VISION ZERO YEAR FOUR REPORT March 2018



Not even a single tragedy on our streets is acceptable, and we'll keep fighting every day to protect our people.

Mayor Bill de Blasio



SAVING LIVES ON QUEENS BLVD

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Vision Zero Year Four

Executive Summary

The past year was the safest year on record on New York City streets, spurred by an unprecedented drop in pedestrian fatalities.

Since the launch of Vision Zero in 2014, New York City has experienced a 28 percent decline in traffic fatalities, and a 45 percent decline specifically in pedestrian fatalities. The tireless work of City agencies, advocates, and individual New Yorkers has paid dividends in lives saved even in the face of a national upward trend in traffic fatalities over the same period.

This progress raises the question of how exactly New York City managed to defy national trends and improve on its own record year after year. There is no singular strategy, no simple explanation. This progress happened with the full force of City government – agencies collaborating since the inception of Vision Zero to chart a path towards safer streets for all, share best practices, and implement proven strategies as well as test new ones. A commitment to prioritizing safety, combined with an emphasis on multi-agency teamwork and a data-driven approach, has allowed the City to target resources and interventions where they are most needed while also anticipating future urgencies.

The unprecedented number of initiatives completed in 2017, as detailed in this report, means that agency expertise is being leveraged like never before to protect all New Yorkers. The following pages show how the City is changing drivers' behaviors behind the wheel, cracking down on dangerous driving, and redesigning streets to make them safer for pedestrians and bicyclists – all through a combination of data analysis, engineering, outreach and education, enforcement, and new technology. Since its inception, Vision Zero has relied on crash and injury data to guide investments in safety in the highest priority locations. This data-driven approach also draws attention to the disproportionate concentration of crash numbers and severities over certain person, place, and time factors. This year's report highlights Vision Zero's ongoing efforts to target investments in the groups, areas, and times that carry a disproportionate burden, and makes an ongoing commitment to further address disparities.

Statistics and Metrics / Year Four

A Focus on Priority Locations

At the center of planning for Vision Zero safety investments are the five Borough Pedestrian Safety Action Plans. These Plans analyze crash data and identify priority intersections, corridors, and areas for each borough based on pedestrians killed or seriously injured (KSI) between 2009 and 2013. With a focus on priority locations, resources go to where they are most urgently needed, and KSIs continue to decline at these locations. During the 2009-2013 study period, these locations averaged 142 traffic deaths per year. In 2017, this figure fell to 100, a decline of 30 percent. Looking at pedestrians specifically, from 2009-2013, these locations averaged 99 deaths a year. In 2017, there were 54 pedestrian deaths at priority locations, a decline of 45 percent.

Data-Driven Solutions / Year Four

Data Transparency and Partnerships for Innovation

Vision Zero relies on the evaluation of evidence to make decisions about safety initiatives. The Department of Health and Mental Hygiene (DOHMH), as stewards of the City's health-related information, has made data on traffic deaths, hospitalizations, and risk factors from numerous sources available to the public. Vision Zero View, the public portal for crash and street design statistics, was enhanced in 2017 by the Department of Transportation (DOT) to include information about additional traffic safety features. Transparency in public-facing data means that all New Yorkers have the chance to understand what is happening in their neighborhoods, and how Vision Zero can make streets safer.

In addition to the data collected and disseminated by City agencies, collaboration has strengthened the knowledge base available for complex Vision Zero decision-making. The Department of Citywide Administrative Services (DCAS) and DOT have teamed up with DataKind, Columbia Smart Cities, and the Columbia University Data Science Institute to gain deeper insights into what happens on the streets – and why.

Engineering / Year Four

Accelerated Interventions Where They Are Needed Most

Since the start of Vision Zero, DOT has completed 356 safety engineering projects. In 2017, DOT implemented a record 114 of these projects, over twice the average annual amount prior to the start of Vision Zero. DOT also more than doubled the previous average of new dedicated cycling space installed: 66 lane miles, of which 25 were protected lane miles. Mindful that there are many neighborhoods in New York City with disproportionately high cyclist KSIs and few bike lanes, DOT has made the cornerstone of its Summer 2017 report *Safer Cycling* the designation of 10 Priority Bicycle Districts, which will receive 75 lane miles of new or enhanced bicycle facilities by 2022.

Leading pedestrian intervals (LPIs), signal changes that give pedestrians a head start crossing the street, were installed at 832 locations in 2017, bringing the total of new LPIs installed since the start of Vision Zero to more than 2,000. Following progress initiated in 2016, DOT continued its Left Turn Traffic Calming project, bringing techniques that have reduced median left turn speeds by 24 percent to an additional 110 locations citywide. Major transformations of arterial roads have continued, notably on Woodhaven and Cross Bay Boulevards in Queens, which have been redesigned for greater safety in conjunction with the launch of Select Bus Service.

Enforcement / Year Four

Promoting a Culture of Safe Driving

The data-driven initiatives of the City's law enforcement, criminal justice, and regulatory agencies have continued to focus on promoting behavioral change and ending a culture of dangerous driving. In 2017, almost two-thirds of the New York Police Department's (NYPD) traffic summonses were issued for the six violations most likely to injure or kill New Yorkers: speeding, failing to yield to a pedestrian, failing to stop on a signal, improperly turning, using a cell

phone (including texting while driving), and disobeying signs. The Taxi and Limousine Commission's (TLC) field enforcement officers issued 59 percent more traffic safety summonses compared to 2016, and partnered with NYPD on the use of LIDAR speed enforcement. Both agencies have also increased their enforcement of motorists obstructing bicycle lanes.

City agencies continue to partner with advocates to support the enhancement of the speed camera program. At present, State legislation limits the locations and operating hours of the cameras, as well as the number of locations in which they may be placed. A DOT report published in Summer 2017 showed that speeding had been reduced by up to 85 percent in locations with active speed cameras. The offices of the District Attorneys for each of the five boroughs have also supported stricter laws against dangerous driving, including stronger penalties for hit-and-run drivers.

Fleets / Year Four

Leading by Example through Smart Procurement and Practices

The largest fleets in the City continue to be the growing for-hire vehicle sector regulated by TLC, the City's own government vehicle fleet administrated by DCAS, and the public buses of MTA New York City Transit. Over 268,000 drivers are employed or regulated by City agencies, and they set an example for all professional fleets by maintaining safe records, engaging in rigorous Vision Zero training programs, and rewarding best practices. In 2017, TLC's annual Safety Honor Roll recognized 420 drivers and 25 businesses from all over the city for their safety records. Over 35,000 drivers completed TLC's Vision Zero Driver Education in 2017, for a total of nearly 87,000 since the start of the program in 2014. DCAS has also expanded its defensive driving training in 2017 to include employees from the New York City Housing Authority (NYCHA) and the District Attorney's offices, with over 10,500 City drivers attending a class in the past year. Fifty-five City employees from numerous agencies were honored in Fall 2017 for their efforts to train their colleagues in defensive driving.

DCAS published its Safe Fleet Transition Plan in conjunction with the US DOT Volpe Center in May 2017. This plan stipulates that all vehicles purchased for Fiscal Year 18 and beyond must include the best available safety technology including, where applicable, automatic emergency braking, rear and side truck guards, and back up cameras.

Engagement / Year Four

Connecting with New Yorkers Where They Live

Safety education expanded throughout 2017, from the launch of the new "Word on the Street" curriculum for 4th through 6th graders, to a renewed focus on engagement with seniors where they live and socialize. NYPD established its Transportation Outreach Unit to speak with community groups and reach out to business owners, alongside continuing to work with DOT in Vision Zero Street Teams in areas with high KSIs.

Following the measurable success of the three-year "Your Choices Matter" ad campaign, the Vision Zero Task Force launched a new campaign, "Signs," in 2017, focused on the clear and resonant message that saving a life is easy. Likewise, after encouraging results from 2016's first Dusk and Darkness initiative to promote safe driving as days begin to shorten, DOT, TLC, and NYPD renewed their efforts in 2017.



VISION ZERO BY THE NUMBERS





6,628 MTA bus operators trained in Vision Zero in 2017

35,010 drivers

licensed by TLC received Vision Zero Education in 2017.



149,910

manual speeding summonses issued by NYPD in 2017.

1,287,968

automated speeding Notices of Liability issued in 2017.



110 intersections





51,728 summonses

given to drivers for Failure to Yield violations in 2017-4 times the Pre-Vision Zero average.



940 truck sideguards installed in 2017.

390 speed humps installed in 2017.

1,300 schools



420 drivers and 25 businesses

recognized on the TLC Safety Honor Roll in 2017.

in priority locations received safety education since the start of Vision Zero.

11,015 City fleet operators

trained in defensive driving in 2017.

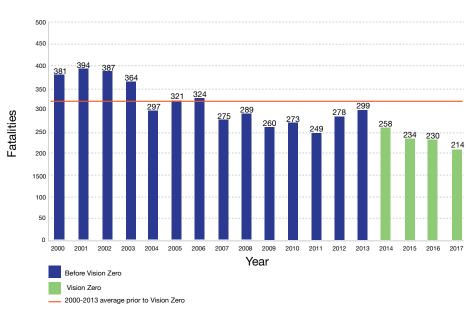


Statistics and Metrics

A Focus on Priority Locations

Even as we are encouraged by tremendous progress in reducing deaths on New York City streets, we grieve every person in our city who is killed in a collision, knowing there is still much more work to do.

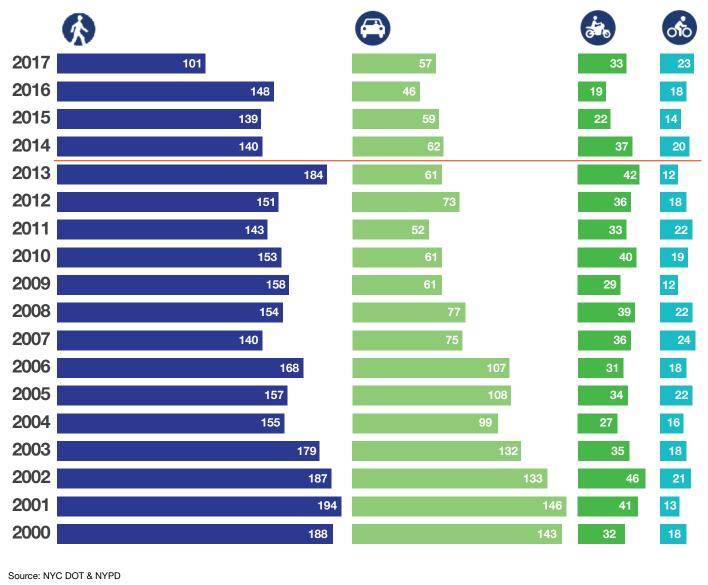
The years 2014 through 2017 had the fewest traffic fatalities on New York City streets since record-keeping began in 1910, before the widespread use of the automobile. Pedestrian fatalities fell 32 percent between 2016 and 2017 – an unprecedented improvement and a testament to the effectiveness of Vision Zero efforts. However, increases in fatalities among bicyclists, motorcyclists, and motorists remind us that much progress remains to be made, as each and every person killed in traffic is somebody's family, somebody's friend.



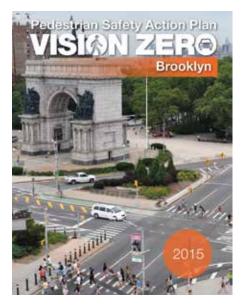
NYC Traffic Fatalities 2000-2017

Source: NYC DOT & NYPD

NYC Fatalities by Mode 2000-2017



New York City is a walking city. Walking has no cost and is often one stage in a longer trip that could include other modes of transportation. The Borough Pedestrian Safety Action Plans focus on fatal and severe injuries involving pedestrians because protecting the most vulnerable road users by prioritizing pedestrian safety has benefits for all modes. This year, New York City pedestrian fatalities have dropped significantly, declining 32 percent from the 2016 total.



Pedestrian Safety Action Plans

Since 2015, the five Borough Pedestrian Safety Action Plans have been the guiding documents for safety investments. The Plans analyze crash data and identify priority intersections, corridors, and areas for each borough based on pedestrians killed or seriously injured (KSI) between 2009 and 2013. Because each borough has a different density of and number of pedestrian crashes, this method allows the City to distribute resources to the most high-need areas in each of the boroughs, accounting for pedestrian numbers. For example, while an intersection in Midtown Manhattan could have a higher KSI rate due to higher levels of pedestrian activity, the risk of being injured while crossing that intersection is far lower than the risk of a crash at a high-risk intersection in Sunset Park, Brooklyn, which may have a lower KSI rate due to fewer overall crossings but more KSIs per capita.

The designation of priority locations is part of Vision Zero's overall data-driven approach, guiding policy and practice. Since the beginning of Vision Zero:

- DOT has completed 254 safety engineering projects at priority locations.
- NYPD and DOT Street Teams have been deployed at over 480 priority locations.
- DOT has activated over 1,500 Leading Pedestrian Intervals (LPIs) to give pedestrians a head start as they cross the street at priority locations.
- DOT has implemented left turn traffic calming techniques at over 170 priority intersections, built over 460 new speed bumps in priority areas, and installed extra lighting fixtures at more than 750 priority locations with high numbers of nighttime crashes.

Due to this intensive focus, KSIs continue to decline at priority locations. During the 2009-2013 study period, these locations averaged 142 traffic deaths per year. In 2017, this figure fell to 100, a decline of 30 percent. Looking at pedestrians specifically, from 2009-2013, these locations averaged 99 deaths a year. In 2017, there were 54 pedestrian deaths at priority locations, a decline of 45 percent.



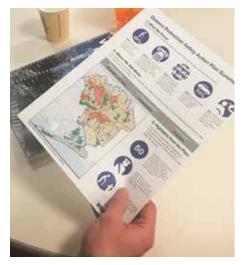
Data-Driven Solutions

Data Transparency and Partnerships for Innovation

Data plays a crucial role in Vision Zero, driving the City's interagency engineering, enforcement, and engagement strategies to reduce traffic fatalities and make streets safer.

An emphasis on data-driven policy has helped target redesign projects where they are needed most, including the arterial roads and intersections that are most prone to crashes. The City has undertaken large-scale engineering projects along historically crash-prone corridors, ensuring that improvements are made quickly and with as little disruption as possible to protect pedestrians and cyclists. With a focus on evaluation and evidence, City agencies constantly monitor progress and modify their approaches as necessary.





Improving Data Analysis

Developing Injury/Fatality Analytical Model

In 2015, DOT teamed up with DataKind, a data science nonprofit, to develop a comprehensive injury/fatality analytical model to help the City better understand how engineering improvements affect the number of traffic KSIs. The model considers close to 100 factors including crash data, project history, census data, motor vehicle volume estimates, and transit usage to assess the effectiveness of engineering interventions.

Since the model was delivered to DOT in early 2017, DOT has been updating it to enhance functionality and test different scenarios. The model now includes a geographic filter to allow more nuanced analyses, and DOT has begun to investigate the relationship between motor vehicle volume changes and the number of injuries. In addition, DOT is refining DataKind's traffic exposure model to estimate the vehicle volume on any given part of New York City's street network.



Vehicular volume mapped by DOT and the Columbia University Data Science Institute.

Vehicular volume per block 1-2 — 3-5 — 6-20 —

> 21-30 — 31-693 —

Creating Driver Behavior Index

In 2014, DCAS began installing CANceiver devices on City vehicles to record important information about driver behavior, including speed, hard braking, and hard acceleration.

In 2017, DOT worked with the Data Science Institute at Columbia University to create a Driver Behavior Index (DBI) system. The DBI system, when complete, will be a safety ranking and classification system of New York City corridors and intersections, based on driver behavior data drawn from DCAS CANceiver fleet data. This data will be combined with DOT crash data to create several metrics and classifications, helping planners and project managers become more aware of driver behavior at particular locations.

Completed Data Linkage Project

DOHMH completed a data matching process to link hospital records with crash reports. Using the linked dataset, staff identified patterns of injuries, injury type, body part injured, and injury severity associated with crash characteristics. These patterns can help describe, among other things, the disproportionate impact of traffic injuries on special populations, such as children and older adults, and how injury severity relates to a person's role in a crash. Among the matched cases, injury severity is slightly higher among older adults, pedestrians, and motorcyclists.

Released Epi Data Briefs

DOHMH analyzed medical examiner files and survey data to inform three Epi Data Brief reports released in 2017: Driving and Self-Reported Dangerous Driving Behaviors in New York City, Pedestrian Fatalities in New York City, and Motor Vehicle Occupant Fatalities in New York City.

In addition, in December 2017, DOHMH released a Vital Signs data report on alcohol-related injuries. During the study period, motor vehicle-related injuries were a leading specified cause of unintentional alcohol-related injury emergency department visits and hospitalizations.

Modeling Injury Prediction

The City relies on data to determine where and how to improve street safety, with Vision Zero agencies constantly working to refine the predictive power of their models. In collaboration with DOT, the Columbia University Data Science Institute is working to identify what risk factors are associated with traffic crashes and their outcomes. A more accurate model can enhance decision making to improve crash prevention and victim outcomes.

Keeping Data Transparent

Leveraging NYPD TrafficStat 2.0

TrafficStat is a case study in how data is constantly being used to inform Vision Zero initiatives and strategies. In November 2016, the New York City Police Department (NYPD), in conjunction with the Mayor's Office, released a statistical tool showing the types and locations of motor vehicle collisions. NYPD's TrafficStat 2.0 displays weekly collision data in a map-based format that lets users compare current collision statistics to the previous year's numbers. Using this data, DOT and NYPD found that increased darkness in the fall and winter evenings is correlated with a 40 percent increase in serious injury and fatal collisions involving pedestrians. In response to this finding, NYPD has stepped up its enforcement efforts during the dusk and evening hours.



Updating Vision Zero View

Vision Zero View is a publicly available data tool that aims to increase the transparency of traffic fatality data In 2014, as part of its commitment to transparency, the City launched Vision Zero View (VZ View) to make traffic fatality data more accessible to the public. VZ View is an interactive map that aggregates years of traffic fatality and injury data, showing overlap between where fatalities and injuries occur and the locations of various City interventions and initiatives, including street design changes, speed bumps, slow zones, Street Team deployments, and schools with safety outreach programming. In addition to being a tool for the public, VZ View helps the Vision Zero team apply a data-driven approach to enforcement and focus on improving areas most vulnerable to crashes.

In 2017, DOT added several new features to VZ View:

- Time slider functionality to the Street Design section, allowing users to view interventions by year (2009-present)
- Left turn traffic calming locations
- Enhanced crossing locations
- Priority Bicycle District planning areas
- Fatality and injury data percent change statistics (compared to the pre-Vision Zero average)

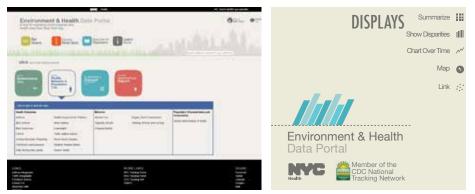
Making Data Available to the Public

EpiQuery: Community Health Survey – This annual telephone survey of NYC adults ages 18 and older includes transportation-related questions such as, depending on the year, bicycling, walking, and, in 2015 and 2016, driving frequency and driving behaviors. These self-reported transportation behaviors can be analyzed along with other health indicators. The Community Health Survey provides robust data on the health of New Yorkers, including neighborhood, borough, and citywide estimates on a broad range of chronic diseases and behavioral risk factors.

EpiQuery: Youth Risk Behavior Survey – Administered as an anonymous questionnaire every other year among NYC public high school students, the Youth Risk Behavior Survey includes questions, depending on the year, about walking or biking to school, biking in general, and bicycle helmet use. These self-reported transportation behaviors can be analyzed along with other health indicators.

Environment & Health Data Portal – This portal includes hospitalization and emergency department visit data for pedestrian and bicyclist injuries. Visitors to the portal can sort the data in multiple ways to compare borough or neighborhood findings as well as export the data for further analyses. Graphical tools show disparities in the data by neighborhood poverty. Pedestrian hospitalizations, for example, happen at consistently higher rates in high poverty neighborhoods.

EpiQuery: Mortality – This database contains aggregated demographic information on traffic deaths (all modes combined) such as age, sex, race, and residence, as well as cause of death. This portion of the EpiQuery portal is based on data derived from death certificates.



DOHMH Environment & Health Data Portal home page



Engineering

Accelerated Interventions Where They Are Needed Most

The spirit of Vision Zero can be felt in New York City's built environment, from its streets to its sidewalks.

An emphasis on data-driven policy has helped target redesign projects to the arterial roads and intersections that are most prone to crashes, as well as to other locations that DOT knows can benefit from alterations. The City has undertaken large-scale engineering projects along historically crash-prone corridors, so that improvements are made quickly and with as little disruption as possible to protect pedestrians and cyclists. With a focus on evaluation and evidence, City agencies constantly monitor progress and modify their approaches as necessary. In the fourth year of Vision Zero, the City revisited its bicycle strategies and released the *Safer Cycling* report, which identified 10 new Priority Bicycle Districts as the focus of future bicycle lane construction. The City also implemented a multifaceted strategy that integrates transit improvements with street safety along some of New York's busiest corridors.

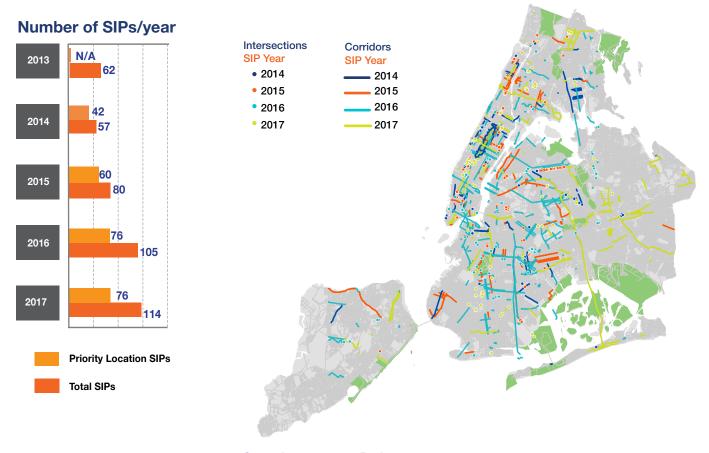


Building Safer Streets

In 2017, DOT completed 114 safety projects – a 138 percent increase over the five year average prior to Vision Zero.

Accelerating Street Improvement Projects (SIPs)

Following its release of the Vision Zero Pedestrian Safety Action Plans, DOT has accelerated projects on the city's most crash-prone corridors and intersections. These projects span a wide range of improvements, from the creation of pedestrian plazas to the installation of bike lanes, signals, crosswalks, and other forms of traffic calming interventions. In 2017, DOT completed 114 safety projects, 76 of which were located in Vision Zero priority locations, a 138 percent increase over the annual average in the five years prior to Vision Zero. This brings the total number of street improvement projects (SIPs) up to 254 at priority locations, and 356 citywide, since this initiative began.

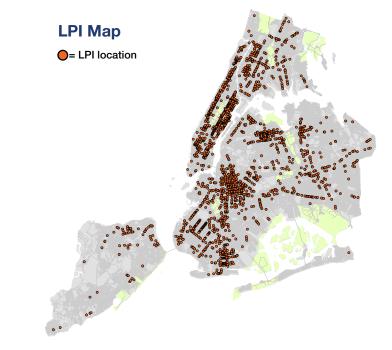


Street Improvement Projects accomplished by year



Installing Leading Pedestrian Intervals

In 2017, DOT installed 832 leading pedestrian interval signals (LPIs), which display a walk signal for pedestrians several seconds before showing a green light to parallel motor vehicle traffic. This head start for pedestrians crossing the street reduces conflict with drivers who are turning, while preserving pedestrians' right-of-way. Recognizing the increased risks for elderly pedestrians crossing the street, DOT has targeted installation of LPIs near senior centers, as well as within school zones and at Vision Zero Priority Locations. Since the start of Vision Zero, DOT has activated LPIs at more than 2,000 intersections citywide. The number of pedestrians and cyclists killed or seriously injured (KSI) has fallen 37 percent at these locations.



Installing Left Turning Traffic Calming Interventions

Using findings from its data-driven *Left Turn Pedestrian and Bicyclist Crash Study*, DOT installed hardened centerlines and slow turn wedges at 110 more intersections with high numbers of pedestrian and cyclist injuries caused by turning vehicles. These treatments have been proven to reduce median left turn speeds by 24 percent. A total of 217 intersections have received new left turn safety treatments since the start of 2016.

Woodhaven and Cross Bay Boulevards Spotlight





Together, Woodhaven and Cross Bay Boulevards form the largest north-south arterial in Queens. stretching 11 miles between Queens Boulevard and the Rockaways and spanning a width of up to 195 feet at points. Over 30,000 bus riders travel on the corridor every day. High traffic speeds and long crossing distances detracted from pedestrian safety, and traffic bottlenecks contributed to long travel times for bus passengers. Due to its high number of pedestrian KSIs, the segment between Queens Boulevard and the northern end of the Joseph P. Addabbo Memorial Bridge has been designated a Vision Zero Priority Corridor.

DOT and MTA first identified Woodhaven and Cross Bay Boulevards as locations for bus service improvements in 2009, after soliciting extensive feedback from local neighborhoods that have historically suffered from few transit options and long commute times. Though short-term improvements were implemented between 2011 and 2014, Vision Zero prioritized both safety and transit enhancement, with roadway capital improvements accompanying the development of Select Bus Service.

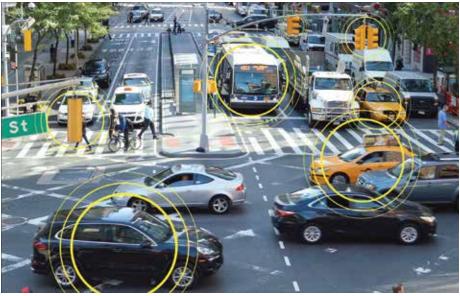
In November 2017, Woodhaven-Cross Bay Boulevards Select Bus Service launched on the Q52 and Q53 routes. Bus island construction, bus lane enforcement, signal upgrades, and updated street markings have improved bus travel times, increased pedestrian safety, and made traffic smoother and more predictable. A critical safety project along Woodhaven Boulevard from Union Turnpike to 81st Road created a simpler central median with a pedestrian refuge, added turn restrictions, and created a turn bay at two high-crash locations. As construction continues in 2018, DOT will monitor conditions and make necessary adjustments for optimal service.



Exploring New Technology

Piloting Connected Vehicle Technology

New "connected" technologies have the potential to prevent injury and death by providing drivers on the road with critical safety information. DOT has led the New York City pilot of vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) technology in three Manhattan and Brooklyn locations. Up to 10,000 taxis, buses, commercial trucks, and City-owned vehicles fitted with the new connected vehicle and mobile device technology receive communications that assist with speed compliance, red light violation warnings, blind spot and lane change warnings, emergency alerts, and other aspects of safe driving. This is the largest pilot of connected vehicle technology in the United States to date, providing a crucial opportunity to test and evaluate connected vehicle technology in a dense urban environment.





Vehicle to Vehicle Communication Technology: Lane Change Warning/Assist, Forward Collision Warning, Intersection Movement Assist and more!

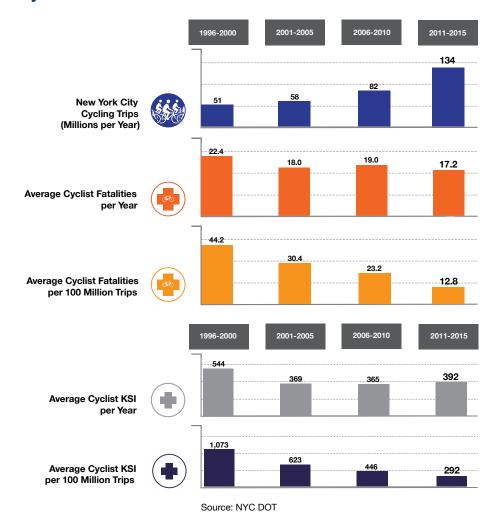
Vehicle to Infrastructure Communication: Red Light Warnings, Work Zone Warnings, and more!



More, Safer Cycling

Released DOT Bike Study

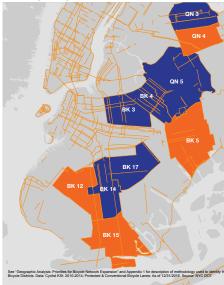
As the number of regular bicyclists has increased, cycling has grown dramatically safer, potentially showing a "safety in numbers" effect. In Summer 2017, DOT, NYPD, and DOHMH released a comprehensive study analyzing the growth of cycling in New York City and the expansion of the City's bicycle network. The report, *Safer Cycling*, examines factors contributing to cyclist injuries and fatalities, and presents the City's action plan for expanding the bicycle network and further improving cyclist safety through engineering, enforcement, education, policy initiatives, and research. Key findings include how the launch of Citi Bike coincided with a drop in cyclist KSIs in areas where bike share was available, and how the majority of cyclist fatalities occur at intersections and on streets that lack bicycle facilities.



Cyclist KSI Statistics

About four in five New Yorkers now live within a quarter mile of a bicycle facility.

Priority Bicycle Districts



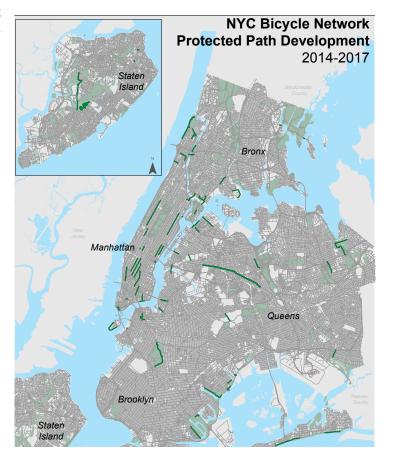
Cyclist KSI & Bicycle Network Coverage Ranking High Cyclist KSI & Medium Coverage High Cyclist KSI & Low Coverage Protected & Conventional Bicycle Lanes

Designating Ten Priority Bicycle Districts

The designation of 10 Priority Bicycle Districts, which represent only 14 percent of New York City's bicycle lane network but account for 23 percent of cyclist KSIs, is central to the City's plan to enhance cyclist safety. These Districts—seven in Brooklyn and three in Queens—all have comparatively fewer protected and conventional bicycle facilities. To address this disparity, DOT will create or enhance 75 lane miles of bicycle facilities in these districts by 2022, meeting demand for new bicycle lanes while addressing the urgent need for improved cyclist safety.

Expanding Protected Bike Lanes

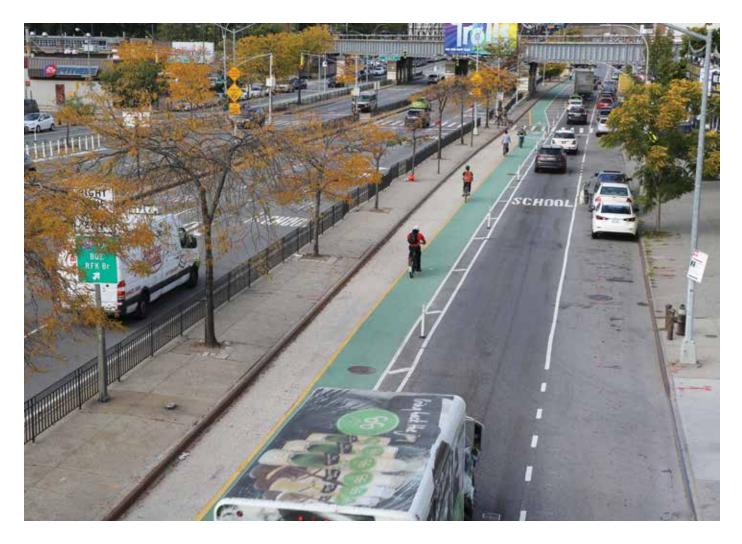
Bicycle network expansion is at the core of the City's strategy to increase the number of people who cycle. In 2017, DOT built 41 miles of conventional lanes and 25 miles of protected bike lanes. DOT will continue to install or enhance a total of at least 50 bicycle lane miles, including 10 protected lane miles, per year. DOT aims to increase the proportion of New Yorkers living near a bicycle facility to 90 percent by 2022, reflecting the City's goal of providing more opportunities for safe cycling outside of Manhattan.





Locations where new protected routes were built in 2017 include:

- Dyckman Street in Manhattan
- Northern Boulevard, the Shore Front Parkway, 111th Street, and Oceania Street in Queens
- Gerritsen Avenue and Adams Street in Brooklyn
- Del Valle Square and Bruckner Boulevard in the Bronx
- DOT also added new protected segments to close gaps in coverage on Second Avenue in Manhattan.



Making Streets Easier to Use for All





At lower volume pedestrian crossings where stop signs or traffic signals are not appropriate, enhanced crossing treatments increase safety. At these locations—typically near parks, schools, cultural centers, or transit connections—crosswalk markings, warning signs, and ADA-compliant pedestrian ramps improve driver visibility of pedestrians and delineate the safest path across the street. Where possible, enhanced crossings are supplemented with speed humps, pedestrian islands, or curb extensions (places where the roadway is narrowed by re-allocating a vehicle lane to pedestrians). Enhanced crossings were installed at 38 locations in 2017.

Installing Accessible Crossings



The City's commitment to providing accessibility for all New Yorkers continues with the introduction of raised crosswalks and accessible pedestrian signals along with a major increase in building and improving pedestrian ramps. Raised crosswalks make pedestrians more visible to drivers and help to calm traffic. DOT began to pilot raised crosswalks in 2016, and will continue to trial this intervention in 2018. Accessible pedestrian signals (APS) are devices mounted on pedestrian signal poles to assist blind or low vision pedestrians in crossing the street independently. The APS sends both audible and vibratory indications when the walk phase is displayed. In 2017, DOT installed 75 accessible pedestrian signals and built or repaired 5,008 pedestrian ramps.





Enforcement

Promoting a Culture of Safe Driving

Consistent law enforcement strategies, focused on the traffic offenses most likely to kill and injure New Yorkers, have strengthened the City's efforts to reduce dangerous driving.

The New York City Police Department's (NYPD) best practices emphasize the prevention of serious crashes and the deterrence of speeding, failure to yield, and distracted driving. Specially directed initiatives, guided by data on when and where certain types of dangerous driving are more likely to occur, target resources to where they are most needed. New York City's speed camera program complements the work of dedicated members of law enforcement, sending the message that unsafe driving is unacceptable at all times and places.



Changing Driver Behavior

Focusing Enforcement Efforts

Vision Zero Violations are prioritized to combat dangerous driving.



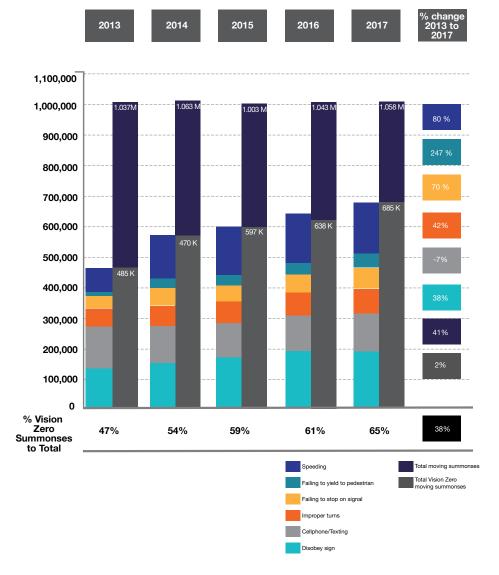
The foundation of NYPD's Vision Zero strategy is using enforcement to stop collisions before they happen. Speeding, failure to yield to pedestrians, cell phone use, disobeying signs, illegal turns, and failure to stop on signal are the primary causes of traffic injuries and fatalities. Known as the "Vision Zero violations," these infractions are prioritized to combat dangerous driving and prevent tragedies.

With an increased focus on the most hazardous behaviors, NYPD has developed new approaches for distributing enforcement resources more efficiently and is working to change the current motorist culture that too often ignores drivers' roles in creating dangerous conditions for motorists, pedestrians, and bicyclists. Through rigorous enforcement, NYPD is communicating to motorists that the City will not accept dangerous driving.

As part of its effort to crack down on dangerous driving, NYPD has strived to make the six Vision Zero violations a larger percentage of the total summons issued by the Department. The following chart illustrates the progress made from 2013, the year before Vision Zero began.



Sergeant Donald Schneider presenting on how to recognize drugged driving



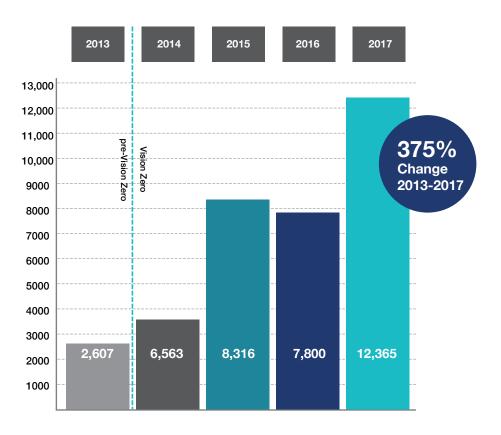
NYPD Moving Violations

In 2017, NYPD put greater focus on a smaller subset of the Vision Zero violations and prioritized enforcement around speeding, failing to yield to a pedestrian, using a cell phone, and red light violations. Greater focus on these violations reinforces the importance of these summonses and demonstrates to roadway users that enforcement will continue until regulations are followed. NYPD is looking to maximize the efforts of its personnel and their impact on making roadways safer.

Increasing TLC Safety Enforcement

In 2017, Taxi and Limousine Commission (TLC) field enforcement officers issued 59 percent more traffic safety summonses, including 41 percent more summonses for speeding and 31 percent more summonses for distracted driving, compared to the same period in 2016. Since 2013, prior to Vision Zero, TLC traffic safety enforcement has increased 375 percent.

Since TLC partnered with NYPD to increase LIDAR speed enforcement training, one-half of TLC enforcement officers have become certified in LIDAR detection, with all enforcement squads that work during daylight hours (when LIDAR use is possible) having trained personnel. TLC officers coordinate with NYPD precincts on each tour to respond to locations with for-hire vehicle speeding and traffic safety complaints.



Vision Zero Summonses by Calendar Year (TLC)



Installing Speed Cameras

Speeding is a leading cause of fatal crashes in New York City. Even a small difference in miles per hour drastically changes a pedestrian's odds of survival. In 2014, the City began piloting speed cameras in school zones. Evidence from the first two years of the automated speed enforcement program showed that cameras are very effective in reducing dangerous driving: Speeding during school hours at fixed camera locations dropped over 63 percent, and injuries at these locations decreased over 14 percent. In Summer 2017, the Department of Transportation (DOT) released its *Automated Speed Enforcement Program Report 2014-2016*, affirming that the consistent and predictable enforcement provided by these cameras leads to fewer violations over time.

The City's ability to operate speed cameras is currently limited to 140 school zones, with additional restrictions on the hours of operation and specific locations of the cameras by State law. Eighty-five percent of deaths and serious injuries happen at locations where, or during hours when, speed cameras are prohibited by law from operating. In order to bring this lifesaving intervention to more New Yorkers, City officials have joined with advocates, including Transportation Alternatives and Families for Safe Streets, to urge legislators to allow expansion and enhancement of this program. The City continues to support legislation that would authorize the placement of speed cameras on high-crash streets near schools, expand the number of school zones that can receive cameras, and extend the number of hours during which the cameras can operate.

Decline in Speeding During School Hours On Key Corridors (2017 Daily Average)

Midland Avenue	Atlantic Avenue	Park Avenue
FIRST DEC MONTH 2017	FIRST DEC MONTH 2017	FIRST DEC MONTH 2017
96 24	518 42	39 11
-75%	-92%	-72%
Ocean Parkway	Hillside Avenue	Grand Concourse
FIRST DEC MONTH 2017	FIRST DEC MONTH 2017	FIRST DEC MONTH 2017
432 135	532 107	460
-62%	-80%	-90%
Baychester Avenue	Union Tumpike	Flatbush Avenue
FIRST DEC MONTH 2017	FIRST DEC MONTH 2017	FIRST DEC MONTH 2017
216 56	590 89	506 61
-74%	-85%	-88%

Before/After Change In Crashes and Injuries In School Zones with Speed Cameras

(Before: 3 years prior to installation After: an average of the full years after installation)

CRASHES	Before Period, Citywide	After Period, Citywide*	Percent Change
Total Crashes	7,980	7,361	-7.8%
Crashes w/ Injuries	1,833	1,556	-15.1%
INJURIES			
Motor Vehicle Occupant	1,914	1,665	-13.0%
Pedestrian	541	415	-23.3%
Cyclist	142	132	-7.0%

* Average of the full years after installation, through December 2016

Employing Warnings as Educational Tools

Since the launch of Vision Zero, TLC has been reviewing and revising its enforcement strategies to ensure penalties are appropriate and to emphasize the important role education plays in promoting safety. In 2017, TLC developed a new approach for handling vehicle maintenance violations, such as broken tail lights, to improve compliance by prioritizing remediation of safety violations over penalties. Rather than issuing a fine, TLC now provides drivers with a notice of violation (NOV) that allows adequate time to remedy the issue and have the vehicle re-inspected by TLC without a financial penalty. Similarly, when TLC launched its red light camera enforcement program in 2014, it issued warnings before issuing penalties. Going forward, TLC will employ the same enforcement strategy for the new fatigued driving prevention rules. Warnings help ensure that drivers understand the rules and have an opportunity to change their behavior before being subjected to financial or more serious penalties.



Increasing Bike Lane Enforcement

Bicycle lanes are intended to increase the safety of bicyclists by providing them a roadway lane free from vehicular traffic. Motorists who park or stop in bike lanes place bicyclists at risk by forcing them to veer outside of the bike lanes, which can result in bicyclists being injured or killed.

To protect bicyclist safety, NYPD has escalated its enforcement efforts around vehicles obstructing bicycle lanes. In 2017, the Department cracked down on more bike lane violations, as seen in the chart below.



TLC receives consumer complaints from members of the public about TLClicensed vehicles stopped in bike lanes. TLC's Prosecution Division has pursued 1,179 such complaints made in 2017. Photos and other materials provided by the public serve as evidence, and most complaints result in successful prosecution by TLC to deter future misuse of bike lanes. Consumer complaints are a valuable complement to TLC and NYPD's field enforcement and TLC driver education efforts help keep bike lanes clear and streets safe for cyclists.

Bike Lane Violations

During 2017, TLC and NYPD collaborated to conduct 299 total enforcement operations against unlicensed commuter vans.

Combating Unlicensed and Unsafe Commuter Vans

With a focus on commuter van safety for both passengers and other street users, TLC collaborates with the NYPD to combat unlicensed and unsafe van operation in the city through joint enforcement operations. In June 2017, TLC and NYPD updated their enforcement strategies for common commuter van corridors in Brooklyn and Queens.

TLC conducted five surge operations with an entirely uniformed force and the TLC Mobile Command Post vehicle in Brooklyn, Queens and lower Manhattan. During surge operations, an average of 40 uniformed TLC officers patrol commuter van corridors, targeting specific van routes to proactively deter unlicensed activity. TLC also seizes the vehicles of repeat offenders of unlicensed operation, pending forfeiture, thus taking them off the street. TLC officers engage with TLC-licensed drivers, members of the public, and local NYPD precincts, reinforcing Vision Zero's goal of safe for-hire transportation service.

Through December 2017, TLC completed 299 van enforcement operations, 135 of which were with NYPD, and issued 37 percent more summonses for unlicensed activity in commuter van corridors compared to 2016. NYPD and TLC also worked together to seize 24 unlicensed commuter vans. In the past year, NYPD issued 941 parking summonses, 2,937 moving summonses, and 1,555 criminal summonses to unlicensed commuter van operators. In addition, NYPD put 103 unlicensed commuter vans out of service, and arrested 19 unlicensed commuter van drivers.

Unlicensed Commuter Van Enforcement	2017	2016	% Change
Total Enforcement Operations (TLC and TLC-NYPD)	299	194	54%
Total TLC Field Summonses	2,013	1,138	77%
Total NYPD Field Summonses	5,433	2,404	126%

Making Enforcement More Efficient

The Collision Investigation Squad conducts upwards of 400 investigations a year, bringing justice to victims and their families.

Expanding Criteria for Investigating Collisions

The Collision Investigation Squad (CIS) investigates collisions that result in lifethreatening or fatal injuries. The primary responsibility of CIS is to determine the causes of the collision and if there was any criminality involved. CIS detectives conduct upwards of 400 investigations a year.

CIS technicians reconstruct the collision scene by examining evidence, interviewing witnesses, locating and reviewing video, and using modern investigative techniques to bring justice to traffic victims and their families.

In 2017, NYPD expanded the criteria for what triggers a CIS investigation. These investigations now include incidents in which drivers leave the scene of the collision after causing pedestrians to suffer injuries rendering them unconscious. NYPD made this change, in part, to deter drivers from leaving the scene of a collision and to emphasize its commitment to holding traffic offenders accountable for their actions.

Dispatching Traffic Enforcement Agents

NYPD piloted a program in eight precincts to dispatch Traffic Enforcement Agents (TEAs) instead of uniformed police officers to vehicle collisions where there is only property damage (ones in which there is no suspected criminality and result in no injuries); the TEAs also prepare the police reports. The program aims to increase customer satisfaction by expediting NYPD response and allows uniformed personnel to focus on moving violation enforcement.

Review of the pilot found that the program did, in fact, result in the anticipated benefits. The mean response time for the TEAS was approximately four minutes faster than the patrol officers. In addition, the TEAs responded to 7,135 of these collisions, enabling patrol officers to concentrate their efforts on dangerous driving. Compared with 2016, 2017 showed a 7% (60,442 vs. 64,676) increase in Vision Zero summonses in the eight precincts in which TEAs were dispatched.



Streamlining Record Management

NYPD developed the Finest Online Records Management System (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 police reports that document vehicle collisions and traffic moving summonses. It standardizes the way this information is captured, stored, and delivered to downstream applications, providing capabilities for field-based reporting and electronic summonsing via mobile devices. It also allows for deeper and faster crash data analysis.

Expanding LIDAR Enforcement

Since the launch of Vision Zero, NYPD has stepped up its enforcement of speeding by upgrading the technology it uses to detect speeding vehicles. The Department now uses LIDAR guns, laser devices used for speed limit enforcement. LIDAR guns allow a police officer to measure the speed of an individual vehicle within a stream of traffic.

The Department has trained over 2,800 uniformed officers to use LIDAR guns and has purchased 525 LIDAR guns.



Tougher Laws Against Dangerous Driving

City agencies are working to change sentencing guidelines to better deter people from becoming repeat DWI offenders.

Predicate Felony Treatment

Currently, defendants charged with a Driving While Intoxicated (DWI) violation are screened by New York State Office of Alcoholism and Substance Abuse Services (OASAS) counselors to determine appropriate treatment to deter repeat violations. Despite this measure, one-third of DWI offenders drive while intoxicated again. Currently, a driver convicted of a second, fifth, or tenth DWI can avoid jail time completely because the defendant is always treated as a first time offender under the sentencing guidelines. There is no mandatory minimum jail sentence, allowing offenders to receive probation for each successive DWI conviction. To further deter people from becoming repeat DWI offenders, the City supports making felony DWIs for repeat offenders subject to Second Felony Offender sentencing guidelines. A defendant who endangers the lives of those on the street by drinking and driving would, on their second felony DWI, be subject to a minimum of one-and-a-half to three years in jail.

Drugged Driving

Over the past year, several high-profile cases of drivers endangering lives on crowded New York City streets while under the influence demonstrate the inadequacy of the current state of the law with regard to drugged drivers. The law requires that a defendant be impaired by a drug identified on a list which cannot be updated without the enactment of a law by the State Legislature and Governor. If the drug is not on the list or the prosecutor cannot prove the specific drug that caused the impairment of his condition, the charge cannot be sustained. This list excludes many newer drugs, and without the recovery of the drug, blood, or the statement of recent drug use, proving the impairment was caused by a drug on the list is nearly impossible. Drivers continue to operate motor vehicles while impaired by a mix of various drugs, leading many to pass out behind the wheel, sometimes with children in the backseat. District Attorneys support the elimination of reliance on a particular list and instead will take a more common-sense approach by suggesting legislation that prohibits driving while on any substance that impairs a driver's physical and mental ability to operate a motor vehicle.

Leaving the Scene of an Incident

For the last several years, the City has supported legislation to increase criminal penalties for drivers who flee crashes so that they mirror the penalties for impaired driving. Under current law, an impaired driver who stays at the scene of a fatal crash risks a higher penalty than a driver who leaves the scene, creating an unintended incentive for drivers who have been drinking to flee. In addition, when a driver flees the scene, any alcohol or drugs in the driver's body will continue to dissipate, making it difficult to establish, when and if the driver is apprehended, what alcohol or drug they were on while driving. Pedestrians also have no recourse for medical bills against a driver who flees the scene. While there have been past attempts to fix this problem, all measures have failed. For the last few years, legislation has been introduced in Albany for consideration, and the District Attorneys and the City remain committed to finding a solution that treats drivers who flee the scene the same way drivers who stay at the scene are treated.

Enforcing Administrative Code 19-190

In 2014, the New York City Council enacted Administrative Code 19-190. AC 19-190 enables police officers to take enforcement action against drivers who fail to yield the right of way and injure a pedestrian or bicyclist. Typically, enforcement under AC 19-190 is taken against drivers making turns at intersections without exercising due care, a leading cause of traffic fatalities involving pedestrians. Enforcement of this statute sends a message to drivers that exercising due care, especially at turns, is essential. In 2017, NYPD enforced 19-190 as follows:

19-190 Enforcement	2017	2016	+/-	%
Arrests	34	41	-7	-17.1%
ECB / OATH summons	2,221	1,968	253	+12.9%

One City, One Lab

The Office of the Chief Medical Examiner expanded its testing capabilities in 2017 to more comprehensively test blood and urine samples in DWI and Vehicular Homicide/Assault cases. Now, instead of NYPD sending a blood sample to one laboratory for alcohol testing, to another for drug testing, and to a third laboratory for urine testing, the Medical Examiner's Office performs all testing. This change means a faster turnaround time for the results, less financial strain on NYPD, and more accountability, leading to more effective prosecutions.





Fleets

Leading by Example through Smart Procurement and Practices

Professional drivers employed or regulated by government bodies have an obligation to drive safely on the job.

New York City's largest fleets include for-hire vehicles regulated by the Taxi and Limousine Commission (TLC), City-owned vehicles managed by the Department of Citywide Administrative Services (DCAS), and buses run by MTA New York City Transit. Together these fleets comprise over 268,000 drivers who are held to the highest safety standards, and in doing so set an example for other vehicle operators. Because of its urban environment and economy, New York City is a unique lab for innovation, full of opportunities to pilot new technologies and enact policies that advance Vision Zero. Mindful of recent deaths and serious injuries involving commercial waste vehicles, the Business Integrity Commission (BIC) has become a valuable partner in Vision Zero, exploring safety improvements for the trade waste industry they regulate. These agencies collaborate to study, implement, and reward best practices, so that the fleets that move New York City operate with safety and professionalism.





Recognizing TLC Safety Honor Roll Drivers

On October 11, 2017, TLC honored 420 drivers and 25 businesses for their impeccable safety records, representing the highest number of honorees in all four years of the event. One hundred thirty-eight were repeat honorees, and nine drivers have been honored all four years. Safety Honor Roll drivers have no crashes involving an injury or fatality, no moving violations, and no TLC rule violations for at least four years. Safety Honor Roll bases and fleets have the lowest shares of vehicles involved in serious collisions in their industry sectors over the past year.



Honoring DCAS Safe Driving Trainers

The primary instructors for DCAS' Safe Driving classes are City employees from DCAS, the Department of Parks & Recreation (DPR), the Department of Environmental Protection (DEP), the Department of Sanitation (DSNY), and the New York City Police Department (NYPD). These 55 City employees were honored for their efforts to train City employees at the fourth annual Vision Zero Fleets Safety Forum held in November. DCAS Commissioner Lisette Camilo, Chief Fleet Management Officer Keith Kerman, BIC Commissioner Dan Brownell, and DSNY Chief Stephen Harbin presented certificates and awards to the trainers.

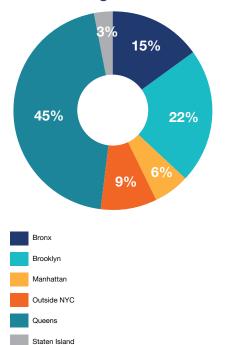
2.41 Million TRIPS COMPLETED BY HONOREES IN 2017



14 Years Average time Safety Honor Roll drivers have been driving The honoree with the most trips drove almost

22,000 trips in just the past three years.

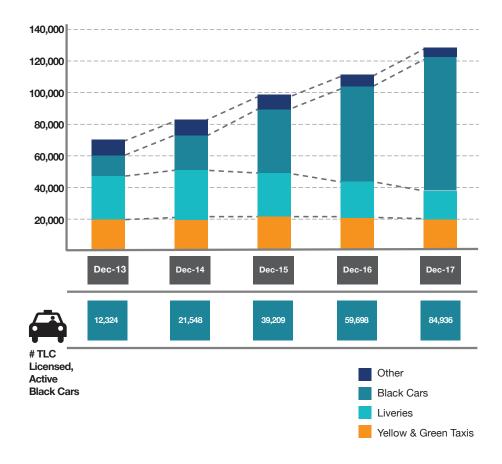
Percentage of Safety Honor Roll Drivers from each Borough



Supporting Fleet Drivers

Training for TLC License Applicants

Since the introduction of Vision Zero, the number of TLC-licensed drivers and vehicles has grown significantly each year. New York City has seen a 56 percent increase in active TLC-licensed drivers, from 115,000 to over 179,000, and an 83 percent increase in active TLC-licensed vehicles, from 69,000 to 126,000. The rise in TLC-licensed vehicles can largely be attributed to a boom in the black car sector, which grew 589 percent between December 2013 and December 2017. In addition, more drivers and vehicles on the road translated to more trips, with the number of for-hire trips increasing from 700,000 trips per day in 2015 to 900,000 trips per day in late 2017.



TLC Licensee Growth During Vision Zero



In 2016, TLC expanded the driver training course requirement to all drivers. All drivers licensed on or after March 20, 2015 must pass the course to be licensed by TLC to drive for-hire.

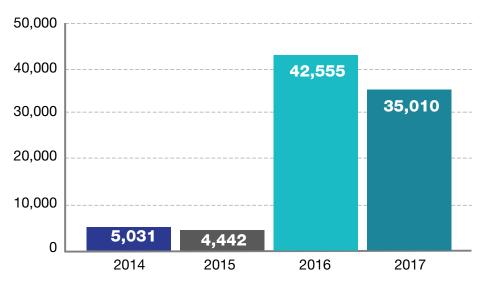
Over 35,000 drivers completed the TLC Driver Education course in 2017. This course is required for all TLC Driver License applicants before becoming licensed to drive taxis and FHVs. In early 2017, TLC updated the course's Vision Zero curriculum to include an expanded section on fatigued driving prevention, license penalties related to crashes, and more visual aids to demonstrate safe driving techniques.



Screenshot from TLC's film, *Drive Like Your Family Lives Here.*

Since 2015, TLC Driver License applicants have been required to watch "Drive Like Your Family Lives Here," a film produced by TLC, DOT, and Families for Safe Streets that underscores the importance of driving safely through the stories of victims' families. To build on the impact of this film, TLC is developing a safety training video, which will review the most common dangerous driving behaviors that lead to serious collisions and provide guidance on navigating challenging driving situations specific to urban and for-hire driving. Some of the scenarios covered include left turns, speeding, and sharing the road safely with bicyclists and pedestrians. The video is designed to complement and reinforce the existing Vision Zero curriculum for for-hire drivers. TLC will begin showing the new training video to licensees during their TLC Driver Education course in 2018.

Growth in Number of TLC-Licensed Drivers Who Have Completed TLC Driver Education



Safe Driving Education for MTA Bus Operators

Fleet operators considered increased training and quality preventive maintenance as the most important contributors to improving vehicle safety. MTA's bus division continues to train its professional bus operators on their role in Vision Zero. As of April 2017, over 12,400 bus operators, student bus operators, dispatchers, and managers have attended the second version of MTA's specially designed Vision Zero course. Various agencies from the Vision Zero Task Force attended as well.

The Vision Zero II course emphasized the discipline and responsibility professional bus operators must demonstrate to do their jobs safely and well. To enhance bus operators' decision making, video footage of real collisions was used as an instructional tool and was followed by group discussions on preventable measures to avoid collisions. Immediately following the wrap-up of Vision Zero II, MTA began Vision Zero III, with new content and an emphasis on leading indicators. The Vision Zero III curriculum highlights specific aspects of pedestrian safety and continues to emphasize the challenges of managing buses in a changing environment of unexpected pedestrian, cyclist, and motorist behavior, difficult road configurations, and unpredictable weather. MTA continues to work on new programs to enhance its training for new professional bus operators.

To help professional bus operators navigate the roads safely and confidently in any weather, MTA continues to conduct "Seasonal Challenges" campaigns, providing operators with handouts, posters and videos that review the most common challenges encountered in each season.

DCAS Defensive Driving Program

The City operates over 30,000 vehicles and equipment pieces on its streets and roads. With approximately 80,000 City employees authorized to drive for at least part of their job duties, City employees play a significant role in Vision Zero by driving safely and setting an example for other drivers on the road. As part of DCAS' commitment to improving driving behavior among City drivers, over 42,000 City authorized drivers have completed the City's Safe Driving Program. This course consists of curriculum from the DMV-approved in-class defensive driving program as well as a section on Vision Zero and specific City driving case studies. In 2017 DCAS expanded the program to include drivers from the NYC Housing Authority and the District Attorneys' Offices. In 2017, over 10,500 City drivers attended a defensive driving class. The City has also begun administering its first customer survey for City fleet operators during these classes. Over 20,000 fleet operators have participated in the fleet customer surveys, which address safety, acquisitions, sustainability, and service. The survey asks participants what equipment they consider most important to improving vehicle safety from a pre-selected list, and provides open space for their thoughts on the design and equipping of City vehicles as relates to safety. These surveys helped inform DCAS' Safe Fleet Transition Plan (SFTP).

Keeping Agency Policies Up to Date

Transitioning to a Safer Municipal Fleet

In May 2017, DCAS published the Safe Fleet Transition Plan (SFTP) in conjunction with the US DOT Volpe Center. According to SFTP, vehicles purchased in Fiscal 2018 and beyond must include certain base safety outfitting such as automatic braking, rear and side truck guards, backup cameras, and heated mirrors where applicable. The plan also outlines areas for future research and testing, such as testing new safe driving technologies with additional vendors. As part of the SFTP, the City received its first 450 light duty vehicles with automatic braking technology in Fiscal 2017.



BUCKLE UP! THE LIFE YOU SAVE WILL BE YOUR OWN. SEAT BELTS REDUCE CRASH-RELATED INJURIES AND DEATHS BY HALF

Updated NYC Fleet Management Manual

The NYC Fleet Management Manual was updated in 2017 to codify the Safe Fleet Transition Plan and refresh Vision Zero material. DCAS posted citywide fleet safety rules forms online in the City employee portal, where City drivers can review them, representing the first time the portal has been used for safety rules compliance. These materials include the driver's handbook, as well as a schedule of defensive driving classes and information on Vision Zero-related rules like the citywide speed limit and ban on hand-free cell phone use in City-owned vehicles. Agency-specific forms and guidelines will also be posted for review and acknowledgement.



Approved Fatigued Driving Prevention Rules

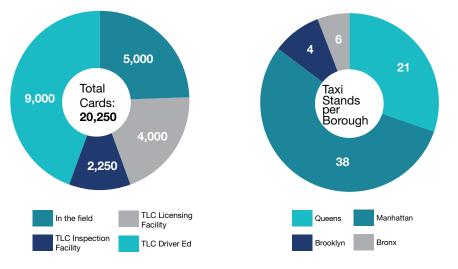


TLC approved the final version of its fatigued driving prevention rules in February 2017. These rules created daily and weekly driving limits to keep tired drivers off the road. Fatigued driving is dangerous for drivers, passengers, cyclists, and pedestrians because fatigue slows down a driver's ability to react and results in a higher risk of a crash. Throughout 2017 TLC began implementing the rules by requiring additional trip records from bases and will soon provide instructional warnings to drivers in violation of the rules.

In May 2017, TLC held Fatigue Outreach Week to educate drivers about the risks of driving while tired and to raise awareness about the new rules. TLC staff spoke to drivers and handed out postcards at airport holding lots and 69 taxi stands around the city. In addition, TLC sent emails to its over 179,000 licensed drivers, held meetings with driver groups, and discussed the rules at community events. TLC also included postcards in license renewal packages for drivers, totaling about 3,000 cards sent per week since June.

Fatigue Outreach Week: May 22nd - May 26th





Using Safe Driving Technology







Currently over 1,350 of NYC Fleet's vehicles use truck sideguards, representing the largest such program in the nation. Sideguards help to reduce the risk of fatality in crashes involving large trucks by preventing pedestrians and cyclists, and in some instances motorcyclists, from falling into the exposed space between the axles of trucks that have high ground clearance. In 2017, the City fleet installed sideguards on over 300 existing vehicles and received over 400 vehicles with sideguards already installed. The delivery of another 330 vehicles designed with sideguards. A study conducted by New York City and the Volpe Center, which is part of the federal DOT, found that the fatality rate for bicyclists and pedestrians colliding with the side of a truck decreased by 61 percent and by 20 percent, respectively, following a national sideguard requirement in the United Kingdom.

As of November 2017, 35 percent of the City's fleet was in compliance with Local Law 56 of 2015, which mandates that certain large City-owned vehicles have sideguards installed by the end of 2023. DCAS is ahead of schedule to complete this requirement. NYC Fleet and the Business Integrity Commission (BIC) are also working with the private waste hauling industry so that their vehicles are in compliance with Local Law 56 of 2015. In addition to leading the nation in the adoption of sideguards, NYC Fleet supports other cities' truck sideguard program initiatives.

Sideguard Installs by Calendar Year			
Year	2015	2016	2017
Number of Installs	238	371	727

Piloting Vehicle Safety Technology

The TLC Vehicle Safety Technology Pilot Program continued to grow in 2017. Throughout the two-year pilot, the number of participating companies testing different safety technologies increased to eight and the number of TLC-licensed vehicles involved rose to 2,690 licensees. Participants tested passive technology, such as camera systems and monitoring devices that track driver behavior, as well as active devices, such as driver alert and collision warning systems. TLC is currently evaluating the program and will release findings in early 2018.

In 2018, DCAS will upgrade the City's telematic technology, first introduced in 2014 as part of Vision Zero, to provide better real-time reporting and improved functionality. Telematic devices are a combination of expanded vehicle "black box" technologies with a methodology to collect and transmit large volumes of data. These devices have the ability to track information about vehicle use and location. Telematics are also used in the private sector to optimize fleet operations and allow for better routing.

The City also continues to evaluate devices to track speed, hard braking and hard acceleration. Having real-time information should have an impact on driving patterns, helping management to react to issues and focus training. It is also a leap forward for the City's ability to monitor its fleet and allow for a more immediate reaction to trends in the data that may be related to street conditions as well as unsafe driving.

Collaborating with DOT 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 2017, MTA collaborated with DOT on several projects that support Vision Zero, including bus stop relocations, pedestrian refuge islands, thoughtfully designed bus stops, and improved left turn treatments. MTA is currently working on improved bus designs to enhance the bus operator's view when making left turns.

Equipping MTA Buses with Vehicle Safety Technology

MTA has equipped 285 buses along several routes with a Pedestrian Turn Warning System, which sends an audible voice alert to pedestrians when a bus is making a left or right turn. The bus-based speaker system turns on automatically and alerts the pedestrian through a street and curbside speaker. The volume of announcements adjusts itself based on the level of noise outside. MTA has also equipped 145 buses along routes in Brooklyn and Manhattan with a Collision Warning System. This system 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, cyclists, or vehicles.



Collaborating to Keep Fleets Safe



DCAS Commissioner Lisette Camilo, DCAS Deputy Commissioner and the City's Chief Fleet Management Officer Keith Kerman, along with members of the Vision Zero Task Force cut the ribbon on the future home of the Fleet Office of Realtime Tracking.

Crash Reduction Action Meetings

Starting in the third quarter of 2017, DCAS began a series of Crash Reduction Action Meetings (CRAMs) with the City fleet agencies to review collision trends and strategies for continued safety improvements. NYCFleet will share best practices that other agencies employ as well as provide additional tools such as computer-based training or bulletins to mitigate specific collision trends.

Interagency Collision Review Panel

Drawing from the collaborative nature of Vision Zero, BIC is establishing an interagency collision review panel. After any crash involving a vehicle operated by a BIC-licensed or registered carting company that results in a fatality or serious injury, BIC will convene a review panel of representatives from BIC and other City agencies to examine the contributing factors that led to the crash. The goal is to extract lessons from tragic events in the industry for use in future policy and operational decisions.





Engagement

Connecting with New Yorkers Where They Live

The City is engaging directly with New Yorkers by clearly and consistently communicating the causes of fatal crashes and raising awareness about the consequences of high-risk driving choices.

Over the first four years of Vision Zero, data and research have provided the foundation for the engagement strategies to target neighborhoods with higher rates of severe crashes resulting in injury and death. Safety Educators, Street Team outreach specialists, NYPD 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 placed on members of the driving public. Communities, at locations where crashes occur, and in places where people are at higher risk of injury like schools, senior centers, and professional sports games.



Targeted Community Outreach

From their first stroller trip to their first driving lesson, students in New York City receive safety education beginning in Pre-K continuing until senior year.

Creating New Vision Zero Education for Schools

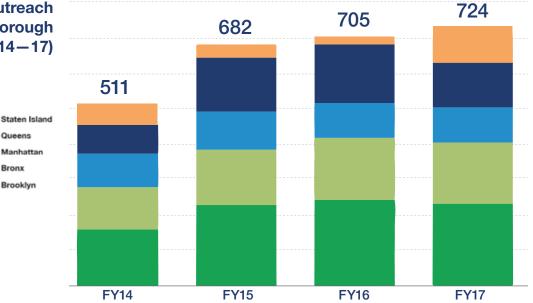
In Fall 2017, safety educators working with 4th through 6th graders debuted the "Word on the Street" curriculum, an interactive course that allows students to show what they know about navigating the traffic environment by foot, bike, and car. Between this program and the "Cross this Way" curriculum implemented by all City public schools, students in all boroughs will receive comprehensive safety education.



School Outreach by Year and Borough (FY14-17)

Bronx



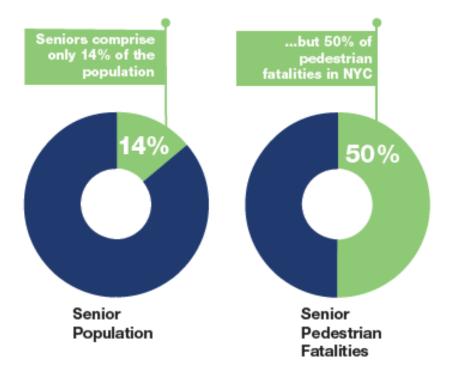


Expanding Street Teams to More Precincts

In 2017, NYC DOT and NYPD concentrated their Street Team efforts along high crash corridors, combining rigorous education with coordinated multiprecinct enforcement focused on speeding, failure to yield, and distracted driving. Street Teams also visited schools and senior centers to teach skills for safely navigating dense urban environments.

Engaging with Older New Yorkers in Their Communities

In New York City, people over the age of 65 comprise 14 percent of the population, but half of pedestrian fatalities on city streets. NYPD and NYC DOT collaborated to conduct outreach in senior centers and Naturally Occurring Retirement Community (NORC) areas. These gatherings gave seniors the opportunity to discuss their concerns about dangerous driving behaviors in their neighborhoods and set the stage for NYPD and DOT to make improvements. The Vision Zero Task Force worked closely with the Department for the Aging to ensure robust engagement with these vulnerable communities.







Establishing Transportation Outreach Unit

NYPD's Transportation Bureau leads the Department's Vision Zero efforts and is comprised of traffic experts tasked with promoting traffic safety.

Although the Department's traffic program is primarily enforcement driven, a multifaceted approach is necessary to effectively address the complex and worthy initiative of saving lives through Vision Zero. NYPD has devoted resources to continued and extensive community outreach through Vision Zero Street Teams, visits to senior citizen centers, schools, community centers, and other key locations. In order to facilitate these efforts, the Transportation Bureau established its own community outreach component in Summer 2017 with a group of Police Officers and Traffic Enforcement Agents. These members of the Police Department are now tasked with a variety of responsibilities to advance Vision Zero, including participating in Vision Zero Street Teams, conducting outreach to business owners along corridors with hazardous parking conditions, and speaking to community groups about collision-prone locations, parking conditions, dangerous pedestrian crossings, and pending safety-related legislation. They also aid the family members of people who have died in collisions through the complex processes that follow these crashes.

Flashing yellow arrows protect pedestrians and make turns safer.



NYPD and DOT partnered at sites where DOT installed new enhanced crossing

Enhanced Crossing Outreach

treatments to explain the benefits to pedestrians and the legal obligations of drivers. These locations where a crosswalk and pedestrian signage are installed obligate drivers to yield when pedestrians are present in them. Street Team members communicated with drivers at intersections near these quieter locations, and NYPD stopped both drivers and pedestrians at the enhanced locations to emphasize the importance of awareness. NYC DOT's strategic communications unit created a short shareable video to further explain the new crossing treatments and encourage compliance.

Partnering with Community Institutions to Leverage Bike Share

The Department of Health and Mental Hygiene (DOHMH) is part of the NYC Better Bike Share Partnership, a community-driven collaboration spearheaded by Bedford-Stuyvesant Restoration Corporation to develop inclusive programs and policies to promote equity through bike share. One such program is Prescribe-a-Bike, through which healthcare providers at clinical partner sites Interfaith Medical Center and Woodhull Hospital provide 150 participants with subsidized Citi Bike memberships, as well as helmets and Street Skills classes to encourage physical activity and promote active transportation. As of October 31, 88 participants have enrolled in the program.

As part of Citi Bike for Youth, DOHMH is piloting a program in Bedford-Stuyvesant to give students age 16 and up the opportunity to use Citi Bike to get to and from school. As of October 2017, DOHMH partnered with one school and is looking to expand the Citi Bike to School program to a second school in Spring 2018.





Communicating with New Yorkers

Hosting Know Your Limit Events

NYPD's Know Your Limit program targets sites where New Yorkers are likely to be drinking alcohol, such as sporting arenas, concert venues, and neighborhoods with high concentrations of bars. Members of the NYPD Highway Patrol administer breathalyzer tests to pedestrians, demonstrating how easy it is to go over the legal limit for impaired or drunk driving (.05 to .08 Blood Alcohol Content or BAC). Over 25 events were held during the warmer months of 2017, bringing new awareness to the public about the dangers of overdrinking.



Driving isn't easy, but saving a life is.



In October 2017, the City unveiled a new Vision Zero media campaign, "Signs." The phrase "saving a life is easy" was the most resonant, clear, and believable.

1 in 4 pedestrian deaths and injuries involve turning vehicles. Turn slowly. Your choices matter. VISION ZERO

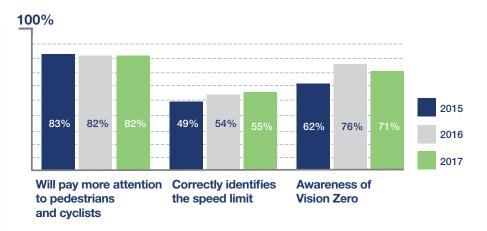
Targeted Ad Placement

The "Your Choices Matter" Vision Zero advertising campaign was installed in outdoor locations that aligned with Borough Pedestrian Safety Action Plans. The campaign's radio ads aired during autumn evening hours, aligning with analysis of the seasonality and timing of pedestrian crashes. The use of digital ads allowed for significant geographic, demographic, and behavioral targeting.

Researching Effectiveness of Media Campaigns

One of the Vision Zero Action Plan initiatives is the implementation of a high-quality ad campaign aimed at reducing speeding, failure to yield, and other forms of reckless driving. In order to ascertain the effectiveness of the campaigns, City crash data and market research findings are used throughout the development of a campaign to create the message, target the media deployment, and measure impact.

The research objectives of this project were to build upon existing messaging to further capture New Yorkers' attention for the program, to optimize the campaign to capture the appropriate tone and messaging across audiences, and to conduct qualitative research among key audiences to explore behaviors, themes, tone, and facts. Key findings from the research were that the ad campaign "Signs" outperformed other campaigns across nearly every metric, including affinity and encouraging speed limit and turning compliance, and that the phrase "Saving a life is easy" resonated most among test audiences.

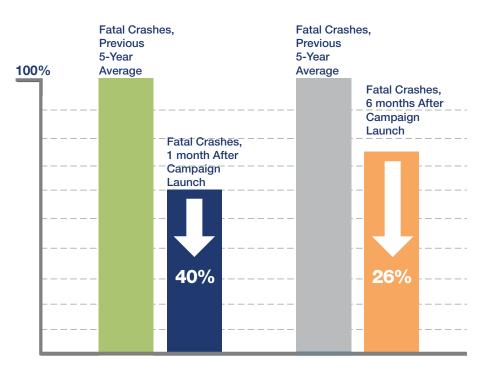




Continuing Dusk Initiatives

In October 2016, the City launched the Dusk and Darkness campaign to alert New Yorkers of the safety risks that come with shorter days and earlier sunsets. Vision Zero team members conducted outreach across the city, distributing over 1 million postcards to the public on the street and to TLC-licensed drivers at their bases and garages. NYPD focused its enforcement of dangerous driving violations during dusk hours, and radio and television ads highlighted the risks of driving with reduced visibility. One month after the communication and enforcement strategy was announced, there was a 40 percent reduction in fatal crashes from the previous five-year average. Over six months, through March 2017, there was a 26 percent reduction in fatal crashes. In the campaign's second year, which began October 2017, all agencies repeated these proven enforcement and outreach tactics in order to continue the progress. Pedestrian deaths in November and December 2017 continued to fall.





New York Sports Teams Support Vision Zero





35.8 Million media impressions. In 2017, Vision Zero teamed up with professional sports teams across the city to communicate to New Yorkers about the importance of driving safely. Vision Zero outreach events were held during Nets, Islanders, Mets, Staten Island Yankees, and Brooklyn Cyclones games, while advertisements in some stadiums gave baseball fans a chance to hear about Vision Zero in both English and Spanish before the first pitch.



The Vision Zero team greets receptive NY Islanders fans with targeted outreach material.





NETS

(B)

109,000 Fans

121,000 Fans



119,000 Fans



62,000 Fans



15,000 Fans

Working with Professionals



Partnering with Industry Experts to Develop Trade Waste Safety Materials



In 2017, BIC joined the Vision Zero Task Force to leverage its role as a regulator to make the trade waste industry safer, protect workers and the public, and prevent tragedies on the road. Together, BIC and the Department of Sanitation (DSNY) lead the Commercial Waste Zone Collection Safety Working Group, which is comprised of members of the trade waste industry, union leaders, and environmental and street safety advocates.

The Working Group is in the process of creating a universal safety manual for private carting companies in the city to use as a guide for developing their own safety programs. Contents of the manual include a checklist of tasks drivers should perform in their pre-trip and post-trip truck inspections, as well as a complete list of the safety equipment all trade waste trucks, drivers, and helpers should have. BIC and DSNY anticipate releasing the final safety manual in February 2018.

In addition, the Working Group has begun to develop a video training curriculum using the guidelines outlined in the safety manual. Because employees in the trade waste industry typically work overnight and may not be able to attend a scheduled daytime training, video training is an essential tool. When the curriculum is complete, it will be made available to all trade waste companies.



Establishing Trade Waste Safety Symposia

In 2015, BIC reestablished the Trade Waste Advisory Board (TWAB), comprised of senior members of BIC staff and leaders from multiple trade waste companies and organizations. TWAB meets monthly to discuss industry topics and issues concerning BIC regulation.

Industry safety has always been a major part of TWAB discussions. Early on, TWAB decided to regularly organize safety symposia with the goal of engaging trade waste company owners, managers, drivers, and helpers in conversations about critical industry safety issues. The symposia have become semi-annual events attended by many members of the trade waste industry, and have addressed topics ranging from distracted driving to improving the safety of drivers and helpers.

At the most recent symposium, attendees joined panelists in evaluating case studies of past crashes involving trade waste trucks. The group discussed what could have been done differently in each case to prevent similar tragedies in the future.







Hosting Research on the Road, Year Two

In 2016, the DOHMH, recognizing the immense knowledge of the latest traffic safety initiatives within New York City's academic and medical research communities and their interest in collaborating with City government on evidence-based projects, coordinated the development of Priority Topics for Vision Zero Research and Evaluation. DOHMH also co-facilitated the Research on the Road event, which brought together more than 40 external researchers to inspire collaboration and coordination around Vision Zero priority research questions. In November 2017, Vision Zero and the Department of Design and Construction's Town+Gown initiative hosted a follow-up event, Research on the Road, Part II, to share status updates and promote further collaboration. Presentations covered topics ranging from commercial cyclist injuries and TLC-licensed driver safety achievements to the role of fleet vehicles in traffic safety.

Vision Zero City agencies continue to collaborate with external researchers and encourage projects that help address priority topics for research and evaluation.

Conducting Outreach to TLC-Licensed Drivers

In July 2017, TLC held its 500th Vision Zero driver outreach meeting. The landmark visit was hosted by La Nueva Quisqueya Car Service in Jamaica, Queens. Held at licensed for-hire vehicle bases and taxi garages throughout the city, driver outreach meetings highlight important safety information, including road designs like protected bike lanes, high-risk driving behaviors that can lead to crashes, and the crucial role that professional drivers play in promoting a culture of safe driving. Since 2014, TLC has held a total of 512 driver outreach meetings.

TLC held two focus group discussions, one with Safety Honor Roll drivers and one with managers of Honor Roll bases and fleets, in late 2017. The goal of these discussions was to learn how the safest drivers and businesses maintain their distinguished safety records, how bases and fleets incentivize safe driving, and what insights they have for communicating the importance of safety to their peers.



Safety Where You Live





Each year, Vision Zero sponsors hundreds of events in dozens of neighborhoods throughout New York City. In addition to work in over 650 schools served by DOT and NYPD each year, agencies involved in the Vision Task Force distribute information and equipment to hospitals, community centers, afterschool programs and senior centers. We choose our work sites based on locations where a disproportionate amount of crashes have happened and where we are also concentrating our engineering and enforcement efforts.

From April to November, members of our Vision Zero Street Team are out in neighborhoods at crash-prone locations to educate drivers and other street users about the importance of safety right where they live – and make drivers aware that anywhere they might travel is a place where New Yorkers live and expect safe streets. The DOT Safety Education and Outreach team holds dozens of free helmet fitting events, where over 195,000 helmets have been distributed to New Yorkers in every borough and in many neighborhoods. Delivery cyclists can receive free safety training and equipment at our Delivery Cyclist Forums. Free car seats are distributed to families in all five boroughs and over 250 free one-on-one car seat fittings are given every year to ensure that New York City children are seated properly in vehicles.



Vision Zero Year 5

New Initiatives

Department of Transportation	 Intensify street safety improvements in areas with high concentrations of senior citizens and senior pedestrian injuries Implement Bicycle Priority Districts to increase lane- mileage of bike lanes in areas with disproportionate KSIs relative to their infrastructure Examine locations where pedestrians are killed on or near highways. 	 Update Borough Pedestrian Safety Action Plan priority maps based on analysis of recent KSI data Convene a working group to plan a Vision Zero-focused driver education program for under-25s. Use data analysis to proactively identify intersections at which new traffic signals are likely warranted.
New York Police Department	 Expand outreach and enforcement program for intercity buses, charter buses, and commercial trucks Explore ways to increase the role of the neighborhood policing program into traffic strategy Evaluate and improve utilization of AC 19-190 	 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 Roll out NYPD Transportation Bureau Community Outreach Unit
Department of Citywide Administrative Services	 Activate a Fleet Office of Real Time Tracking (FORT) to track the safety and utilization of City fleet units Implement the first formal 	 Start posting stickers on City vehicles that encourage the public to call 311 if they see unsafe or problematic driving Expand current in-person
	 investments in new safety equipment as part of the Safe Fleet Transition Plan Centralize administration of License Event Notification System through DCAS 	training initiative under Vision Zero to include online and interactive virtual training.

 Develop Vision Zero driver training video for TLC licensees and integrate into TLC driver education 	 Collaborate with advocates and large app-based bases on passenger and licensee outreach campaigns
 Offer licensees safety retraining in lieu of standard fines for certain moving violations 	 Coordinate quarterly safety outreach campaigns to professional drivers
 Enhance TLC field enforcement training to support Vision Zero efforts 	
 Expand Prescribe-a-Bike pilot program to a second clinical partner 	 Support equity-focused analyses of traffic-related data and dissemination of findings
 Expand data partnerships to enhance surveillance of traffic-related fatalities and injuries and to further identify populations at risk 	
 Educate school children about street safety around private garbage trucks 	 Conduct outreach to workers in the trade waste industry
 Establish interagency collision review panel to review crashes involving a trade waste truck that resulted in a death or serious injury 	
	 training video for TLC licensees and integrate into TLC driver education Offer licensees safety retraining in lieu of standard fines for certain moving violations Enhance TLC field enforcement training to support Vision Zero efforts Expand Prescribe-a-Bike pilot program to a second clinical partner Expand data partnerships to enhance surveillance of traffic-related fatalities and injuries and to further identify populations at risk Educate school children about street safety around private garbage trucks Establish interagency collision review panel to review crashes involving a trade waste truck that resulted in a death or

Appendix

Year One

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 im- provements	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

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, intersec- tions, and areas	Complete and Ongoing
2.12	DOT	Expand a bicycle network that improves safety for all road users (including at least 5 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	In Progress
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
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 sub- stantially 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 regis- tration and the prohibition of dangerous and stunt behavior of motor- cyclists	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	In Progress
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 effective- ness	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

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	In Progress
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

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	In progress
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	In progress
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	In progress
4.16	DCAS	Pilot real-time speed and safety tracking	Complete
4.17	DCAS	Enhance and expand defensive driving training	In progress
4.18	TLC	Implement new fatigued driving prevention rules and educate drivers on framework and fatigue risks	In progress
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	In progress
4.22	DOHMH	Disseminate findings from data set linking collision and hospitalization data	In progress
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

Glossary

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.

Arterial Slow Zones

A program that uses a combination of a lower speed limit, signal timing changes, distinctive signs, and increased enforcement to improve safety on some of New York City's highest-crash corridors.

CANceiver

A device mounted in a vehicle that measures the vehicle speed, acceleration, and hard braking events.

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.

Enhanced Crossing

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

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.

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 Slow Zone

A community based program that reduces the speed limit to 20 MPH in a select neighborhood area with a combination of markings, signage and speed humps. Slow Zones are selected through a competitive application process, and are meant to reduce speeds and lower the incidence and severity of crashes in New York City's residential areas.

NORC

An abbreviation for "naturally occurring retirement community," a term used to describe an area that was not planned as housing for senior citizens, but which has a large proportion of older people living there. In New York City, a NORC must have at least 500 residents aged 60 or older, or at least 250 seniors and 45 percent of housing units containing a head of household who is at least 60 years old. Many NORCs offer programs and support services specifically designed for the needs of older New Yorkers.

Pedestrian Safety Island

A raised 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.

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 the Business Integrity Commission (BIC).

TrafficStat

Weekly traffic meetings held by NYPD at police headquarters to review motor vehicle, bicyclist, and pedestrian crash data.

Truck Sideguards

Protective panels added to trucks that prevent pedestrians, cyclists, and smaller motor vehicles from rolling or falling underneath the side body of the truck.

Vision Zero View

An interactive map that helps Vision Zero agencies apply a data-driven approach to enforcement, focusing on improvement in the areas that are vulnerable to injuries and crashes. The map aggregates years of fatality and injury data, as well as displays a variety of other metrics, including injuries and fatalities, speed humps, LPIs, slow zones, town hall meetings, and schools with safety outreach.

Volpe

A think tank at the US Department of Transportation that DCAS has partnered with to study truck design, including the installation of truck sideguards.

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-scool.pdf

TLC Safety Honor Roll Website

http://www.nyc.gov/html/tlc/html/industry/tlc_safety_honor_roll.shtml

TLC "Drive Like Your Family Lives Here" Film

https://www.youtube.com/watch?v=OAnSw3nzj0U

TLC Projects, Rules, Materials http://www.nyc.gov/html/tlc/html/industry/vision_zero_tlc.shtml

TrafficStat https://trafficstat.nypdonline.org/

NYPD Traffic Summonses Report

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

Vision Zero Task Force

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Vision Zero Task Force

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Taxi & Limousine Commission





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Crashes are preventable. Together, we can save lives.

