
Case Study A.5. New York City's Speeding Solutions Toolkit—New York City, New York, USA

Key Successes

New York City's speed management toolkit uses a variety of approaches, including speed limit reduction, school zone automated enforcement, police enforcement, installation of speed humps and speed cushions, reduced vehicular travel lane widths, intersection turn calming, and community outreach. New York City's efforts to reduce speeds and improve safety resulted in the following outcomes:

- Speeding at fixed camera locations in school zones has dropped 72 percent.
- Crashes with injuries, considering all road users, decreased by 8 percent on speed camera corridors in school zones.
- Injuries resulting from bicycle and pedestrian crashes with children decreased by 20 percent on speed camera corridors in school zones.
- Injuries at speed-hump locations decreased by 9 percent.
- Injuries at speed-cushion locations decreased by 17 percent.
- Pedestrian fatalities and serious injuries decreased by 28 percent after road diet projects.
- Pedestrian fatalities and serious injuries decreased by 33 percent after intersection turn calming improvements.

The Safe System Approach Highlights

- **Death/serious injury is unacceptable:** The city adopted Vision Zero in 2014.
- **Humans make mistakes/humans are vulnerable:** The city introduced speed reduction measures to reduce impact forces of a crash.
- **Responsibility is shared:** The effort entailed collaboration between New York City departments and local agencies and organizations.
- **Safety is proactive:** The approach enacted a citywide speed limit reduction.
- **Redundancy is crucial:** Engineering, enforcement, and education measures were adopted to reduce vehicular speeds.

Background

New York City adopted a Vision Zero policy in 2014, with a collaborative action plan involving the City Hall, Police Department, Department of Transportation, Taxi and Limousine Commission, Department of Citywide Administrative Services, and Department of Health and Mental Hygiene.¹ At the time, road crashes in New York City resulted in approximately 250 fatalities and 4,000 serious injuries each year, and 70 percent of pedestrian fatalities involved driver behavior, such as inattention, speeding, and failure to yield. As a result, speed management was identified as a focus area for the city's Vision Zero efforts, and a toolkit of speeding solutions was implemented to improve safety.

¹ City of New York. (2014). *Vision Zero Action Plan*. Retrieved from <https://www.nyc.gov/html/visionzero/pdf/nyc-vision-zero-action-plan.pdf>.

Implementation

New York City's Speeding Solutions Toolkit uses a variety of approaches, including speed cameras, installation of speed bumps, focused enforcement, signal reprogramming, reduced speed limits, and street redesigns.

- **Speed limits:** In 2014, New York City Department of Transportation (NYC DOT) reduced the citywide default speed limit to 25 mph and installed more than 5,000 new speed limit signs in combination with camera-based speed enforcement (**Figure 10**). Further, NYC DOT reduced the speed limit by 5 mph on more than 70 miles of arterial corridors.
- **School zone automated enforcement:** In 2013, New York State enacted Section 1180-b of New York State's Vehicle and Traffic Law (VTL), which allowed New York City the authority to pilot an automated speed enforcement program in 20 school speed zones. New York City has since then enacted legislation to expand the use of automated enforcement and currently has speed cameras installed in 750 school speed zones. Camera installation is prioritized at locations with the highest incidence of speeding and serious crashes involving pedestrians. State law prohibits New York City from using the speed camera program to issue violations for speeding unless it is observed within a quarter-mile radius of a school building between the hours of 6 AM and 10 PM on a weekday.
- **Police enforcement:** Traditional speeding enforcement is also a tool to reduce vehicular travel speeds in New York City.
- **Speed humps and cushions:** New York City installed almost 2,200 speed humps and 40 speed cushions between 2014 and 2020.



Source: City of New York.

Figure 10. Speed limit sign used in combination with automated enforcement.

- **Street Improvement Projects (SIP) program:** New York City's SIP program prioritizes safety improvements at locations with high rates of serious pedestrian injuries and fatalities. Some of the program countermeasures are related to speed reduction, such as roadway redesign and turn calming (**Figure 11**). Roadway redesign is conducted by reducing vehicular travel lane width or converting a vehicular lane to use for pedestrians and cyclists. Turn calming is implemented by adding markings, plastic bollards, and/or rubber speed bumps that slow and control vehicular turns.

Before



After



Source: NYC DOT.

Figure 11. Lincoln Center Bowtie Street improvements included reduced lane width and turn calming.

- **Community outreach:** Along the most crash prone corridors in New York City, the New York City Police Department (NYPD) and NYC DOT Street Teams combined education and enforcement. The NYC DOT Street Teams inform a specific community about safety and Vision Zero efforts while increased enforcement of traffic violations is conducted by NYPD.
- **Education:** NYC DOT public education campaigns have a particular emphasis on speeding and are disseminated through television, radio, billboards, and bus stop advertisements.

Outcomes

A before-after analysis was conducted to evaluate speeding and safety outcomes at fixed school zone camera locations in New York City between 2014 and 2020.² The study found that speeding at fixed school zone camera locations dropped 72 percent. Further, the analysis showed a 3 percent reduction in total crashes and an 8 percent reduction in crashes with injuries, considering all road users. The study also showed that there was an approximately 20 percent reduction in injuries resulting from bicycle and pedestrian crashes with children.

Safety outcomes from installing speed humps and speed cushions were also investigated. A before-after analysis in New York City showed a 9 percent reduction in injuries at 1,637 speed hump locations (between 2008 and 2015) and a 17 percent reduction in injuries at 9 speed cushion locations (between 2017 and 2021).³

NYC DOT employed a before-after injury analysis comparing the average year of crash data before SIP treatment installation to the average year of crash data after installation, with a focus on pedestrian fatalities and injuries.⁴ The safety outcomes for speeding-related treatments are as follows:

² City of New York (2020). *New York City Automated Speed Enforcement Program: 2014-2020 Report*. Retrieved from <https://www1.nyc.gov/html/dot/downloads/pdf/speed-camera-report.pdf>.

³ Information provided by the New York City Department of Transportation for this case study.

⁴ Ibid.

- Road diets: 28 road segments (29.12 miles) were evaluated and demonstrated a 28 percent reduction in pedestrian fatalities and serious injuries.
- Turn calming: The evaluation of 107 intersections before and after turn-calming treatments showed a 33 percent reduction in pedestrian fatalities and serious injuries.

Additional Information

From 2014 to 2020 (fiscal year), the speed camera program in New York City school zones had \$155,779,314 in operating costs and \$94,588,548 in capital costs. For more information regarding New York City's speed management efforts, contact Rob Viola, Director of Safety Policy and Research at the NYC Department of Transportation, at RViola@dot.nyc.gov.