PENNSYLVANIA

Strategic Highway Safety Plan

2012

pennsylvania
DEPARTMENT OF TRANSPORTATION

Pennsylvania's Strategic Highway Safety Plan

The Pennsylvania Strategic Highway Safety Plan (SHSP) has been developed under the guidance and direction of our Multi-Agency Safety Team (MAST) in an effort to substantially reduce traffic related fatalities and major injuries.

The SHSP is a comprehensive, data-driven strategic plan. The goals and strategies included in this plan were established in collaboration with our SHSP Steering Committee (key safety stakeholders and partners).

By signing this document, our signatories agree to support Pennsylvania's Vision, Mission and Goal and implement the highway safety strategies for which they are responsible.

Michael Wolf
Acting Pennsylvania Secretary of Health

Joseph E. Brion
Chairman, Pennsylvania Liquor Control Board

Frank Noonan
Commissioner, Pennsylvania State Police

Barry J. Schoch
Pennsylvania Secretary of Transportation

Renee Sigel
Pennsylvania Division Administrator, FHWA

Ron Tomalis
Pennsylvania Secretary of Education

Gary Tennis
Secretary of Drug and Alcohol Programs

M.A.S.T.
MULTI AGENCY SAFETY TEAM

Pennsylvania's Strategic Highway Safety Plan

Motor vehicle crashes are responsible for more fatalities between the ages of 5 and 24 than any other cause of death and remains one of the leading killers among all age groups in the United States. Over the past 5 years, Pennsylvania has averaged 1,365 highway fatalities and 3,694 major injuries annually. This means that nearly 4 people lose their lives and 10 people suffer an incapacitating injury every day on our roadways.

Although fatalities have reached record lows in recent years, the number of severe crashes that are occurring is still very significant. Collectively, Pennsylvania's highway safety stakeholders have established a "Toward Zero Deaths (TZD)" initiative in our state, agreeing that even one death is unacceptable.

For the traveling public, we will continue to embrace the practices and engineering tools that make our roads safer and help at-risk drivers become more responsible. A combined effort among our safety stakeholders and partners is necessary to continue reducing fatalities and move towards zero deaths.

In the spring of 2012, PennDOT launched a new initiative aimed at improving safety on Pennsylvania roadways. Our new slogan, "Just Drive PA" was developed to encourage motorists to focus exclusively on safe driving. This highway safety effort reinforces that distractions, driving impaired and other unsafe driving behaviors have no place on our roadways. An accompanying message of "Just Buckle Up" was also created to remind drivers of the simple, life-saving action of using their seat belts.

The Just Drive PA website (www.justdrivepa.org) features a "Distracted Driving" page highlighting Pennsylvania's new anti-texting law and the dangers of inattentive driving. Also included is information on various highway safety focus areas such as impaired driving, motorcycles, young drivers, pedestrians/bicyclists, child-passenger safety and much more. Other website resources include programs available for schools, information on safety law enforcement, traffic-safety publications, public service announcements, interactive polls and a safe-driver quiz.

SHSP Steering Committee

The Pennsylvania Department of Transportation would like to thank the following public and private sector organizations for contributing to the development of Pennsylvania's Strategic Highway Safety Plan (SHSP). The majority of our safety stakeholders and partners listed below are represented on our SHSP Steering Committee. These members are working together to implement the highway safety improvement strategies contained in this plan.

- Alliance of Bikers Aimed Toward Education (A.B.A.T.E)
- AARP
- American Academy of Pediatrics (AAP)
- American Automobile Association (AAA)
- American Trauma Society (ATS)
- CH2M Hill
- The COAD Group
- Court of Common Pleas
- Department of Drug and Alcohol Programs (DDAP)
- Department of Education (PDE)
- Department of Health (PADOH)
- District Magistrates
- Delaware Valley Regional Planning Commission (DVRPC)
- Federal Motor Carrier Safety Administration (FMCSA)
- Federal Highway Administration (FHWA)
- Governor's Policy Office
- Governor's Press Office
- PA House Transportation Committee
- PA Senate Transportation Committee
- Lehigh Valley Planning Commission (LVPC)
- Local Technical Assistance Program (LTAP)
- Lycoming County Planning Commission
- Lehigh Valley Planning Commission
- Mothers Against Drunk Driving (MADD)
- Motor Trucking Association (MTA)
- Motorcycle Safety Foundation (MSF)
- North Central Regional Planning & Development Commission
- National Highway Traffic Safety Administration (NHTSA)
- North Central Highway Safety Network
- Orth-Rodgers & Associates, Inc. (ORA)
- PA Chiefs of Police Association (PCPA)
- PA DUI Association
- PA District Attorneys Institute (PDAA)
- PA Liquor Control Board (PLCB)
- PA Pedal cycle and Pedestrian Advisory Comm. (PPAC)
- Pennsylvania Emergency Management Agency (PEMA)
- Public Utility Commission (PUC)
- PA Safe Kids Coalition
- PA State Association of Township Supervisors (PSATS)
- PA State Association of Boroughs (PSAB)
- PA State Police (PSP)
- PA Turnpike Commission (PTC)
- PA Trauma Systems Foundation (PTSF)
- PA Commission on Crime and Delinquency (PCCD)
- Peters Township Police
- Southwest Pennsylvania Commission (SPC)
- SEDA-COG RPO
- State Farm
- Tri-County Regional Planning Commission (TCRPC)
- York County Center for Traffic Safety

Executive Summary

The Strategic Highway Safety Plan (SHSP) has been developed to maintain and build on momentum achieved by Pennsylvania's 2006 and 2009 strategic plans. The SHSP serves as a blueprint to reduce fatalities and major injuries on Pennsylvania's roadways. This plan targets priority Safety Focus Areas (SFAs) that have the most influence on improving highway safety throughout the state. For each SFA, existing and new strategies are displayed that apply to all roads (state and local). Only the top strategies are highlighted in the focus area pages as the remaining strategies and action items can be found in our SHSP Implementation Plan.

Highway safety is a diverse and complex field. Motor vehicle crashes generally involve multiple contributing factors (human, roadway, environmental or vehicle), which means the approach to reducing crashes must be multidisciplinary in nature. Implementing the **4 E's of Safety** throughout our comprehensive Highway Safety Programs will have a high impact on reducing crashes.

 Engineering  Education  Enforcement  Emergency Medical Services

- Engineering (infrastructure, highway design, traffic, maintenance, operations, planning)
- Education (driver training, citizen advocacy groups, educators, prevention specialists)
- Enforcement (state and local law enforcement agencies, legislation)
- Emergency Medical Services (first responders, paramedics, fire and rescue)

Pennsylvania's comprehensive approach was to engage state and national experts by conducting a Highway Safety Summit to collect input and establish a Highway Safety Steering Committee. Safety stakeholders and partners from both the public and private sector, representing the 4 E's of highway safety, contributed to the development of our plan. A complete list of organizations and agencies that assisted in the creation of the SHSP is shown on page iii of this document.

The "Vital Seven" Safety Focus Areas have been chosen because implementing improvements in these areas will have the highest impact on overall highway fatalities. The Vital Seven Safety Focus Areas are: **Reducing Impaired Driving (DUI), Increasing Seat Belt Usage, Infrastructure Improvements** (Head-on Collisions, Roadway Departure, and Intersection Crashes), **Reducing Speeding & Aggressive Driving, Reducing Distracted Driving, Mature Driver Safety and Motorcycle Safety**. Recognition of these vital safety focus areas will help decide allocation of funding/resources and improvements completed will help significantly to reach our goal.
We have identified, analyzed and prioritized the focus areas and related strategies based on their cost effectiveness, potential to save lives, proven countermeasures, and resources available (time, funding, partners, etc). In addition to the vital seven, we will continue to implement safety improvement strategies in our other important focus areas (see pages 26-46).

This plan is dynamic and will be revised as per direction of the SHSP Steering Committee.

Pennsylvania's Vision, Mission and Goal

Vision

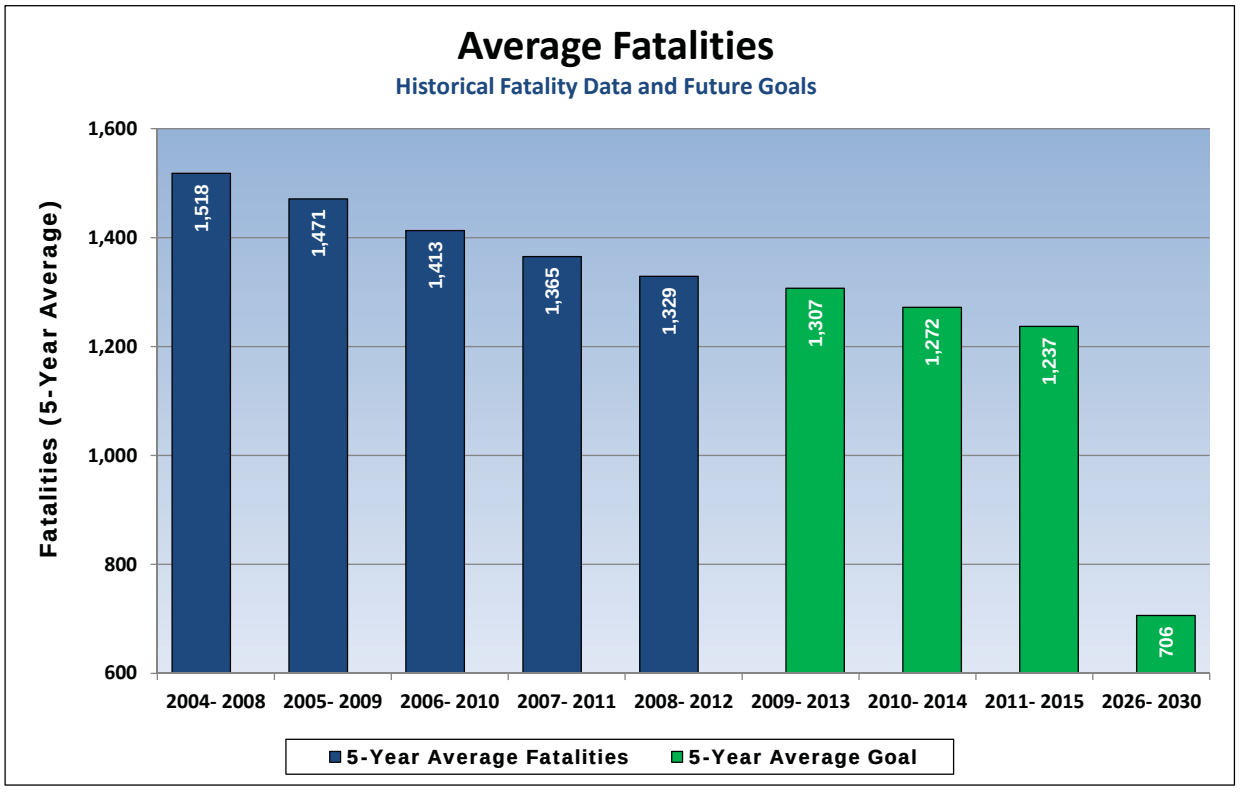
Pennsylvania works continuously toward zero deaths and injuries on our roads.

Mission

Improve highway safety by developing and implementing education, enforcement, engineering and emergency medical service strategies.

Goal

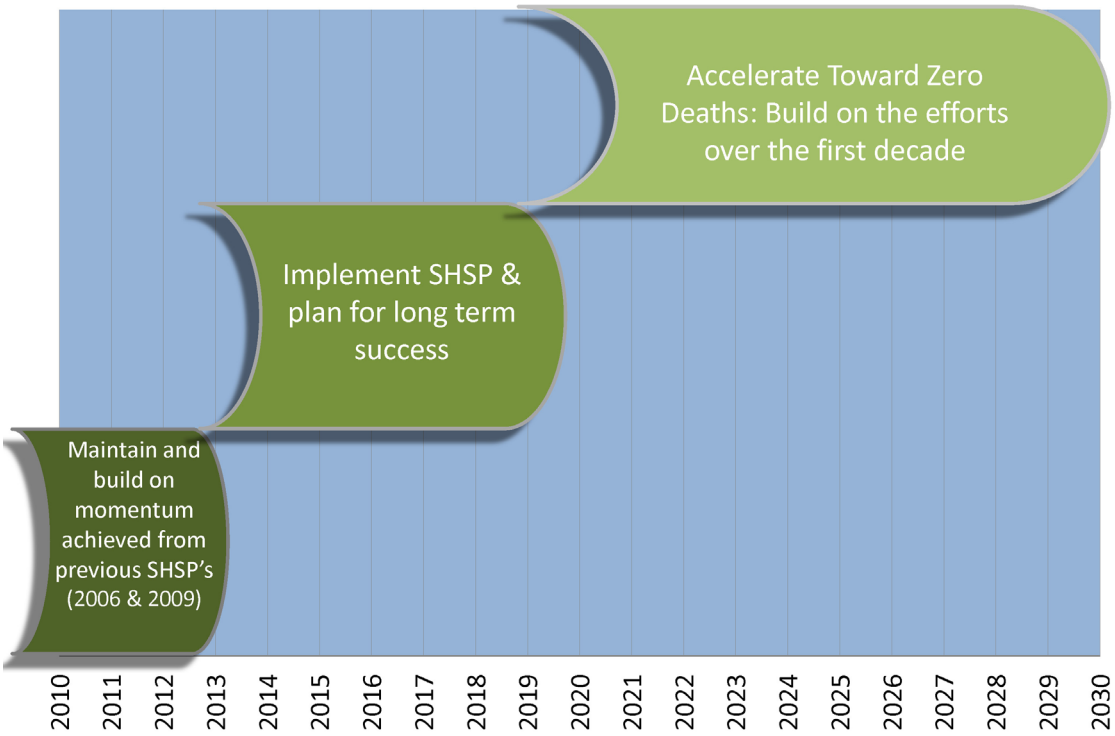
Reduce average fatalities and major injuries by 50 percent over the next two decades.



In 2008 the AASHTO Board of Directors adopted a revised national highway safety goal of halving fatalities over the next two decades. Starting in 2010, Pennsylvania adopted a similar goal to halve the five year fatality average (1,413) to 706 by 2030. Using five year average goals eliminates the randomness of fatality counts from year to year. It can show the consistent progress of highway safety and the "regression to the mean" effect is removed from the measurement. Our goal also includes halving the 2010 major injury average (3,858) to 1,929 by 2030.

Working Toward Zero Deaths (TZD)

Pennsylvania's SHSP is a stepping stone for building a framework for our TZD Vision. A TZD concept can be visualized as a case of establishing priorities, taking a strategic, data-driven approach, and being committed over time. Despite funding limitations and other barriers, here is a real example of how meaningful progress can be made.



The SHSP sets the groundwork for realizing a TZD Vision by incorporating:

- Strategies for certain crash types and driver behavior to reduce crash frequency and severity.
- Those strategies outlined represent the consensus of safety stakeholders and partners.
- Focus on cost-effective, data-driven, science-based and proven effective strategies.
- Human behaviors and limitations are the centermost of the strategies.
- Human responses to incentives, penalties for risky behavior and the surrounding driving environment all contribute to crash risk.
- Cultural change to respect safe driving and condemn unsafe/distracted driving.
- Strategies to build on interdisciplinary approaches to achieve measureable success.

Political leadership and support is essential at the legislative, executive and judicial segments of governments at the state and local levels. Finally, it will take time for public health and transportation professionals to engage political leadership and provide them the information they need to allow support of a TZD vision.

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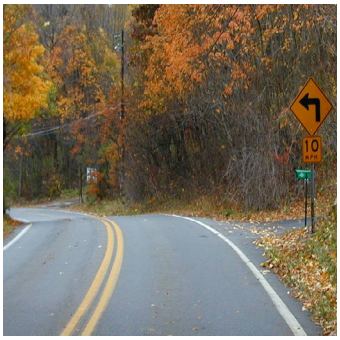


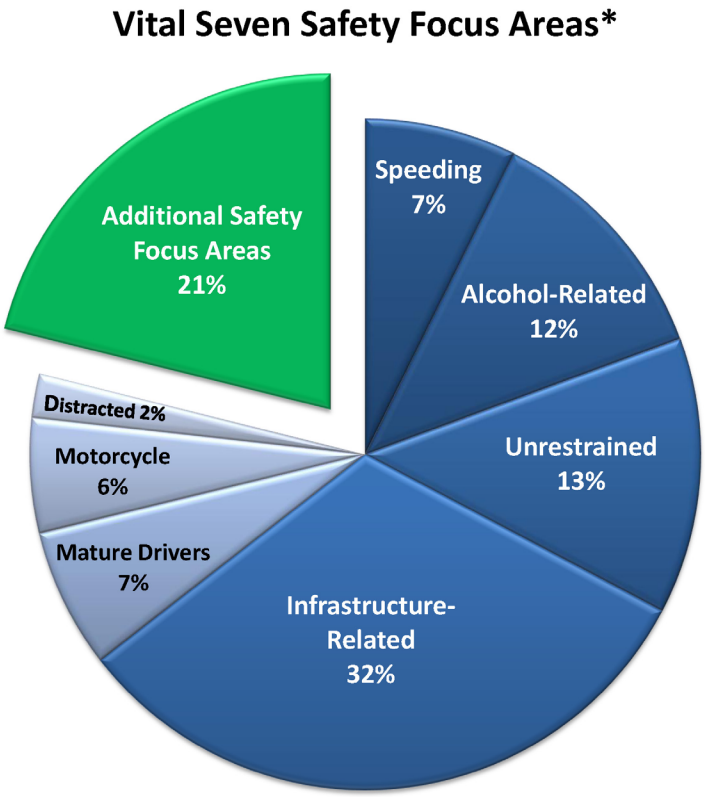
Vital Seven Safety Focus Areas

Our Vital Seven Safety Focus Areas were selected in priority order using the following criteria:

- Potential for overall fatality reduction towards goal (with execution of improvements)
- Number of fatalities (based on historic 5-year average)
- Cost effectiveness (cost/benefit)
- Ease of strategy implementation within focus area (proven countermeasures)
- Resources available (funding, time, partners)

The following chart represents the percentage of statewide fatalities attributed to each of the Vital Seven Safety Focus Areas. Fatalities associated to the Vital Seven account for approximately 79% of the total annual highway fatalities in Pennsylvania. Nine Additional Safety Focus Areas account for the remaining 21% of fatalities in our state. Implementing strategies to address the Vital Seven Safety Focus Areas will have the most impact on reducing overall highway fatalities and reaching our goals. Recognition of these areas will help to guide the allocation of funding and resources

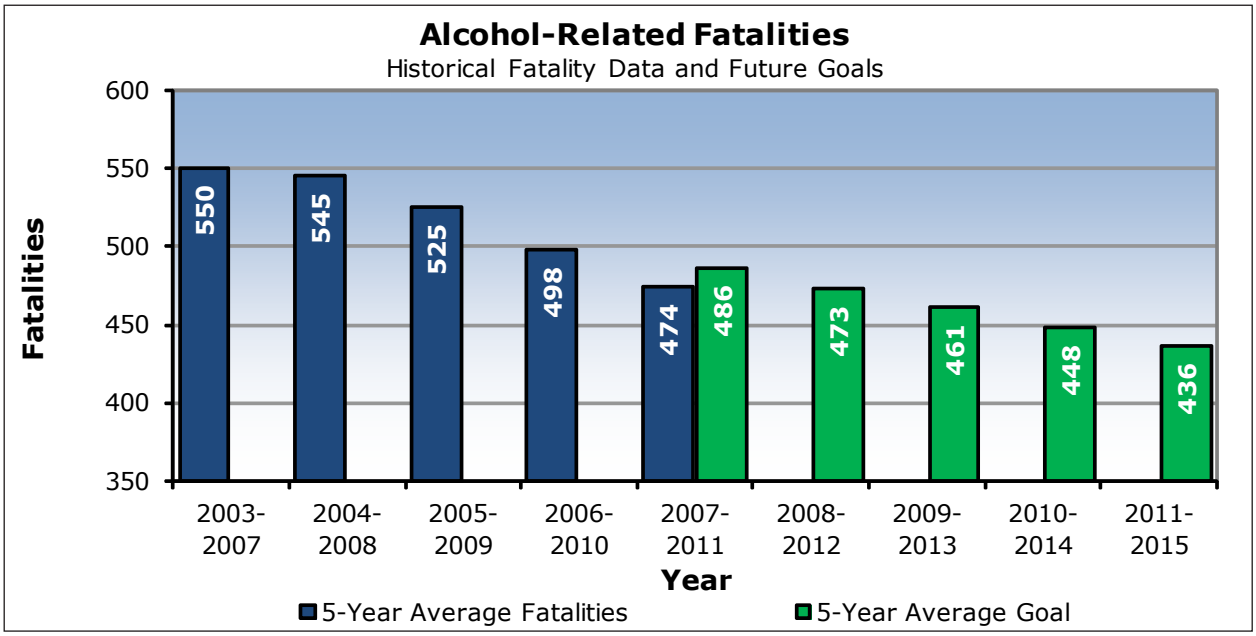
- Reducing Impaired (DUI) Driving
- Increasing Seat Belt Usage
- Infrastructure Improvements
  - Reducing Head-On and Cross-Median Crashes
  - Improving Intersection Safety
  - Reducing Run-Off-Road Crashes
  - Reducing the Severity and Frequency of Hit Fixed Object Crashes
- Reducing Speeding & Aggressive Driving
- Reducing Distracted Driving
- Mature Driver Safety
- Motorcycle Safety

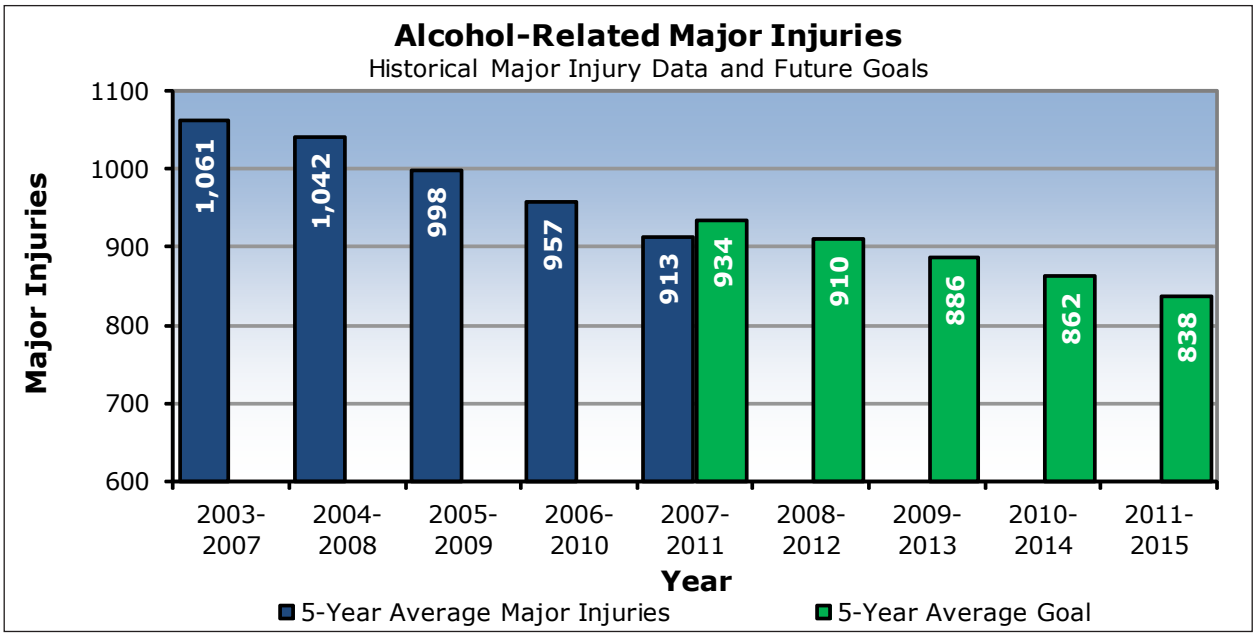


*Based on historic 5-year average (2007-2011)

Reducing Impaired Driving (DUI)

Pennsylvania ranks 21st nationally in the percentage of impaired driving fatalities. Just over two-thirds of the impaired driving fatalities involved a driver with a BAC of 0.15 or higher. On average, alcohol-related fatalities are declining throughout our state.





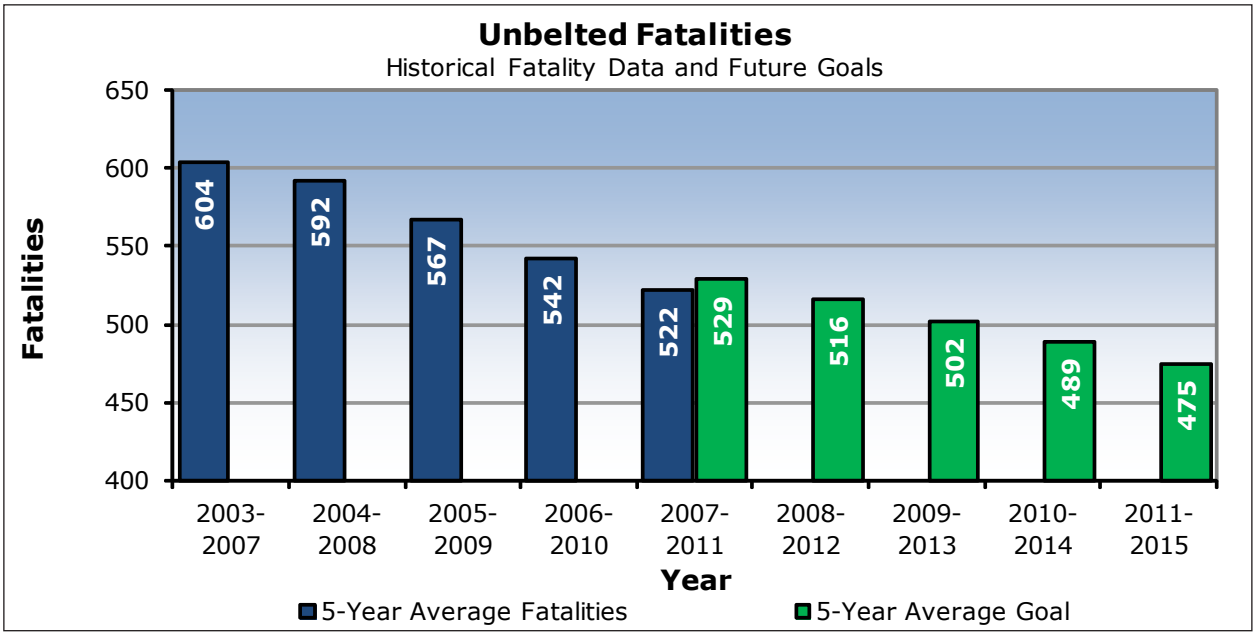
Reducing Impaired Driving (DUI)

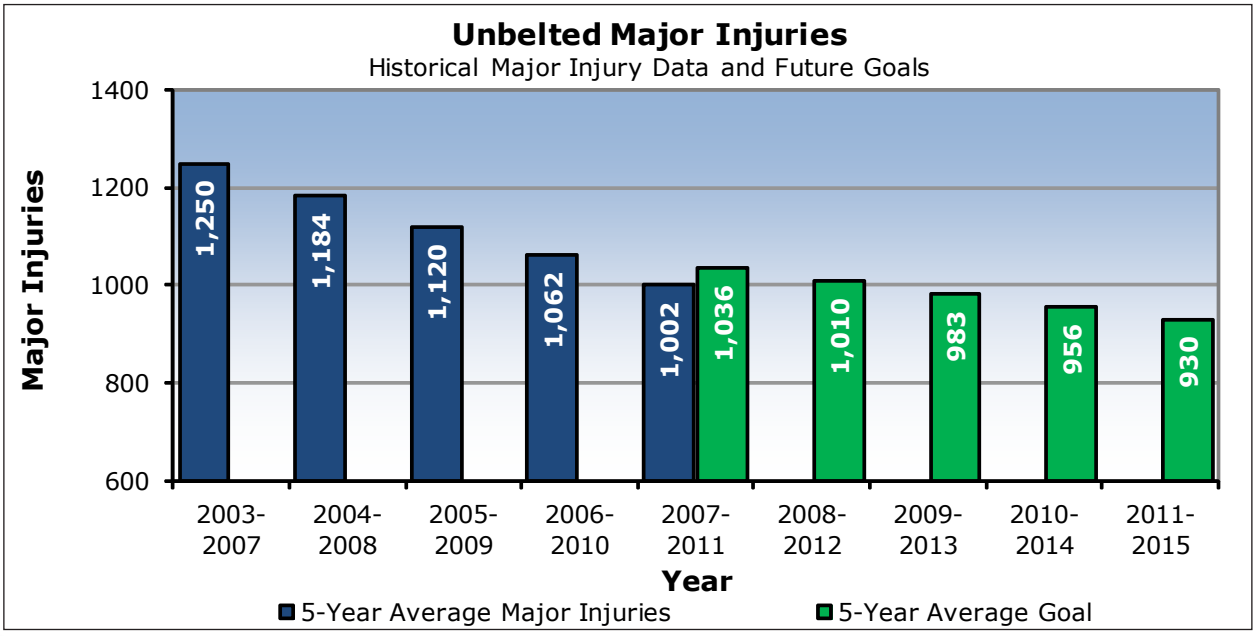
Pennsylvania implements enforcement and education programs to combat impaired driving. Strategies ranging from highly visible enforcement to prosecution and adjudication education will be utilized to reach our reduction goals. Additional strategies and action items addressing impaired driving behaviors can be found in our SHSP Implementation Plan.

Top Strategies
Sustain a data-driven and high visibility impaired driving enforcement program and increase awareness through paid and earned media. Continue involvement with the National Highway Traffic Safety Administration (NHTSA) Impaired Driving Enforcement Mobilizations.
Establish a Blood Alcohol Concentration Testing Protocol for both police and hospitals in cases where hospitals perform both the blood-alcohol and drug testing to increase BAC testing rates of both surviving and killed drivers involved in fatal crashes. Develop a set of best practices for county DUI booking centers and encourage counties to adopt booking centers.
Increase DUI-Drug awareness training for law enforcement to include ARIDE and DRE. In addition, create an outreach program to raise awareness of impairing prescription drugs and driving (outreach to pharmacies).
Improve ignition interlock systems for convicted DUI offenders and maintain an ignition interlock QA program.
Establish a state-level Judicial Outreach Liaison(s) to educate both Common Pleas and Magisterial District Judges on DUI and other traffic safety issues.

Increasing Seat Belt Usage

Nearly 45% of fatal crashes between 2007 and 2011 involved an unbelted occupant. For every 1% increase in seat belt usage in Pennsylvania, we can expect 8 to 12 lives to be saved annually. The 2011 statewide seat belt usage rate was 83.82%.





Increasing Seat Belt Usage

A primary seat law for all drivers and education/enforcement programs will help increase future seat belt rates. Our top strategies to increase seat belt usage include educating drivers and passengers as well as high-visibility enforcement.

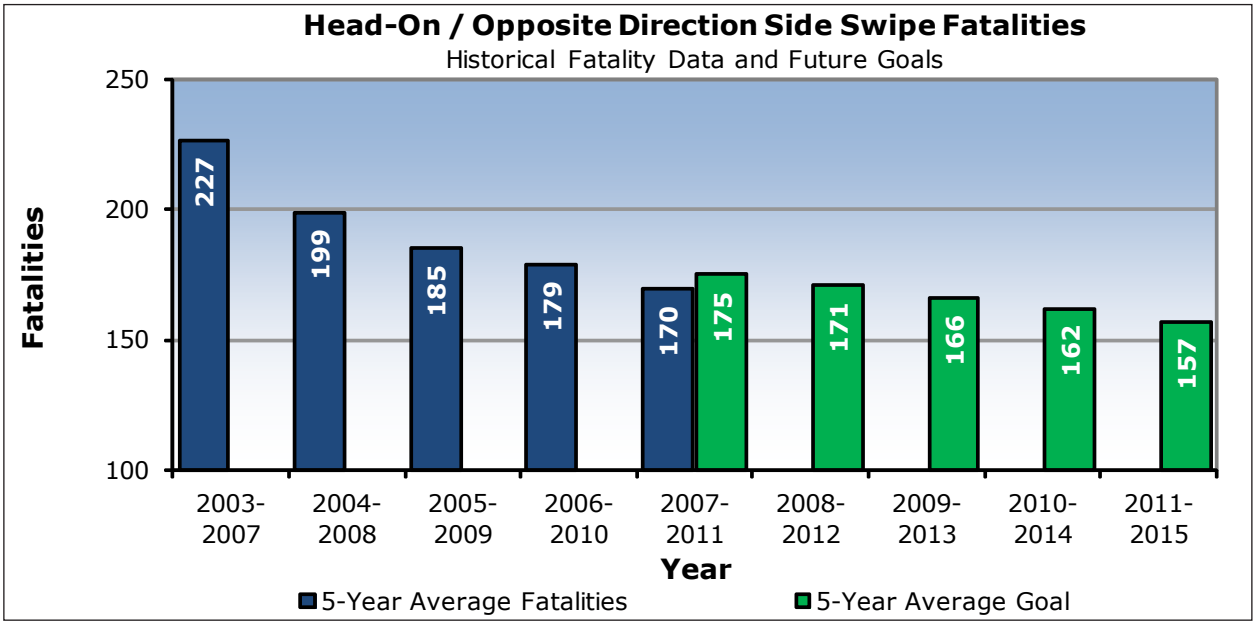
Top Strategies
Conduct "Click It Or Ticket" campaigns - High-profile enforcement campaigns combined with public education "Click It Or Ticket" campaigns.
Enact primary seat belt law.*
Focus on nighttime belt enforcement (when belt use is the lowest) and high-risk drivers. Combine seat belt, aggressive driving, and impaired driving enforcement.
Develop Child Passenger Program that includes loaner program, parent education, more fitting stations, increased number of Child Protection Services (CPS) Techs, and improved CPS website. Determine quantity of child safety seats needed to sufficiently address the low socio-economic community. Educate parents of young children who have outgrown child safety seats to advance them to booster seats.
Educate law enforcement that under the Graduated Driver Licensing (GDL) statute, the seat belt requirement can be enforced as a primary violation. Using educational materials developed for the new statutes, educate GDL recipients on seat belt component of law. Follow up education aspect by conducting a "mini-mobilization" focused on belt use for children under the age of 18 after new legislation is enacted.

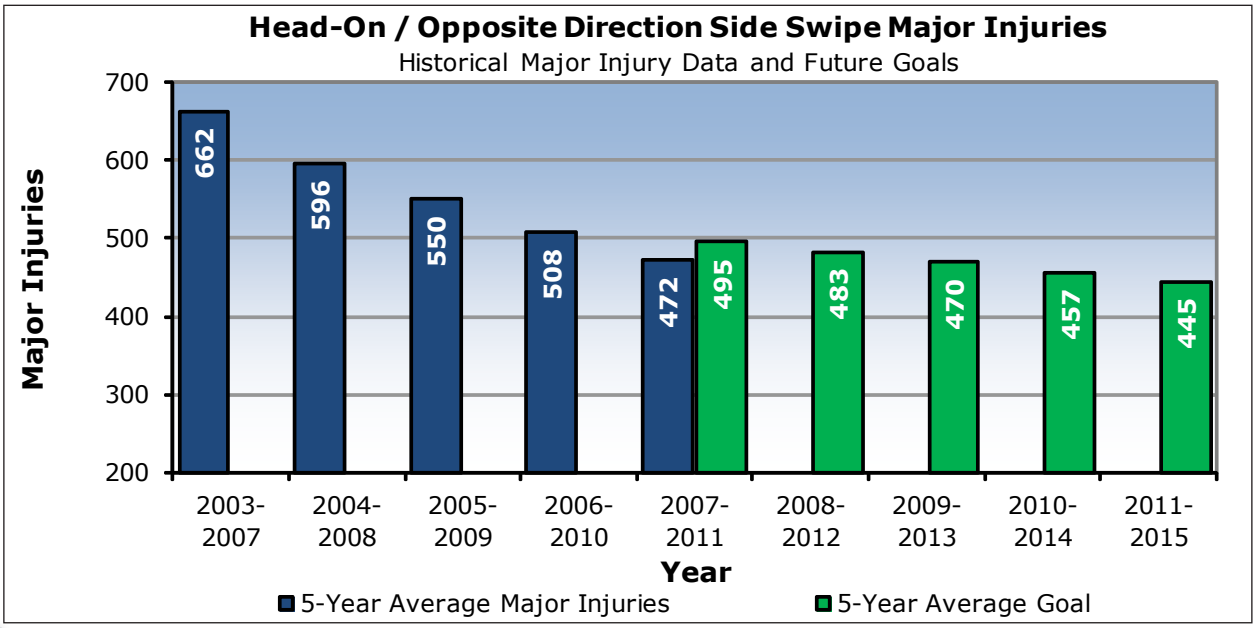
*Denotes legislative strategy recommended by highway safety partners and does not constitute endorsement by agency leadership

Infrastructure Improvements

Reducing Head-On and Cross-Median Crashes

One of the most severe types of crashes occurs when a vehicle shifts into an opposing traffic lane and crashes head-on with an oncoming vehicle. On average, head-on/cross-median crashes account for only 5% of all reportable crashes in Pennsylvania, but are responsible for more than a tenth of total fatalities and major injuries. Severe crashes of this nature occur primarily on rural two-lane highways and freeways with no median barriers and involve at least two motor vehicles.





Infrastructure Improvements

Reducing Head-On and Cross-Median Crashes

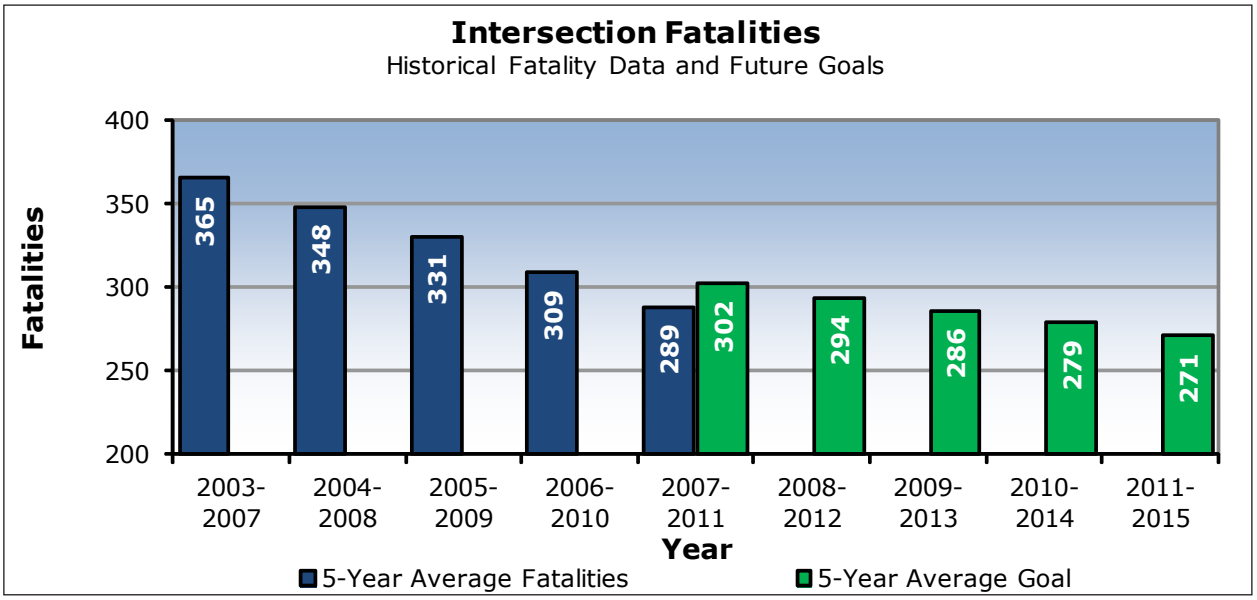
Our top strategies to reduce head-on and cross-median crashes include engineering improvements that prevent vehicles from crossing the centerline or median. Centerline rumble strips are one of the most cost-effective countermeasures PennDOT deploys throughout the state.

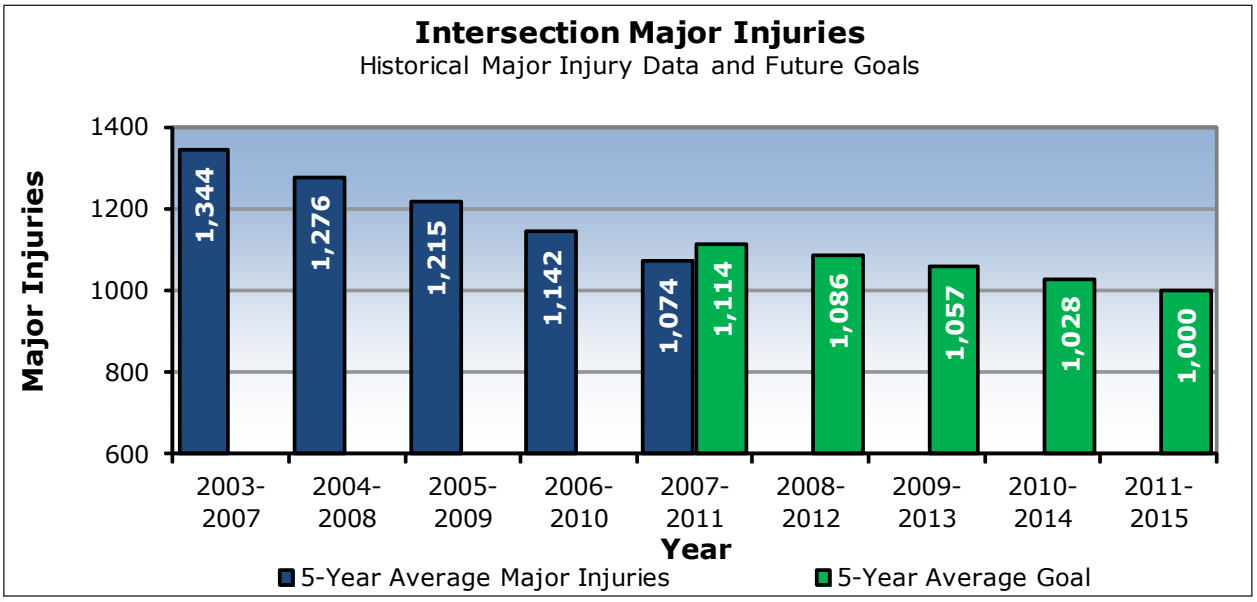
Top Strategies
Install centerline rumble strips.
Install median barriers (Cable for open medians at high crossover locations & Traffic barriers on four lane undivided roads).
Implement low-cost improvements at curves (examples include delineation, chevrons, advanced curve warning markings, etc.).
Widen lanes and/or shoulders on curves.
Install center 2-way left turn lanes on two-lane and four-lane roads.
Enhance agency crash data systems for head-on/crossover crashes by incorporating a cross median crash flag to the Pennsylvania Police Crash Report and updating the Cross Median Crash report annually.

Infrastructure Improvements

Improving Intersection Safety

An intersection is a planned point of conflict in the roadway network where two or more roads join together. Intersections are one of the most complex traffic situations that motorists encounter. The crossing and turning movements that occur at intersections make traffic crashes very susceptible. Add in the fact that pedestrians and bicyclists also often commute at intersections and crash potential is amplified even further. Nearly 40% of all traffic crashes occur at intersections in Pennsylvania. These crashes account for approximately one quarter of total fatalities and major injuries.





Infrastructure Improvements

Improving Intersection Safety

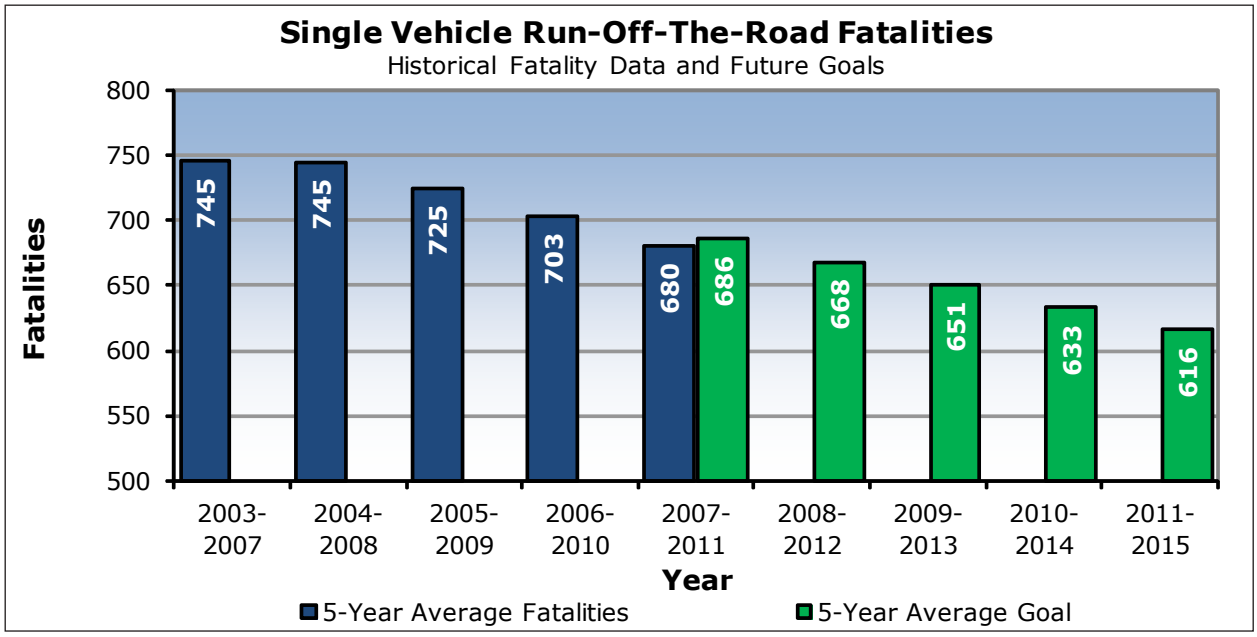
Intersections are broken down into two different types (signalized and un-signalized). Signalized intersections generally have higher traffic volumes and are usually found in urban areas. Un-signalized intersections create different safety concerns because of the priority of movement on the main road and lack of traffic control devices. Different engineering strategies apply to both intersection types.

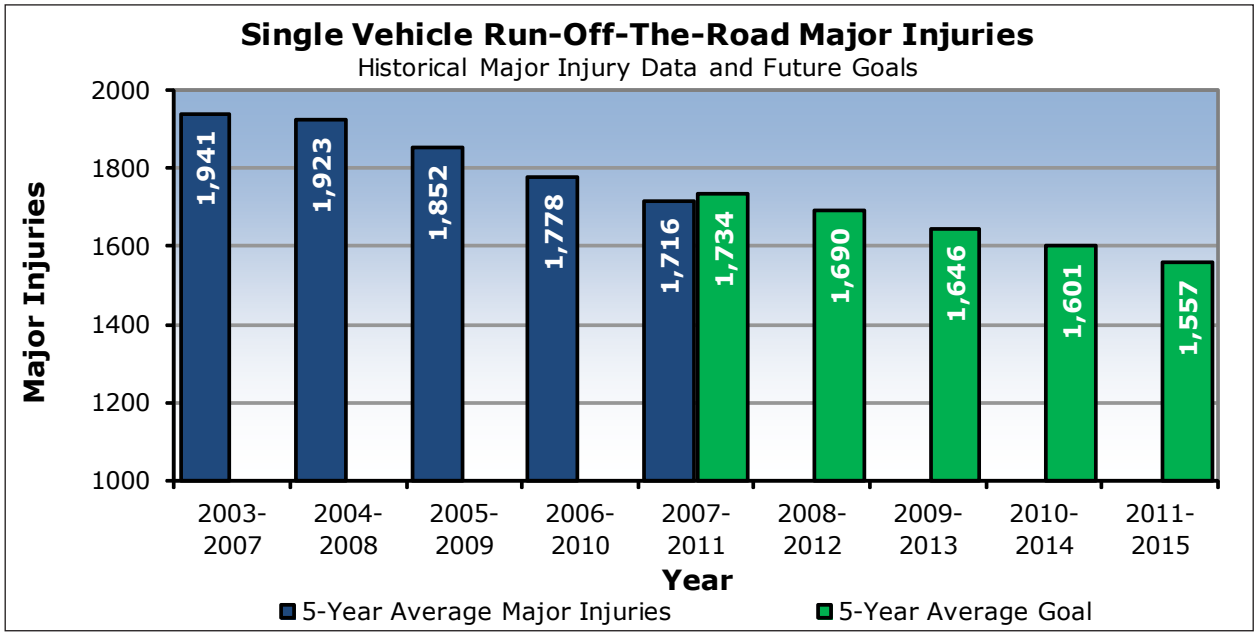
Top Strategies
Implement FHWA Intersection Safety Implementation Plan.
Systematically implement low-cost improvements at stop controlled intersections (examples include signing, pavement markings, delineation, improving sight distance).
Systematically implement low-cost improvements at signalized intersections (examples include LED bulbs, backplates, signing, pedestrian countdown timers).
Improve signal timing, phasing and signal design. Enhance coordination of closely spaced signals.
Improve access management and intersection geometry.
Convert intersections to roundabouts where possible. Include substantive safety in the design process.
Improve driver compliance with traffic control devices and traffic laws at intersections such as Automated Red Light Enforcement (ARLE).

Infrastructure Improvements

Reducing Run-Off-Road Crashes

Every year, nearly half of PA's highway fatalities are caused from roadway departure crashes where the vehicle leaves its lane of travel. The statistics are even worse in rural areas. We plan to meet our goals by implementing various low-cost safety improvements at targeted locations.





Infrastructure Improvements

Reducing Run-Off-Road Crashes

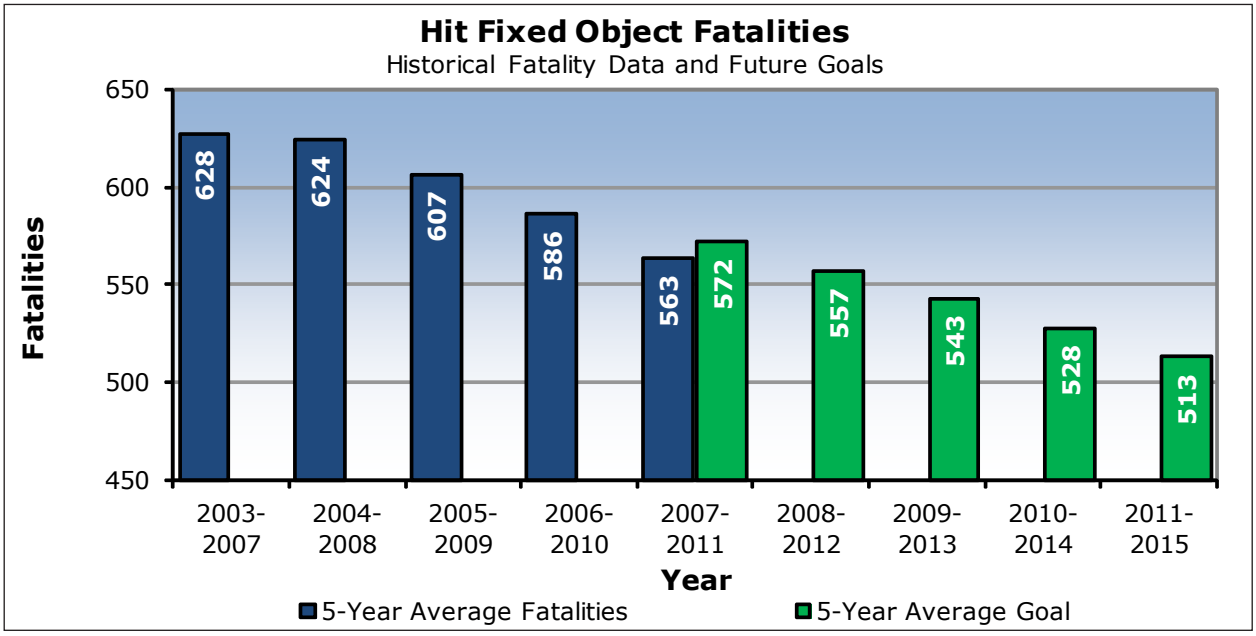
The strategies to combat run-off-road fatalities and crashes are aimed at keeping vehicles on the roadway. In addition to the following engineering strategies, PA also plans to develop an FHWA Roadway Departure Implementation Plan.

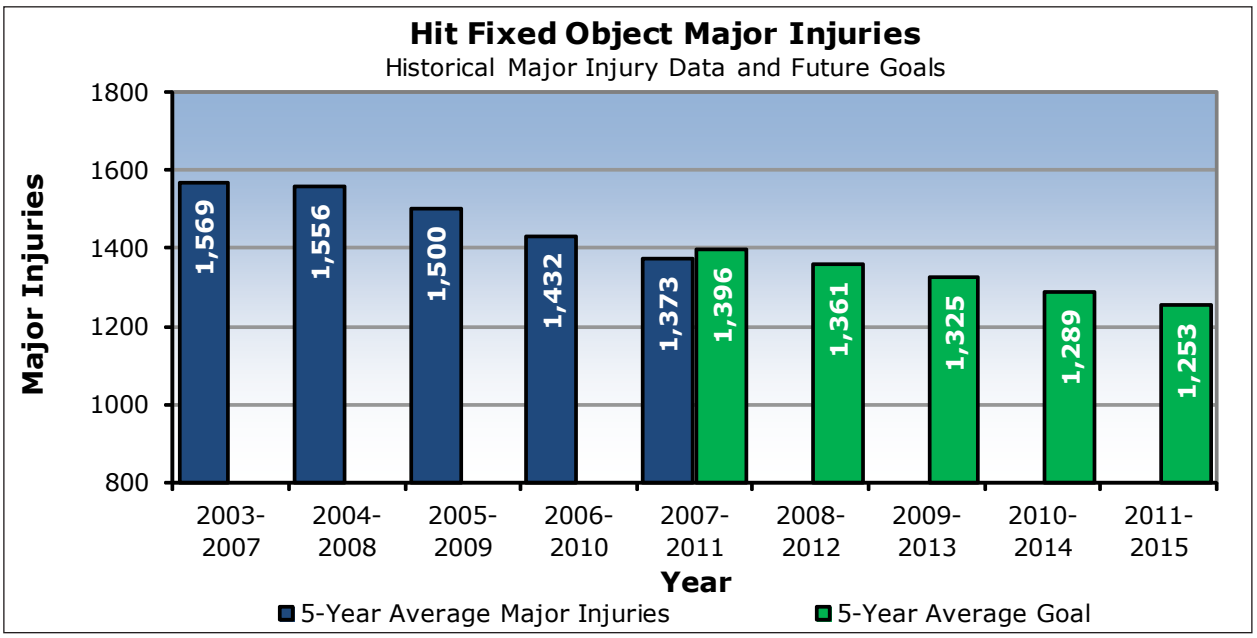
Top Strategies
Continue rumble strip applications (edgeline or shoulder) in conjunction with paved shoulders four feet wide or greater. Widen shoulders to accommodate additional locations to install rumble strips.
Implement low-cost improvements at curves (examples include delineation, chevrons, advanced curve warning markings, etc.).
Eliminate shoulder drop-offs, starting with high severity (> 6) drop-offs. Expand the use of Safety Edge.
Improve recovery area/clear zone. Update or install guiderail where warranted.
Improve roadway design and geometric enhancements. Widen lanes and/or shoulders on curves and rural highways.
Develop FHWA Roadway Departure Implementation Plan for Pennsylvania.
Address locations identified as slippery pavement. Apply skid-resistant pavement/friction surfacing treatments.

Infrastructure Improvements

Reducing the Severity and Frequency of Hit Fixed Object Crashes

An average of more than 40% of highway fatalities on Pennsylvania roadways are the result of collisions with fixed objects such as trees, utility poles, and guiderails. Our approach to reducing these types of crashes includes removing/shielding existing hazards and keeping vehicles on the roadway.





Infrastructure Improvements

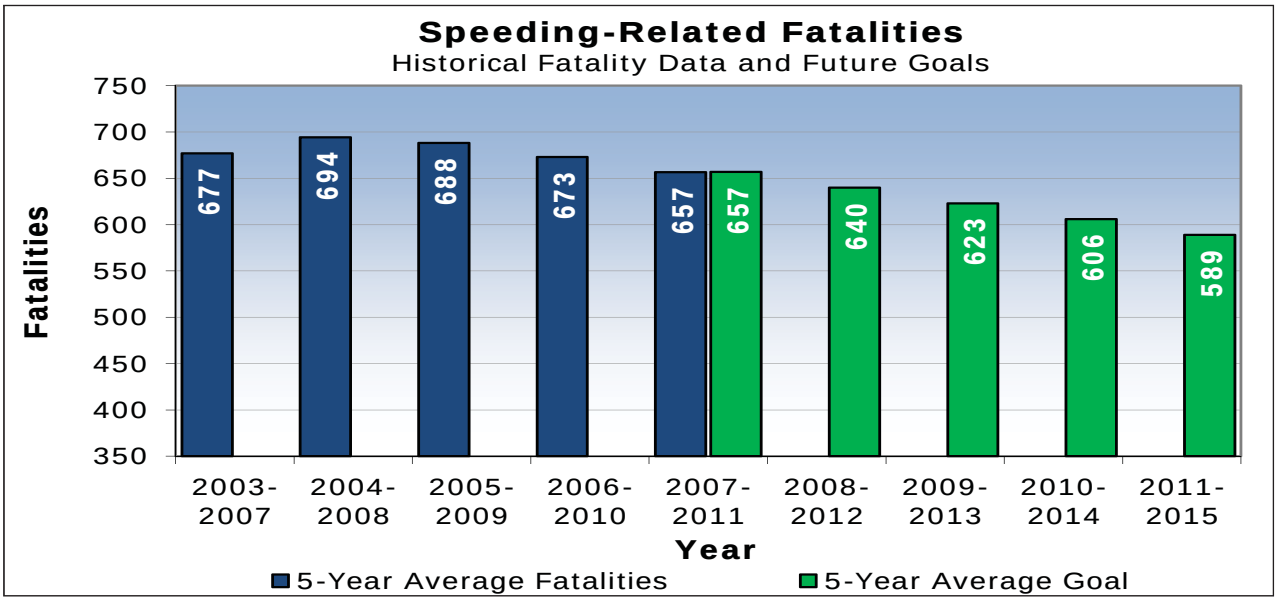
Reducing the Severity and Frequency of Hit Fixed Object Crashes

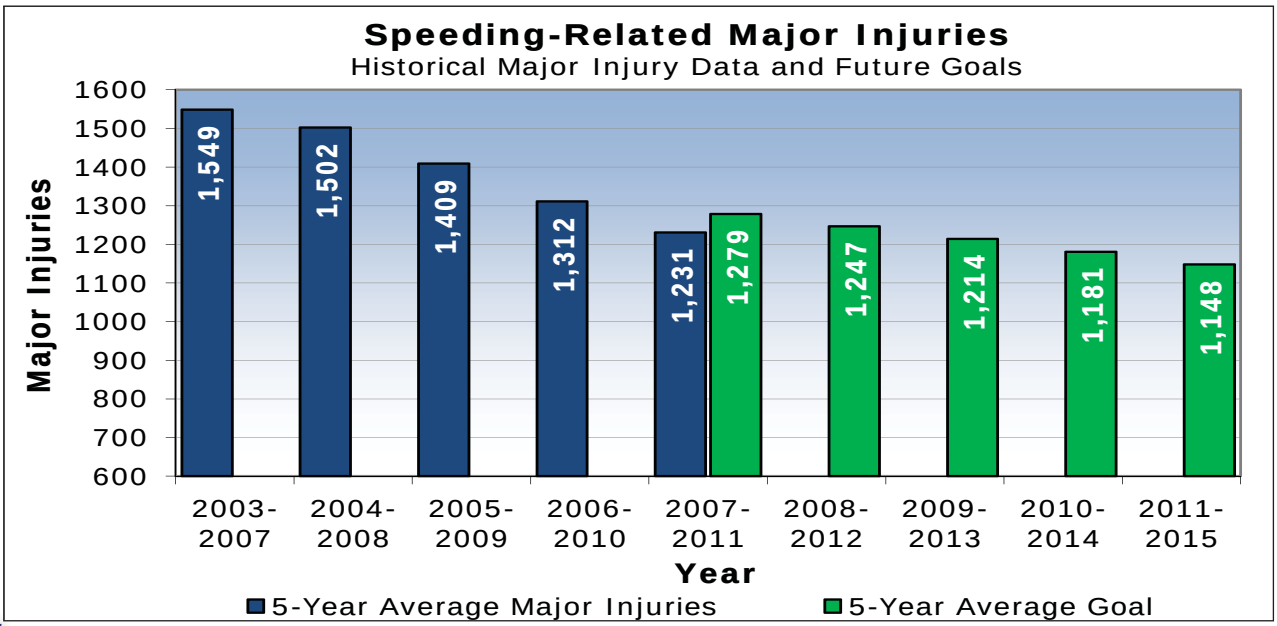
Even after engineering improvements are completed, run-off road crashes due to unsafe driving behaviors still occur. The majority of our strategies to reduce the severity and frequency of hit fixed object crashes are implemented in conjunction with our roadway departure strategies to prevent vehicles from colliding with fixed objects after leaving the travel lane.

	Top Strategies
	Remove frequently hit trees and other objects in hazardous roadside locations and high-crash corridors.
	Remove/relocate frequently hit utility poles.
	Enhance delineation of fixed objects (utility poles, trees, etc.).
	Shield bridge end walls (examples include bridge transition guiderail).
	Install additional guiderail (or appropriate barriers) to shield objects that can't be removed.
	Modify roadside clear zone in the vicinity of hazardous fixed objects.

Reducing Speeding and Aggressive Driving

NHTSA defines aggressive driving as occurring when "an individual commits a combination of moving traffic offenses so as to endanger other persons or property." Motorists have cited aggressive driving as the number one traffic safety threat. In Pennsylvania for a crash to be deemed aggressive, one vehicle involved must have committed two or more aggressive crash actions. Aggressive driving actions include speeding, red light running, tailgating, passing in a no passing zone, careless passing, etc. Speeding related fatalities account for a third of total fatalities in Pennsylvania.





Reducing Speeding and Aggressive Driving

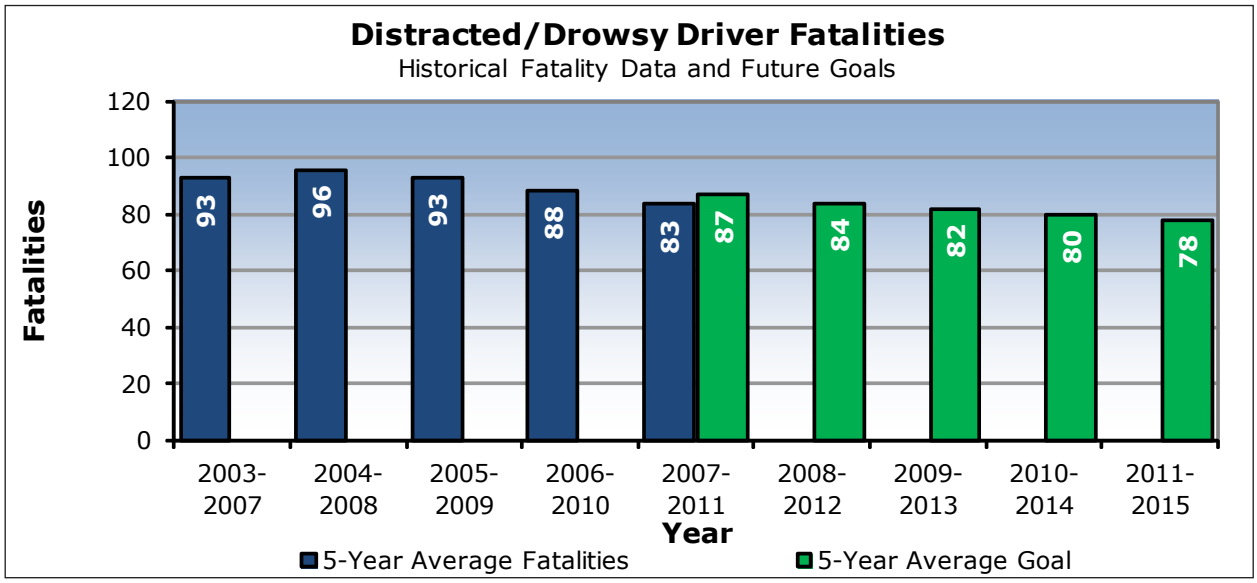
Our top strategies to combat speeding and other aggressive driving behaviors incorporate enforcement, education and the use of technology. Targeted traffic enforcement is very effective in changing driver behavior to drive more safely.

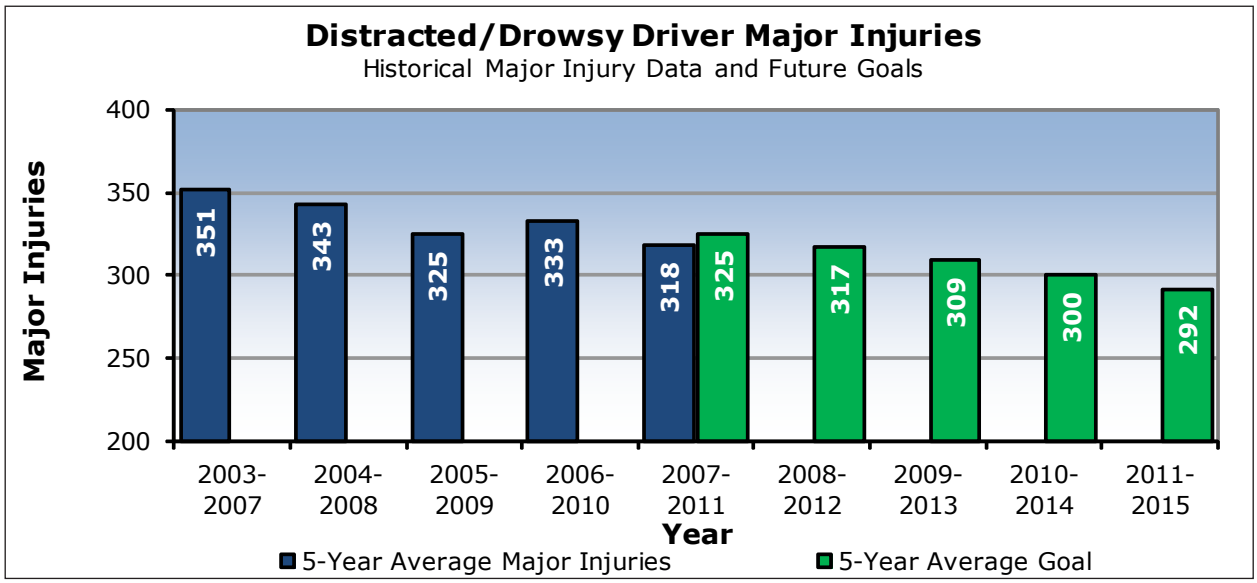
Top Strategies
Target enforcement in areas with a high rate of aggressive driving crashes (PA Aggressive Driving Education and Enforcement Project) - Problem Specific Policing / Selective Traffic Enforcement Programs - Continue public awareness program through earned and paid media
Educate prosecutors and judges to ensure speed violations are treated seriously and fairly. Ensure that sanctions are upheld against repeat offenders.
Continue to develop comprehensive traffic safety public information and education programs that are designed to motivate change in unsafe driving behaviors. Continue to provide school programs focused on safe driving practices.
Continue funding aggressive driving enforcement trainings for law enforcement officers and the public. Consider online training when applicable.
Place speed timing devices and red light running cameras in the appropriate locations. Utilize any other effective engineering practices.

Reducing Distracted Driving

Distracted driving is any non-driving activity a person engages in while operating a motor vehicle which has the potential to distract the person from the primary task of driving and increase the risk of crashing. Awareness of these dangerous activities has increased dramatically over the past few years and Reducing Distracted Driving is now a top traffic safety priority.

Distracted driving accounted for 10% of the crashes and 5% of the fatalities in Pennsylvania over the last 5 years (2007-2011). However, various studies from other states suggest the true total could be twice that number because drivers involved in a crash may not readily admit to being inattentive or drowsy.





Reducing Distracted Driving

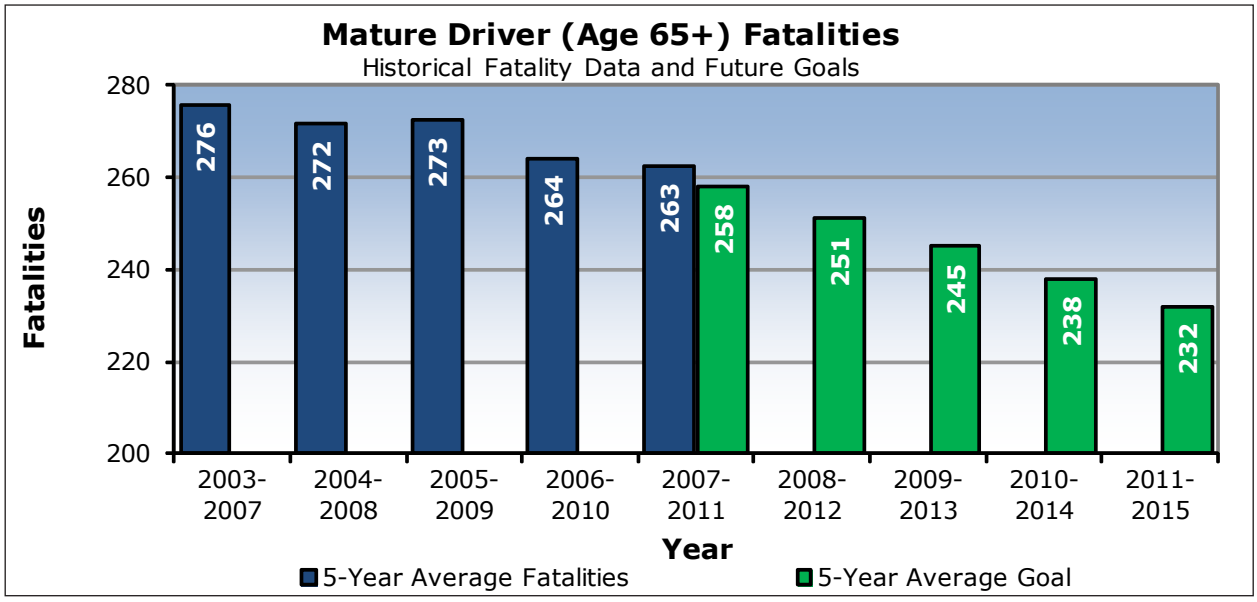
We plan to decrease fatalities and major injuries due to distracted driving by implementing effective engineering countermeasures and providing public information and outreach programs to the commercial and residential communities. In March of 2012 a statewide anti-texting law went into effect as well. Any driver convicted of texting and driving on Pennsylvania's roadways will be required to pay a $50 fine.

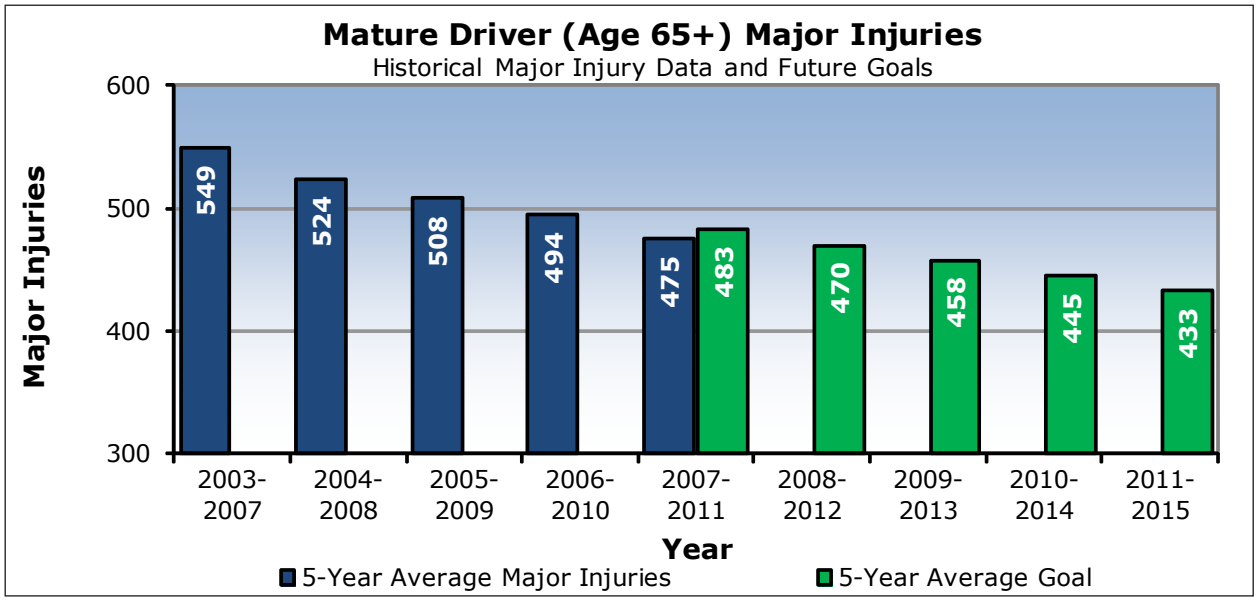
Top Strategies
Implement centerline rumble strips (CLRS) on two-lane rural roadways. Implement shoulder (SRS) or edge-line rumble strips (ERS) on interstates and rural undivided roadways.
*Cell Phone/Texting Ban Legislation. Enforce legislation and educate drivers on new distracted driving laws**
Implement other roadway improvements to reduce distracted/drowsy crashes (flashing beacons at stop-controlled intersections, roadway delineation, innovative road striping, etc.) to improve driver alertness.
Increase driver awareness of the risks of distracted/drowsy driving and promote driver focus.
For the trucking industry, implement fatigue management programs and improved driver working schedules.

*Denotes legislative strategy recommended by highway safety partners and does not constitute endorsement by agency leadership

Mature Driver Safety

Pennsylvania has nearly 1.6 million licensed drivers aged 65 and older who make up 18% of our driving population. Older citizens constitute the fastest growing segment of the population. Pennsylvania State Data Center statistics indicate that the number of residents 65 and older will increase 21% by 2020. Pennsylvania is a state that has vast differences of community, infrastructure, population and resources, but the personal vehicle remains consistent. Mature driver fatalities in automotive crashes totaled 244 in 2011, accounting for approximately 19% of all traffic fatalities in PA.

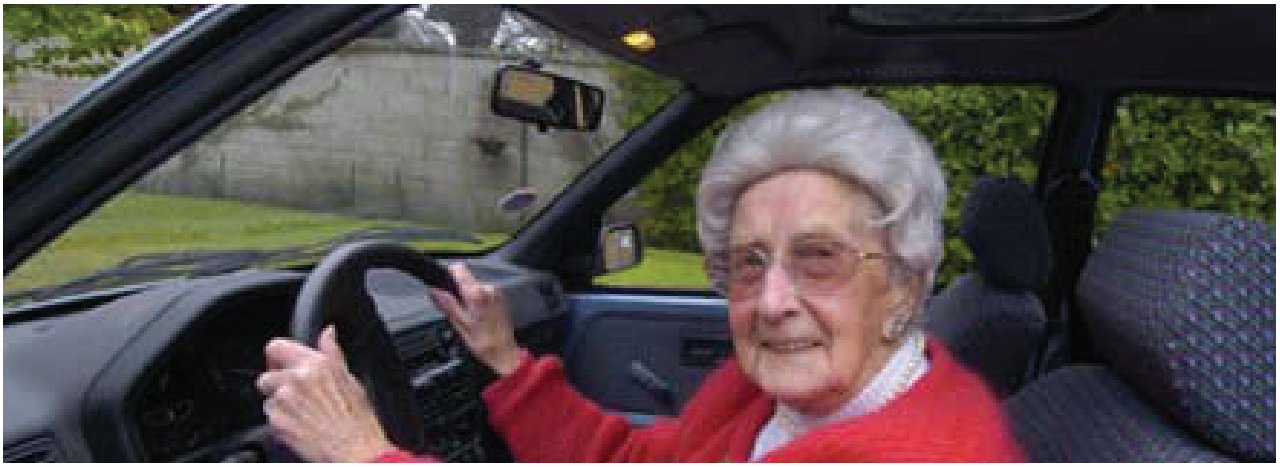




Mature Driver Safety

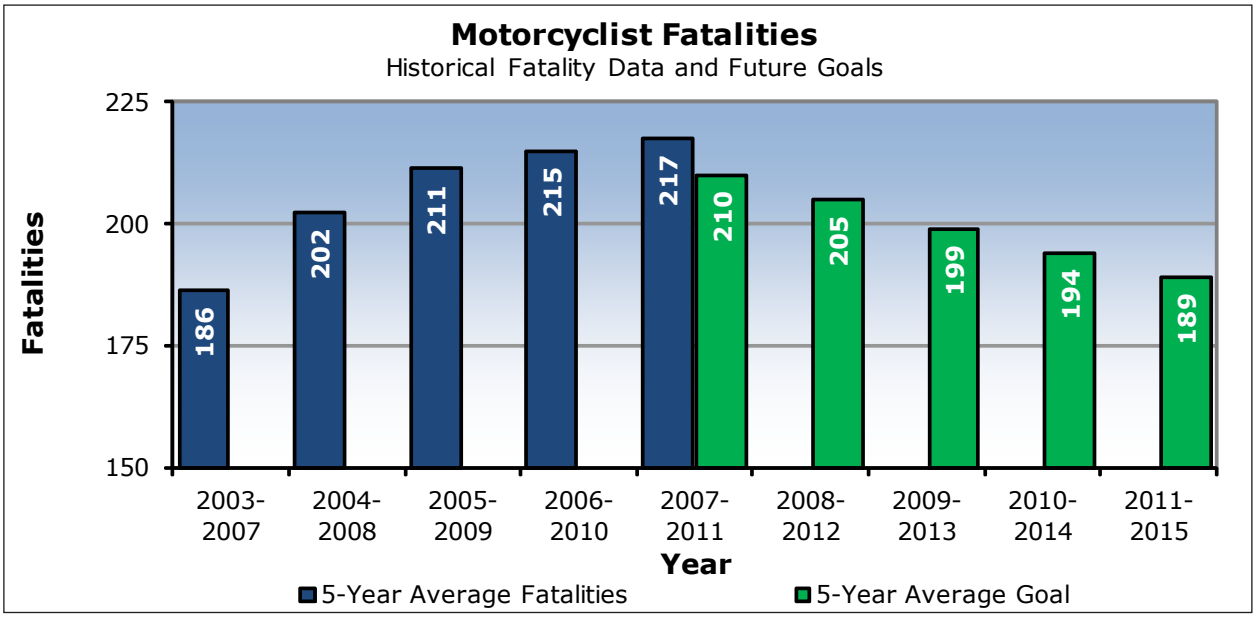
Many of the strategies to combat older driver fatalities include engineering improvements and comprehensive education. We will have to work with our growing population of older drivers and our partners to see that mature driver safety improves through all the changes life poses.

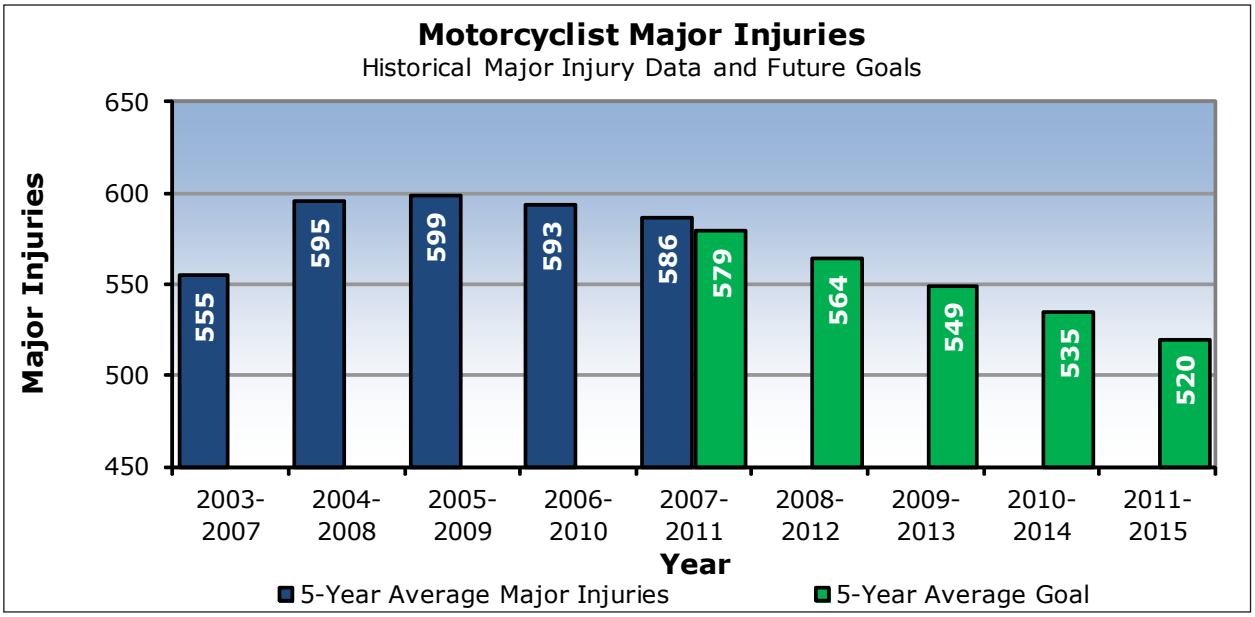
Top Strategies
Promote Mature Driver Education Classes through AAA, AARP and Seniors for Safe Driving. Approve an online course to facilitate this training.
Identify ways to make intersections, signing and other roadway facilities more accommodating for older drivers – potential engineering changes, which may include roundabouts.
A comprehensive education plan to address planning, assessment, referrals, program alternatives, legal and law enforcement issues (JNET information).
A continuing medical education (CME) credit course for physicians on medical reporting requirements.
Develop and update assessment/decision-making tools for older drivers, their families and caregivers, the medical community, pharmacists, human service agencies and other stakeholders.
Educate city planners, developers, students, engineers and community groups how to prepare and manage senior mobility issues in their communities.



Motorcycle Safety

Motorcycle safety has always been an area of concern in Pennsylvania. Motorcycle fatalities on average have increased this past decade, although the 2011 fatality count was the lowest since 2006. Prime factors that have contributed to motorcycle fatalities include impaired riding, lack of training, and aggressive riding. An increase in the number of motorcycle riders on our roadways has also increased the chances of a crash.





Motorcycle Safety

Strategies to combat motorcycle fatalities and major injuries incorporate education programs, rider training and law enforcement. Safer operating habits are key to reducing motorcycle related crashes.

Top Strategies
Conduct public information programs to educate all roadway users on the presence of motorcycles and to publicize training opportunities and the Live Free Ride Alive web site, which includes information about rider safety and the dangers of drinking and riding.
Provide training for law enforcement in motorcycle DUI detection and motorcycle crash investigation.
Enhance law enforcement tied to events where alcohol is served.
Conduct a "Share the Road with Motorcycles" program through paid and earned media.
Encourage use of protective equipment.
Provide focused education for motorcycle safety during motorcycle events.

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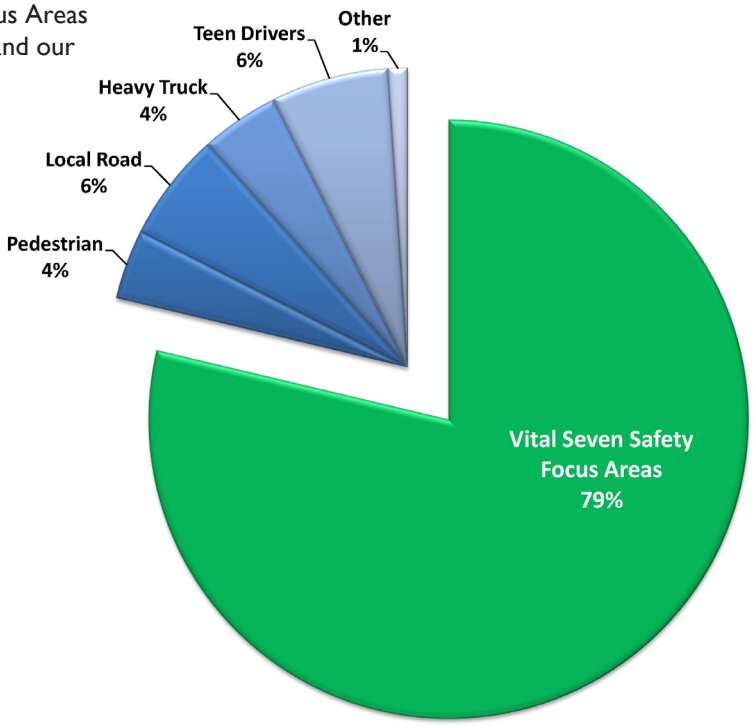
Additional Safety Focus Areas

In addition to the Vital Seven Safety Focus Areas, nine remaining emphasis areas are described in this plan, which also have strategies and highway safety programs being executed every day. The Additional Safety Focus Areas were selected in priority order using the same criteria as the Vital Seven. Some areas have only recently become high safety concerns while others have declined in severity over the last few years. Addressing these focus areas will not have as big of an impact on reducing fatalities as the Vital Seven but they will contribute to our overall fatality reduction goals.

The following chart represents the percentage of statewide fatalities associated with each of the Additional Safety Focus Areas (not including Traffic Records Data or Emergency/Incident Response Time). The Additional Safety Focus Areas accounted for 21% of fatalities in Pennsylvania over the last 5 years. The "Other" category includes Work Zone (1%), Bicycle (less than 1%) and Vehicle-Train (less than 1%). Implementing strategies and action items to address the Additional Safety Focus Areas will continue to be a high priority for PennDOT and our highway safety partners.

- Teen Driver Safety (ages 16-20)
- Enhancing Safety on Local Roads
- Improving Pedestrian Safety
- Improving Traffic Records Data
- Commercial Vehicle Safety
- Improving Emergency/Incident Response Time
  - Emergency Medical Services
  - Emergency Incident Management
- Improving Bicycle Safety
- Enhancing Safety in Work Zones
- Reducing Vehicle-Train Crashes

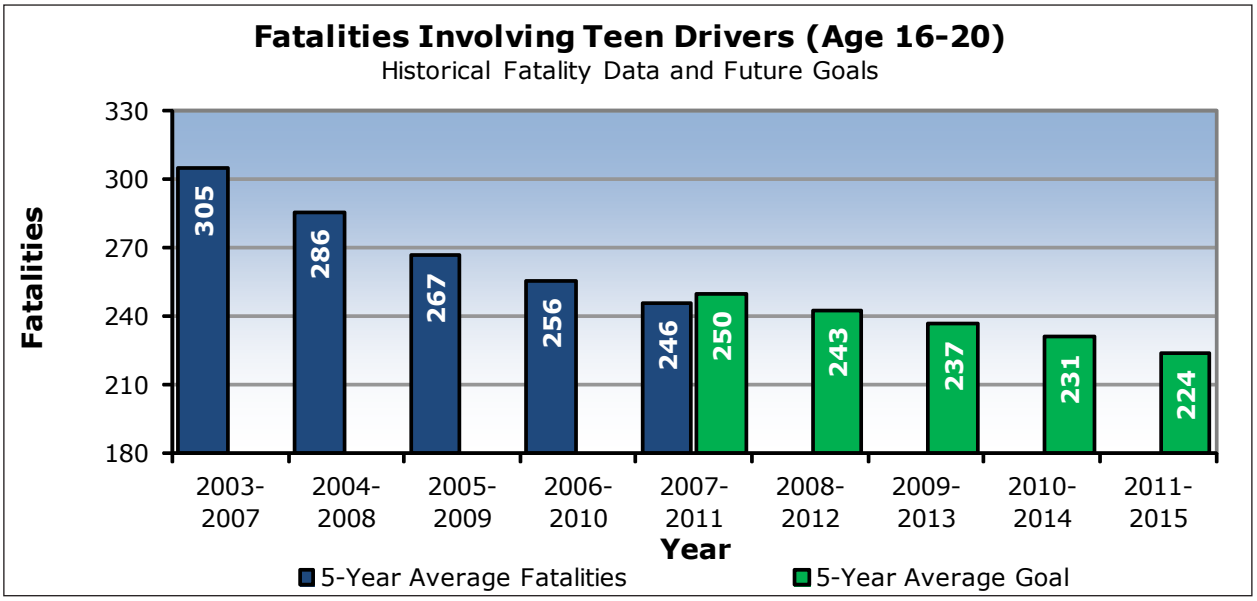
Additional Safety Focus Areas*

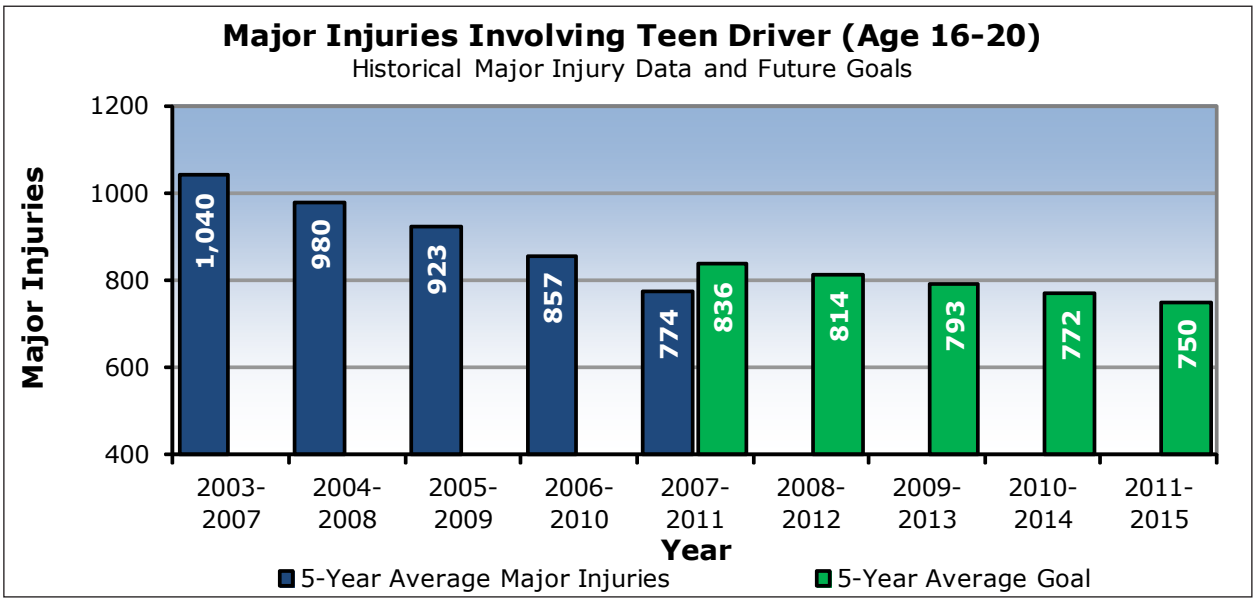


*Based on historic 5-year average (2007-2011)

Teen Driver Safety (ages 16-20)

Vehicle crashes are the leading cause of death among 16-20 year olds. Some key contributors to crashes involving teen drivers in Pennsylvania include driver inexperience, driver distractions, driving too fast for conditions and improper or careless turning. Pennsylvania´s Graduated Driver Licensing Law, which took effect in 1999, and was updated in 2011, was a major enhancement to teen driver safety and has proven effective in reducing crashes and fatalities for 16 and 17-year-olds.





Teen Driver Safety (ages 16-20)

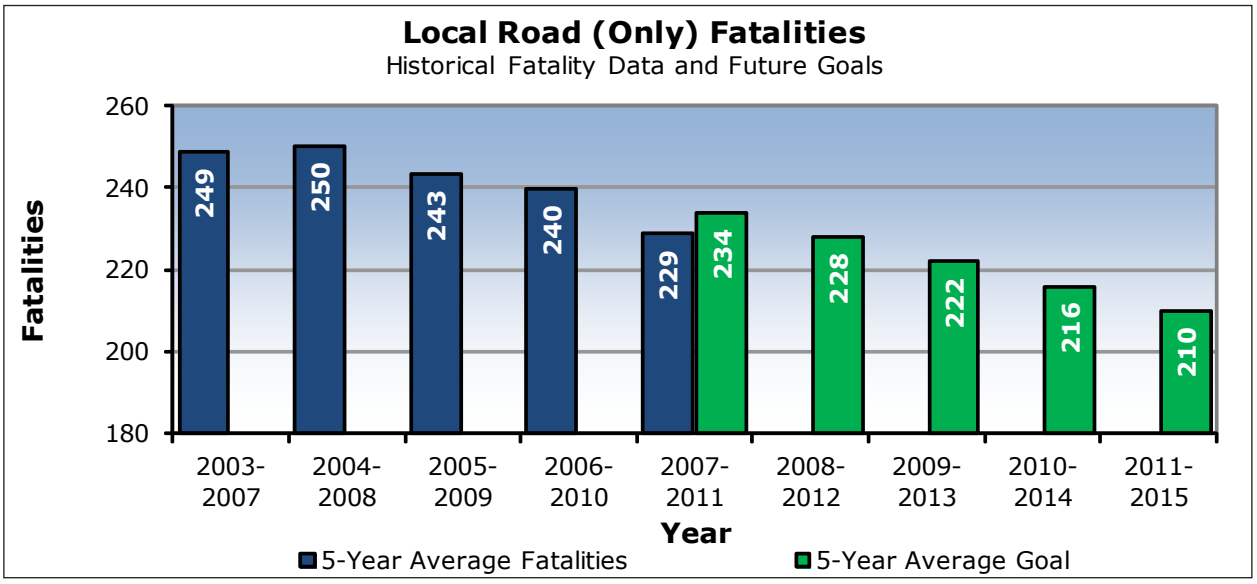
Many of the strategies to decrease crashes caused by teen drivers consist of legislation, education, and law enforcement. Implementing the top strategies listed below will go a long way to reducing teen driver fatalities and major injuries. The new 2012 statewide anti-texting law will also help improve safety in this focus area.

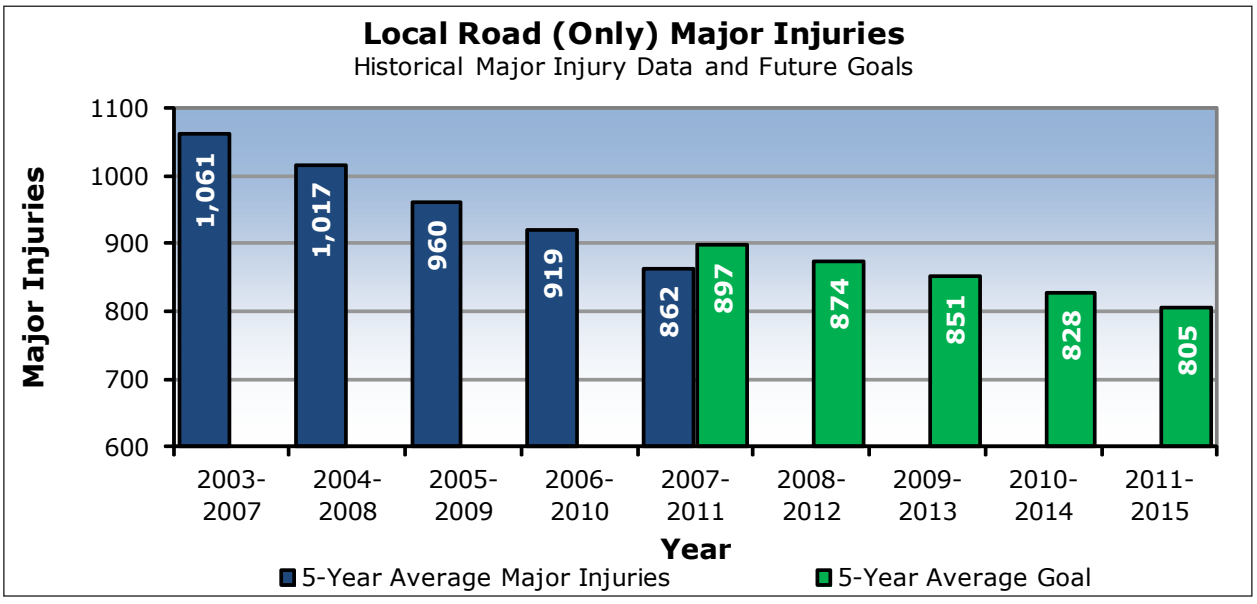
Top Strategies
Enact stricter Graduated Driver Licensing (GDL) law requirements.*
Implement an evaluation system for drivers moving from the provisional to the regular license stage (junior to senior license).
Expand enforcement on GDL compliance (including texting).
Implement and/or expand public information and education campaigns targeted at improving the safety of teen drivers.
Continue real-world comprehensive testing of teen drivers' knowledge and skills.
Reach out to Magisterial District Judges (include president judges).

*Denotes legislative strategy recommended by highway safety partners and does not constitute endorsement by agency leadership

Enhancing Safety on Local Roads

Pennsylvania has over 78,000 miles of local municipal roads experiencing nearly 50 million miles of traffic each day. These roads are owned by townships, boroughs, cities, and counties. Currently, more than a quarter of all reportable crashes occur on locally owned roads, accounting for approximately one fifth of the total fatalities and major injuries. We can achieve the goal of reducing local road crashes and contribute to the overall reduction in crashes on Pennsylvania highways by identifying and prioritizing high crash corridors and intersections on local municipal roads and implementing our top strategies at those locations.





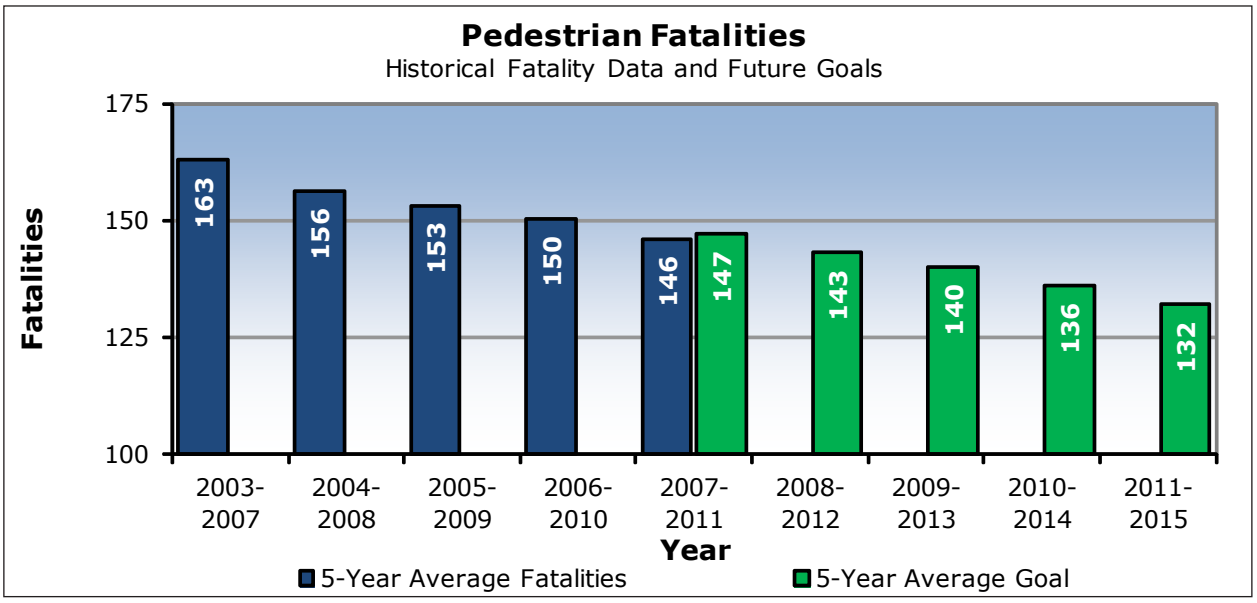
Enhancing Safety on Local Roads

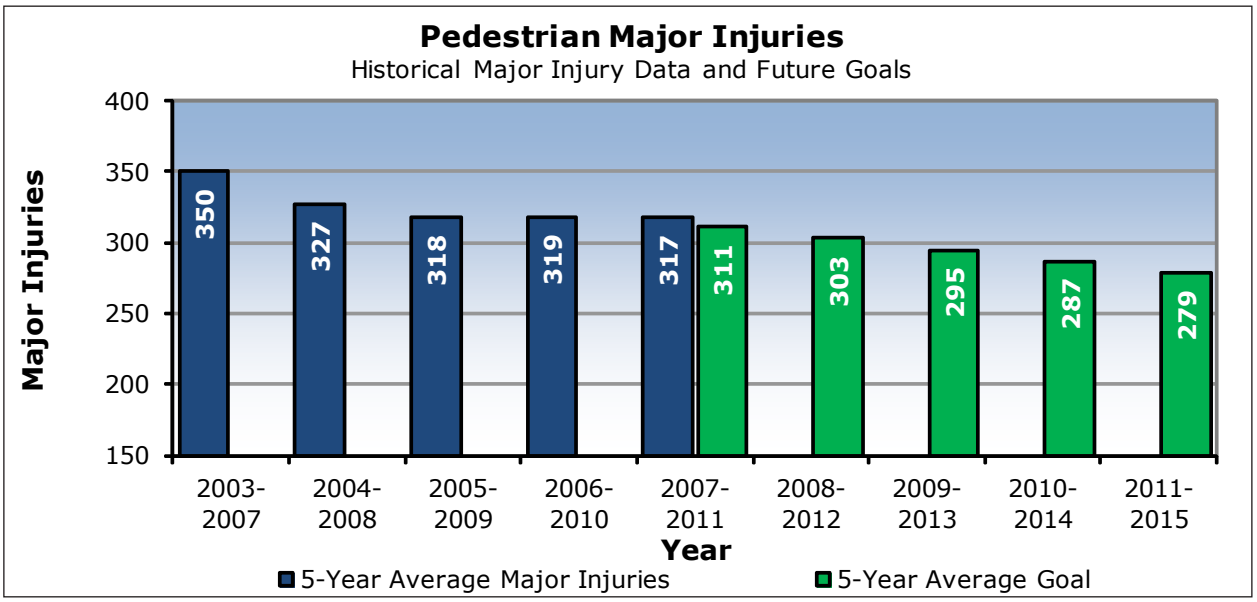
Local roads experience the same types of crashes as state highways (run-off-road, intersection, pedestrian, etc.). Our top strategies to enhance safety on local roads include engineering improvements as well as well as providing training, technical assistance and safety audits to identify countermeasures for the prioritized list of roadway corridors and intersections.

Top Strategies
Implement systematic local road safety improvements (intersection, rumble strips, curve-related).
Secure dedicated funding for safety on local roads and promote low cost safety improvement projects.
Improve quality of, and access to, local road crash data and traffic volume information.
Implement local comprehensive programs to reduce aggressive driving, reduce DUI crashes, increase seatbelt use, etc..
Improve GIS reporting and capabilities for local roads.

Improving Pedestrian Safety

Pedestrian fatalities represent a significant number of the overall highway fatalities in Pennsylvania. Pedestrians are legitimate roadway users but are sometimes overlooked in the construction and maintenance of transportation systems. Although pedestrian mobility is often the chief planning goal, access is often not possible. Thus, access to the transportation system must be first achieved before pedestrian mobility can succeed. Whether building new infrastructure or renovating existing facilities, plans should consider pedestrians as equal users of the transportation network.





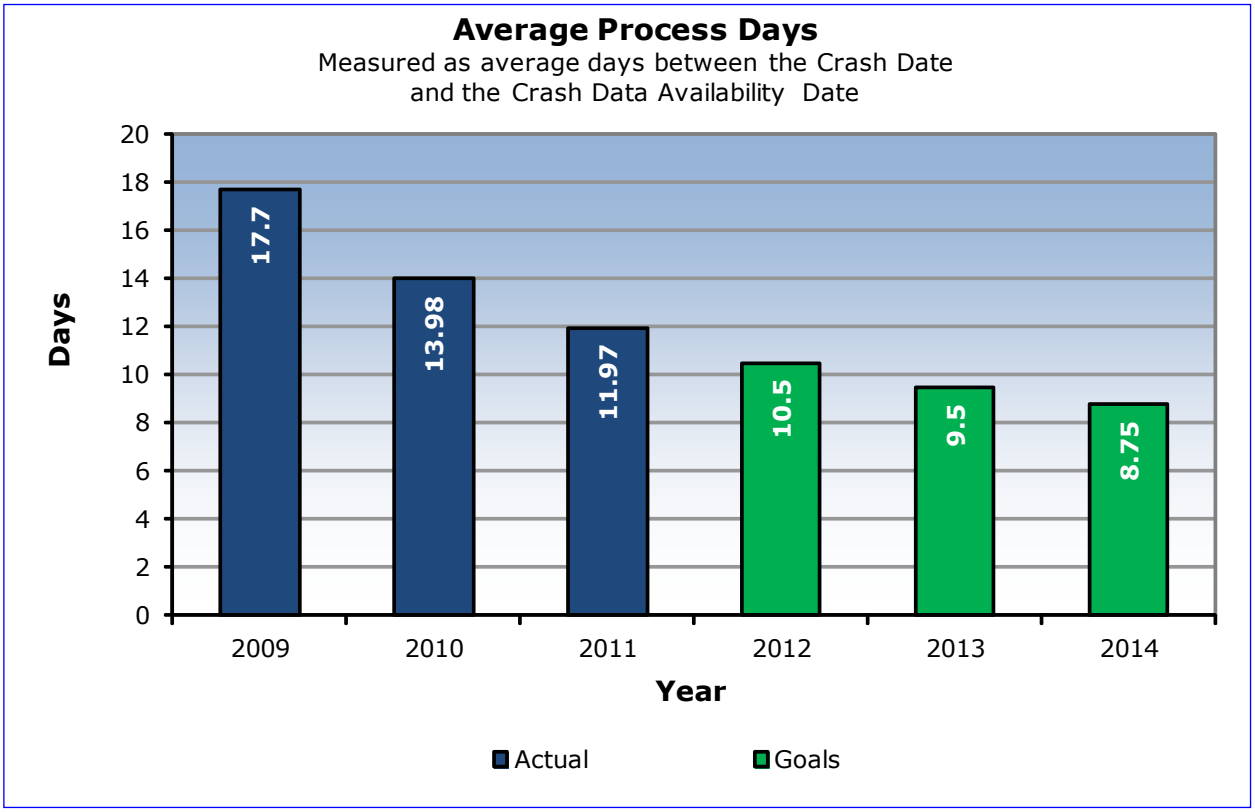
Improving Pedestrian Safety

In order to implement the most effective strategies to reduce vehicle-pedestrian crashes, it is imperative to study why, where and when pedestrians are being struck by motor vehicles. Pedestrian fatalities and crashes are a multi-faceted problem. While the majority of pedestrian crashes occur in crosswalks in urban settings, the majority of pedestrian fatalities occur in non-intersection locations in less urban or in rural areas. Therefore, a regional analysis of pedestrian crashes and/or fatalities must account for internal variations of this type. Our top strategies to improve pedestrian safety are mostly engineering and educational in nature.

Top Strategies
Examine the root causes of pedestrian crashes in order to develop and implement effective countermeasures.
Reduce pedestrian exposure to vehicular traffic and improve sight distance between vehicles and pedestrians.
Provide education, outreach and training to motivate a change in specific behaviors that can lead to fewer pedestrian injuries.
Continue to deploy yield-to-pedestrian channelizing devices to communities across the Commonwealth and measure their effectiveness.
Improve pedestrian safety in Transportation Enhancements (TE) and federal Safe Routes to Schools (SRTS) programs.
Improve signal hardware for pedestrians (pedestrian signals and timing, accessible pedestrian signals, right turn on red restrictions, pedestrian countdown signals, etc.).
Improve enforcement of pedestrian laws, and discourage unsafe pedestrian behavior.

Improving Traffic Records Data

Accurate traffic records data are the backbone of an effective safety management system. Pennsylvania's traffic records system provides the basic information that is necessary for efficient and successful highway safety efforts at the local, state, and federal levels of government. The statewide traffic records system is used to perform problem identification, establish goals and performance measures (results), allocate resources, determine the progress of specific programs, and support the development and evaluation of highway and vehicle safety countermeasures. Traffic records data will be available more quickly by decreasing the number of days the police take to submit crash reports as well as the amount of time PennDOT takes to process them.



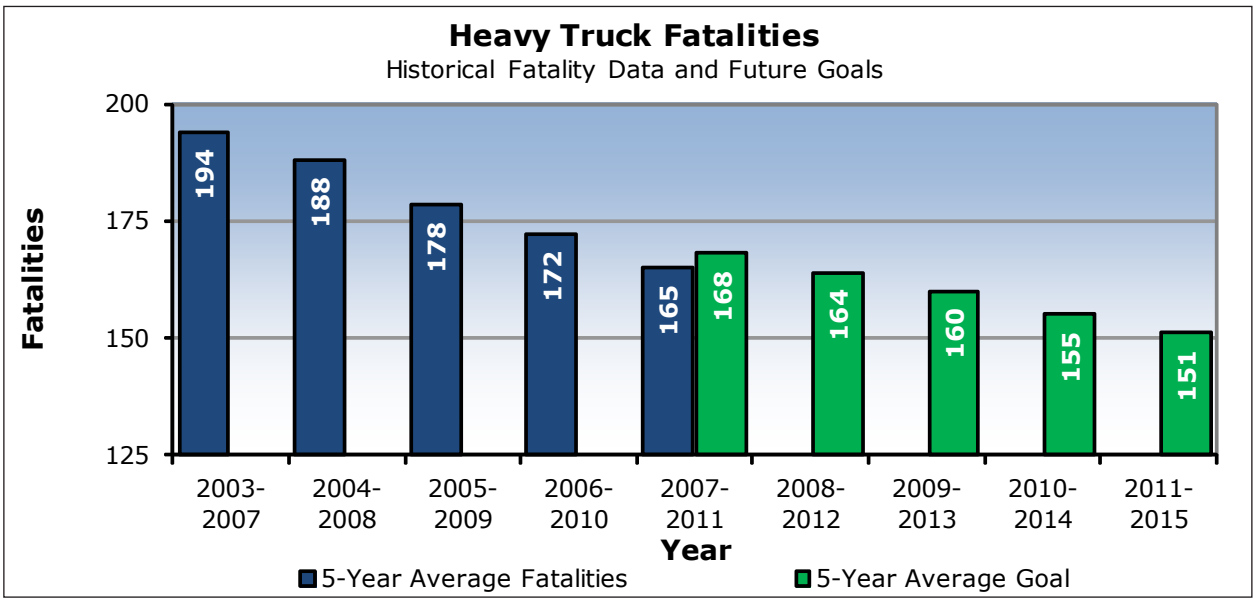
Improving Traffic Records Data

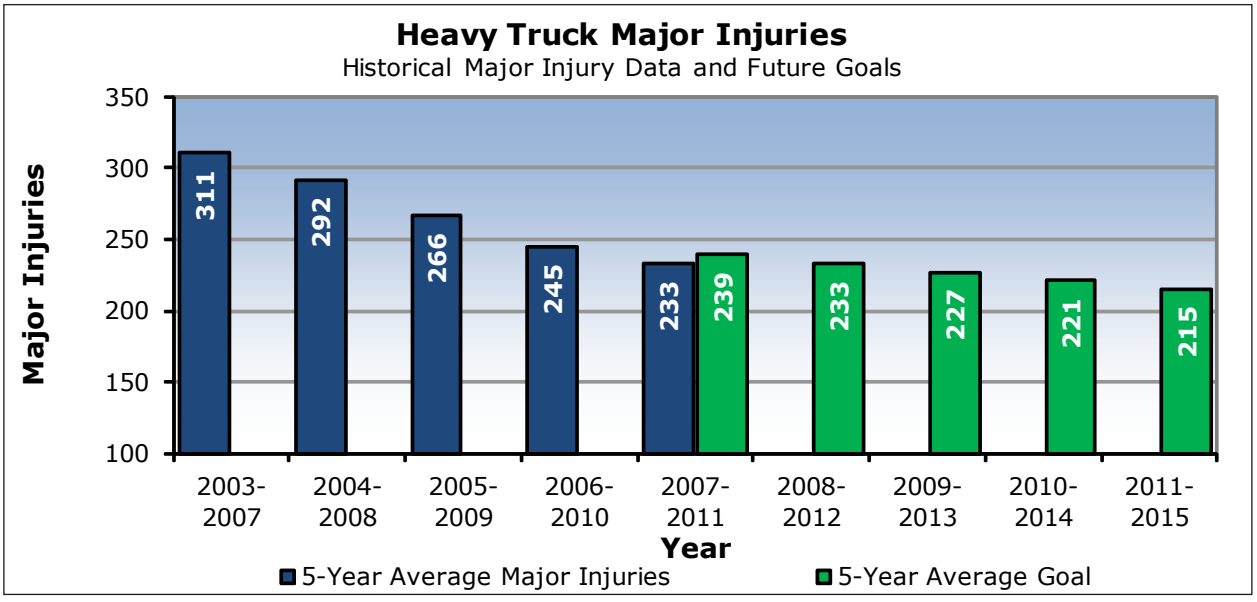
Without accurate traffic records data, sound decisions about the direction of Pennsylvania's highway safety programs cannot be made. Our goal is to make our traffic records data timely, consistent, complete, accurate, accessible, and portable (able to be integrated with other data sources).

Top Strategies
Improve data accessibility by partners and data users.
Increase the electronic submission of crash records input by partners to 100%.
Implement a program for improving the quality of police prepared data.
Implement TraCS and other compatible electronic systems for data collection.
Increase the capabilities and capacity in data analysis and statistical evaluation for improving quality and timeliness of crash reports.
Improve reliability and accessibility of local road crash information.
Integrate Crash Records Data and all other traffic records data components.

Commercial Vehicle Safety

On average, "heavy truck" related crashes account for approximately 11% of the total traffic related fatalities and 7% of the major injuries that occur on Pennsylvania's roads each year. In conjunction with the Pennsylvania State Police (PSP) and other law enforcement agencies, PennDOT has helped enhance enforcement efforts that targets aggressive driving by, and around, heavy trucks. To help address these behavioral safety concerns we will need to reach out to our communities to better educate our driving public about sharing the road.

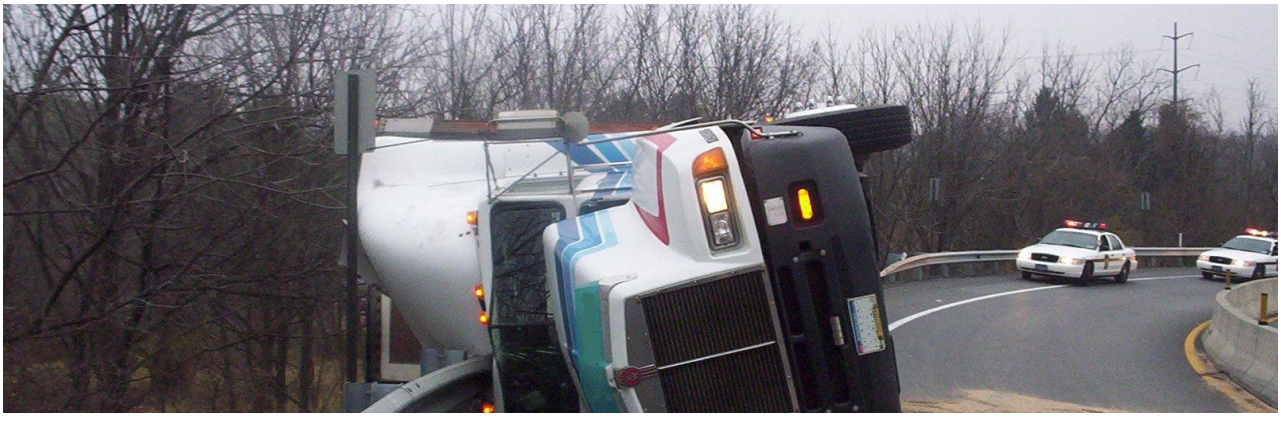




Commercial Vehicle Safety

Our strategies to enhance commercial vehicle safety and reduce "heavy truck" related fatalities incorporate mostly enforcement and education efforts. We will need to continue to expand our relationship with the State Police on enforcement concerns, and strengthen our ties with our trucking industry partners to better understand their commerce and highway safety needs.

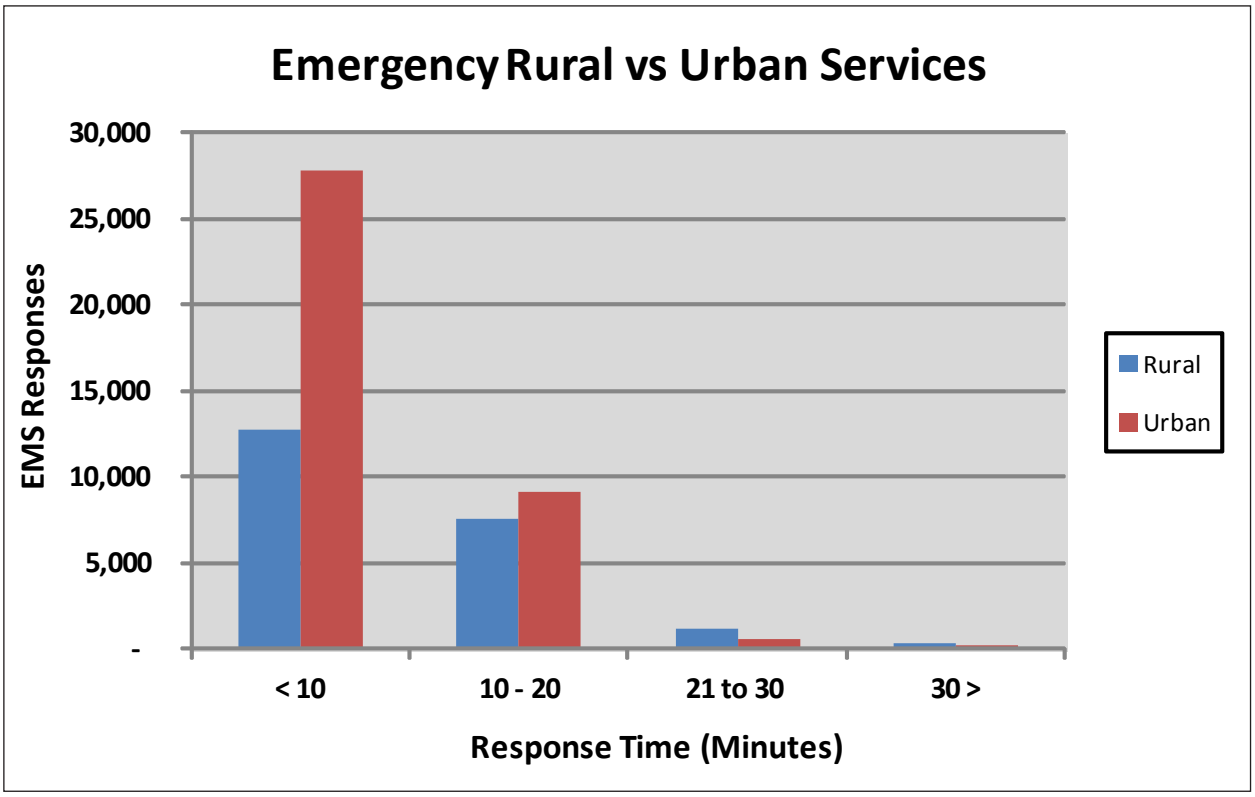
Top Strategies
Increase the number of Level III or driver-only Commercial Motor Vehicle (CMV) inspections in an effort to better identify driver fatigue & seatbelt compliance.
Expand commercial motor vehicle inspections that include traffic enforcement/moving violations as well as inspections conducted on for-hire passenger vehicles operating in the commonwealth.
Increase the amount of commercial vehicles with DOT numbers.
Increase the amount of commercial vehicles that are weighed in the Commonwealth.
Decrease the out of service violation rate for trucks operating in support of the Marcellus Shale industry.
Improve driver awareness of commercial vehicles and expand the safety education of trucking industry.
Continue to deploy advanced enforcement techniques and technologies.



Improving Emergency/Incident Response Time

Emergency Medical Services

Pennsylvania has one of the nation's largest rural populations with nearly 3 million residents or 23% of its population considered rural. Due to the remoteness and inaccessibility of rural areas, EMS agencies have more obstacles to respond to a patient in need than those in urban areas. Opportunities for improvement include inadequate financial resources, recruitment and retention difficulties, high reliance on increasingly hard-to-find volunteer personnel, aging infrastructure, communication technology problems, lack of access to qualified medical direction, lack of training opportunities close to home and continuing education.



Improving Emergency/Incident Response Time

Emergency Medical Services

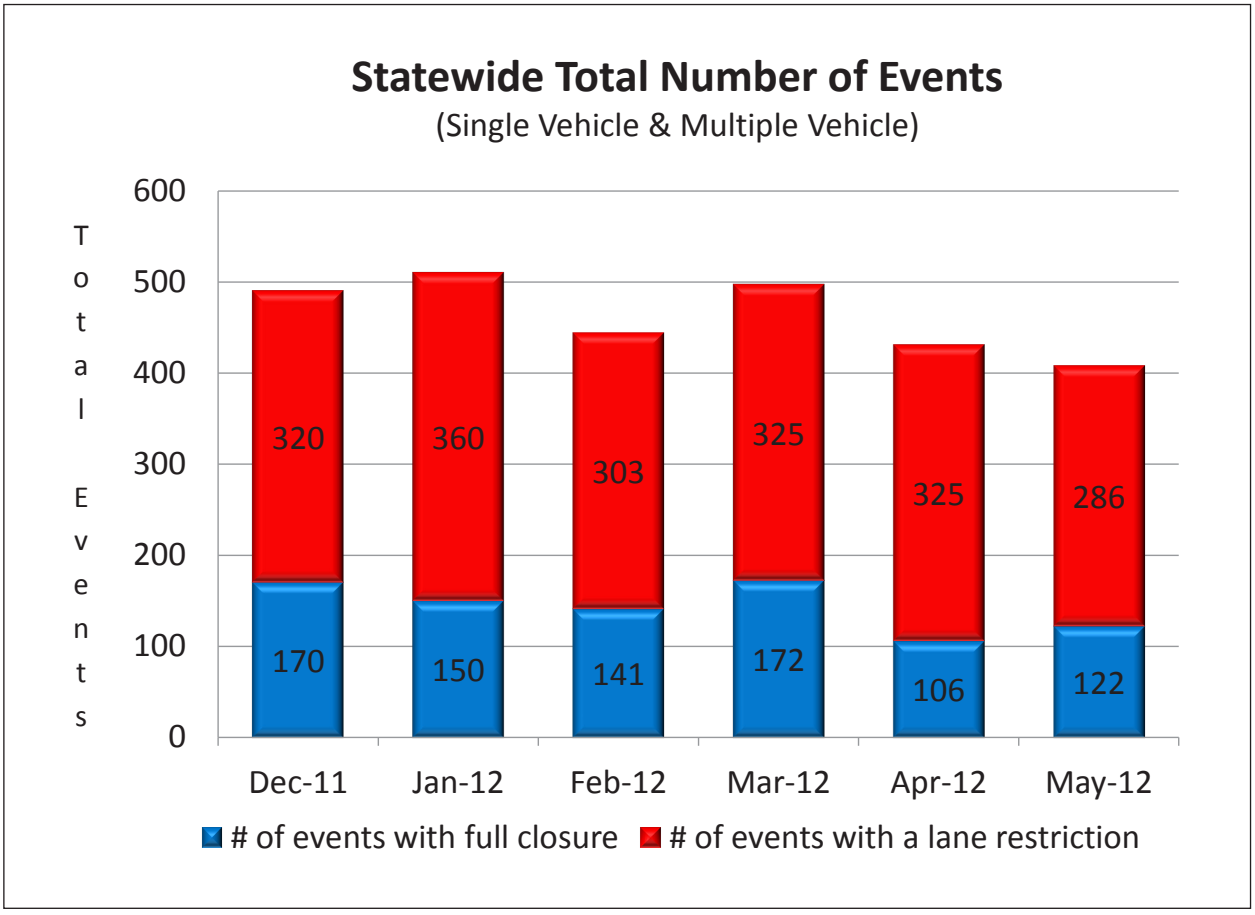
Enhanced technology is the most efficient method to improve emergency response time both in urban and rural areas. Our top strategies to address this focus area include EMS and law enforcement programs.

Top Strategies
Develop models to optimize EMS staffing patterns to include recruitment and retention strategies.
Install global positioning equipment on EMS vehicles to allow for quicker crash location identification, and implement a rural coordinate addressing system to improve emergency workers' ability to locate rural locations.
Improve compliance of 911 centers with FCC wireless phase 2 capability.
Implement "Yellow Dot" program in PA to assist EMS personnel and first responders by providing detailed medical information that can be crucial following a crash.
Continue to include local EMS / 911 personnel when planning or implementing response plans.
Integrate EMS and PennDOT Crash Records Data.
Implement Highway Incident & Transportation Systems (HITS).

Improving Emergency/Incident Response Time

Emergency Incident Management

An Incident Management and Traffic Operations Program is crucial to responding to incidents and reducing incident duration. Although PennDOT is not a first response agency, its coordination and cooperation can be beneficial to successfully managing incidents and emergencies. Our goal is to reduce the overall incident time and duration through improved incident response.



Improving Emergency/Incident Response Time

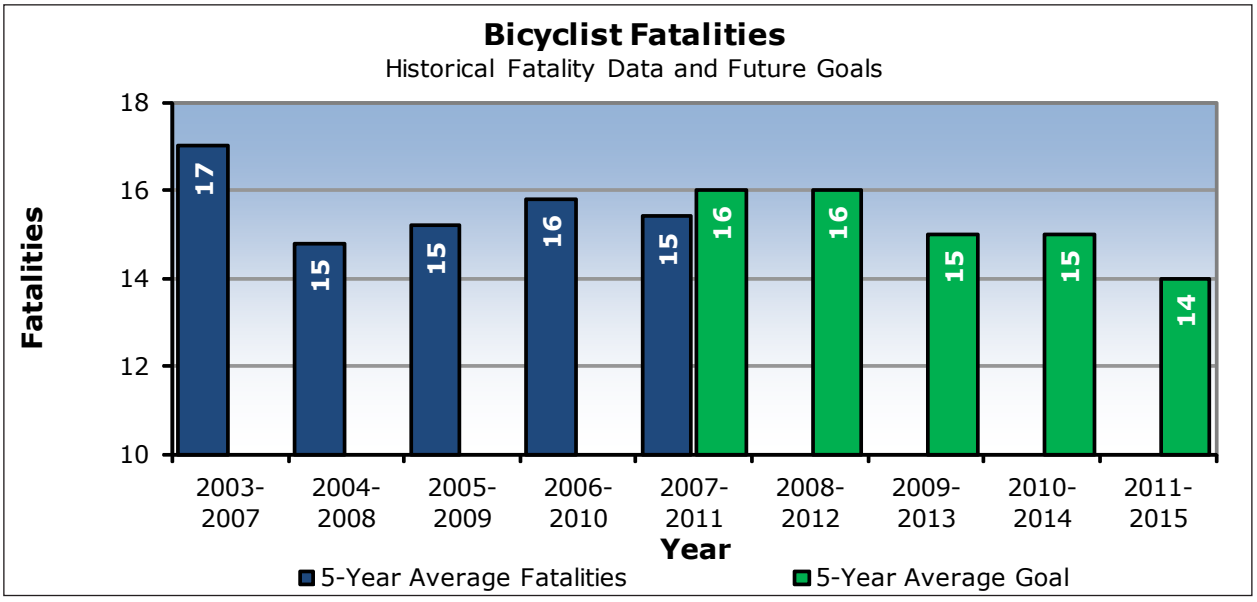
Emergency Incident Management

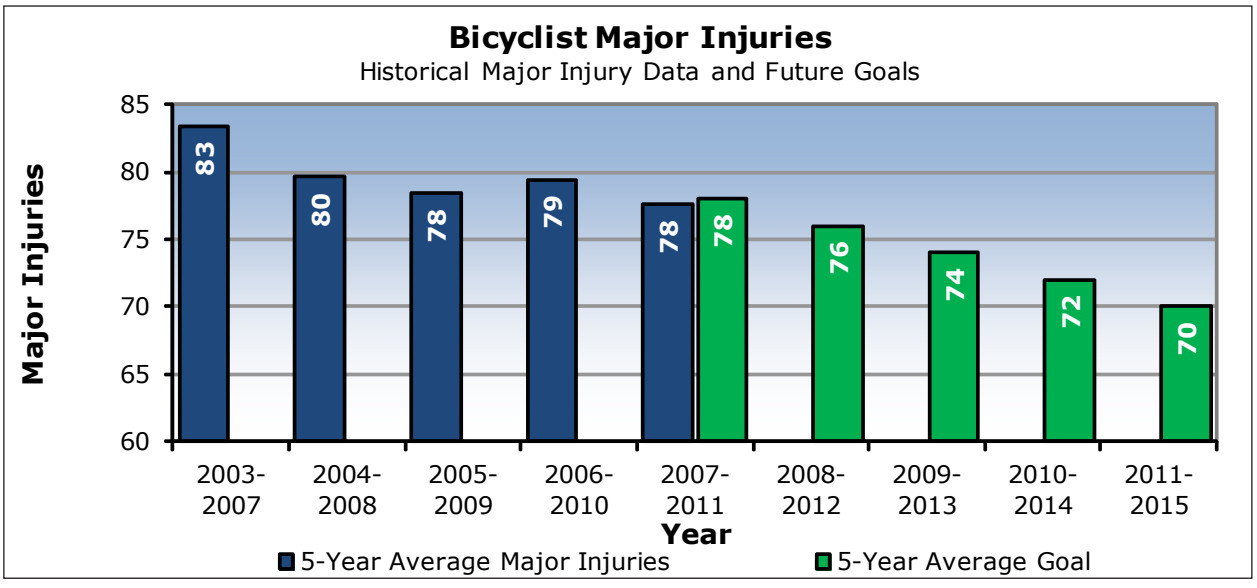
Real-time information, Intelligent Transportation System (ITS) Devices, collaboration with other agencies, training, and statewide connectivity of traffic management centers can help improve incident detection and response. Our top strategies span across all 4 E's of Safety.

Top Strategies
Implement statewide Intelligent Transportation System (ITS) device command and control software package.
Establish a Statewide TMC collocated with other key emergency and incident management agencies (PEMA, PSP, PTC, etc.).
Implement Phase A (interstate-to-interstate) and Phase B (interstate-to-other limited access) of the ITS Statewide Mobility Program to improve situational awareness, improve traveler information, and reduce the number/rate of secondary crashes.
Implement an updated Emergency Transportation Operations (ETO) Manual and associated training and exercise program.
Establish a Freeway Service Patrol policy to define program and coverage area requirements for current and future maintenance.
Establish an Incident Management / Operations Policy.

Improving Bicycle Safety

Fatalities and major injuries that are caused by motor vehicle-bike collisions represent a small portion of the total crash picture in Pennsylvania. Nevertheless, they are a vulnerable group that is not ignored by PennDOT. The emphasis is on ensuring that bicyclists understand the rules of the road and that they are predictable, consistent, and blend easily and safely with other highway users. The attention begins with elementary school children, who are taught the basics of bicycling and the importance of wearing helmets, and continues with instructional publications and website information for teens and adults.





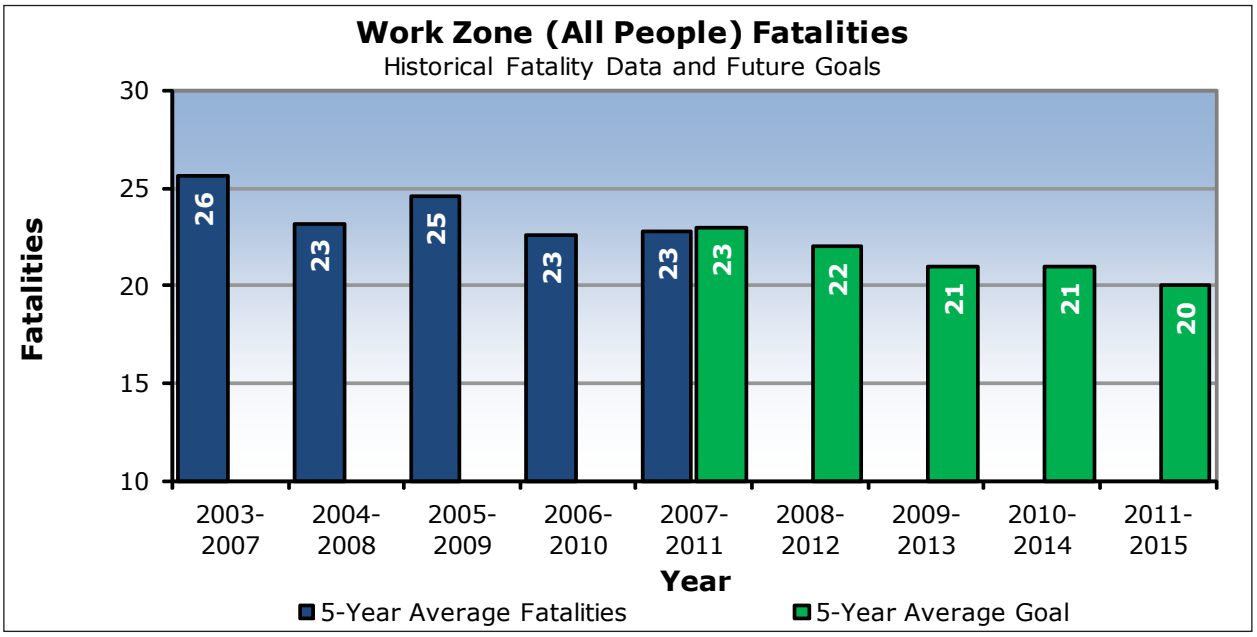
Improving Bicycle Safety

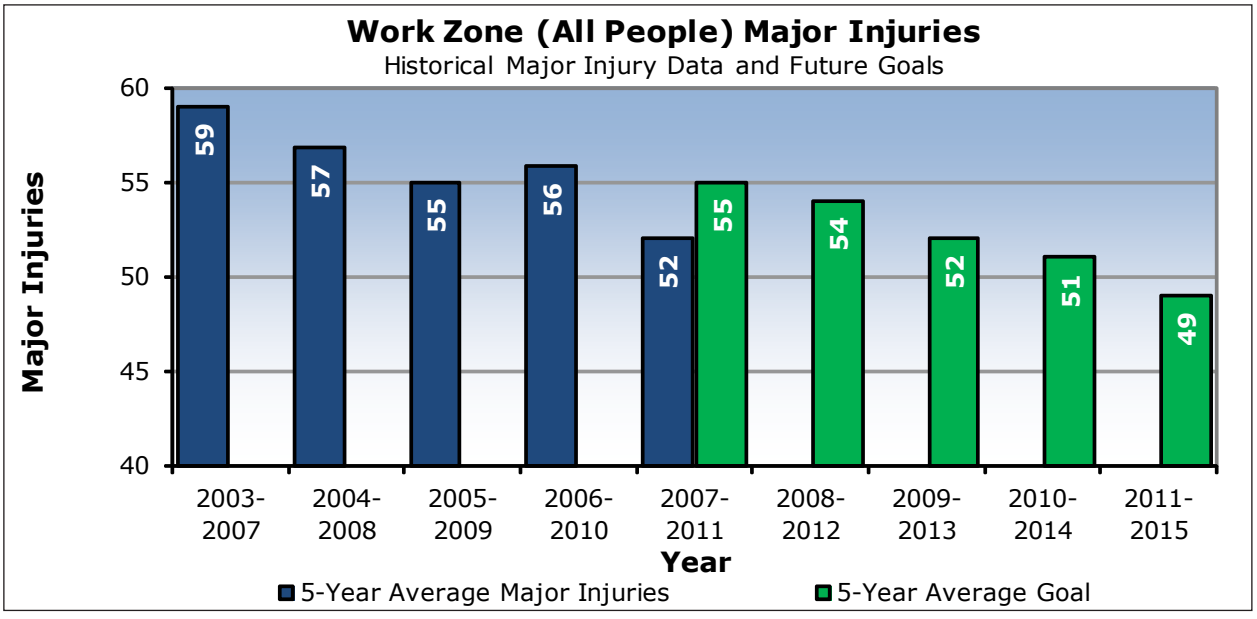
Enhancing our bicycle safety public education program that targets all age groups of bicyclists and drivers will greatly improve bicycle safety throughout the state. Other top strategies to reduce the frequency and severity of motor vehicle-bike crashes consist of engineering and enforcement tactics. "Share the road" messages are also an important part of instruction for motorists.

Top Strategies
Examine the root causes of bicycle crashes in order to develop and implement effective countermeasures.
Increase public awareness through expanded public education and marketing campaigns.
Implement engineering improvements to enhance the safety of bicyclists and reduce crashes at intersections and roadway corridors.
Educate community professionals on effective ways to promote safe bicycling.
Enforce bicycle safety laws.
Expand school and community programs that teach bicycle safety to children and adult bicyclists.
Promote bicycle helmet use.

Enhancing Safety in Work Zones

An average of 23 fatalities and nearly 1,500 crashes occurred annually from 2007 to 2011 in work zones throughout Pennsylvania. Implementing new safety products, expanding public awareness/education, and increasing the presence of law enforcement will help to reduce traffic queues and improve the traffic flow through our work zones. In 2011, $6.1 million was spent on law enforcement for the Department's construction projects.





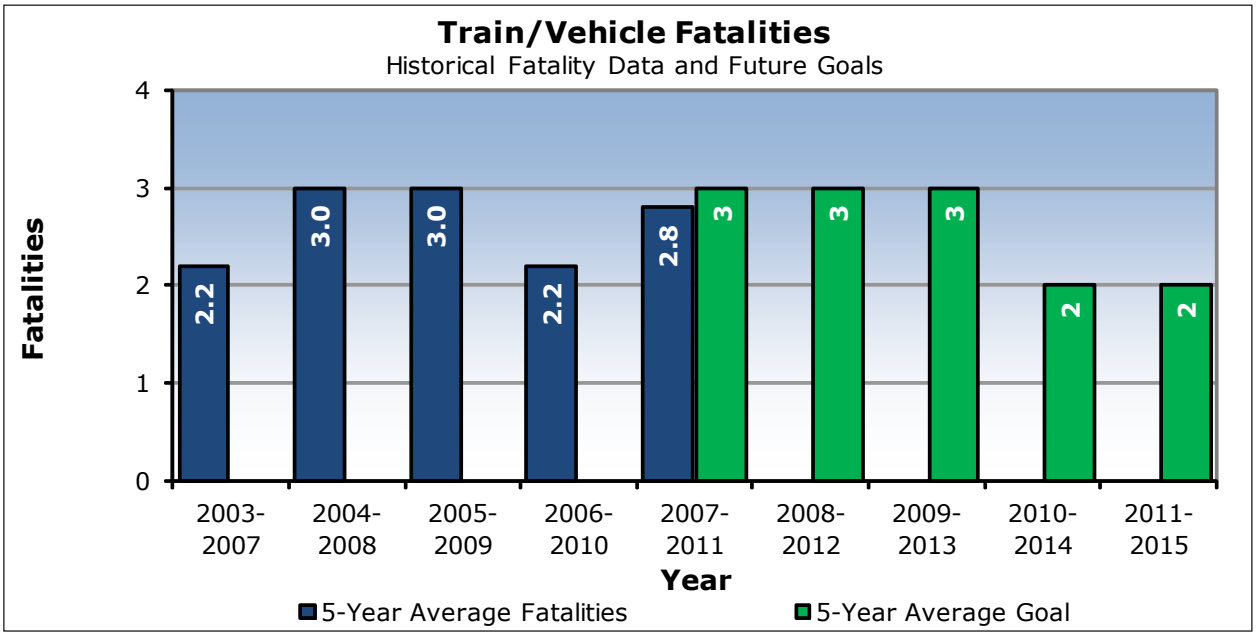
Enhancing Safety in Work Zones

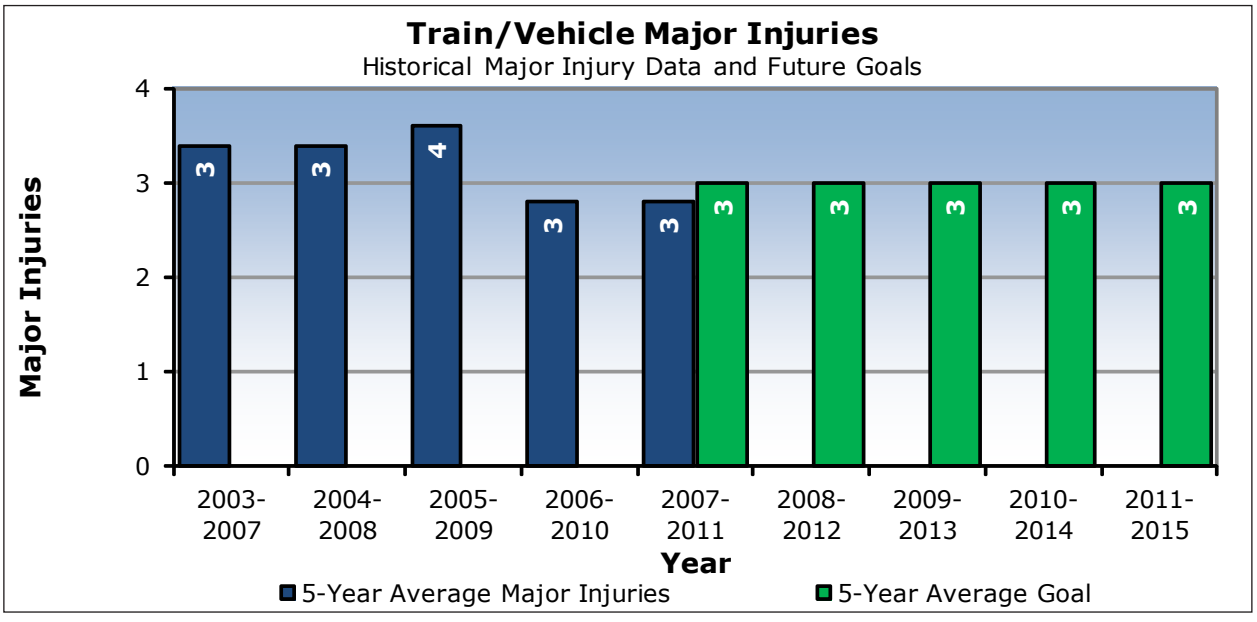
Our top strategies to reduce work zone fatalities include engineering, education, and enforcement efforts. Additional strategies and action items to enhance safety in work zones can be found in our SHSP Implementation Plan.

Top Strategies
Install transverse rumble strips within and prior to work zones.
Maintain the number of projects with dedicated work zone enforcement.
Increase/improve flagger trainings.
Conduct annual Work Zone safety reviews and implement recommendations of review team.
Include a more comprehensive public awareness/education campaign.
Implement Variable Speed Limits (VSL) pilot (NCHRP 3-59) – use these technologies to detect queues and improve traffic flow.
Promote alternative routes to decrease the amount of traffic in work zones.

Reducing Vehicle-Train Crashes

Each year, less than 1% of all traffic crashes in Pennsylvania occur at our state's highway-rail grade crossings. However, this safety focus area is still a high concern due to the fact that a majority of crashes that do occur are very severe and result in injuries. A vehicle-train crash indicates that a motor vehicle was involved in a collision with a train or trolley.





Reducing Vehicle-Train Crashes

Many of the vehicle-train crashes that occur are the result of drivers deliberately circumventing or purposely violating active control devices such as flashing lights, bells and crossing arms. All of our strategies to combat vehicle-train fatalities incorporate engineering and education.

Top Strategies
Sustain a systematic program for SAFETEA-LU 148 Grade Crossing Safety Program to identify project location, funding formula, implementation priorities and annual report for FHWA.
Sustain aggressive federal-aid rail-highway crossing safety program.
Implement an "At Grade Crossing Closure" program.
Continue to publicize the dangers of highway-rail grade crossings using Operation Lifesaver's materials and services. Improve information included in driver education, commercial driver's license training, and licensing to reflect safe practices for approaching and traversing highway-rail crossings.

Moving Forward Implementation Process

Pennsylvania's Strategic Highway Safety Plan (SHSP) was created to target priority Safety Focus Areas (SFAs) and promote strategies to reduce fatalities and crashes on Pennsylvania's roadways. The SHSP is a data-driven, long-term strategic plan that integrates the 4 E's of safety (Engineering, Education, Enforcement, and Emergency Medical Services). The goals, strategies, and action items comprised in the SHSP have been established in conjunction with federal, state, local, and private sector safety stakeholders.

This strategic plan is just the starting point toward saving more lives on Pennsylvania's roadways. To achieve the optimal results, the strategies and action items must be implemented. SHSP implementation has been an integral component from the very beginning of the planning process. This section briefly explains how Pennsylvania plans to successfully implement the SHSP. Complete information can be found in our SHSP Implementation Plan.

Essential Eight Elements

The Essential Eight Elements for successful SHSP implementation refer to the four fundamental requirements and four effective steps identified by the Implementation Process Model. The four fundamental requirements are leadership, collaboration, communication, and data collection-analysis. The four effective steps include emphasis area action plans, linkage to other plans, marketing, and monitoring-evaluation and feedback. Objectives for each of the "essential eight" are outlined below.

Leadership
"Providing Leadership and Accountability for SHSP Implementation"

- To secure a shared ownership of the safety goals, PennDOT along with five other high level agencies (Dept. of Health, Dept. of Drug & Alcohol, Dept. of Education, Liquor Control Board, and the State Police) are the ultimate leaders in implementing the SHSP and make up the Multi-Agency Safety Team (MAST)
- Internally, PennDOT has a leader for each of our 20 safety focus areas
- Externally, we plan to establish one contact person from all of our stakeholders/partners who will be the owner of implementing the SHSP within their organization
- Action items for all of the strategies included in the SHSP have been established. These action items have specific owners who will drive the implementation process

Essential Eight Elements continued

Collaboration
"Sharing Ownership of the Safety Goal"

- Established over 40 organizations who qualify as our stakeholders and partners helping to develop our SHSP
- Action items have been identified for each stakeholder/partner
- PennDOT will work together with these agencies to implement highway safety improvement strategies from the SHSP
- MAST – Committee of high level agencies which come together to monitor and address highway safety issues
- Steering Committee

Communication
"Creating Effective Communication Mechanisms"

- Quarterly update with all Steering Committee members to track progress and stay coordinated
- Annual Steering Committee meeting in person
- Quarterly MAST meetings
- Three initial Steering Committee meetings

Data Collection and Analysis
"Improving Traffic Records Data"

- Safety Focus Area Action Plans (these plans are being outlined during the development of the SHSP)
- Tracking dials
- Quarterly email to all Steering Committee members to track progress and give updates
- Quarterly MAST meetings
- District specific crash data for each focus area (motorcycle crashes, head on collisions, etc.)
- Low cost safety improvement projects (quarterly reports)

Emphasis Area Action Plans
"Identifying Performance Measures for all Safety Focus Areas"

- Safety Focus Area Action Plans (strategy tables)
- Tracking dials
- Safety Multi-Agency Roads Team (SMART) for 7 high level focus areas (Reducing Impaired Driving (DUI), Increasing Seat Belt Usage, Infrastructure Improvements, Reducing Speeding & Aggressive Driving, Reducing Distracted Driving, Mature Driver Safety and Motorcycle Safety)

Essential Eight Elements continued

Linkage to Other Plans
"Integration of Other Transportation Plans and Programs"

- District safety plans
- MPO/RPO priority list for safety projects
- Transportation Improvement Program (TIP) / Statewide Transportation Improvement Program (STIP)
- Long range transportation plans
- Highway safety improvement plan
- Stakeholders strategic plans
- Identify other agency Governor's performance measures related to safety and link with their budget and action items

Marketing
"Marketing Safety Throughout Pennsylvania"

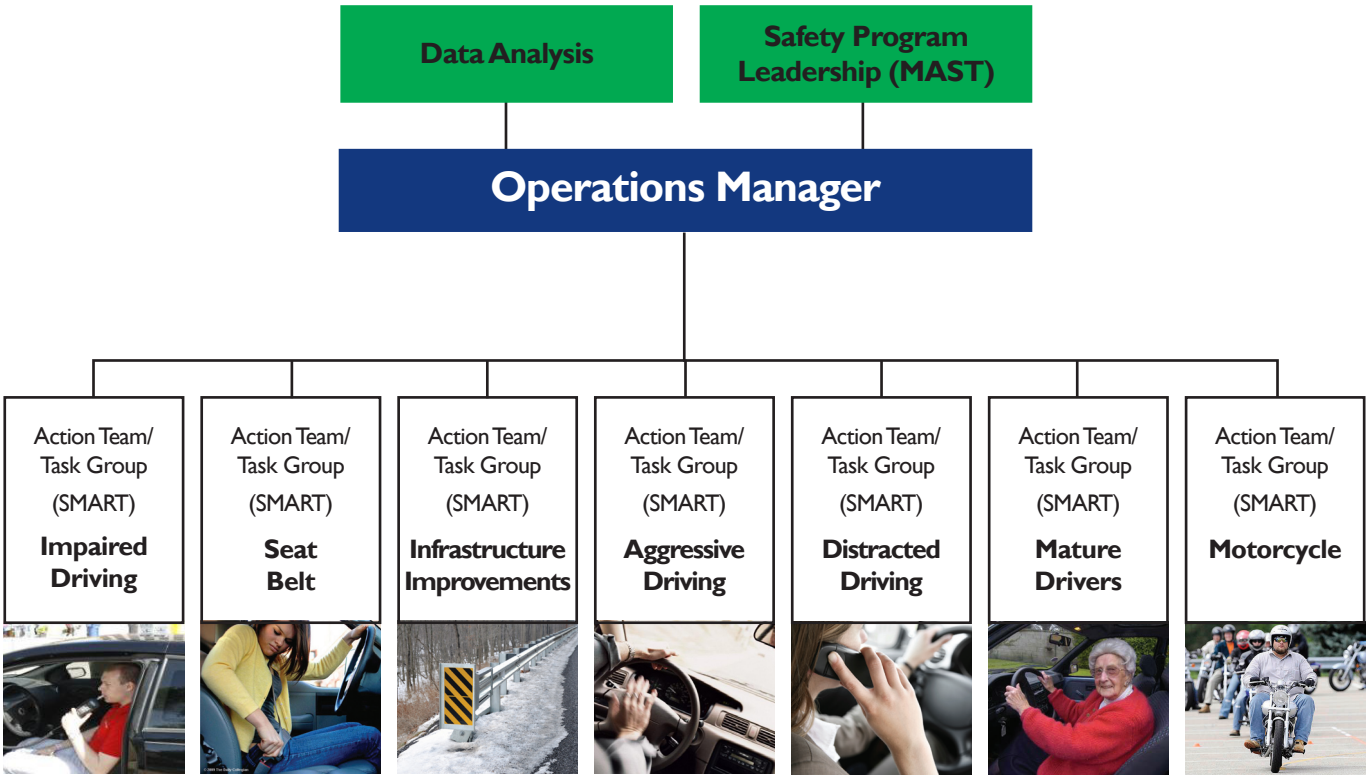
- www.justdrivepa.org website
- Provide information to general public about highway safety goals and programs
- Unify outreach efforts, media events, and educational programs to catch the attention of government organizations, public entities, and businesses
- Outreach to schools, senior organizations, Chambers of Commerce, and others to reach people one on one to promote highway safety and promote the new safety slogan
- Identify safety marketing strategies such as paid media, earned media, internal marketing, and others

Monitoring, Evaluation, and Feedback
"Sustaining and Measuring Safety Efforts"

- Quarterly email to all Steering Committee members to track progress and give updates
- Quarterly MAST meetings
- Annual Steering Committee meetings
- www.justdrivepa.org website - monitor data including fatality counts, safety improvements, and current issues

Organizational Structure

The diagram below describes the organizational structure of the individuals and teams charged with implementation of the SHSP. The roles and responsibilities of the leadership team (MAST – Multi-Agency Safety Team) and the teams accountable for implementing specific actions (SMART – Safety Multi-Agency Roads Team) are described in more detail on the following pages. Based on analysis of crash data collected and maintained by PennDOT, strategies and action items were identified to address the Vital Seven Safety Focus Areas and are implemented through our safety stakeholders and partners. PennDOT meets quarterly with the MAST committee to discuss achievements and needs in highway safety. Each Action Team/Task Group consists of an internal owner for each safety focus area who brings expert knowledge and experience to the subject. Each owner works routinely with the other members of the Action Team which include the agencies and organizations who specialize in that particular focus area.



Multi-Agency Safety Team (MAST)

The Multi-Agency Safety Team (MAST), which includes leadership from various state agencies, will fulfill the following functions:

- Approve the Strategic Highway Safety Plan prior to submission to FHWA
- Oversee implementation of the plan and Memoranda of Understanding (MOUs)
- Prepare quarterly summary of achievements and successes for the Governor's Office
- Enforce accountability for deficient areas by reviewing actions/reports from task groups (i.e. general oversight of task / action teams such as the Safety Multi-Agency Roads Teams - SMART)
- Evaluate plan, initiate redirection of priorities, and request revisions to the plan

Complete information can be found in our SHSP Implementation Plan

Safety Multi-Agency Roads Teams (SMART)

The Safety Multi-Agency Roads Team (SMART) will comprise working level managers and representatives from various agencies encompassing the 4 E's of highway safety. The SMART groups will be responsible for implementing the strategies in the plan by functioning as the action teams / task groups. Cost effective strategies that greatly improve safety will be selected and managed by these teams. They will be provided with clear direction, funding, and human resources to accomplish their goals.

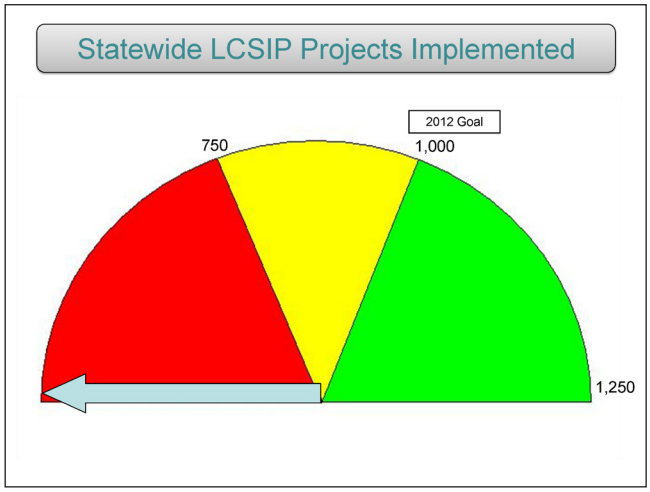
The primary responsibilities of the SMART groups are:

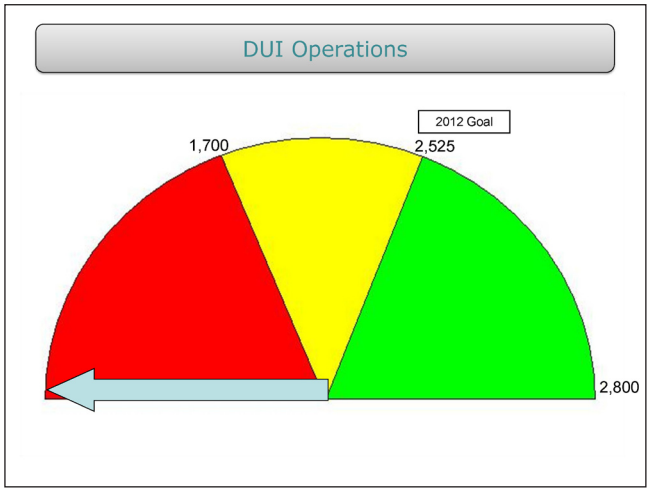
- Write detailed action plans with timelines and measures of success
- Implement aggressive highway safety countermeasures and confirm results
- Identify roadblocks to implementation of actions and report to MAST
- Incorporate additional proven strategies not included in SHSP
- Prepare quarterly progress reports for MAST
- Use pertinent data analysis and results to adjust action plans

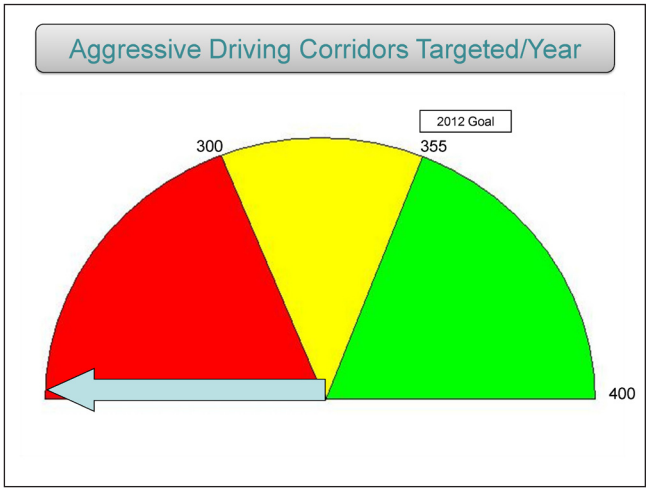
A complete list of all possible strategies including the innovative strategies that were recorded during the highway safety steering committee meetings (for all SFA's) will be made available to the SMART groups.

Performance Measures

The SHSP identifies the safety focus areas and strategies for implementation and continued improvement. In addition, the plan helps coordinate the efforts of all agencies, organizations, and stakeholders that have a role in highway safety. In order for the plan to be successful, it must translate to accountable actions and be periodically evaluated for effectiveness and modified to continually improve performance. PennDOT maintains tracking dials to measure the progress of the actions and strategies found in this plan. These dials (see samples below) will be updated quarterly to monitor results and can be modified at any time to improve performance. Metrics are used to measure the percent complete of long-term action items such as legislation or market saturation. They can also be used to measure annual progress for more quantifiable actions such as the number of enforcement campaigns, educational programs, or engineering improvements. The complete catalogue of all tracking dials will be on display in our SHSP Implementation Plan.







List of Pennsylvania's Candidate HSIP Projects

Established by SAFETEA-LU, the Highway Safety Improvement Program (HSIP) is a core Federal-aid program aimed to achieve a significant reduction in traffic fatalities and serious injuries on all public roads through the implementation of infrastructure-related safety improvements. The HSIP program provides approximately $1.3 Billion per year nationally and approximately $43 million for safety improvement projects in Pennsylvania. This funding is to be implemented at specific high crash locations (see link below) or deployed systematically as proven low cost countermeasures (rumble strips, intersection projects & curve-related improvements).

P:\bhste_shared\highway-safety\District_Safety_Planning\Highway Safety Data\HIGH CRASH LOCATIONS\STATEWIDE High Crash Location List

The following list shows candidate safety projects in Pennsylvania that could use HSIP funds in the future or have been previously committed with HSIP funding. A data-driven approach was taken with the selection of these candidate safety projects.

MPMS #	District	County	Title	Route	Sec
75045	1	Crawford	PA 27/North St. Connector	27	A02
786	1	Erie	Peach St @ I-90 Intrchnge	19	A07
89104	1	Mercer	Slipery Rock Rd/ Swamp Run	173	B03
73354	1	Mercer	Blaktwn Rd/Irshtwn Rd/208	208	A01
67183	1	Venango	SR62/257 Intersection	257	A03
92539	1	Venango	322:Victory Heights Hill	322	02S
75776	2	Centre	SR 150 CCIP	150	CIP
78994	2	Centre	SR 322 Safety Improvement	322	N03
50985	2	Clearfield	SR 322/119 Intersection	322	N25
93675	2	Clearfield	SR322 Walker's Approach	322	N30
94746	2	Clinton	Auction Road Phase II	220	N32
93587	2	Elk	SR 66/948 Int Improvement	66	N29
79405	2	Elk	Vine and Arch St. Signals	255	N14
86816	3	Bradford	Sullivan Co to Laddsburg	220	M13
87667	3	Lycoming	Picnic Area to Overlook	15	139
87670	3	Lycoming	ArmstrongRdtoSylvan Dell	15	140
83487	3	Lycoming	SR 42 ov Little Muncy Crk	42	66
82869	3	Lycoming	Martins RdtoChristians Rd	220	106
93732	3	Lycoming	Pine Run to Harvest Moon	220	122
88621	3	Montour	Montour Street to SR 11	54	73M
91643	3	Montour	SR 54 Int Improvement	54	75
88875	3	Tioga	US 6 Center Turn Lane	6	110

List of Pennsylvania's Candidate HSIP Projects continued

MPMS #	District	County	Title	Route	Sec
82203	3	Tioga	SR 287 over Marsh Creek	287	90
88623	3	Union	SR 1004 Curve Realignment	1004	26M
94688	3	Wyoming	SR 29 Widening / Curve	29	WID
62960	4	Lackawanna	Exit 7 Improvements	6	224
94696	4	Lackawanna	SR 0307 Shoulders / ELRS	307	ELS
94567	4	Lackawanna	SR 348 Intersection Imp	348	IMP
84565	4	Luzerne	SR 118 & Idetown Rd.	118	390
85466	4	Luzerne	Harris Pnd Rd Inter.	118	391
92444	4	Luzerne	Cooks Store Intersection	118	392
62969	4	Luzerne	PA 309 Rock Fence	309	333
9395	4	Pike	Dingmans Turnpike (Curve)	739	401
92900	4	Pike	SR 0739 Shld Widen / ELRS	739	ELR
94642	4	Pike	SR 739 Shoulders / ELRS	739	ELS
94686	4	Pike	SR 739 Should / Widening	739	0
94737	4	Susquehanna	SR 11 Shoulders / ELRS	11	ERS
94740	4	Susquehanna	SR 11 Shoulder / ELRS	11	RS1
94741	4	Susquehanna	SR 11 Shoulder / ELRS	11	RS2
84788	4	Susquehanna	Group 4-11-ST4	167	F11
92566	4	Susquehanna	SR 267 Shoulder/Edgeline	267	ELS
47625	4	Wayne	191/196 & T367, Salem Twp	191	610
92921	5	Berks	SR 73/662 Corridor Safety	73	05S
57840	5	Berks	SR 183/4016 (Schaeffers)	183	07S
78528	5	Berks	SR 183/ 4018 Intersection	183	10S
10951	5	Berks	Shelbourne Rd Jug SW	422	JG2
94857	5	Berks	422 Resurf-419-Wernrsvile	422	20M
93139	5	Lehigh	PA 145-329-Chestnut Intr	145	0
79554	5	Lehigh	222 & Shantz & 863 signal	222	0
95188	5	Lehigh	LVTS High FrictionSurface	329	01S
95190	5	Lehigh	378 HTCable MedianBarrier	378	01S
94831	5	Lehigh	Basin Street Safety Imprv		01S
11817	5	Monroe	Scotrun - Swiftwater	611	04S
95398	5	Monroe	SR2012 Mt Tom to Airport	2012	03S
93116	5	Northampton	SR 248/946 Intersctn Impr	248	0

List of Pennsylvania's Candidate HSIP Projects continued

MPMS #	District	County	Title	Route	Sec
12613	5	Schuylkill	Deer Lake North	61	11S
12694	5	Schuylkill	Port Clinton	61	11M
57625	6	Bucks	PA 232 & Swamp Rd	232	BU1
14613	6	Chester	Gp Nwprt Rd @ Old Balt Pk	41	S56
80042	6	Chester	PA 100 Crdr Sfty Imprv	100	SIP
85949	6	Chester	SR 896 Safety Project	896	SIP
48168	6	Delaware	Baltimore Pk Optimization	2016	DS3
84646	6	Philadelphia	Roosevelt Blvd. Phase2©	1	MBX
85419	6	Philadelphia	Erie Av: Broad St. - K St	1004	SIP
85417	6	Philadelphia	AlleghnyAv:Ridge-Aramingo	2016	SIP
80104	6	Philadelphia	Henry Ave Congested Corr	4001	SIP
85415	6	Philadelphia	Olney Av:Broad-Rising Sun	4004	SIP
88332	8	Adams	US15 PA394 to PA 234	15	25
94894	8	Adams	94 & 394 Intersection Imp	94	25
85652	8	Adams	PA 116 and Oxford Ave	116	30
73602	8	Adams	234 & 3001 Improvements	234	20
85654	8	Cumberland	PA 641 & Central Blvd.	641	25
75620	8	Dauphin	PA 39 to Lebanon Co. Line	22	33
86970	8	Franklin	US11 & PA997 Intersection	11	75
89187	8	Lancaster	US 30/ Ronks Road Intsct	30	097
90490	8	Lancaster	PA 272 Intersection Impvt	272	37
89198	8	Lancaster	PA 501/Oregeon Pk Intsct	501	017
85656	8	Lancaster	Belmont Rd Intsec	741	017
82327	8	Lancaster	Strasburg Pk Intersection	2029	6
87156	8	Lebanon	SR72 & Jonestown Rd Inter	72	044
75790	8	Lebanon	CCIP Palmyra to Cleona	422	20
94937	8	Lebanon	422 & Ramona Rd Intersect	422	28
85655	8	Perry	PA 34 & PA 850 Intersect.	34	35
93171	8	York	Mount Zion Rd Improvement	24	22
80694	8	York	PA74/Spring Lane Rd Inter	74	46
93716	8	York	Queen St Intersection Imp	74	0
93168	8	York	Bridgeville Rd Widening	425	7
93172	8	York	Bull Road Improvement	4001	14

List of Pennsylvania's Candidate HSIP Projects continued

MPMS #	District	County	Title	Route	Sec
48045	9	Bedford	N Pensyl Hollow Rd Intrsn	56	23M
88524	9	Bedford	PA56/SR4028 Intersection	56	24S
92537	9	Blair	US22 Frankstown Intrsctns	22	42S
70294	9	Blair	SR3013 Corridor Imprvmnts	3013	005
21630	9	Blair	Pinecroft Curves	4019	4
22657	9	Cambria	Strayer St Improvements	56	25
82887	9	Cambria	Beaver Run Curve	869	04S
62253	9	Cambria	Preloh Hill Curve	1021	2
48054	9	Fulton	US522 Gem Curve	522	013
88229	9	Huntingdon	PA26/PA305 Intrsctn Imp	23	33
88523	9	Somerset	PA31 W Somrst Corridr Imp	31	014
75565	10	Armstrong	PA268/SR1038 Intersection	268	171
23662	10	Armstrong	Mushroom Farm Rd Intersec	422	172
88927	10	Clarion	PA 68 Clarion Curve	68	374
90194	10	Indiana	United High School Curve	56	470
90196	10	Indiana	Yellow Crk Park Intersect	422	472
26064	10	Jefferson	PA 28/US 322 Intersection	28	0
88168	10	Jefferson	US119/PA 310 Intersection	119	572
94890	11	Allegheny	8 Signal/Braddock-Linden	8	
27179	11	Allegheny	PA 28 Widen/Troy-31st St	28	A09
28000	11	Allegheny	PA 88/51 Brdge/Safety Imp	51	A10
28126	11	Allegheny	West Carson St.Viaduct	51	A63
91733	11	Allegheny	148/Walnut-5th&5th/Jerome	148	A10
88294	11	Beaver	51/Ohio State - SR4004	51	B45
29949	12	Fayette	Torchlight Intersection	40	136
95391	12	Fayette	2012 HSIP Rumble Strips	51	0
30930	12	Washington	US 40: I-70 to PA 18	40	108
30949	12	Washington	PA 519/SR 1055 Intersect.	519	138
57201	12	Washington	SR 519 at SR 980 and I-79	519	0

Glossary of Acronyms and Abbreviations

- 4 E's: Engineering, Education, Enforcement, Emergency Medical Services
- AAA: American Automobile Association
- AARP: American Association of Retired Persons
- AASHTO: American Association of State Highway and Transportation Officials
- ARLE: Automated Red Light Enforcement
- BAC: Blood Alcohol Content
- BDL: Bureau of Driver Licensing
- BHSTE: Bureau Highway Safety & Traffic Engineering
- CDART: Crash Data Analysis Retrieval Tool
- CLRS: Center Line Rumble Strips
- CME: Continuing Medical Education
- CMV: Commercial Motor Vehicle
- CPS: Child Passenger Safety
- CSHSIP: Comprehensive Strategic Highway Safety Improvement Plan
- DOT: Department of Transportation
- DUI: Driving Under the Influence
- DVRPC: Delaware Valley Regional Planning Commission
- EMS: Emergency Medical Services
- ERS: Edgeline Rumble Strips
- ETO: Emergency Transportation Operations
- FCC: Federal Communications Commission
- FHWA: Federal Highway Administration
- GDL: Graduated Driver Licensing
- GIS: Geographic Information Systems
- HITS: Highway Incident & Transportation Systems
- HRRR: High Risk Rural Roads
- HSIP: Highway Safety Improvement Program
- ITS: Intelligent Transportation Systems
- JNET: PA Justice Network
- LED: Light Emitting Diode
- LTAP: Local Technical Assistance Program
- MAST: Multi-Agency Safety Team
- MOU: Memo of Understanding
- MPO: Metropolitan Planning Organization
- NCHRP: National Cooperative Highway Research Program
- PA: Pennsylvania
- PEMA: Pennsylvania Emergency Management Agency
- PENNDOT: Pennsylvania Department of Transportation
- PI&E: Public Information and Education
- PLCB: PA Liquor Control Board
- PPAC: PA Pedalcycle & Pedestrian Advisory Committee
- PSP: PA State Police
- PTC: PA Turnpike Commission
- RLR: Red Light Running
- RPO: Rural Planning Organizations
- SAFETEA-LU: Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users
- SFA: Safety Focus Area
- SHSP: Strategic Highway Safety Plan
- SMART: Safety Multi-Agency Roads Team
- SPO: Safety Press Officer
- SRS: Shoulder Rumble Strips
- SRTS: Safe Route To School
- STIP: Statewide Transportation Improvement Program
- TBD: To Be Determined
- TE: Transportation Enhancements
- TraCS: Traffic and Criminal Software
- TIP: Transportation Improvement Program
- TIPP: Traffic Injury Prevention Project
- TMC: Traffic Management Center
- TSRP: Traffic Safety Resource Prosecutor
- TZD: Toward Zero Deaths
- VSL: Variable Speed Limit

Contact Information

For more information, please contact Pennsylvania's SHSP Operations Manager:

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