT issues a new statement of work for the advertising campaign each year and is currently evaluating proposals for the 2014 campaign. The potential that a new agency could be selected each year causes concern about consistency and stability in these efforts.

There are no coordinated communications activities to promote motorcycle safety or include mentions of motorcycles within other outreach efforts. TxDOT and District

Offices distribute press releases to support enforcement mobilization efforts, but address motor vehicles broadly, with no mention of motorcycles.

Community groups, rider groups, motorcycle dealers, and driver license centers are not used to distribute motorcycle safety information. Partnering with these groups can expand the reach of the program's communications efforts. Testimony indicated that dealerships address personal protective equipment and the option of brightly colored/retroreflective clothing at point of sale, but they are not using the Gear Up, Texas! materials.

## **Recommendations**

- **Build the Texas Motorcycle Safety Coalition's contact database and utilize it to send information, updates, safety messages, etc. Utilize these networks to distribute materials and engage representatives to help staff booth/tables at rallies to take advantage of peer-to-peer contact at these community events.**
- **Develop Texas-specific motorcycle safety materials addressing impaired riding, licensing, and rider training. Utilize the relationship with the Texas A&M Transportation Institute to develop printed materials, create website resources, and cultivate grassroots efforts.**
- **Expand existing outreach plans to include:**
  - **A research component to identify problem areas to ensure that appropriate themes and messages are developed;**
  - **Goals and objectives with realistic and measurable outcomes;**
  - **Messages regarding the importance and availability of rider training, proper helmet and protective gear use, sharing the road, licensing, and the effects of alcohol on motorcyclists are included;**
  - **Definition of target audiences, including motorists, independent riders, sport bike riders, returning riders, etc.;**
  - **Use of appropriate multi-media channels;**
  - **A distribution plan for printed materials;**
  - **An evaluation component to measure pre- and post-campaign awareness and impact on motorist and motorcyclist behavior.**
- Include motorcycle messages (helmets) in existing occupant protection campaigns.
- Include language referencing motorcycles in Selective Traffic Enforcement Program media materials (e.g., impaired driving/riding, excessive speed, distracted driving/riding).

## **XI. Program Evaluation and Data**

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

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

### **Status**

The Texas Department of Transportation (TxDOT) Crash Data and Analysis Section is responsible for collecting and analyzing crash information. Crash information is collected through the Traffic Collision Report, CR-3, Texas Peace Officer's Crash Report. The Crash Reporting and Analysis for Safety Highways System (CRASH) is a free, secure internet application for law enforcement agencies to process the CR-3 report electronically. It is a component of the Texas Crash Records Information System (CRIS).

The CRASH system includes the following features:

- Ability to enter crash data over any internet connection
- Process supplemental reports easily
- Integrated diagramming tool
- Auto population of fields
- Touch-screen capabilities for Toughbooks
- Use of intersection templates
- Embedded help.<sup>1</sup>

TxDOT recently released the CRIS user interface, a service that contains all the data collected from the CR-3 that may be released to the public, per Texas Transportation Code 550.065. In addition to the CR-3 data, all crash records include interpreted data fields. Roadway attributes and location-specific data for crashes occurring on the state

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<sup>1</sup> TxDOT CRASH website - <http://www.txdot.gov/government/enforcement/law/crash-system.html>

highway system are also appended to each crash record.<sup>2</sup>

The Texas Trauma Registry was developed in partnership with TxDOT and the Texas Department of State Health Services (TxDSHS). When linked with CRIS, this system provides Emergency Medical Services and hospital data, for a much more robust data set of trauma from motor vehicle crashes.

The combination of CRIS, CRASH, and the Trauma Registry will improve the collection and accuracy of safety data, providing the TxDOT Traffic Safety Section and the Texas Department of Public Safety (TxDPS) motorcycle rider education program with abundant data and user-friendly access to real-time user-defined data.

The TxDPS motorcycle rider education program is responsible for maintaining the student records database. This is another robust resource that can be merged with the aforementioned databases to begin to learn more about the representation of former students in these crash data and to begin to assess the effectiveness of the rider training program and targeted initiatives.

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 does not 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 will be given to motorcycle crashes so critical causation factors can be identified. More in-depth analysis is needed to accomplish this.

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

Every effort should be made for TxDPS and TxDOT to collaborate on the aforementioned strategies and countermeasures in order to targeted and focus them. Texas motorcyclists will benefit from this “one voice” approach to targeted objectives.

DSHS reported that 29.5% of all motor vehicle injuries reported to the Trauma Registry are motorcycle injuries. This is an alarming figure. Further analysis should be completed to identify the target population and scope of behaviors or crash factors.

In 2012, the observed usage rate for motorcycle helmets was identified as 61.1%. It is suggested that annual helmet observational studies be completed to track and evaluate

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<sup>2</sup> CRIS Interface User Guide - [http://ftp.dot.state.tx.us/pub/txdot-info/trf/crash\\_statistics/automated/cris-guide.pdf](http://ftp.dot.state.tx.us/pub/txdot-info/trf/crash_statistics/automated/cris-guide.pdf)

the rate of helmet usage.

## **Recommendations**

- **Conduct an in-depth analysis of Texas motorcycle crash data to identify significant crash causation factors. Prioritize and incorporate emphasis in problem statements, rider training curriculum, and public information campaigns. Based upon these data, bring stakeholders together to collaborate on key factors that each entity can advance. Create a plan with measurable goals.**
- **Develop evaluation protocols in concert with the creation of strategies and countermeasures that can determine the value and effectiveness of implemented strategies and countermeasures.**
- **Share and communicate the effectiveness of strategies and countermeasures so other organizations, agencies, and communities can use them as best practices and adapt for their use.**

## **Credentials of Technical Assistance Team**

### **Richard O. Davis**

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

#### **Experience**

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

#### **Organizations/Appointments**

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

### **Stephen B. Garets**

Director, TEAM OREGON Motorcycle Safety Program, Oregon State University, Corvallis, OR

#### **Experience**

- DOT, NHTSA, Technical Team Member, States of Indiana, Maryland, Ohio, Oklahoma, and Texas
- National and international motorcycle safety consultant and advisor:
  - Rider training and education
  - Curriculum development
  - Research
  - Operator testing and licensing
  - Accident analysis
  - Expert witness
  - Highway safety
  - Public policy and administration

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- Lifetime motorcyclist

### **Organizations/Appointments**

- Chairperson, Motorcycle and Moped Committee (ANF30), Transportation Research Board (2006-2009)
- Member, Expert Panel on Program Standards for Beginning Motorcycle Rider Training, 2008
- Member, Motorcycle Technical Working Group, *Motorcycle Operator Licensing System*, American Association of Motor Vehicle Administrators (2006)
- Co-emphasis Area Manager, Motorcycle Guide; National Cooperative Highway Research Program, (2003-06)
- Member, Technical Working Group, National Agenda for Motorcycle Safety (1998-2001)
- Member, Transportation Research Board, Motorcycle and Moped Committee (1991-2006)

### **Andrew S. Krajewski**

Director, Driver Safety, Maryland Motor Vehicle Administration. Glen Burnie, MD

### **Experience**

- DOT, NHTSA, Technical Team Member, States of California, Colorado, Florida, Indiana (2), Massachusetts, Minnesota, Missouri (2), North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Washington, West Virginia, and Wisconsin (2)
- Director, Driver Safety, Maryland Motor Vehicle Administration (2008 – present)
- Director, Driver Programs, 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**

- AAMVA Stakeholders Advisory Group for Motorcycle Operator Manual and Knowledge Questions (2010)
- Chairperson, AAMVA Test Maintenance Subcommittee
- Development Team, National Standards for Entry Level Rider Training (2010)
- Development Team, National Model Administrative Standards for Rider Training
- Emphasis Team Leader, Aggressive Driving, Maryland Strategic Highway Safety Plan (2010-present)

- Development Team, AAMVA Guidelines for Motorcycle Operator Licensing (2008-2009)
- Instructor, Traffic Safety Institute, Motorcycle Safety Program Coordination (2008-present)
- Expert Panelist, Safe Motorcyclist Behavior (2008)
- Impaired Driver Coalition (2005-present)
- Co-Chairperson, Maryland Motorcycle Safety Coalition
- Chairperson, National Association of State Motorcycle Safety Administrators (SMSA) Executive Committee and designated state representative since 1984

### **Ron Miller**

Operations Coordinator, California Office of Traffic Safety, Sacramento, CA

### **Experience**

- DOT, NHTSA, Technical Team Member, State of Texas
- Operations Coordinator, California Office of Traffic Safety (2005-present)
- Motorcycle Safety Challenge Area – California Strategic Highway Safety Plan (2008-present)
- NHTSA Motorcycle Safety Program Coordinator Pilot Course, Participant/Evaluator (2008)
- Presentations on motorcycle safety activities to California motorcycle rights organizations, National Association for Women Highway Safety Leaders, Governors Highway Safety Association members
- Rider since 1981

### **Organizations/ Appointments**

- California Motorcyclist Safety Program Advisory Committee (2008-present)
- Traffic Advisory Committee, Judicial Council - Administrative Office of the Courts (2005-2013)

### **Carol A. Montoya, CAE**

President, Potomac Management Resources, Alexandria, VA

### **Experience**

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

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

### **Organizations/Appointments**

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

## **Assessment Agenda**

### **Sunday, February 23**

6:00 – 8:00 pm

#### **Welcome and Opening Reception**

Sam Aguirre, Lead Worker, Traffic Safety Section, TxDOT

Jim Hollis, Traffic Safety Branch Manager, Traffic Safety Section, TxDOT

Daniel Jeffries, Motorcycle Program Manager, Traffic Safety Section, TxDOT

Tracie Mendez, Traffic Safety Supervisor, Traffic Safety Section, TxDOT

Terry Pence, Traffic Safety Director, Traffic Safety Section, TxDOT

### **Monday, February 24**

8:00 am – 9:15 am

#### **State Highway Safety Office Programming and Management**

Jim Hollis, Traffic Safety Branch Manager, Traffic Safety Section, TxDOT

Daniel Jeffries, Motorcycle Program Manager, Traffic Safety Section, TxDOT

Tracie Mendez, Traffic Safety Supervisor, Traffic Safety Section, TxDOT

Terry Pence, Traffic Safety Director, Traffic Safety Section, TxDOT

9:15 am – 9:30 am

#### **Break**

9:30 am – 10:45 am

#### **Motorcycle Safety and Rider Training Program**

Cindy Flores, Motorcycle Safety Unit, TxDPS

Dave Metcalf, Motorcycle Safety Unit, TxDPS

John Young, Motorcycle Safety Unit, TxDPS

10:45 am – 11:45 am

#### **Motorcycle Rider Training Program Rider Coach Trainers**

Jeffrey del Castillo, RiderCoach

Keith Rovell, RiderCoach/Administrator, MRH Rider Training

Jude Schexnyder, RiderCoach, Motor Pro Training

11:45 am– 1:00 pm

#### **Lunch**

- 1:00 pm – 2:05 pm      **Motorcycle Rider Training and Education Site Administrators**  
Keith Rovell, RiderCoach/Administrator, MRH Rider Training  
Jude Schexnyder, RiderCoach, Motor Pro Training  
John Young, Motorcycle Safety Unit, TxDPS
- 2:05 pm – 2:30 pm      **Break**
- 2:30 pm – 3:30 pm      **Public Information and Education (outreach)**  
Michelle Hoelscher, Communication Specialist, Texas A&M Transportation Institute  
Debbie Murillo, Research Publications Designer, Texas A&M Transportation Institute  
Keith Rovell, Motorcycle Safety Unit, TxDPS  
Jude Schexnyder, Chairman, Texas Motorcycle Safety Coalition  
Melissa Walden, Ph.D., Research Scientist/Program Manager, Texas A&M Transportation Institute
- 3:30 pm – 3:45 pm      **Break**
- 3:45 pm – 4:45 pm      **Data Analysis and Crash Statistics**  
Terry Pence, Director, Traffic Safety Section, TxDOT  
Debra Vermillion, Director, Crash Data and Analysis Section, TxDOT  
Melissa Walden, Ph.D., Research Scientist/Program Manager, Texas A&M Transportation Institute
- 4:45 PM – 6:00 pm      **Day One Wrap-up**

**Tuesday, February 25**

- 9:15 am – 9:50 am      **Driver’s Licensing and Permit Procedures**  
Sonja Dixon, Lead Customer Service Representative, Driver’s License Division, TxDPS
- 9:50 – 10:10 am      **Break**
- 10:10 – 11:45 am      **Paid Media and Media Events**  
Melanie Fish, Media Relations Manager, Environmedia  
Summer Latham, Account Director, Environmedia  
Erica Mims, Account Manager, Environmedia  
Terry Pence, Director, Traffic Safety Section, TxDOT  
Marsha Scott, Program Manager, Traffic Safety Section, TxDOT

- 11:45 am – 1:00 pm      **Lunch**
- 1:00 pm – 2:15 pm      **FARS and Crash Records**  
 Sheronika Denson, Epidemiologist, Texas Department of State Health Services  
 Christopher Drucker, Epidemiologist, Texas Department of State Health Services  
 Rob Klein, Project Manager, Terry Pence, Director, Traffic Safety Section, TxDOT  
 Freddie Summer, Program Manager, TxDOT  
 Debra Vermillion, Director, Crash Data and Analysis Section, TxDOT  
 Shawn Wilkerson, FARS Lead, TxDOT  
 Tammy Sajak, Manager, Texas Department of State Health Services
- 2:15 pm – 2:30 pm      **Break**
- 2:30 pm – 3:35 pm      **TxDOT Highway Engineering**  
 Mark Bloschock, Engineer, Gibraltar Cable Barrier  
 Maurice Maness, Engineer, TxDOT
- 3:35 – 3:50 pm      **Break**
- 3:50 - 4:45 pm      **Texas Motorcycle Dealers**  
 Perk Bearden, Owner/Instructor, Texas Motor Sports  
 Catherine Bochat-Duross, Owner, Bodacious Bikes; Chair, Texas Motorcycle Safety Coalition Chair; Vice President, Texas Motorcycle Riders Association  
 Rick Strupkus, Program Director, Cowboy Harley Davidson  
 Keith Rovell, Manager, Motorcycle Rentals of Houston
- 4:45 – 6:00 pm      **Day Two Wrap-up**

**Wednesday, February 26**

- 8:15 – 9:00 am      **Law Enforcement**  
 Daniel Jeffries, Motorcycle Program Manager, Traffic Safety Section, TxDOT  
 Terry Pence, Director, Traffic Safety Section, TxDOT  
 Freddie Summer, Program Manager, TxDOT
- 9:00 - 9:20 am      **Break**

9:20 – 9:50 am	<b>Emergency Medical Professionals</b> Maxie Bishop, EMS Coordinator, TxDPS Linda Galvan, RN, Trauma Coordinator, St David's Georgetown Hospital
9:50 – 10:15 am	<b>Break</b>
10:15 – 11:10 am	<b>Regional Safety Programs</b> Rick Boland, AMSEP, Arlington ABATE Jason Roche, Outpost Safety & Awareness Coordinator, Confederation of Clubs and Independents Andy Stoodly, AMSEP, Texas ABATE Confederation
11:10 – 11:20 am	<b>Break</b>
11:20 am – 12:00 pm	<b>Law Enforcement</b> Kolby Musick, Trooper II, TxDPS Motor Unit Joseph Stephens, Trooper II, TxDPS Motor Unit
12:00 – 1:00 pm	<b>Day Three Wrap-up</b>
<b><u>Thursday, February 27</u></b>	
12:45 – 5:30 pm	<b>Team Deliberations</b>
<b><u>Friday, February 28</u></b>	
9:00 – 9:30 am	<b>Draft Recommendations Report Out</b>

## Abbreviations Key

The Team	Technical Assessment Team
AMSEP	ABATE Motorcycle Safety Education Program
ANSI	American National Standards Institute
BAC	Blood Alcohol Concentration
BRC	Basic RiderCourse
CRASH	Crash Reporting and Analysis for Safety Highways System
CRIS	Texas Crash Records Information System
DLD	Driver Licensing Division
DWI	Driving While Intoxicated
FARS	Fatality Analysis Reporting System
FFY	Federal Fiscal Year
FMVSS	Federal Motor Vehicle Safety Standards
MOM	Motorcycle Operator Manual
MSF	Motorcycle Safety Foundation
MSU	Motorcycle Safety Unit
NHTSA	National Highway Traffic Safety Administration
PSA	Public Service Announcement
RCP	RiderCoach Preparation Workshops
SFST	Standardized Field Sobriety Testing
STEP	Selective Traffic Enforcement Program
TVA	Technical Assistance Visits
TCOLE	Texas Commission on Law Enforcement
TMSC	Texas Motorcycle Safety Coalition
TSS	Traffic Safety Section
TTI	Texas A&M Transportation Institute
TxDPS	Texas Department of Public Safety
TxDOT	Texas Department of Transportation
TxDSHS	Texas Department of State Health Services