



2017-2021 West Virginia Strategic Highway Safety Plan

SAVING ONE LIFE AT A TIME
ZERO
FATALITIES



Zero fatalities – it is the unspoken, often unconscious goal every time we take a trip, run errands, or travel to our workplace. Yet each year nearly 300 individuals lose their lives on the roads and highways of West Virginia while more than 1,000 are seriously injured. Since the development of the first SHSP in 2007 until 2015, West Virginia successfully reduced motor vehicle fatalities by 38 percent and serious injuries by 79 percent. While I am proud of this work to date, even one death on our State’s roads and highways is too many. This is why I am pleased to join with safety stakeholders throughout West Virginia in promoting and supporting this Strategic Highway Safety Plan (SHSP). This plan outlines the steps we will take over the next several years toward our goal of Zero Fatalities.

For those of us who have chosen to build our careers in transportation related fields – whether highway engineering, law enforcement, emergency services, or other areas – there is no greater calling than ensuring our highway system operates as safely as possible for all those depending upon it. While our progress is impressive by any standard, our job is not finished.

We face many unique challenges in West Virginia. The mountains, rivers, and valleys that make us one of the most beautiful states in the nation also can create problems for travelers. Many of our roadways leave little room for error as drivers wind through our mountains. This requires that we look for new and innovative ways to keep vehicles on our roadways and provide the safest circumstances practicable for those who do leave the roadway. It further requires that drivers remain sober, alert, and attentive to the important task of driving. For these reasons, I applaud the solutions identified in this plan. It takes a multidisciplinary approach to solving transportation problems with strategies and actions that focus on the 4Es of safety – engineering, enforcement, education, and emergency medical services (EMS). West Virginia identified the most serious traffic safety problems and the strategies that will enable us to implement the programs, activities, and projects to solve them.

I charge all our safety stakeholders to remain involved and committed to the SHSP’s vision and mission as we implement this plan. Each of us has a role and must do our part to Save One Life at a Time, until we reach our goal of Zero Fatalities.

A handwritten signature in blue ink that reads "Thomas J. Smith". The signature is written in a cursive style and is positioned above a horizontal line.

Thomas J. Smith, P.E.
Secretary of Transportation/Commissioner of Highways

Partnership Pledge

We the undersigned are pledging our support for West Virginia’s vision of zero roadway fatalities as outlined in the State’s Strategic Highway Safety Plan (SHSP). We have collectively developed goals to help bring the zero fatalities goal to fruition. Virtually all road users want their family members, their friends, and themselves to reach their destinations safely every time they travel one of the State’s roads or highways.

We pledge to utilize the SHSP as a road map to provide needed direction for the implementation of projects and programs to allow every resident and visitor to West Virginia to reach their destination safely. While there is significant progress in reducing traffic fatalities and serious injuries since the adoption of the first SHSP in 2007, we understand that our job is far from over and that continued success toward our vision requires a strong partnership. As such, by signing this document, we pledge to do the following:

- Shepherd the strategies and action steps that relate to the work of our agency or organization;
- Support the strategies and action steps that relate to the work of partner agencies or organizations;
- Identify and help remove barriers that prevent implementation of these strategies and actions;
- Attend and participate, actively, in SHSP events whenever possible; and
- Serve as an ambassador for the Plan and for the goals of this Plan supporting the vision of Zero Fatalities.



Thomas J. Smith
 Thomas J. Smith, P.E.,
 Secretary of Transportation/Commissioner
 of Highways
 West Virginia Department of
 Transportation



Edward E. Stephen
 Edward E. Stephen, P.E.,
 Division Administrator,
 Federal Highway Administration,
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Colonel J. L. Cahill
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Elizabeth C. Baker
 Elizabeth Baker, Regional Administrator,
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 Region 3



Michael A. Albert
 Michael A. Albert, Chairman
 West Virginia Public Service Commission



Michael Myers
 Michael Myers, Division Administrator
 Federal Motor Carrier Safety Administration,
 West Virginia Division



Bill J. Crouch
 Bill J. Crouch, Secretary
 West Virginia Department of Health &
 Human Resources



J. William B. Austin
 J. William B. Austin, Chairman
 West Virginia Association of Metropolitan
 Planning Organizations

West Virginia's Highway Safety Management Task Force

In the mid-1990s, various officials with highway safety responsibilities in West Virginia recognized the value of banding together to advance highway safety. This resulted in the creation of the State's first Highway Safety Management Task Force. After a brief hiatus, the renamed Safety Management Task Force (SMTF) reconvened in late 2001 and met regularly to coordinate highway safety-related activities and programs and allowed participants to speak with one voice for greater safety impacts. After helping to develop the first SHSP in 2007, the Task Force revamped its purpose to focus primarily on the implementation and evaluation of the plan and adopted the following mission:

“Promote effective cooperation, participation, communication, and coordination among affected agencies, as well as to provide interagency support in the development and implementation of a statewide Strategic Highway Safety Plan.”

Today, the Task Force continues this mission as its more than 30 members provide oversight of the SHSP, including plan development, implementation, and evaluation. Recently, they worked diligently on the update that responds to the current traffic safety problems facing West Virginia. Members of the SMTF represent the following agencies and organizations:

- Alcohol Beverage Control Administration
- Beckley Police Department – Local Law Enforcement Representative
- Department of Education
- Department of Health & Human Resources
- Division of Highways
- Division of Motor Vehicles
- Federal Highway Administration, West Virginia Division
- Federal Motor Carrier Safety Administration, West Virginia Division
- Governor's Highway Safety Program
- National Highway Traffic Safety Administration, Region 3
- Office of the Insurance Commissioner
- Parkways Authority
- Public Service Commission of West Virginia
- State Police
- West Virginia Association of Metropolitan Planning Organizations
- West Virginia Commission on Drunk Driving Prevention
- West Virginia University Medicine - Jon Michael Moore Trauma Center

Thank You to Highway Safety Partners

The West Virginia SHSP is possible due to the help and support of public and private sector safety stakeholders who have devoted time, energy, and commitment to updating this plan. They are responsible for developing the action plans that continue the State's positive progress on reducing traffic-related fatalities and serious injuries. The organizations listed here work diligently to improve safety for those who use West Virginia's roadway transportation system and have lent their expertise and knowledge to this overarching plan that brings everyone together in pursuit of our most important goal – saving lives.

AAA

AARP West Virginia

Alcohol Beverage Control Administration

Beckley Police Department

Belomar Regional Council

Brooke-Hancock-Jefferson Metropolitan
Planning Commission

Department of Education

Department of Health and Human Resources,
Office of Emergency Medical Services

Department of Health and Human Resources,
Office of Maternal, Child and Family Health

Division of Motor Vehicles

Division of Highways

Division of Public Transit

Federal Highway Administration, West Virginia Division

Federal Motor Carrier Safety Administration,
West Virginia Division

Governors Highway Safety Program

Hagerstown/Eastern Panhandle Metropolitan
Planning Organization

KYOVA Interstate Planning Commission

Morgantown Monongalia Metropolitan
Planning Organization

Mothers Against Drunk Driving

National Highway Traffic Safety Administration, Region 3

Office of the Insurance Commissioner

Parkways Authority

Public Service Commission of West Virginia

Rahall Transportation Institute at Marshall University

Region 4 Planning & Development Council

Regional Intergovernmental Council, Region 3

Students Against Destructive Decisions

Supreme Court, Division of Administrative Services

West Virginia Oil Marketers & Grocers Association

West Virginia Chiefs of Police Association

West Virginia State Police

West Virginia University – Local Technical Assistance
Program

West Virginia University Medicine – Jon Michael Moore
Trauma Center

Wood Washington Interstate Planning Commission





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Executive Summary



Federal law requires all states to develop, update, and evaluate a Strategic Highway Safety Plan (SHSP) that identifies a state's most serious traffic safety problems and the strategies and actions to solve them. West Virginia used a data-driven, coordinated, collaborative approach involving Federal, State, regional, and local safety professionals and stakeholders to develop the SHSP and reduce roadway fatalities and serious injuries.

In 2007, the State developed the initial plan, which focused on nine specific emphasis areas. The West Virginia Safety Management Task Force (SMTF) oversaw the process and in 2009 reduced the emphasis areas to five. From that initial development in 2007 until now, each year there have been an average of 344 deaths on West Virginia roads and highways and an average of 2,800 serious injuries. While those numbers are unacceptable, there has been a decline in traffic related fatalities and serious injuries since implementation of that first plan.

This document chronicles the process West Virginia used to update the SHSP. The initial task was to determine what worked well and what elements would need improvement. A Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis found training and outreach to diverse audiences, new partners, and tailored social media messages could improve the SHSP. Other recommendations included the creation of an SHSP website and more outreach through community events. The following vision, mission, and goal guide the SHSP:

- Vision – Zero Fatalities...Saving One Life at a Time;
- Mission – To work cooperatively to improve roadway safety, thus saving lives and reducing injuries through the coordinated efforts of engineering, enforcement, education, and emergency medical services; and
- Goal – To achieve a 50-percent reduction in fatalities by 2030 and a 66 percent reduction in serious injuries by 2030.

This guidance is crucial for West Virginia, as the State faces unique challenges that can negatively affect roadway safety. These include a difficult economic situation, a declining and aging population, and an unforgiving mountainous terrain. Even faced with these circumstances, the State has reduced traffic related fatalities by 35 percent and an even greater drop of 81 percent for serious injuries between 2006 and 2015. This decline helped West Virginia achieve the primary goal for the 2007 SHSP, which was to experience fewer than 300 fatalities in one year. In 2014, the actual number of fatalities was 272. This number is still too high and that is why the State will work hard to implement the elements of the SHSP on the 38,864 miles of public highway, the majority of which are rural two lane roadways. The percentage of fatalities divides relatively evenly across the various road classifications in West Virginia with 25 percent occurring on U.S. Routes, 31 percent on West Virginia Routes, and 29 percent on county routes. When it comes to who is involved, males (74 percent) as opposed to females (26 percent) are involved in the majority of fatal crashes, and there is a disproportionate number of fatalities for young drivers age 15 to 24.



The SMTF reviewed this type of data to determine the SHSP emphasis areas that will be the focus for future investment decisions and the implementation of the plan's projects, programs, and activities. The following are the emphasis areas for the 2017-2021 plan:

- Roadway departures,
- Alcohol and drug impaired driving,
- Occupant protection,
- Speeding and aggressive driving, and
- Improving highway safety data.

Each emphasis area includes action plans that utilize the four “E’s of Safety” - engineering, enforcement, education, and emergency medical services – to guide the implementation of proven programs and activities and focus future investment decisions. Action plans for the five emphasis areas include strategies, action steps, champions and performance measures are included in the Appendix. The last part of the update process is the approval of the plan by the Governor or the responsible state official the Governor designates. For West Virginia, Secretary of Transportation/Commissioner of Highways Thomas J. Smith will approve the updated SHSP.

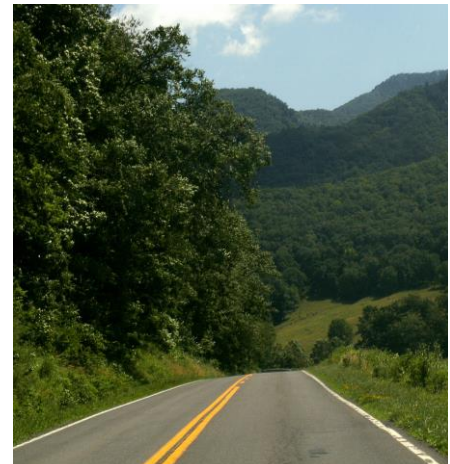
Now that the update is complete, the SMTF will focus on implementing the plan. This will involve tracking progress on implementing the plan's strategies and actions; determining the effectiveness of the various projects and programs; identifying and overcoming barriers; and providing guidance on the safety efforts in the State. The SMTF will also want to determine the approach for future updates, and work on data needs and improvements, which is critical to the success of the SHSP. Evaluation will take on added importance since West Virginia wants to know where limited resources will achieve the greatest benefit. To ensure the plan evaluation, the State will create an evaluation plan that will examine the effectiveness of the effort and whether West Virginia is meeting its goals.



Introduction

Over the 10-year period between 2006 and 2015, an average of 344 individuals lost their lives and an average of 2,800 were seriously injured on West Virginia roads and highways each year. West Virginia’s SHSP is a comprehensive plan that sets the State’s vision for eliminating roadway fatalities while substantially reducing the occurrence of serious injuries.

West Virginia’s SHSP is a statewide, data-driven, and coordinated plan to reduce those roadway fatalities and serious injuries. It was developed through a collaborative process involving Federal, State, regional and local safety professionals and stakeholders working together to address the State’s most serious traffic safety problems. These stakeholders came from a wide range of backgrounds representing the 4Es of safety – engineering, education, enforcement, and emergency services. The plan also considered other relevant State safety plans such as the Highway Safety Improvement Program (HSIP), Highway Safety Plan (HSP), and the Commercial Vehicle Safety Plan (CVSP). Development of the plan included extensive data analysis to identify the traffic safety issues that result in the greatest number of these deaths and serious injuries, which resulted in the selection of five emphasis areas. The plan establishes common goals and outlined strategies for the most effective solutions within each emphasis area.



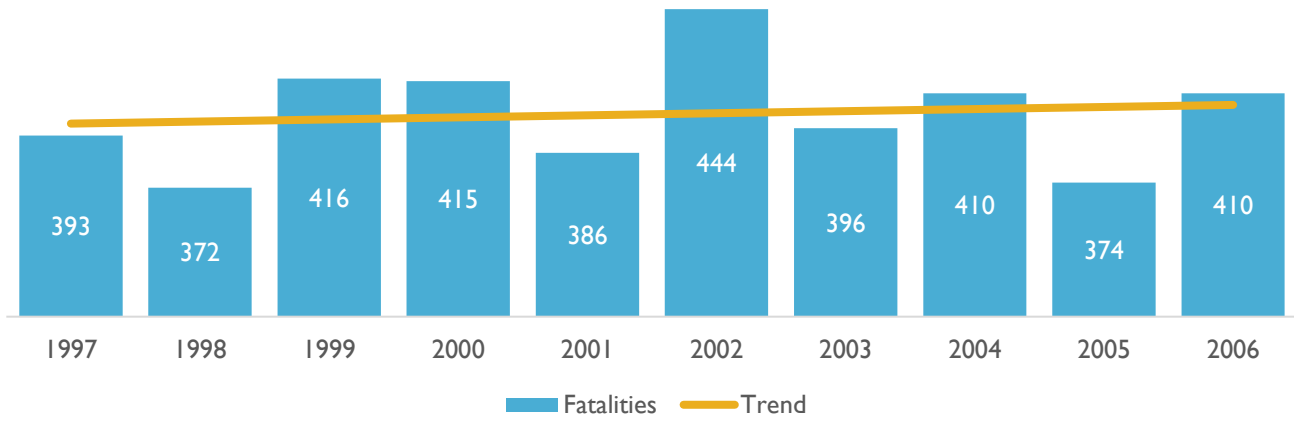
SHSP Overview and Update

2007 SHSP

The SHSP for West Virginia has been an iterative process starting with the first plan in 2007. The reason for developing a SHSP for West Virginia was as clear as it was nationwide. Mirroring what was happening at the national level, for more than a decade, traffic related fatalities and serious injuries had remained relatively stagnant, even trending slightly upward in the State as shown in Figure 1.



Figure I. West Virginia Motor Vehicle Fatalities, 1997 to 2006



To encourage widespread participation and interest, West Virginia’s first SHSP included nine specific emphasis areas:

- Lane Departure and Minimizing its Effects;
- Impaired Driving;
- Speeding/Aggressive Driving;
- Occupant Protection;
- Crash Survivability and Emergency Medical Services;
- At Risk Driver and User Groups;
- Highway Safety Data Improvements;
- Commercial Motor Vehicles; and
- Continuing Successful Safety Programs and Initiatives.

It quickly became clear, however, that to achieve real results and wisely use West Virginia’s limited resources, it would be necessary to further focus and limit the number of SHSP emphasis areas, which the State did in 2009 reducing the number to five:

- Roadway Departure
- No/Improper Occupant Protection Use
- Impaired Driving
- At Risk Driver Age Groups
- Improving Highway Safety Data

Also in 2009, the SMTF took on oversight of the SHSP to ensure that a constant focus remained on the vision and goal. Additionally, the SMTF established a process for the ongoing review of progress in implementing the strategies and actions in the plan.

Accomplishments

West Virginia began to see a steady decline in both highway fatalities and serious injuries following the implementation of the first SHSP in 2007. Some of the major accomplishments achieved since 2007 include the following:

- Exceeded the goal set by the 2007 and 2009 SHSP documents to reduce fatalities to no more than 300.
- Installed various engineering improvements to high risk roadway departure locations throughout the State, including
 - high-friction surface treatments;
 - shoulder and edge line rumble strips;
 - guardrail in high risk locations; and
 - enhanced traffic control devices.
- Used 6” longitudinal pavement markings system wide to improve lane delineation.
- Increased seat belt use to nearly 90 percent through passage of a primary seat belt law.
- Expanded the Child Passenger Safety program to 23 counties and 45 fitting stations.
- Trained 11,075 motorcycle riders in the basic rider course since 2007.
- Sustained the State’s mandatory helmet law in spite of multiple attempts to have it repealed.
- Established a Drug Recognition Expert (DRE) program to assist in identification and arrest of individuals impaired by drugs in 2013; the program had 26 DREs available to conduct impaired driving evaluations in 2016.
- Improved the State’s Driving Under the Influence (DUI) laws by:
 - Increasing DUI training requirements for law enforcement;
 - Permitting offenders who waive an administrative hearing to “opt-in” to an ignition interlock without serving any hard time license revocation;
 - Adding a new offense of aggravated DUI (.15 Blood Alcohol Concentration (BAC) and above) to the West Virginia State Code that requires mandatory Interlock participation;
 - Passing an open container law;
 - Increasing penalties for DUI causing death or injury with a minor operating while driving under the influence of drugs or alcohol;
 - Allowing for expungement of criminal charges for first offense low BAC offenders upon completion of an Ignition Interlock Program; and
 - Mandating training of all law enforcement officers on the proper identification of drug-impaired drivers.
- Established a separate office to handle driver’s license revocation hearings.
- Passed a cell phone/texting ban while driving which prohibits texting or the use of a cell without hands free technology while operating a motor vehicle (July 2012). The number of drivers found guilty of using a cell without hands free technology while operating a motor vehicle averaged 12 per month statewide ten months after passage of the ban, which rose to 389 per month in 2016.
- Implemented ReportBeam as an Electronic Highway Safety Data Collection System for all law enforcement agencies.
 - Reporting crashes using the electronic crash report statewide by all law enforcement agencies
 - Increasing the issuance of electronic citations to 53 law enforcement agencies since it became available in 2015.
- Completed the first phase of the new safety management system through the State’s Enterprise Resource Planning (ERP) project, which allows for safety analysis under the HSIP program. Additional planned phases will enable the new system to integrate with the State Transportation Improvement Plan (STIP) process as well as with West Virginia’s other safety management functions.
- Established electronic transmission of the disposition from magistrate court cases.
- Created an in-house Law Enforcement Activity Database for tracking grant related enforcement activities.
- Increased compliance with enforcement of the compulsory insurance law resulting in more accurate vehicle records.
- Implemented systemic signal improvements at high-speed intersections.



Requirements

Following the success of the first round of SHSPs, Federal law has continued to require states to develop an SHSP and in the most recent legislation regular updates of the plan are required every five years. Other requirements added and strengthened in the most recent Transportation Acts include:

- Development of fatality and serious injury safety performance targets for the annual HSP and the HSIP, which will be coordinated with the five year SHSP goals;
- An increase in stakeholder involvement;
- A data driven approach to safety;
- Consideration of other safety factors, e.g., locations with risk factors, high-crash locations, rural roads, and road safety audit findings;
- Integration with other State and regional transportation plans;
- The inclusion of the state's definition of high-risk rural roads and whether the state meets the rule on the fatality rate on these roadways;
- A focus on the use of proven effective strategies and countermeasures; and
- Identification of methods to evaluate the SHSP.

High Risk Rural Road Program

23 USC 148(a)(1) assigns states the responsibility of utilizing their SHSPs to define “significant safety risks” on High Risk Rural Roads (HRRR), which are roadways functionally classified as a rural major or minor collector or a rural local road that have fatal or serious injury crash rates above the statewide average for county routes. While there was an elimination of the \$90 million set-aside for HRRR program, a special rule for high-risk rural road safety was established. The rule requires that when the fatality rate on a state's rural roads, as previously defined, increases over the most recent two-year period for which data is available; the state must obligate an amount equal to 200 percent of its FY 2009 HRRR set-aside. The use of these funds must address the significant safety risks of the state's HRRRs as defined in the state's SHSP.

To date, West Virginia has not experienced an increased fatality rate on its rural roads for two years in a row. However, should this occur in the future West Virginia would be required to obligate approximately \$1.6 million to HRRR. Prior to the elimination of the HRRR set-aside, West Virginia focused funding on the State's county routes, which generally correlate to rural collectors or rural local roads. It has traditionally been difficult to allocate HSIP funds to these routes since they are the most rural and low volume, which often results in losing out to projects on routes with higher classifications. The availability of HRRR funding provided DOH with the ability to implement safety improvements on routes that might otherwise have never been identified as the most severe safety need. As the safety needs of the county route system outweighed the HRRR funding, DOH gave funding priority to those county routes identified in the previous year's transparency report for county routes. While the State no longer publishes a transparency report, a similar process for identifying and ranking county routes that are showing significant safety risks would be utilized in the event the special rule is triggered. However, the additional criteria of roadway departure crashes would be added as those type crashes most frequently result in fatalities and/or serious injuries within the State.



Strengths, Weaknesses, Opportunities and Threats

At the beginning of the update, West Virginia conducted a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis to determine what had been going well with the SHSP and identify areas for improvement. The effort involved interviews with key stakeholders and an analysis of the results to provide the SMTF with guidance on next steps and plan content. The SWOT revealed the 2007 SHSP was an admired, comprehensive document that ensured prioritization of planning and safety efforts, and involved a large and diverse group of members. Weaknesses included a loss of momentum in tracking performance measures, limited staffing, and funding resources, data gaps, and a lack of involvement by executive level and legislators as well as a lack of public information about the SHSP.

The SWOT revealed opportunities to improve the SHSP through training and outreach to diverse audiences, inviting additional partners to the effort, and tailoring messages to reach various audiences through social media, an SHSP website, and community events. Data driven metrics limitations, funding constraints, and changes in management and leadership are potential threats to the overall plan. After a discussion of the SWOT results, the SMTF reevaluated the mission and goal, selected emphasis areas and established measurable goals.

Vision, Mission, and Goal

No one expects to give up their life or the life of a friend or loved one when they use the State's roads and highways. That is why adopting a Zero Fatalities vision for SHSP was an easy choice for stakeholders. They also recognized it is not one person's battle, but a team effort. Adopting the national goal of halving fatalities by 2030 seemed to be a good first step towards obtaining the vision of Zero Fatalities; however, as serious injuries in the State were declining at a more rapid rate than fatalities, the SMTF established a more ambitious reduction of a 66 percent for serious injuries.

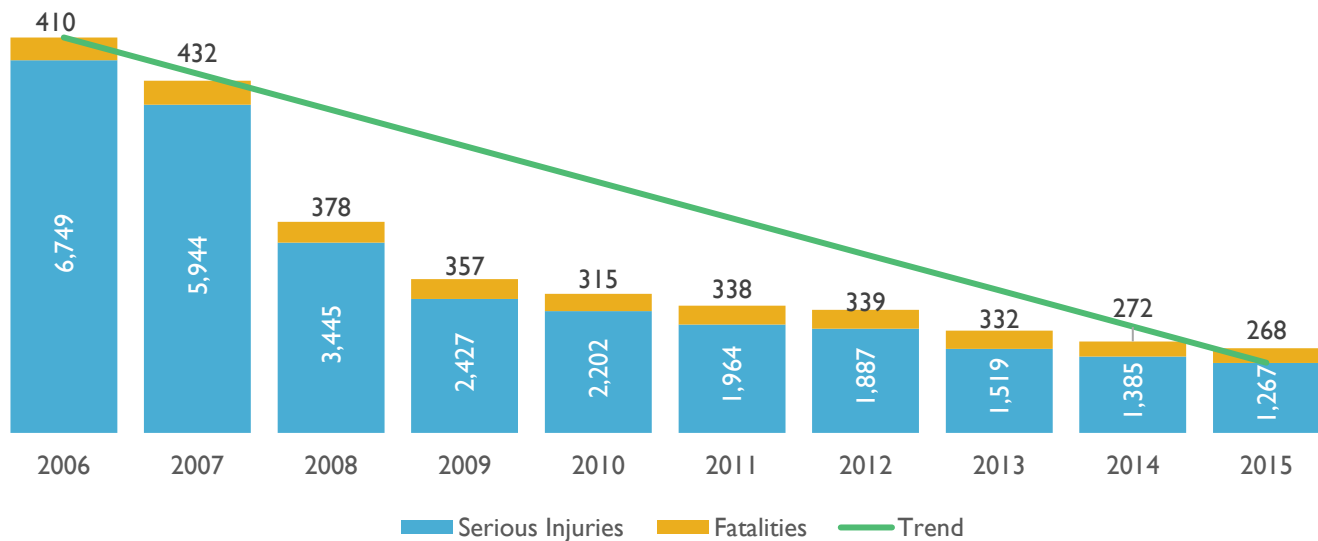
VISION	Zero Fatalities...Saving One Life at a Time
MISSION	To work cooperatively to improve roadway safety, thus saving lives and reducing injuries, through the coordinated efforts of engineering, enforcement, education, and emergency medical services.
GOAL	To achieve a 50 percent reduction in fatalities by 2030, and a 66 percent reduction in serious injuries.

Data Analysis

Through the SHSP update, the SMTF focused on a detailed analysis of highway safety data to better define the safety problems within the State and to guide the selection of emphasis areas. Tailored solutions for each emphasis area used subsets of that data.

West Virginia faces several challenges including a difficult economic situation, a declining and aging population, and an unforgiving mountainous terrain, all of which can negatively affect highway safety in the Mountain State. Despite these challenges, West Virginia made substantial progress in reducing the number of fatalities and serious injuries. From 2006 to 2015, as shown in Figure 2, fatalities dropped 35 percent and serious injuries declined an amazing 81 percent. During this time, the State achieved the interim goal of the 2007 SHSP when there were fewer than 300 fatalities in 2014.

Figure 2. Statewide Fatalities and Serious Injuries, 2006 to 2015

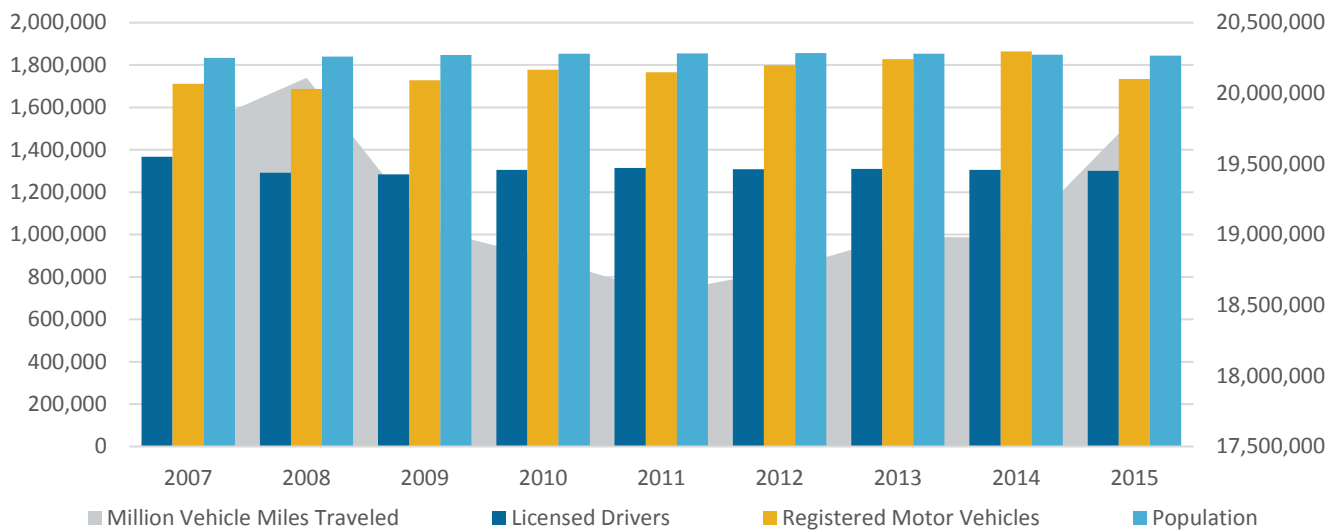


Although the reduction in fatalities was commendable, declining vehicle miles traveled (VMT) and a stagnant population left the State with a rate of fatalities per million VMT from 2006 to 2015 that ranks 11th highest in the nation (tied with Oklahoma) and a rate of fatalities per population that ranks 11th highest (tied with Florida and Tennessee).¹ This led to the recognition of the importance of reducing the actual numbers of fatalities and serious injuries and their associated rates when updating the plan.

The number of licensed drivers and vehicles has remained consistent since the development of first SHSP while VMT declined slightly. Figure 3 shows the breakdown of licensed drivers, registered vehicles, and VMT. That these numbers have remained relatively the same is what makes the progress West Virginia achieved over the last decade more remarkable.

¹ Insurance Institute for Highway Safety, Highway Loss Data Institute, 2015 <http://www.iihs.org/iihs/topics/t/general-statistics/fatalityfacts/state-by-state-overview/2015>.

Figure 3. Population, Driving Licenses, Vehicle Registrations and Vehicle Miles Traveled



Source: West Virginia Department of Transportation, Division of Motor Vehicles.

Currently West Virginia has 38,864 miles of public highway with the vast majority being rural two-lane roadways. The mountainous terrain enjoyed by residents and visitors, however, is difficult to navigate and demands the full attention of drivers. In many places, the consequences of departing a roadway results in a nearly impossible recovery option as there may be a mountain face on one side of the roadway and a sharp drop over a steep slope on the other. Figure 4 shows where fatalities occur by road type. Local streets (6 percent) and interstates (9 percent) have the lowest number of fatalities. U.S. Routes (25 percent), West Virginia Routes (31 percent), and County Routes (29 percent) divide the remaining evenly.

Figure 4. West Virginia Fatal Crashes by Road Type, 2006 to 2015

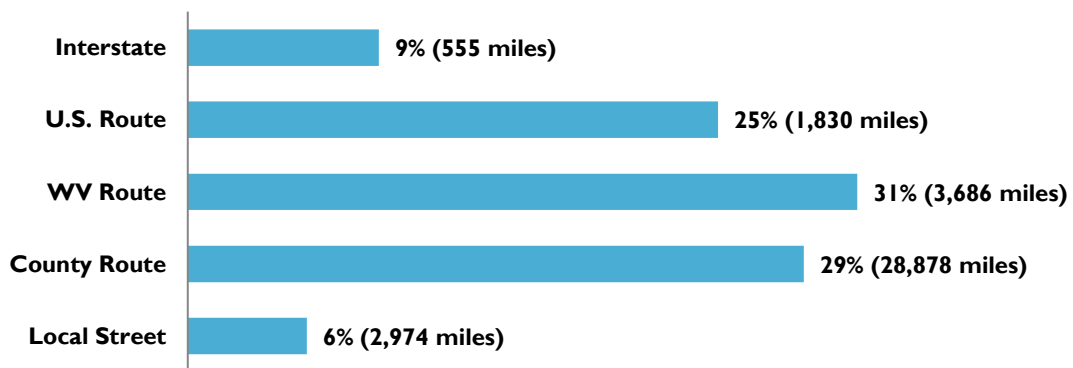
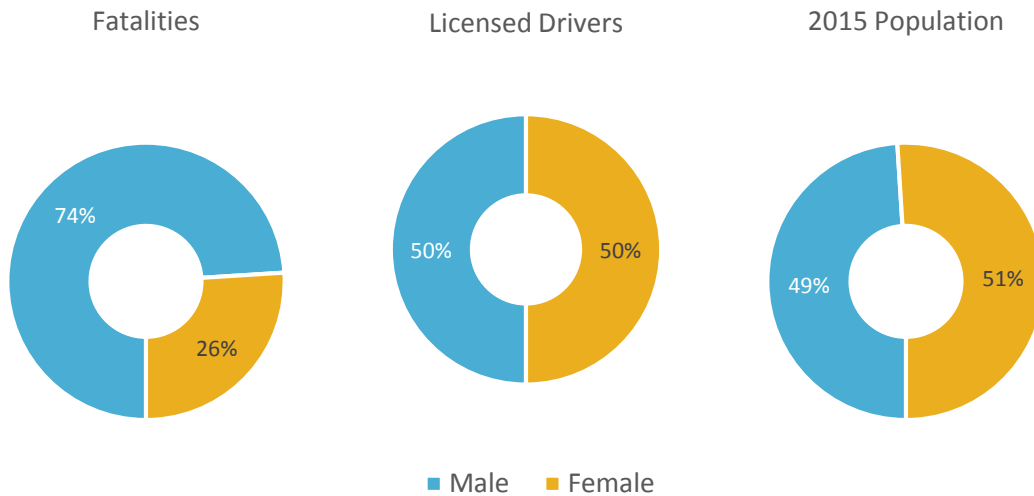


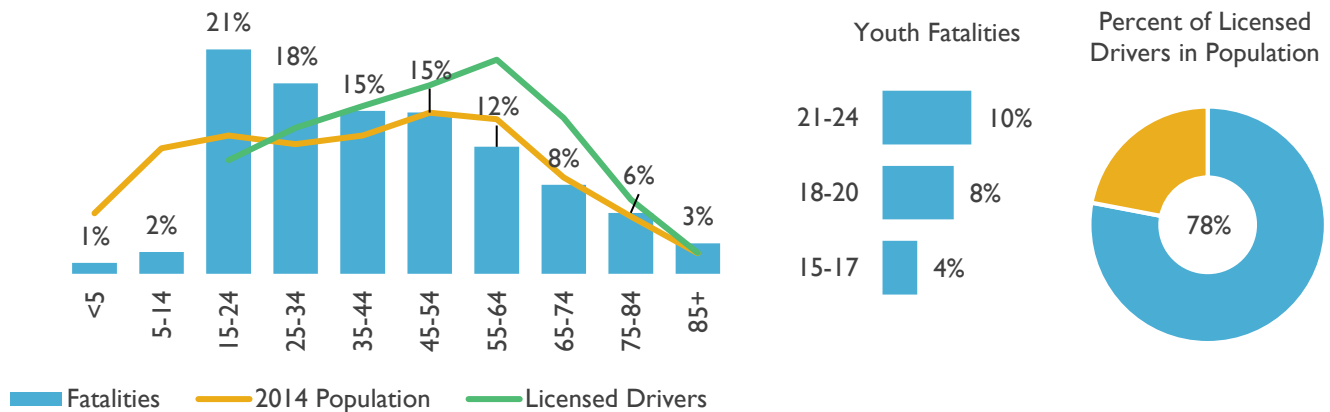
Figure 5 shows that while populations of males and females are even, there are more male fatalities (74 percent) than female fatalities (26 percent).

Figure 5. Statewide Fatalities, Licensed Drivers, and Population, 2015



In West Virginia, the majority of fatalities involve young people age 15 to 24 as shown in Figure 6. Young drivers are over represented in fatal crashes as indicated by the gold line (population) and the green line that shows the number licensed drivers.

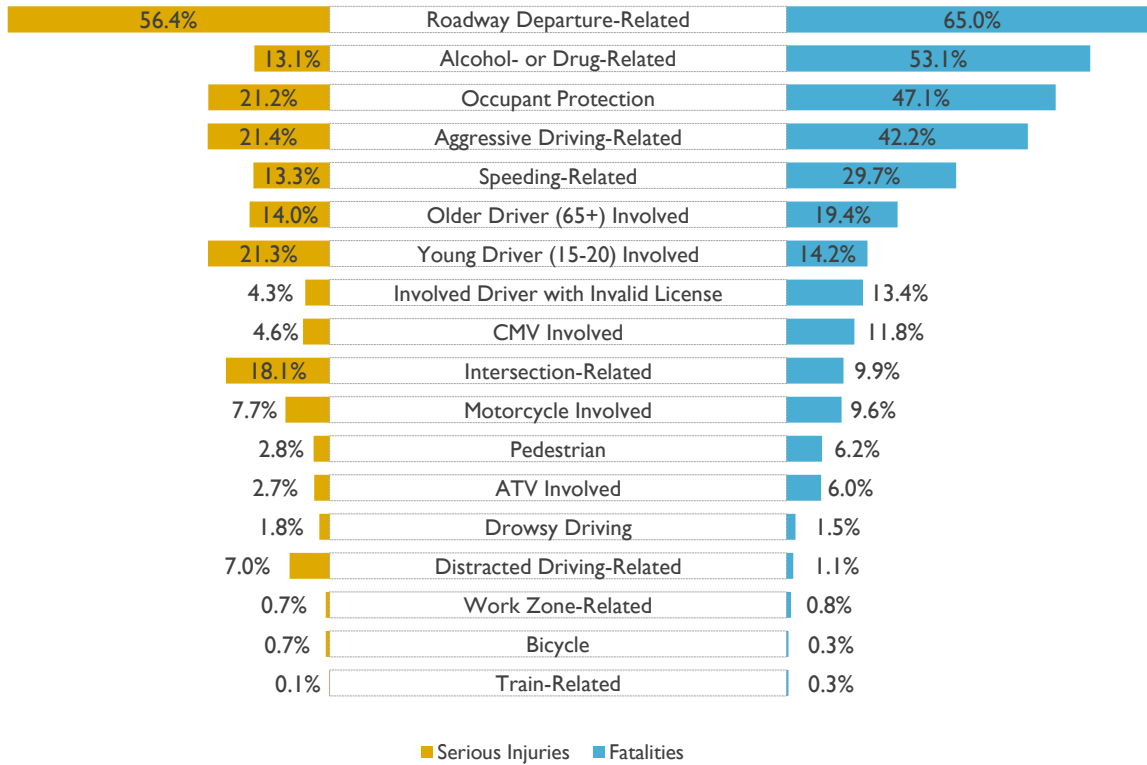
Figure 6. West Virginia Fatalities by Age, 2006 to 2015



The SMTF examined the number of fatalities and serious injuries for a variety of traffic safety problems as shown in Figure 7. The majority of fatalities and serious injuries are caused by roadway departures followed by alcohol and drug impaired driving, occupant protection, and speed and aggressive driving. A traffic crash rarely has one cause, which means that programs and projects that reduce fatalities and serious injuries resulting from one type of crash can also reduce fatalities and serious injuries resulting from another type of crash. For example, countermeasures focused at reducing roadway departure fatalities and serious injuries also can reduce impaired driving, occupant protection, speeding, etc. Speeding and aggressive driving are shown

separately in Figure 7. During the emphasis area selection process, the SMTF decided to combine the two categories into one emphasis area, thus, speeding and aggressive driving are combined in similar figures throughout this document.

Figure 7. Statewide Fatalities and Serious Injuries by Related Factors





Emphasis Areas

Data is critical to the SHSP process. Data helped identify the emphasis areas, prioritize traffic safety problems, influence appropriate strategies and actions, track progress, and evaluate results. A review of the data by the SMTF led to the selection of the following emphasis areas that will be the focus of investment decisions and implementation of proven programs and activities in the implementation of the 2017 SHSP.

	Roadway Departures		Alcohol and Drug Impaired Driving
	Occupant Protection		Speeding and Aggressive Driving
	Improving Highway Safety Data		

Each emphasis area includes a brief paragraph describing the issue along with data to show the extent of the problem, the goal for that emphasis area, and the strategies that will achieve the goals. The action steps to implement each strategy are included in the appendix.





Roadway Departure

The Problem

Roadway departure accounts for the majority of severe traffic crashes in West Virginia. The definition of a roadway departure crash is a non-intersection crash during which at least one involved vehicle: ran off either side of the road; crossed the centerline or median; went airborne or struck a fixed object (such as a tree, pole, barrier, or other obstruction). Since 2006, roadway departure fatalities decreased 43 percent in West Virginia; however, alarmingly at 65 percent of all fatalities they still represent nearly 12 percent more fatalities than the closest category.



Figure 8 shows that in West Virginia roadway departures account for 65 percent of all fatalities and 56 percent of all serious injuries. Between 2006 and 2015, over 2,200 people died due to a roadway departure crash.

Figure 8. Roadway Departure Fatalities and Serious Injuries, 2006 to 2015

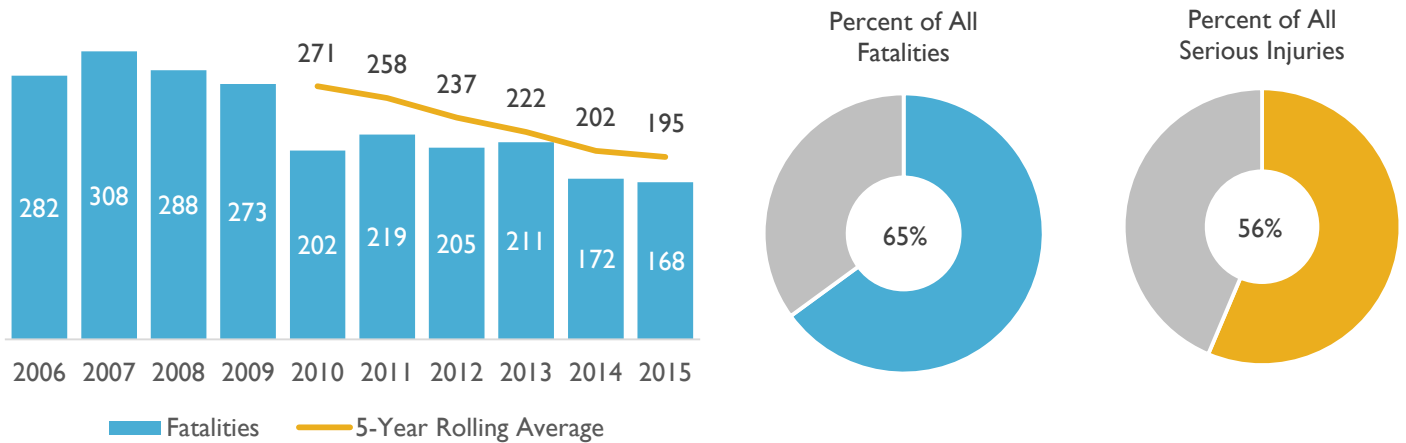
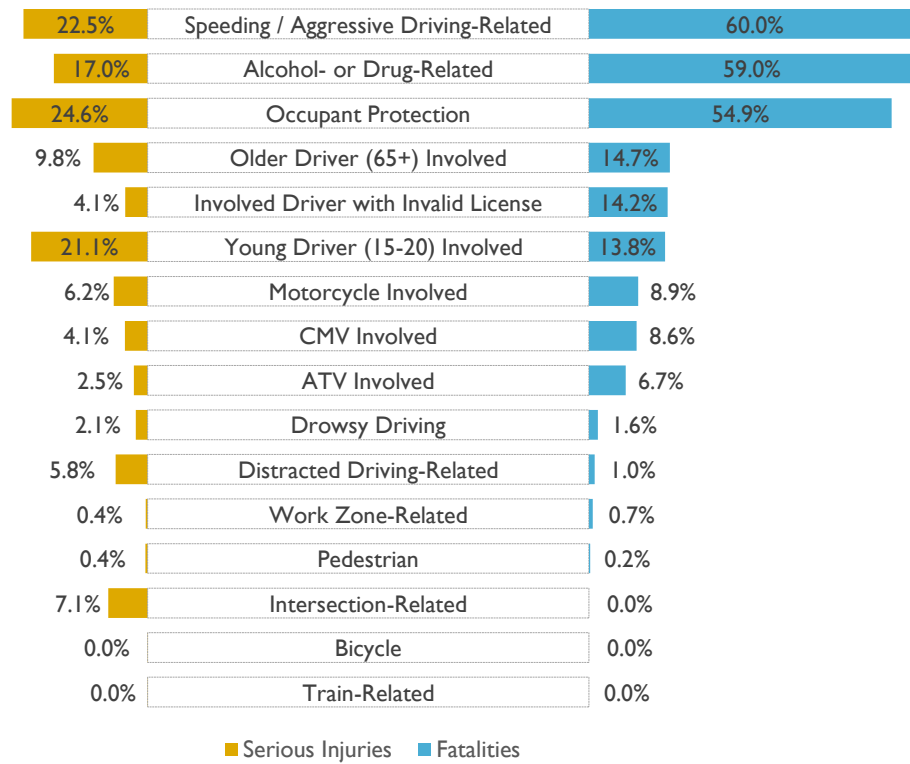


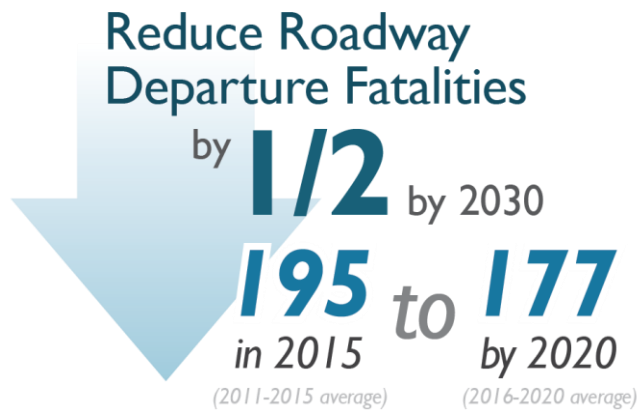
Figure 9 illustrates that each of the selected emphasis areas are interrelated. Of all the roadway departure fatalities, 60 percent involve speed and aggressive driving, while 59 percent are impaired driving related, and nearly 55 percent involved someone not using a seatbelt, child safety seat, or a helmet appropriately. While not as dramatic, a similar relationship exists for serious injuries.

Figure 9. Roadway Departure Emphasis Area Relational Factors



The Goal

The roadway departure goal for West Virginia over the next five years is the following:



The SHSP Solution

Strategy 1

Keep vehicles on the road through expanded use of High Friction Surface Treatments (HFST).

Strategy 2

Keep vehicles on the road by using rumble strips and similar treatments.

Strategy 3

Keep vehicles on the road through improved delineation of curves.

Strategy 4

Keep vehicles on the road through enhanced use of pavement markings.

Strategy 5

Keep vehicles on the road by using highway lighting.

Strategy 6

Keep vehicles on the road through the expanded use of Intelligent Transportation Systems (ITS) and analysis of the data collected through ITS.

Strategy 7

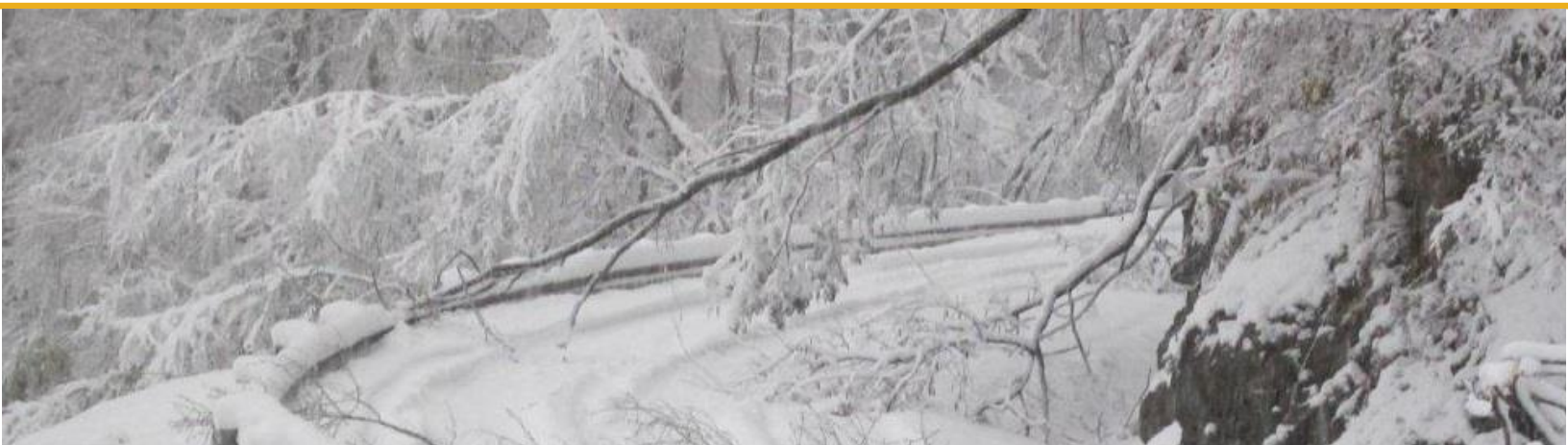
Minimize the consequences of leaving the roadway through the expanded use of Safety Edge.

Strategy 8

Minimize the consequences of leaving the roadway by removing, relocating, or protecting roadside obstacles.

Strategy 9

Educate the public on the dangers of roadway departure.





Alcohol and Drug Impaired Driving

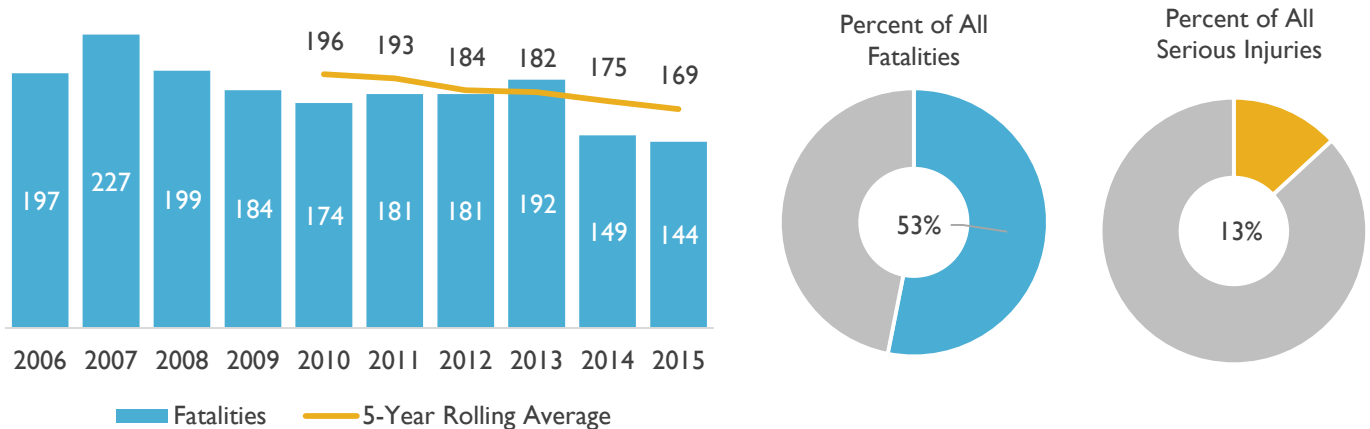
The Problem

In West Virginia, impaired driving contributes to more than half of the crashes resulting in fatalities. Historically, the majority of these crashes have involved alcohol impairment; however, more recently the State has seen an increase in the number of drug impaired crashes. Forty three percent of alcohol or drug impaired crashes involve alcohol only, 32 percent involve drugs only, and 26 percent involve both.



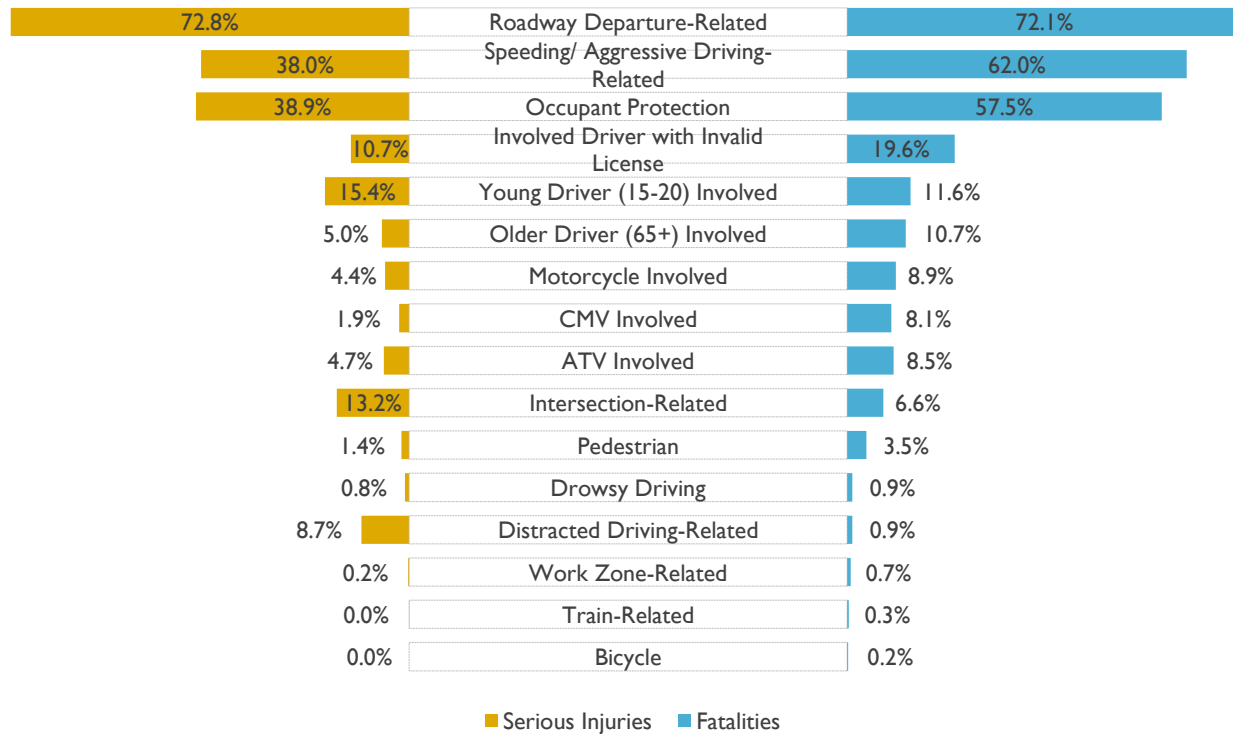
Between 2006 and 2015, alcohol- or drug-related fatalities represented 53 percent of all fatalities and 13 percent of all serious injuries as shown in Figure 10. This represents over 1,800 deaths in the State during that period.

Figure 10. Alcohol and Drug Impaired Driving Fatalities and Serious Injuries, 2006 to 2015



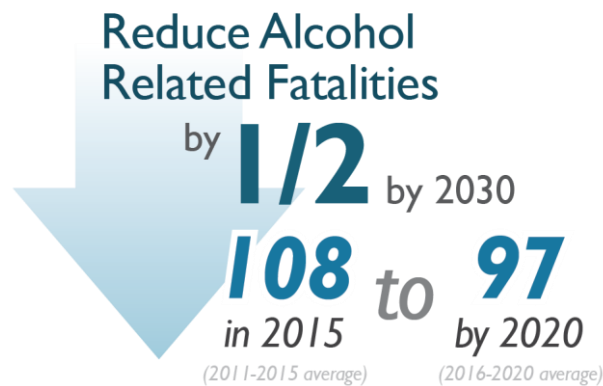
Unfortunately, alcohol or drug use often goes hand in hand with other risky behaviors. As indicated in Figure 11 below, impaired driving fatalities often overlap with those related to other risky behaviors, including speeding and aggressive driving (62 percent); safety belt use (nearly 58 percent); and driving on a suspended or revoked license (nearly 20 percent).

Figure 11. Impaired Driving Emphasis Area Relational Factors



The Goal

It is recognized that drug impaired crashes are on the rise in the State, however, a lack of consistent and well understood data to support this resulted in the decision to utilize alcohol involved crashes to measure progress within the impaired driving emphasis area. Drug impaired crash data will continue to be monitored and enhanced throughout the life of this Plan. The alcohol impaired driving goal for West Virginia over the next five years is the following:





The SHSP Solution

Strategy 1

Conduct high-visibility impaired driving enforcement activities.

Strategy 2

Focus on the identification and arrest of impaired drivers during routine patrols.

Strategy 3

Enhance training available to the State's law enforcement officers, prosecutors, and judges for thorough and effective adjudication of impaired driving offenders.

Strategy 4

Expand impaired driving related communications and outreach.

Strategy 5

Improve impaired driving education for high-risk groups including underage drinkers and repeat offenders.

Strategy 6

Reduce repeat impaired driving offenses by strengthening programs, policies, regulations, and legislation.





Occupant Protection

The Problem

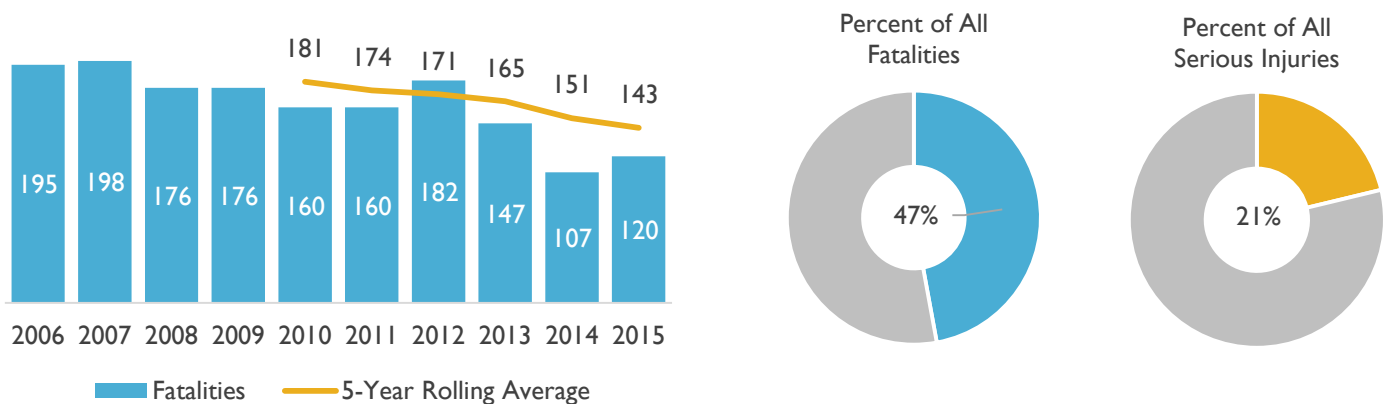
West Virginia considers seatbelts, child passenger safety seats and helmets occupant protection. Not using or improperly using this equipment is associated with 47 percent of the State’s motor vehicle fatalities, as well as contributing to 21 percent of all serious injuries. The number of occupant protection-related fatalities has decreased dramatically since 2006 to 120 fatalities in 2015; however, they continue to result in a significant number of fatalities and serious injuries annually.



According to seat belt surveys conducted in West Virginia, seat belt use rates range between 82 and 89 percent. However, unbelted fatalities continue to account for a significant percentage of total fatalities and serious injuries. A lack of occupant protection accounts for 47 percent of all fatalities and 21 percent of all serious injuries as shown in Figure 12.

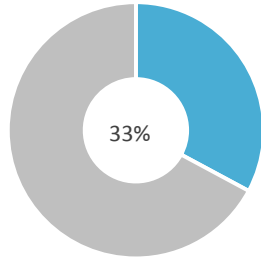
While adult non-use of seat belts accounts for the largest percentage of these fatalities and serious injuries, there are other problems, which are included in the totals including a lack of child passenger safety device use, and the non-use of helmets for motorcycle and all-terrain vehicles (ATV) riders (West Virginia allows the use of ATVs on state roadways). Between 2006 and 2015, over 1,600 people died when not using a seat belt, child safety seat, or helmet. Figure 12 also shows the percentage child safety seat/booster fatalities and serious injuries; motorcycle fatalities and serious injuries with helmet use, and of ATV fatalities and serious injuries with helmet use on the following page. A lack of helmet use or the use of uncertified helmets resulted in a quarter of the motorcycle fatalities that occurred between 2011 and 2015. In each instance, these protective devices can substantially reduce the likelihood of death or serious injury in the event of a crash

Figure 12. Occupant Protection Fatalities and Serious Injuries, 2006 to 2015

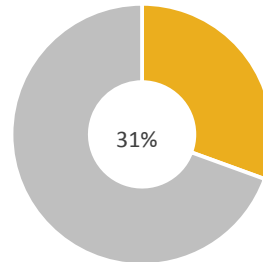




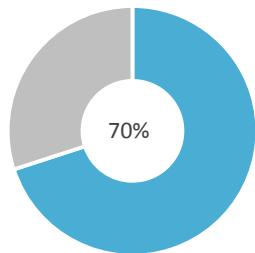
Percent of Child Fatalities (Aged 10 and Under) Using Child Safety Seat/ Booster



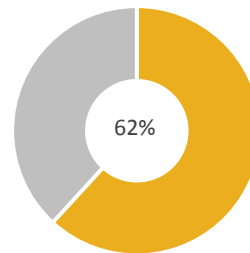
Percent of Child Serious Injuries (10 and Under) Using Child Safety Seat/ Booster



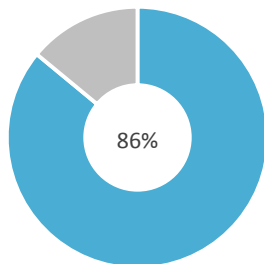
Percent of Motorcycle Fatalities with Helmet Used



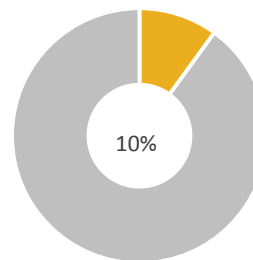
Percent of Motorcycle Serious Injuries With Helmet Used



Percent of ATV Fatalities with Helmet Used



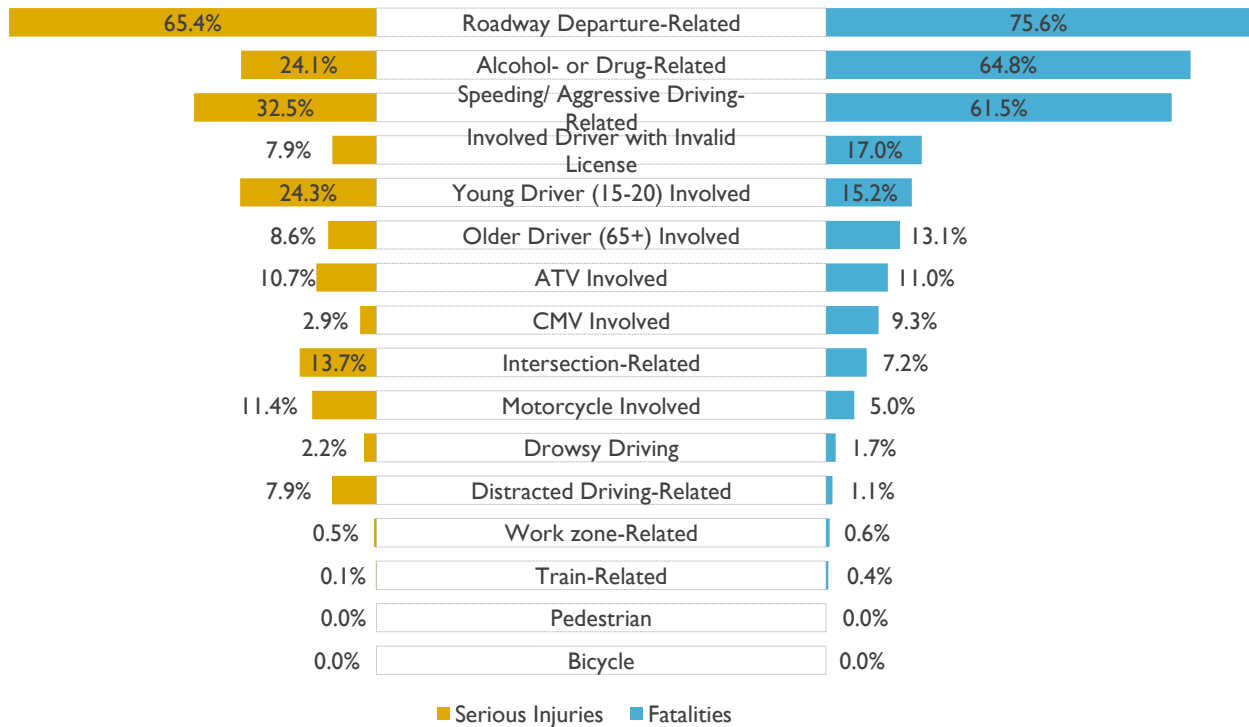
Percent of ATV Serious Injuries with Helmet Used



■ Serious Injuries ■ Fatalities

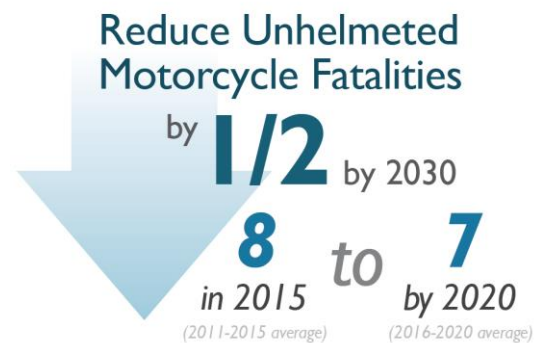
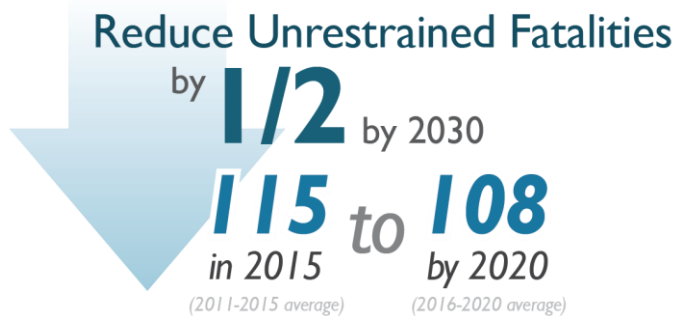
Figure 13 continues to show a strong correlation between the selected emphasis areas, reiterating the fact that drivers that exhibit one risky behavior often exhibit other risky behaviors.

Figure 13. Occupant Protection Emphasis Area Relational Factors



The Goal

The occupant protection goal in West Virginia consists of an unrestrained goal (lack seat belt and child protection use) and an unhelmeted goal for motorcycle riders. The reductions over the next five years for the goals are the following:



The SHSP Solution

Strategy 1

Increase education and outreach promoting routine and proper occupant protection usage.

Strategy 2

Improve legislation and regulations to increase occupant protection compliance.

Strategy 3

Increase occupant protection use by young drivers and their passengers.





Speed and Aggressive Driving

The Problem

Generally, aggressive driving in West Virginia is defined as disregarding traffic signs, running a red light, exceeding the posted speed limit, driving too fast for conditions, improperly passing, following too close, operating a vehicle in an erratic reckless or careless manner, or operating a vehicle in an aggressive driving. The overall trend of speeding and aggressive driving fatalities has decreased dramatically since 2006 to 141 fatalities in 2015. However, 58 percent of all fatalities and 25 percent of serious injuries involve speeding and aggressive driving. While there is an even split of male and female licensed drivers in West Virginia, there is an over representation of males in speed and aggressive driving fatalities with the age group 15 to 24 accounting for the highest percentages of any age group.



Figure 14 shows that between 2006 and 2015, nearly 2,000 people died due to speeding and aggressive driving in West Virginia. These deaths account for 58 percent of all deaths and 25 percent of all serious injuries.

Figure 14. Speed and Aggressive Driving Fatalities and Serious Injuries, 2006 to 2015

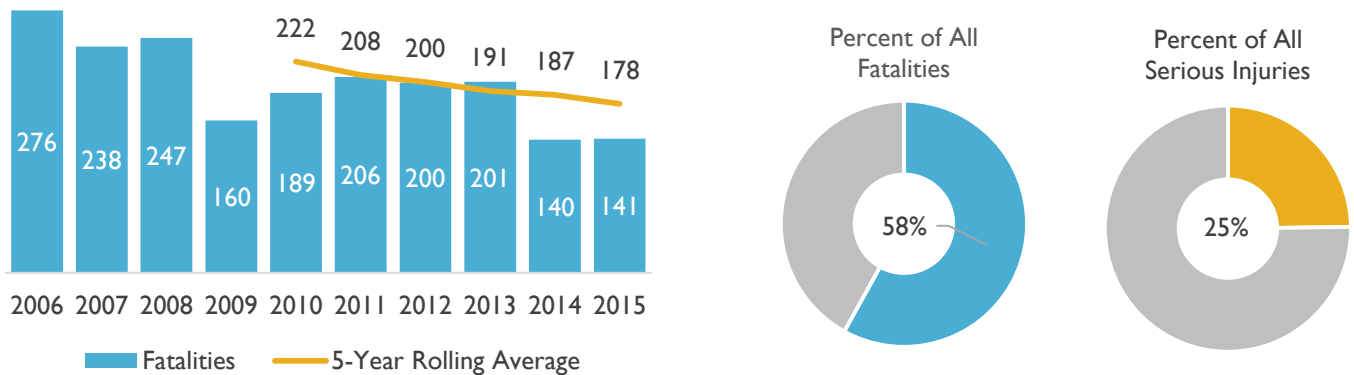
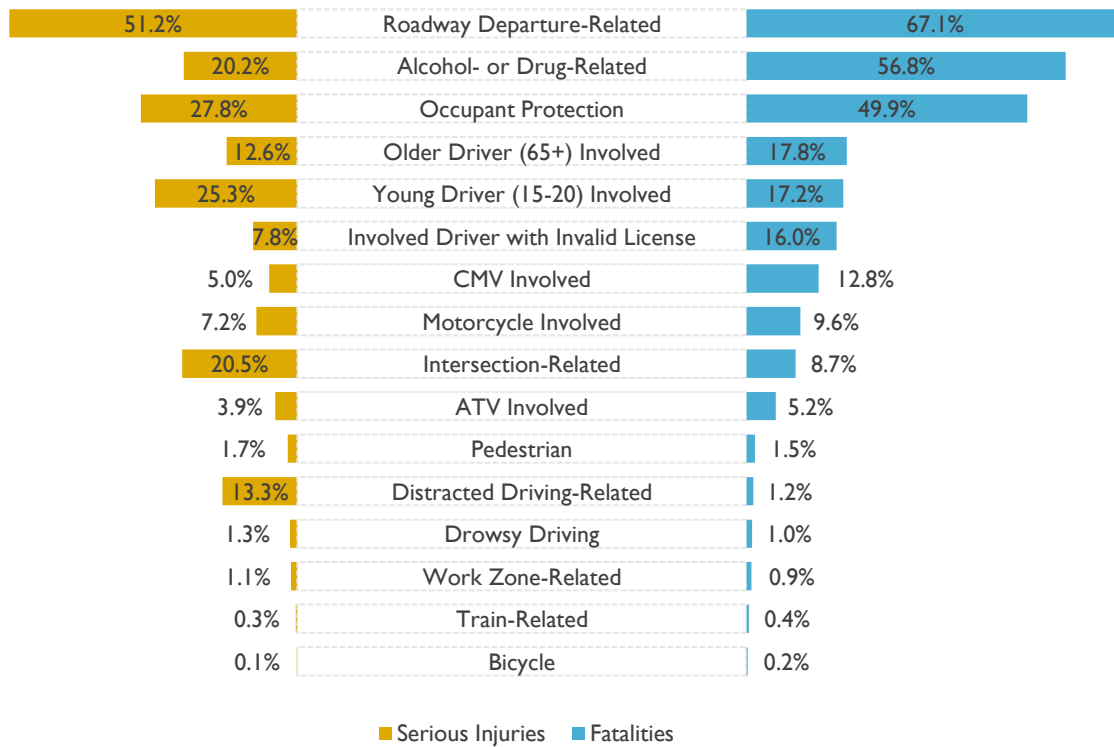


Figure 15 shows the breakdown of the traffic crash causes. For speeding and aggressive driving fatalities, slightly more than 67 percent involve a roadway departure, which is not surprising given the fact speeding reduces the time a driver can react to a situation. Nearly as many speeding and aggressive driving fatalities (56.8 percent) also involve alcohol or drugs and nearly 50 percent involve a lack of occupant protection all of which signify risk taking behavior.



Figure 15. Speeding and Aggressive Driving Emphasis Area Relational Factors



The Goal

There is no legal definition of aggressive driving in West Virginia so the decision on whether to charge for the offense is left up to individual law enforcement officers. Given this lack of specificity, a decision was made to base the goal for this emphasis area on the numbers for speeding. Using the speed data only, the goal for the emphasis area over the next five years is the following:

Reduce Speeding & Aggressive Driving Fatalities
 by **1/2** by 2030
104 to **84**
 in 2015 to by 2020
(2011-2015 average) (2016-2020 average)

The SHSP Solution

Strategy 1

Manage speed through the effective use of engineering countermeasures.

Strategy 2

Conduct speeding and aggressive driving enforcement activities.

Strategy 3

Strengthen the effectiveness of speeding and aggressive driving related enforcement activities through improved legislation and regulations.

Strategy 4

Educate the public on how speeding and aggressive driving can cause traffic crashes and result in fatalities and serious injuries.





Highway Safety Data

The Problem

The backbone to all successful Highway Safety Programs is data. Without good data to guide a program it is difficult, if not impossible, to run an effective program. To obtain a complete picture of highway safety, requires the encompassing of many complex data systems each of which contain information on one or more highway safety areas. The National Highway Traffic Administration (NHTSA) breaks highway safety data into six major categories:



NHTSA recommends that when working to improve highway safety data focus should be placed on improvements in the timeliness, accuracy, completeness, uniformity, integration, and accessibility of data in the above categories. To guide states in identifying and prioritizing opportunities for making improvements to their highway safety data, NHTSA requires states to conduct Traffic Records Assessments, which are peer evaluations of state traffic records system capabilities. These assessments provide recommendations states may consider to improve their traffic records system performance. West Virginia's most recent assessment occurred in August 2016.

The SHSP Solution

Strategy 1

Enhance highway safety data analysis through improvements to crash data collection and analysis capabilities.

Strategy 2

Enhance highway safety data analysis through improvements to citation and adjudication data collection and analysis capabilities.

Strategy 3

Enhance highway safety data analysis through improvements to EMS/injury surveillance data collection and analysis capabilities.

Strategy 4

Enhance highway safety data analysis through continued improvements to the Roadway Information Systems.

Strategy 5

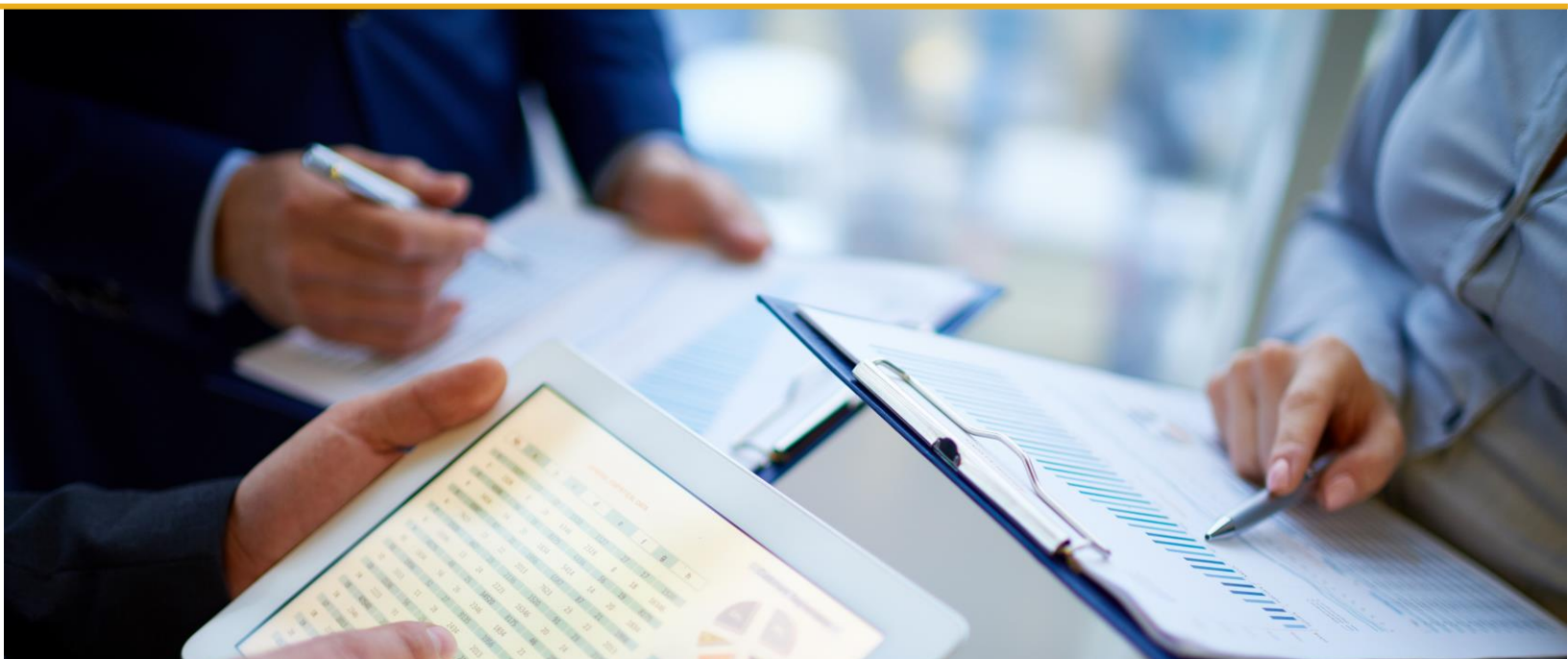
Enhance highway safety data analysis through improvements to the vehicle licensing and registration system.

Strategy 6

Enhance highway safety data analysis through improvements to the driver licensing system.

Strategy 7

Improve overall data analysis capabilities through enhanced integration and coordination of the various highway safety data systems.



Implementation and Evaluation

The next step in the SHSP process is implementing the updated plan. The strategies and action steps identified in the emphasis area team action plans (see Appendix) are the road map for effective implementation of the SHSP mission and goal. Emphasis Area Action Plan champions will oversee implementation of their respective strategies and action step(s). In most cases, implementation will occur through funding under the HSIP, HSP, CVSP, and the State Traffic Records Strategic Plan. West Virginia has broad support from the many highway safety partners listed in this plan. These State, regional, and local agencies, organizations and coalitions will work collaboratively to make the plan become a reality.

The SMTF will continue to meet and supervise the implementation process by doing the following:

- Track implementation progress in each of the emphasis areas;
- Evaluate the effectiveness of the overall plan;
- Identify barriers or problems to implementation;
- Provide regular updates on SHSP-related campaigns, initiatives, training, and programs;
- Provide guidance on future programs, activities;
- Determine the approach to future SHSP updates; and
- Work with the SHSP data task force to identify data needs and improvements.

As the plan moves forward, the SMTF will determine the need for any new or modified actions or the removal of actions that are not working based upon current data or new research. This keeps the SHSP fresh and relevant to changing conditions. The goals and strategies remain the same throughout the five-year life of the plan but the action plans can change as actions are completed, changed, or removed.

Evaluation is critical to understanding what is working and it can identify unsuccessful actions to modify or eliminate. Evaluation is how West Virginia will ensure its resources focus on the strategies and actions that generate results. In addition to the SHSP and action plans, West Virginia will develop an evaluation plan to assess whether the State is implementing the actions and meeting its goals. Each strategy in the plan includes performance measures that will determine whether there is sufficient implementation to achieve success. The SHSP will track these measures with a report at the end of the year to show progress.

A process evaluation will examine roles, responsibilities, and organizational structure as well as establish a timeline for monitoring, evaluating, and communicating SHSP performance to stakeholders, officials, and the public.



Safety Performance Targets

In compliance with requirements of 23 CFR Part 490 FHWA recently established Safety Performance Management Measures (SPMs) for all states and metropolitan planning organizations (MPO). These SPMs require the development of specific safety targets for the number and rate for fatalities, the number and rate of serious injuries, and the number of fatalities for non-motorized users (pedestrians and bicyclists). Additionally, NHTSA was required to establish similar Safety Performance Management Measures for state Highway Safety Offices (HSO, in this case the Governor’s Highway Safety Program). They established twelve SPMs for state HSOs. It is further required that the State Department of Transportation (DOT) and the (HSO) must have identical targets for three of those numbers (the number and rate for fatalities and the number of serious injuries). MPOs may develop their own safety targets or adopt what the state has developed. West Virginia’s MPOs were actively involved in the SHSP update process either as members of the SMTF or as reviewers of the SHSP. This helps ensure coordination including what type of projects may be included in the Statewide Transportation Improvement Program (STIP) and local Transportation Improvement Programs (TIP). Continued coordination of SPMs among these agencies will be reported in the Governor’s Highway Safety Program and Highway Safety Improvement Program annual reports. Continued coordination of SPMs among these agencies will be reported in the Highway Safety Improvement Program and Governor’s Highway Safety Program annual reports submitted to FHWA and NHTSA respectively.

SHSP goals are not the same as these safety targets. However, guidance from the Federal Highway Administration (FHWA) urges states to look at the SHSP process as an opportunity to establish longer-term goals and objectives that can align with the annual targets. SHSP goals span multiple years and can be more aspirational in nature such as West Virginia’s Zero Fatalities. To ensure consistency, FHWA recommends individuals involved in setting the annual targets also be involved in establishing the SHSP goals and objectives which was the case in West Virginia. Figure 16 shows the estimates to reduce fatalities by 50 percent by 2030, and Figure 17 shows the reductions to achieve a 66 percent reduction in serious injuries by 2030.

Figure 16. Estimate to Reduce Fatalities by 50 Percent by 2030

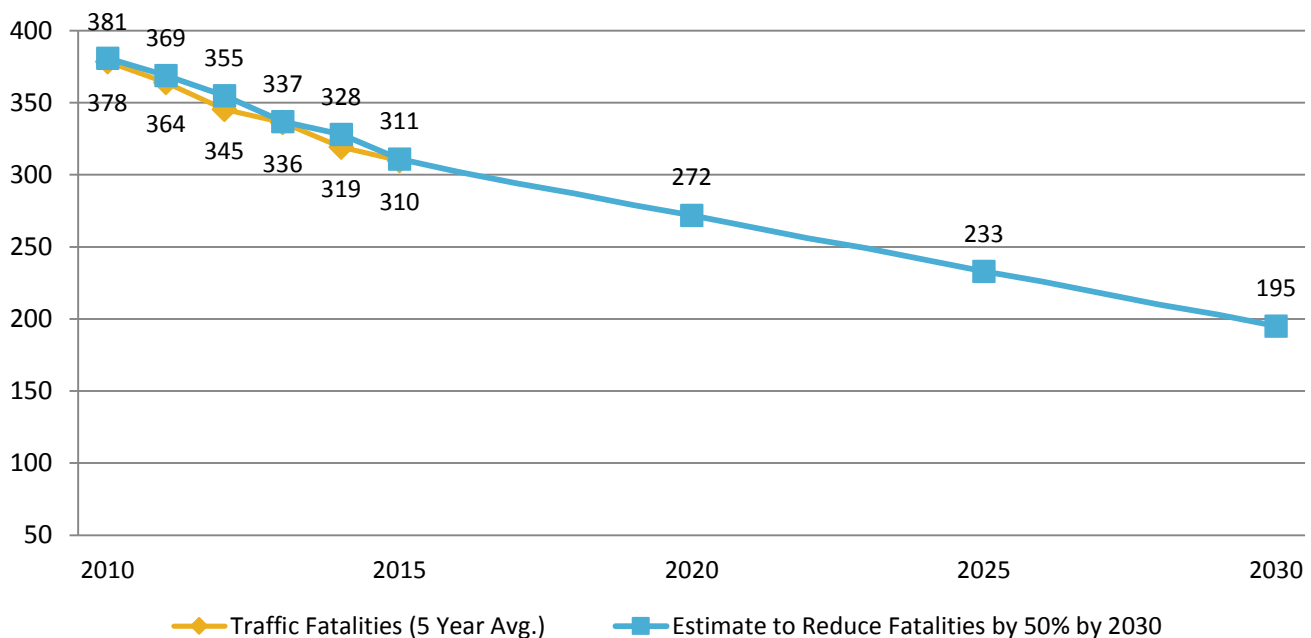
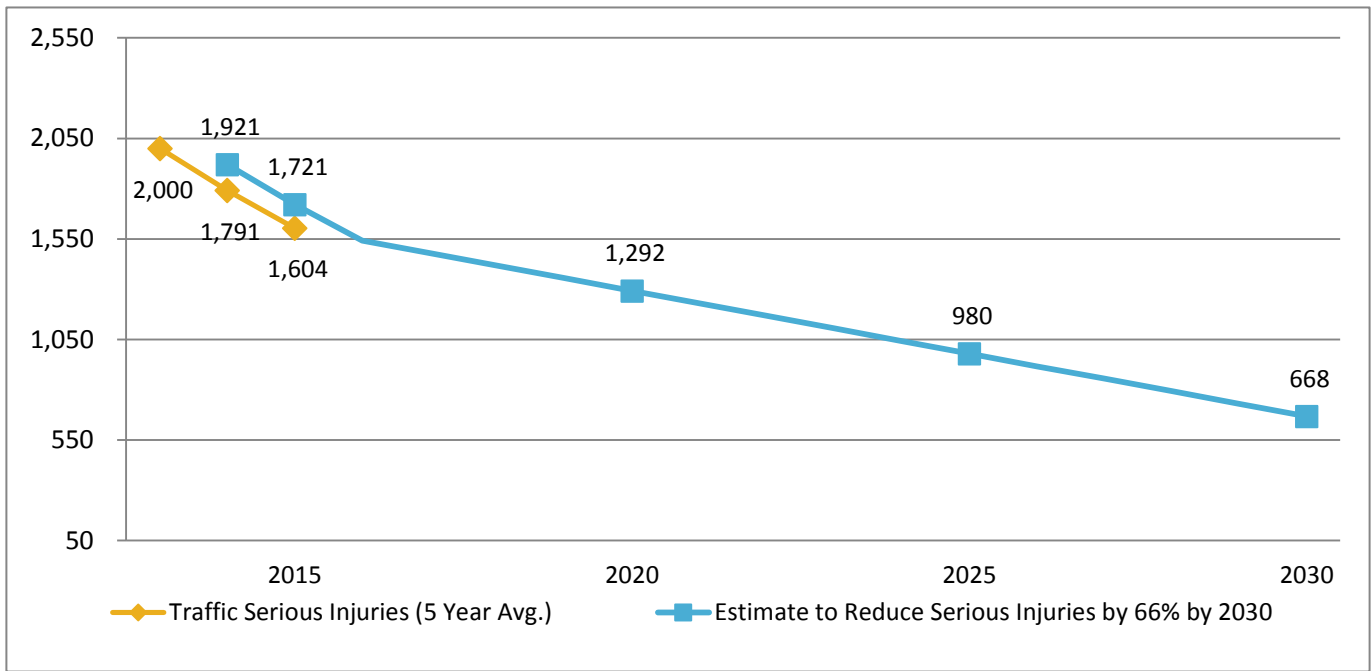


Figure 17. Estimate to Reduce Serious Injuries by 66 Percent by 2030



Approval

As required by Federal law, Governor Jim Justice has designated that I approve the updated SHSP as evidenced by my signature below.

Thomas J. Smith
Secretary of Transportation/Commissioner of Highways

My signature indicates the Federal Highway Administration, West Virginia Division approves the process used by the West Virginia Department of Transportation to update its SHSP.

Edward E. Stephen, P.E.
Division Administrator
Federal Highway Administration, West Virginia Division



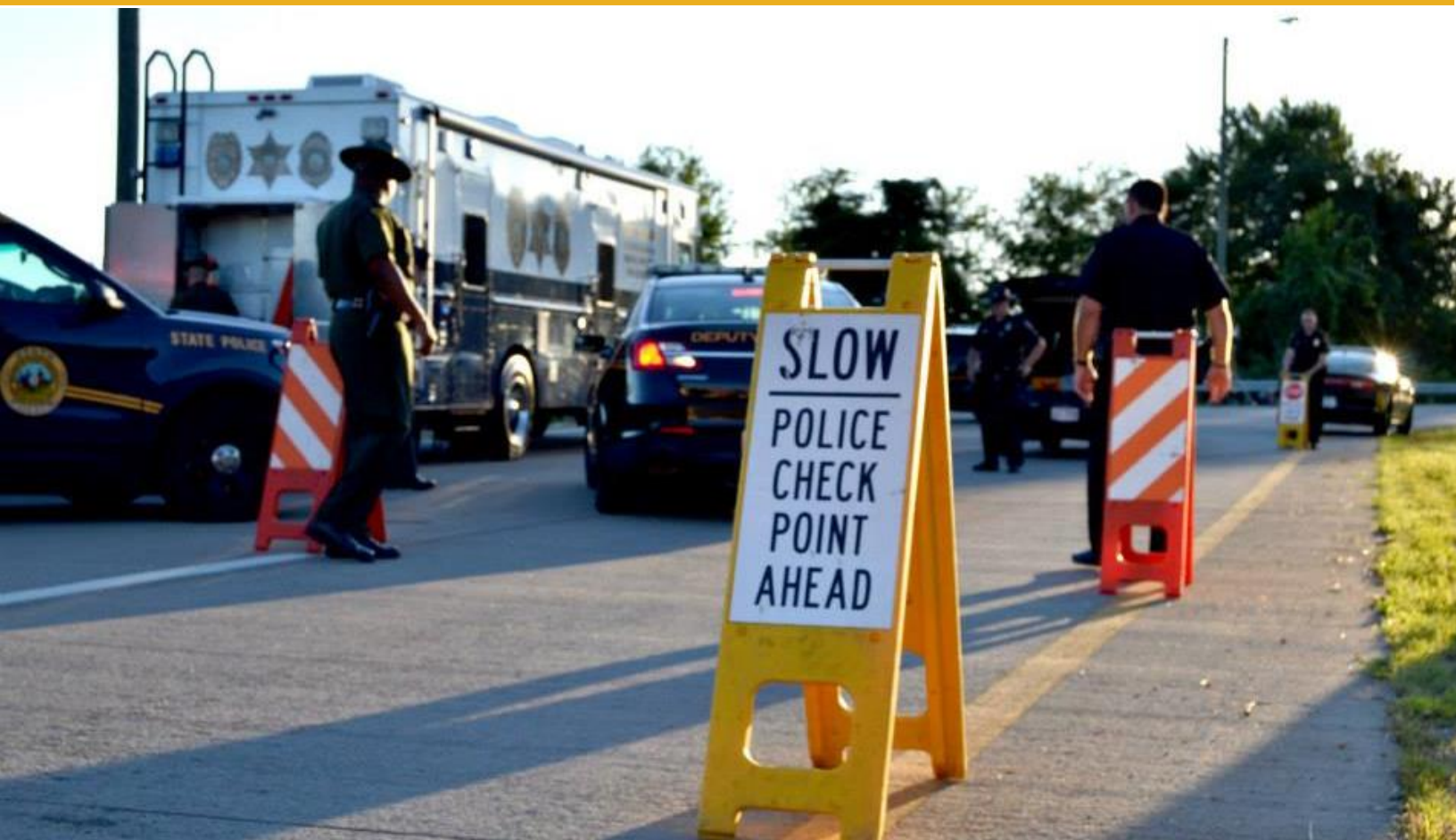
Appendix



Action Plans

Action plans for each emphasis area utilize the prevalent four “E’s of Safety” - engineering, enforcement, education and emergency medical services – to guide the implementation of proven programs and activities and focus future investment decisions as the 2017 SHSP is implemented. Action plans for the five emphasis areas include strategies, action steps, champions, and performance measures. The four “E’s of Safety” use the following icons for each action step.

	Engineering		Enforcement
	Education		Emergency Medical Services









Roadway Departure

Roadway departures are the cause for the majority of severe traffic crashes in West Virginia. A roadway departure crash can best be defined as non-intersection crash during which at least one involved vehicle ran off either side of the road, crossed the centerline or median, went airborne or struck a fixed object, such as a tree, pole, barrier or other obstruction. Since 2006, roadway departure fatalities have decreased 43 percent in West Virginia; however, alarmingly they still represent 12 percent more fatalities than the next closest category.

Strategy 1: Keep vehicles on the road through expanded use of High Friction Surface Treatments (HFST).

Action Steps:





-  1.1 Review and update the existing HFST standard, coordinating with the American Traffic Safety Services (ATSSA) HFST committee to ensure the most up-to-date changes are considered.
Champion: Department of Highways (DOH)
-  1.2 Develop guidelines on when it is best to use HFST as well as other friction paving methods.
Champion: DOH
-  1.3 Develop a program for standardized skid testing of HFST locations.
Champion: DOH
-  1.4 Educate inspectors on requirements and limitations of HFST products.
Champion: DOH

Performance Measures:

- HFST standard updated
- Design Directive includes updated HFST guidelines
- Number of locations tested
- Materials developed for HFST inspector training
- Number of inspectors successfully completing HFST training

Strategy 2: Keep vehicles on the road by using rumble strips and similar treatments.

Action Steps:



-  2.1 Review and update guidelines on the use of centerline and edgeline rumble strips/strips.
Champion: DOH
-  2.2 Research the opportunities for using rumble strips.
Champion: DOH
-  2.3 Develop criteria for using rumble strips in areas prone to inclement weather.
Champion: DOH
-  2.4 Educate designers on the use and limitations of rumble strips and similar treatments.
Champion: DOH

Performance Measures:

- Rumble strip and rumble stripe guidelines included in the updated Design Directive
- Memorandum/report produced on applicability of rumble strips roadways on roadways
- Criteria developed for using rumble strips in areas prone to inclement weather
- Materials developed for training designers on rumble strips and similar treatments
- Number of designers successfully completing training on rumble strips and similar treatments

Strategy 3: Keep vehicles on the road through improved delineation of curves.

Action Steps:



- | | | |
|---|-----|---|
|  | 3.1 | Develop and analyze a detailed listing of curves, including their geometric data, which are experiencing higher than expected rates of crashes.
<i>Champion: DOH</i> |
|  | 3.2 | Review and update existing guidelines on roadway and roadside delineation.
<i>Champion: DOH</i> |

Performance Measures:

- Listing of curves experiencing higher than expected rates of crashes, including geometric data, produced
- Analysis of curves experiencing higher than expected rates of crashes completed
- Updated roadway and roadside delineation guidelines

Strategy 4: Keep vehicles on the road through enhanced use of pavement markings.

Action Steps:

- | | | |
|---|-----|---|
|  | 4.1 | Review and update existing guidelines on use of recessed pavement markers.
<i>Champion: DOH</i> |
|  | 4.2 | Evaluate the performance of various widths and levels of reflectivity of edgelines.
<i>Champion: DOH</i> |



Performance Measures:

- Updated recessed pavement marker guidelines
- Memorandum/report produced on edgeline width and reflectivity performance



Strategy 5: Keep vehicles on the road by using highway lighting.

Action Steps:



-  5.1 Develop lighting warrants for rural corridors.
Champion: DOH
-  5.2 Review and enhance current lighting guidelines.
Champion: DOH

Performance Measures:

- Lighting warrants developed for rural corridors
- Updated highway lighting guidelines

Strategy 6: Keep vehicles on the road through the expanded use of Intelligent Transportation Systems (ITS) and analysis of the data that they collect.

Action Steps:






-  6.1 Develop criteria that include using Road Weather Information System (RWIS) data in combination with crash data to identify corridors most likely to have roadway departure crashes in inclement weather.
Champion: DOH
-  6.2 Evaluate the impact of and requirements needed to temporarily lower speed limits during inclement weather utilizing ITS enhanced signs.
Champion: DOH

Performance Measures:

- Inclement weather criteria developed for roadway departure crashes using analysis of RWIS and crash data
- Memorandum/report produced on using ITS enhanced signs to lower speed limits during inclement weather

Strategy 7: Minimize the consequences of leaving the roadway through the expanded use of Safety Edge.

Action Steps:

-  7.1 Review and update existing Approved Products List for Safety Edge products.
Champion: DOH
-  7.2 Review and update existing details and specifications relating to Safety Edge.
Champion: DOH
-  7.3 Work with DOH personnel to ensure compliance with existing Safety Edge policy.
Champion: DOH
-  7.4 Educate highway designers on use of Safety Edge.
Champion: DOH
-  7.5 Review and update existing shoulder policy to include Safety Edge and shoulder stone.
Champion: DOH

Performance Measures:







- Approved Products List for Safety Edge products, updated
- Memorandum on updated Safety Edge details and specifications
- Number of designers successfully completing training on Safety Edge use
- Safety Edge and shoulder stone included in updated shoulder policy





Strategy 8: Minimize the consequences of leaving the roadway by making the roadside safe, traversable and free of hazards.

Action Steps:


-  8.1 Review and update existing Clear Zone policy including removal of fixed objects when possible.
Champion: DOH
-  8.2 Establish guidance document delineating utility poles within the DOH ROW.
Champion: DOH
-  8.3 Working with utility companies, develop a list of corridors for utility pole delineation.
Champion: DOH
-  8.4 Evaluate crash data and develop list of corridors for enhanced barrier locations.
Champion: DOH
-  8.5 Review and update all barrier policies to reflect the appropriate crash testing.
Champion: DOH
-  8.6 Review existing policies and guidelines on median and roadside slopes. Improve slopes where possible to eliminate need for barrier.
Champion: DOH

Performance Measures:

- Clear Zone policy, updated
- Guidance document developed that delineates utility poles within the DOH ROW
- List of locations for utility pole delineation (for utility companies) developed
- List of corridors for enhanced barrier locations developed
- Barrier policies updated to reflect the appropriate crash testing
- Number of median and roadside slopes improved

Strategy 9: Educate the public on the dangers of roadway departure.

Action Steps:

-  9.1 Incorporate messages in impaired driving, speeding and aggressive driving, distracted and drowsy driving communications and outreach campaigns, when applicable, that educate drivers on how these behaviors can result in roadway departure crashes.
Champion: Governor's Highway Safety Program (GHSP)

Performance Measures:




- Number of times roadway departure was mentioned in behavioral safety campaign messaging



Alcohol and Drug Impaired Driving Emphasis Area

Impaired driving contributes to more than half of the fatal crashes in West Virginia. The majority involves alcohol impairment, but recently there has been an increase in the number of drug-impaired crashes. Forty three percent of alcohol or drug impaired crashes involve alcohol only, 32 percent involve drugs only, and 26 percent involve both.

Strategy 1: Conduct high-visibility impaired driving enforcement activities.

- 
1.1 Conduct high-visibility impaired driving saturation patrols in areas identified as experiencing high instances of impaired driving-related fatal and serious injury crashes.
Champion: Commission of Drunk Driving Prevention (CDDP) & GHSP
- 
1.2 Utilize standard and low-manpower sobriety checkpoints to target areas prone to impaired driving incidents.
Champion: CDDP & GHSP
- 
1.3 Utilize phantom checkpoints several times throughout a shift to leave the public with the impression that checkpoints are everywhere and will catch impaired drivers.
Champion: GHSP

Performance Measures:

- Number of sobriety checkpoints and phantom checkpoints conducted annually under GHSP and CDDP enforcement grants
- Number of saturation patrols conducted annually under GHSP and CDDP enforcement grants

Strategy 2: Focus on the identification and arrest of impaired drivers during routine patrols.





- 
2.1 Track agency arrest rate on GHSP/CDDP grant funded enforcement versus non-grant funded activities.
Champion: GHSP

Performance Measures:

- Annual DUI arrest rate for GHSP and CDDP enforcement grant funded activities
- Annual DUI arrest rate for enforcement activities not funded through GHSP or CDDP grants









Strategy 3: Enhance training available to the State’s law enforcement officers, prosecutors, and judges for thorough and effective adjudication of impaired driving offenders.

-  3.1 Expand basic Drug Recognition Expert training to be included in police academy training, such as NHTSA’s Advanced Roadside Impaired Driving Enforcement (ARIDE) program.
Champion: GHSP
-  3.2 Continue to support the Governor’s Highway Safety Program’s efforts to provide impaired driving related law enforcement in-service classes certified by the State’s Law Enforcement Training Subcommittee.
Champion: Division of Justice and Community Service (DJCS)
-  3.3 Maintain a TSRP position to assist and train prosecutors in impaired driving issues statewide.
Champion: GHSP
-  3.4 Establish a judicial outreach liaison (JO) to provide impaired driving information to the state’s judiciary.
Champion: GHSP

Performance Measures:

- Number of officers trained as DREs
- Number of prosecutors receiving training/assistance
- Number of judges provided information on impaired driving issues





Strategy 4: Expand impaired driving related communications and outreach.

-  4.1 Disseminate and update, as needed, communications materials to increase awareness of the prosecution of anyone caught driving under the influence of alcohol or drugs and to encourage greater use of designated drivers.
Champion: GHSP
-  4.2 Develop or utilize existing communications materials to target high school and college underage drinking and/or drug use and impaired driving.
Champion: GHSP
-  4.3 Develop or utilize existing communications materials to educate drivers at time of issuance on prescription medication’s ability to impair their driving.
Champion: Board of Pharmacy
-  4.4 Review and revise license manual and driving test to include questions on impaired driving including prescription drug use.
Champion: Department of Motor Vehicles (DMV) License Services
-  4.5 Continue and expand on-going projects to assist impaired individuals in finding alternative transportation rather than driving while impaired.
Champion: GHSP
-  4.6 Develop outreach materials on the impairing effects of drowsiness and the dangers of drowsy driving.
Champion: GHSP

Performance Measures:

- Number and type of communication materials developed
- Number of distribution networks used to disseminate materials and number of materials distributed
- Increase in projects to assist impaired individuals in finding alternative transportation and increase in number of people served
- Questions on impaired driving including prescription drug use included in license manual and on written driving test




Strategy 5: Improve impaired driving education for at high-risk groups including underage drinkers and repeat offenders.

-  5.1 Educate decision makers on the need to increase the number, availability, and frequency of substance abuse treatment programs.
Champion: Department of Health and Human Resources (DHHR)/(Bureau for Behavioral Health Facilities (BHBF))
-  5.2 Increase awareness among point of sale individuals (bartenders, wait staff, retail location employees) through the expansion of Safe Serve type programs.
Champion: Alcohol Beverage Control Administration (ABCA)
-  5.3 Develop a program that educates young people on the dangers of impaired driving before they start driving.
Champion: GHSP
-  5.4 Conduct underage alcohol sales stings.
Champion: GHSP

Performance Measures:

- Meetings with decision makers on the need to expand substance abuse treatment programs
- Number of servers trained
- Number of pre-driving age students trained on impaired driving
- Buy rate for underage youth

Strategy 6: Reduce repeat impaired driving offenses by strengthening programs, policies, regulations, and legislation.

-  6.1 Review ignition interlock program requirements and evaluate opportunities for enhancement and potential expansion including the potential requirement to use interlocks for all impaired driving offenders.
Champion: GHSP
-  6.2 Inform decision makers on the benefits of the existing interlock program and penalties.
Champion: GHSP
-  6.3 Inform decision makers on the benefits of having an administrative hearing process.
Champion: GHSP

Performance Measures:






- Increase participation rate in interlock program for first offenses
- Reduction in impaired driving plea deals



Occupant Protection Emphasis Area

Not using or improperly using seat belts, child passenger safety seats, and helmets result in 47 percent of West Virginia's motor vehicle fatalities as well as contribute to 21 percent of all serious injuries. The number of occupant protection related fatalities has decreased dramatically since 2006 to 120 fatalities in 2015.




Strategy 1: Increase education and outreach promoting routine and proper occupant protection usage.

-  1.1 Review and update (as needed) existing safety equipment usage communication plans for vehicle drivers, passengers, motorcyclists, ATV riders, etc.
Champion: GHSP
-  1.2 Develop and distribute easily referenced information on appropriate selection and installation of child passenger safety seats for parent and caregiver reference.
Champion: GHSP
-  1.3 Identify hospitals that regularly deliver babies and insure that they all implement appropriate child safety seat protocols.
Champion: GHSP
-  1.4 Support programs providing assistance for obtaining child passenger safety seats for those in need.
Champion: GHSP
-  1.5 Continue to operate and promote car seat fitting stations.
Champion: GHSP

Performance Measures:

- All safety equipment usage communication plans are reviewed/updated annually
- Number of car seats distributed
- Number of fitting stations
- Number of distribution points
- Number of hospitals with approved car seat protocols

Strategy 2: Improve legislation and regulations to improve occupant protection compliance.

-  2.1 Educate decision makers about benefits of increasing penalties (i.e., fines/ points) for seatbelt and helmet violations.
Champion: GHSP
-  2.2 Support legislation banning passengers from riding in truck beds and other areas not designated for passenger travel.
Champion: GHSP
-  2.3 Educate decision makers on revising primary seatbelt law to include all passengers in all seating positions.
Champion: GHSP

Performance Measures:

- Meetings with decision makers on occupant protection and helmet legislation
- Introduce increased penalties for occupant protection related and helmet violations
- Introduce updated occupant protection and helmet legislation

Strategy 3: Increase occupant protection use by young drivers and their passengers.



3.1 Develop and distribute communication and outreach materials emphasizing the importance of proper occupant protection usage, including helmets, targeting young drivers and passengers.
Champion: GHSP



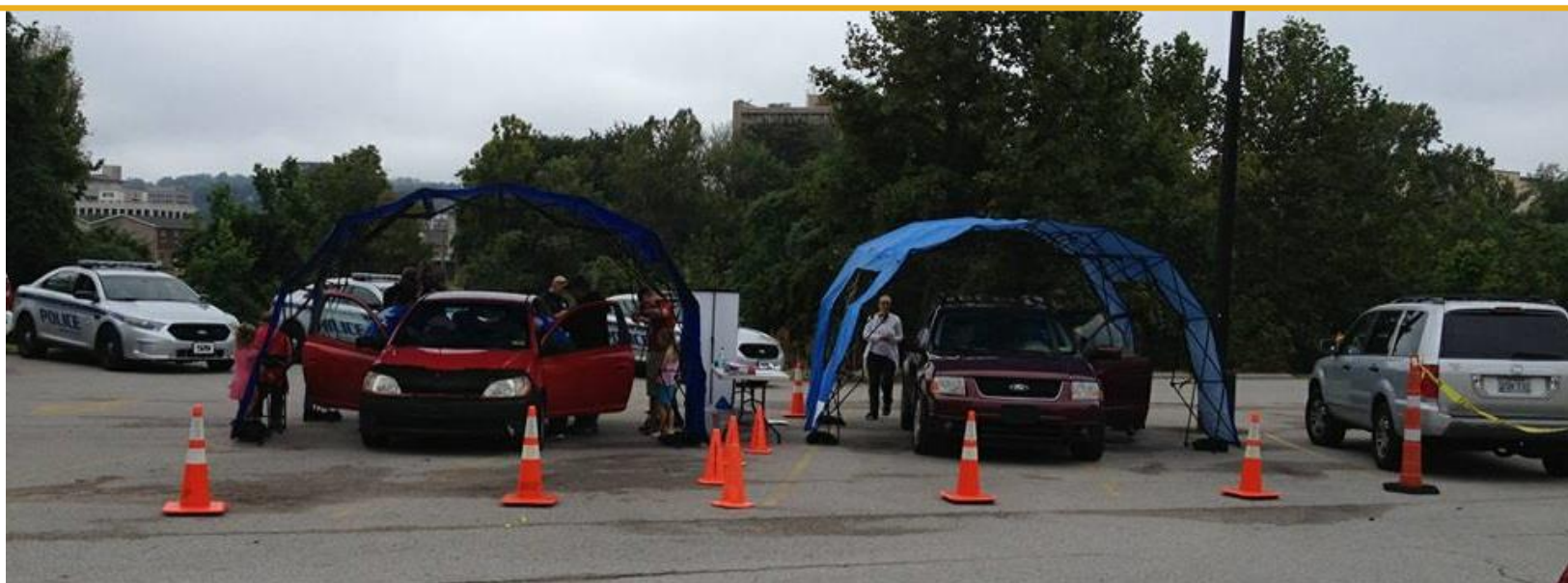
3.2 Include information on occupant protection usage in all GDL materials.
Champion: GHSP



3.3 Include Occupant Protection questions in Think Fast presentation.
Champion: GHSP

Performance Measures:

- Social and other digital media metrics
- Types and number of materials distributed
- Questions included in Think Fast presentation





Speed and Aggressive Driving Emphasis Area

The overall trend of speeding and aggressive driving fatalities has decreased dramatically since 2006 to 141 fatalities in 2015. The majority of speeding and aggressive driving fatalities happen in the late afternoon/early evening from 3 to 6 pm with Friday showing the highest numbers.

Strategy 1: Manage speed through the effective use of engineering countermeasures.



1.1 Review current signage policies and procedures applicable to speeding and aggressive driving, such as speed limit, targeted enforcement, etc.

Champion: DOH



1.2 Explore the use of Intelligent Transportation or Active Devices as a speeding/aggressive driving countermeasure.

Champion: DOH

Performance Measures:

- Document review of speed limit and signage policies and formalize however necessary (legislative, commissioner signature, etc.)

Strategy 2: Conduct speeding and aggressive driving enforcement activities.



2.1 Identify locations (including work zones) where speeding and aggressive driving are over represented in crashes and citations.

Champion: TBD



2.2 Evaluate opportunities for improved enforcement of speeding and aggressive driving laws with commercial vehicles.

Champion: Public Service Commission of West Virginia (PSC)






2.3 Explore funding sources and opportunities for the purchase and maintenance of speed enforcement equipment including radar, Light and Detection and Ranging (LIDAR), and speed trailers, including grants, etc.

Champion: GHSP

Performance Measures:

- Reduction in speed related crash rate



Strategy 3: Strengthen the effectiveness of speeding and aggressive driving related enforcement activities through improved legislation and regulations.

-  3.1 Develop a formal definition of aggressive driving.
Champion: DMV
-  3.2 Review and evaluate gaps in existing laws with respect to speeding and aggressive driving.
Champion: DMV
-  3.3 Incorporate definition of aggressive driving into vehicle code.
Champion: DMV

Performance Measures:

- Report developed on gaps in existing laws
- Develop a formal definition of aggressive driving and incorporate into vehicle code
- Formal definition of aggressive driving incorporated into vehicle code

Strategy 4: Educate the public on how speeding and aggressive driving can cause traffic crashes and result in fatalities and serious injuries.

-  4.1 Develop a plan for targeted public awareness campaigns about the dangers of speeding and aggressive driving.
Champion: GHSP
-  4.2 Conduct targeted public awareness campaigns about the dangers of speeding and aggressive driving.
Champion: GHSP

Performance Measures:





- Plan developed
- Number of public awareness campaigns



Improving Highway Safety Data Emphasis Area

Improving highway safety data involves improvements in the timeliness, accuracy, completeness, uniformity, integration, and accessibility of data in a variety of traffic records systems including crash, driver, vehicle, roadway, citation/adjudication, and EMS/injury surveillance.






Strategy 1: Enhance highway safety data analysis through improvements to crash data collection and analysis capabilities.

-  1.1 Establish a committee of stakeholders to update the crash report to the most recent MMUCC standards as required under the FAST Act.
Champions: DOH, DMV, State Police
-  1.2 Identify potential improvements to crash data collection tools, particularly those that improve crash location accuracy.
Champion: DOH
-  1.3 Educate law enforcement agencies on the updated crash report.
Champion: DOH, GHSP, State Police
-  1.4 Complete the development and implementation of improved tools and methodologies for crash data analysis including those within the State Crash Records Database and those within the Safety Module of the State's ERP project (wvOASIS).
Champion: DOH

Performance Measures:

- Update current crash report
- Number of agencies trained on updated crash report



Strategy 2: Enhance highway safety data analysis through improvements to citation and adjudication data collection and analysis capabilities.

-  2.1 Complete the rollout of the electronic citation to all law enforcement agencies.
Champion: GHSP
-  2.2 Provide the courts with enhanced capabilities to determine prior convictions and outstanding charges on a statewide level Complete by completing the implementation of the West Virginia Administrative Office of the Supreme Court of Appeals (AOSCA) Unified Judicial Application (UJA) to unite all magistrate, circuit and family courts into one data system.
Champion: West Virginia Supreme Court
-  2.3 Address issues regarding driver conviction submission to DMV from the State's municipal courts.
Champion: GHSP
-  2.4 Address issues on Commercial Driver License (CDL) conviction submission to DMV from all State courts.
Champion: DMV
-  2.5 Develop and implement tools and methodologies for citation and adjudication data analysis to enable their use with other highway safety data systems.
Champions: DOH, GHSP, DMV

Performance Measures:

- All agencies submitting citations electronically
- Percent of convictions uploaded to driver record within 10 day limit




Strategy 3: Enhance highway safety data analysis through improvements to EMS/injury surveillance data collection and analysis capabilities.

-  3.1 Develop a system to allow the linkage/integration of crash data with health information from the State's Trauma Registry, EMS Run Data System and Vital Statistics without compromising personal or private information from any of the systems.
Champion: DOH, DHHR
-  3.2 Identify and engage a source for hospital discharge information to provide a more accurate and complete picture of post-crash injury outcomes.
Champions: DHHR, West Virginia Healthcare Authority

Performance Measures:

- Link crash data, ems data and the trauma registry



Strategy 4: Enhance highway safety data analysis through continued improvements to the Roadway Information Systems.

-  4.1 Fully implement all of the MIRE data elements.
Champion: DOH
-  4.2 Complete the development and implementation of a comprehensive Transportation Asset Inventory (TAI) through the Transportation Operations Management, Signals/Lighting/ITS, and Signs Modules of the State's Enterprise Resource Planning project (wvOASIS), including all MIRE data elements.
Champion: DOH
-  4.3 Support the refinement of the State's two linear referencing systems to include up to date and accurate representation of the State and local roadway systems.
Champion: DOH

Performance Measures:

- Implementation of MIRE fundamental data elements
- Increase percent of city street crashes located on linear referencing system (LRS)

Strategy 5: Enhance Highway Safety Data Analysis through improvements to the vehicle licensing and registration system.




-  5.1 Update and modernize the State's vehicle registration system.
Champion: DMV
-  5.2 Integrate the State's vehicle registration system with other highway safety data systems.
Champion: DMV



Performance Measures:

- Completion of an implementation plan
- Implementation of the plan






Strategy 6: Enhance highway safety data analysis through improvements to the driver licensing system.

-  6.1 Update and modernize the State's Driver Licensing System.
Champion: DMV
-  6.2 Integrate the State's driver licensing system with other highway data systems for enhanced highway safety data analysis capabilities.
Champion: DMV
-  6.3 Encourage the standardization of the State's various interlock datasets into one standardized dataset to allow for the easy integration with crash data.
Champion: DMV

Performance Measures:

- Completion of an implementation plan
- Implementation of the plan

Strategy 7: Improve overall data analysis capabilities through enhanced integration and coordination of the various highway safety data systems.

-  7.1 Update the State's Traffic Records Plan to accurately reflect the current status of the systems.
Champion: GHSP
-  7.2 Develop an overall "inventory" of the State's highway safety related data systems.
Champion: GHSP
-  7.3 Map existing, planned, and desired relationships, envisioned linkages, etc. for the State's highway safety data systems.
Champion: GHSP
-  7.4 Establish and empower a formalized Highway Safety Related Data Governance Committee (Technical TRCC) to insure compatible/linkable data exists between related data systems.
Champion: DOH
-  7.5 Establish a Highway Safety Related Data Information Clearinghouse to house information (metadata) on all of the inventoried data systems, responsibilities for each system, data dictionaries, and potentially data sets for use in analysis.
Champion: DOH

Performance Measures:

- Updated Traffic Records Strategic Plan
- Data clearinghouse established
- Data systems inventoried, and data governance committee established

Glossary of Acronyms

ABCA	Alcohol Beverage Control Administration	HRRP	High Risk Rural Road Program
ARIDE	Advanced Roadside Impaired Driving Enforcement	HSP	Highway Safety Plan
AOSCA	Administrative Office of the Supreme Court of Appeals	HSIP	Highway Safety Improvement Program
ATSSA	American Traffic Safety Services Association	HSO	Highway Safety Office
BAC	Blood Alcohol Concentration (BAC)	ITS	Intelligent Transportation Systems
BHMF	Bureau for Behavioral Health and Health Facilities	JO	Judicial Liaison
CDDP	Commission on Drunk Driving Prevention	LIDAR	Light Detection and Ranging
CDL	Commercial Driver's License	LRS	Linear Referencing System
CVSP	Commercial Vehicle Safety Plan	MPO	Metropolitan Planning Organization
DHHR	Department of Health and Human Resources	NHTSA	National Highway Traffic Safety Administration
DJCS	Division of Justice and Community Services	PSC	Public Service Commission of West Virginia
DMV	Division of Motor Vehicles	SHSP	Strategic Highway Safety Plan
DOH	West Virginia Division of Highways	SMTF	Safety Management Task Force
DOT	Department of Transportation	STIP	Statewide Transportation Improvement Program
DRE	Drug Recognition Expert	STP	State Transportation Plan
DUI	Driving Under the Influence	SWOT	Strengths, Weaknesses, Opportunities, and Threats
EMS	Emergency Medical Services	UJA	United Judicial Application
ERP	Enterprise Resource Planning	VMT	Vehicle Miles Traveled
FHWA	Federal Highway Administration		
GHSP	Governors Highway Safety Program		
HFST	High Friction Surface Treatment		



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