## **New York City Interagency Road Safety Plan**

#### Introduction

This report describes programs and initiatives to reduce traffic fatalities, injuries and crashes, improve compliance with traffic laws and improve road safety in New York City. This plan builds upon the New York City Department of Transportation's (DOT) strategic plan <u>Sustainable Streets</u>, published annually, and the <u>New York City Pedestrian Safety Study and Action Plan</u>, published in August 2010. This report, together with the Pedestrian Safety Plan, satisfies requirements of <u>Local Law 12</u>, signed by Mayor Bloomberg in February 2011.

## **Safety Goals and Progress**

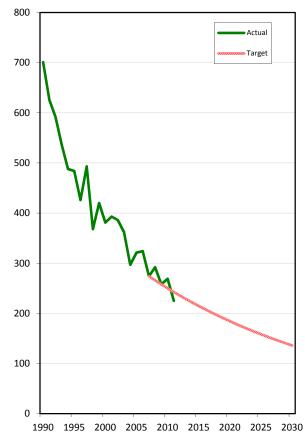
DOT has set a goal of decreasing all traffic fatalities by 50% by 2030 from 2007 levels. This goal requires a reduction from 274 fatalities in 2007 to 137 or fewer by 2030. As of August 31, there were 142 traffic fatalities in 2011, 9% below the target for this 8-month period.

New York City is the safest large city in the U.S. and is growing safer. Among the 25 largest US cities by population, New York City has the fewest traffic fatalities per resident (Appendix A). Impressively, New York City has 62% fewer fatalities per resident than the average of the other 24 largest cities.

Road safety in New York City has improved for all road users in the past decade. The number of traffic fatalities decreased by 31%, from 393 in 2001 to 271 in 2010, the second-lowest total on record since traffic safety statistics were first recorded in 1910. Pedestrian fatalities decreased by 21%, from 193 to 152, the third-lowest number on record. Senior pedestrian fatalities have decreased by 29% from 64 to 45. Fatalities among motor vehicle drivers and passengers have decreased by a staggering 58% since 2001, from 146 to 61 in 2010.

Bicycle safety improved substantially between 2001

## NYC Traffic Fatalities Target and Actual Reduction



Source: NYCDOT-NYPD Traffic Fatality Database. 2011 total projected from preliminary January-September data.

and 2010. While commuter cycling has more than tripled since 2001, fatalities and severe injuries have decreased slightly from 392 to 380, as detailed in the NYC Cycling Indicator, <a href="http://home2.nyc.gov/html/dot/downloads/pdf/nyc\_cycling\_safety\_indicator.pdf">http://home2.nyc.gov/html/dot/downloads/pdf/nyc\_cycling\_safety\_indicator.pdf</a>. The result is a 72% reduction in the chance of a fatality or severe injury to each commuter cyclist.

Motorcyclists are another vulnerable group for whom risk appears to have decreased. Motorcycle registrations have increased 12% since 2007, while fatalities have decreased slightly from 41 in 2001 to 39 in 2010.

### **Projects Contributing to Safety Trends**

Two major project types that have contributed to this decade's decrease in traffic fatalities are protected bicycle paths on one-way corridors, and pedestrian improvements on arterial streets. These projects were designed to improve roadway organization and achieve a better match between traffic volume and capacity – key techniques for promoting safer speeds and less aggressive driving, with benefits for all roadway users. Projects on Queens Boulevard, the Grand Concourse, Chrystie Street, Rockaway Boulevard, and Empire Boulevard exemplify the safety benefits of pedestrian and bicycle improvements on arterial streets.

#### **Arterial Corridor Improvements**

On Queens Boulevard, engineering improvements have resulted in an 83% decrease in annual fatalities from 13.6 per year to 2.3 per year along the entire 7-mile multi-roadbed corridor. Improvements began with pedestrian refuge islands, pedestrian fencing, and midblock signal installation in 1999, continued with a reduction in the number of lanes on the corridor's service roads and the conversion of cross-streets into pedestrian space at Sunnyside subway stations in 2004. Improvements culminated with the installation of pedestrian countdown signals at 31 intersections in July 2011, with countdown signals planned for an additional 39 intersections.

On the Bronx's Grand Concourse, major bicycle and pedestrian design improvements beginning with a short service-road bicycle lane and median widening project in 1999 and culminating with pedestrian countdown signal installation in 2011 have resulted in major safety gains, with a decrease of 68% from 7.0 per year to 2.3 per year. Improvements included the installation of bicycle lanes along the entire corridor, pedestrian fencing and midblock signals at selected locations and pedestrian countdown signals at 51 intersections.

On Chrystie Street in Manhattan, a four-lane street was converted to three lanes in 2008, with one lane alternating between a left-turn lane and a through traffic lane to accommodate varying traffic volumes along the corridor. Bicycle lanes provide a connection to the Manhattan Bridge, and planted pedestrian refuge islands provide safer crossings and improve the streetscape. Fatalities decreased 100% - from 0.67 annually in the three years before implementation to zero in the three years after implementation.

On Rockaway Boulevard in Queens, an arterial street connecting Atlantic Avenue, Woodhaven Boulevard, and the Van Wyck Expressway, a corridor redesign in late summer 2010 resulted in a 100% reduction in fatalities, from 1.33 per year in the three years before implementation to zero in the year since implementation. Traffic volumes were imbalanced, with much higher westbound than eastbound volumes. This condition resulted in speeding, especially at off-peak times and in the eastbound direction. The length of the signal cycle was shortened to encourage safer speeds and to encourage pedestrians to wait for a fresh walk signal. In a five-lane section of the corridor, improvements included

the replacement of one eastbound lane with a wide parking lane and right turn lanes. In the four-lane section, where traffic volumes were lower, the street was redesigned as a three-lane street, with one moving lane in each direction plus left turn lanes, and a wide parking lane. At the request of community members, more eastbound turning lanes were added after implementation of this project.

Empire Boulevard, a four-lane street in Brooklyn, was redesigned in summer 2009 as a three-lane street with one moving lane in each direction, and left turn lanes, to incorporate pedestrian refuge islands. At the request of the local community board and elected officials, bicycle lanes were added to the design. Fatalities have been reduced 100%, from 1 per year in the three years before implementation to zero in the two years since implementation.

#### **Manhattan Bicycle Paths**

Bicycle paths on one-way avenues in Manhattan, typically including the removal of one lane of motor vehicle traffic and the installation of pedestrian refuge islands, have provided safety benefits for many types of users. On Ninth Avenue, where a parking-protected bicycle path was installed in the fall of 2007 and extended in the fall of 2008, fatalities have decreased 100%, from an average of two fatalities per year in the three years prior to implementation, to zero in the nearly three years since the bike lane and extension were completed. On First Avenue, where a protected bicycle path and dedicated bus lane were installed in the fall of 2010, fatalities have decreased 100%, from an average of one per year in the three years prior to implementation to zero in the nine months since implementation. On Second Avenue, where a protected bicycle path and dedicated bus lane were also implemented, fatalities decreased 100% from 0.3 per year in the three years prior to implementation to zero in the 11 months since implementation.

While New York City's streets have become safer for all users, the most vulnerable road users – pedestrians, bicyclists, and motorcyclists – continue to account for more than three quarters of traffic fatalities in New York City, with pedestrians accounting for more than half of the total. In an effort to improve safety for all New Yorkers, DOT is working on the following initiatives to improve enforcement, educate all roadway users and improve interagency collaboration.

## **DOT Safety Initiatives**

#### **Engineering Initiatives**

The New York City Pedestrian Safety Study and Action Plan, published in August 2010 by DOT, details several engineering initiatives designed to reduce crashes and injuries to pedestrians and other vulnerable road users, including the installation of pedestrian countdown signals at 1,500 intersections citywide, redesigning and upgrading high-crash corridors, implementing the city's first Neighborhood Slow Zone, and implementing treatments to improve the safety of left turns. More information is available on the DOT website, <a href="http://www.nyc.gov/html/dot/html/about/pedsafetyreport.shtml">http://www.nyc.gov/html/dot/html/about/pedsafetyreport.shtml</a>.

#### **Education Initiatives**

DOT's safety education programs are data-driven, utilizing up-to-date traffic fatality, injury and demographic information, including DOT's Pedestrian Safety Study, to identify emerging safety issues

and target populations that are most at risk for involvement in traffic crashes. DOT works closely with private and nonprofit organizations concerned with traffic safety and injury prevention on a number of initiatives, including the following:

#### Safer Streets

The Safer Streets program targets communities around high-risk locations where street re-designs are also being implemented. The Safer Streets curriculum focuses on age-appropriate, hands-on activities that engage groups of all ages in observing and recording dangerous driving behavior in their communities to see firsthand the importance of pedestrian safety strategies such as staying alert and being visible to drivers. Participating groups encouraged to act as Safety Ambassadors in their communities, and become part of a larger, communitywide Safety Coalition that will continue to stay active in advocating for safer streets.

#### Family Life Theatre Residency

Through Family Life Theatre performance/workshop programs, middle and high school students watch improvisational traffic safety plays where the action is stopped for audience Q & A sessions, which the actors answer both in and out of character. Students then participate in workshops where they discuss issues such as peer pressure that affect decision-making and impact their safety. DOT's Family Life Theatre residency takes the program a step further, with students working with teaching artists to develop their own improvisational skits based on real life traffic safety situations they encounter.

#### **Public Communications Initiatives**

DOT's public communications efforts are focused, data-driven multimedia campaigns that bring messages about safe behavior to large numbers of New Yorkers.

#### You the Man

"You the Man," is an anti-Driving While Intoxicated (DWI) campaign aimed at men ages 21-35, the population most likely to be involved in an alcohol-related crash. The campaign, launched in February 2010, runs year-round, with additional advertisements around dates that the National Highway Traffic Safety Administration has indicated correlate to spikes in drunk driving, such as holidays and the dates of national sports events. "You the Man" uses peer-to-peer language to hold the designated driver in high regard, and reminds New Yorkers that taxi drivers, bus drivers and subway conductors are our city's built-in designated drivers. Ads appear online, outdoors, on radio and in bars.



#### **Speed Boards**

Ongoing anti-speeding campaigns launched in September 2010 respond directly to DOT's landmark Pedestrian Safety Study and Action Plan, using several forms of media. The study's findings suggest that speed is an underlying factor in a large percentage of motor vehicle-pedestrian crashes resulting in

serious injuries and fatalities. In addition, recent focus groups and benchmark research showed that nearly two-thirds of New Yorkers were unaware of the standard speed limit in NYC. DOT's speed board program reinforces the speed limit laws at a prime opportunity – exactly when drivers are speeding. In addition to traditional speed boards that display oncoming vehicles' speeds, DOT unveiled specialized boards that display an image of a skeleton next to the words "Slow Down" if a passing motorist exceeds the speed limit. Twelve speed boards have been placed at various locations around New York City, on streets with known speeding issues. In total, these speed boards will be at 60 locations this year.

#### New Yorkers Know It All

In 2010, DOT launched another anti-speeding campaign. "New Yorkers Know It All" ads included television spots playing on New Yorkers' tendency to "know it all" - except the speed limit. DOT also ran hard-hitting outdoor ads featuring "skull girl," a graphic image licensed from the UK's "Lucky" anti-speeding campaign. The message of the ads and television spots was built around the following statistic: Hit at 30 mph, a pedestrian has an 80% chance of survival. Hit at 40, he or she has a 70% chance of dying. Both of these anti-speeding campaigns drive home the message that "It's 30 for a Reason."

#### Don't Be a Jerk

In Spring 2011, DOT launched three humorous PSAs for television and internet, entitled "Don't Be a Jerk." Each spot highlighted different dangerous cycling behavior, including riding on the sidewalk, not yielding to pedestrians and riding against traffic. The ads remind cyclists to "bike smart," and to do their part to keep city streets safe for all users. In conjunction with the campaign, DOT's Safety Education and Bike Program teams take to the streets to distribute free bike helmets, lights, bells and reflective spoke cards outlining the major rules of the road for cyclists. Bicycle outreach staff members now wear coordinated "Bike Smart" t-shirts in DOT green to drive home the message of safety and sustainability.

## **Interagency Collaboration**

Improving traffic safety in New York City requires coordinated action among multiple agencies on traffic enforcement, data collection and education. DOT and other agencies and local groups have improved coordination on traffic safety issues to enhance safety, and will continue these important initiatives.

#### **DOT-NYPD Collaboration**

#### The Interagency Safety Committee

Enhancing their existing collaboration, DOT and NYPD formed a permanent interagency working group, the DOT-NYPD Interagency Safety Committee. This road safety task force has met 13 times since April 2010 and will continue to meet on a monthly basis. The committee's coordination has resulted in DOT engineering responses to at least 19 NYPD "Accident Prone Locations." In addition, NYPD has provided enforcement support for numerous DOT-identified high-crash locations and high-crash corridor projects. The committee has also facilitated coordinated DOT-NYPD responses to safety issues identified by community groups and local leaders.

#### **Traffic Stat Weekly Meetings**

DOT staff, including Borough Commissioners, regularly participate in weekly NYPD TrafficStat meetings, where precinct-specific traffic safety issues are identified and discussed.

#### **NYPD Precinct Patrol Meetings**

DOT Borough Commissioners and their staff attend on-site field meetings with NYPD precinct officers at locations of concern across the five boroughs, allowing in-depth local coordination on enforcement and engineering issues.

#### NYMTC Safety Advisory Working Group

NYPD and DOT coordinate safety policy with State and Federal agencies through the New York Metropolitan Transportation Council (NYMTC) Safety Advisory Working Group, which meets quarterly.

#### **Data Collection**

DOT and NYPD are working together to improve safety data collection and to make this data more readily available to agencies and to the public. NYPD and DOT work closely on crash data, conferring biweekly to reconcile traffic fatality data, and compiling a reliable database of traffic fatalities. In 2011, a new process was developed for NYPD to provide crash reports to DOT for signal studies, streamlining the process by which members of the public request all-way stop signs and traffic signals.

#### Governor's Traffic Safety Committee Grant

Based on findings from the 2010 NYC Pedestrian Safety Study & Action Plan, the New York City Police Department (NYPD) worked with DOT to successfully apply for a Governor's Traffic Safety Committee Section 502 Grant to focus enforcement on speeding and on vehicles failing to yield to pedestrians. In part through this grant, the NYPD continues its enforcement of key violations related to pedestrian safety. These include speeding, failure to yield to pedestrians/improper turns, cell phone use while driving, driving without a valid license and wrong-way bicycling. Through June 2011, the NYPD has issued 43,711 summonses for speeding violations, 32,896 summonses for improper turns, 6,398 for not yielding the right of way to pedestrians, 95,427 summonses for driving while using a cell phone and 1,652 wrong-way bicycling summonses. DOT will continue to work with NYPD to focus enforcement on traffic violations that put vulnerable road users at risk.

#### **Interagency Education Initiatives**

#### The Safe Kids Coalition

The Safe Kids Coalition encompasses dozens of partner organizations – including local hospitals, the NYC Department of Health and Mental Hygiene (DOHMH), NYPD, FDNY, the US Coast Guard, the US Consumer Product Safety Commission, the New York Public Library and non-profit partners. The Safe Kids Coalition supports efforts to improve child safety by working with New Yorkers of all ages and sponsoring yearly special events, highlighting child injury prevention topics such as Safe Kids Week and Grandparents Week.

#### STOP-DWI

DOT serves as the lead agency in the New York City's inter-agency STOP-DWI program, coordinating

enforcement, education, court-related action and other countermeasures aimed at reducing injuries and fatalities resulting from DWI and related risky behaviors. As part of STOP-DWI, DOT operates a Community Service program whereby DWI offenders can work off the community service portions of their sentences performing tasks relevant to their offenses in a supervised, educational setting. DOT works closely with county District Attorney's offices to ensure that appropriate candidates are selected for the program. Studies have shown the community service program to be a strong deterrent against recidivism among DWI offenders.

#### **Groundswell Residency**

Provided in partnership with the NYC Department of Education, Groundswell sign and mural residencies engage elementary, middle and high school students in examining traffic safety issues around their schools and creating original traffic safety signs and murals addressing risky behaviors such as texting while walking or driving. Their finished work is displayed prominently in the community, where it serves as both a work of art and an educational tool. Last year DOT provided residency programs at 15 schools across the city. Additionally, some of the participants' experiences were documented on film to share on the internet with a broader audience.

#### Plays for Living

DOT partners with the NYC Department for the Aging to educate and engage seniors on pedestrian safety issues. Professional traffic safety plays produced by Plays for Living, discussing pedestrian safety, sharing the roadways and improving the streets to help seniors stay safer, are performed at 25 senior centers annually. In 2011 older adults from three centers also participated in Plays for Living theater residencies, working with teaching artists to create their own original skits highlighting specific traffic safety challenges in their neighborhoods and solutions to staying safe as pedestrians. Residencies will be expanded next year to include non-English speaking senior centers.

#### Walking Clubs

Developed with the help of the DOHMH and Health Plus, Walking club programs are provided to children at after-school centers and to older adults at senior centers as another means of involving atrisk groups in traffic safety awareness in an in-depth way. DOT's Walking Club curriculum presents pedestrian safety information as part of a larger health message covering a range of topics including the health benefits of walking, carbon footprints and the environment and good nutrition.

#### Bicycle Helmet Giveaway

DOT's bicycle helmet program has fit and distributed over 50,000 helmets by working in partnership with the NYC Department of Parks and Recreation, DOHMH, NYPD, and NYC Small Business Solutions, as well as elected officials. Helmets are fitted and distributed free of charge at Teach Your Child to Ride, Bike Bonanaza, Summer Streets, and other seasonal events as well as by appointment at six DOT locations throughout the five boroughs. Special helmet fitting events are also held for bike delivery workers, with forms and information provided in languages other than English. In 2011, DOT began a new initiative to encourage bicyclists to follow the rules of the road and bike more safely, training volunteers from New York Cares to distribute Bike Smart information to the public at helmet events and speak to people waiting on line for helmets about bike safety.

#### Driver's Education

DOT is working with the New York State Department of Motor Vehicles to incorporate more information regarding urban driving, pedestrian and bicycle safety in the Driver's Education curriculum and in the training materials for Driver's Education instructors.

#### **Additional Interagency Collaboration**

Interagency coordination is part of DOT's practices in engineering for safe streets and highways. Most limited-access highways in New York City fall under shared jurisdiction between the New York State Department of Transportation (NYSDOT) and DOT. DOT works closely with NYSDOT on highway design issues, coordinating marking improvements, capital design improvements and other safety work. The Department also works closely with the MTA (Bridges and Tunnels) and the Port Authority of New York and New Jersey on traffic monitoring and engineering related to those authorities' facilities. DOT coordinates safety work with New York City Transit to relocate bus stops and to enhance bus passenger safety. DOT also coordinates plantings with the NYC Department of Parks and Recreation and street design issues with the Department of Environmental Protection in the course of many safety projects.

DOT and the New York City Health Department (DOHMH) collaborate on safety reporting and research. DOHMH provided important data for the 2010 NYC Pedestrian Safety Study & Action Plan, allowing a detailed analysis of the demographics of pedestrian fatality victims. DOT and DOHMH also worked together to develop the November 2010 issue of NYC Vital Signs, a periodic publication of DOHMH. That report is available at: <a href="http://www.nyc.gov/html/doh/downloads/pdf/survey/survey-2010-traffic-safety.pdf">http://www.nyc.gov/html/doh/downloads/pdf/survey/survey-2010-traffic-safety.pdf</a>

Appendix A

# Traffic Fatality Rates - Top 25 US Cities by Population Annual Traffic Fatality Rates per 100,000 Residents

| Population<br>Rank | City           | State                | 2010<br>Population | Average Annual<br>Traffic Fatalities,<br>2007-2009 | Traffic Fatality<br>Rate |
|--------------------|----------------|----------------------|--------------------|--|--------------------------|
| 1                  | New York City* | New York             | 8,391,881          | 274  | 3.3                      |
| 2                  | Los Angeles    | California           | 3,792,621          | 280  | 7.4                      |
| 3                  | Chicago        | Illinois             | 2,695,598          | 195  | 7.2                      |
| 4                  | Houston        | Texas                | 2,099,451          | 223  | 10.6                     |
| 5                  | Philadelphia   | Pennsylvania         | 1,526,006          | 104  | 6.8                      |
| 6                  | Phoenix        | Arizona              | 1,445,632          | 169  | 11.7                     |
| 7                  | San Antonio    | Texas                | 1,327,407          | 120  | 9.1                      |
| 8                  | San Diego      | California           | 1,307,402          | 85   | 6.5                      |
| 9                  | Dallas         | Texas                | 1,197,816          | 137  | 11.4                     |
| 10                 | San Jose       | California           | 945,942            | 46   | 4.9                      |
| 11                 | Jacksonville   | Florida              | 821,784            | 127  | 15.5                     |
| 12                 | Indianapolis   | Indiana              | 820,445            | 73   | 8.9                      |
| 13                 | San Francisco  | California           | 805,235            | 42   | 5.3                      |
| 14                 | Austin         | Texas                | 790,390            | 61   | 7.7                      |
| 15                 | Columbus       | Ohio                 | 787,033            | 57   | 7.2                      |
| 16                 | Fort Worth     | Texas                | 741,206            | 67   | 9.1                      |
| 17                 | Charlotte      | North Carolina       | 731,424            | 67   | 9.1                      |
| 18                 | Detroit        | Michigan             | 713,777            | 109  | 15.3                     |
| 19                 | El Paso        | Texas                | 649,121            | 48   | 7.4                      |
| 20                 | Memphis        | Tennessee            | 646,889            | 99   | 15.4                     |
| 21                 | Baltimore      | Maryland             | 620,961            | 44   | 7.1                      |
| 22                 | Boston         | Massachusetts        | 617,594            | 24   | 3.9                      |
| 23                 | Seattle        | Washington           | 608,660            | 25   | 4.1                      |
| 24                 | Washington     | District of Columbia | 601,723            | 36   | 5.9                      |
| 25                 | Nashville      | Tennessee            | 601,222            | 68   | 11.3                     |

Sources: US Census - http://2010.census.gov/2010census/popmap

FARS (Fatality Analysis Reporting System) http://www-fars.nhtsa.dot.gov/Main/index.aspx

<sup>\*</sup> NYC population: US Census 2009 Population Estimates. NYC traffic fatalities: NYCDOT-NYPD Reconciled Fatality Database. FARS reports NYC traffic fatalities for 2007-2009 as 271, 291 and 266. 2010 Census reports 8,175,130 residents, yielding a fatality rate of 3.4.