

**2010**

**NEW YORK STATE  
STRATEGIC HIGHWAY  
SAFETY PLAN**



**New York State Department of Transportation**

**David A. Paterson, Governor**

**Stanley Gee, Acting Commissioner**





STANLEY GEE  
ACTING COMMISSIONER

DAVID A. PATERSON  
GOVERNOR

March 16, 2010

Mr. Jeffrey Kolb  
Division Administrator  
Federal Highway Administration  
New York Division  
Leo O'Brien Building, Suite 719  
Clinton Avenue and North Pearl Street  
Albany, New York 12207

*Sgt*  
Dear Mr. Kolb

Enclosed is the Strategic Highway Safety Plan for New York State for 2010.

The Strategic Highway Safety Plan was developed through a collaborative process involving public and private sector safety partners at the federal, state, and local levels. The plan also incorporates both behavioral and infrastructure strategies the state has developed to reduce crashes and their severity through applications of engineering, enforcement and education principles, and emergency medical services protocols.

We appreciate the guidance and support your staff has provided in developing the Strategic Highway Safety Plan.

Sincerely,  
*Stan*  
Stanley Gee  
Acting Commissioner

Enclosure



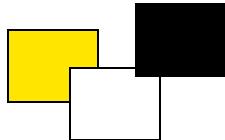
# **NEW YORK STATE**

## **2010 STRATEGIC HIGHWAY SAFETY PLAN**

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# NEW YORK STATE 2010 STRATEGIC HIGHWAY SAFETY PLAN

## VISION

New York's safety community will continue to work to ensure that its customers - those who live, work and travel in New York State - have a safe, efficient, balanced and environmentally sound transportation system, and that safety is appropriately considered in all education, enforcement, engineering and emergency medical services activities in New York State in order to reduce fatal and injury crashes.

## GOALS

Reduce motor vehicle fatalities from 1,231 in 2008 to 1,169 in 2010 and 1,035 in 2014

Reduce the Fatal Crash Rate/100 Million Vehicle Miles Traveled (VMT)  
from 0.87 in 2008 to 0.83 in 2010 and 0.74 in 2014

New York State Motor Vehicle Fatalities and Fatal Crash Rate 2004-2008							
	2004	2005	2006	2007	2008	2010 Goal	2014 Goal
<b>Fatalities*</b>	1,495	1,434	1,454	1,332	1,231	1,169	1,035
<b>Fatal Crash Rate/ 100 Million VMT**</b>	1.00	0.93	0.94	0.89	0.87	0.83	0.74

Sources: *Fatality Analysis Reporting System (FARS)\* and NYS Accident Information System (AIS)\*\**

### Note on Data Sources:

The majority of the data presented in this Strategic Highway Safety Plan (SHSP) were extracted from the Accident Information System (AIS) maintained by the NYS Department of Motor Vehicles and the Safety Information Management System (SIMS) maintained by the NYS Department of Transportation which augments the crash records from AIS with non-reportable crashes.

To be consistent with the National Highway Traffic Safety Administration's requirements for New York's 2010 Highway Safety Strategic Plan, data from the federal Fatality Analysis Reporting System (FARS) are used for selected fatality measures; due to definitional differences between FARS and New York's AIS, the numbers for these measures vary between the two systems.

## **INTRODUCTION**

### **OPPORTUNITIES**

The purpose of the *Strategic Highway Safety Plan* (SHSP) is to promote best practices and strategies that, if implemented, could have a substantial impact on reducing fatal and injury crashes. SAFETEA-LU, the 2005 federal surface transportation authorizing legislation (See Appendix A) clearly supports the view that the states are to consider the transportation system as a connected network. Boundaries, whether defined by state, county or local jurisdictions are not to be considered as barriers to improving safety. The “system” should address the needs of “engineering, management, operation, education, enforcement, and emergency services elements (including integrated, interoperable emergency communications) of highway safety as key factors in evaluating highway projects” for all public roads. This SHSP, developed under the requirements of this legislation, offers the state the opportunity to advance transportation safety programs and partnerships. Collectively pursuing changes to institutional relationships will allow New York to improve safety for all users of the system, integrate new technologies, manage risk, and maximize the use and safety of all modes of transportation.

The NYS Department of Transportation (NYSDOT) views this legislative mandate as an opportunity to use technology to partner with safety agencies and groups to create more seamless and compatible avenues for data sharing and exchange. The creation of enhanced data analysis tools must continue to be a priority if the state is to maintain and improve the transportation system to accommodate a changing demographic profile, in-vehicle and roadway enhancements, as well as user confidence in the reliability and safety of the system. Strengthened partnerships with the Metropolitan Planning Organizations (MPOs), Authorities, local transportation agencies, enforcement agencies, community groups and advocates are vital if the state is to realize efficiencies in using limited resources for pedestrian, bicycle, driver, vehicle and roadway safety improvements. Enhancing data and communication linkages are vital steps toward improving the safety of a transportation system that is already experiencing heavy use and is projected to have further increased demands on its use in the future.

### **BACKGROUND**

New York State has long been a national leader in the implementation of ground-breaking legislation and programs to improve highway safety. These ongoing efforts have had a positive impact; over the past ten years, 1999-2008, the number of motor vehicle fatal crashes and the number of fatalities on New York State’s roadways continued on general downward trends. During this time period, both fatal crashes and fatalities declined by more than 20%.

As required under the federal SAFETEA-LU legislation, NYSDOT developed the state’s SHSP through a collaborative process involving its public and private sector safety partners at the federal, state and local levels. The purpose of the SHSP is to identify the major areas where New York’s safety community will continue to focus its resources and expertise to achieve further reductions in crashes, fatalities and injuries. The priorities emphasized in this comprehensive planning document reflect the results of the other strategic planning processes undertaken in the state to meet federal eligibility requirements for funding in specific program areas.

The Governor’s Traffic Safety Committee (GTSC) has traditionally led the state in establishing overall traffic safety priorities under the federal Section 402 program and various incentive grant programs in areas such as occupant protection, impaired driving and traffic records improvements. The *Highway Safety Strategic Plan* (HSSP), submitted annually to the National Highway Traffic Safety Administration (NHTSA), articulates New York’s traffic safety priorities at both the state and local level and the state’s performance-based plan for achieving its goals. The *Traffic Safety Information Systems Strategic Plan*, coordinated by the GTSC with the Institute for Traffic Safety Management and Research (ITS MR), describes the state’s traffic records systems and the initiatives underway to improve these systems.

New York State's *Commercial Vehicle Safety Plan* (CVSP), submitted annually to the Federal Motor Carrier Safety Administration (FMCSA), outlines performance-based strategies developed to reduce fatal and serious injury crashes involving large trucks and buses on New York's highways. The Departments of Transportation and Motor Vehicles, the Division of State Police and other enforcement groups, as well as the motor carrier industry, partner with the FMCSA to improve the safety and security of New York's highways for the movement of goods and people.

The *Comprehensive Highway Safety Plan* (CHSP) was developed in 2005 prior to the SAFETEA-LU legislation. The CHSP, modeled after the American Association of State Highway Transportation Officials' *AASHTO Strategic Highway Safety Plan*, was intended to complement the more specific strategic safety plans previously developed. The adoption of the AASHTO model, with its concept of focusing on a few "emphasis areas" to reduce crashes and their severity, continues under the SHSP. The CHSP outlines the ongoing strategies and programs the state is advancing to reduce fatal and personal injury crashes; these strategies and programs are organized under the following topics: Drivers, Special Users, Vehicles, Highways, Emergency Medical Services and Management/Data Systems. The SHSP is intended to build on and advance the concepts and strategies articulated in the 2005 CHSP.

The New York State Emergency Medical Services Council has developed the *New York State Emergency Medical Services Plan* to underscore the need to continue to develop cooperative, functional, integrated and interoperable emergency medical services systems throughout the state.

A final category of strategic safety plans developed in New York State includes the NYS Statewide Transportation Master Plan and the Metropolitan Planning Organizations' (MPOs) Long Range Transportation Plans. These plans contain a safety element and consistently advance policies, programs and projects designed to prioritize economic, environmental and social initiatives in order to foster safe, livable communities. State, regional and local planners provide guidance and technical analysis for driver, transit, pedestrian and bicycle issues to further the development of a safe, green and livable environment for all users of the rural, suburban and urban transportation systems. The State Transportation Improvement Program administered by the NYSDOT reflects the focus of the state's collective planning efforts. The goals, objectives and strategies outlined in the SHSP are intended to support the specific goals and objectives of the state's various safety plans and transportation planning documents.

## PARTNERS

New York State's SHSP was prepared under the direction of the NYSDOT and the GTSC. To assist in developing the plan, more than 150 representatives from the state's major highway safety organizations participated in this process. The participating organizations include:

Adirondack-Glens Falls Transportation Council  
Albany County Department of Public Works  
American Traffic Safety Services Association  
Binghamton Metropolitan Transportation Study  
Capital District Transportation Committee  
Cornell Local Roads Program  
Federal Highway Administration  
Federal Motor Carrier Safety Administration  
Governor's Traffic Safety Committee  
Hudson Valley Regional EMS Council  
Institute for Traffic Safety Management and Research  
National Highway Traffic Safety Administration

## **PARTNERS – CONT'D**

New York Bicycling Coalition  
New York City Department of Transportation  
New York Metropolitan Transportation Council  
NYS Association of Traffic Safety Boards  
NYS Chiefs of Police  
NYS Department of Health  
NYS Department of Motor Vehicles  
NYS Department of Transportation  
NYS Division of Criminal Justice Services  
NYS Division of Probation and Correctional Alternatives  
NYS Division of State Police  
NYS Liquor Authority  
NYS Metropolitan Planning Organizations' Safety Working Group  
NYS Motor Truck Association  
NYS Office of Alcoholism and Substance Abuse Services  
NYS Office of Court Administration  
NYS Office of Cyber Security and Critical Infrastructure Coordination  
NYS Operation Lifesaver  
NYS Sheriffs' Association  
NYS STOP-DWI Coordinator's Association  
NYS Thruway Authority  
Poughkeepsie-Dutchess County Transportation Council  
Safe Routes to School National Partnership  
Westchester Regional EMS Council

## **DEVELOPMENT**

The SHSP was developed through a process that is consistent with New York's collaborative practices developed over the last twenty plus years. Formal and informal collaborative partnerships have been established in response to safety mandates and a perceived need to approach roadway and user behavior problems in a holistic manner.

The NYSDOT uses engineering standards, implements operational improvements and partners with safety stakeholder organizations to ensure the safety of the users of the system. The commercial vehicle safety program is dependent on partnerships among NYSDOT, enforcement agencies and the motor carrier industry. Enforcement groups ensure the safety of communities and the traveling public. The GTSC's mission is to create opportunities to improve driver behavior and foster safer communities. The MPOs use a collaborative process to improve transportation and the quality of life. The NYS Department of Motor Vehicles (NYSDMV) regulates drivers and vehicles to ensure that a standard of driver competence and vehicle safety is maintained. All organizations use the crash, volume, and other driver and highway data maintained in the state's various traffic records systems. Professional and volunteer safety advocacy groups work for change in all areas of safety from improving dangerous driving behaviors to ensuring greater opportunities and safer accommodation for the more vulnerable users of the transportation system.

## **Initial Process**

The initial step in the development process was to convene a Working Group consisting of members of the key organizations with responsibilities for the safety of the state's highway transportation system. The group was charged with establishing a statewide goal for the SHSP that would be consistent with the SAFETEA-LU legislative requirement to "achieve a significant reduction in traffic fatalities and serious injuries on public roads." The GTSC uses motor vehicle fatalities and the fatal crash rate per 100 million vehicle miles traveled (traffic volume) as its performance measures. To ensure consistency with the goals of the state's various individual strategic plans to focus activities on reducing fatal and serious injury accidents, the Working Group adopted the goal established in the GTSC's HSSP for the SHSP.

Since the legislation requires that the state's plan be data driven, the Working Group was also charged with identifying the major traffic safety areas that would be designated as the emphasis areas in the SHSP. The most recent data available on crashes, fatalities and serious injuries were reviewed to determine where the greatest impact on these measures could be achieved. The state undertook a similar analysis in developing both the current SHSP and the 2005 CHSP the previous year. The following seven areas were designated as the emphasis areas for the SHSP: Driver Behavior (impaired driving, speeding and other aggressive behaviors and occupant protection), Pedestrians, Large Trucks, Motorcycles, Highways, Emergency Medical Services, and Traffic Safety Information Services. Team leaders were selected for each of these emphasis areas and charged with developing a multidisciplinary team to develop a statement of the major issues, objectives and performance measures, and specific strategies for achieving the objectives.

## **Update Process**

Representatives from partner organizations with responsibilities for the safety of the state's highway transportation system and other safety stakeholders met to discuss the progress made toward meeting the established goals and objectives in the SHSP. The goal established in the GTSC's HSSP will continue to be the goal for the SHSP. The overall goal to reduce fatalities and fatal crash rates per 100 Million Vehicle Miles Travelled (VMT) is consistent with the specific goals articulated in the state's various safety plans and planning documents. The committee was charged with ensuring that the seven key emphasis area objectives, strategies, and performance measures are relevant and will continue to target reducing fatal and serious injury crashes.

## **DATA ANALYSIS**

### **Initial Process**

The highway safety data compiled and analyzed during the development of the various performance-based strategic plans (the HSSP, the CVSP and the CHSP) provided the basis for the development of the state's overarching goal for reducing motor vehicle fatalities. These data were also analyzed to determine the program areas where the greatest impact on fatalities could be achieved and to identify the major issues that must be addressed if these reductions in fatalities were to be achieved. A fatality-reduction target was established for each of these emphasis areas identified for inclusion in the SHSP.

### **Update Process**

The primary source for the motor vehicle data used in the development of the SHSP continues to be the NYSDMV's Accident Information System (AIS); to be consistent with requirements for New York's 2010 HSSP, data from the federal Fatality Analysis Reporting System (FARS) are used from selected fatality measures. The NYSDOT's SAFETYNET and Safety Information Management System (SIMS) also continue as additional sources of data. The increased electronic reporting of crashes through TracCS and the implementation of the Accident Location Information System (ALIS) have improved the quality of the state's crash data systems.

In addition to the data maintained at the state level, the MPOs, local governments and enforcement agencies maintain data at the local level. To satisfy the SAFETEA-LU requirement to address the state transportation network with parity, the state is continuing a number of collaborative studies to determine baseline data availability for the entire transportation network. A collaborative effort is underway to develop a data-driven system to guide the state in creating a logical crash analysis program and developing tools to achieve parity between the state and local systems. In a first step toward collecting more volume and physical characteristic data on the local highway system, the NYSDOT will roll out an expanded local traffic count program this year.

## **EMPHASIS AREAS**

### **Initial Process**

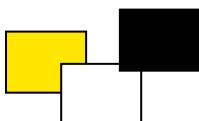
The CHSP, the product of a 2005 collaborative process involving more than 60 partners, provided the basis for the identification of the priority areas to be addressed in the SHSP. The CHSP, which closely followed the AASHTO model, was organized under six major topics related to the safety of the state's highway transportation system: Drivers, Special Users (including pedestrians and bicyclists), Vehicles (including large trucks and motorcycles), Highways, Emergency Medical Services, and Data Management. Within each of these six areas, motor vehicle crash, fatality and injury data related to several specific topics were presented and key safety issues were identified. The CHSP also included a list of strategies and specific programs intended to address issues in these six major areas.

The SHSP reflects the areas of driver behavior, pedestrian, and motorcycle crash experience that are targeted in the CHSP and the GTSC's HSSP. The emphasis area for Large Trucks is derived from the CVSP process. The strategies chosen have historically been the most successful at achieving results. It was the consensus of the working groups that these strategies also offer the greatest potential for helping to achieve the goal set for the coming year. It was also acknowledged that some strategies are long term and will take more time to contribute toward reaching the goal. Based on the information included in the various existing strategic plans, improvements in the following highway safety areas were determined to be vital to reaching the goal set for the overall SHSP:

**DRIVER BEHAVIOR**  
**PEDESTRIANS**  
**LARGE TRUCKS**  
**MOTORCYCLES**  
**HIGHWAYS**  
**EMERGENCY MEDICAL SERVICES**  
**TRAFFIC SAFETY INFORMATION SYSTEMS**

### **Update Process**

The SHSP process and goals continue to be data driven. Based on current analysis of crash data, the original key emphasis areas remain priorities for New York. The SHSP committee agreed to include bicycle safety issues under the Pedestrian emphasis area. The data do not indicate that bicycle crashes are a major problem when compared with pedestrian crashes, but we recognize that bicyclists are vulnerable users of the transportation system. Since countermeasures for non-motorized transportation are often inclusive of both pedestrians and bicyclists, strategies to reduce bicycle crashes are now included.



## DRIVER BEHAVIOR

Whether it is a driver's failure to wear a seat belt or unsafe actions such as driving while impaired, speeding or other types of aggressive driving, human behavior is a major factor in crashes and the severity of the injuries suffered. In order to reduce motor vehicle crashes, fatalities and injuries, New York must find ways to meet the challenge of changing driver behavior.

### IMPAIRED DRIVING

Alcohol or drug impaired driving threatens the safety of all highway users in New York State. Since November 1981, when New York implemented the nation's first comprehensive, self-sustaining program to combat drinking and driving known as STOP-DWI, New York has been at the forefront of innovative and aggressive efforts to reduce impaired driving. As a result of New York's strict laws, policies, enforcement and public information and education programs, significant progress has been made in reducing alcohol-related motor vehicle crashes, injuries and fatalities since 1981 when alcohol-related fatalities approached 1,000.

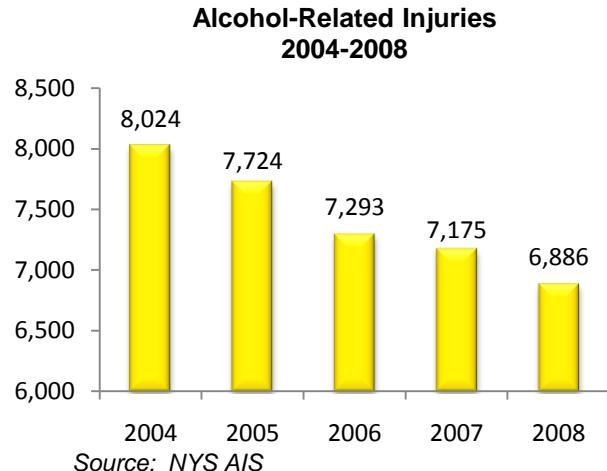
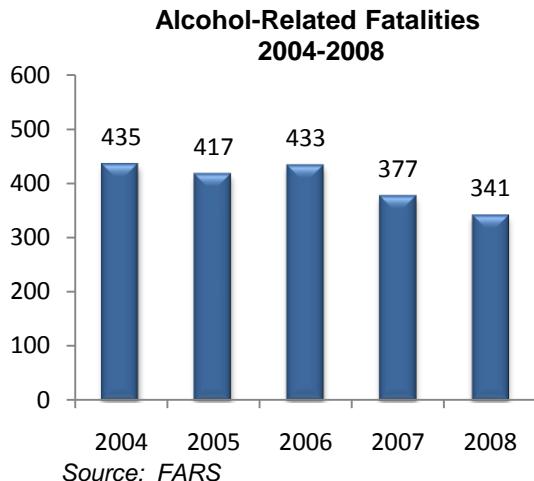
While the long-term improvement has been very impressive, there is concern that progress has stalled in the past few years. Since 2004, there has been a steady increase in the proportion of fatal crashes where alcohol was involved; in 2008, 31% of the fatal crashes were alcohol-related compared to 24% in 2004. In addition, New York experienced a 7% increase in the number of alcohol-related fatal crashes between 2004 and 2008.

Over the same time period, the number of alcohol-related crashes involving personal injuries was on a steady downward trend; in 2004 there were 5,327 alcohol-related injury crashes compared to 4,775 in 2008, a reduction of 10%. Alcohol-related injury crashes have consistently accounted for approximately 4% of all injury crashes in each of the five years, 2004-2008.

New York State Alcohol-Related Fatal and Personal Injury Crashes* 2004-2008						
	2004	2005	2006	2007	2008	% Change 2004-2008
<b>Alcohol-Related Fatal Crashes</b>	<b>332</b>	<b>350</b>	<b>359</b>	<b>344</b>	<b>355</b>	<b>6.9%</b>
% of all fatal crashes	24.3%	26.8%	27.0%	28.2%	30.6%	
<b>Alcohol-Related Injury Crashes*</b>	<b>5,327</b>	<b>5,270</b>	<b>5,111</b>	<b>4,991</b>	<b>4,775</b>	<b>-10.4%</b>
% of all injury crashes	4.0%	4.1%	4.2%	4.0%	3.9%	

\* Police-reported crashes  
Source: NYS AIS

Based on FARS data, the number of alcohol-related fatalities in New York has been on a downward trend since 2006; in 2008, FARS reported 341 alcohol-related fatalities for New York. New York's Accident Information System (AIS) indicates that the number of injuries in alcohol-related crashes has also decreased from 8,024 in 2004 to 6,886 in 2008.



## OBJECTIVE

- Reduce the number of alcohol-related traffic fatalities from 341 in 2008 to 331 in 2010 and 310 in 2014

## Performance Measure

- Number of alcohol-related traffic fatalities

## STRATEGY

*Continue to participate in statewide and national enforcement campaigns to reduce impaired driving in addition to developing enforcement strategies targeting high risk groups including young drivers, motorcyclists, repeat offenders, and high BAC drivers*

## Performance Measures

- Number of statewide and national impaired driving enforcement campaigns conducted
- Number of police agencies participating in statewide and national impaired driving enforcement campaigns
- Number of special enforcement efforts targeting high-risk groups implemented
- Number of tickets issued for impaired driving violations

## Status

Enforcement efforts are a major component of New York's approach to reducing impaired driving. Highlights of the state's impaired driving enforcement program are provided below:

- Each year, New York's enforcement community participates in selective traffic enforcement efforts targeting impaired driving. These efforts address impaired driving in the general motorist population and are not directed toward any specific subgroups, such as young drivers or motorcyclists.
- There are also a number of enforcement initiatives that focus on violations by drivers in specific groups. Some examples include "stings" to prevent the sale of alcohol to minors; the Last Drink Location project conducted by the State Liquor Authority which identifies establishments where impaired drivers were served alcohol prior to their crash or arrest; and the use of license plate reader technology to monitor violations by probationers.

- New York's long-running Safe and Sober program has adopted the national slogan "Over the Limit, Under Arrest" and participates in the national enforcement mobilization over Labor Day weekend.
- In addition to supporting the national mobilization, the county STOP-DWI programs support high visibility enforcement blitzes on weekends near holidays and special events that are associated with high levels of drinking and driving. These include St. Patrick's Day, Memorial Day, Fourth of July, Halloween, the November-December holiday season, and Super Bowl weekend.
- In addition to participating with local enforcement agencies in the national mobilization and other special enforcement blitzes, each State Police troop conducts one stationary and one roving impaired driving enforcement detail per month.

## **STRATEGY**

*Enhance the coordination and exchange of ideas among state agencies, advocacy groups and other organizations regarding strategies for reducing impaired driving*

### **Performance Measures**

- Establishment of impaired driving coalition
- Number of agencies and organizations participating in coalition
- List of recommended strategies to reduce impaired driving

### **Status**

In recent years, New York has taken several steps to facilitate and encourage cooperative efforts to reduce impaired driving.

Addictions Collaborative to Improve Outcomes for New Yorkers (ACTION) Created in 2009 under Executive Order Number 16, ACTION is a partnership of state agencies, non-profit and private organizations working to coordinate resources in the areas of public health, safety, welfare and education to address alcohol, drug and gambling addictions. Public safety partners are working to develop strategies and programs to reduce the incidence of impaired driving and the related life threatening and economic losses resulting from impaired driving crashes.

NYS Task Force on Impaired Driving In 2008, the GTSC with assistance from the Institute for Traffic Safety Management and Research (ITS MR) established a Task Force on Impaired Driving to conduct a comprehensive examination of the scope and causes of the problem of impaired driving and develop recommendations for reducing crashes resulting from impaired driving. The Task Force is organized around the key components of the impaired driving system and consists of nine teams that draw their members from a wide range of agencies, organizations and professions. Most recently, the Task Force has been involved in providing support for the implementation of "Leandra's Law" which establishes a felony charge for driving under the influence of alcohol or drugs with a child under 16 years of age in the vehicle and also requires that all drivers convicted of DWI have an ignition interlock installed on their vehicle.

NYS Highway Safety Conference Each year, New York holds a statewide conference on traffic safety which is jointly sponsored by STOP-DWI, the Association of Traffic Safety Boards, and the Governor's Traffic Safety Committee. Impaired driving is one of the major topics on the agenda of the annual conference which is attended by over 300 traffic safety professionals.

Partnerships and Networks There are numerous programs involving partnerships among state agencies, police departments, local traffic safety programs, advocacy groups and other organizations that develop and implement strategies to address various high-risk groups, such as underage drinkers, repeat offenders and older drivers.

## **STRATEGY**

*Conduct research on issues related to impaired driving to better determine the extent to which drivers are drinking and driving and their characteristics, the extent to which the mandated penalties are imposed by the courts and impaired driving offenders are complying with the penalties imposed, and other topics*

### **Performance Measures**

- Number of studies conducted and topics covered
- Recidivism rate among convicted impaired drivers

### **Status**

Highlights of recent research efforts in the area include the following:

- The Institute for Traffic Safety Management and Research (ITSMR) has conducted a multi-method study to determine how many motorists drink and drive and how frequently they engage in this behavior; who these drinking drivers are; and what would influence drinking drivers to change their behavior. The study built on earlier work that involved the development of a computer model of the impaired driving system that examined how impaired drivers flow through the system from arrest through adjudication, sanctioning, assessment and treatment, and relicensing. The components of the study included a statewide telephone survey of 865 drivers in New York State and focus group research with nine groups of "first-time" impaired driving offenders and nine groups of offenders on probation for multiple impaired driving convictions. Additional research studies on the aggravated DWI law implemented in New York in November 2006 and recidivist impaired drivers are underway.
- The Research Team, one of nine teams established as part of the new Task Force on Impaired Driving, is identifying topics that require additional research. The topics will be prioritized based on their likely impact on crashes, timeframe for conducting, resources required, and feasibility.
- The New York State Office of Alcoholism and Substance Abuse Services (OASAS) is conducting research to improve the quality of the screening and evaluation tools used to identify persons in need of treatment.

## **STRATEGY**

*Continue to provide training opportunities and other forms of support for police officers, probation officers, parole officers, toxicologists, prosecutors, judges and other professionals involved in the fight to remove impaired drivers from the state's roadways*

### **Performance Measures**

- Number of training programs offered
- Number of police officers, probation officers, parole officers, toxicologists, prosecutors, judges and others participating in training programs

### **Status**

Over the past several years, the STOP-DWI program and the GTSC have offered training opportunities to many different groups on a wide range of topics related to impaired driving. These programs include Drug Recognition Expert (DRE) training, Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.) training in the detection of drug impaired driving, Standard Field Sobriety Test (SFST) refresher training, training in the administration of the Horizontal Gaze Nystagmus (HGN) test for law enforcement, training

for toxicologists and Drug Impairment Training for Education Professionals (DITEP). In a number of cases, police officers and district attorneys participate in the same training programs to help build better partnerships.

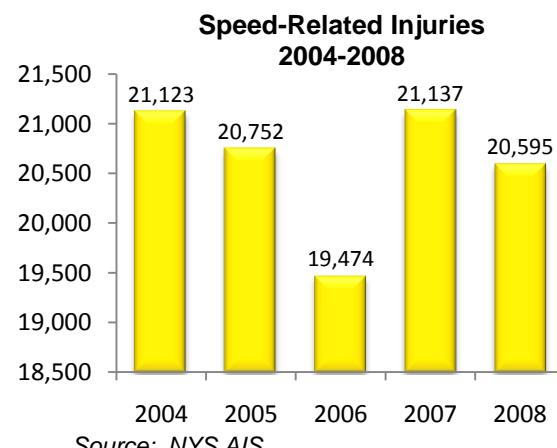
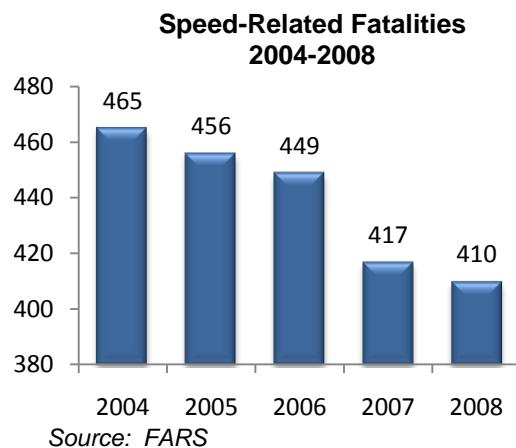
## **SPEEDING AND OTHER AGGRESSIVE DRIVING BEHAVIORS**

Speeding and other aggressive driving behaviors are major contributing factors to the most serious crashes that occur on New York's roadways. Between 2004 and 2008, the proportion of fatal crashes that were speed-related was on a consistent upward trend (from 28% to 33%). Over the same five-year period, the role of speed in personal injury crashes increased from approximately 10% to 12%.

New York State Speed-Related Fatal and Personal Injury Crashes* 2004-2008						
	2004	2005	2006	2007	2008	% Change 2004-2008
<b>Speed-Related Fatal Crashes</b>	<b>386</b>	<b>378</b>	<b>391</b>	<b>369</b>	<b>379</b>	<b>-1.8%</b>
% of all fatal crashes	28.2%	28.9%	29.4%	30.2%	32.7%	
<b>Speed-Related Injury Crashes</b>	<b>13,897</b>	<b>13,884</b>	<b>13,048</b>	<b>14,405</b>	<b>14,207</b>	<b>2.2%</b>
% of all injury crashes	10.5%	10.9%	10.6%	11.5%	11.7%	

\* Police-reported crashes  
Source: NYS AIS

Based on data from FARS, the number of speed-related fatalities has been on a steady downward trend from 465 in 2004 to 410 in 2008. Data on the number of persons injured in speed-related crashes is only available from New York's AIS. As shown below, the number of injuries in crashes involving speed fluctuated over the five-year period, 2004-2008. In 2008, 20,595 persons were injured in speed-related crashes.



Other aggressive driving behaviors have also consistently contributed to crashes in New York. Between 2004 and 2008, “failure to yield the right-of-way” was reported as a contributing factor in approximately 16% of the fatal and personal injury crashes and “following too closely” was reported as a factor in 14% of the crashes.

## **OBJECTIVE**

- Reduce the number of speed-related traffic fatalities from 410 in 2008 to 390 in 2010 and 349 in 2014

## **Performance Measure**

- Number of speed-related traffic fatalities

## **STRATEGY**

*Continue to conduct selective enforcement efforts focusing on speed and other forms of aggressive driving by drivers of all types of vehicles (passenger vehicles, motorcycles, large trucks) and to incorporate speed and aggressive driving enforcement into all routine enforcement efforts*

## **Performance Measures**

- Number of statewide speed enforcement efforts conducted
- Number of police agencies participating in statewide speed enforcement campaigns
- Number of tickets issued for speeding violations

## **Status**

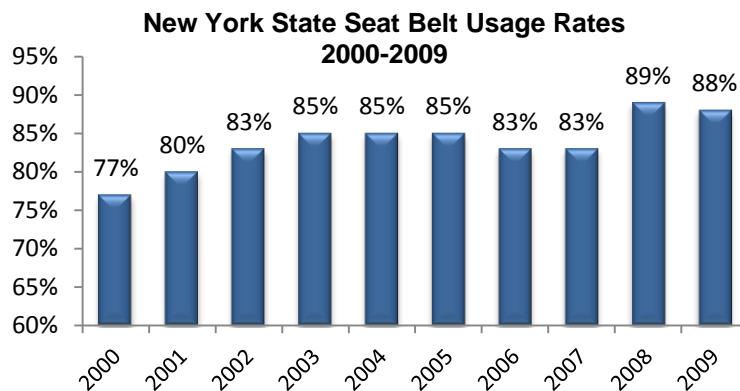
Speed enforcement and enforcement of other forms of aggressive driving behavior are ongoing priorities of the New York State Police and local enforcement agencies throughout New York State. In 2008, approximately 746,000 speeding tickets were issued compared to 731,000 in 2007.

Some examples of enforcement strategies implemented over the past two years are provided below.

- The New York State Police have increased speed enforcement during routine, day-to-day enforcement details and continue to motivate law enforcement agencies throughout the state to conduct more speeding and aggressive driving enforcement through the annual Empire State Law Enforcement Traffic Safety (ESLETS) conference.
- The State Police have partnered with the NYS Department of Transportation (NYSDOT) on the establishment of rational speed limits on the state's highways and on the Traffic Safety Corridor Program that targets segments of interstates and state highways with high numbers of speed-related violations and crashes for special enforcement strategies.
- The New York State Police also conduct selective speed enforcement details on non-interstate highways which have been identified as the location of higher numbers of speed-related crashes than interstates.
- Each year, the GTSC awards Selective Traffic Enforcement Program (STEP) grants to over 300 local police agencies; aggressive driving and speed enforcement are a major focus of these projects.

## **OCCUPANT PROTECTION**

In 1984, New York became the first state in the nation to implement a mandatory seat belt law, producing an immediate increase in belt use from 16% to 57%. After fluctuating between 83% and 85% from 2002-2007, New York's statewide use rate jumped to 89% in 2008; in 2009, the estimated statewide usage rate dropped only slightly to 88%. Ongoing efforts must continue in order to maintain and exceed the current level of compliance while new strategies and approaches must be identified to change the behavior of those motorists who continue to disobey the seat belt law.



Source: *New York State Annual Seat Belt Observational Surveys, ITS MR*

## **OBJECTIVE**

- Increase the statewide seat belt usage rate from 88% in 2009 to 90% in 2010 and 94% in 2014

### **Performance Measure**

- Proportion of front seat occupants observed wearing seat belts

### **STRATEGY**

*Enhance seat belt enforcement efforts by continuing to conduct high visibility enforcement campaigns statewide in addition to implementing special enforcement efforts targeting low use areas of the state*

### **Performance Measures**

- Number of enforcement waves and other enforcement efforts conducted
- Number of enforcement agencies participating in efforts
- Number of seat belt tickets issued

### **Status**

New York continues to use enforcement and public information and education strategies to improve compliance with the state's seat belt law. In 2008, approximately 417,000 tickets were issued for seat belt violations, down from 445,000 in 2007 and 478,000 in 2006. In recent years, greater emphasis has been placed on conducting seat belt enforcement at times and in areas where lower rates of compliance have been documented, in addition to maintaining New York's ongoing enforcement programs to ensure the state's high overall level of compliance is sustained. New York's ongoing and new seat belt enforcement initiatives are highlighted below.

BUNY/Click It or Ticket Campaign In addition to promoting strict enforcement of the state's occupant protection law throughout the year, New York continues to participate in the national high visibility seat belt enforcement mobilization conducted each year in May. The Governor's Traffic Safety Committee provided funding to approximately 260 departments statewide to participate in the May 2009 mobilization; approximately 54,000 seat belt tickets and 2,255 tickets for child restraint violations were issued during the 14-day campaign.

Nighttime Seat Belt Enforcement Because seat belt compliance is known to be lower at night, the New York State Police and some local police agencies conduct some of their seat belt enforcement checkpoints during nighttime hours. During the May 2009 mobilization, a total of 142 nighttime checkpoints were conducted.

## **STRATEGY**

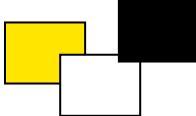
*Continue efforts to identify populations within New York State that do not comply with the law and develop strategies for increasing restraint use among these groups*

### **Performance Measures**

- Completed analyses of target populations
- List of recommended strategies to increase seat belt use among various target populations

### **Status**

Through analyses of restraint use in crashes, the New York State Police have identified areas of the state with low use rates and have focused special enforcement efforts in those areas. In addition to focusing enforcement efforts in areas with demonstrated low use rates in crashes, New York continues to identify populations that would benefit from education on the importance of seat belt and child restraint use. One recent example is the outreach efforts undertaken with the Amish community. Another group that has been identified for special outreach are persons residing in refugee camps located within the state.



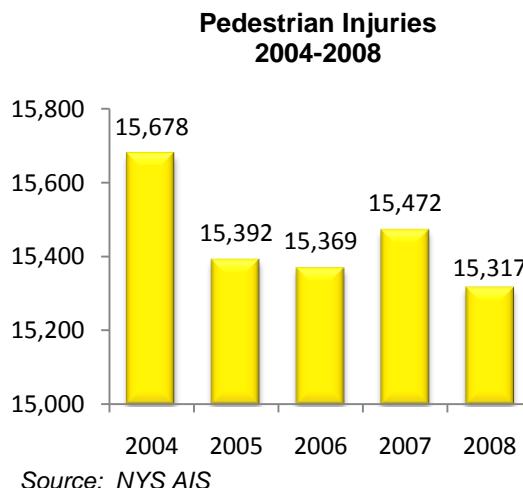
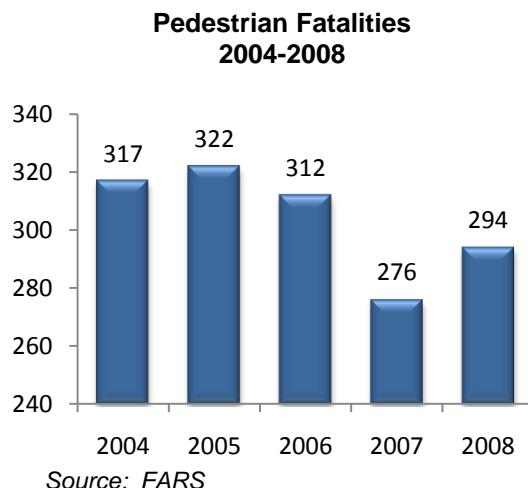
## PEDESTRIANS

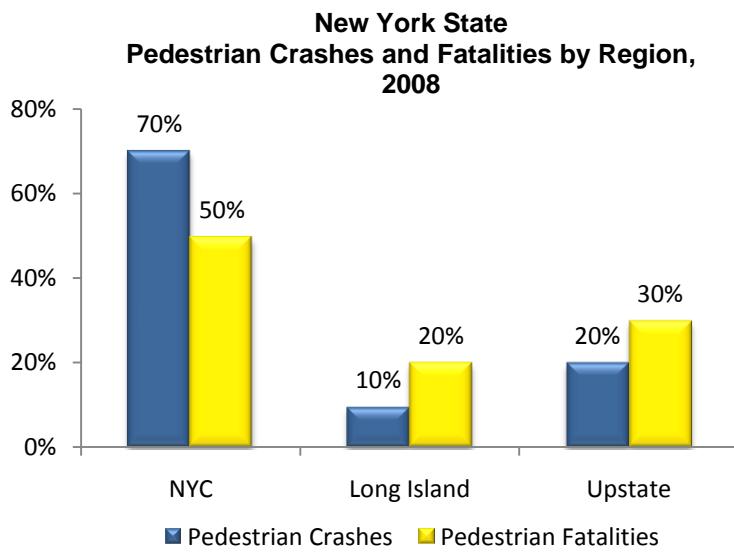
Each year, pedestrians are involved in approximately one-quarter of the fatal motor vehicle crashes that occur on New York State's roadways, more than twice the national average of 11%. Since 2004, the number of pedestrian fatal crashes has fluctuated up and down, ranging from a high of 327 in 2005 to a low of 277 in 2007; overall, there was a 6% decrease in pedestrian fatal crashes between 2004 and 2008. The number of motor vehicle crashes resulting in pedestrian injuries also decreased slightly between 2004 and 2008 (1.5%). Injury crashes involving pedestrians accounted for 10%-11% of all injury crashes over this five-year period.

New York State Pedestrian Fatal and Personal Injury Crashes 2004-2008						
	2004	2005	2006	2007	2008	% Change 2004-2008
<b>Pedestrian Fatal Crashes</b>	322	327	312	277	302	-6.2%
% of all fatal crashes	23.5%	25.0%	23.5%	22.7%	26.0%	
<b>Pedestrian Injury Crashes</b>	15,522	15,349	15,355	15,402	15,291	-1.5%
% of all injury crashes	10.0%	10.5%	11.1%	11.1%	11.3%	

Source: NYS AIS

Based on data from FARS, pedestrian fatalities also fluctuated up and down between 2004 and 2008; in 2008, 294 pedestrians were killed in motor vehicle crashes in New York State. The number of pedestrians injured in crashes also fluctuated up and down over this time period. In 2008, pedestrian injuries dropped to 15,317, the lowest level during the five-year period.

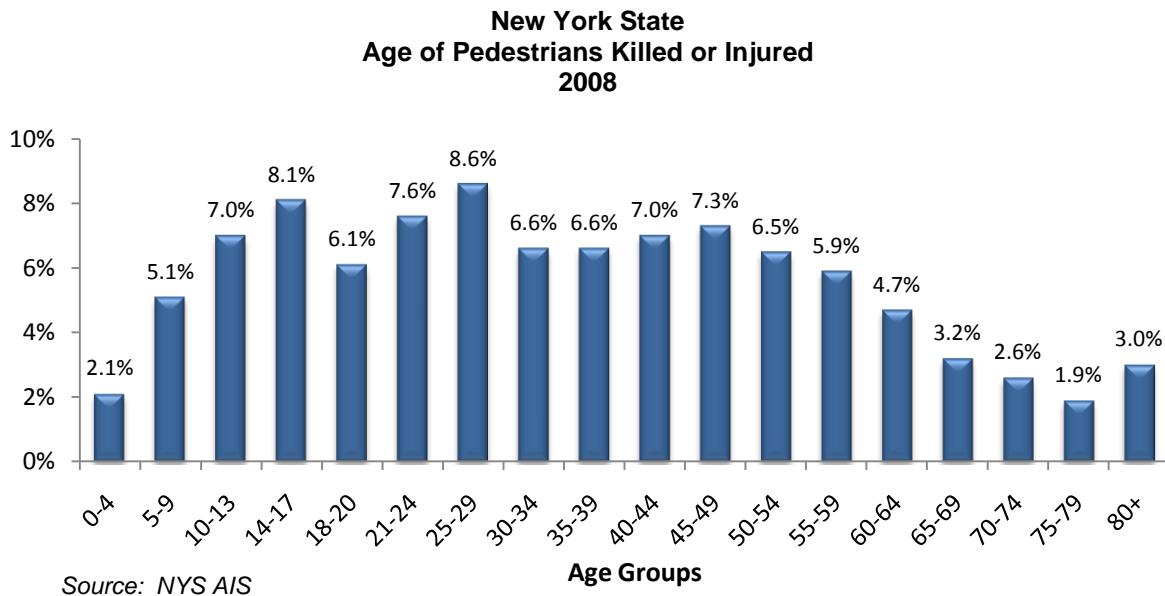




Pedestrian crashes occurring in New York City, where 63% of journey to work trips are made on foot or by public transit, are a major concern. Seven out of ten pedestrian crashes and one-half of the state's pedestrian fatalities in 2008 occurred within the five boroughs of New York City.

While fewer pedestrian crashes occurred in the Long Island and Upstate regions, the pedestrians involved in crashes in those regions were more likely to sustain fatal injuries.

Of particular concern is the large number of children killed and injured in pedestrian crashes. As indicated in the figure below, children up through the age of 17 are particularly vulnerable to being struck by a motor vehicle and sustaining injuries and even fatalities. Nearly one-quarter (22%) of the pedestrians killed or injured in 2008 were children under 18 years of age.



Senior pedestrians are also at high risk, particularly in New York City; in 2008, 32% of the pedestrians killed in the state and 38% of the pedestrian fatalities in New York City were 65 years of age and over.

## **OBJECTIVE**

- Reduce the number of pedestrians killed in traffic crashes statewide from an annual average of 294 in 2006-2008 to 273 in 2010 and 250 in 2014

## **Performance Measure**

- Number of pedestrian fatalities

## **STRATEGY**

*Continue to promote public awareness of pedestrian issues and provide education and training for pedestrians and motorists on ways to avoid crashes*

## **Performance Measures**

- Number of Metropolitan Planning Organizations (MPOs) and communities implementing pedestrian safety programs
- Number of schools participating in the Walk Our Children to School program
- Number of schools participating in the Walking School Bus program
- Number of media campaigns conducted

## **Status**

New York Walk Our Children to School (WOCS) Through a partnership that includes several state and local agencies, New York's WOCS program promotes the participation of schools in the International Walk to School Day event each year. A total of 87 schools participated in the 2009 event compared to approximately 50 in 2008 and 44 in 2007. The partnership also promotes a new program, the Walking School Bus, which encourages children to walk to school safely under adult supervision. Train-the-trainer programs and webinars have been conducted to increase awareness and encourage participation. As of 2009, training was delivered in 13 communities and four programs are actively underway.

Pedestrian and Bicycle Safety Programs Through the Governor's Traffic Safety Committee (GTSC), New York continues to provide funding for local programs that address pedestrian and bicycle safety issues through participation in educational programs, such as the International Walk Our Children to School and Walking School Bus programs and to provide instruction and training to children and other age groups on traffic laws, safe street-crossing behaviors, and the importance of obeying pedestrian signals. In FFY 2009, funding was provided for six pedestrian safety programs, 17 bicycle safety programs and four programs combining both pedestrian and bicycle safety activities.

Educational efforts targeting motorists are also critical for improving pedestrian and bicycle safety. The implementation of statewide media campaigns to raise public awareness of pedestrian and bicycle safety issues and educate motorists on avoiding crashes involving pedestrians and bicyclists will also continue.

NYCDOT Pedestrian Safety Marketing Campaign The New York City Department of Transportation (NYCDOT) plans to initiate a large scale marketing and advertising campaign to raise driver awareness concerning the dangers of speeding and failure to yield in order to improve driver behavior and reduce pedestrian crashes and injuries.

## **STRATEGY**

*Continue to promote public awareness of bicycle safety issues and provide education and training for bicyclists and motorists on ways to avoid crashes*

### **Performance Measures**

- Number of MPOs and communities implementing bicycle safety programs
- Number of schools participating in the Rolling School Bus (bike to school) program
- Number of Safe Routes to School education programs
- Number of communities and schools sponsoring bicycle rodeo events
- Number of bicycle related publications such as bicycle maps and bicycle safety information brochures and media distributed
- Number of media campaigns conducted

## **STRATEGY**

*Continue to develop and implement engineering solutions to pedestrian safety problems*

Efforts to provide a safe environment for pedestrians will continue. This will include the implementation of the federal Safe Routes to School program that is intended to facilitate the planning, development and implementation of projects and activities to improve safety in the vicinity of schools and enable and encourage more children to walk to school. Training in pedestrian safety will continue to be provided to those responsible for implementing Safe Routes to School and other programs. Engineering solutions will also continue to be implemented at intersections and other locations with high numbers of pedestrian crashes.

### **Performance Measures**

- Number of Safe Routes to School projects implemented
- Number of sidewalk, street crossing/crosswalk, and/or shoulder improvements
- Number of pedestrian countdown timers installed
- Number of engineering improvements implemented at high pedestrian crash locations
- Number of engineering improvements using pedestrian crash reduction factors (CRFs) during the project scope and design process
- Number of pedestrian improvement projects included in the state's and the MPOs' transportation improvement programs

## **Status**

Safe Routes to School The Safe Routes to School program has received 169 applications requesting \$58.3 million for 190 projects. The program is currently funding 89 projects costing \$27.5 million. The projects benefit 181 schools in 67 communities with infrastructure improvements as well as safety education programs.

Pedestrian Signal Countdown Timers From 2005 to 2009, the NYSDOT installed 2,975 pedestrian countdown timers as part of a seven year plan to upgrade traffic signals and pedestrian control at intersections.

New York City Council Law 11 This law requires the annual identification and ranking of the 20 highest pedestrian crash locations based on number and proportion within each borough. The NYCDOT investigates and audits selected crash sites and where warranted, implements operational or capital improvements. The law also requires that NYCDOT inspect every location with five or more pedestrian and/or bicyclist crashes during the prior 12-month period and make improvements where warranted. The third component of the law, "Comprehensive Study of Pedestrian Fatalities and Severe Injuries," requires NYCDOT to conduct a study of all traffic crashes involving a pedestrian fatality or serious injury for the most recent five years and analyze the conditions and cause of each crash, as well as common factors among the crashes. Study results are to be used to develop strategies to improve pedestrian safety, which may include modifying traffic operations policy, developing pedestrian safety strategies for specific users, prioritizing treatment locations and/or types of roadways or intersections for safety improvements.

NYCDOT Analysis of Traffic Calming Measures The NYCDOT has initiated a project to examine the effectiveness of traffic calming measures. Study goals are to develop enhanced analytic tools to identify and evaluate safety issues at problem locations, and determine the safety impacts of recently implemented and new candidate traffic calming measures. The study will compare crash histories at treated and comparable untreated locations to measure the potential benefits of new countermeasures.

Safe Routes to Transit This program is a New York City initiative to improve pedestrian and motor vehicle movement around subway entrances and bus stops to make accessing mass transit easier and more convenient. This initiative is intended to encourage more walking and transit use resulting in less traffic and cleaner air. The three programs under the Safe Routes to Transit initiative are Bus Stops under the Els (BSE), Subway/Sidewalk Interface (SSI), and Sidewalks to Buses (STB). Each initiative addresses a different aspect of the nexus between the pedestrian environment and public transit facilities. Each is associated with a different objective to reach the overall goal of improving pedestrian access to public transportation.

- Bus Stops under the Els (BSE) This program aims to improve pedestrian and vehicle safety and circulation at intermodal stations located underneath elevated subway structures. New York City is accelerating implementation of an existing NYCDOT program that identified over 40 locations where existing bus stops are obstructed by support columns for the structure overhead. At most of these locations, buses are unable to access the curb, and pedestrians are forced to wait, load, and unload from the bus in the roadbed. Providing neckdowns will improve customer safety and convenience and achieve Americans with Disabilities Act (ADA) compliance. The NYCDOT will make changes to the road geometry to improve pedestrian safety and visibility.
- Subway/Sidewalk Interface (SSI) New York City plans to implement safety and circulation improvements at 24 subway stations that were identified in a 2000-2005 Department of City Planning/NYCDOT joint study. The study provided recommendations to "improve pedestrian and vehicular circulation around the entrances to subways in order to encourage mass transit use."
- Sidewalks to Buses Under this program, NYCDOT will install new or improved sidewalks, crosswalks and other pedestrian improvements to bus stops where walking to the bus stop is difficult. Priority will be given to areas where pedestrians are exposed to high-speed or high-volume traffic on their way to and from bus stops.

NYCDOT Safe Streets for Seniors The NYCDOT has an ongoing program that targets 25 areas with high senior pedestrian crash rates within the five boroughs. The key components of the program are to eliminate barriers to senior pedestrian activity and to prioritize a list of short and long term corrective and proactive pedestrian safety improvements. Safety improvements have been implemented at six locations. Studies have been completed in nine other areas, with implementation scheduled for 2010. The remaining ten locations will be studied this year. Program details with maps of the focus areas may be found on the *Pedestrian and Sidewalks* section of the NYCDOT's website. The NYCDOT also developed a new safety video and curriculum for older adults entitled *There is More to Taking a Walk Than Moving Your Feet* to provide training on the skills needed for safe mobility.

NYSDOT SafeSeniors The NYSDOT has developed a pilot program to address senior pedestrian crashes on Long Island. The pilot will include location investigation and analysis as well as outreach to local government, the local Office for the Aging and other representatives for senior safety and mobility. After evaluation of the pilot, the program is expected to be a model for implementation for the rest of the state.

NYSDOT Bicycle Pedestrian Initiative The NYSDOT has convened a committee to examine engineering standards, policies and programs targeting accommodation for non-motorized transportation modes. The committee is examining current practice with the intent to improve inclusion of pedestrian and bicycle accommodation in operations and capital projects. The committee is also drafting a new bicycle and pedestrian policy to ensure that non-motorized transportation is a primary consideration in the early stages of developing any project.

## **STRATEGY**

*Continue to develop and implement engineering solutions to bicycle safety problems*

### **Performance Measures**

- Number of miles of bicycle lanes, shoulder, or pavement marking improvements installed
- Number of miles of multi-use trails installed
- Number of bicycle improvements projects included in the state's and the MPOs' transportation improvement programs
- Number of MPO and local bicycle plans created or updated

## **Status**

NYCDOT Bicycle Network Implementation New York City has established a goal of creating a 1,800 mile bicycle network of combined on street, parks and paths by 2030. The NYCDOT has completed 200 bike-lane miles in the five boroughs in the last three years. The project is currently on track to meet its goal.

CDTC Bicycle Education Campaign The Capital District Transportation Committee (CDTC) is piloting a bicycle education campaign that focuses on innovative ways of distributing information to both motorists and bicyclists on how to safely use the roadways. The campaign will include posters, bus wraps, a stand-alone web domain, and other photographic/video mediums. The intent is to create a website that is the "go-to" source for the Capital District for bicycle education materials and information.

## **STRATEGY**

*Continue to increase enforcement in documented high pedestrian crash locations, using tools such as Traffic STAT in New York City and TraCS to identify real-time hot spots*

### **Performance Measures**

- Number of tickets issued to pedestrians at high pedestrian crash locations
- Number of tickets issued to motorists at high pedestrian crash locations
- Number of tickets issued to motorists violating pedestrian crosswalk laws

## **Status**

Traffic STAT The Traffic STAT tool continues to be used by the New York City Police Department to monitor locations where high numbers of crashes are occurring. Precinct commanders are responsible for addressing high accident areas within their jurisdiction through countermeasures that will lead to reductions in crashes.

Data-Driven Approaches to Crime and Traffic Safety (D-DCTS) The City of Rochester is one of six nationwide demonstration sites selected for the D-DCTS program. The goal of the project is to reduce crime and improve traffic safety by developing police strategies from the integration of location-based crime, crash and ticket data. The data are used to identify areas with high incidences of both crime and traffic safety issues and then law enforcement resources are deployed to those areas. D-DCTS uses traffic enforcement strategies that play a dual role in fighting crime and reducing crashes and violations.

## **STRATEGY**

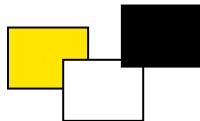
### *Reconvene the New York State Bicycle and Pedestrian Safety Advisory Council*

Through the agency's Policy and Planning Division, the NYSDOT proposes to reconvene the New York State Bicycle and Pedestrian Safety Advisory Council. Addressing the unique safety and mobility needs of non-motorized highway users often requires non-traditional strategies. The Council will provide a forum for open communication and information exchange between the NYSDOT and other state agencies, federal agencies and not-for-profit advocates as a proven strategy to reduce bicycle and pedestrian crashes, injuries and fatalities. The Council will provide advice and ideas to consider.

## **Performance Measures**

- Number and completion of action items submitted
- Number of key action steps adopted and implemented

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## LARGE TRUCKS

The role of commercial vehicles in crashes on New York's roadways is another important traffic safety concern. The annual Commercial Vehicle Safety Plan is the collaborative effort of the state agencies and other partners that participate in and support New York State's Motor Carrier Safety Assistance Program (MCSAP). The program is administered through the NYS Department of Transportation (NYSDOT), and implemented in collaboration with the NYS Division of State Police and other partners. New York's MCSAP program uses a comprehensive set of strategies to monitor and improve both the safety and security of commercial motor vehicle transportation in the state.

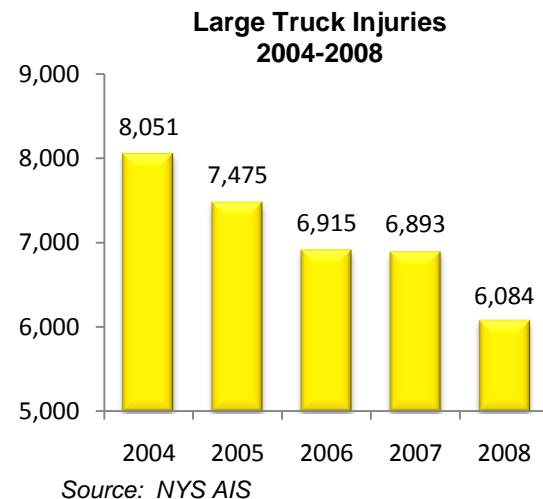
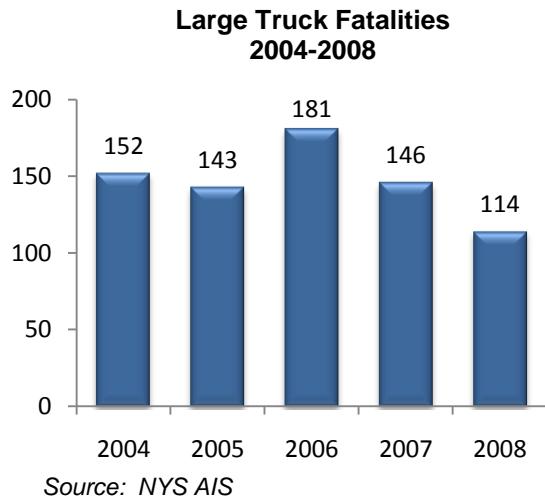
The discrepancy in vehicle size increases the risk of serious injury or death for the occupants of other vehicles involved in crashes with large trucks. The number of fatal crashes involving large trucks fluctuated up and down between 2004 and 2008, reaching a high of 159 in 2006. In 2007 and again in 2008 there were substantial decreases in the number of large truck fatal crashes; the overall decrease for the five-year period was 19%. With exception of 2006 when there was a spike in the number of large truck fatal crashes, large trucks have generally been involved in nine to ten percent of the fatal crashes occurring in the state for the past several years.

Over the same period, personal injury crashes involving large trucks were on a general downward trend for an overall reduction of 23% between 2004 and 2008, from a high of 5,800 in 2004 to 4,485 in 2008. Injury crashes involving large trucks consistently account for three to four percent of all the crashes involving personal injury each year.

New York State Large Truck Fatal and Personal Injury Crashes 2004-2008						
	2004	2005	2006	2007	2008	% Change 2004-2008
<b>Fatal Crashes Involving Large Trucks</b>	129	124	159	128	105	-18.6%
% of all fatal crashes	9.4%	9.5%	12.0%	10.5%	9.1%	
<b>Injury Crashes Involving Large Trucks</b>	5,800	5,429	5,009	5,019	4,485	-22.7%
% of all injury crashes	3.7%	3.7%	3.6%	3.6%	3.3%	

Source: NYS A/S

Since the spike in fatalities in large truck crashes in 2006, the number of persons killed in crashes involving large trucks has been on a downward trend; in 2008, there were 114 fatalities in large truck crashes. Over the entire five-year period, 2004-2008, the number of persons injured in crashes involving large trucks has been on a consistent downward trend, from 8,051 in 2004 to 6,084 in 2008.



Studies at both the national and state levels indicate that the majority of crashes involving a large truck and another vehicle are the result of aggressive driving and other unsafe driving behaviors by the commercial vehicle operator, the passenger car driver, or both. Enforcement targeting these types of behaviors by the drivers of both commercial vehicles and passenger vehicles is critical to reducing crashes involving large trucks.

The communication of information to the carrier population in New York is essential to achieving compliance with the rules and regulations governing commercial vehicle safety. Of particular concern are smaller carriers and owner operators who have limited time and other resources; these carriers may not be aware of the safety measures they are required to implement and lack the knowledge of how to access the information they need.

## OBJECTIVE

- Reduce the number of fatalities in crashes involving large trucks from 114 in 2008 to 105 in 2010 and 95 in 2014

## Performance Measure

- Number of fatalities in large truck crashes

## STRATEGY

*Maintain the current level of roadside inspections performed, with special details focusing on hours-of-service, border security, hazardous materials, off-peak times, passenger carriers, and non-interstate roadways*

## Performance Measures

- Number of inspections performed
- Number of driver violations cited
- Number of vehicle violations cited
- Proportion of drivers/vehicles placed out-of-service

## **Status**

Motor carrier compliance with federal regulations and state laws remains the focal point of efforts to reduce commercial motor vehicle crashes and maintain homeland security. Compliance with regulations in the areas of driver hours-of-service, driver qualifications, over-dimension vehicles, transportation of hazardous materials, and proper load securement is critical. It is also important to enhance the state's roadside inspection program by increasing the number of inspections conducted on non-interstate roads where the majority of large truck crashes occur. Recent accomplishments of the commercial motor vehicle roadside inspection program are highlighted below.

Roadside Driver/Vehicle Inspections The number of roadside inspections of commercial vehicles and drivers has been steadily increasing; in FFY 2009, nearly 111,000 inspections were performed compared to approximately 103,500 in FFY 2007 and 104,500 in FFY 2008. Consistent with the national emphasis on the role of driver behavior in crashes, 20% of the inspections that were performed in FFY 2009 were Level 3 inspections which focus on the commercial vehicle driver. In comparison, only 11% of the inspections in FFY 2008 and 7% in FFY 2007 were Level 3.

Special Inspection Details Another focus of the commercial vehicle safety program has been on increasing the number of inspections conducted in locations and at times of the day when crashes are more likely to occur, as well as focusing on vehicles that pose a greater threat on the highway because of the dangerous materials they transport. Special details are being used to perform inspections at off-peak times (4:00 pm – 7:00 am), on non-interstate roadways and on vehicles transporting hazardous materials.

Out-of-Service (OOS) Violations The number of drivers and vehicles placed out-of-service is an important performance measure for commercial vehicle safety. The overall out-of-service rate has declined from 25% in FFY 2008 to 22% in FFY 2009 indicating improved compliance with federal regulations. The recent emphasis on inspections of drivers has been accompanied by a reduction in the total number of drivers placed out-of-service, including the number placed out-of-service for hours-of-service violations.

NYPD Truck Route Memorandum Inserts To help facilitate commercial vehicle traffic enforcement, the New York City Department of Transportation (NYCDOT) worked with the New York City Police Department (NYPD) to insert citywide maps that illustrate truck routes and applicable truck rules into the summons books of the police officers in every precinct. The distribution of this information is intended to improve enforcement.

## **STRATEGY**

*Develop programs for off-hour deliveries in New York City that would allow some trucks to operate during less congested hours*

### **Performance Measure**

- Reduction in truck-related accidents due to congestion and traffic conflicts

## **Status**

The NYCDOT is researching policies that will encourage businesses to shift deliveries to off-peak hours (between 7 PM and 6 AM) in New York City. Increasing off-hour deliveries could result in significant reductions in congestion and environmental pollution. The research is a joint product of the NYCDOT, Rensselaer Polytechnic Institute, the Rudin Center for Transportation Policy and Management at New York University, Rutgers University and ALK Technologies, Inc.

## **STRATEGY**

*Conduct enforcement details focusing on moving violations committed by both commercial vehicle operators and non-commercial vehicle operators; target the enforcement on the types of roadways and in the regions of the state where the greatest numbers of crashes are occurring*

### **Performance Measures**

- Number of enforcement details
- Number of moving violations issued to CMV drivers
- Number of moving violations issued to other vehicle drivers
- Number of large truck crashes where speeding is reported as a contributing factor
- Number of large truck crashes where driver inattention/distraction is reported as a contributing factor
- Number of large truck crashes where following too closely is reported as a contributing factor
- Number of bridge strikes by overheight trucks on parkways

### **Status**

Because the behaviors and unsafe actions of commercial vehicle drivers, as well as the drivers of other vehicles on the roadway play a substantial role in crashes, routine traffic enforcement by the New York State Police and local police agencies targeting high crash roadways and corridors is an important component of New York's commercial vehicle safety program. Highlights of the enforcement strategies undertaken to reduce unsafe driving behaviors by both commercial vehicle drivers and other drivers appear below.

New York State Police Enforcement Details The New York State Police conduct special moving vehicle enforcement details in areas of the state with high volumes of commercial vehicle traffic. During these details, the emphasis is on apprehending non-CMV drivers who commit moving violations near commercial vehicles, as well as CMV drivers who commit speeding and other moving violations. In FFY 2008, 59 details were conducted resulting in the issuance of 1,159 tickets for moving violations; CMV drivers received 338 tickets and non-CMV drivers received 821. In total, 809 speeding citations were issued during these details.

Contributing Factors in Large Truck Crashes Over the three-year period, 2005-2007, unsafe speed was reported as a contributing factor in 10%-12% of all fatal and personal injury crashes involving large trucks, and driver inattention/distraction was a factor in 17%-19% of these crashes.

Bridge Strikes by Large Trucks Bridge strikes by overheight vehicles are a major safety concern. Over a three-year period, 2006-2008, there were 219 reported truck-bridge incidents in New York City alone. In 2008, a regional task force including the NYSDOT, the NYCDOT, the NYPD, the New York State Police and the Westchester County Police was convened to study the bridge strike problem. The task force developed an educational brochure on parkway restrictions for trucks. Over 22,000 brochures have been distributed to truck industry stakeholders, with another 85,000 intended for distribution this year. The NYCDOT installed warning signs on three parkways with the largest number of bridge strikes. A reduction in crashes was observed at two of the locations in 2009.

## **STRATEGY**

*Maintain and enhance outreach efforts with the motor carrier industry to provide education and training that will improve the safety and security of New York's roadways*

### **Performance Measures**

- Number of outreach and education efforts conducted
- Number of carriers receiving education and training

### **Status**

Commercial vehicle safety awareness and education are essential components of the state's comprehensive commercial vehicle safety program. Technical assistance and safety education are provided in various venues, including presentations to trade associations and individual carriers and participation in the International Road Check. Technical assistance is also provided directly to drivers, carriers, and enforcement personnel as requested.

NYS Truck Safety and Education Conference Each year, the NYSDOT, the NYS Department of Motor Vehicles and the NYS Motor Truck Association co-host the New York State Truck Safety and Education Conference. The 2009 conference featured an enforcement roundtable, a roadside inspection demonstration, and panels on a number of topics including recognizing common accident hazards, pre/post trip inspections, CDL issues, oversize/overweight permitting and load securement.

NYCDOT Truck Route Map The NYCDOT produced and distributed an updated New York City Truck Route Map and established a website with truck route information; 52,000 maps were mailed to industry stakeholders in 2008.

NYCDOT Truck Summit In 2008, the NYCDOT held a Truck Summit with trucking industry stakeholders to begin a dialog on how to reduce truck-related violations in New York City.

NYCDOT Office of Freight Mobility In 2007, the NYCDOT established the Office of Freight Mobility to be a point of contact for the trucking industry for information on traffic rules, regulations, education and outreach related to the movement of goods in New York City.

## **STRATEGY**

*Develop intelligent transportation systems (ITS) and automated roadside technology, including electronic screening and virtual weigh station systems, to support enforcement activities to identify non-compliant commercial vehicle operators. Continue the advancement of commercial vehicles infrastructure integration (CVII) into the national program to develop vehicle-to-vehicle and vehicle-to-roadside communications in support of real time and/or in-vehicle based safety and mobility applications such as intersection crash avoidance.*

### **Performance Measures**

- Number of roadside systems deployed
- Number of vehicles screened/weighed on mainline
- Ratio of total trucks stopped vs. trucks with problems
- Fuel/emissions reductions

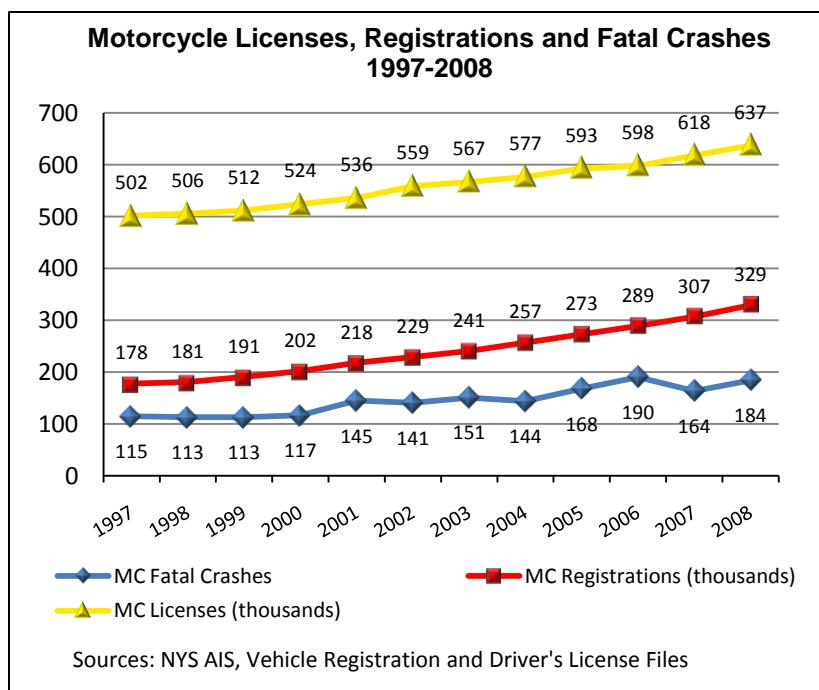
## **Status**

By strategic development of roadside ITS systems, additional enforcement tools and information can be provided to improve the effectiveness and efficiency of current roadside safety operations. These systems utilize wireless, real time data to provide drivers, enforcement, maintenance and operating personnel with information to improve overall safety while allowing more efficient use of resources.

- The design and construction of the first electronic screening system has been completed, including acceptance testing, at Schodack, New York and the requirements for future deployments have been established.
- New York is leading the national development of IntelliDrive 5.9 GHz dedicated short range communications in commercial vehicles, also known as commercial vehicle infrastructure integration (CVII). With funding from the I-95 Corridor Coalition, the NYSDOT has a team led by Volvo Technology of America under contract to develop, test and demonstrate commercial vehicle based 5.9 GHz DSRC systems. The project was started in May 2009 and is scheduled to be completed by 2011.
- The NYCDOT is testing overheight vehicle detection technologies in response to bridge strikes on the parkway system in New York City. These technologies have the potential to help in data collection on overheight trucks and assist future enforcement efforts aimed at reducing bridge strikes for overheight vehicles.

## MOTORCYCLES

In New York State, motorcycling continues to grow as both a recreational activity and as a mode of transportation. Since 1998, motorcycle registrations have been on a consistent upward trend, reaching 329,000 in 2008, an increase of 85%. Unfortunately, motorcycle fatal crashes have also been on a general upward trend reaching a high of 190 in 2006. In 2007, motorcycle fatal crashes declined to 164, but in 2008 they increased again by 20 to 184. Between 2004 and 2008, there was an overall increase of 28% in the number of fatal crashes involving motorcycles.



Even though motorcycles comprised only 3% of the registered vehicles in New York State in 2008, they were involved in 16% of the fatal crashes.

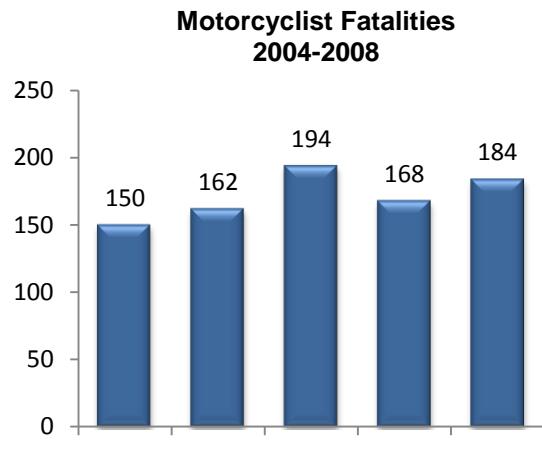
The increasing involvement of motorcycles in fatal crashes is of major concern. Between 2004 and 2008, the proportion of fatal crashes that involved motorcycles increased from 11% to 16%.

The number of personal injury crashes involving motorcycles is also of concern. Between 2004 and 2008, there was an 11% increase in these crashes (4,146 compared to 4,593); each year, 3% of the personal injury crashes that occur in the state involve a motorcycle.

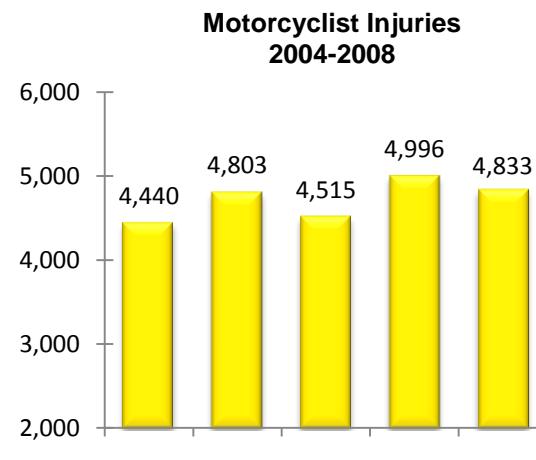
New York State Motorcycle Fatal and Personal Injury Crashes 2004-2008						
	2004	2005	2006	2007	2008	% Change 2004-2008
<b>Motorcycle Fatal Crashes</b>	144	168	190	164	184	27.8%
% of all fatal crashes	10.5%	12.8%	14.3%	13.4%	15.9%	
<b>Motorcycle Injury Crashes</b>	4,146	4,515	4,272	4,727	4,593	10.8%
% of all injury crashes	2.7%	3.1%	3.1%	3.4%	3.4%	

Source: NYS AIS

Based on FARS data, motorcyclist fatalities increased to 194 in 2006; after decreasing to 168 in 2007, the number of fatalities increased again in 2008 to 184. Unlike motorcyclist fatalities, injury crashes involving motorcyclists decreased in 2006 (to 4,515) and then climbed to almost 5,000 in 2007; in 2008, motorcyclist injuries declined somewhat to 4,833.



Source: NYS FARS



Source: NYS AIS

Motorcyclists are among the most vulnerable motorists on the roadways, operating at the same speeds and on the same roads as other motorists, but without the same protection afforded by other types of motor vehicles. Unsafe actions, such as impaired driving and operating at unsafe speeds contribute to the involvement of motorcyclists in crashes. The increased popularity of "extreme" motorcycle riding and the dangers associated with the operation of motorcycles by inexperienced riders are also growing concerns. In addition, the number of unlicensed motorcycle operators on the state's roadways and the use of unsafe helmets continue to be issues.

## OBJECTIVE

- Reduce the number of motorcyclist fatalities from an annual average of 182 in 2006-2008 to 173 in 2010 and 155 in 2014

## Performance Measure

- Number of motorcyclist fatalities

## STRATEGY

*Expand the opportunities for motorcyclists to receive motorcycle rider education to improve their skills and encourage more to become licensed operators*

## Performance Measures

- Number of new training sites operational
- Number of motorcycle operators completing training program
- Number of licensed motorcyclists

## **Status**

New York's Motorcycle Safety Program (MSP) continues to focus its efforts on making rider education more accessible and affordable across the state. Rider instruction and field training is now offered at 23 public training sites and nine military or police facilities around the state. More than 16,000 riders completed the training program in 2008 bringing the total number who have completed the training since 1996 to more than 110,000.

As an incentive, the motorcycle license skills test is waived for those who successfully complete the course. In 2007 and again in 2008, approximately one-quarter of New York's newly-licensed motorcycle operators were trained and earned their license endorsement through the MSP.

## **STRATEGY**

*Continue research to identify trends in motorcycle crashes, contributing factors to these crashes, the characteristics of the motorcyclists involved, and new and emerging issues that need to be addressed*

In order to develop and implement effective programs and other countermeasures to reduce motorcycle crashes, research on the factors associated with the crashes is needed. The topics requiring further research include alcohol involvement in crashes, the use of unsafe helmets and unlicensed motorcycle operators.

## **Performance Measure**

- Completed analytical studies on selected topics related to motorcycle safety

## **Status**

In January 2008, a team of motorcycle safety experts conducted an assessment of New York's MSP. The team recommended that additional research and analysis be conducted on a number of issues and factors contributing to motorcycle crashes in New York State.

The Institute for Traffic Safety Management and Research (ITS MR) has conducted research on a number of topics related to motorcycle safety and the factors that contribute to motorcycle crashes and resulting motorcyclist fatalities and injuries in New York State. The results of ITS MR's analyses are used in developing New York's annual Highway Safety Strategic Plan and to monitor trends and track progress in improving motorcycle safety.

## **STRATEGY**

*Continue to include enforcement of unsafe driving behaviors by motorcyclists in general police enforcement activities targeting the general driving population and expand special enforcement and education efforts for motorcyclists*

## **Performance Measures**

- Number of special motorcycle enforcement activities conducted
- Number of tickets issued for non-compliant helmets or no helmet

## **Status**

The New York State Police have implemented a new enforcement strategy using checkpoints that make it possible to inspect large numbers of motorcycles at one time to ensure that they are properly registered and meet safety standards and that the riders are properly licensed and wearing helmets that comply with legal standards. Motorcycles were directed off the highway and visually inspected. Riders were also given informational pamphlets with motorcycle safety tips. In FFY 2009, 33 checkpoints were conducted compared to 17 the previous year; 840 tickets were issued for illegal helmets. The State Police also provided free safety inspections of motorcycles and equipment at large-scale motorcycle events.

## **STRATEGY**

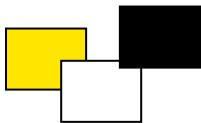
Implement public information and education efforts to increase the awareness of other motorists of motorcycles sharing the roadway and educate motorcyclists on the importance of conspicuity while riding.

## **Performance Measures**

- Number of PI&E efforts implemented for motorcyclists
- Number of PI&E efforts implemented for other motorists

## **Status**

Motorcycle safety programs have been established in eight counties and 10 additional programs are expected to be added in FFY 2010. The NYS Department of Motor Vehicles has distributed 160 copies of a motorcycle safety video and other educational materials to local Traffic Safety Boards, motorcycle clubs and other organizations throughout the state and messages promoting motorist awareness of motorcycles have been included in the agency's television and radio media campaigns.



## HIGHWAYS

There are over 113,000 miles of highway in New York State. The NYS Department of Transportation (NYSDOT) is directly responsible for the safety of the almost 16,000 miles of the state transportation system. All other elements of the highway system are under the jurisdiction of municipalities, towns, villages and hamlets, otherwise known as the “local system”. Design standards, construction practices, and operational maintenance of the system all contribute to improving the safety of the transportation network. Safety, within the context of state or local responsibility and authority, has focused on reducing accidents and their severity by addressing high accident locations with solutions ranging from major construction projects to low cost maintenance activities such as signing or warning devices to influence driver behavior.

Under ISTEA, the NYSDOT was asked to partner with safety and enforcement organizations to approach safety in a holistic manner rather than simply addressing roadway or driver problems. SAFETEA-LU continues this mandate to reduce accidents and their severity through formal collaboration with partner agencies on all public roads. Addressing all public roads equitably, regardless of whether a road system is under the jurisdiction of the state or locally owned, challenges all stakeholders to manage safety resources to accomplish the major changes required to create a data system that can evaluate the safety of the entire transportation system with parity. Transportation agencies are also required to address safety through specific programs that are designed to target potential as well as documented safety problems and concerns.

In addition, NYSDOT has developed an internal strategic safety goal: Prevent transportation system related fatalities and injuries through cost effective management of risks. Performance measures associated with this goal are tracked using a tool referred to as a Dashboard Indicator. This tool allows NYSDOT to measure how successful its safety programs are in achieving results in reducing fatalities and injuries, and what program changes are needed in order for the state to reach its goal.

## IMPROVE DATA ANALYSIS TOOLS AND CAPABILITIES

The crash experience of the almost 16,000 miles of state highway under the jurisdiction of the NYSDOT has traditionally been analyzed using the NYSDOT’s Safety Information Management System (SIMS). Volume data are also analyzed for the state system. SAFETEA-LU requires that crash history be considered for all public roads when addressing safety improvements. Data for the local system, those highways under the jurisdiction of local governments, are managed by each jurisdiction or coordinated through a Metropolitan Planning Organization (MPO). In order to meet the requirements of the federal legislation, New York must analyze the highway safety elements of the entire transportation network with parity. Parity requires that the state improve the data base to include the same data elements that are currently available for the state highway system for the remaining 97,000 miles of the local system. Collection and integration of state and local data to create a comprehensive data analysis system requires significant additional resources including funding to reprogram legacy data analysis systems and collect the large quantity of local data needed.

### OBJECTIVE

- Improve analysis tools to capture and analyze crash performance data for the state and local highway systems

### Performance Measures

- Number and types of improvements made to the state and local highway data systems
- Analysis tools will evaluate all highways equitably

- Creation of analysis tools to evaluate all highways equitably
- Creation of a comprehensive data system
- Number of users trained to use analysis tools

## **Status**

Non-Reportable Accidents The NYSDOT continued to electronically input non-reportable accident data (crashes under \$1,000) into the Safety Information Management System (SIMS). The addition of this data to the database allows for safety engineers to discern specific accident patterns as part of site investigations.

Accident Location Information System (ALIS) Under the SIMS, the Accident Location Information System (ALIS), a GIS web based accident location analysis tool that allows for geographic based crash analysis, has been completed and is available for use by MPOs, counties, and local governments that have direct access to the New York State maps through the NYS Directory Services provided by the Office of Technology.

Post Implementation Evaluation System (PIES) The Post Implementation Evaluation System (PIES), an analysis tool that allows for before/after project evaluation, was also completed during this period. The PIES enables safety engineers to track the benefits of safety countermeasure treatments for individual projects or groups of projects. Projects may be evaluated based on a combination of location attributes (e.g. regional, county and route) in conjunction with project attributes such as work type or project purpose. State specific crash reduction factors will be updated through use of this tool.

Americans with Disabilities (ADA) Database The NYSDOT has created an ADA geographic information system database of a statewide inventory of sidewalks, curb ramps, and crosswalks as well as the condition of those features for the state owned system. The inventory allows planners and designers to prioritize projects to create more pedestrian accessible corridors as well as identify current deficiencies.

## **STRATEGY**

*Continue analysis of available data and uniformity of data elements between state and local systems*

Since 2005, the NYSDOT has been working with the counties and some MPOs to determine what volume and physical characteristic data elements are collected on the local system in New York and what level of effort is needed to close the large gap in volume data available for the local system. The ALIS does maintain numbers or frequency data for all crashes in the state. In order to analyze crashes with parity, more crash frequency and volume elements (standard analysis elements) should be part of the data used for analysis. These roadway physical characteristic or data elements are needed to develop crash rates for the local system that are equitable with the data for the state system. The variations, inconsistencies, and lack of uniformity in local system data across jurisdictions throughout the state challenges all partner organizations and data stakeholders to concentrate efforts on developing and implementing sustainable data evaluation tools to create a comprehensive safety monitoring system.

## **Performance Measures**

- Additional volume data collected
- Number of uniform data elements added to data system
- Level of state and local data integration
- Recommendations for action submitted to agencies

## **Status**

Local Road System Traffic Counts A statistical analysis of additional traffic count needs for local roads was completed. The analysis provided a minimum number of traffic counts needed to include underrepresented roads within the 62 counties in the state. Approximately 4,000 additional traffic counts will be done on the local system over the next three years. A five year count cycle is expected to provide a base line for data collection. Additional traffic counts are needed to capture volume, and roadway physical characteristic information such as number of lanes, shoulder width, curves and other geometric features that are routinely collected on the state system. Collection of this data is the first step toward the long-term effort of developing a reliable volume rate for the local highway system.

MPOs' Traffic Count Survey The MPO Safety Working Group surveyed the MPOs requesting details on the methods used to conduct traffic counts within the MPOs. All traffic count data must be collected in conformance with NYSDOT protocols in order to be included in the annual traffic counts. The survey results provided traffic count baseline information.

GIS-Based Local Road Route System The NYSDOT is developing an assessment of the level of technology resources needed to initiate a project to build a GIS-based local road route system.

## **STRATEGY**

*The Traffic Records Coordinating Council (TRCC) will continue to determine needed steps, timetable, and level of funding needed to meet the SAFETEA-LU requirement that the state "advance the capabilities of the State for traffic records data collection, analysis, and integration with other sources of safety data ....in a manner that ...includes all public roads"*

## **Performance Measures**

- TRCC establishment of priorities for funding data improvements
- TRCC assistance with coordination to upgrade and link the various traffic safety-related data systems

## **Status**

This strategy has been revised. The Traffic Safety Information Systems Strategic Plan developed by the TRCC has used a performance-based approach to improve the state's traffic records systems since 1995. The multi-year plan addresses system deficiencies that need to be addressed in the state's crash, driver, injury surveillance, vehicle, ticket/adjudication and roadway systems. The TRCC coordinates New York's application for NHTSA Section 408 funding as well as establishing project funding priorities. The TRCC has provided a forum for discussing issues of statewide significance and will continue in its role to evaluate, recommend and prioritize information system improvement needs.

## **STRATEGY**

*Expand the use of new technology to improve data management, analysis capabilities, and improve enforcement, motorized and non-motorized transportation and mobility, and work zone safety to create a safer and more efficient transportation network*

## **Performance Measures**

- Number of technologies piloted and accepted
- Number of technologies incorporated into core safety activities

## **IMPROVE THE DESIGN AND OPERATION OF HIGHWAY INTERSECTIONS**

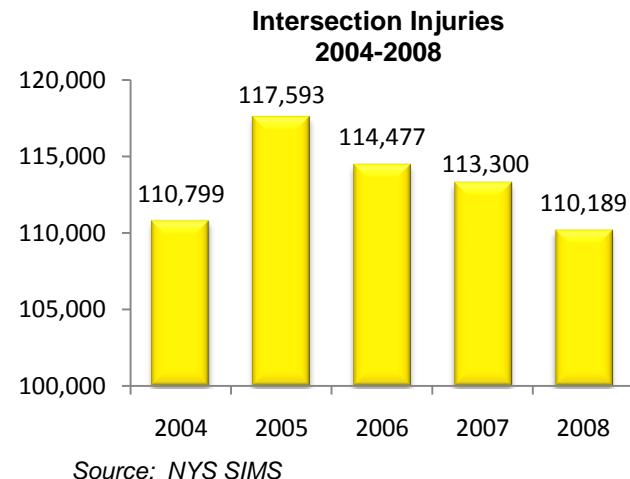
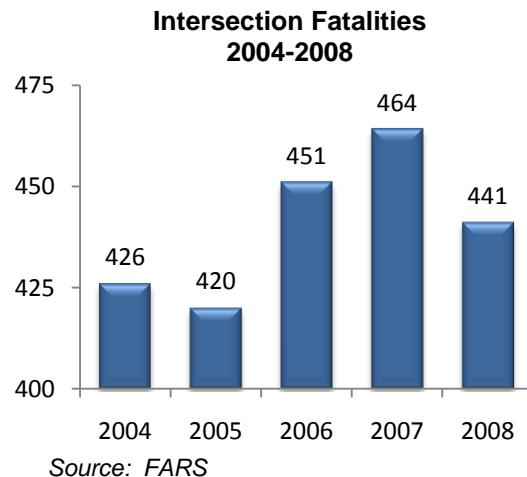
Crashes occurring at intersections are a major area of concern in New York State. Transportation agencies have developed safety programs that target high accident locations with infrastructure and operational-based improvements. Strategies that address location specific programs and projects as well as the use of applied technologies must be utilized on a system-wide basis if reductions in intersection accidents are to be realized.

Between 2004 and 2008, there was an overall increase of 4% in the number of fatal crashes occurring at intersections; there was also a small increase of 1% in the number of personal injury crashes at intersections. Over this same five-year time period, the proportion of the state's fatal crashes that occurred at intersections increased from approximately 30% to 36%. Crashes at intersections also accounted for an increasing proportion of the state's personal injury crashes; in 2008, 56% of the crashes resulting in personal injuries occurred at intersections compared to 48% in 2004.

New York State Fatal and Personal Injury Crashes at Intersections 2004-2008						
	2004	2005	2006	2007	2008	% Change 2004-2008
<b>Fatal Crashes at Intersections*</b>	405	399	429	455	421	4.0%
% of all fatal crashes	29.5%	30.4%	31.8%	36.8%	36.1%	
<b>Injury Crashes at Intersections**</b>	74,614	79,912	77,770	77,980	75,636	1.4%
% of all injury crashes	48.1%	54.5%	56.2%	56.1%	56.1%	

Sources: FARS\* and NYS SIMS\*\*

Fatalities in crashes at intersections have fluctuated up and down over the five-year period, 2004-2008. After reaching a high of 464 in 2007, the number of fatalities declined to 441 in 2008. Personal injuries suffered in crashes at intersections have been on a consistent downward trend since reaching a high in 2005. By 2008, the number of injuries suffered in crashes at intersections dropped to approximately 110,200.



## **OBJECTIVE**

- Reduce the number of fatalities in crashes at intersections from the 2006-2008 annual average of 452 to 430 in 2010 and 385 in 2014

## **Performance Measure**

- Number of fatalities at intersections

## **STRATEGY**

*Analyze effectiveness of targeted intersection improvements including*

- Pursue installation of automated photo red light enforcement equipment – pilot with enforcement
- Increase targeted enforcement
- Address specific localized intersection performance problems
- Improve geometry of left turn lanes, protected left turn lanes, and signal phasing
- Install intersection advance warning signs
- Reconstruct intersections to roundabouts where warranted
- Improve Access Management – reduce access conflicts
- Improve Signal timing – installation of improved Traffic Controllers
- Prohibit right turn on red
- Install *No Turn on Red* signals at pedestrian crossings when pedestrian button is activated
- Increase use of Leading Pedestrian Interval – increase “all red” times
- Incorporate National Cooperative Highway Research Program Report 500 Guidance into practice

## **Performance Measures**

- Number of right angle crashes at intersections
- Number of left turn opposing traffic crashes (head-on) at intersections
- Number of pedestrian crashes at intersections
- Number of rear end crashes at intersections

## **Status**

Traffic Signal Modernization The NYS Department of Transportation (NYSDOT) has a seven-year goal to install 2070 Traffic Signal Controllers at 6,040 intersections. The upgraded signals will allow for real time remote signal timing allowing for flexibility to pre-empt normal signal times to assist with movement for emergency vehicles, trains and incident response. The flexibility also benefits mobility, emission control and potential crash reduction. Installation of new Pedestrian Countdown Timers at crosswalks is part of the signal modernization; 47% of the upgraded traffic signal controllers have been installed at this time.

The New York City Department of Transportation (NYCDOT) has a goal of replacing signals at 12,300 intersections with Advanced Traffic Signal Controllers (ATSCs) by 2012. Wireless control has been implemented at 2,400 intersections with 8,000 additional intersections scheduled for improvements within the next three years.

**MPO Safety Assessment Guidelines** The Metropolitan Planning Organizations (MPOs) developed a Road Safety Assessment guidance tool based on Road Safety Audit principles to provide guidance for planners and engineers to conduct road safety assessments on the local transportation system in New York. The guidance provides assessment protocols for evaluating safety conditions within small, medium and large urban environments. The tool will help users evaluate specific location performance problems through identification of planning, multimodal, engineering, enforcement and education solutions.

**Training Initiatives** The Federal Highway Administration (FHWA), NYSDOT, and the MPOs have given priority to providing numerous training and workshop sessions in Designing Streets for Pedestrian Safety, Road Safety Assessments (Audits), Safe Routes to School and Walkable Communities to state and local government engineers and officials, enforcement organizations and other safety stakeholders to advance the incorporation of safety elements for all users into the roadway environment.

## TRAVEL LANE DEPARTURES

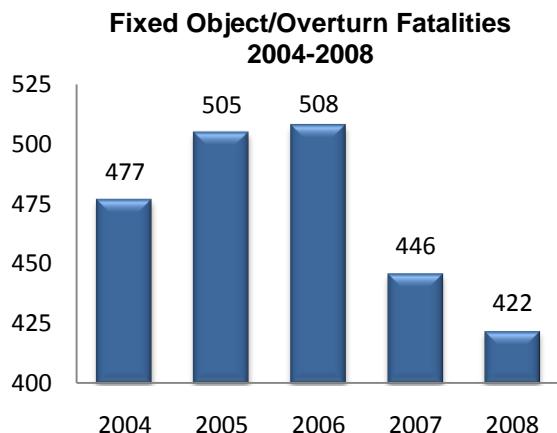
In 2008, there were 399 fatal crashes in New York involving vehicles that left the travel lane and either overturned or collided with a fixed object; these travel lane departure crashes represented 34% of all fatal crashes that occurred. The statistics show the importance of reducing the risk of vehicles overturning as well as improving the roadway environment for drivers to regain control of their vehicle if they do leave the lane of travel, whether through vehicle or roadway design or a combination of both.

Over the five-year period, 2004-2008, there was an 11% reduction in the number of fatal crashes involving overturning or collision with a fixed object as the first event. A reduction also occurred in the number of personal injury crashes (7%). Despite these improvements, these lane departure crashes consistently account for over one-third of all fatal crashes and 15% of all personal injury crashes.

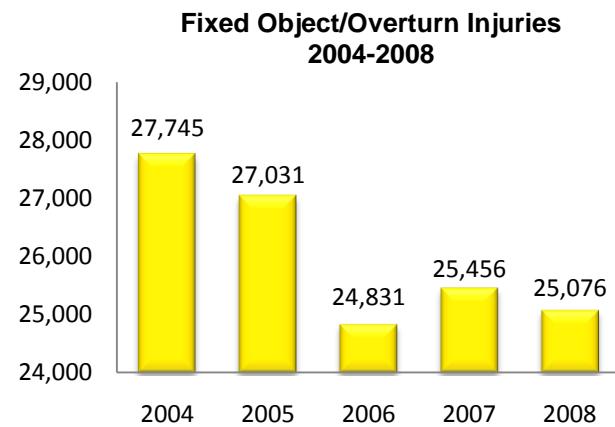
New York State Fatal and Personal Injury Fixed Object/Overtur (OT) Crashes 2004-2008						
	2004	2005	2006	2007	2008	% Change 2004-2008
<b>Fatal Fixed Object/OT Crashes*</b> % of all fatal crashes	443 32.4%	469 35.9%	463 34.8%	409 33.5%	399 34.2%	-11.0%
<b>Fixed Object/OT Injury Crashes**</b> % of all injury crashes	21,886 14.1%	21,535 14.7%	19,992 14.5%	20,750 14.9%	20,417 15.1%	-6.7%

Sources: FARS\* and NYS SIMS\*\*

The number of fatalities resulting from lane departure crashes increased between 2004 and 2006 but were on a downward trend in 2007 and 2008, declining from 508 in 2006 to 422 in 2008. Injuries in lane departure crashes where the vehicle hit a fixed object or overturned also have declined since 2004. Following a large drop in 2006 to below 25,000, the number of persons injured in these crashes increased to nearly 25,500 before dropping back to 25,076 in 2008.



Source: FARS



Source: NYS SIMS

## OBJECTIVE

- Reduce the number of fatalities in lane departure fatal crashes from 422 in 2008 to 400 in 2010 and 360 in 2014

## Performance Measure

- Number of travel lane departure fatal crashes

## STRATEGY

*Continue systematic examination of roadway performance, focusing on targeted improvements*

- Install center line rumblestrips on rural two lane highways
- Conduct road safety assessments (audits) to evaluate reducing the number of appurtenances, improve roadside hardware, and remove, improve, or protect fixed objects
- Advance shoulder improvements through widening shoulders, installing shoulder wedge joints and improving storm water removal
- Improve roadway delineation through the installation of improved or all weather pavement markings and improved striping
- Improve roadside delineation with improved signing and/or delineation
- Study animal control countermeasures

## Performance Measures

- Number of fixed object crashes
- Number head-on and/or crossover accidents
- Number of rollover crashes
- Number of side-swipe crashes

## Status

Highway Design Manual Revisions were incorporated into both the New York State Highway Design Manual (HDM) and the Comprehensive Pavement Design Manual (CPDM) to emphasize Americans with Disabilities Act (ADA) needs and pavement shoulder width and edge treatments in both urban and rural

environments. ADA curb ramps, paved shoulders, crosswalks and pedestrian signals are included as elements in safety assessments. The revision emphasizes wider minimum shoulders where possible, standardizes the use of a pavement/shoulder wedge for pavement edge drop-off and reduces the permissible design speed for rural arterial and local rural roads. The HDM also addresses improved non-motorized travel accommodation, with pedestrian needs included as a critical design element.

**Median Barrier Warrants** The HDM guidance for the use of median barrier on divided, high-speed highways with traffic volumes over 20,000 AADT was revised to warrant use of median barrier when the median is traversable and its width is 50 feet or less. Previous guidance recommended using barrier for 36 feet or less. Barrier use on wider medians is recommended where there is a history of median cross-over collisions.

**SAFETAP** The NYSDOT's Safety Appurtenance Program, based on a Road Safety Audit approach, is designed to ensure that roadside safety considerations are incorporated in all locations scheduled for simple pavement preventive maintenance annually. Regional teams from Operations, Maintenance and Design conduct reviews to determine simple, low cost safety improvements to be implemented during or after construction. Over 1,000 miles are audited annually.

**MPO Safety Assessment Guidelines** The MPO's Road Safety Assessment guidance tool was developed to provide guidance for evaluating safety conditions on local roads within small, medium and large urban environments. The guidance, based on road safety audit principles, outlines a process to help planners and engineers evaluate specific location performance problems through identification of planning, multimodal, engineering, enforcement and education solutions at any location on the local transportation system.

## WORK ZONE SAFETY

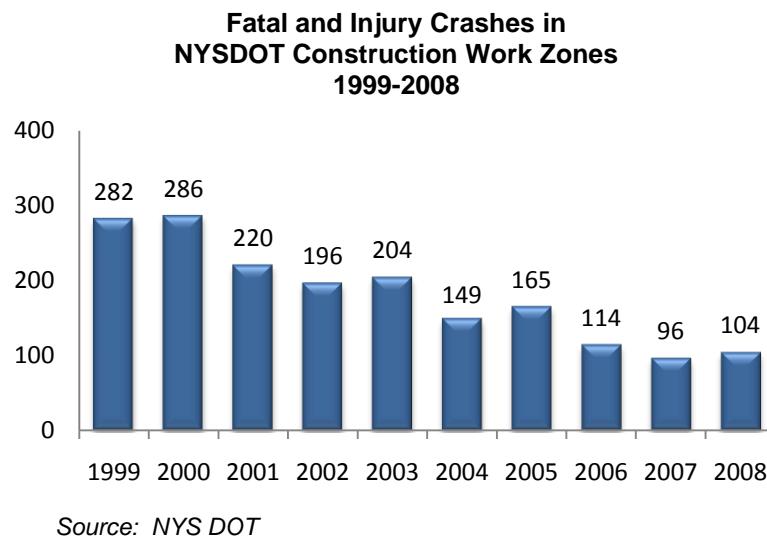
Work zones present highway users with a unique driving environment which requires drivers to make operating decisions outside the routine driving experience. An intrusion into a work zone is hazardous for both motorists and workers. The seriousness of these incidents requires that continued attention be given to highway work zone design and implementation to promote a safe driving and working environment.

Between 2004 and 2008 there has been a general downward trend in the number of fatal and personal injury crashes in construction work area crashes. Over the five-year period, 2004-2008, the greatest number of crashes in maintenance work areas (69) and the smallest number of crashes in utility work areas occurred in 2008.

New York State Fatal and Personal Injury Work Zone Crashes 2004-2008						
	2004	2005	2006	2007	2008	% Change 2004-2008
<b>Fatal &amp; Injury Construction Work Area Crashes</b>	609	450	444	457	431	-29.2%
<b>Fatal &amp; Injury Maintenance Work Area Crashes</b>	65	58	66	51	69	6.2%
<b>Fatal &amp; Injury Utility Work Area Crashes</b>	22	26	37	30	17	-22.7%

Source: NYS AIS

Over the 10-year period, 1999-2008, the numbers of fatal and personal injury crashes in NYSDOT construction work zones on the state highway system have been on a general downward trend, ranging from a high of over 280 in 1999 and 2000 to approximately 100 in 2007 and 2008.



## OBJECTIVE

- Reduce the number of fatal and injury crashes in NYSDOT construction work zones from the 2006-2008 annual average of 105 to 100 in 2010 and 90 in 2014

## Performance Measure

- Number of fatal and personal injury crashes in NYSDOT construction work zones

## STRATEGY

*Continue systematic examination of work zone design, performance and enforcement efforts, focusing on targeted improvements*

- Pursue photo enforcement of speed limits in work zones
- Increase training of workers: FHWA, CLTAP, AGC
- Increase review of work zone design - review department work zone design policies
- Continue quality assurance inspection teams rating of work zone safety
- Improve quality control of work zone credibility (active vs. inactive)
- Provide guidance and training to NYSDOT maintenance forces
- Increase police presence in work zones – Work Zone Safety Act of 2005
- Track effectiveness of before/after use of various traffic control strategies such as “Your Speed” trailers and enforcement activities in the work zone
- Use the Traveler Information platform to inform public of construction activity
- Increase use of roadway closures and detours

- Develop and implement technologies to deliver real time assessment of work zone performance
- Maintain the Work Zone Traffic Control Manual website
- Increase public awareness of schedule for roadway closures

## **Performance Measures**

- Number of fatal crashes in work zones
- Number of personal injury crashes in work zones
- Number of work zones inspected
- Percent of inspected work zone traffic control elements that met NYSDOT's goal of a "four" rating
- Number of "speeding in work zone" tickets issued
- Number of construction projects – monitor size of program (exposure) and types of projects (long term projects vs. short term projects)

## **Status**

Work Zone Design Review The NYSDOT routinely reviews its work zone safety design standards to improve Work Zone Traffic Control (WZTC). Work Zone Value Engineering is used to comply with WZTC designs to minimize traffic mobility impacts.

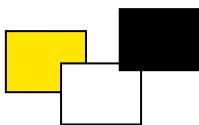
Work Zone Quality Assurance Inspections The NYSDOT conducts annual quality assurance reviews of Construction, Maintenance and Permit work zones to evaluate and rate each for adherence to NYSDOT work zone traffic control and safety standards. To meet National Manual of Uniform Traffic Control Device (MUTCD) intent, a systematic approach to reducing work zone speeds was developed and applied during this period.

Work Zone Act of 2005 The passage of this legislation has resulted in a requirement for increased police presence in major active work zones. The New York State Police have dedicated 100 troopers to traffic incident management. In 2007, 17,291 tickets were issued for speeding violations in work zones; in 2008, the number of tickets issued for these violations increased to 17,962.

NY-Alert This program is New York State's Alert and Notification web-based portal managed by the State Emergency Management Office (SEMO). Subscribers may sign-up for a number of alerts through the system, ranging from weather, safety, environmental and transportation related real time information. Subscribers receive alert notification via e-mail, text message, telephone call, or fax. NY-Alert is a free service and subscribers may sign-on at [www.nyalert.gov](http://www.nyalert.gov).

- TransAlert This NYSDOT system is an e-mail and text notification service to alert subscribers of major traffic incidents. Operators in the NYSDOT's Traffic Management Centers transmit messages through the NY-Alert portal.
- 511 New York The NYSDOT has launched 511 New York, a free, comprehensive telephone and web service that provides dynamic information on traffic, travel and transit information. Customers include the traveling public, the commercial sector and transportation system operators. Information provided includes emergency alerts of major transportation problems, traffic conditions, work zone and construction activity, border crossing conditions, weather, transit services, intercity bus and rail services, paratransit services, carpools, airports, ferries, tunnels, bridges and toll information.

iCone The iCone is a "smart" traffic safety cone equipped with electronics that transmits real time information on traffic speed and location in or approaching a work zone. The iCone has been piloted in several NYSDOT work zones to improve work zone safety and traffic management in construction areas. Guidance on the use of iCones is being developed.



## EMERGENCY MEDICAL SERVICES

Injuries resulting from motor vehicle crashes have a significant impact on New York's health care system. In particular, the NYS Emergency Medical Services system has a pivotal role in treating and transporting patients injured in motor vehicle crashes. In 2006, Emergency Medical Services (EMS) across the state responded to a total of 2.3 million emergency and non-emergency calls, 1.7 million of which were emergency responses. In 2006, EMS agencies treated and transported 90,522 motor vehicle crash related medical emergencies and another 13,781 patients (pedestrians and bicyclists) who were struck by vehicles.

In 2006, 6,984 patients were admitted to trauma centers for severe traumatic injuries sustained in motor vehicle crashes; 8% (560) of these patients were children under 13 years of age.

The data show that the EMS system provides care for many patients with injuries resulting from severe to minor vehicle crashes. To ensure that EMS providers are equipped to handle these incidents, the state's Emergency Medical Technician (EMT) curriculum includes training at all five levels of certification on the assessment, extrication, treatment and transportation of injured patients.

Unfortunately, ambulance personnel are not immune from being victims of vehicle crashes. Consistently, there have been approximately 500 ambulance crashes per year on roadways in New York. In 2007, the EMS community lost one young EMT who was riding in the patient compartment of the ambulance at the time of the crash. Each year, there are three to four fatalities and over 300 EMS personnel and/or their patients are injured as a result of EMS vehicle crashes in the state. Highway traffic safety is an issue that is critical to the EMS community as well as the general public.

The EMS system is a critical component of New York State's infrastructure, health care, disaster preparedness and response. The EMS system strives to reduce injuries and improve survival rates for those individuals involved in motor vehicle crashes.

### EMERGENCY MEDICAL SERVICES PRE-HOSPITAL PATIENT CARE REGISTRY

In an effort to streamline the documenting of pre-hospital patient care and the emergency response, there is a need to migrate toward an Electronic Patient Care Record System (e-PCR). Additionally, the National Highway Traffic Safety Administration (NHTSA) has developed and implemented a national EMS data set called National Emergency Medical System Information System (NEMSIS). New York State has, by a memorandum of understanding, agreed to participate by sending State pre-hospital data to NEMSIS. In order to provide data, New York must increase the number of data points it currently collects to comply with the number of data points that NEMSIS requires. The most efficient method of accomplishing this transition is for EMS agencies to switch from a paper PCR to an e-PCR platform.

### STRATEGY

*An e-PCR system would allow for a more real-time study of pre-hospital injuries and illnesses as well as provide the ability to trend roadway crash sites, injury types and severity*

## **OBJECTIVES**

- Survey Regional EMS Councils and local EMS agencies to determine whether they are using or in the process of transitioning to an e-PCR system
- Develop a system for transmitting pre-hospital care e-PCR to the Regional Emergency Medical Advisory Committees (REMAC) and the NYS Department of Health (NYSDOH) Bureau of Emergency Medical Services (BEMS)
- Develop a system for linking pre-hospital patient data with emergency department and regional trauma registry data

## **Performance Measures**

- 20% of EMS agencies will be capable of submitting pre-hospital data to the DOHBEMS electronically within one year.
- Regional Emergency Medical Services Councils (REMSCOs) and REMACs will be able to accept e-PCR data and use it for pre-hospital protocol development and regional quality assurance studies.
- Regional Trauma Advisory Councils (RTAC) will have input on the data points that correspond to the trauma registry data set.

## **PRE-HOSPITAL TRAINING PROGRAMS**

As pre-hospital medical care is studied and advanced nationally and in New York State, the NYSDOH, in partnership with the State Emergency Medical Advisory Committee (SEMAC), revises and/or issues new pre-hospital advanced and basic life support protocols for use by certified EMS providers. Many of these protocols have a direct impact on the access, assessment, treatment and transportation of patients injured in motor vehicle crashes.

## **OBJECTIVES**

- Enhance pre-hospital training programs that specifically address highway safety issues, such as training for EMS providers in the application of the new pre-hospital triage and treatment protocols for the care of crash victims and crash scene management
- Update the adult and pediatric major trauma treatment and the spinal immobilization protocols
- In order to better manage crash scenes with multiple injured patients, train all responding EMS agencies and providers in a nationally recognized standard triage system: START (Simple Triage and Rapid Transport)

## **Performance Measures**

- Distribution of new or revised protocols
- Development of training materials
- Provide standardized triage kits to all EMS agencies for each of their response vehicles as well as management kits for coordinating vehicles
- Provide training on the START system

## **STRATEGY**

*Train EMS providers in the use of the new pre-hospital protocols, provide training materials with web based accessibility for use by the NYSDOH's approved EMS Course Sponsors and EMS agency level training officers to train providers in the use of these protocols. Collaborate with the REMSCOs and/or the REMACs on the development and implementation of training programs. Additionally, provide regional and/or county based START training programs.*

### **Performance Measures**

- Within six months of adoption of a new and/or significantly revised pre-hospital medical protocol that directly relates to the care and treatment of a motor vehicle crash victim, a training program will be developed or adopted from approved sources
- The training programs will be made available on the NYSDOH web site for download and use by course sponsors or agency training officers
- START triage training courses provided statewide by the NYSDOH and continued in EMT original and refresher certification courses

### **Status**

Major Trauma Protocol Training Materials In consultation with the SEMAC, the NYSDOH has developed and posted the updated Adult and Pediatric Major Trauma protocol training materials to its public website. While the Bureau of Emergency Medical Services (BEMS) cannot identify a specific number of EMS providers updated, the materials are included on the New York State EMS written certification examination. The test results indicate that the protocols have been successfully distributed and presented.

Spinal Immobilization Protocol Training Materials In consultation with the SEMAC, the NYSDOH has developed and posted the updated Spinal Immobilization Protocol training materials to its public website. The training was to have been completed by August of 2008. Since that time, the learning objectives have been included in all levels of the EMS certification training programs and the materials are included on the EMS written certification examination. BEMS will be evaluating the test results in the coming months.

Distribution of START Triage Kits BEMS has provided a continuing education training program on the START triage program and distributed triage kits and command kits to each ambulance service, for each of their vehicles statewide (with the exception of New York City). At present, those services that were missed in the initial training and distribution are being contacted and trained. The next steps will include providing training and kits to the non-transporting EMS services.

## **ROAD CONDITION AND INCIDENT RESPONSE**

In an emergency (whether man-made or natural), EMS systems need access to roadways to respond to critically ill or injured patients. Often, EMS systems are not notified when municipal DOTs redirect traffic due to bad weather, poor road conditions, etc. This communication gap results in loss of time needed to reach patients.

In partnership with many NYS agencies, the State Emergency Management Office (SEMO) has initiated a web-based notification system. This website provides key information on interstate, state and municipal road closures, hazards and emergency situations. The notification program, when subscribed to, will send out messages by electronic mail, cellular telephone or web notification to EMS agencies and providers.

## **OBJECTIVES**

- Improve communication pathways between EMS and the Departments of Transportation/ Highway Management when activating emergency plans and/or construction plans
- Distribute SEMO information to Regional EMS Councils and county emergency management offices for web based notification programs such as NY-Alert

## **Performance Measure**

- Number of local and regional EMS systems receiving web based notification of road hazards, closures or emergencies from the SEMO alert system

## **STRATEGY**

*In coordination with SEMO, provide appropriate and secure access to the web-based emergency notification programs for local EMS agencies*

## **Performance Measures**

- Within one year, all of the county EMS coordinators and Regional EMS Councils will have been provided with information to assist the local EMS agencies in receiving real time alert information.
- Within one year, at least 50% of the EMS agencies will have been provided with information to subscribe to the NY Alert system.
- Within one year, at least 25% of the EMS agencies will have subscribed to the NY Alert system.

## **EMS RESPONDER CRASH PREVENTION**

Each year New York experiences between 400 and 500 ambulance vehicle crashes outside of New York City. There are three to four fatalities annually resulting from these crashes. To reduce the number of ambulance crash fatalities and injuries, it is necessary to develop a culture in which safety is not only emphasized for EMS vehicle drivers, but also addresses how to protect those providing care to the patient in the patient compartment of the ambulance.

## **OBJECTIVES**

- Develop and implement a culture of safety relating to EMS principles of traffic safety
- Develop and distribute educational and resource materials to the EMS community
- Develop a database that will track ambulance crash-related severity, fatalities and injuries as well as other reportable incidents
- Partner with NYS Department of Motor Vehicles (NYSDMV) to identify ambulances by vehicle type, rather than registration type
- Decrease the number of ambulance-related traffic crashes

## **Performance Measures**

- Review NYSDMV annual ambulance crash data
- Maintain an EMS incident database
- Number of ambulance-related traffic crashes

## **STRATEGIES**

*Partner with county EMS coordinators and their dispatch centers to increase the implementation of a priority dispatch system in order to identify the severity of the medical emergency and assign the proper response modality (the use of red lights and siren, or not)*

*Increase education and involvement of EMS providers in understanding the hazards to themselves, their crew and the public as well as the principles of appropriate traffic safety techniques for operating an emergency vehicle*

*Develop and implement ambulance traffic safety protocols at state, regional and service level*

*Review treatment modalities and protocols to identify those that may contribute to injuries resulting from the impact of ambulance crashes*

*Identify methods to provide incentives for adoption by EMS services of protocols that enhance traffic safety*

*Partner with organizations that provide public driver awareness and education campaigns to improve driver awareness of driver responsibility and appropriate response to approaching emergency vehicles*

## **Performance Measures**

- In partnership with the state EMS Council, SEMAC and the NYS Department of Transportation (NYSDOT) complete a systems review within 18 months
- Disseminate study findings to SEMSCO and SEMAC for identification of target areas to be addressed in the state
- Initiate and complete a review within 24 months of statewide protocols that impact ambulance traffic safety practices
- Ensure that ambulance traffic safety and injury prevention issues are on at least 50% of the SEMAC and/or SEMSCO meeting agendas
- Within 24 months conduct at least one ambulance traffic safety training program in upstate New York and New York City

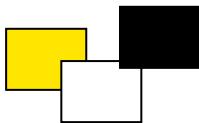
## **Status**

Seatbelt Use Guidance In coordination with the SEMSCO, the NYSDOH has provided guidance materials to all EMS agencies regarding the importance of implementing required seatbelt use education and internal policies and procedures.

Crash History Database The NYSDOH has developed a database to track untoward incidents that include EMS vehicle crashes, injuries and fatalities.

Medical Priority Dispatch System The NYSDOH has assisted one REMAC in working with a county central dispatch point to implement a Medical Priority Dispatch System in order to better respond to 911 calls for EMS and ensure, based on pre-arrival interviewing and instructions, that the use of red lights and sirens are appropriate for the specific incident.

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# TRAFFIC SAFETY INFORMATION SYSTEMS

New York State places a high priority on developing and expanding the capabilities of its traffic records systems. The information captured by these systems is important in identifying the nature and the extent of the state's traffic safety problems, developing countermeasures and evaluating their effectiveness. The key traffic records systems contain a variety of information on crashes, injuries sustained in crashes, traffic tickets and their adjudication status, drivers, vehicles, and roadways.

To ensure that its traffic records systems are accurate, efficient, and comprehensive as possible, New York developed a multi-year traffic records strategic plan in 2006 to improve its various systems. Known as the *Traffic Safety Information Systems Strategic Plan*, the plan was prepared under the auspices of the state's Traffic Records Coordinating Council (TRCC) and the Governor's Traffic Safety Committee (GTSC). Covering the four-year period 2006-2009, the plan continues to be revised annually; the most recent update was completed in June 2009. The primary goal of the 2009 strategic plan is to further improve the state's traffic records systems to facilitate decision making for highway safety managers in New York State.

New York State has approximately 11 million licensed drivers and registered vehicles, and approximately 800,000 motor vehicle crashes are reported annually to the NYS Department of Motor Vehicles (NYSDMV). The crash, ticket, and driver's license data systems are the primary traffic records systems that support the state's highway safety program. To meet the increasing need for data and data analysis to support traffic safety initiatives, New York is continuing to expand and upgrade its automated traffic records systems. Initially established in 2002, the electronic ticket and accident reporting system known as TraCS (Traffic and Criminal Software) continues to be implemented.

## OBJECTIVE

- Continue to improve the timeliness, accuracy, consistency, completeness, accessibility, and data integration of the state's major traffic records systems

## Performance Measure

- Number and types of enhancements and improvements made to state's traffic records systems

## STRATEGY

*Continue to expand the electronic capture and transmittal of ticket and accident data from police agencies and courts throughout New York State to improve the timeliness and accuracy of crash, ticket, and disposition data in the state's traffic records systems*

## Performance Measures

- Number of police agencies using TraCS to submit tickets and accident reports
- Number of courts using TraCS to submit disposition data
- Proportion of tickets received electronically by NYSDMV
- Proportion of dispositions received electronically by NYSDMV
- Average number of days between issuance of ticket and data recorded in the Traffic Safety Law Enforcement and Disposition (TSLED) database
- Average number of days between assignment of disposition and data recorded in the TSLED database

## **Status**

The New York State Police and approximately 350 other police agencies in the state use TraCS to issue and submit tickets and/or accident reports electronically to the NYSDMV, and more than 950 courts submit disposition data electronically. In addition, discussions are underway with the New York City Police Department to encourage and support their participation in TraCS or a similar technology that would enable them to collect and transmit data electronically. Specific accomplishments are highlighted below.

- The percent of citations in TSLED processed electronically rose from 58% in 2007 (October-December) to 74% in 2008 (October-December); as of December 2009, 76% of the TSLED tickets are being reported to the DMV electronically.
- The average processing time between the date the citation was issued and date it was entered into TSLED dropped from 28 days in 2007 (October-December) to 14 days in 2008 (October-December).
- The percent of dispositions in TSLED processed electronically increased from 77% in 2007 (October-December) to 84% in 2008 (October-December).
- The average time between the date of disposition and date it was entered into TSLED dropped from 40 days in 2007 (October-December) to 22 days in 2008 (October-December).

## **STRATEGY**

*Continue to enhance the Accident Information System (AIS) to improve the availability of timely, accurate and complete crash data*

### **Performance Measures**

- Proportion of crash reports received electronically by NYSDMV
- Proportion of police-reported crash reports received electronically by NYSDMV
- Average number of days between crash event and data recorded in the AIS database

## **Status**

The AIS, an Oracle-based server system, supports imaging, indexing, validation, processing, storage, retrieval, and reporting of accident related documents and information through an intranet, web-based user interface. The AIS workflow module is being redesigned and rewritten to improve system availability, leading to improved timeliness, accuracy, and completeness of crash information for both internal and external users, and ensure compliance with federal reporting mandates. In addition, an AIS Improvement Team has been established to explore multiple improvement opportunities and make recommendations. Other accomplishments with respect to the state's crash system are highlighted below.

- The percent of police-reported crashes received electronically by NYSDMV increased from approximately 35% in 2007 (July-December) to 45% in 2008 (July-December) to approximately one-half as of December 2009.
- The average processing time between the date of the crash and the date the police crash report was scanned/inserted into the AIS database dropped from 42 days in 2007 (July-December) to 36 days in 2008 (July-December).
- ALIS, the new Accident Location Information System, was fully implemented in 2008 and is currently being rolled out to local agencies (counties, towns, and Metropolitan Planning Organizations (MPOs)). ALIS is a critical component in identifying high accident locations and developing measures to address problems at these sites.

## **STRATEGY**

*Continue to code non-reportable property damage crashes not currently captured by the AIS to improve the completeness and timeliness of the crash data available for use in identifying and analyzing high crash locations*

### **Performance Measure**

- Percent of non-reportable crashes processed and entered into the Safety Information Management System (SIMS)

### **Status**

Approximately 75% of all police and motorist crash reports involving property damage only that are being reported to the NYSDMV are not being entered into NYSDMV's AIS database. This has a significant impact on the completeness and timeliness of the crash data available for identifying high crash locations, determining average crash rate trends, and identifying crash patterns and types when conducting detailed studies at high crash locations. Implemented in 2006, a project is being conducted to scan pertinent data elements from the paper police and motorist reports not currently being processed by NYSDMV into a database, and then integrate them into the NYSDOT's Safety Information Management System (SIMS). As of December 2009, 90% of the 2006, 40% of the 2007 and 35% of the 2008 non-reportable crashes have been processed and entered into SIMS.

## **STRATEGY**

*Continue to implement improvements to the Driver's License File to increase the accuracy, completeness, and timeliness of the driver information available in the file*

### **Performance Measures**

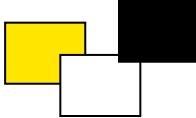
- Percent of driver license records with inaccurate addresses
- Time lag between data loads from the Driver's License file into the Collateral Engine

### **Status**

The NYSDMV maintains extensive information on drivers in the driver's license file stored on its mainframe computer. The license file provides detailed information for all drivers who are licensed in New York State and limited information for unlicensed or out-of-state drivers who have been convicted of a moving traffic violation or been involved in a motor vehicle crash in the state. As of December 2009, the NYSDMV's driver's license file contains approximately 11 million active licensed drivers.

The driver's license file is configured as multiple files that are linked by a client identification number. To support the expanding need for access to accurate, complete, and timely data, a baseline analysis for an initial conversion of critical driver license system information has been completed. The primary purpose of the conversion is to enhance the accuracy, standardization, and consistency of the address data to allow better matching of NYSDMV records and facilitate the real-time availability and access to core license information. The current files are in the process of being converted to a relational database structure. The first stage of the conversion began in 2008 and included the client, license and document data. These files contain a variety of information, including personal identification; license type and status, license document, driving history, including convictions and crash involvement; and driver improvement/(driver education data).

The conversion effort is part of a project that is currently underway to establish a single client database and improve linkages to other systems. When this is accomplished, the proportion of license records with inaccurate addresses should drop from an estimated 20% to 5%-10%. The project should also result in decreasing the time lag between data loads from the driver's license file into NYSDMV's Collateral Engine from two weeks to one day. The Collateral Engine is an Oracle-based system that can be queried to access data from various NYSDMV data systems.



## IMPLEMENTATION PROCESS

The goals of the *Strategic Highway Safety Plan* (SHSP) are intended to complement New York State's planning goals and processes. Priority is placed on implementation of the state's transportation investment program through an integrated approach to program planning across all operators of the system. The statewide master plan, *Transportation Strategies for a New Age: New York's Transportation Plan for 2030* provides broad policy direction on how the state will prioritize funding. The principles and criteria used to develop the State Transportation Improvement Program (STIP) and the Metropolitan Planning Organizations' (MPOs) Transportation Improvement Programs (TIPs) and plans reflect the state's safety priorities for motorized and non-motorized modes of transportation. Transportation and safety organizations, the MPOs' Safety Working Group and other safety stakeholders collaborate to ensure that safety continues to be incorporated into the transportation planning process. Programs are evaluated for consistency with the goals of the Statewide Transportation Master Plan and the MPOs' Long Range Transportation Plans. Projects are reviewed on a regular program update cycle, including the NYS Department of Transportation's (NYSDOT) Capital Program Update process, to ensure coordination and consistency of expenditures within stated goals and objectives.

The *Highway Safety Strategic Plan* (HSSP) directs Section 402 funding to those highway safety programs that increase the use of occupant restraints; reduce unsafe driving behaviors, including speeding and impaired driving; improve pedestrian and bicycle safety; as well as address motorcycle safety. Advances to traffic records systems that relate to roadways, vehicles, drivers, injury surveillance, and most particularly, accident and ticket records systems continue under Section 408 funded initiatives. Improvements to the timeliness and accuracy of the state's crash data are expected to continue, further enhancing the state's capabilities to evaluate crash experience on both the state and local systems. The Governor's Traffic Safety Committee (GTSC) renewed its commitment to direct resources where the state may accrue the most safety benefit.

The *Emergency Medical Services Plan* directs activities toward improving the survivability of a crash as well as the safety of emergency medical responders.

### Status

SAFETEA-LU has served as an impetus to strengthen established state, federal, regional and local partnerships as well as create a bridge to build new safety coalitions among engineering, enforcement, research, emergency medical services, and safety education stakeholders. Programs are evaluated for consistency with the goals of the HSSP, the Commercial Vehicle Safety Plan (CVSP), the Traffic Safety Information Systems Strategic Plan, the Statewide Transportation Improvement Program, the MPOs' Transportation Improvement Programs, the Statewide Transportation Master Plan, the MPOs' Long Range Transportation Plans, as well as the goals and objectives articulated in this document.

The state's MPOs, as required by the SAFETEA-LU planning regulations, include a safety element in their long range plans that reflect the priorities, goals, and objectives in the SHSP. The MPOs are accomplishing this by partnering with NYSDOT and other organizations in the development and implementation of the SHSP. They address the state and local safety emphasis areas in their long range plans in the Unified Planning Work Program (UPWP) tasks such as crash data analysis, community outreach, training, and education on safety related topics. Safety is explicitly considered as an integral part of capital and maintenance operations investment strategies. Projects are reviewed statewide on the regular program update cycle and reflect an emphasis on national, state and local transportation safety planning efforts to facilitate the safe and efficient movement of motorized and non-motorized transportation within and outside the MPO areas.

## **EVALUATION PROCESS**

New York uses a multifaceted approach to implement and evaluate the *Strategic Highway Safety Plan* (SHSP). The SHSP Committee, the Governor's Traffic Safety Committee, Metropolitan Planning Organizations, the Motor Carrier Safety Assistance Program Committee, the Traffic Records Coordinating Council, the State and Regional Emergency Medical Services Councils and Advisory Committees all meet periodically to review the progress made in meeting their respective statewide objectives. The SHSP Committee met in the fall of 2008 to review the state's progress in meeting the goals and objectives articulated in the original strategic plan. The committee evaluated current and five year data to determine trends in the key emphasis areas and examine the status and current validity of the goals, objectives and strategies published in the 2007 document. The SHSP is an overarching "umbrella document". Implementation is reflected in the day-to-day work of all stakeholders who have responsibility for and a commitment to reducing fatalities and serious injuries.

## **NEXT STEPS**

Each agency or group involved in the *Strategic Highway Safety Plan* process will continue to focus their efforts on their individual mission, as well as work with partner groups to ensure a safer New York. The state will particularly focus its resources on researching and acquiring crash data to assist the state in developing a better data-driven system to evaluate the performance of both the state and local transportation systems. A cooperative effort to integrate engineering, enforcement, education, and emergency medical service strategies to address crashes and their severity will continue to be a priority for the traffic safety community in New York State.

## **REFERENCES**

Commercial Vehicle Safety Plan

Comprehensive Highway Safety Plan

[www.dot.state.ny.us/safety/chspa.html](http://www.dot.state.ny.us/safety/chspa.html)

Highway Safety Strategic Plan 2010

[www.nysgtsc.state.ny.us/hssp-10.html](http://www.nysgtsc.state.ny.us/hssp-10.html)

State Transportation Improvement Program FFY 2008 – 2011

[www.dot.state.ny.us/progs/stip.html](http://www.dot.state.ny.us/progs/stip.html)

Traffic Safety Information Systems Strategic Plan: 2009 Update

Transportation Improvement Programs – Metropolitan Planning Organizations

Adirondack-Glens Falls Transportation Council

[www.agftc.org](http://www.agftc.org)

Binghamton Metropolitan Transportation Study

[www.bmtsonline.com](http://www.bmtsonline.com)

Capital District Transportation Committee

[www.cdtcmopo.org](http://www.cdtcmopo.org)

Elmira-Chemung Transportation Council

<http://elmiramopo.org>

Genesee Transportation Council

[www.gtcmpo.org](http://www.gtcmpo.org)

Greater Buffalo-Niagara Frontier Transportation Committee

[www.gbnrtc.org](http://www.gbnrtc.org)

Herkimer-Oneida Counties Transportation Study

[www.oneidacounty.org/oneidacty/gov/dept/planning/planningindex.htm](http://www.oneidacounty.org/oneidacty/gov/dept/planning/planningindex.htm)

Ithaca-Tompkins County Transportation Council

[www.tompkins-co.org/itctc](http://www.tompkins-co.org/itctc)

New York Metropolitan Transportation Council

[www.nymtc.org](http://www.nymtc.org)

Orange County Transportation Council

[www.co.orange.ny.us/planning](http://www.co.orange.ny.us/planning)

Poughkeepsie-Dutchess County Transportation Council

[www.dutchess.ny.gov/pdctc.htm](http://www.dutchess.ny.gov/pdctc.htm)

Syracuse Metropolitan Transportation Council  
[www.smtcmopo.org](http://www.smtcmopo.org)

Ulster County Transportation Council  
[www.co.ulster.ny.us/planning](http://www.co.ulster.ny.us/planning)

Strategies for a New Age: New York's Transportation Master Plan for 2030  
[www.dot.state.ny.us/tranplan/mp-intro.html](http://www.dot.state.ny.us/tranplan/mp-intro.html)

New York City Department of Transportation Safety Programs  
[www.nyc.gov/html/dot/html/home/home.shtml](http://www.nyc.gov/html/dot/html/home/home.shtml)

Operation Lifesaver  
[www.olii.org](http://www.olii.org)

## **GLOSSARY**

AASHTO - American Association of State Highway Transportation Officials  
ADA – Americans with Disabilities Act  
AGC – Association of General Contractors  
AIS – Accident Information System  
ALIS – Accident Location Information System  
A.R.I.D.E. – Advanced Roadside Impaired Driving Enforcement  
BAC – Blood Alcohol Concentration  
BUNY – Buckle-Up New York  
CHSP – Comprehensive Highway Safety Plan  
CLTAP – Cornell Local Technical Assistance Program  
CVSP – Commercial Vehicle Safety Plan  
DITEP – Drug Impairment Training for Education Professionals  
DRE – Drug Recognition Expert  
EMS – Emergency Medical Services  
EMSC – Emergency Medical Services Council  
EMT – Emergency Medical Technician  
FARS – Fatality Analysis Reporting System  
FHWA – Federal Highway Administration  
FMCSA – Federal Motor Carrier Safety Administration  
GTSC – Governor's Traffic Safety Committee  
HSSP – Highway Safety Strategic Plan  
ISTEA – Intermodal Surface Transportation Equity Act of 1991  
ITSMR – Institute for Traffic Safety Management and Research  
MPO – Metropolitan Planning Organization  
NCHRP – National Cooperative Highway Research Program  
NEMSIS – National Emergency Medical System Information System  
NHTSA – National Highway Traffic Safety Administration  
REMAC – Regional Emergency Medical Advisory Committee  
REMSCO – Regional Emergency Medical Services Council  
RTAC – Regional Trauma Advisory Councils  
SAFETYNET – Federal Motor Carrier Safety Administration repository for commercial vehicle crashes and inspections  
SEMAC – State Emergency Medical Advisory Committee  
SEMSCO – State Emergency Medical Services Council  
SEMO – State Emergency Management Office  
SIMS – Safety Information Management System  
START – Simple Triage and Rapid Transport  
STEP – Selective Traffic Enforcement Program  
STIP – State Transportation Improvement Program

TraCS – Traffic and Criminal Software  
TIP – Transportation Improvement Program  
TRCC – Traffic Records Coordinating Council  
TSIS – Traffic Safety Information Systems Coordinator  
TSISSL – Traffic Safety Information Systems Strategic Plan  
TSLED – Traffic Safety Law Enforcement and Disposition System  
VMT – Vehicle Miles Traveled  
WZTC – Work Zone Traffic Control

# **APPENDIX A**

## **ENABLING LEGISLATION**

Subtitle D--Highway Safety

SEC. 1401. HIGHWAY SAFETY IMPROVEMENT PROGRAM.

(a) Safety Improvement.--

(1) In general.--Section 148 of title 23, United States Code, is amended to read as follows:

``(6) State strategic highway safety plan.--The term 'State strategic highway safety plan' means a plan developed by the State transportation department that--

``(A) is developed after consultation with--

``(i) a highway safety representative of the Governor of the State;

``(ii) regional transportation planning organizations and metropolitan planning organizations, if any;

``(iii) representatives of major modes of transportation;

``(iv) State and local traffic enforcement officials;

``(v) persons responsible for administering section 130 at the State level;

``(vi) representatives conducting Operation Lifesaver;

``(vii) representatives conducting a motor carrier safety program under section 31102, 31106, or 31309 of title 49;

``(viii) motor vehicle administration agencies; and

``(ix) other major State and local safety stakeholders;

``(B) analyzes and makes effective use of State, regional, or local crash data;

``(C) addresses engineering, management, operation, education, enforcement, and emergency services elements (including integrated, interoperable emergency communications) of highway safety as key factors in evaluating highway projects;

``(D) considers safety needs of, and high-fatality segments of, public roads;

``(E) considers the results of State, regional, or local transportation and highway safety planning processes;

``(F) describes a program of projects or strategies to reduce or eliminate safety hazards;

``(G) is approved by the Governor of the State or a responsible State agency; and

``(H) is consistent with the requirements of section 135(g).

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## **APPENDIX B**

### **FEDERAL FUNDING FOR NEW YORK STATE SAFETY PROGRAMS FFY 2010**

<b>USDOT</b>		
<b>NHTSA</b>	<b>FHWA</b>	<b>FMCSA</b>
<b>402 Traffic Safety</b>	<b>Highway Safety</b>	<b>Motor Carrier Safety</b>
<b>\$22.4 Million</b>	<b>\$40 Million</b>	<b>\$ 10 Million</b>

### **FEDERAL AND STATE ROLES AND RESPONSIBILITIES**

#### **National Highway Traffic Safety Administration (NHTSA)**

The National Highway Traffic Safety Administration is responsible for reducing deaths, injuries and economic losses resulting from motor vehicle crashes. This is accomplished by setting and enforcing safety performance standards for motor vehicles and through grants to state and local governments to enable them to conduct effective local highway safety programs. NHTSA funding is intended for use in areas such as impaired driving, aggressive driving, motorcycle safety, occupant protection and pedestrian safety. The NYS Governor's Traffic Safety Committee (GTSC) is the agency that administers the federal 402 funds and various incentive grants received by New York and coordinates the state's highway safety program. The GTSC is comprised of the heads of the state agencies with missions related to transportation and safety. The Commissioner of Motor Vehicles serves as the chair of GTSC which is housed within the NYS Department of Motor Vehicles (NYSDMV).

#### **Federal Highway Administration (FHWA)**

The Federal Highway Administration's primary role is to improve the safety of the infrastructure. FHWA funding is intended for use in transportation planning and infrastructure improvements. The NYS Department of Transportation (NYSDOT) is the state counterpart agency which administers the Highway Safety Improvement Program funds. The NYSDOT is required to use a data driven process to investigate identified high accident locations. Projects are progressed with the Metropolitan Planning Organizations through the Transportation Improvement Program or remediated through simple maintenance projects.

#### **Federal Motor Carrier Safety Administration (FMCSA)**

The Federal Motor Carrier Safety Administration's primary role is truck and bus vehicle and driver safety. FMSCA funding is intended for vehicle and driver safety inspections, enforcement of regulatory compliance, driver safety, and safe driving practices of commercial and passenger vehicle drivers. Funding is also provided for education and training of inspectors, enforcement groups and motor carriers. The Motor Carrier Safety Assistance Program (MCSAP) is carried out by the NYSDOT and the NYS Division of State Police. Coordination of various safety programs with other key agencies includes the NYSDMV, the GTSC, the NYS Motor Truck Association and the Institute for Traffic Safety Management and Research (ITSMR).

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