

# VISION ZERO



---

YEAR 5 REPORT | MARCH 2019

**With each passing year,  
New Yorkers continue to  
see Vision Zero save lives.  
Over the last five years, we  
have lowered the speed limit,  
increased enforcement, and  
designed hundreds of safer  
streets. But no loss of life on  
our streets is acceptable.**

*Mayor Bill de Blasio*

aten  
and  
r  
Streets

**SLOW  
DOWN**

**QUEEN  
CANT**

MIL  
FOR

# Table of Contents

---

## Vision Zero Year Five

- 5 **EXECUTIVE SUMMARY**
- 10 Vision Zero By the Numbers
- 12 **STATISTICS AND METRICS**  
Historic Progress
- 15 **BOROUGH PEDESTRIAN SAFETY ACTION PLANS: REVIEW AND RE-ASSESSMENT**  
Evaluating our Progress, Updating Our Strategies
- 16 **COLLABORATING FOR SUCCESS**
- 22 **DATA-DRIVEN SOLUTIONS**  
Harnessing the Evidence Base
- 28 **ENGINEERING**  
Proven Solutions plus Innovative Ideas
- 40 **ENFORCEMENT**  
A Data Driven Approach
- 50 **FLEETS**  
Leadership in Professional Driving
- 60 **ENGAGEMENT**  
Culture Change through Communications

## Vision Zero Year Six Initiatives

- 76 Vision Zero Year Six Initiatives

## Appendix

- 79 Scorecard Years 1-5
- 87 Glossary
- 90 Helpful Links
- 92 Task Force Members



# Vision Zero Year Five Report

## Executive Summary

---

New York City continued to make progress towards its Vision Zero goals in 2018, with the fifth consecutive year of declining fatalities on City streets.

---

Compared to 2013, the year before Vision Zero began, New York City's overall traffic deaths have fallen by one-third, and remain the lowest ever since the dawn of the automobile. The fatality rate per 100,000 residents is on par with Sweden, the birthplace of Vision Zero. Pedestrian deaths have decreased to an even greater extent, down 37 percent since 2013. This has only been possible through a dedicated effort by numerous City agencies and partners working together to pursue evidence-based solutions.

At the same time, challenges remain which require new approaches. In 2018, a substantial drop in cyclist fatalities came alongside a small increase in the number of pedestrian fatalities compared to 2017. And while both have declined from the years before Vision Zero, motorcyclist deaths now outnumber those of motor vehicle occupants. Determining why, and how, these changes came about is a continuing effort. The goal remains zero, and so the agencies of the Vision Zero Task Force will focus their efforts on intensifying solutions that have been proven to work and pursuing new methods to conquer persistent challenges.

After five years of concerted efforts, it is now clear that progress may not always be linear, and no single action can guarantee results. However, what is always achievable is a well-managed strategy that relies on data and innovation, and that adapts with circumstances, especially in the face of new information. By regularly re-evaluating our progress and examining new opportunities, New York City will continue to lead American cities in road safety.

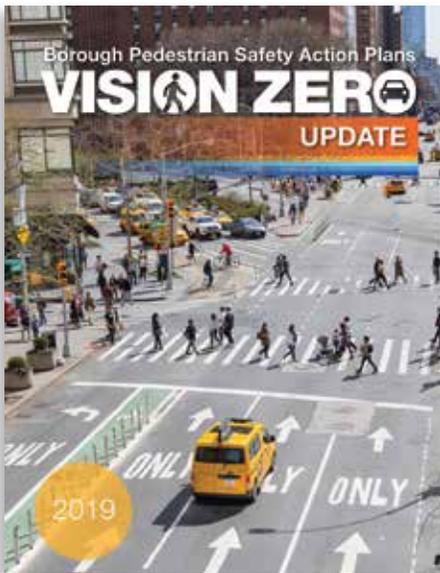
## Statistics and Metrics

# Historic Progress

Fatalities declined in four of the five boroughs in 2018, with both Manhattan and Staten Island seeing historic record lows of 28 and seven deaths, respectively. Motor vehicle occupant deaths also hit a historic low for modern times, at less than half the number seen only a decade earlier. Cyclist deaths fell dramatically to the lowest numbers in over three decades, even though there are now more cyclists than ever on the streets of New York.

## Borough Pedestrian Safety Action Plans: Review and Re-Assessment

# Evaluating Our Progress, Updating Our Strategies



The Borough Pedestrian Safety Action Plans have been one of the guiding documents for prioritizing engineering, enforcement, and educational interventions since the start of Vision Zero. They designated Priority Intersections, Corridors, and Areas based on data on pedestrians killed or seriously injured (KSI) between 2009 and 2013. With so many projects completed since those plans were released in early 2015, the time had come in 2018 to re-evaluate them, both in order to gauge how Vision Zero work has improved safety on formerly crash-prone roads and to ensure that attention is given where the data now indicates it is urgently needed. The updated borough Pedestrian Safety Action Plans, published in early 2019, detail the progress the City has made and set out new strategies for the future.

# Collaborating For Success

Vision Zero in New York City was built on a strong foundation that emphasizes teamwork and interagency collaboration. The work of the Vision Zero Task Force is nationally recognized and is used as a model for peer cities. As New York City is called upon to provide advice to other communities setting up Task Forces, it is crucial to recognize key elements for success such as getting the right people to the table and keeping them there, a data-driven approach, and a shared mission. These characteristics were apparent in the life cycle of the Dusk and Darkness initiative, which changed agency policies and has continued to save lives since its inception. Collaboration is the key element that helped Vision Zero gain traction in its first five years and will continue to be the bedrock of success in Year Six of the program and beyond.

## Data-Driven Solutions

### Harnessing the Evidence Base

The best research not only describes what the data show, but uses that data to help discover greater insights into the causes and origins of safety hazards and how they can be prevented. City agencies continue to look for ways to enhance traffic data analysis and provide well-supported solutions to reduce KSIs. As in other aspects of Vision Zero, collaborative work yields results: The Department of Health and Mental Hygiene (DOHMH) and the Mayor's Office of Data Analytics (MODA) have analyzed hospital injury data and injury severity scores, linking them to data from New York City Police Department (NYPD) crash reports, and found that older New Yorkers are more likely to sustain serious injuries in crashes. This finding feeds into ongoing work addressing crash risk among seniors.

## Engineering

### Proven Solutions Plus Innovative Ideas



The Department of Transportation (DOT) continued its intensive program of street redesigns and safety interventions in 2018, completing projects at 139 locations, including 97 Vision Zero priority locations. Major bike lane projects were implemented in Midtown Manhattan and Sunnyside, Queens, along with the openings of new pedestrian plazas, the installation of 363 speed humps, and the activation of 873 leading pedestrian intervals. In addition, DOT began to pilot new design elements like chicanes, which curve the roadway to reduce speeding; and rectangular rapid flashing beacons, which are intended to

improve visibility and increase driver yielding at uncontrolled crosswalks near schools. Ongoing crash analysis will guide the future usage of these elements, allowing for both an intensification of what works, and thoughtful exploration of new ideas to tackle persistent issues.

## Enforcement

### A Data Driven Approach

NYPD continued its focus on targeting the six “Vision Zero violations” most likely to cause death or serious injury to pedestrians, issuing a total of 704,446 summonses for these offenses in 2018. Collaboration between NYPD and the Business Integrity Commission (BIC), which regulates trade waste vehicles operating in New York City, led to the removal of dangerous vehicles from the road and the issuance of summonses for unsafe driver behavior. The Sheriff’s Office, a new Vision Zero Task Force partner, conducted special operations with NYPD and the Taxi and Limousine Commission (TLC) to seize the vehicles of chronic speed and red light offenders operating illegal taxis. NYPD and TLC have also focused on combating obstruction of bike lanes, which puts cyclists in danger in the place they should feel safest.

## Fleets

### Leadership in Professional Driving



Fleet Services Town Hall

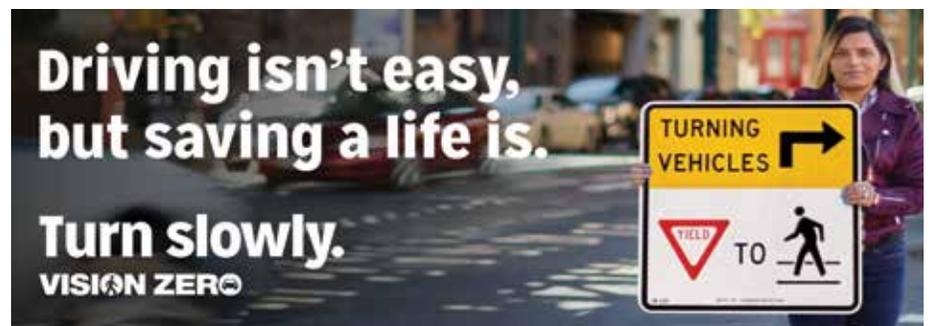
Professional drivers, whether working for City agencies or as one of the almost 200,000 Taxi and Limousine Commission (TLC) licensees, set an example when they operate safely on New York City streets. In 2018, there was a 50% decrease in fatal crashes involving TLC-licensed vehicles, even though during this period, TLC saw an increase in the number of vehicles, drivers, and trips. TLC trained over 27,000 new drivers in 2018, creating a new training video to cover the five most dangerous driving behaviors specific to for-hire urban driving. In order to ensure that first-time violators in the for-hire sector understand the impact of their actions, TLC created a diversion pilot to offer drivers retraining in lieu of a fine when receiving an initial ticket for using an electronic device while driving.

Meanwhile, the Department of Citywide Administrative Services (DCAS) expanded its defensive driving program in 2018 to New York City Housing Authority (NYCHA), NYC District Attorney Offices, and others. DCAS has now trained over 50,000 City drivers in safe vehicle operation. DCAS also upgraded to a real-time telematics system that instantly maps driver locations and reports collisions. Speeding and crashes will now be managed through the Fleet Office of Real Time Tracking (FORT). In addition, DCAS published

an update of the 2017 Safe Fleet Transition Plan to include new major safety advances – high vision trucks and driver alert systems, which will be integrated into the City fleet going forward. DCAS also partnered with the City Comptroller in 2018 to better manage crash claims and pursue restitution. The Metropolitan Transportation Authority (MTA) collaborated with DOT to improve bus stops and associated pedestrian infrastructure. Together, all the Vision Zero agencies that regulate and manage fleets worked to coordinate communication to professional drivers, both refining and amplifying Vision Zero messaging.

### Engagement

## Culture Change Through Communications



As the Vision Zero program matures, communication and outreach efforts are continually refined to address the needs of specific groups and areas most likely to be affected by crashes. In 2018, specialist safety educators from DOT and NYPD, along with various agency representatives, conducted outreach throughout the city, particularly with drivers. Four hundred eighty-nine schools received special attention, including 2,500 Staten Island high school students who learned about responsible choices behind the wheel through “Alive at 25,” a partnership between DOT and the National Safety Council. NYPD’s Transportation Outreach Unit expanded to 88 schools and 33 senior centers in 2018, enabling local precincts to communicate more widely about street safety. The effective “Dusk and Darkness” campaign run by NYPD, DOT, and TLC was expanded to “Warm Weather Weekends,” a focus on safe driving on early spring weekends where data showed higher risk for crashes injuring motorcyclists and motor vehicle occupants. BIC and TLC organized in-person meetings with their affiliated drivers to disseminate information on new policies, and expanded their online and print information offerings to be as helpful and convenient as possible.

# VISION ZERO

## BY THE NUMBERS 2018



### 1,400+

safety education visits to schools in priority locations since the start of Vision Zero.



### 837 truck sideguards

installed this year.

### 6,327 city vehicles

with real-time telematics.



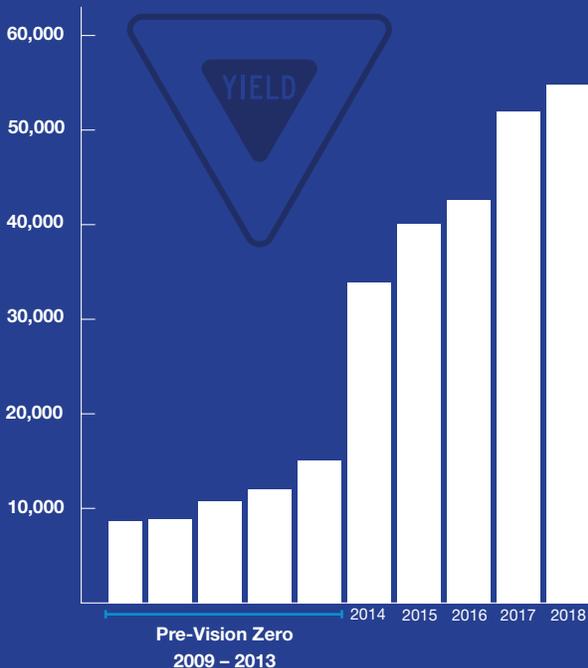
### 7,536 city drivers

took defensive driving classes through DCAS.



### 350+ senior centers

partnered with at priority locations.



### 54,469 summonses

to drivers for Failure to Yield violations in 2018—4 times the Pre-Vision Zero average.

### 6,584 MTA bus operators

trained in Vision Zero.



### 150 locations

identified for new traffic signal installation.





**20.4 miles**

of protected bike lanes installed. In total, more than 82 miles have been installed since the start of Vision Zero.

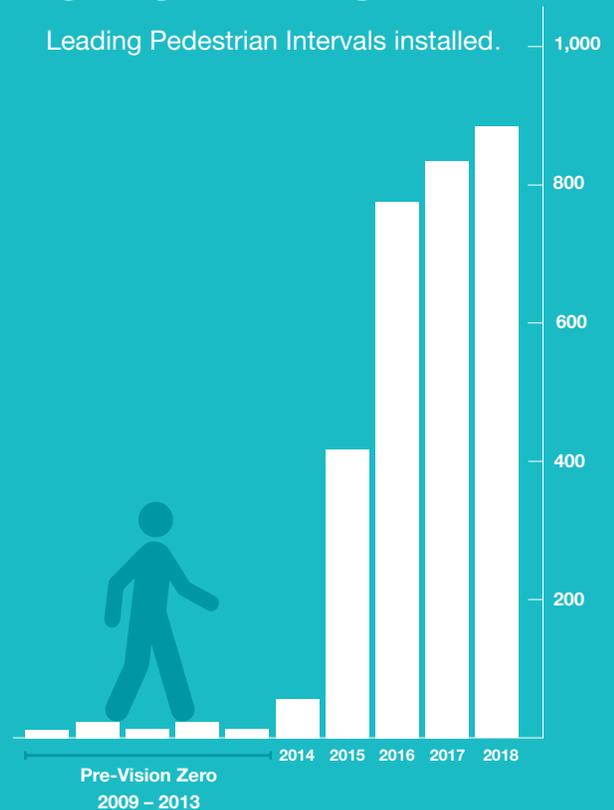
**363 speed humps**

installed this year.



**873 LPIs**

Leading Pedestrian Intervals installed.



**152,368**

manual speeding summonses issued by NYPD.

**1,000,046**

automated speeding Notices of Liability issued.

**27,000 drivers**

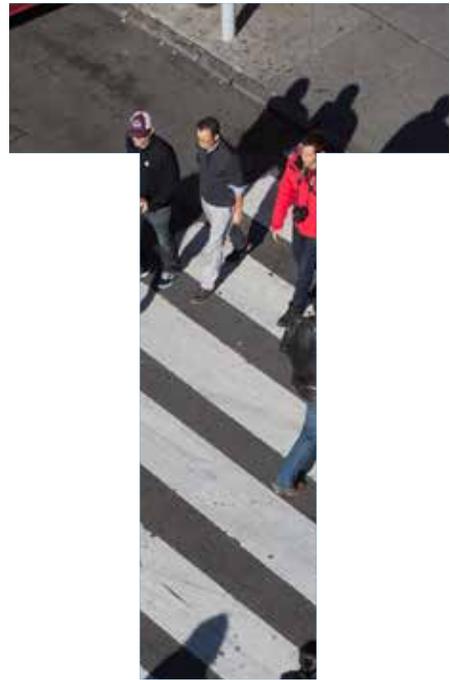


licensed by TLC received Vision Zero Education. 50% decrease in fatal crashes involving TLC-licensed vehicles in 2018



**410 drivers & 27 businesses**

recognized on the TLC Safety Honor Roll.



---

New York City's fifth year of Vision Zero marked another year of record low traffic fatalities. Pedestrian deaths in particular have fallen 36 percent at Priority Locations compared to the years prior to Vision Zero. Both Manhattan and Staten Island recorded their lowest ever number of deaths – proof that Vision Zero strategies work across the wide variety of streetscapes seen in New York City.

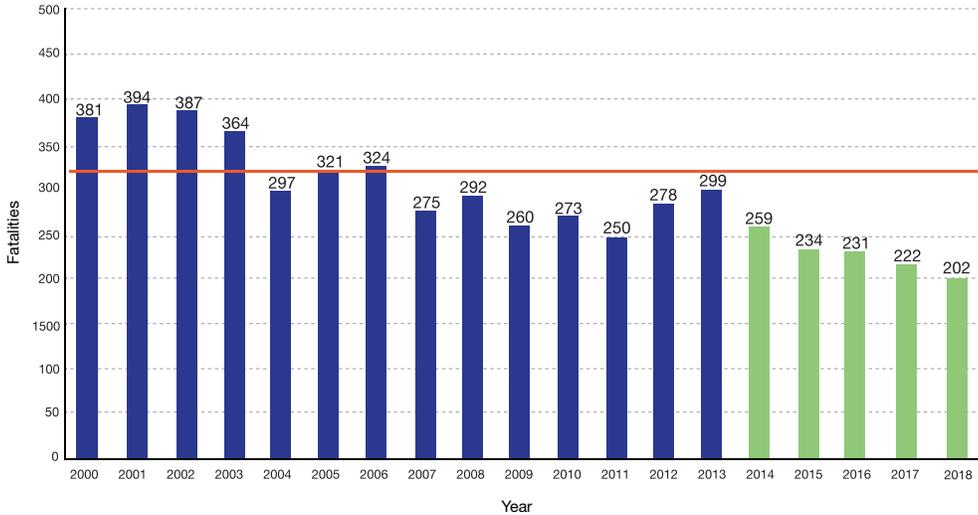


## STATISTICS AND METRICS

# Historic Progress

The fifth year of Vision Zero brought another record low number of traffic deaths in New York City. In four of five boroughs, total fatalities declined even as the City’s population continued to grow, and both Manhattan and Staten Island saw unprecedented low numbers. In a year with an estimated over 178 million cycling trips, cyclist deaths also declined to record lows, a testament to “safety in numbers” and the effectiveness of bicycle facilities. Drivers and passengers also witnessed a historic year for safety, with their fatality numbers more than halved in a decade.

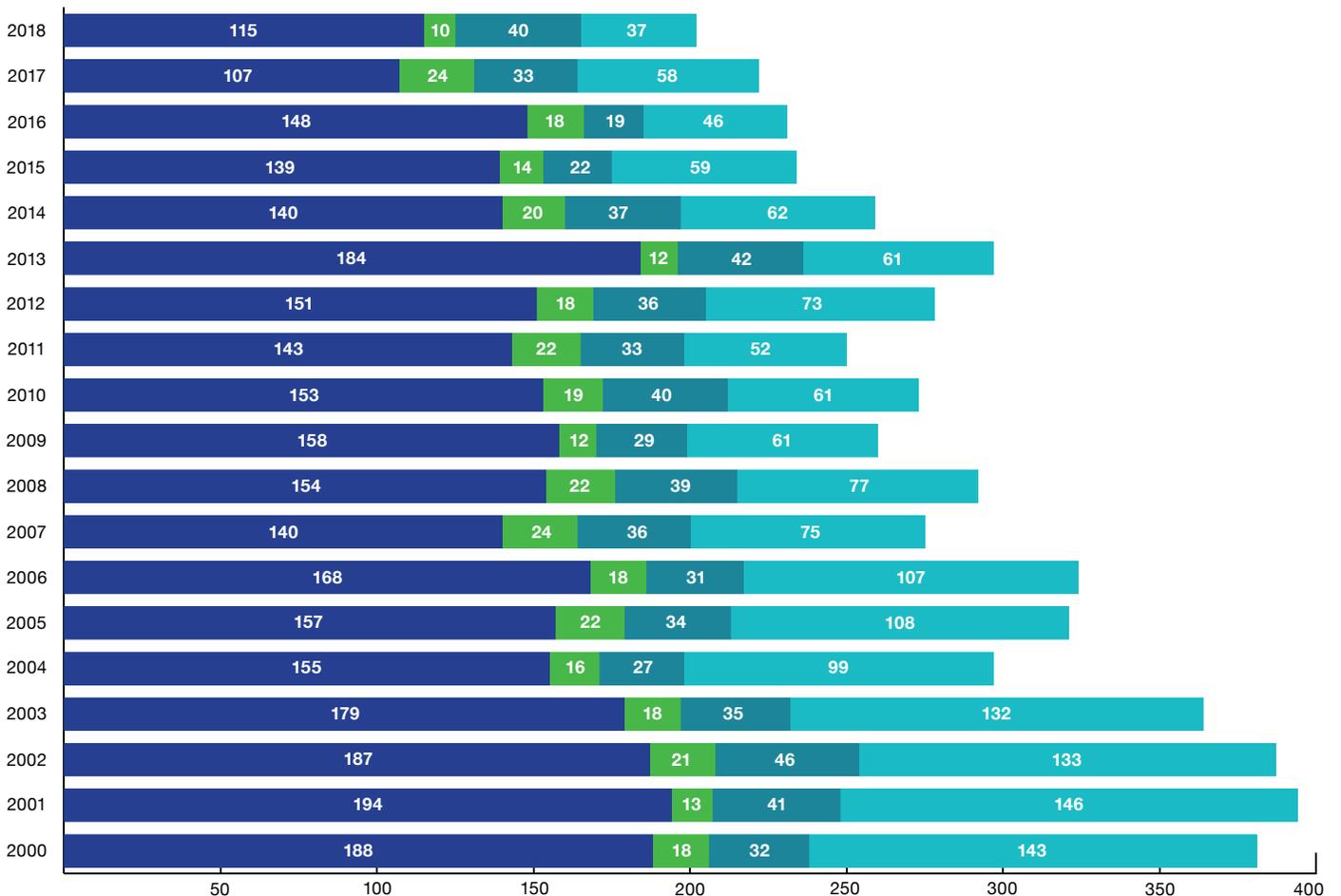
■ Before Vision Zero    ■ Vision Zero    — 2000-2013 average prior to Vision Zero



*While even one life lost is too many, the progress New York City has made under Vision Zero is clear from comparisons to the years immediately preceding its inception. While the rest of the United States has seen fatalities increase, New York City’s are now the lowest they have been in over a century – since the dawn of the automobile.*

However, motorcyclist fatalities increased, and for the first time on record they surpassed those of motor vehicle occupants. Also, following a dramatic drop in pedestrian fatalities in 2017, this number rose slightly in 2018, but still remains well under the statistics seen prior to Vision Zero. City agencies operate under the principle that the only acceptable number of deaths is zero, and the continuing initiatives detailed in this report – and the new projects set to launch in 2019 – harness evidence-based strategies to make that goal a reality.

### Traffic Fatalities by mode 2000–2018



Source: NYC DOT & NYPD

## Review and Re-Assessment: Evaluating Our Progress, Updating Our Strategies

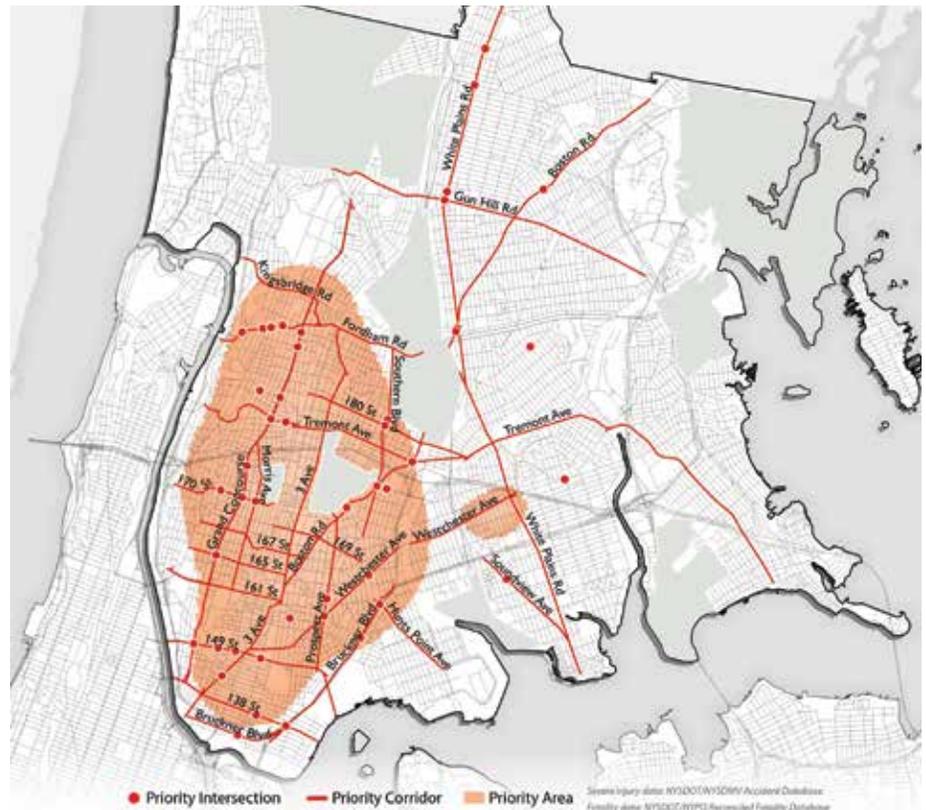
# Borough Pedestrian Safety Action Plans

### New commitments to be undertaken by City agencies include:

- Adding exclusive pedestrian crossing time (LPIs) at every possible intersection on new Priority Corridors by the end of 2019
- Changing signal timing to help prevent speeding on all new Priority Corridors by the end of 2019
- Creating a data-driven speed reducer program to install speed humps and speed cushions where they are most needed
- Launching High Visibility Enforcement on Priority Corridors
- Creating a Driveway Safety Program to protect pedestrians from vehicles entering and exiting properties

As a data-driven initiative, Vision Zero's success depends on frequent evaluation of programs and their outcomes. When the original Borough Pedestrian Safety Action Plans were released at the start of 2015, they designated Priority Intersections, Corridors, and Areas based on pedestrians killed or seriously injured (KSI) between 2009 and 2013. These priority locations were given intensive interventions because data indicated they had the greatest need. By the end of Vision Zero Year 5, DOT had addressed 90 percent of Priority Intersections and 86 percent of Priority Corridor miles with design and engineering treatments, leading to a 36 percent drop in pedestrian deaths at these locations.

DOT re-evaluated pedestrian KSI data in 2018, finding that many locations that once ranked among the highest for pedestrian KSI are now markedly safer, whereas other locations not previously labeled priorities, by comparison, now have relatively high KSI. New priority maps and an updated Pedestrian Safety Action Plan indicate current areas of most concern based on 2014 through 2016 data, and will guide future Vision Zero engineering work.



Bronx Vision Zero priority Map 2019.

## The Vision Zero Task Force

# Collaborating for Success

Teamwork is the backbone of Vision Zero. Without each City agency performing its core function, it is hard to imagine how Vision Zero would work. But what exactly does this teamwork look like and how does this collaboration lead to success? In 2014, when Vision Zero was launched, the City put in place the building blocks that facilitate relationship-building and dialogue, and encourage persistence and accountability. A priority of City Hall, Vision Zero is driven by leaders at the highest levels of City government, empowering the agencies implementing Vision Zero to think big, act bold, and catalyze change.

City Hall, working with City agencies, developed the Vision Zero Action Plan, a holistic strategy comprised of dozens of initiatives for ending traffic fatalities and injuries. The Plan established the Vision Zero Task Force. Every other week, the Vision Zero Task Force convenes, bringing together individuals from key agencies with unique roles and responsibilities.



Madeline Labadie (TLC) and Inspector Dennis Fulton (NYPD) in a Vision Zero Task Force meeting.



Geraldine Sweeney, Mayor's Office of Operations, leads a group discussion at the Vision Zero Task Force.

## A Strong Team Is Crucial

Task Force meetings provide a mechanism for information-sharing and create dedicated time for monitoring progress, identifying challenges, and collaborating on solutions. At each meeting, members review the Vision Zero dashboard, which includes metrics agencies track on a daily, weekly, monthly, and annual basis. Regular meetings have allowed members to develop a shared language, enabling strong cross-agency communication and collaborative and efficient problem-solving.

Yearly	Monthly	Twice Monthly	Weekly
Publish Annual Report	Agency Check-ins with Operations	Task Force Meetings	Internal Operations Staff Meetings
Hold Annual Interagency Strategy Workshop	Metrics Reporting	Data Working Group Meetings	Core Agency Internal Meetings

## The Vision Zero Task Force

A **coordinating body** that facilitates dialogue between agencies and brings the right people to the table. Emphasising **relationship-building and shared language** that advance efficient and effective decision-making.

### The Key Elements for Task Force Success:

**Accountability** among agencies and to the public

**Collaboration** that encourages brainstorming and generates creative solutions

**Data-driven approach** informs engineering, enforcement, and education strategies

**Monitoring** of progress using concrete metrics

**Leadership** from the Administration that allows big ideas to move forward

**Persistence** to keep items on the agenda

### NYC Vision Zero Task Force is composed of:

- City Hall
- Mayor’s Office of Operations
- Mayor’s Office of Data Analytics
- Mayor’s Office Community Affairs Unit
- Business Integrity Commission
- Department of Transportation
- Police Department
- Department of Health & Mental Hygiene
- Department of Citywide Administration Services
- District Attorney’s Offices
- Law Department
- MTA
- Office of Management & Budget
- Sheriff’s Office
- Taxi & Limousine Commission

## Dusk and Darkness: A Case Study in Collaboration

### FEBRUARY 2016

NYPD and DOT express concern about the pattern of traffic fatalities occurring in the evening hours and raise the matter at a Vision Zero Task Force meeting.

DOT conducts analysis and creates a heatmap showing fatalities throughout the year.

**Trend Identified:** Large percentage of pedestrian fatalities occurring in the fall and winter months during dusk and nighttime hours.

At the time, there was no coordinated effort to educate drivers and pedestrians about paying special attention during these hours. Traditionally, NYPD officers' shifts also transitioned between 3pm and 4pm, coinciding with the onset of dusk.

### Vision Zero Task Force collectively decides to take action.

At a weekly meeting of the NYPD Patrol Services Bureau, NYPD Vision Zero Task Force members propose enhancing overtime operations between 4:00 PM and 10:00 PM.

What does this mean? More officers working in more locations across the city during key hours.

An officer working 8:00 AM to 2:00 PM would work overtime until 4:00 PM, and an officer working 2:00 PM to 8:00 PM would extend their shift through 10:00 PM.

### FALL 2016

Launch of Dusk and Darkness, a multiagency effort to reduce traffic fatalities and injuries that occur during the darker winter months.

### OUTCOMES

**Enforcement:** NYPD focuses enforcement on the most dangerous driving violations: speeding and failure to yield to pedestrians.

TLC increases deployment of inspectors during early morning and evening hours to monitor speeding and distracted driving among TLC-licensed drivers.

TLC begins deploying field enforcement officers using NYPD's new model of shifting more officers to later tours.

**Communications:** DOT provides communications materials (i.e. postcards, flyers) to DCAS and TLC to distribute to City fleet and taxi drivers.

TLC also texts drivers, reminding them to be cautious.

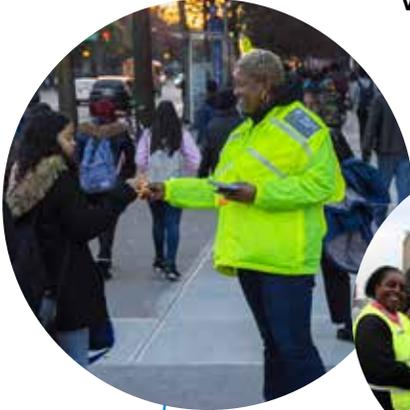
DOT runs radio ads during evening commute to caution drivers about the dangers of lower visibility and encourage them to follow the 25 MPH citywide speed limit, turn slowly, and yield to pedestrians.

**Community Engagement:** NYPD and DOT Street Teams are on the ground at Vision Zero priority locations during the morning and evening rush hours, engaging drivers and pedestrians and raising awareness.

**Impact:** Between October 27th and December 31st over the course of the three years before the initiative was launched (2013 through 2015), there was an average of 56 traffic fatalities. Over the three years Dusk and Darkness has been implemented, there has been an average of 40 fatalities during the same period, a **29 percent decline**.

**Expansion:** NYPD and DOT expanded the Vision Zero seasonal campaigns to Warm Weather Weekends. This initiative focused on the first warm Saturdays of spring and summer where there have historically been increases in fatalities for motorcyclists and motor vehicle occupants.

# Dusk and Darkness Locations 2018





Kim Wiley-Schwartz, Assistant Commissioner (DOT), and Vision Zero Task Force members accepting the Vision Zero for Youth Leadership Award from the National Center for Safe Routes to School and the FIA Foundation.

## Recognition of Vision Zero Achievements



The agencies of the Vision Zero Task Force are all too aware that Vision Zero will only truly be a success when it achieves its aim of zero deaths and serious injuries. However, the incremental improvements made over

its first five years can be measured in real lives saved, and New York City has served as an example to other cities and organizations as they adopt Vision Zero and strive to improve street safety. In 2018, two major awards recognized New York City's progress. The City received international acclaim when Vision Zero won the International Transport Forum's 2018 Transport Achievement Award, presented at the Organization for Economic Co-operation and Development in Leipzig, Germany. This award recognized Vision Zero in New York City as a world-leading transportation safety initiative. Mayor de Blasio and the Vision Zero Task Force were also recognized at the United Nations, where representatives from the Vision Zero Task Force accepted the 2018 Vision Zero for

Youth Leadership Award from the National Center for Safe Routes to School and the FIA Foundation. The United Nations recognized New York City's achievements as it launched its new Road Safety Strategy to prevent a leading cause of death and injury to their personnel worldwide. As a policy, Vision Zero aligns with two of the United Nations Sustainable Development Goals that have also been embraced by New York City: Good Health and Well-Being, and Sustainable Cities and Communities. Many of the specific Vision Zero strategies New York City has adopted, like better vehicle technology to boost fleet safety, inter-agency partnership within a large organization, and a safe systems approach, also align with the pillars of the UN Global Plan for the Decade of Action for Road Safety.



UN leaders in New York hold the Road Safety Pledge to show their commitment to delivering a strategy that reduces deaths and injuries among their personnel and the people they serve worldwide.



UN leaders sign the Road Safety Pledge.



Michelle Yeoh, UN Global Road Safety Ambassador, delivers a speech on the importance of the UN Road Safety Strategy.



---

Seniors make up only 13% of NYC's population and represent nearly 50% of annual pedestrian fatalities.

## DATA-DRIVEN SOLUTIONS

---

# Harnessing the Evidence Base

---

The Vision Zero Task Force continues to look for ways to enhance traffic data analysis and provide data-driven solutions to reduce traffic fatalities. In particular, NYC DOT identifies Priority Corridors, Intersections, and Areas for interventions. Priority Corridors are chosen based on the highest number of pedestrians killed or severely injured (KSI) per mile. These are used to focus City engineering, enforcement, and education resources on making the most crash-prone locations safer for pedestrians.

## Predicting Injury Outcomes Using Data Linkage

When a traffic collision happens, the responding police officer collects information at the scene, including types of vehicles involved, location, crash configuration, and an initial assessment of the injured parties. DOT has access to these crash reports, but does not have hospital data on the final outcomes and severity of those injuries.

To help with the effort to reconcile crash and outcome data, the Department of Health and Mental Hygiene (DOHMH) led the Data Linkage Project. Hospital injury data and severity scores were used to enhance data from NYPD's crash reports. The Mayor's Office of Data Analytics (MODA) analyzed this linked data to predict which types of crashes would be most likely to result in severe injuries for pedestrians.

The analysis found older New Yorkers involved in a crash are at a higher risk for sustaining the most serious injuries: pedestrians over the age of 70 are more than twice as likely to sustain serious injuries if hit by a vehicle than the average New Yorker. This finding reaffirms that older adults are more vulnerable on New York City's streets. This finding highlights the importance of proactive driver outreach and enforcement already embraced by the agencies on the Vision Zero Task Force, as well as other safety interventions that are focused on areas with higher populations of older adults.



In addition, the analysis showed that the current definitions of injury severity, developed by the New York State Department of Motor Vehicles (DMV) and used by DOT for prioritizing street safety redesign, are aligned with hospital injury outcomes. This definition of severe injury applies when the police officer at the scene reports any of the following conditions: unconscious, semiconscious, incoherent, severe bleeding, internal injury, amputation, concussion, fracture/dislocation, severe or moderate burn, and/or eye injury. Most of these attributes, indicated by the green bars in the graph below (Figure 1), were top predictors of severe injury according to hospital outcomes. Burns and eye injuries had too few cases to make an accurate assessment.

### Top Predictors of Severe Injury for Pedestrians or Bicyclists

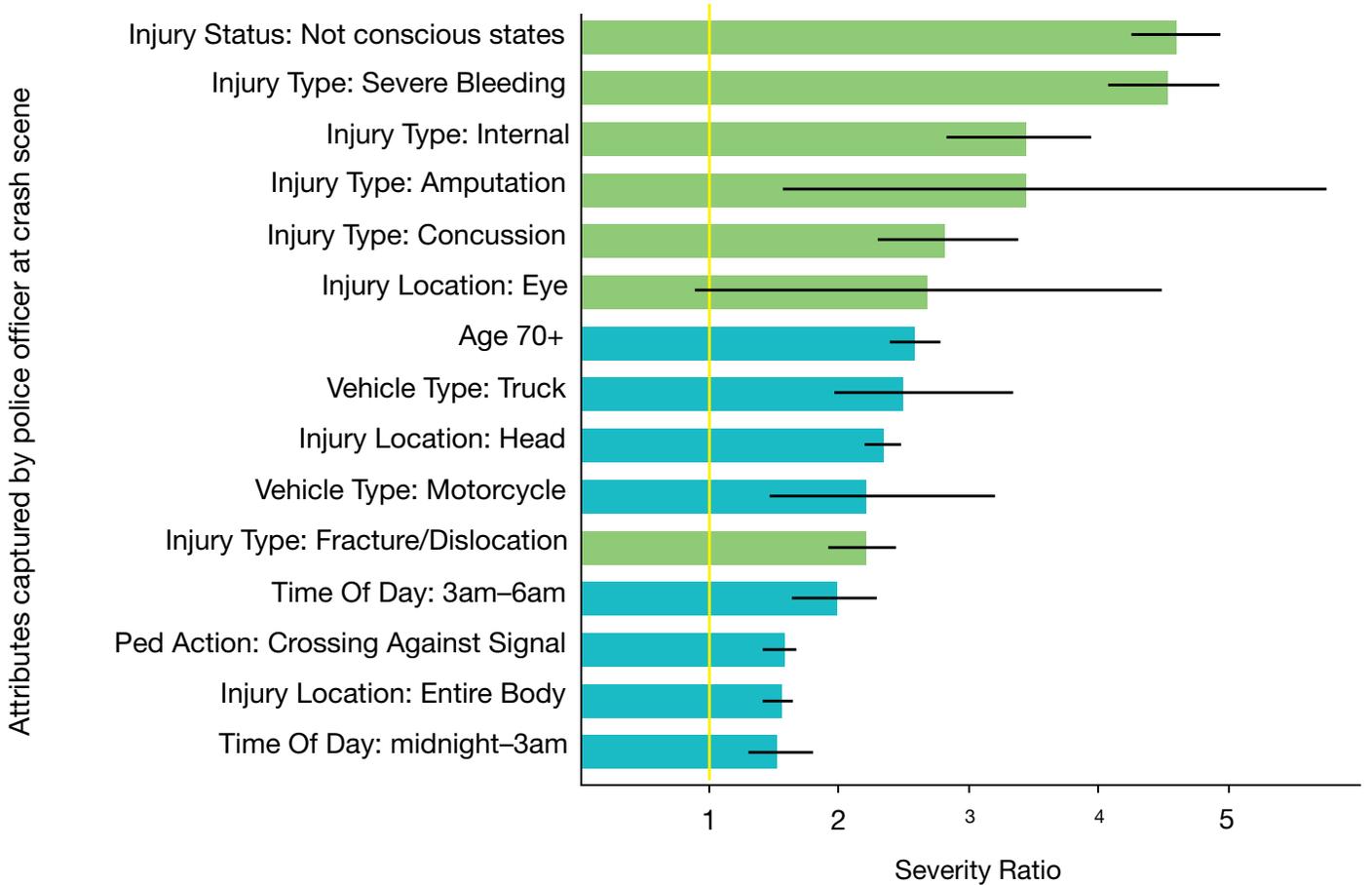


Figure 1: Severity ratio is the probability an injured person will have a severe outcome if a crash attribute was present, divided by the overall probability an injured person will have a severe outcome. Attributes with green bars are included in DOT and DMV's definition of killed or severely injured (KSI). Black bars indicate 90 percent confidence intervals.

## Bringing Data to the Public

# Environment & Health Data Tracking Portal



The NYC Environment & Health Data Portal provides integrated environmental and public health data to the public in a user-friendly, useful format. This portal includes hospitalization and emergency department visit data for pedestrian and bicyclist injuries. DOHMH has made several enhancements, including adding new years of data and scatterplots showing the relationship between neighborhood poverty and pedestrian and bicyclist injuries. Residents who live in neighborhoods with higher rates of poverty also have higher traffic-related injury hospitalization and emergency department visit rates compared to residents of higher income neighborhoods.

## Child Fatality Review Advisory Team Report

DOHMH released a report describing demographic patterns and leading causes of injury deaths among the youngest New Yorkers (ages one to 12 years) in the 2010 through 2015 period. From 2010 to 2015, motor vehicle traffic crashes were the second leading cause of death due to injury among children ages one to 12 years.

## Block by Block: Walking for a Healthier East Harlem



### Findings

We surveyed more than 200 residents at locations along the East Harlem Community Walking Trail and assessed the physical conditions of the streets and sidewalks that make up the route. These are our most important findings.

In Fall 2018, DOHMH released “Block by Block: Walking for a Healthier East Harlem”. The report highlights neighborhood walking conditions and is a tool for community action. It was produced by the Harlem Neighborhood Health Action Centers, which work to reduce the causes of health inequities for residents in neighborhoods experiencing institutional and structural racism and long-term disinvestment by organizations and institutions. The report is based on surveys with over 200 East Harlem residents and assessments of more than 20 blocks. Most residents surveyed walk for at least 10 minutes a day in their neighborhood, but were concerned about safety, lighting, and the cleanliness of sidewalks and streets. The report proposes actions that City agencies, community groups, and residents can take to promote health and physical activity by making walking safer, easier, and more enjoyable in their neighborhoods. The report and related resources can be found in the Helpful Links section of this report.

## Collaborating with Academics

City agencies have continued their partnership with the Smart Cities Center at Columbia University’s Data Science Institute. Academic partners have developed a sophisticated map-matching algorithm to map speed data obtained from DCAS to the New York City street network. DOT has used the maps to help locate sites appropriate for speed cushions, a new type of

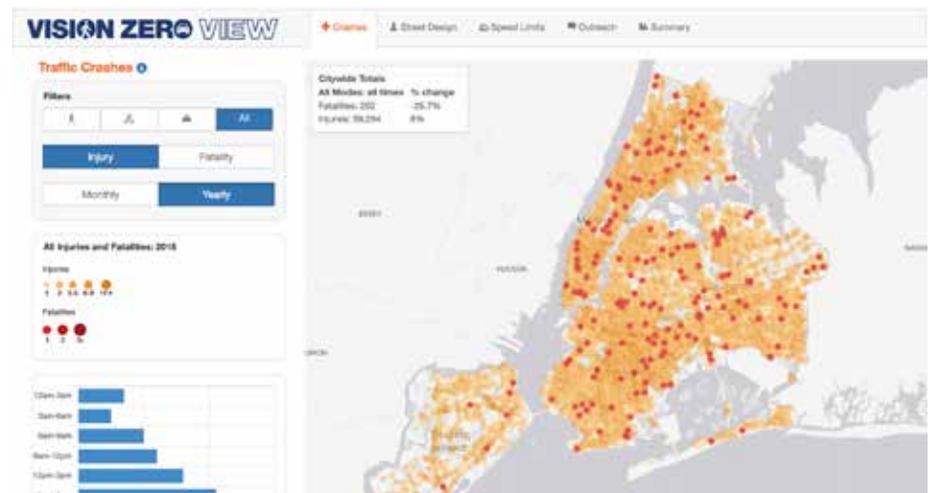
specialized speed hump suitable for bus routes and larger arterial roads, as part of its data-driven speed reducer program. Columbia University has also started building a tool for planners to access speed data in order to quickly vet projects and study the connections between hard braking or acceleration and traffic injuries.

In partnership with New York University (NYU) Connected Cities with Smart Transportation (C2SMART), DCAS and DOT presented at the 6th Symposium on Connected and Autonomous Vehicles. DCAS presentation topics included the Safe Fleet Transition Plan, telematics, and connected vehicle technologies in the City's fleet. DOT presented on the NYC Connected Vehicle Pilot Program, cybersecurity, and the long-term policy applications of connected and autonomous vehicles.

NYU also hosted a two day Traffic Fundamentals workshop for DOT employees, featuring courses on traffic control methods, simulation and modeling, traffic management technologies and congestion pricing. NYU faculty covered topics including advanced traffic management techniques and technologies.

## Vision Zero View

Mindful of the ways public-facing data tools can better serve interested parties, DOT has updated the Vision Zero View tool ([vzv.nyc](http://vzv.nyc)) to include the time of day crashes have occurred. Website users can filter fatal or injurious crashes by time of day on an interactive map. This additional detail helps map users see that crashes are not evenly distributed throughout the day. The Vision Zero View tool retains all previous features, including Street Design, Speed Limits, Outreach, and District Summaries.



Vision Zero View is a public website allowing New Yorkers to track Vision Zero progress.



Street Improvement Projects completed in 2018.

## ENGINEERING

# Building Safer Streets

DOT continues its intensive program of street redesigns and safety interventions, completing projects at a record 139 locations in 2018, 97 of which were located at Vision Zero priority locations. This represents a 190 percent increase over the five year average prior to Vision Zero, breaking the record achieved in 2017. This brings the total number of street improvement projects (SIPs) up to 495 citywide, including 386 SIPs at priority locations, since the start of Vision Zero.

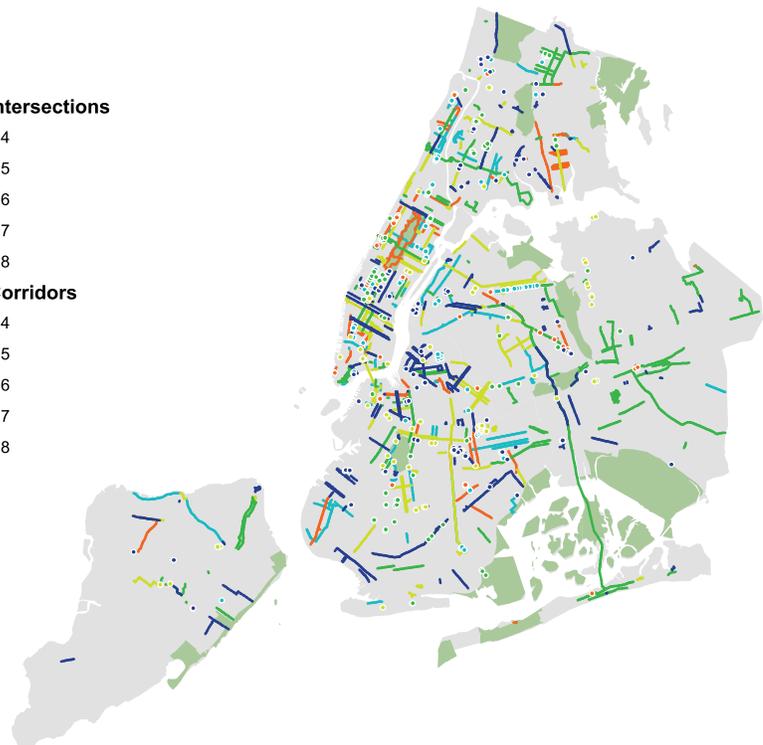


### VZ SIP Intersections

- 2014
- 2015
- 2016
- 2017
- 2018

### VZ SIP Corridors

- 2014
- 2015
- 2016
- 2017
- 2018



Engineering projects took a variety of forms in 2018, including the creation of new pedestrian plazas at Hillel Place in Brooklyn and Westchester Square in the Bronx, the re-opening of Park Row in Lower Manhattan as a pedestrian and bike route, and intersection improvements from Soundview in the Bronx to Williamsburg, Brooklyn and Flushing, Queens to New Dorp, Staten Island. Construction and ongoing capital planning processes also continued along the four Vision Zero Great Streets – Queens Boulevard, Atlantic Avenue, Fourth Avenue, and the Grand Concourse. New protected bike lanes, including major projects in Midtown Manhattan and Sunnyside, Queens, enhanced safety while maintaining multi-modal mobility.

## Testing Innovative Designs

New York City's wide-ranging street design toolkit continues to expand, allowing for solutions that are tailored to the needs of each specific location. As streetscapes change, DOT assesses and evaluates design interventions. In 2018, DOT piloted the use of chicanes, which create curves in the roadway to force drivers to reduce their speed. Rectangular rapid flashing beacons (RRFBs) also made their first appearances at crossings without traditional signals, making drivers more aware of pedestrians. Rubber pedestrian islands, first used in 2016 and capable of being put into place quickly in locations where concrete construction is not feasible, were installed at an additional location in 2018. Raised crosswalks, which increase pedestrian visibility and encourage drivers to slow down, were piloted in Brooklyn, Queens, and the Bronx. Piloting of roundabouts for traffic calming continues, with the second roundabout installed at the three-way multi-legged intersection of 153rd Avenue and 88th Street in Lindenwood, Queens.



New roundabout at the Lindenwood Triangle, Queens.





Raised Crosswalks have been installed in Brooklyn, Queens, and the Bronx.



Chicanes force drivers to reduce speed.

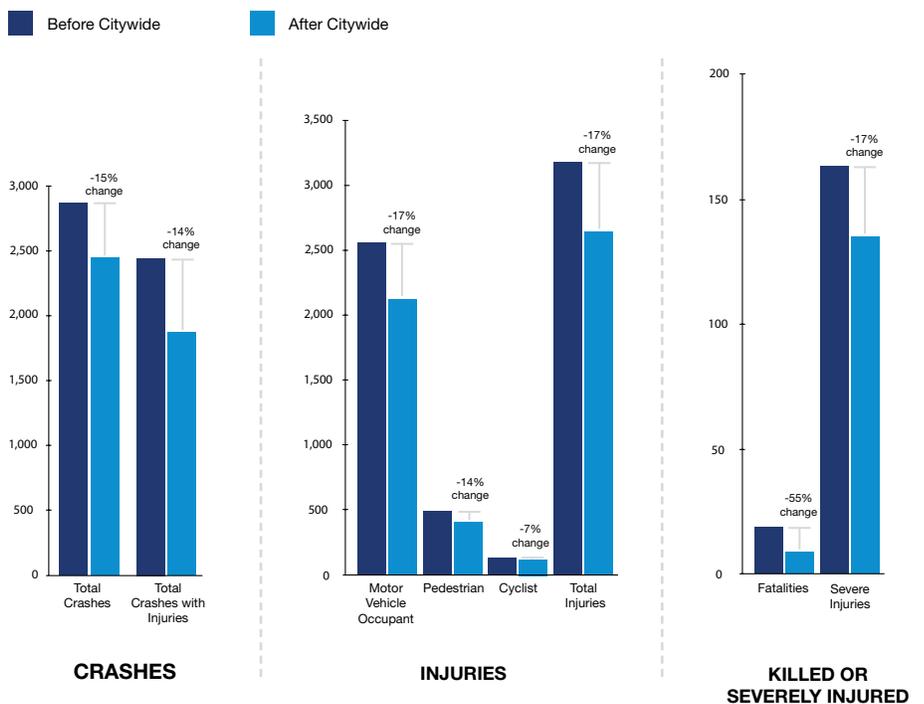


## Expanding Proven Solutions

The Proactive Warrant Analysis Program (PWA) uses crash data to identify intersections where new traffic signals or stop signs would be feasible based on crash history. In the past, NYC DOT studied intersections for new treatments based on requests from the community, an elected official, or a DOT staff member. It was not possible to identify intersections in a focused way prior to the Vision Zero improvements made to DOT’s crash data analysis and prioritization techniques. In 2018, DOT identified 150 non-signalized intersections where crash history indicates installing a traffic signal would be most effective. Making these decisions using data ensures equity by helping direct resources to where they are most needed. Having been planned and identified in 2018, these signals will be installed throughout 2019 and completed by January 2020.

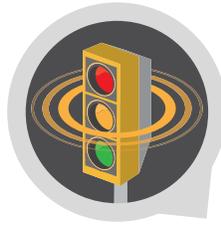
Since New York City began using automated speed enforcement cameras in 140 school zones in 2014, speeding has decreased 63 percent on average at camera locations, total crashes have declined 15 percent, and injuries have decreased by 17 percent. After the initial pilot program expired in Summer 2018, cooperation between State and City government ensured the cameras would remain in operation, and DOT is currently identifying new camera locations and initiating the procurement process for additional cameras.

## Speed Camera School Zones

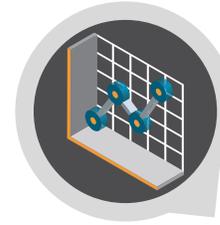




Vehicle to vehicle communication



Connected to traffic controllers



Data will be collected to evaluate safety benefits

## Exploring New Technology

# Piloting Connected Vehicle Technology

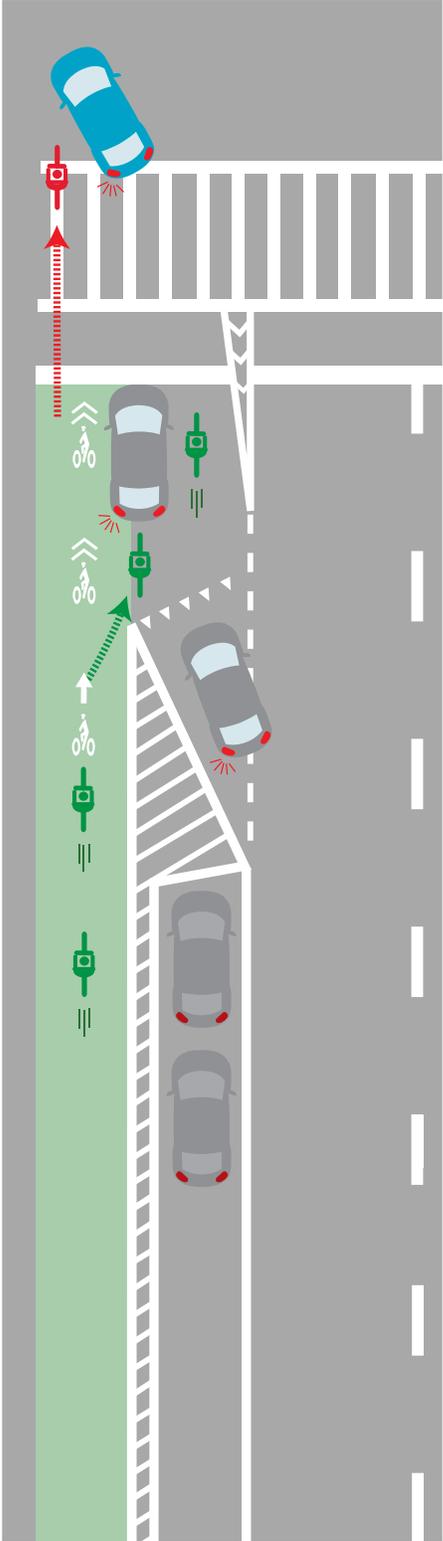
Preparations for New York City's pilot of connected vehicle technology were completed in 2018, with the installation of sensors along Midtown Manhattan avenues, the FDR Drive, and Flatbush Avenue in Brooklyn. This program will, over the next year, equip 8,000 vehicles (including 6,000 yellow taxis) with technology that allows vehicles to electronically "communicate" with each other to identify roadway risks aimed at preventing crashes. The pilot will be the largest of its kind in the United States, and the first to test the technology in a complex urban environment. City agencies have partnered with the United States Department of Transportation and the NYU Tandon School of Engineering on the implementation and evaluation of the program.

## More, Safer Cycling Enhancing Intersection Safety



New bicycle intersection designs improved safety for cyclists, pedestrians, and drivers.

Conflicts between cyclists and other road users are most likely to occur at intersections. DOT is testing new intersection designs to identify those that would have the greatest impact on safety on different parts of the City's protected bike lane network. The four designs currently in use – mixing zones, fully split phase signals, delayed turns, and offset crossings – have distinct uses, benefits, and challenges detailed in the 2018 report, *Cycling at a Crossroads: The Design Future of New York City Intersections*. DOT conducted crash analyses and surveyed cyclists about their feelings of safety at the different types of intersections, and findings will be used to modify existing bicycle infrastructure and guide decision-making in new construction.



New designs for Skillman Avenue and 43rd Avenue



## Case Study: Skillman Ave/43rd Ave Bike Lanes



Following one cyclist death and another serious injury, DOT initiated traffic calming and the installation of protected bike lanes on Skillman Avenue and 43rd Avenue in Sunnyside, Queens. This pair of one-way roads, while not initially Queens priority corridors, had demonstrated the need for intervention. An evaluation of the surrounding area revealed that expanding protected bike lanes along these routes would fill a gap by creating connections in the network between Queens Boulevard (a Vision Zero Great Street) and the Queensboro Bridge.

DOT planned a corridor reconfiguration that added protected bike lanes, pedestrian islands, daylighting (the removal of the parking space closest

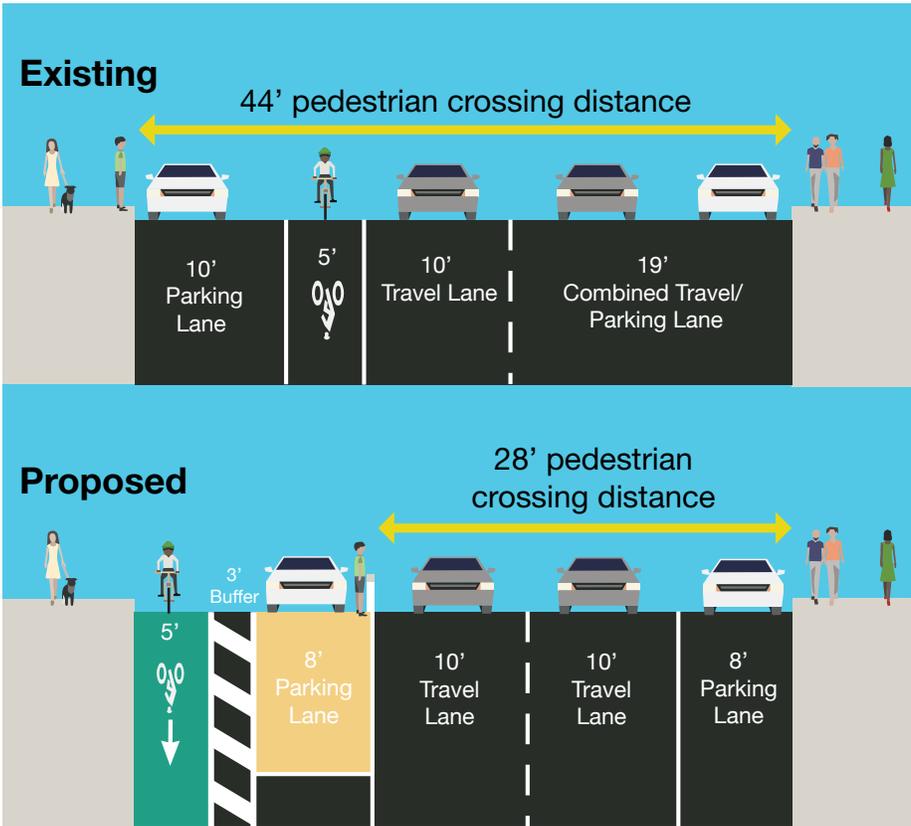
to the crosswalk to improve visibility) at intersections, and other forms of traffic calming. Following an extensive community consultation process with local business owners and residents, DOT created and implemented a final design that preserved multi-modal access, while adding proven safety features to protect cyclists and pedestrians.

Following the installation of the pedestrian islands associated with the bike lanes, crossing distance for pedestrians dropped from 44 feet to 28 feet, with no loss of capacity for motor vehicle travel, demonstrating that protected bike lanes can benefit all road users, even those who may never ride a bike.





New bike lanes on Broadway by Van Cortlandt Park in the Bronx.



Reconfiguration of Skillman Ave/ 43rd Ave bike lanes.

## Expanding Protected Bike Lanes

More than 25,000 cyclists cross 50th Street in Manhattan every day, and approximately 10,000 daily Citi Bike trips start and end in Midtown. In 2018, to provide safe routes for cyclists traveling crosstown, and to complement existing protected lanes on avenues, DOT installed protected bike lanes on 26th and 29th Streets. In preparation for an increased number of cyclists in the vicinity of 14th Street that may result from changes to L train service, DOT also installed a two-way protected bike lane on Delancey Street from the Williamsburg Bridge to Chrystie Street, and one-way bike lanes on 12th and 13th Streets.

In 2018, DOT completed 66 miles of bike projects. The New York City bike network now spans a total of 1,240 miles. Since the start of Vision Zero, the network has grown by 31 percent. DOT remains committed to installing at least 50 lane miles of bicycle network facilities per year, at least 10 of which will be protected bicycle lanes.



## Keeping Streets Usable By All Focusing on Seniors

As the total number of pedestrian fatalities in New York City has dropped, the proportion of victims who are age 65 or older has risen. Senior fatality numbers have decreased since the start of Vision Zero, but not to the same extent as younger age groups. Studies have shown that older pedestrians are less likely than younger adults to survive injuries, even in a relatively low-speed crash. However, it is crucial that older New Yorkers feel safe walking, because maintaining mobility in older age comes with great health and social benefits. Therefore, special attention must be paid to avoiding crashes altogether for this age group, not just lessening their severity. DOT is currently studying the circumstances surrounding senior pedestrian crashes, including their geographic distribution, and evaluating best practices in street design for neighborhoods with larger than average senior populations.





---

**72,366** red light summonses given out by the New York Police Department in 2018.

## ENFORCEMENT

# A Data Driven Approach



## Policing Our Streets: Moving Violations

The New York City Police Department (NYPD) takes a data-driven approach to combating traffic injuries and deaths by focusing on the offenses that have the biggest impact on crash severity. At the core of NYPD's Vision Zero strategy is utilizing precision policing, focusing on changing driver behavior in order to prevent these serious collisions from occurring. Over the last five years NYPD has focused on six violations known as Vision Zero violations: speeding, failure to yield to a pedestrian, failure to stop at a signal (running a red light), improper turning, using a cell phone or texting while driving, and disobeying signs. Policing these violations in particular makes motorists aware that the choices they make behind the wheel of a vehicle can have grave consequences for both themselves and fellow road users. NYPD helps ensure that its officers and commanders understand the importance of this data-driven approach through its weekly traffic meetings—the TrafficStat Review

## NYPD Moving Violations

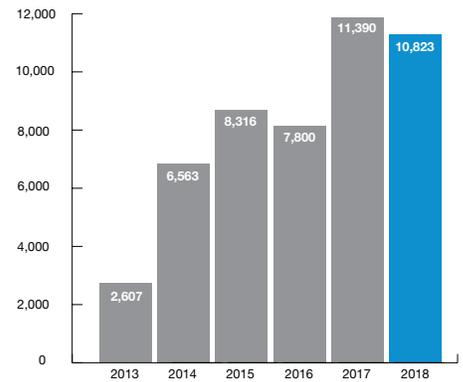
Summons Type	Current Year 2018
Speeding	152,368
Failure to yield to pedestrian	54,469
Red light	72,366
Improper turn	89,891
Cell phone	49,154
Texting	74,846
Disobey sign	211,352
<b>Total</b>	<b>704,446</b>

Note: as of 12/31/18 Total moving violations=1,064,145

## Harnessing Automated Enforcement



**TLC Vision Zero Summons 2013-2018**



Automated enforcement, such as speed and red light cameras, is a powerful tool for maintaining safer streets, augmenting the work of police officers. Consistent, fair enforcement provided by speed and red light cameras sends a clear message that driving dangerously is unacceptable, and that if drivers violate the law, they will receive penalties. Analysis of speed camera violations shows the cameras are changing behavior; 81 percent of violators do not receive a subsequent violation.

## Ensuring For-Hire Drivers are Safe TLC Moving Violations

TLC Enforcement officers issued 10,823 summonses in 2018 to for-hire drivers specifically for dangerous driving behaviors. TLC continues to prioritize Vision Zero enforcement in its field operations.

### TLC Vision Zero Summonses by Calendar Year

	2013	2014	2015	2016	2017	2018
Speeding	10	166	723	889	1,183	1,108
Failing to yield right of way	7	16	83	64	160	174
Traffic signal violation	57	188	375	553	705	606
Stop sign violation	13	82	175	260	2,193	2,396
Unsafe lane change	19	53	64	73	127	112
Electronic device	2,467	6,017	6,819	5,870	6,953	6,376

## Setting a High Standard for Professional Drivers

In Fall 2018 TLC enhanced its enforcement policy for red light camera violations obtained by TLC-licensed drivers. In the past, TLC-licensed drivers, like private vehicle owners, faced only monetary fines. After a review of patterns of recidivism for red light camera violations among these drivers while on for-hire trips, TLC now adds points to a driver's TLC license after the first offense instead of a fine. This change means that running a red light and getting caught by a camera has the same consequence as drivers pulled over by police or by TLC enforcement officers. TLC points are a strong deterrent for drivers to change their driving behavior, reduce recidivism, and stop fully at each red light.

## Enhancing TLC Field Enforcement Training

TLC enhanced its field enforcement training to increase the effectiveness of its Vision Zero work to improve officer confidence during car stops in the field. TLC continued to work with NYPD to train its officers in LIDAR speed detection, leading to two-thirds of TLC officers being trained by the end of 2018. TLC's officers and cadets also participate in monthly meetings with industry stakeholders to improve communication with drivers during field operations.

## Investigating Vehicular Crimes

Pedestrians and cyclists are the most vulnerable road users and their protection was the impetus for New York City's Failure to Yield Law (NYC Administrative Code 19-190). This law empowers police officers to take enforcement action to protect pedestrians and cyclists from drivers who injure or kill when they fail to yield the right of way when they should. In 2018 the NYPD enforced this law as follows:

### AC 19-190 Enforcement Arrests and Summonses

19-190 Enforcement	2018	2017	+/-	%
Arrests	34	34	0	N/A
Summons	3,604	2,221	+1,383	+62.2%

## Utilizing Traffic Enforcement Agents

Traffic Enforcement Agents (TEAs) continue to respond to motor vehicle collisions that only involve property damage in eight patrol precincts throughout the five boroughs. In these cases, TEAs prepare the required paperwork (New York State form MV-104AN) for the collisions. This program was designed to allow the police officers in these precincts more time to focus on other duties including enforcing hazardous moving violations. In 2018 TEAs responded to 8,611 crashes. Compared with 2017, police officers issued seven percent more Vision Zero moving violations in 2018 in the eight precincts where this program is active (69,474 Vision Zero summonses issued in 2018 vs 64,676 Vision Zero summonses issued in 2017).

## Deploying FORMS for Effective Management



In 2018 NYPD developed Finest Online Records Management (FORMS) to improve record management and unify records in a centralized system with a mobile platform. FORMS provides a single interface for users to record numerous types of incidents including collisions and various types of summonses. It standardizes the way this information is captured, stored, and delivered to downstream applications, providing capabilities for field-based reporting and electronic summoning via mobile devices. Using FORMS, NYPD can review and analyze data quicker and therefore deploy its enforcement officers more effectively.

## Enhancing Partnerships for Safer Streets

### Truck Enforcement and Assisting



NYPD recognizes that the safe operation of large vehicles, such as commercial trucks and private buses, is imperative to the goals of Vision Zero. Trucks and buses play a valuable role in the daily lives of New Yorkers, but a mistake by the driver of a vehicle weighing in excess of 10,000 pounds can have deadly consequences, especially for pedestrians and cyclists. In 2018 three people were killed as a result of collisions with private sanitation trucks. In an effort to change the behavior of the operators of these large vehicles, NYPD employed a strategy that included outreach to the trucking industry as well as enforcement of violations.

### Neighborhood Coordination Officers in Enforcement

NYPD has adopted the neighborhood policing approach, which is focused on policing with the community and addressing conditions in each neighborhood that are most important to the residents who live there. Because traffic safety is a top concern in many neighborhoods, NYPD made resources such as tow trucks and Traffic Enforcement Agents available to the Neighborhood Coordination Officers (NCOs) in each and every precinct. On a daily basis NCOs coordinate and request traffic safety resources to jointly address conditions that negatively impact the safety and quality of life in the neighborhoods that make up New York City.



## Sheriff's Office

### Sheriff's Office Seizure Summary Report for CY 2018

Total number of vehicle seizures during this period	118,205
Vehicles held in Custody for VTL Compliance (expired registration and no insurance)	13,310
Total number of violations for the vehicles seized	551,008

### Breakdown of violations associated with the Seizure Case

Description	Code	Subtotals
Bus Lane Camera	05	13,935
Red Light Camera	07	24,669
Speed Camera	36	61,552
Blocking Traffic	45	135
Double Parking - all others	46	22,825
Double Parking - Midtown	47	817
Bike Lane	48	817
Crosswalk	50	6,474
Wrong Way Parking	65	1
Pedestrian Ramp	67	874
All Other Violations		417,316
<b>Total Violations</b>		<b>551,008</b>

The Office of the Sheriff, part of the Department of Finance, enforces mandates, orders, warrants and decrees for the Courts, including towing and booting of vehicles for unpaid fines. Summonses for traffic offenses are ultimately meant to ensure the safety of pedestrians and other motorists. When fines are not paid, and accumulate to amounts in

the several hundreds or thousands, the Sheriff enforces the law by seizing property. The Sheriff's Road Patrol has the authority, with a court order, to seize motor vehicles or other property in the value of unpaid violations, ultimately selling them if the fines remain unpaid. Through Vision Zero, the Sheriff's Office seized 118,205 vehicles in 2018.



## Chronic Offender Seizures



The Sheriff's Office has the authority to seize private property, including motor vehicles, when an individual has an outstanding judgment of over \$750 unpaid. Many of these fines accrue from unpaid speed camera or red light camera tickets. In 2018, the Sheriff's Road Patrol, TLC, and NYPD collaborated to conduct a special operations initiative. As part of the investigation into chronic red light camera violators, the Sheriff's Road Patrol discovered an illegal taxi operation using vehicles registered in Pennsylvania. The special operations targeted 42 chronic offenders operating illegal taxis who owed over \$1.3 million for parking, speed camera, and red light camera violations. Over 132 vehicles were seized as part of this initiative.

## Protecting Pedestrians on Limited-Access Highways

After examination of pedestrian fatalities showed that in each year of Vision Zero, there have been pedestrians struck and killed on limited-access interstate highways within New York City. DOT and NYPD Highway Patrol worked together to determine possible reasons why pedestrians walk on highways, where they initially access the highways, and the circumstances surrounding how they got there. Highway Patrol prioritized intercepting pedestrians promptly upon notification of their presence on highways, and conducted interviews with each person to assess them for intoxication, emotional disturbance, or confusion. Highway Patrol shared this data with DOT, and both agencies worked with State authorities to close off potential access points using fencing and other barriers.

## STOP-DWI

Stop DWI (Special Traffic Options Program for Driving While Impaired) is an offender-funded, multi-agency program that aims to help reduce impaired driving in New York City. The program consists of six countermeasure areas: enforcement, education, court-related, probation, rehabilitation and evaluation. NYC DOT serves as the lead agency and coordinates the efforts of NYPD, DAs Offices, DOT Safety Education, the Department of Health and Mental Hygiene, and other partners. Funded STOP-DWI activities focus on improving the quality and quantity of DWI arrests and convictions and include collision reconstruction trainings for police and DAs, improved blood alcohol testing procedures, and public education and information campaigns about the danger of DWI. STOP-DWI is a critical part of the City's Vision Zero plan and representatives from participating agencies take part in DWI Policy and STOP-DWI Task Force meetings to integrate activities into larger Vision Zero initiatives.



Fatal vision impairment goggles test.



### Enforcing Bike Lanes

## NYPD Bike Lane Violations

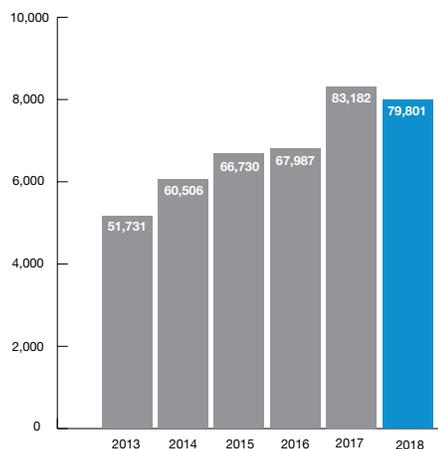
NYPD continues to make bike lane enforcement a priority, because motorists who park or stop, even temporarily, in a bike lane put cyclists in danger by forcing them into mixed traffic. Enforcement shows drivers that blocking a bike lane, even for a moment, is unacceptable.

## TLC Bike Lane Violations

TLC accepts complaints from the public, such as information about TLC licensees disobeying traffic rules, via 311. Complaints are a valuable enforcement tool that complement TLC's field enforcement officers and NYPD's enforcement. The information provided by the public, especially in the form of photographs and videos showing the TLC-licensed vehicle, the location, and the date and time, all serve as critical evidence for TLC to use in pursuing summonses against licensees violating TLC rules. Top traffic safety complaints include violations related to vehicles parked or standing in bike lanes, crosswalks, and beyond stop lines, preventing bicyclists and pedestrians from having a safe route on the street. Over 80 percent of adjudicated summonses from complaints about vehicles in bike lanes in 2018 led to a penalty for the driver.

### Number of bike lane violations issued

#### Summonses issued to a vehicle that parked in a bike lane





---

**50,939** authorized city drivers have finished the NYC Fleet Defensive Driving Program.

## FLEETS

# Leadership in Professional Driving



TLC Commissioner Meera Joshi celebrates with honoree speakers at the 2018 TLC Safety Honor Roll Ceremony.

## Celebrating Safe Drivers

# Recognizing TLC Safety Honor Roll Drivers

The TLC hosted its fifth annual Vision Zero Safety Honor Roll Ceremony on October 17, 2018, celebrating the achievements and outstanding safety records of over 400 of the City's safest TLC-licensed drivers. While drivers were at the center of this celebration of safety, TLC also recognized the contribution of taxi fleets and for-hire vehicle bases to the City's Vision Zero goals.

TLC reviewed all of its almost 200,000 licensed drivers' records and identified drivers who have, over four or more years, had no crashes resulting in an injury, no traffic violations, and no violations of TLC safety-related rules. The 410 drivers on the 2018 TLC Safety Honor Roll represent a truly elite group.

The TLC Safety Honor Roll also honors taxi fleets, car service bases, and commuter van companies with superior safety records. These businesses play a crucial role in promoting safe driving practices in the for-hire transportation industry.

## Facts about 2018 Safety Honor Roll Drivers

TLC Safety Honor Roll drivers have had no crashes involving fatality or injury, no traffic violations, and no violations of TLC safety-related rules for four or more years as TLC-licensed drivers.

- The 2018 Safety Honor Roll is comprised of 410 TLC-licensed drivers. Among honorees, 269 drive yellow taxis, 152 drive for-hire vehicles, 37 drive green taxis, and 29 drive commuter vans.
- From 2016-2018, Honor Roll drivers completed 4.7 million trips. With an average of 5 miles per trip, that's the equivalent of 49 round trips to the moon and back and almost two-thirds of the way to Mars!
- This year, there were 212 repeat honorees: 6 drivers have been honored all five years, 14 drivers were honored four times, 57 drivers were honored three times, and 135 drivers were honored twice.
- Safety Honor Roll drivers hail from all five boroughs. Of the honorees, 46% are from Queens, 24% are from Brooklyn, 7% are from Manhattan, 15% are from the Bronx, and 3% are from Staten Island.

## Facts about 2018 Fleets, Bases & Van Companies

TLC Safety Honor Roll businesses have the lowest shares of vehicles involved in serious collisions (i.e., collisions with an injury) in their industry sectors in 2018.

- The honorees include five yellow taxi fleets, 17 car service bases (seven small, five medium, and five large), and five commuter van companies.
- Each type of car service base is represented: six luxury limousine, three black car, and eight livery bases.
- All car service base and commuter van company honorees had no crashes involving their affiliated vehicles in the past year.
- Two business honorees – Ann Service Corp. and Eight Star Inc. – have been on the TLC Safety Honor Roll for two consecutive years.
- Fleet, Base & Van Company honorees are based in almost every corner of the city. Six bases are located in Manhattan, eight are located in Queens, five are located in Brooklyn, one is located in the Bronx, and the remaining five are located outside New York City.



TLC Safety Honor Roll drivers have had no crashes involving fatality or injury, no traffic violations, and no violations of TLC safety-related rules for four or more years as TLC-licensed drivers.

## Recognizing DCAS Safe City Driver Trainers and Specifications Experts

On November 28, 2018, DCAS hosted its fifth Vision Zero Fleets Forum. The forum brought together private and public fleets with the advocacy community, safety experts, and vendors to discuss ways to improve fleet safety. At the last two events, DCAS also recognized both City safe driving trainers and skilled specification experts who helped develop the Safe Fleet Transition Plan, which outlines a series of safety investments that the City will make in all fleet vehicles. Vision Zero relies on dedicated agency fleet staff to spread the message of safe practices and to help transform the fleet of the future.

### Supporting Fleet Drivers

## Trainings for TLC Licensee Applicants

In 2018, over 27,000 TLC-licensed drivers completed the required TLC training course for all new drivers. Since 2014, over 114,000 drivers have taken this course, which includes a regularly updated Vision Zero curriculum. Drivers learn the rules of the road and how to avoid dangerous driving behaviors that lead to serious crashes, including strategies for keeping themselves, their passengers, and other road users safe.

TLC also provides extensive quality control for all training courses. TLC's Education Unit conducted over 200 hours of training audits in 2018. From these audits, TLC developed a new set of educational standards for schools that highlight specific curriculum and set a higher standard for both school-developed materials and instruction quality. All existing training providers are required to reapply and demonstrate how they will meet these standards to remain approved trainers in 2019.

## New TLC Training Video and Materials



A scene from "Safety First".

In March 2018, TLC released "Safety First: Vision Zero Training for Professional Drivers," a new video used in required training for all applicants for a TLC Driver License. "Safety First" reviews five dangerous driving scenarios related to speeding, sharing the road with bicyclists, fatigued driving, distracted driving, and left turns. Each scenario outlines the serious crash risks of each behavior and the recommended steps for keeping drivers, passengers, and other street users safe. The video's images and messages were also integrated into an update to TLC's Vision Zero driver training and outreach materials to create a consistent curriculum. "Safety First" is available in seven languages via TLC

on YouTube. TLC also released a version of the video with adjustments to apply to other fleet drivers, such as City employee drivers who now view the video in trainings provided by DCAS, and to for-hire and fleet drivers outside New York City.

## Safe Driving Education for MTA Bus Operators

New approaches aimed at advancing new bus operators' skill sets from the start were developed through a Certified Trainer/Mentor Program.

MTA's bus division continues to educate its drivers on safety and their contribution to Vision Zero initiatives. With over 12,400 bus operators who travel millions of miles each year within a diverse city full of changes, achieving an outstanding safety record each year can be a challenging endeavor.

MTA began teaching the third version of its Vision Zero classes in April of 2017 and is well on its way toward having over 12,400 bus operators, student bus operators, dispatchers, and managers participate by the end of March 2019. MTA uses unique video footage from collisions and video demonstration of correct technique, combined with a concentration on leading indicators and advanced technical safety concepts, to raise operators' skill sets to a higher level. New data is being gathered and reviewed as part of the design of a fourth version of Vision Zero training due to begin in April 2019.

MTA continues to conduct "Seasonal Challenges" campaigns to help its professional bus operators navigate the roads safely and confidently in any weather. In an ever growing world of advanced technology, MTA has incorporated analytics that provide insight into specific concerns to assist in finding the safest approach. New approaches aimed at advancing new bus operators' skill sets from the start were developed through a Certified Trainer/Mentor Program. Veteran bus operators with outstanding safety records attend an in-depth two-day class in which they are taught how to continue the new bus operator's initial training and further their development, while providing guidance and leadership.



City fleet drivers attending DCAS training.

## Expanding DCAS Defensive Driving Program

Since the beginning of Vision Zero over 50,000 authorized drivers from City agencies have taken the one-day defensive driving class offered by DCAS. This class includes not only the New York State DMV mandated program, but also a 90-minute presentation on the City's fleet and Vision Zero. This part

of the program is updated on a regular basis to include new information and data, news stories, videos, and other materials. The DMV training is valid for three years and DCAS also provides retraining as needed. DCAS is evaluating virtual reality training and computer-based learning modules for their suitability for future trainings.

### Keeping Agency Policies Current

## Publishing an Update to Safe Fleet Transition Plan

In partnership with the U.S. Department of Transportation's Volpe Center, DCAS published the first formal update to the Vision Zero Safe Fleet Transition Plan (SFTP). First announced and published in May 2017, the SFTP outlines a series of safety investments that the City will make in all fleet vehicles. The SFTP also lists other technologies that are being evaluated or put into use. In the first two years of SFTP, NYC agencies, through DCAS, procured over 22,000 safety features on fleet units. These features include upgraded telematics, truck side-guards, surround and backup alarms, driver alert systems, heated mirrors to improve visibility, and automatic braking systems.

The updated plan includes two major safety advances—high vision trucks and driver alert systems. The City will now require high vision trucks whenever they are available in the marketplace and operationally feasible. High vision trucks greatly reduce line of sight disruptions for drivers, enabling a more complete view of roadway conditions, especially of pedestrians and bicyclists. The City already uses high vision designs for sanitation trucks, fire engines, and some other truck models. The plan also requires driver alert systems for light duty vehicles in future fleet contracts. Driver alert systems provide real-time feedback to drivers regarding potential hazards on the road. The advances outlined in the plan will be required in fleet contract specifications moving forward. DCAS first announced these changes at the 5th Annual Vision Zero Fleets Forum at Queens Theatre in Flushing Meadows Corona Park in November 2018.

## Partnering with the City Comptroller on CRASH Management

In March 2018, DCAS worked with the Office of the New York City Comptroller to share access to the citywide crash reporting (otherwise known as CRASH) tracking database in order to work more closely on claims-related issues. DCAS pursues affirmative claims when private vehicles damage City vehicles. The Comptroller receives and administers all claims against the City. Both offices



The Safe Fleet Transition Plan was updated in 2018.

work with the New York City Law Department on these efforts. Through this partnership, the Comptroller's Office and DCAS are sharing their databases and working more closely to ensure the most effective management of claims incidents

## Piloting a Diversion Program for Distracted Driving

In an effort to better understand the impact of giving additional training to first-time violators of traffic rules, TLC began a diversion pilot program targeted to violations issued for using an electronic device (i.e., cell phones, tablets, headphones, and Bluetooth) while driving for-hire. This pilot program will compare the traffic safety violation recidivism rates of two groups of TLC-licensed drivers: one group who received the fine for this violation, and another group given the opportunity to take a distracted driving retraining course in lieu of paying a fine. Drivers who took the retraining course did so in Summer 2018. TLC will track the driving records of both groups for six months and analyze outcomes in early 2019. TLC will use the data to determine whether expanded low-cost retraining in lieu of higher-cost fines will improve driving behavior.

## Using Safe Driving Technology and Vehicle Design Changes Rolling Out Real-Time Telematics



At the Fleet Office of Real-Time Tracking (FORT), DCAS can monitor driver behavior.

In 2014, DCAS rolled out the first citywide telematics system that included the ability to analyze various vehicle data points to address issues such as speed, location, harsh driving, and seat belt use. In 2018, DCAS began the process of upgrading to a real-time telematics system using GeoTab and cellular service provided by AT&T. This new telematics system will allow for the real-time communication of data, improved mapping of the location of City vehicles, enhanced analytic tools, geofencing (virtual perimeters), and operational features. The new system will also report in real-time collisions

involving City vehicles to agencies and DCAS, allowing for faster response and improved follow-up.

## Continuing Installation of Truck Sideguards

Under Local Law 56 of 2015, every eligible City vehicle over 10,000 pounds is required to have truck sideguards. These safety devices help to reduce serious injuries and fatalities in collisions involving large trucks and pedestrians or bicyclists because they fill the dangerous space normally exposed between tires. New York City has the largest truck sideguard deployment in the country at over 2,300 vehicles. With agency partners, in 2018 DCAS continued to retrofit vehicles that are expected to be active in the fleet through 2024, while requiring all new deliveries of eligible trucks to have sideguards already installed.



Connected Vehicle Technology allows vehicles and infrastructure to electronically "communicate".

## Installing Connected Vehicle Technology

In 2018, DCAS evaluated the functionality and effectiveness of vehicle-to-vehicle and vehicle-to-infrastructure telematics systems. Thousands of units in the City's fleet will have this new technology installed in Spring 2019, and it will be tested in select areas of Manhattan and Brooklyn. This technology has the potential to alert drivers, through direct short-range communication, to take specific actions to avoid a collision or reduce collision severity if one occurs. Some of the applications of this technology are traffic signal change warnings, blind spot and pedestrian alerts, road hazards, pedestrian-oriented phone apps, and alerts about road restrictions such as weight and height maximums.

## Collaborating to Improve MTA Bus Safety

As part of Vision Zero, DOT and MTA continue to collaborate on improving pedestrian safety. Staff from both agencies meet regularly to discuss projects and share data to develop engineering solutions and safe driving techniques to reduce the number of fatalities and injuries involving buses. In 2018, MTA collaborated with DOT on several projects that support Vision Zero, including bus stop relocations, pedestrian refuge islands, and thoughtfully designed bus stops, such as upgraded and fully paved bus boarding areas for the B82 Select Bus Service (SBS) on Kings Highway in Brooklyn, which was completed in October 2018.



A new bus on the B82 SBS route.

## Equipping MTA Buses with Vehicle Safety Technology

MTA has continued its advancement of technology with the Pedestrian Turn Warning System (PTWS), which sends an audible voice alert to pedestrians as an equipped bus is making a left or right turn. The bus-based speaker system automatically alerts the pedestrian through a street and curbside speaker. In 2018 there were over 600 buses equipped with PTWS. In 2019, 600 buses are scheduled to be retrofitted with this system and another 650 new buses will be added to the PTWS-equipped fleet. Also continuing is the MTA's use of the Collision Warning System, which uses front and side-facing cameras to provide an audio-visual warning system to a bus operator when it detects imminent collision with nearby pedestrians, cyclist or vehicles. MTA has also worked with bus designers to achieve improved sightlines from the bus operator's perspective. Over 500 buses with the new design were received in 2018, with several hundred more on the way for 2019. In 2018 MTA also equipped over 300 buses with new operator-facing cameras and over 270 buses with exterior cameras. These improvements will further contribute to safer design and enhanced training.

### Collaborating to Keep Fleets Safe

## Coordinating Fleets Communication Initiatives

In Fall 2018 five of the Vision Zero agencies that regulate or manage fleets – BIC, DCAS, DOT, MTA, and TLC—began working together to coordinate Vision Zero communications to the professional drivers with whom they interact. This includes sharing best practices and creative opportunities for outreach and education. By collaborating on messaging, each agency's outreach efforts can be refined and amplified throughout the City. As an example, during the Dusk and Darkness Campaign kickoff, DCAS worked with DOT to ensure that City fleet drivers received the same materials given to the general public in order to reinforce the messaging. In 2019, these agencies will begin coordinated seasonal messaging campaigns to highlight some of the notable safety issues for professional drivers, such as advice for sharing the road with bikes when cycling increases as warmer weather arrives in the spring.



Private carters attend a BIC Symposium at Floyd Bennett Field.

## Enforcing Private Carting Trucks

Private carting companies provide an important service to New Yorkers by collecting trash from commercial premises. However, some private sanitation companies' fleets have been involved in pedestrian and cyclist deaths and there are associated safety concerns. In 2018, BIC and NYPD conducted two joint enforcement operations targeting private carters – one over the summer and one during the fall. During the fall operation, out of the 147 trade-waste vehicles inspected, 17 were removed from New York City's streets. These trucks were prohibited from operating until the owners made necessary repairs. NYPD also issued 515 summonses for moving violations and 555 criminal summonses. In addition, BIC investigators issued violations to carters using undisclosed drivers. BIC and NYPD plan to conduct additional enforcement operations on a regular basis.

## Sharing and Reviewing CRASH Data with Agencies to Improve Safety

In 2018, DCAS introduced a series of meetings with agencies to discuss crash trends and strategize on ways to reduce collisions and improve safety. DCAS also met with over 30 agencies and offices to review the functions of the new Fleet Office of Real-Time Tracking (FORT). Companies were invited to present on safe driving technologies at DCAS' biweekly inter-agency Fleet Federation meetings. In 2019, DCAS will establish formal CRASHStat meetings to review safety, collision, and compliance data with agencies at the FORT.

## Launching Interagency Collision Review Panel

BIC convened its first substantive meeting of the interagency Collision Review Panel on September 14, 2018. The six agency-member panel comprises BIC, TLC, NYPD, DSNY, DOT and DCAS and meets quarterly. This collaborative initiative shares relevant information and expertise to review crashes involving trade-waste-hauling vehicles that resulted in death or serious injury. The following are the main recommendations from the cases examined:

- BIC should be empowered to establish a license for trade-waste drivers and not just their vehicles.
- BIC should be empowered to establish standards for safety equipment on trade waste vehicles.
- BIC and partners should increase roadside inspections and enforcement of commercial vehicles.
- BIC and partner agencies should evaluate crash locations for infrastructure improvements.



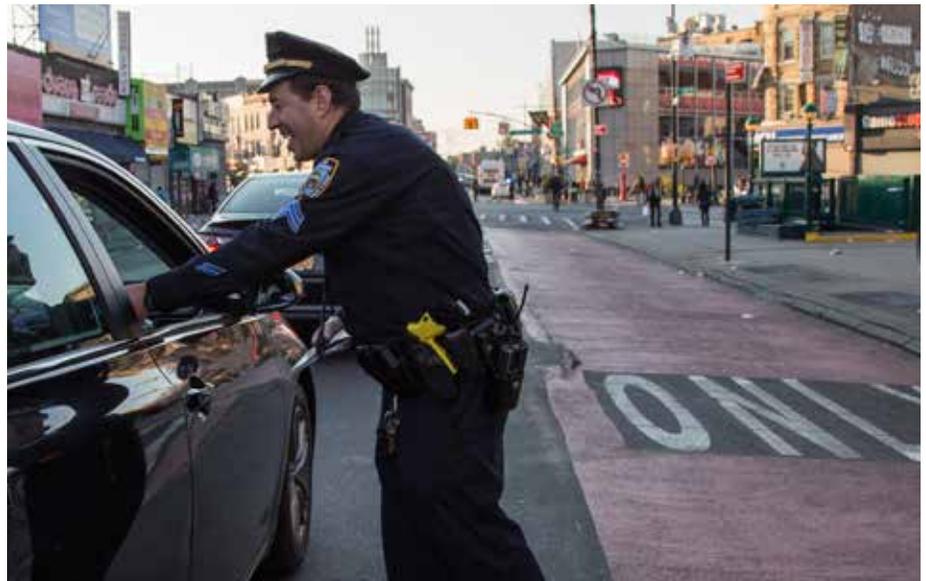
---

**2 million** flyers distributed in more than 120 priority locations

## ENGAGEMENT

# Creating Culture Change Through Communications

Vision Zero communications are shaped to clearly and consistently illustrate the causes of fatal crashes and are targeted to specific groups and areas where crashes are most likely to occur.



Guided by data, in 2018 communications were focused specifically on the groups of drivers most likely to cause crashes. On-street interactions and advertising were also brought directly to neighborhoods with higher rates of severe crashes. Safety educators, Street Teams outreach specialists, NYPD Outreach Unit specialists and officers, driving instructors, and agency representatives have conducted outreach throughout the City, focusing on communities and locations that have witnessed more collisions. Vision Zero agencies invite members of these communities to learn about street safety, share their concerns, and advocate for changes on their streets. While Vision Zero safety education and outreach engages pedestrians, cyclists, and professional drivers, special emphasis is also placed on members of the driving public. Direct communication is brought to locations where crashes occur, and in places where people are at higher risk of injury such as outside of schools, senior centers, and professional sports games.



## Holding Targeted Community Outreach Piloting Street Teams High Visibility Enforcement

Northern Boulevard in Queens showed an increase in fatal pedestrian crashes in 2017 and the first half of 2018. In response, DOT and NYPD piloted a seven-week outreach effort from September to November combining education and targeted enforcement. The 108th, 109th, 111th, 114th, and 115th Precincts worked in conjunction with DOT's Street Teams and NYPD's Transportation



High-Visibility Enforcement on Northern Boulevard

Bureau Outreach Unit to provide on-street outreach. Senior centers along the corridor participated in the “Streetwise” program and older New Yorkers were consulted to identify locations along the corridor where they feel less safe as pedestrians. All schools in the vicinity were served by the Safety Education and Outreach Team at DOT.



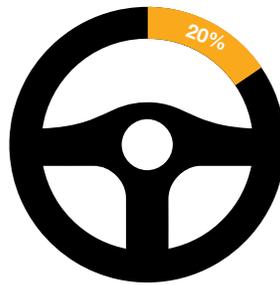
2018 Dusk and Darkness outreach.

## Focus on Younger Drivers, 25 and Younger

In 2017, crash data showed that 20 percent of fatal crashes involved a driver age 25 or younger behind the wheel, even though this age group comprises only 10 percent of the driving population. DOT’s Safety Education and Outreach group partnered with the National Safety Council in 2018 to implement the “Alive at 25” safe driving curriculum in 10 high schools where students are most likely to be vehicle operators or passengers. In the pilot phase of this program, 2,560 students were served, including the entire graduating class of New Dorp High School on Staten Island.

### Fatal Crashes

Involved a driver 25 year old or younger behind the wheel



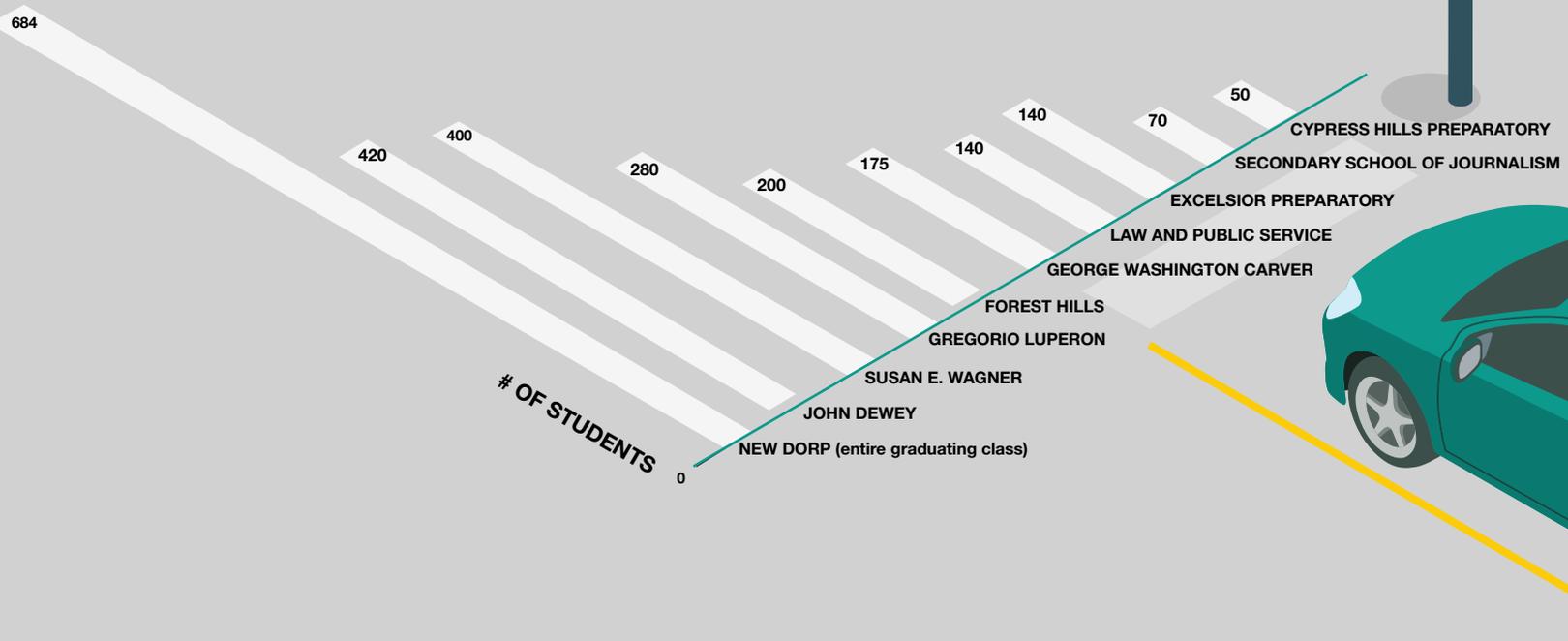
### Driving Population

Drivers 25 and younger are disproportionately represented



## ALIVE AT 25 PILOT

FALL 2018 | 10 HIGH SCHOOLS | 2,560 STUDENTS



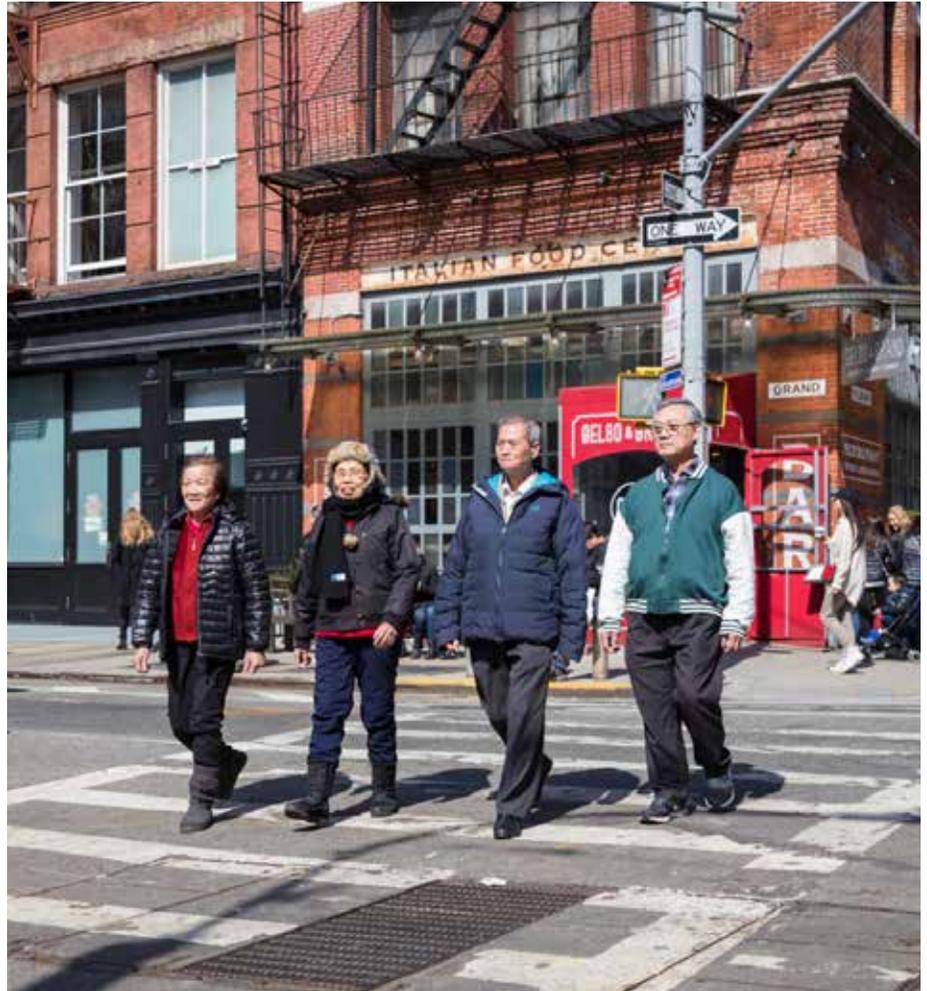
## Continuing Outreach to Older New Yorkers

### Pedestrian Fatalities

115 total  
fatalities



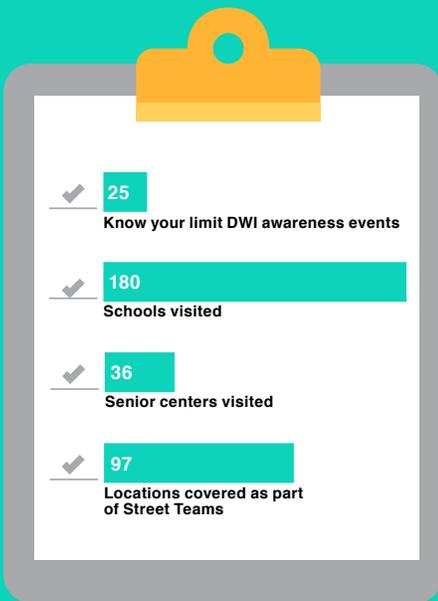
56 senior  
fatalities



Older New Yorkers are disproportionately affected by fatal pedestrian crashes in New York City. In 2018 almost 50 percent of pedestrian fatalities were adults aged 65 and older.

DOHMH's Injury and Violence Prevention Program engages in outreach to seniors for Falls Prevention Awareness Day (the first day of fall). Starting in Fall 2018 and for the rest of the year, DOHMH championed traffic safety principles, along with fall prevention strategies. DOHMH outreach included distribution of DOT materials at senior centers to older adults.

## Developing the NYPD Transportation Outreach Unit



Since its inception in July 2017, NYPD’s Transportation Outreach Unit (TOU) has grown to not only conduct traffic safety education outreach, but to use its unique position to be a conduit for better transportation safety education throughout NYPD. TOU has been collaborating with the DOT Safety and Educational Outreach Unit to bring a more effective traffic safety education program to NYPD.

In 2018, TOU members were assigned to work alongside professional street safety educators from DOT’s Safety and Education Outreach unit to learn from those with years of teaching experience. TOU adapted the information to teach local precinct officers how to more effectively communicate street safety to the public in various settings. This translated into collaborative teaching with local precincts at 88 schools and 33 senior centers in 2018. TOU

has also provided precincts with the logistical support and materials to continue this outreach independently while remaining available for joint instruction when requested.

In 2018, TOU also conducted 32 events designed to reduce driving while impaired. These events have ranged from high school classroom lessons to interacting with thousands of members of the public during one of the many “Know Your Limit” DWI prevention events at Grand Central Station and around the City.

The outreach unit also began working with Families for Safe Streets to reach four families of victims of traffic crashes, helping them navigate the collision investigation process and get support from NYPD. This effort has also provided an opportunity to collaborate directly with advocates.



TOU and DOT Safety Education and Outreach members educating the public about Vision Zero.



## Deploying Neighborhood Coordination Officers and Auxiliaries



NYPD is responsive to the public's transportation concerns, understanding that this also enhances community relations. With all patrol precincts now staffed with Neighborhood Coordination Officers (NCOs), local residents can bring their concerns directly to the local officers best equipped to correct the condition. Each NCO has contacts within NYPD's Transportation Bureau that are used to bring traffic safety resources, such as NYPD tow trucks and Traffic Enforcement Agents, to areas of need.

The Auxiliary Police, a volunteer force within NYPD, often serves the public by providing traffic safety services. In 2018 NYPD began deploying these officers to intersections in all patrol precincts to assist road users, particularly children and the elderly, in crossing the street safely. This is especially valuable when the auxiliary officers, equipped with flashing traffic wands, conduct these operations after sunset when turning motorists are more likely to fail to yield to pedestrians.

## Partnering with Community Institutions

### Prescribe-a-Bike

The Department of Health and Mental Hygiene’s Brooklyn Neighborhood Health Action Center (Brooklyn Action Center) continues its community collaboration with the NYC Better Bike Share Partnership with programs such as Prescribe-a-Bike, through which healthcare providers at clinical partner sites offer free Citi Bike memberships, as well as helmets and Street Skills classes to patients to encourage physical activity. In Summer 2018, the Prescribe-a-Bike program expanded to a second clinical site, NYC Health and Hospitals/ Woodhull, where 62 participants were enrolled. Previously, the debit/credit card requirement for Citi Bike was a barrier to participation in bike share, so to promote equity, the Brooklyn Action Center created an escrow account to open enrollment to patients with no access to a bank account to cover potential overage fees.

## Communicating with New Yorkers

### Launching New Media Campaigns



After the successful run of the “Your Choices Matter” campaign from 2014 through 2017, a new Vision Zero media campaign was launched in 2018. The “Signs” campaign is built around the message that “driving isn’t easy, but saving a life is.” Advertisements show a diverse, multi-modal group of New Yorkers holding signs that outline the 25 MPH speed limit and the law requiring drivers yield to pedestrians. The core message to drivers is to slow down and turn carefully, based on data on the leading causes of crashes involving pedestrians. This outdoor advertising is carefully placed in a variety of formats at locations where crashes occur. The images have culturally appropriate representation and the messages are presented in multiple languages.



Postcards from the Signs campaign in Chinese and Spanish.

## Producing the “Tools for Safer Streets” Video Series

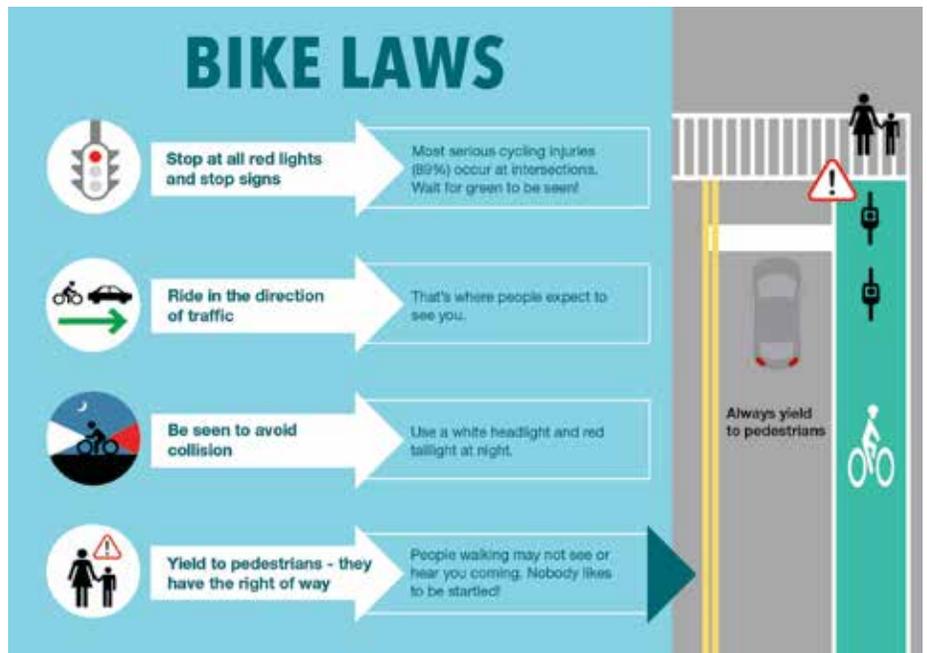
Since the launch of Vision Zero, New York City has implemented a variety of new street safety treatments. Even though signs, signals, markings, and engineering materials inherently tell roadway users how to interact with these streets, there is more to the story. DOT’s Tools for Safer Streets video series explains new street features in detail and in easy-to-understand language, focusing on the benefits of the treatments and tips for roadway users. The first video in the series highlighted flashing yellow turn signals. The second video explained enhanced crossings and was released in coordination with on-street education efforts. The videos are available on DOT’s website and social media channels. In 2019, DOT will release two new Tools for Safer Streets videos called “Neighborhood Traffic Circles and Roundabouts” and “Left Turn Traffic Calming.”



Stills from "Tools for Safer Streets".

## Bringing Safety Education to Priority Bicycle Districts

The *Safer Cycling* report released in Summer 2017 identified 10 Community Districts in New York City with the highest severe injury rate for bicyclists relative to bike lane mileage. In 2018, these Priority Bicycle Districts received local campaign posters aimed at drivers to help them remember that they may be sharing the road with cyclists. DOT also launched its “Get There” outreach initiative to encourage New Yorkers to bicycle and to learn the rules of the road to do so safely.



DOT disseminates bicycle safety information to ensure all cyclists know their rights and responsibilities.

### Continuing Seasonal Initiatives

## Dusk + Darkness Campaign and Warm Weather Weekends



NYC DOT and NYPD announced a new safety campaign, "Warm Weather Weekends", focusing on motorcycle safety.

The Dusk and Darkness initiative, a collaboration between NYPD, DOT, and TLC, first launched on October 27<sup>th</sup>, 2016. It focuses on crash prevention and targeted enforcement during the months of diminished daylight hours, when the evening rush hour takes place in darkness and crashes involving pedestrians have historically increased. In support of the campaign, each agency deployed teams to talk to drivers and businesses about the importance of driver safety as it gets dark earlier in the evening. The TLC Street Team visited for-hire vehicle bases in Brooklyn and Manhattan as well as driver gathering places throughout the City, and distributed materials at JFK Airport holding lots where taxi and FHV drivers queue for trips. Between October 27<sup>th</sup> and December 31<sup>st</sup> over the course of the three years before the initiative was launched (2013 through 2015), there was an average of 56 traffic fatalities. In 2018, there were 43 traffic fatalities during the same period, a 23 percent decline. NYPD, DOT, and TLC will once again collaborate on the Dusk and Darkness campaign in 2019.

In response to the successful Dusk and Darkness campaign, NYPD and DOT expanded the Vision Zero seasonal campaigns to Warm Weather Weekends. This initiative focused on the first warm Saturdays of spring and summer where there have historically been increases in fatalities for motorcyclists and motor vehicle occupants. Communications included outreach to motorcyclists, with safety tips for motorcycles and a message to drivers to increase their awareness of motorcycles. The City engaged with Bronx local motorcycle club ABATE in order to spread the message.

## Working with Professionals

# Holding Education and Outreach with Private Carters



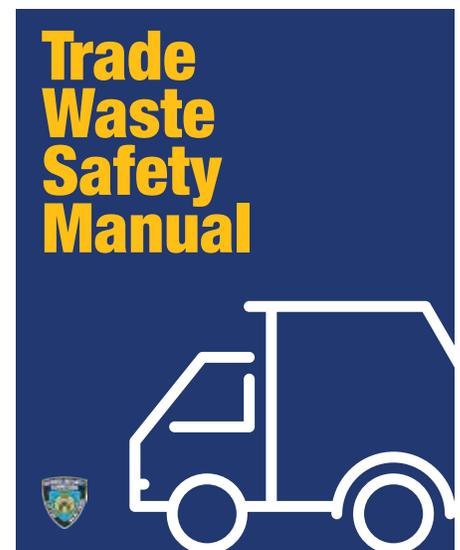
Representatives from private carting companies attended a BIC Safety Symposium.

BIC organized several meetings with trade waste workers and union representatives to inform them of BIC's roles and responsibilities and to learn more about their experiences relating to safety in the trade waste industry. BIC encourages workers to submit complaints related to unsafe working conditions and other unlawful practices.

After collaborating with professionals from the trade waste industry, advocates for safer streets, and other transportation experts, in 2018 BIC published and distributed its first Trade Waste Safety Manual to the industry. This comprehensive training guide covers all the essential aspects of traffic and worker safety for those who work as drivers and helpers out in the field, as well as those who manage fleets and garages. The Manual is available in English and Spanish. BIC is currently working with various trade waste companies as they create their own internal safety manuals.

## Hosting the BIC Trade Waste Safety Symposia

BIC held its fourth and fifth safety symposia in April and October 2018, respectively. The fourth safety symposium featured hands-on demonstrations of truck safety equipment and presentations from various vendors promoting safety technology. These technologies assist with speed compliance, red light violation warnings, blind spot and lane-change warnings, emergency



alerts, and other aspects of safe driving. The fifth safety symposium featured a detailed presentation from a New York State Department of Transportation representative who discussed State roadside commercial vehicle inspections and common violations, as well as the importance of drivers conducting pre- and post-trip inspections.

## Enhancing TLC Education and Outreach



Malcolm Cain (TLC) hands Vision Zero materials to a green taxi driver.

In early 2018, TLC launched its own town hall series called “TLC in Your Borough.” This program features speakers from different TLC divisions such as Enforcement, Prosecution, and External Affairs. The agenda is tailored to provide drivers with information on TLC policies and educate them on topics such as fatigued driving prevention rules and Vision Zero regulations. The agency also offers one-on-one assistance for those who need it, along with a robust question and answer session. The ThriveNYC team has played a major role at TLC In Your Borough events by ensuring drivers are able to access mental health services around the city and that they have coping mechanisms for stressors that may occur on the job. By giving drivers mental health tools, drivers may be less likely to be distracted on the road. Additionally, TLC’s Street Team conducts Vision Zero driver outreach meetings to for-hire vehicle bases and taxi garages throughout the city. TLC also distributes Vision Zero materials at driver hot-spots and transportation hubs. Since 2014, TLC has held a total of 553 driver outreach meetings.

TLC regularly conducts outreach in the form of email blasts to ensure drivers are aware of any safety regulation changes or new initiatives. Starting in late 2017, TLC launched a bi-monthly email newsletter called Keys to the City.

The newsletter provides drivers with free or low-cost resources such as adult education courses, health services, exercise classes, Vision Zero tips, and much more.

## Hosting Vision Zero Fleet Events

Each year DCAS hosts two events where Vision Zero and vehicle and road safety play a prominent role. DCAS, partnering with the NYC Department of Parks & Recreation (DPR), hosts the Annual Equipment and Fleet Show in May of each year. This all-day event includes vendors such as car manufacturers, equipment providers, training companies, and fuel companies. Since the beginning of Vision Zero, safety-related vendor participation has expanded significantly and as such Vision Zero-related vendors now have dedicated reserved spaces at the event. In 2018, this event was held for the 30th time and more than 150 vendors and 700 people attended. As part of the 2018 event, the city's Chief Fleet Management Officer was featured as part of the question and answer session for the global private sector safety coalition "Together for Safer Roads."

In November of each year DCAS holds a Vision Zero Fleet Safety Forum that brings together advocacy groups, government and private fleets, industry leaders, and the general public to discuss ways to make roads safer. This year's event was attended by over 400 people and included presentations from Karen Torres and Jacy Good, who are both community advocates against distracted driving, as well as NYPD, DOT, FDNY EMS, Jacobi Hospital, and others. At the forum DCAS released the updated Safe Fleet Transition Plan and the first formal report of safety technologies purchased with new City vehicles in 2017-2018.



Juan Martinez of NYC DOT explained connected vehicle technology at the Vision Zero Fleet Safety Forum.

## VISION ZERO YEAR 6

# New Initiatives

### Department of Transportation

- Launch an integrated speed reducer installation program
- Install speed cameras at additional school zone locations
- Launch a new Driveway Safety Program to help developers and property owners adopt best practices for curb cuts and driveways
- Investigate the connection between speed and red-light camera violations on traffic crashes and injuries, as well as generate insights into the impact of these violations on driving behavior over time
- Conduct outreach and issue recommendations concerning interventions for medically-impaired drivers
- Conduct high-visibility education and enforcement campaigns alongside NYPD at key locations
- Expand and enhance People Priority Streets to improve pedestrian safety and access.

### New York Police Department

- Expand outreach and enforcement regarding the safe execution of left and right hand turns by all motorists
- Expand lifesaving efforts in the field of motorcycle safety
- Increase safety within the trade waste and private carting industry through outreach and enforcement
- Expand NYPD's clear bus routes enforcement action plan

### Department of Citywide Administrative Services

- Codify fleet safety best practices
- Reduce use of left turns
- Operationalize the updated Safe Fleet Transition Plan
- Advocate for driver safety training of regulated and contracted entities
- Pursue expansion of sideguard law to require sideguards on private fleets with City contracts
- Introduce predictive analytics relating to driving behaviors and crashes through CRASHStat and the Fleet Office of Real Time Tracking (FORT)

---

### Taxi and Limousine Commission

- Ensure TLC-licensed vehicles with outstanding part recalls are fixed in a timely manner
- Engage drivers on safely sharing the road with people on bicycles
- Study emerging trends in TLC-involved crash data
- Collaborate with NYPD to provide additional training on TLC-specific enforcement

---

### Department of Health and Mental Hygiene

- Reconvene external research partners to promote cross-disciplinary data sharing and collaboration that advances Vision Zero
- Continue traffic safety outreach efforts for older adults and support related efforts with other Vision Zero City agencies
- Continue enhanced surveillance of traffic safety with public health data sources

---

### Business Integrity Commission

- Expand BIC's oversight in the trade-waste industry to include safety
- Update Trade Waste Safety Manual
- Develop Vision Zero driver training videos for BIC trade waste industry drivers

---

### Sheriff's Office

- Expand public outreach and enforcement by the Sheriff's Road Patrol to ensure compliance with criminal traffic sanctions
-

# Appendix

## YEAR ONE

# Initiatives Scorecard

ID #	Agency	Initiative Name	Status
1.1	City Hall/Ops	Establish a permanent Vision Zero task force in the Mayor's Office of Operations	Complete
1.2	City Hall/Ops	Launch a Vision Zero website to gather input from New Yorkers and coordinate information about the City's Vision Zero plans and upcoming events and provide data	Complete
1.3	City Hall/CAU/DOT	Conduct Vision Zero presentations across the City	Complete and Ongoing
1.4	City Hall/Ops	Publish crash and safety data on a regular basis in user-friendly format(s)	Complete and Ongoing
1.5	City Hall/Ops	Partner with industry groups and vehicle manufacturers to educate fleet drivers and explore design changes to their automotive fleets	Complete
1.6	City Hall/Intergov	Lead a state legislative campaign to give the City power over the placement of speed and red-light cameras, power to reduce the citywide speed limit to 25 MPH, and ability to increase the penalties associated with dangerous driver behavior	Complete and Ongoing
1.7	NYPD	Increase enforcement against dangerous moving violations, including speeding, failing to yield to pedestrians, signal violations, improper turns/disobeying signage, and phoning/texting while driving	Complete and Ongoing
1.8	NYPD	Increase speeding enforcement at the precinct level	Complete and Ongoing
1.9	NYPD	Purchase advanced speed detection equipment (LIDAR guns), upgrade speed detection technology available to precincts and train additional personnel	Complete and Ongoing
1.10	NYPD	Increase the Highway District to 263 personnel	Complete
1.11	NYPD	Expand Collision Investigation Squad cases to encompass all crashes with critical injuries.	Complete
1.12	NYPD	Modify precinct-level traffic plans to increase focus on pedestrian safety	Complete
1.13	NYPD	Update technology for capturing crash data	Complete
1.14	NYPD	Enhance training for officers to better record and preserve crash details and site evidence	Complete
1.15	NYPD	Broaden recruiting efforts for School Crossing Guards	Complete
1.16	NYPD/DOT	Conduct intensive street-level outreach and enforcement on safety problems and traffic laws, focused in areas with known crash histories	Complete and Ongoing
1.17	NYPD/DOT	Convene monthly meetings of the DOT Traffic Division and NYPD Transportation Bureau to review traffic safety performance and set strategy for improvement	Complete and Ongoing
1.18	NYPD/DOT	Develop data-driven citywide enforcement strategy	Complete
1.19	NYPD/DOT/CAU	Develop borough-wide safety plans in close coordination with community boards, community organizations, and the Mayor's Community Affairs Unit	Complete

ID #	Agency	Initiative Name	Status
1.20	NYPD/DOT	Conduct targeted outreach in 500 schools each year, educating students about protecting themselves as safe pedestrians and working with their families for safer school zones	Complete and Ongoing
1.21	DOT	Complete 50 street improvement projects that enhanced safety by reengineering intersections and corridors	Complete
1.22	DOT	Create 25 new arterial slow zones	Complete
1.23	DOT	Implement eight new neighborhood slow zones	Complete
1.24	DOT	Install speed cameras at 20 new authorized locations	Complete
1.25	DOT	Install 250 speed humps, including in neighborhood slow zones	Complete
1.26	DOT	Enhance street lighting at 1,000 intersections	Complete
1.27	DOT	Enhance maintenance of street markings	In Progress
1.28	DOT	Install traffic signals where needed	Complete and Ongoing
1.29	DOT	Implement additional street reconstruction safety projects	In Progress
1.30	DOT	Survey national and international best practices to expand potential strategies	Complete and Ongoing
1.31	DOT	Hold workshops for major street design projects	Complete and Ongoing
1.32	DOT	Undertake a high-quality ad campaign aimed at reducing speeding, failure-to-yield and other forms of reckless driving	Complete and Ongoing
1.33	DOT	Broaden the message and expand the reach of the “Choices” anti-DWI campaign	Complete and Ongoing
1.34	DOT	Double the number of programmable speed boards for the intensive education/enforcement initiative	Complete
1.35	DOT	Make effective, age-appropriate safety curriculum available to schools throughout the city	Complete and Ongoing
1.36	DOT	Partner with senior centers to increase communication and get specific feedback from aging New Yorkers about street safety improvements	Complete and Ongoing
1.37	DOT	Increase the number and visibility of hands-on safety demonstrations	Complete and Ongoing
1.38	DOT	Add safety flyers and messaging in DOT mailings such as Alternate Side Parking regulations and construction permits	Complete and Ongoing
1.39	DOT/TLC	Issue summonses to TLC drivers identified by red light cameras	Complete and Ongoing
1.40	DOT/TLC	Update taxi school to account for new streetscape features and alert drivers to higher-crash street types	Complete
1.41	TLC	Create TLC safety enforcement squad equipped with speed radar equipment to enforce speed and safety regulations	Complete
1.42	TLC	Pilot program to place black box data recorders in TLC-licensed vehicles	Complete
1.43	TLC	Implement more comprehensive traffic safety curriculum for initial licensees	Complete and Ongoing
1.44	TLC	Create behind-the-wheel driving course for drivers who would benefit from additional instruction	Complete and Ongoing
1.45	TLC	Pilot technology that alerts passengers and drivers when they are traveling over the speed limit	Complete
1.46	TLC	Explore in-car technology that limits vehicle speed, warns drivers of impending collisions, or reduces the fare when the driver speeds	Complete and Ongoing

ID #	Agency	Initiative Name	Status
1.47	TLC	Introduce street safety public service announcements on Taxi TV	Complete and Ongoing
1.48	TLC	Use driver information monitors to send safety reminders to taxi drivers	Complete and Ongoing
1.49	TLC	Add safety flyers and messaging in TLC mailings to drivers	Complete and Ongoing
1.50	TLC	Include left turn reminder stickers in TLC licensed vehicles	Complete
1.51	TLC	Create publicly accessible "Honor Roll" of safe TLC drivers	Complete
1.52	TLC	Enhance enforcement against drivers offering for-hire service without a TLC license	Complete
1.53	TLC	Explore vehicle design requirements to improve safety	Complete
1.54	TLC	Pursue City law changes and new TLC rules to increase sanctions on TLC drivers who engage in dangerous behavior	Complete
1.55	DCAS	Ensure all City fleet vehicles are equipped with technology that record speeding and other dangerous driving behaviors by the end of 2014	Complete and Ongoing
1.56	DCAS	Upgrade the collision tracking system for the citywide fleet through the new NYC Fleet Focus system	Complete
1.57	DCAS	Oversee a Citywide expansion of Defensive Driver training courses for all employees driving City vehicles	Complete
1.58	DCAS	Recommend safety related devices and designs, such as high visibility vehicles, back-up cameras, and rear wheel side guards, for City vehicles and other vehicles under City regulation	Complete
1.59	DOHMH	Conduct public health surveillance on traffic-related hospitalizations and fatalities	Complete and Ongoing
1.60	DOHMH/VZ Task Force	Provide Vision Zero Task Force with public health data to help target traffic safety interventions	Complete and Ongoing
1.61	DOHMH	Include traffic fatalities and injuries and prevention messages in public health reports	Complete and Ongoing
1.62	DOHMH/VZ Task Force	Engage community public health partners in promoting Vision Zero goals	Complete and Ongoing
1.63	DOHMH/DOT/NYPD	Promote research on walking, driving, motorcycling, and bicycling behaviors and patterns in the city	Complete and Ongoing

## YEAR TWO

## Initiatives Scorecard

ID #	Agency	Initiative Name	Status
2.1	NYPD/DOT/ TLC/ DCAS/Ops	Promote a new outreach and enforcement campaign of the new 25 MPH speed limit – Operation Drive 25	Complete and Ongoing
2.2	DOT/NYPD/ TLC/ DOHMH/ DCAS/ City Hall/Ops	Develop and execute a comprehensive Vision Zero media campaign	Complete and Ongoing
2.3	DOT/NYPD/TLC/ DOHMH/DCAS/ City Hall/Ops	Expand collaboration with new partners, including the District Attorney's offices, the Metropolitan Transportation Authority (MTA), and the New York State Department of Motor Vehicles	Complete and Ongoing
2.4	DOT/NYPD	Identify Priority Corridors, intersections, and areas	Complete
2.5	DOT/NYPD	Target safety education at Priority Corridors and Priority Areas	Complete and Ongoing
2.6	DOT	Implement 50 Vision Zero safety engineering improvements annually at Priority Corridors, intersections, and areas citywide, informed by outreach findings at project locations	Complete and Ongoing
2.7	DOT	Implement Vision Zero Great Streets	In Progress
2.8	DOT	Significantly expand exclusive pedestrian crossing time through the use of leading pedestrian intervals (LPIs) on all feasible Priority Corridors and Priority Intersections by end of 2017	Complete and Ongoing
2.9	DOT	Modify signal timing to reduce off-peak speeding on all feasible Priority Corridors by the end of 2017	Complete and Ongoing
2.10	DOT	Install expanded speed limit signage on all Priority Corridors in 2015	Complete
2.11	DOT	Drive community input and engagement at Priority Corridors, intersections, and areas	Complete and Ongoing
2.12	DOT	Expand a bicycle network that improves safety for all road users (including at least 10 miles per year of protected bike paths)	Complete and Ongoing
2.13	DOT	Release motorcyclist crash study and list of proposed action items to aid in preventing future crashes	Complete
2.14	DOT	Conduct study on severe injury and fatal bicyclist crashes and list of proposed action items to aid in preventing future crashes	Complete
2.15	DOT	Install 75 Accessible Pedestrian Signals (APS) per year and develop additional accessibility measures	Complete and ongoing
2.16	DOT	Complete deployment of speed cameras and implement the majority of speed camera locations at Priority Corridors, intersections, and areas	Complete and Ongoing
2.17	DOT	Continue to reform off-hours programs for commercial deliveries to reduce conflicts with pedestrians	In Progress
2.18	DOT/NYPD/MTA	Partner with NYPD and MTA to develop and complete a study on large vehicles and use truck and large vehicle crash data to identify truck enforcement Priority Areas	In Progress
2.19	DOT	Proactively design for pedestrian safety in high-growth areas, including locations in the Housing New York plan	Complete and Ongoing

ID #	Agency	Initiative Name	Status
2.20	DOT/NYPD/	Target street team outreach at Priority Corridors, intersections, and areas	Complete and Ongoing
2.21	DOT/NYPD	Deploy dedicated enforcement on Priority Intersections and corridors and deploy dedicated resources to NYPD precincts that overlap substantially with Priority Areas as outlined in borough plans	Complete and Ongoing
2.22	NYPD	Increase training, awareness, and outreach to address Administrative Code 19-190, a law creating a criminal misdemeanor penalty for New York City drivers who injure or kill pedestrians or cyclists with the right of way	Complete and Ongoing
2.23	NYPD	Implement and test a new model of enforcement that increases enforcement in areas both with high traffic fatalities/injuries and with high crime rates	In Progress
2.24	NYPD	Pilot a program to allow Traffic Enforcement Agents to respond to motor vehicle collisions involving only property damage	Complete and Ongoing
2.25	NYPD	Pilot a program to allow civilian members of NYPD to work in the Intoxicated Driver Testing Unit	In Progress
2.26	NYPD	Increase outreach, education, and enforcement on motorcycle registration and the prohibition of dangerous and stunt behavior of motorcyclists	Complete and Ongoing
2.27	DOT/NYPD	Increase large vehicle and truck education and enforcement amongst precinct police and focus on truck safety education for drivers, pedestrians, and cyclists	In Progress
2.28	TLC	Develop a system to communicate safety information to TLC-licensed drivers	Complete
2.29	TLC	Advocate for a change in the New York State seatbelt law to remove the exemptions for taxis and liveries	Complete
2.30	TLC	Expand required TLC driver education to car service drivers	Complete
2.31	TLC	Introduce license renewal course for taxi and car service drivers, providing additional continuing education about safe driving	In Progress
2.32	TLC	Engage taxi fleets and car service bases in promoting safe driving among TLC-licensed drivers	Complete and Ongoing
2.33	TLC	Create public service announcements (PSAs) to engage passengers in promoting safe driving by TLC licensees and educate partner agencies	Complete and Ongoing
2.34	DCAS	Recognize safe operators among City fleet drivers through "Good Operator" awards	Complete
2.35	DCAS	Install the first wave of 240 truck side guards and test their effectiveness	Complete
2.36	DCAS	Survey City fleet drivers regarding their perceptions of safety and safe driving as part of ongoing defensive driving initiative	Complete and Ongoing
2.37	DOHMH	Issue guidance on traffic safety messaging for older adults based on formative research	Complete
2.38	DOHMH	Create new partnerships with schools and priority neighborhoods that will promote Vision Zero and active living	Complete and Ongoing
2.39	DOHMH	Link traffic crash event and hospitalization data to describe patterns and risk factors for traffic-related injuries	Complete
2.40	DOHMH/VZ Task Force	Identify priority topics for research and evaluation of Vision Zero efforts	Complete

## YEAR THREE

## Initiatives Scorecard

ID #	Agency	Initiative Name	Status
3.1	DOT	Pilot a left-turn initiative focused on safer left-turn designs	Complete
3.2	DOT	Prepare for Deployment of Connected Vehicle Technology Pilot	Complete
3.3	DOT, DOE	Incorporate VZ curriculum designed for students in grades 4-6	Complete
3.4	DCAS	Restrict the use of hands-free mobile devices for City drivers in City vehicles	Complete
3.5	DCAS	Standardize vehicle safety messaging and signage	Complete and Ongoing
3.6	DCAS	Install second wave of truck sideguards	Complete
3.7	DCAS	Research and report on driver alert systems for Safe Fleet Transition Plan	Complete and Ongoing
3.8	NYPD, DFTA, DOT	Launch senior outreach and enforcement campaign	Complete
3.9	NYPD	Increase impaired driving enforcement	Complete and Ongoing
3.10	NYPD	Explore the expansion of the criteria for Collision Investigation Squad (CIS) involvement	In Progress
3.11	TLC	Explore developing a system of incentives to increase safe driving behavior	Complete
3.12	TLC	Evaluate the effectiveness of current enforcement programs	Complete and Ongoing
3.13	TLC	Identify strategies to reduce fatigued driving and raise awareness among TLC-licensed drivers	Complete
3.14	TLC	Provide targeted outreach and education to TLC-licensed businesses to increase safe driving behavior	Complete and Ongoing
3.15	DOHMH	Analyze and disseminate data on traffic-related injuries and driving behaviors	Complete and Ongoing
3.16	MTA	Provide focused safety awareness training to 6,000 bus operators	Complete
3.17	MTA	Expand use of Pedestrian Turn Warning and Collision Avoidance safety technology	Complete and Ongoing
3.18	City Hall	Pass legislation in Albany to expand speed camera hours and streets to target locations where crashes most often occur	In Progress
3.19	DA	Organize legislative support to increase penalties for drivers who flee crashes	In Progress
3.20	DA	Revise Public Health Law Section 3306 to include any impairing substances	In Progress
3.21	DA	Improve DWI search warrant processing	In Progress
3.22	DA	Support the purchase and operation of a Mobile Impaired Driver Testing site	In Progress

## YEAR FOUR

# Initiatives Scorecard

ID #	Agency	Initiative Name	Status
4.1	DOT	Make high-visibility crosswalks the standard crosswalk citywide	Complete and Ongoing
4.2	DOT	Accelerate the replacement cycle for street markings	Complete and Ongoing
4.3	DOT	Install left-turn traffic calming upgrades to at least 100 additional intersections	Complete and Ongoing
4.4	DOT	Make upgrades to at least 20 key cycling intersections within the bike network	In progress
4.5	DOT	Commence lighting upgrades at 1,000 intersections	In progress
4.6	DOT	Continue to pilot raised crosswalks	Complete and Ongoing
4.7	DOT	Install first neighborhood traffic circle pilots	Complete and Ongoing
4.8	DOT	Evaluate use of new sensors and data analytics systems for traffic safety purposes	In progress
4.9	NYPD	Apply precision policing principals to maximize efficiencies in deployment	In progress
4.10	NYPD	Continue to conduct safe cycle initiatives in the effort to reduce bicyclist fatalities	In progress
4.11	NYPD	Ensure school crossing guards at every post with the addition of 100 new crossing guard supervisors and a mobile replacement squad	In progress
4.12	NYPD	Add 120 new speed guns to local precincts, increasing speed enforcement capability by 50%	Complete
4.13	DCAS	Continue vehicular safety optimizations through Safe Fleet Transition Plan	Complete and Ongoing
4.14	DCAS	Partner with DOE/DOT to incorporate Vision Zero safety training into high school curriculum	In progress
4.15	DCAS	Implement Phase-2 of truck side-guard installation	Complete and Ongoing
4.16	DCAS	Pilot real-time speed and safety tracking	Complete
4.17	DCAS	Enhance and expand defensive driving training	Complete and Ongoing
4.18	TLC	Implement new fatigued driving prevention rules and educate drivers on framework and fatigue risks	Complete
4.19	TLC	Expand public outreach, official vehicle markings, and enforcement to reduce the prevalence of illegal vans	Complete and Ongoing
4.20	TLC	Hold focus groups with TLC Safety Honor Roll members to determine effective safety messaging	Complete
4.21	TLC	Promote discussion and research on the traffic safety issues related to automated vehicles	Complete and Ongoing
4.22	DOHMH	Disseminate findings from data set linking collision and hospitalization data	Complete and Ongoing
4.23	DOHMH	Convene external research partners to promote cross-disciplinary data sharing and collaboration	Complete and Ongoing
4.25	DA	Resolve legal challenges to Administrative Code 19-190	In progress
4.26	DA	Ensure precise and efficient ignition interlock monitoring in New York City	In progress

## YEAR FIVE

## Initiatives Scorecard

ID #	Agency	Initiative Name	Status
5.1	DOT	Intensify street safety improvements in areas with high concentrations of senior citizens and senior pedestrian injuries	In Progress
5.2	DOT	Implement Bicycle Priority Districts to increase lane-mileage of bike lanes in areas with disproportionate KSIs relative to their infrastructure	In Progress
5.3	DOT	Examine locations where pedestrians are killed on or near highways	Complete and Ongoing
5.4	DOT	Update Borough Pedestrian Safety Action Plan priority maps based on analysis of recent KSI data	Complete
5.5	DOT	Convene a working group to plan a Vision Zero-focused driver education program for under-25s	Complete
5.6	DOT	Use data analysis to proactively identify intersections at which new traffic signals are likely warranted	Complete and Ongoing
5.7	NYPD	Expand outreach and enforcement program for intercity buses, charter buses, and commercial trucks	Complete and ongoing
5.8	NYPD	Explore ways to increase the role of the neighborhood policing program into traffic strategy	Complete and ongoing
5.9	NYPD	Evaluate and improve utilization of AC 19-190	In Progress
5.11	NYPD	Explore using NYPD auxiliary officers to manage pedestrians and effect positive change in driver's behavior at intersections with notable crash/injury histories with the underlying goal of enhancing pedestrian and bicyclist safety	Complete and Ongoing
5.12	NYPD	Roll out NYPD Transportation Bureau Community Outreach Unit	Complete and Ongoing
5.13	DCAS	Activate a Fleet Office of Real Time Tracking (FORT) to track the safety and utilization of City fleet units	Complete and Ongoing
5.14	DCAS	Implement the first formal investments in new safety equipment as part of the Safe Fleet Transition Plan	Complete
5.15	DCAS	Centralize administration of License Event Notification System through DCAS	In Progress
5.16	DCAS	Start posting stickers on City vehicles that encourage the public to call 311 if they see unsafe or problematic driving	Complete and Ongoing
5.17	DCAS	Expand current in-person training initiative under Vision Zero to include online and interactive virtual training	In Progress
5.18	TLC	Develop Vision Zero driver training video for TLC licensees and integrate into TLC driver education	Complete
5.19	TLC	Offer licensees safety retraining in lieu of standard fines for certain moving violations	In Progress
5.21	TLC	Enhance TLC field enforcement training to support Vision Zero efforts	Complete
5.22	TLC	Collaborate with advocates and large app-based bases on passenger and licensee outreach campaigns	In Progress
5.23	TLC	Coordinate quarterly safety outreach campaigns to professional drivers	In Progress
5.24	DOHMH	Expand Prescribe-a-Bike pilot program to a second clinical partner	Complete and Ongoing

ID #	Agency	Initiative Name	Status
5.25	DOHMH	Expand data partnerships to enhance surveillance of traffic-related fatalities and injuries and to further identify populations at risk	Complete and Ongoing
5.26	DOHMH	Support equity-focused analyses of traffic-related data and dissemination of findings	Complete and Ongoing
5.27	BIC	Educate school children about street safety around private garbage trucks	In Progress
5.28	BIC	Establish interagency collision review panel to review crashes involving a trade waste truck that resulted in a death or serious injury	Complete and Ongoing
5.29	BIC	Conduct outreach to workers in the trade waste industry	Complete and Ongoing

# Glossary

## Administrative Code 19-190

A City Law creating a criminal misdemeanor penalty for New York City drivers who injure or kill pedestrians or cyclists with the right of way. In Fall 2016, the City Council passed an amendment that specified that motorists must yield to all pedestrians who enter the crosswalk during the walking person phase or the flashing red hand phase.

## Accessible Pedestrian Signals

Devices which assist pedestrians who are blind or have low vision in crossing at a signalized intersection. APS provide information in non-visual formats, such as audible tones, speech messages and vibrating surfaces to alert pedestrians when the “walk” phase is available at a given intersection.

## Arterial

A wide high-volume roadway.

## Chicane

A curve created within a roadway that encourages driving at lower speeds.

## Collision Investigation Squad (CIS)

The Collision Investigation Squad investigates crashes which involve fatalities and the most serious of injuries. These expert investigators scrutinize a collision scene and seek to determine the cause of the collision and whether any criminality occurred.

## CRASH

The New York City vehicle collision and incident management system. All fleet agencies except NYPD are currently using CRASH. It was launched in FY2014.

## Curb Extension

Also known as a neckdown. This is an expansion of the curb line into the lane of the roadway adjacent to the curb for a portion of a block either at a corner or mid-block, which creates more pedestrian space.

## Daylighting

Removing parking adjacent to a crosswalk in order to make pedestrians crossing more visible to approaching motorists.

## Enhanced Crossing

A type of marked pedestrian crossing that can be installed in places where traffic controls are not appropriate. An enhanced crossing includes ADA compliant pedestrian ramps, high visibility crosswalk markings, and pedestrian warning signs to alert drivers. By New York State law, drivers must yield to pedestrians at these crossings.

## Fleet Office of Real-time Tracking (FORT)

NYC Fleet “command center” that keeps track of city vehicles (excluding NYPD) and monitors for collisions, driving behaviors, and situational awareness in real time.

## For-Hire Vehicle (FHV)

Vehicles other than taxis and commuter vans that are licensed by TLC to transport the public. They include community car services (also known as liveries), black cars (which include app-based black cars, such as those dispatched by Uber), and certain luxury limousines.

## FORMS (Finest Online Records Management System)

An electronic database that replaced the existing legacy collision system and was deployed by NYPD on March 14, 2016. In addition to replacing the existing department database, it allows officers to do direct entry crash reporting using mobile devices.

## Injury Severity Scores

ISS is derived from multiple patient data inputs in administrative hospital data. Inputs include body region and type of injury, as per Barell Matrix-situated formula (source: Clark, DE and Ahmad S., Estimating injury severity using the Barell Matrix. Injury Prevention 2006;12:111–116). This approach to ISS assignment is not based on direct clinical assessment.

## Killed or Seriously Injured (KSI) Calculation

A method of analyzing the potential danger of a corridor or intersection by measuring the number of people killed or seriously injured at that location (calculated as a per mile rate for corridors).

## Leading Pedestrian Interval (LPI)

A signal timing strategy designed to reduce turning vehicle/pedestrian conflicts. With an LPI the walk signal is displayed before the parallel movement of traffic gets a green light. This allows pedestrians to start their crossing and establish a presence in the crosswalk before the traffic is released.

## LIDAR Gun

A laser device used by the police for speed limit enforcement. LIDAR guns allow a police officer to measure the speed of an individual vehicle within a stream of traffic.

## Neighborhood Coordination Officers (NCO's)

The NCOs serve as liaisons between the police and the community, but also as key crime-fighters and problem-solvers in the sector. They familiarize themselves with residents and their problems by attending community meetings with neighborhood leaders and clergy, visiting schools, following up on previous incidents, and using creative techniques and adaptive skills.

## Pedestrian Safety Island

A designated area located at crosswalks that serves as pedestrian refuge separating traffic lanes or directions, particularly on wide roadways.

## Precision policing (in Traffic Enforcement)

Focusing targeted, highly visible traffic enforcement on the locations with the greatest number of crashes with injury. Greater use of technology will allow NYPD to identify the specific crash causing violations and evaluate the impact of enforcement efforts in these locations in order to adjust as necessary to reduce crashes.

## Priority Corridor

A selection of streets measuring at least one mile in length in each borough, which were ranked on a pedestrian KSI per-mile basis. Corridors were selected from the top of this list until the cumulative number of pedestrian KSI reached half of the borough's total.

## Priority Intersection

A selection of intersections with the highest number of pedestrian KSI that cumulatively account for 15% of the borough's total pedestrian KSI.

## Protected Bike Lane

Designated on-street bicycle lanes that are protected from motorized traffic by parked vehicles, barriers, or bollards.

## Raised Center Median

A raised area separating traffic lanes or directions of travel, particularly on wide roadways.

## Rectangular Rapid Flashing Beacon (RRFB)

A high-intensity flashing LED sign placed at mid-block crosswalks or crossings without a traffic signal to alert drivers that pedestrians are present.

## Safe Fleet Transition Plan (SFTP)

This plan outlines required vehicle design and technologies for NYC Fleet vehicles as well as best practice and exploratory systems that are under testing and/or pilot installs. This document was originally issued in May 2017 and revised in November 2018 through DCAS in coordination with Volpe Center.

## Speed cushion

A specialized type of speed hump that can be used on bus and truck routes, containing "cut outs" allowing wider vehicles to travel through the humps without being slowed.

## TLC Safety Honor Roll

A list created by TLC of taxi and for-hire vehicle drivers who have, over four years or more, not had a single crash involving injury, a single traffic violation, or a single violation of TLC safety-related rules; and TLC-licensed companies with the lowest shares of vehicles involved in serious collisions in their sector over the past year.

## TEAs

Unarmed uniformed civilian members of the Police Department responsible for issuing parking summonses, directing traffic, towing vehicles, enforcing truck laws, and inspecting construction sites.

## Trade Waste Industry

Private companies that use trucks to collect garbage and recyclables from commercial businesses, including construction and demolition sites. In New York City, these companies are licensed and regulated by BIC.

## Vision Zero Helpful Links

### Vision Zero Website

<http://www.nyc.gov/html/visionzero/>

### Vision Zero View Map

<http://www.nycvzv.info/>

### DOHMH Environment and Health Data Portal

<http://www.nyc.gov/health/tracking>

### DOHMH Getting to School Report

<https://www1.nyc.gov/assets/doh/downloads/pdf/dpho/getting-to-school.pdf>

### DOT Automated Speed Enforcement Program Report, 2014-2017

[www.nyc.gov/html/dot/downloads/pdf/speed-camera-report-june2018.pdf](http://www.nyc.gov/html/dot/downloads/pdf/speed-camera-report-june2018.pdf)

### DOT Safer Cycling Report: Bicycle Ridership and Safety in New York

[www.nyc.gov/html/dot/downloads/pdf/bike-safety-study-fullreport2017.pdf](http://www.nyc.gov/html/dot/downloads/pdf/bike-safety-study-fullreport2017.pdf)

### TLC Safety Honor Roll

<https://www1.nyc.gov/site/tlc/about/2018-tlc-safety-honor-roll.page>

### Safety First: Vision Zero Training for Professional Drivers

<https://www.youtube.com/watch?v=VDNq2P6-kIY>

### TLC Vision Zero Project and Materials

<https://www1.nyc.gov/site/tlc/about/vision-zero.page>

### MODA Project Library

[https://github.com/MODA-NYC/Project\\_SevereCrashes](https://github.com/MODA-NYC/Project_SevereCrashes)

### **Safety First: Vision Zero Training for Professional Drivers**

<https://www.youtube.com/watch?v=VDNq2P6-kIY>

### **The Department of Health and Mental Hygiene (DOHMH) Data Linkage Project**

<https://www.ncbi.nlm.nih.gov/pubmed/28226252>

### **Conderino, S, Fung, L et al. “Linkage of traffic crash and hospitalization records with limited identifiers for enhanced public health surveillance” AA&P 2017.**

### **Child Fatality Review Advisory Team Report (DOHMH)**

<https://www1.nyc.gov/assets/doh/downloads/pdf/survey/2018cfrat-report.pdf>

### **Block by Block: Walking for a Healthier East Harlem Publication**

<https://www1.nyc.gov/site/doh/health/neighborhood-health/east-harlem-community-walking-trail.page>

### **TrafficStat**

<https://trafficstat.nypdonline.org/>

### **NYPD Traffic Summonses Report**

[http://www.nyc.gov/html/nypd/html/traffic\\_reports/traffic\\_summons\\_reports.shtml](http://www.nyc.gov/html/nypd/html/traffic_reports/traffic_summons_reports.shtml)

### **Vision Zero Borough Pedestrian Safety Action Plans**

<http://www.nyc.gov/html/dot/html/pedestrians/ped-safety-action-plan.shtml>

### **Updated Safe Fleet Transition Plan**

<https://www1.nyc.gov/assets/dcas/downloads/pdf/fleet/Safe-Fleet-Transition-Plan-Update-2018.pdf>

# Vision Zero Task Force

## Task Force Members

Shawn Alsop, NYPD  
Salvador Arrona, BIC  
Mira Atherton, Mayor's Office of Operations  
Anna Caffarelli, DOHMH  
Marco A. Carrion, Mayor's Office, Community Affairs Unit  
Rich Cerezo, MTA  
Chief Thomas Chan, NYPD  
Ann Marie Doherty, DOT  
Jeffrey Dupee, Mayor's Office, Community Affairs Unit  
Sheriff Joseph Fucito, New York City Sheriff's Office  
Inspector Dennis Fulton, NYPD  
Lawrence Fung, DOHMH  
Benjamin Furnas, Office of the Mayor  
Sergeant Robert Gilliam, New York City Sheriff's Office  
Jill Hoexter, New York County District Attorney's Office  
Clarence Howard, MTA  
Keith Kerman, DCAS  
Julia Kite-Laidlaw, DOT  
Kara Kirchhoff, OMB  
Madeline Labadie, TLC  
Roger Li, NYPD  
Phebe Macrae, Law Department  
Jacqueline Matos, Mayor's Office of Operations  
Stephen Malmberg, OMB  
Alfredo Melian, NYPD  
Dawn Miller, TLC  
Eleanor Nussbaum, OMB  
Alexandra Ozols, Mayor's Office of Operations  
Fiona Peach, Mayor's Office of Operations  
Eric Richardson, DCAS  
Swetha Saseedhar, Mayor's Office of Operations  
Nancy Savasta, Law Department  
Benjamin Serrano, MTA  
Sherif Soliman, Office of the Mayor, State Legislative Affairs  
Catherine Stayton, DOHMH  
Geraldine Sweeney, Mayor's Office of Operations  
Alyssa Verdi, OMB  
Pierre Vieux, MTA  
Kim Wiley-Schwartz, DOT  
Susan Wang, Mayor's Office of Operations  
Captain Erik Worobey, NYPD  
Miao Zhang, OMB

## Data Working Group

Faraz Ahmed, Mayor's Office of Data Analytics  
Shawn Alsop, NYPD  
Mira Atherton, Mayor's Office of Operations  
Christina Blackston, DOT  
Anna Caffarelli, DOHMH  
Ann Marie Doherty, DOT  
Inspector Dennis Fulton, NYPD  
Lawrence Fung, DOHMH  
Sergeant Jamie Gifkins, NYPD  
Seth Hostetter, DOT  
Julia Kite-Laidlaw, DOT  
Roger Li, NYPD  
Madeline Labadie, TLC  
Jacqueline Matos, Mayor's Office of Operations  
Alfredo Melian, NYPD  
Deena Patel, Mayor's Office of Data Analytics  
Fiona Peach, Mayor's Office of Operations  
Azikiwe Rich, DOT  
Eric Richardson, DCAS  
Swetha Saseedhar, Mayor's Office of Operations  
Geraldine Sweeney, Mayor's Office of Operations  
Catherine Stayton, DOHMH  
Rob Viola, DOT  
Susan Wang, Mayor's Office of Operations  
Captain Erik Worobey, NYPD



## Vision Zero Task Force

Back: Shawn Alsop, Mira Atherton, Jill Hoexter, Fiona Peach, Faraz Ahmed, Inspector Dennis Fulton, Jeffrey Dupee, Captain Erik Worobey

Middle: Kim Wiley-Schwartz, Eleanor Nussbaum, Catherine Stayton, Ann Marie Doherty, Julia Kite-Laidlaw, Geraldine Sweeney, Madeline Labadie, Michelle Kaucic, Swetha Saseedhar

Bench: Sergeant Robert Gilliam, Phebe Macrae, Rob Viola, Lawrence Fung

---

Report developed by the New York City Mayor's Office of Operations

---

Report Layout: NYC DOT

Photos:

Cover: NYC DOT  
 Page 2: NYC DOT  
 Page 5: NYC DOT  
 Page 12: NYC DOT  
 Page 22: NYC DOT  
 Page 28: NYC DOT  
 Page 40: NYPD  
 Page 50: NYC DOT  
 Page 60: NYC DOT



Crashes are preventable.  
**Together, we can save lives.**

---

