



Serious Injury Response, Tracking & Analysis Program (SIRTA)

Quarterly Report - Q1 2023 - NYC Department of Transportation

Background:

SIRTA is a program at the New York City Department of Transportation (NYC DOT) that investigates, analyzes and reports on all serious vehicular crashes, reviews street design, infrastructure and driver behavior at each crash location, and makes recommendations for safety maximizing changes to street design or infrastructure. NYC DOT must post on its website a quarterly report regarding each SIRTA investigation completed during the preceding three month period, ending thirty days prior. The SIRTA program was created by Local Law 49 of 2021 and is detailed in Administrative Code §19-182.3.

As part of these investigations, every location with a traffic fatality or critical injury is visited by both NYC DOT and the New York Police Department (NYPD). NYC DOT reviews site conditions both to identify immediate issues (e.g. downed sign, broken traffic signal, etc.) and to help inform the further investigation. The NYPD Collision Investigation Squad (CIS) investigates to determine any criminal wrongdoing.

NYC DOT also targets its efforts to reduce fatal and severe injury crashes with the [Vision Zero Borough Pedestrian Safety Action Plans](#). These plans pinpoint the conditions and characteristics of pedestrian fatalities and severe injuries; they also identify corridors, intersections, and areas that disproportionately account for pedestrian fatalities and severe injuries, prioritizing them for safety interventions. Finally, these plans recommend a series of actions that intend to alter the physical and behavioral conditions on city streets that lead to pedestrian fatality and injury. These action plans are based on multiple years of data, and help ensure that NYC DOT's street redesign work is proactively addressing the most dangerous locations citywide.

Nothing contained in this report shall be construed to inhibit or interfere with the ability of the New York Police Department to pursue criminal investigations, or as otherwise conflicting with any obligation under the vehicle and traffic law regarding the investigation of vehicle crashes. Furthermore, nothing required to be reported shall be reported in a manner that would reveal the identity of a person or persons involved in a serious vehicular crash.

Per the law, each report shall include, but need not be limited to, the following:

1. The total number of investigations completed
2. All evidence and data collected pursuant to each investigation
3. Determinations as to fault, including any potential criminal wrongdoing
4. Any factors that may have contributed to each crash, or increased or mitigated the severity of each such crash and
5. Whether changes to street design or improvements to infrastructure could reduce the risk of subsequent serious vehicular crashes, at each crash location or other similar locations, and a recommendation as to any such changes or improvements that should be made



Summary Data (01/01/2023 – 03/31/2023)

1. Total Number of Investigations Completed

622 investigations were completed by the SIRTA program

- 366 locations did not have any significant history of similar crashes. DOT will address specific location concerns (e.g. refurbishment of markings and signage) as needed
- 44 locations have ongoing studies for enhancements or have had recent installation of new safety features (e.g. new Traffic Signal, Speed Reducer, Turn Calming, Leading Pedestrian Interval, Street Improvement Project, etc.)
- 212 completed via in-depth investigation

Note: some crash investigations are still in process and will be included in future reports once completed.

2. Crash Location Evidence and Data

All evidence and data collected pursuant to each investigation (535 locations):

- **DOT analyzed 628 serious injuries (via crash analysis, study and project analysis & in-depth investigation by the SIRTA team). This includes:**
 - 51 fatalities
 - 577 severe injuries
- 535 unique crash locations (some locations experienced more than one serious injury)
- DOT identified 0 high crash locations with similar street design or infrastructure to other serious injury locations from the current quarter, which are also investigated as part of this program and included in the numbers in this report

Note: All crash data below is sourced from MV-104 crash reports stored in NYPD's FORMS database. This data is collected by NYPD. To determine which crashes resulted in "A" injuries (severe injuries) as categorized by New York State Department of Motor Vehicles (NYS DMV), NYC DOT applied the NYS DMV severity formula to the NYPD crash data to the extent the data is available and correct in FORMS. The NYS DMV data with crash severity typically takes more than one year to become available, and is based on applying the same formula to the same NYPD MV-104 crash reports.



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Borough	Crash Locations %	Crash Locations
Bronx	16.5	88
Brooklyn	34.4	184
Manhattan	19.6	105
Queens	23.2	124
Staten Island	6.5	35
Citywide	100	535

Travel Mode*	Crash Location %	Crash Locations
Pedestrian	37.0	198
Bicyclist	11.4	61
MVO	47.5	254
Other Motorized	7.9	42
All	100	535

**A small number of locations have serious injuries of multiple modes; as a result, the locations broken down by mode may sum to over the total crash locations number.*

Collision Type*	Crash Locations %	Crash Locations
Pedestrian From Straight Vehicle Action	19.1	102
Other**	13.3	71
Pedestrian From Turning Vehicle Action	12.2	65
Side Swipe	9.7	52
Rear End	7.7	41
Right Angle	7.3	39
Bicyclist From Straight Vehicle Action	5.8	31
Head On	5.8	31
Pedestrian From Other Vehicle Action	4.7	25
Non-Mv	4.3	23
Left Turn	4.1	22
Straight	4.1	22
Bicyclist From Turning Vehicle Action	2.4	13
Right Turn	1.9	10
Bicyclist From Other Vehicle Action	1.1	6
Turning	0.8	4
All	100	535

**A small number of locations have serious injuries of multiple collision types; as a result, the locations broken down by collision type may sum to over the total crash locations number.*

***Collision Type is "Other" if the responding police officer selected "Other" or left this field blank.*



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Roadway Location	Crash Location %	Crash Locations
Intersection	69.7	373
Midblock	21.7	116
Highway	7.1	38
Bridge	1.5	8
All	100.0	535

Time Period*	Crash Location %	Crash Locations
AM Peak (6AM-10AM)	14.8	79
Midday (10AM – 4PM)	26.5	142
PM Peak (4PM-7PM)	19.6	105
Evening (7-PM-10PM)	15.7	84
Overnight (10PM-6AM)	25.1	134
All	100.0	535

**A small number of locations have serious injuries at multiple time buckets; as a result, the locations broken down by time may sum to over the total crash locations number.*

Traffic Control*	Crash Location %	Crash Locations
Traffic Signal	46.9	251
None**	45.2	242
Stop Sign	6.2	33
Other	2.2	12
All	100	535

**A small number of locations have serious injuries ascribed to multiple traffic controls; as a result, the locations broken down by control may sum to over the total crash locations number.*

***Includes mid-block, intersection, highway and bridge locations*



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The pre-crash actions detailed below are drawn from crashes that involved at least one pedestrian severe injury or fatality.

Pedestrian Action	Pedestrian Victims %	Pedestrian Victims
Crossing With Signal	34.0	69
Crossing, No Signal, Or Crosswalk	14.8	30
Other Actions In Roadway	12.3	25
Unknown	9.9	20
Crossing Against Signal	9.9	20
Crossing, No Signal, Marked Crosswalk	3.9	8
Not In Roadway	3.9	8
Does Not Apply	3.5	7
Crossing No Signal Or Crosswalk	1.5	3
Emerging From In Front Of/Behind Parked Vehicle	1.0	2
Riding/Walking Along Highway With Traffic	1.0	2
Working In Roadway	1.0	2
Getting On/Off Vehicle Other Than School Bus	1.0	2
Crossing No Signal Marked Crosswalk	1.0	2
Playing In Roadway	0.5	1
Riding/Walking/Skating With Traffic	0.5	1



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3. Fault Determinations:

Violations may be issued at the time of the crash by the responding NYPD officer. However, NYPD does not issue violations at the time of the crash for every crash. For more information on determinations as to fault, including any potential criminal wrongdoing, please contact [NYPD](#).

Violations Issued by NYPD At Time of Crash*	Vehicles
Other	45
Right of Way/Failure to Yield and Exercise Due Care	36
Unlicensed Operator	12
DWI	12
No Insurance	9
Aggravated Unlicensed Operator	8
No Registration	1

** Right of Way/Failure to Yield and Exercise Due Care, DWI, Unlicensed Operator, Aggravated Unlicensed Operator, No Insurance and No Registration represent the top traffic violations written by NYPD at the time of the crash. The Other category contains a wide variety of less common violations, as recorded by NYPD on the crash report.*



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4. Factors:

Vehicle Contributing Factors are entered by the responding NYPD officer. Factors are not identified for every crash and there may be multiple factors entered for a single crash.

Vehicle Contributing Factors	Locations %	Locations
Driver Inattention/Distracted	32.7	175
Failure To Yield Right-Of-Way	19.1	102
Unsafe Speed	13.8	74
Traffic Control Disregarded	9.0	48
Driver Inexperience	5.8	31
Passing Or Lane Usage Improper	5.2	28
Alcohol Involvement	3.9	21
Aggressive Driving/Road Rage	3.4	18
Following Too Closely	3.4	18
Turning Improperly	3.4	18
Pedestrian/Bicyclist/Other Pedestrian Error/Confusion	3.2	17
Lost Consciousness	3.0	16
Illness	2.1	11
Unsafe Lane Changing	2.1	11
Pavement Slippery	1.7	9
Other (Vehicle)	1.7	9
Backing Unsafely	1.5	8
View Obstructed/Limited	1.3	7
Passing Too Closely	1.3	7
Passenger Distraction	1.1	6
Drugs (Illegal)	1.1	6
Outside Car Distraction	0.9	5
Reaction To Uninvolved Vehicle	0.8	4
Fell Asleep	0.8	4
Glare	0.6	3
Obstruction/Debris	0.6	3
Brakes Defective	0.6	3
Failure To Keep Right	0.4	2
Driverless/Runaway Vehicle	0.4	2
Oversized Vehicle	0.4	2
Physical Disability	0.4	2
Pavement Defective	0.4	2
Traffic Control Device Improper/Non-Working	0.4	2
Steering Failure	0.2	1
Tinted Windows	0.2	1
Accelerator Defective	0.2	1



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Recommendations / Summary:

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- 212 completed via in-depth investigation

For the 212 completed via in-depth investigations, the following recommendations were made:

- 182 - Transmitted to DOT planning and design units for further evaluation for possible inclusion in future safety projects, no immediate action recommended
- 6 - Recommendations for Safety Improvements Approved
 - 4 Traffic Signal or All-Way Stops
 - 1 Speed Hump or Speed Cushion
 - 1 SIRTA mini-project
- 6 - Safety Improvements installed
 - 1 Sign Addition
 - 2 Traffic Calming Element Refurbishments
 - 1 Pavement Repair
 - 2 Leading Pedestrian intervals (LPis)

Note: Multiple safety improvements may be approved and/or installed at the same location.

