

New York City (NYC) Motor Vehicle (MV) Collisions: Crashes, Vehicles & People

Rick Sherman
Athena IT Solutions
rick.sherman@athena-solutions.com



BUSINESS INTELLIGENCE GUIDEBOOK

From Data Integration to Analytics



RICK SHERMAN

FOREWORD BY **CLAUDIA IMHOFF**
PRESIDENT OF INTELLIGENT SOLUTIONS, INC.

Motor Vehicle Collisions

NYC

New York City Police Department

311

Search all NYC.gov websites

POLICE
DEPARTMENT
OF NEW YORK



NYPD

New York's Finest

繁體中文 ▸ Translate ▾

Text-Size

Home

About

Bureaus

Services

Stats

Media

Careers

Policies

Search 

Crime Statistics

Traffic Data

Reports & Dashboards

Research

Moving Violation Summonses

Motor Vehicle Collisions

Leaving the Scene Reports

Traffic Fatalities

Traffic Safety Forum

Collisions & Summonses
Archive

Towed Vehicles Obstructing Traffic



Motor Vehicle Collisions

Statistical information on motor vehicle collisions is available below. The data is updated on a monthly basis, and grouped by borough intersections, bridges, and tunnels.

- [Report Statistics Citywide \(PDF\)](#)
[Report Statistics Citywide \(Excel\)](#)
- [Manhattan Intersections \(PDF\)](#)
[Manhattan Intersections \(Excel\)](#)
- [Bronx Intersections \(PDF\)](#)
[Bronx Intersections \(Excel\)](#)
- [Brooklyn Intersections \(PDF\)](#)
[Brooklyn Intersections \(Excel\)](#)
- [Queens Intersections \(PDF\)](#)
[Queens Intersections \(Excel\)](#)
- [Staten Island Intersections \(PDF\)](#)
[Staten Island Intersections \(Excel\)](#)
- [Manhattan Highways, Bridges, Tunnels \(PDF\)](#)
[Manhattan Highways, Bridges, Tunnels \(Excel\)](#)
- [Bronx Highways, Bridges, Tunnels \(PDF\)](#)
[Bronx Highways, Bridges, Tunnels \(Excel\)](#)
- [Brooklyn Highways, Bridges, Tunnels \(PDF\)](#)
[Brooklyn Highways, Bridges, Tunnels \(Excel\)](#)
- [Queens Highways, Bridges, Tunnels \(PDF\)](#)
[Queens Highways, Bridges, Tunnels \(Excel\)](#)
- [Staten Island Highways, Bridges, Tunnels \(PDF\)](#)
[Staten Island Highways, Bridges, Tunnels \(Excel\)](#)

Police Department

City of New York

Motor Vehicle Collision Report Statistics Citywide

October 2022

CITYWIDE

NYPD Precincts Map

Number of motor vehicle collisions:		8620
Persons involved (**):		
MOTORISTS (**)	16546	
PASSENGERS	1309	
CYCLISTS	408	
PEDESTRIANS	866	
Injury or fatal collisions:		3346
Persons injured or killed:	Injured	Killed
MOTORISTS	1799	7
PASSENGERS	1306	3
CYCLISTS	407	1
PEDESTRIANS	855	11

Contributing factors in injury and fatal collisions:	
Contributing Factors (***)	Number of Vehicles
AGGRESSIVE DRIVING/ROAD RAGE	78
ALCOHOL INVOLVEMENT	182
BACKING UNSAFELY	264
CELL PHONE (HAND-HELD)	4
CELL PHONE (HANDS-FREE)	1
DRIVER INATTENTION/DISTRACTION	2511
DRIVER INEXPERIENCE	179
DRUGS (ILLEGAL)	4
ERR/CONFUSN PED/BIKE/OTHER PED	118
FAILURE TO KEEP RIGHT	15
FAILURE TO YIELD RIGHT-OF-WAY	660
FATIGUED/DROWSY	9
FELL ASLEEP	43
FOLLOWING TOO CLOSELY	665
ILLNESS	18
LOST CONSCIOUSNESS	15
OTHER UNINVOLVED VEHICLE	131
OUTSIDE CAR DISTRACTION	22
PASSENGER DISTRACTION	23
PASSING OR LANE USAGE IMPROPER	426
PASSING TOO CLOSELY	368
PHYSICAL DISABILITY	2
PRESCRIPTION MEDICATION	2
TRAFFIC CONTROL DISREGARDED	256
TURNING IMPROPERLY	206
UNSAFE LANE CHANGING	184
UNSAFE SPEED	349
USING ON BOARD NAVIGATE DEVICE	2
VEHICLE VANDALISM	1

Vehicles by type:	
Vehicle Type	Number of Vehicles
ALL-TERRAIN VEHICLE	3
AMBULANCE	90
BICYCLE	497
BUS	338
FIRE TRUCK	13
LARGE COM VEH(6 OR MORE TIRES)	712
MOTORCYCLE	234
PASSENGER VEHICLE	6807
PEDICAB	3
PICK-UP TRUCK	404
SMALL COM VEH(4 TIRES)	102
SPORT UTILITY / STATION WAGON	5153
TAXI VEHICLE	343
VAN	106
OTHER	1
UNKNOWN	4

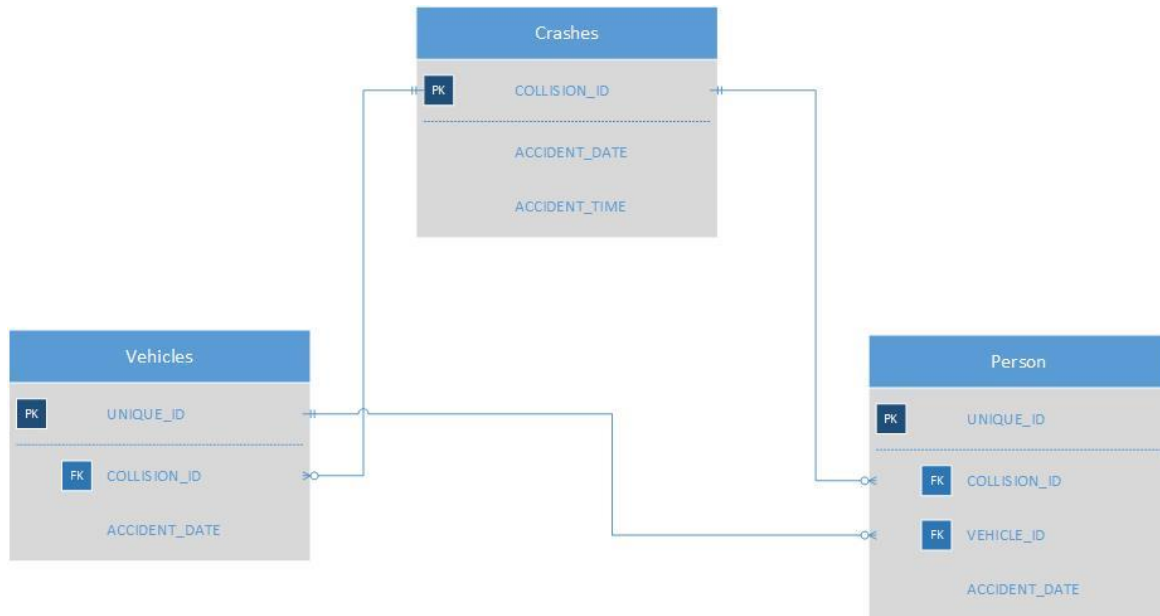
(*)The persons involved reflects all motorists, however they do not reflect other persons involved unless they were injured or killed.

(**)The category of "Motorist" includes the owner of a parked vehicle. (***) Contributing factors are listed when known.

All figures are preliminary and subject to change.

MVCollisionsDataDictionary_20190813_ERD.xlsx

- Data Model provided showing PK & FK keys
- Does include list of each column and description for three datasets.



TableName	totalrows	collisions	min_date	max_date
stg_nyc_mv_collision_vehicles	3,704,406	1,845,435	7/1/2012	12/4/2021
stg_nyc_mv_collision_persons	4,863,648	1,316,382	7/1/2012	11/13/2022
stg_nyc_mv_collisions_BigQuery	1,944,748	1,944,748	7/1/2012	11/11/2022

NYC OpenData

Home Data About ▾ Learn ▾ Alerts Contact Us Blog 🔍 Sign In

Motor Vehicle Collisions - Crashes Public Safety

[View Data](#) [Visualize ▾](#) [Export](#) [API](#) [...](#)

The Motor Vehicle Collisions crash table contains details on the crash event. Each row represents a crash event. The Motor Vehicle Collisions data tables contain information from all police reported motor vehicle collisions in NYC. The police report (MV104-AN) is required to be filled out for collisions where someone is injured or killed, or where there is at least \$1000 worth of damage.

Updated
November 16, 2022
Data Provided by
Police Department (NYPD)

About this Dataset

[Mute Dataset](#)

Updated
November 16, 2022

Data Last Updated
November 16, 2022

Metadata Last Updated
April 19, 2021

Date Created
April 28, 2014

Views
297K

Downloads
71.4K

Data Provided by
Police Department (NYPD)

Dataset Owner
NYC OpenData

Data Collection

Data Collection Motor Vehicle Collisions

Dataset Information

Agency Police Department (NYPD)

Update

Update Frequency Daily

Automation Yes

Date Made Public 5/7/2014

Attachments

[MVCollisionsDataDictionary_20190813_ERD.xlsx](#)

[Show More](#)

MVCollisionsDataDictionary_20190813_ERD.xlsx

Data Dictionary - Column Information

Table Name	Column Name	Column Description	Primary Key or Foreign Key
MV-Collisions - Crash	COLLISION_ID	Unique record code generated by system	Primary Key for the crash table
MV-Collisions - Crash	ACCIDENT_DATE	Occurrence date of collision	
MV-Collisions - Crash	ACCIDENT_TIME	Occurrence time of collision	
MV-Collisions - Crash	BOROUGH	Borough where collision occurred	
MV-Collisions - Crash	ZIP_CODE	Postal code of incident occurrence	
MV-Collisions - Crash	LATITUDE	Latitude coordinate for Global Coordinate System, WGS 1984, decimal degrees (EPSG 4326)	
MV-Collisions - Crash	LONGITUDE	Longitude coordinate for Global Coordinate System, WGS 1984, decimal degrees (EPSG 4326)	
MV-Collisions - Crash	LOCATION	Latitude , Longitude pair	
MV-Collisions - Crash	ON STREET NAME	Street on which the collision occurred	
MV-Collisions - Crash	CROSS STREET NAME	Nearest cross street to the collision	
MV-Collisions - Crash	OFF STREET NAME	Street address if known	
MV-Collisions - Crash	NUMBER OF PERSONS INJURED	Number of persons injured	
MV-Collisions - Crash	NUMBER OF PERSONS KILLED	Number of persons killed	
MV-Collisions - Crash	NUMBER OF PEDESTRIANS INJURED	Number of pedestrians injured	
MV-Collisions - Crash	NUMBER OF PEDESTRIANS KILLED	Number of pedestrians killed	
MV-Collisions - Crash	NUMBER OF CYCLIST INJURED	Number of cyclists injured	
MV-Collisions - Crash	NUMBER OF CYCLIST KILLED	Number of cyclists killed	
MV-Collisions - Crash	NUMBER OF MOTORIST INJURED	Number of vehicle occupants injured	
MV-Collisions - Crash	NUMBER OF MOTORIST KILLED	Number of vehicle occupants killed	
MV-Collisions - Crash	CONTRIBUTING FACTOR VEHICLE 1	Factors contributing to the collision for designated vehicle	
MV-Collisions - Crash	CONTRIBUTING FACTOR VEHICLE 2	Factors contributing to the collision for designated vehicle	
MV-Collisions - Crash	CONTRIBUTING FACTOR VEHICLE 3	Factors contributing to the collision for designated vehicle	
MV-Collisions - Crash	CONTRIBUTING FACTOR VEHICLE 4	Factors contributing to the collision for designated vehicle	
MV-Collisions - Crash	CONTRIBUTING FACTOR VEHICLE 5	Factors contributing to the collision for designated vehicle	
MV-Collisions - Crash	VEHICLE TYPE CODE 1	Type of vehicle based on the selected vehicle category (ATV, bicycle, car/suv, ebike, scooter, truck/bus, motorcycle, other)	
MV-Collisions - Crash	VEHICLE TYPE CODE 2	Type of vehicle based on the selected vehicle category (ATV, bicycle, car/suv, ebike, scooter, truck/bus, motorcycle, other)	
MV-Collisions - Crash	VEHICLE TYPE CODE 3	Type of vehicle based on the selected vehicle category (ATV, bicycle, car/suv, ebike, scooter, truck/bus, motorcycle, other)	
MV-Collisions - Crash	VEHICLE TYPE CODE 4	Type of vehicle based on the selected vehicle category (ATV, bicycle, car/suv, ebike, scooter, truck/bus, motorcycle, other)	
MV-Collisions - Crash	VEHICLE TYPE CODE 5	Type of vehicle based on the selected vehicle category (ATV, bicycle, car/suv, ebike, scooter, truck/bus, motorcycle, other)	
MV-Collisions - Vehicle	UNIQUE_ID	Unique record code generated by system	Primary Key for the vehicle table
MV-Collisions - Vehicle	COLLISION_ID	Unique crash identification code	Foreign Key to the crash table
MV-Collisions - Vehicle	ACCIDENT_DATE	Occurrence date of collision	
MV-Collisions - Vehicle	ACCIDENT_TIME	Occurrence time of collision	
MV-Collisions - Vehicle	VEHICLE_ID	Vehicle identification code assigned by system	
MV-Collisions - Vehicle	STATE_REGISTRATION	State where driver license was issued	
MV-Collisions - Vehicle	VEHICLE_TYPE	Type of vehicle based on the selected vehicle category (ATV, bicycle, car/suv, ebike, scooter, truck/bus, motorcycle, other)	
MV-Collisions - Vehicle	VEHICLE_MAKE	Vehicle make	
MV-Collisions - Vehicle	VEHICLE_MODEL	Vehicle model	
MV-Collisions - Vehicle	VEHICLE_YEAR	Year the vehicle was manufactured	
MV-Collisions - Vehicle	TRAVEL_DIRECTION	Direction vehicle was traveling	
MV-Collisions - Vehicle	VEHICLE_OCCUPANTS	Number of vehicle occupants	
MV-Collisions - Vehicle	DRIVER_SEX	Gender of driver	
MV-Collisions - Vehicle	DRIVER_LICENSE_STATUS	License, permit, unlicensed	
MV-Collisions - Vehicle	DRIVER_LICENSE_JURISDICTION	NYPD, Port Authority, TBTA, MTA, etc.	
MV-Collisions - Vehicle	PRE_ACDNT_ACTION	Going straight, making right turn, passing, backing, etc.	
MV-Collisions - Vehicle	POINT_OF_IMPACT	Location on the vehicle of the initial point of impact (i.e. driver side, passenger side rear, etc.)	
MV-Collisions - Vehicle	VEHICLE_DAMAGE	Location on the vehicle where most of the damage occurred	
MV-Collisions - Vehicle	VEHICLE_DAMAGE_1	Additional damage locations on the vehicle	
MV-Collisions - Vehicle	VEHICLE_DAMAGE_2	Additional damage locations on the vehicle	
MV-Collisions - Vehicle	VEHICLE_DAMAGE_3	Additional damage locations on the vehicle	
MV-Collisions - Vehicle	PUBLIC_PROPERTY_DAMAGE	Public property damaged (Yes or No)	
MV-Collisions - Vehicle	PUBLIC_PROPERTY_DAMAGE_TYPE	Type of public property damaged (ex. Sign, fence, light post, etc.)	
MV-Collisions - Vehicle	CONTRIBUTING_FACTOR_1	Factors contributing to the collision for designated vehicle	
MV-Collisions - Vehicle	CONTRIBUTING_FACTOR_2	Factors contributing to the collision for designated vehicle	

MVCollisionsDataDictionary_20190813_ERD.xlsx

Data Dictionary - Column Information

Table Name	Column Name	Column Description	Primary Key or Foreign Key
MV-Collisions - Person	UNIQUE_ID	Unique record code generated by system	Primary Key for the person table
MV-Collisions - Person	COLLISION_ID	Unique crash identification code	Foreign Key to the crash table
MV-Collisions - Person	ACCIDENT_DATE	Occurrence date of collision	
MV-Collisions - Person	ACCIDENT_TIME	Occurrence time of collision	
MV-Collisions - Person	VICTIM_ID	Victim identification code assigned by system	
MV-Collisions - Person	VICTIM_TYPE	Bicyclist, Occupant, Pedestrian, etc.	
MV-Collisions - Person	VICTIM_INJURY	Injured, killed, unspecified	
MV-Collisions - Person	VEHICLE_ID	Unique vehicle record associated with victim	Foreign Key to the vehicle table
MV-Collisions - Person	VICTIM_AGE	Automatically calculated based on date of birth	
MV-Collisions - Person	EJECTION	Not ejected, partially ejected, or ejected from the vehicle	
MV-Collisions - Person	EMOTIONAL_STATUS	Death, unconscious, semiconscious, etc.	
MV-Collisions - Person	BODILY_INJURY	Injured body area (i.e. head, face, neck, etc.)	
MV-Collisions - Person	POSITION_IN_VEHICLE	Seating position #1-#8 (i.e. driver, front passenger, etc.)	
MV-Collisions - Person	SAFETY_EQUIPMENT	Safety equipment being used (i.e. lap belt, harness, child restraint, air bag, etc.)	
MV-Collisions - Person	PED_LOCATION	Location of the pedestrian (i.e. at intersection, not at intersection)	
MV-Collisions - Person	PED_ACTION	What the pedestrian was doing at time of crash (i.e., walking with the signal, against the signal, etc.)	
MV-Collisions - Person	COMPLAINT	Type of physical complaint (ex. Concussion, severe burn, severe bleeding, etc.)	
MV-Collisions - Person	VICTIM_ROLE	Driver, passenger, pedestrian, etc.	
MV-Collisions - Person	CONTRIBUTING_FACTOR_1	Factors contributing to the collision for designated vehicle	
MV-Collisions - Person	CONTRIBUTING_FACTOR_2	Factors contributing to the collision for designated vehicle	
MV-Collisions - Person	VICTIM_SEX	Gender of victim	

Motor Vehicle Collisions - Crashes

Motor Vehicle Collisions - Crashes

Public Safety

View Data

Visualize ▾

Export

API

...

The Motor Vehicle Collisions crash table contains details on the crash event. Each row represents a crash event. The Motor Vehicle Collisions data tables contain information from all police reported motor vehicle collisions in NYC. The police report (MV104-AN) is required to be filled out for collisions where someone is injured or killed, or where there is at least \$1000 worth of damage

More

Updated
November 16, 2022

Data Provided by
Police Department (NYPD)

About this Dataset

Mute Dataset

Updated
November 16, 2022

Data Last Updated
November 16, 2022

Metadata Last Updated
April 19, 2021

Date Created
April 28, 2014

Views
297K

Downloads
71.4K

Data Provided by
Police Department (NYPD)

Dataset Owner
NYC OpenData

Data Collection

Data Collection
Motor Vehicle Collisions

Dataset Information

Agency
Police Department (NYPD)

Update

Update Frequency
Daily

Automation
Yes

Date Made Public
5/7/2014

Attachments

[MVCollisionsDataDictionary_20190813_ERD.xlsx](#)

[Show More](#)

What's in this Dataset?

Rows
1.95M

Columns
29

Each row is a
Motor Vehicle Collision

The Motor Vehicle Collisions crash table contains details on the crash event. Each row represents a crash event. The Motor Vehicle Collisions data tables contain information from all police reported motor vehicle collisions in NYC. The police report (MV104-AN) is required to be filled out for collisions where someone is injured or killed, or where there is at least \$1000 worth of damage

(https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/ny_overlay_mv-104an_rev05_2004.pdf). It should be noted that the data is preliminary and subject to change when the MV-104AN forms are amended based on revised crash details. For the most accurate, up to date statistics on traffic fatalities, please refer to the [NYPD Motor Vehicle Collisions page](#) (updated weekly) or [Vision Zero View](#) (updated monthly).

NOTE:

Not using this extract to load our NYC MV Collisions data but Google BigQuery Public Dataset






Motor Vehicle Collisions - Crashes

Columns in this Dataset			
Column Name	Description	Type	
CRASH DATE	Occurrence date of collision	Date & Time	📅
CRASH TIME	Occurrence time of collision	Plain Text	T
BOROUGH	Borough where collision occurred	Plain Text	T
ZIP CODE	Postal code of incident occurrence	Plain Text	T
LATITUDE	Latitude coordinate for Global Coordinate System, WGS 1984, ...	Number	#
LONGITUDE	Longitude coordinate for Global Coordinate System, WGS 198...	Number	#
LOCATION	Latitude , Longitude pair	Location	📍
ON STREET NAME	Street on which the collision occurred	Plain Text	T
CROSS STREET NAME	Nearest cross street to the collision	Plain Text	T
OFF STREET NAME	Street address if known	Plain Text	T
NUMBER OF PERSONS INJURED	Number of persons injured	Number	#
NUMBER OF PERSONS KILLED	Number of persons killed	Number	#
NUMBER OF PEDESTRIANS INJURED	Number of pedestrians injured	Number	#
NUMBER OF PEDESTRIANS KILLED	Number of pedestrians killed	Number	#
NUMBER OF CYCLIST INJURED	Number of cyclists injured	Number	#
NUMBER OF CYCLIST KILLED	Number of cyclists killed	Number	#
NUMBER OF MOTORIST INJURED	Number of vehicle occupants injured	Number	#
NUMBER OF MOTORIST KILLED	Number of vehicle occupants killed	Number	#

CONTRIBUTING FACTOR VEHICLE 1	Factors contributing to the collision for designated vehicle	Plain Text	T
CONTRIBUTING FACTOR VEHICLE 2	Factors contributing to the collision for designated vehicle	Plain Text	T
CONTRIBUTING FACTOR VEHICLE 3	Factors contributing to the collision for designated vehicle	Plain Text	T
CONTRIBUTING FACTOR VEHICLE 4	Factors contributing to the collision for designated vehicle	Plain Text	T
CONTRIBUTING FACTOR VEHICLE 5	Factors contributing to the collision for designated vehicle	Plain Text	T
COLLISION_ID	Unique record code generated by system. Primary Key for Cra...	Number	#
VEHICLE TYPE CODE 1	Type of vehicle based on the selected vehicle category (ATV, bi...	Plain Text	T
VEHICLE TYPE CODE 2	Type of vehicle based on the selected vehicle category (ATV, bi...	Plain Text	T
VEHICLE TYPE CODE 3	Type of vehicle based on the selected vehicle category (ATV, bi...	Plain Text	T
VEHICLE TYPE CODE 4	Type of vehicle based on the selected vehicle category (ATV, bi...	Plain Text	T
VEHICLE TYPE CODE 5	Type of vehicle based on the selected vehicle category (ATV, bi...	Plain Text	T

NOTE:
Not using this extract to load our NYC MV
Collisions data but Google BigQuery Public Dataset

MV Collisions (Crashes): Google BigQuery Public Dataset

 nypd_mv_collisions  QUERY  SHARE  COPY 

SCHEMA

DETAILS

PREVIEW

Table info

Table ID	bigquery-public-data.new_york_mv_collisions.nypd_mv_collisions
Created	Apr 12, 2017, 3:35:34 PM UTC-4
Last modified	Nov 14, 2022, 7:17:37 PM UTC-5
Table expiration	NEVER
Data location	US
Default collation	
Description	

Storage info

Number of rows	1,944,748
----------------	-----------

 nypd_mv_collisions  QUERY  SHARE 

SCHEMA

DETAILS

PREVIEW

 Filter Enter property name or value

<input type="checkbox"/>	Field name	Type	Mode
<input type="checkbox"/>	borough	STRING	NULLABLE
<input type="checkbox"/>	contributing_factor_vehicle_1	STRING	NULLABLE
<input type="checkbox"/>	contributing_factor_vehicle_2	STRING	NULLABLE
<input type="checkbox"/>	contributing_factor_vehicle_3	STRING	NULLABLE
<input type="checkbox"/>	contributing_factor_vehicle_4	STRING	NULLABLE
<input type="checkbox"/>	contributing_factor_vehicle_5	STRING	NULLABLE
<input type="checkbox"/>	cross_street_name	STRING	NULLABLE
<input type="checkbox"/>	timestamp	DATETIME	NULLABLE
<input type="checkbox"/>	latitude	FLOAT	NULLABLE
<input type="checkbox"/>	longitude	FLOAT	NULLABLE
<input type="checkbox"/>	location	STRING	NULLABLE
<input type="checkbox"/>	number_of_cyclist_injured	INTEGER	NULLABLE
<input type="checkbox"/>	number_of_cyclist_killed	INTEGER	NULLABLE
<input type="checkbox"/>	number_of_motorist_injured	INTEGER	NULLABLE
<input type="checkbox"/>	number_of_motorist_killed	INTEGER	NULLABLE
<input type="checkbox"/>	number_of_pedestrians_injured	INTEGER	NULLABLE
<input type="checkbox"/>	number_of_pedestrians_killed	INTEGER	NULLABLE
<input type="checkbox"/>	number_of_persons_injured	INTEGER	NULLABLE
<input type="checkbox"/>	number_of_persons_killed	INTEGER	NULLABLE
<input type="checkbox"/>	off_street_name	STRING	NULLABLE
<input type="checkbox"/>	on_street_name	STRING	NULLABLE
<input type="checkbox"/>	unique_key	INTEGER	REQUIRED
<input type="checkbox"/>	vehicle_type_code1	STRING	NULLABLE
<input type="checkbox"/>	vehicle_type_code2	STRING	NULLABLE
<input type="checkbox"/>	vehicle_type_code_3	STRING	NULLABLE
<input type="checkbox"/>	vehicle_type_code_4	STRING	NULLABLE
<input type="checkbox"/>	vehicle_type_code_5	STRING	NULLABLE
<input type="checkbox"/>	zip_code	INTEGER	NULLABLE

Motor Vehicle Collisions: Vehicles

NYC OpenData

HomeDataAbout ▾Learn ▾AlertsContact UsBlog | 🔍Sign In

Motor Vehicle Collisions - Vehicles

Public Safety

View DataVisualize ▾ExportAPI⋮

The Motor Vehicle Collisions vehicle table contains details on each vehicle involved in the crash. Each row represents a motor vehicle involved in a crash. The data in this table goes back to April 2016 when crash reporting switched to an electronic system.

Updated
December 8, 2021
Data Provided by
Police Department (NYPD)

More

About this Dataset

Mute Dataset

Updated
December 8, 2021

Data Last Updated
December 8, 2021

Metadata Last Updated
September 17, 2021

Date Created
July 30, 2019

Views
9,915

Downloads
3,877

Data Provided by
Police Department (NYPD)

Dataset Owner
NYC OpenData

Data Collection

Motor Vehicle Collisions

Dataset Information

Agency
Police Department (NYPD)

Update

Update Frequency
Daily

Automation
Yes

Date Made Public
11/27/2019

Attachments

MVCollisionsDataDictionary_20210917_ERD.xlsx

Show More

What's in this Dataset?

Rows
3.7M

Columns
25

Each row is a
motor vehicle involved in a crash.

UNIQUE_ID	Unique record code generated by system. Primary Key.	Number	#
COLLISION_ID	Crash identification code. Foreign Key, matches unique_id fro...	Number	#
CRASH_DATE	Occurrence date of collision	Date & Time	
CRASH_TIME	Occurrence time of collision	Plain Text	T
VEHICLE_ID	Vehicle identification code assigned by system	Plain Text	T
STATE_REGISTRATION	State where vehicle is registered.	Plain Text	T
VEHICLE_TYPE	Type of vehicle based on the selected vehicle category (ATV, bi...	Plain Text	T
VEHICLE_MAKE	Vehicle make	Plain Text	T
VEHICLE_MODEL	Vehicle model	Plain Text	T
VEHICLE_YEAR	Year the vehicle was manufactured	Plain Text	T
TRAVEL_DIRECTION	Direction vehicle was traveling	Plain Text	T
VEHICLE_OCCUPANTS	Number of vehicle occupants	Number	#
DRIVER_SEX	Gender of driver	Plain Text	T
DRIVER_LICENSE_STATUS	License, permit, unlicensed	Plain Text	T
DRIVER_LICENSE_JURISDICTION	State where driver license was issued.	Plain Text	T
PRE_CRASH	Pre-crash action: Going straight, making right turn, passing, ba...	Plain Text	T
POINT_OF_IMPACT	Location on the vehicle of the initial point of impact (i.e. driver ...	Plain Text	T
VEHICLE_DAMAGE	Location on the vehicle where most of the damage occurred	Plain Text	T
VEHICLE_DAMAGE_1	Additional damage locations on the vehicle	Plain Text	T
VEHICLE_DAMAGE_2	Additional damage locations on the vehicle	Plain Text	T
VEHICLE_DAMAGE_3	Additional damage locations on the vehicle	Plain Text	T
PUBLIC_PROPERTY_DAMAGE	Public property damaged (Yes or No)	Plain Text	T
PUBLIC_PROPERTY_DAMAGE_TYPE	Type of public property damaged (ex. Sign, fence, light post, et...	Plain Text	T
CONTRIBUTING_FACTOR_1	Factors contributing to the collision for designated vehicle	Plain Text	T
CONTRIBUTING_FACTOR_2	Factors contributing to the collision for designated vehicle	Plain Text	T

9

Copyright © 2022 Athena IT Solutions All rights reserved.

ATHENA
IT SOLUTIONS

Motor Vehicle Collisions: Person

Motor Vehicle Collisions - Person

Public Safety

View Data

Visualize

Export

API

...

The Motor Vehicle Collisions person table contains details for people involved in the crash. Each row represents a person (driver, occupant, pedestrian, bicyclist,..) involved in a crash. The data in this table goes back to April 2016 when crash reporting switched to an electronic system.

Updated

November 16, 2022

Data Provided by

Police Department (NYPD)

More

About this Dataset

Mute Dataset

Updated

November 16, 2022

Data Last Updated

November 16, 2022

Metadata Last Updated

December 9, 2019

Date Created

July 30, 2019

Views

9,368

Downloads

3,676

Data Provided by

Police Department (NYPD)

Dataset Owner

NYC OpenData

Data Collection

Data Collection

Motor Vehicle Collisions

Dataset Information

Agency

Police Department (NYPD)

Update

Update Frequency

Daily

Automation

Yes

Date Made Public

11/27/2019

Attachments

MVCollisionsDataDictionary_20190813_ERD.xlsx

Show More

What's in this Dataset?

Rows

4.86M

Columns

21

Each row is a

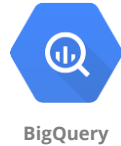
person (driver, occupant, pedestrian, bicyclist,..) involved in a crash.

Columns in this Dataset

Column Name	Description	Type	
UNIQUE_ID	Unique record code generated by system. Primary Key for Pers...	Number	#
COLLISION_ID	Crash identification code. Foreign Key, matches unique_id fro...	Number	#
CRASH_DATE	Occurrence date of collision	Date & Time	
CRASH_TIME	Occurrence time of collision	Plain Text	T
PERSON_ID	Person identification code assigned by system	Plain Text	T
PERSON_TYPE	Bicyclist, Motor Vehicle Occupant, Pedestrian,	Plain Text	T
PERSON_INJURY	Injured, killed, unspecified	Plain Text	T
VEHICLE_ID	Unique vehicle record associated with person. Foreign Key to t...	Plain Text	T
PERSON_AGE	Automatically calculated based on date of birth	Number	#
EJECTION	Indicates the following: Not ejected, partially ejected, or ejecte...	Plain Text	T
EMOTIONAL_STATUS	Apparent death, unconscious, semiconscious, etc.	Plain Text	T
BODILY_INJURY	Injured body area (i.e. head, face, neck, etc.)	Plain Text	T
POSITION_IN_VEHICLE	Seating position #1-#8 (i.e. driver, front passenger, etc.)	Plain Text	T
SAFETY_EQUIPMENT	Safety equipment being used (i.e. lap belt, harness, child restra...	Plain Text	T
PED_LOCATION	Location of the pedestrian (i.e. at intersection, not at intersect...	Plain Text	T
PED_ACTION	What the pedestrian was doing at time of crash (i.e., walking w...	Plain Text	T
COMPLAINT	Type of physical complaint (ex. Concussion, severe burn, sever...	Plain Text	T
PED_ROLE	Pedestrian, witness, in-line skater, other, etc.	Plain Text	T
CONTRIBUTING_FACTOR_1	Factors contributing to the collision for designated vehicle	Plain Text	T
CONTRIBUTING_FACTOR_2	Factors contributing to the collision for designated vehicle	Plain Text	T
PERSON_SEX	Gender of person	Plain Text	T

NYC MV Collisions

NYC OpenData



Assignment 1

- Perform Data Profiling (with Alteryx)
- Load Data into Staging Tables with Talend
 - SQL Scripts for staging tables:
OneDrive\...\damg7370_2022_Fall\Data - NYC Motor Vehicle Collision\snycc mv collisions Stage Tables.sql
- Create Preliminary Dimensional Model
 - List facts & dimensions
 - Create a list of Stage Tables' columns and map to your proposed dimensional model
 - A data model diagram or script are for bonus



Staging Tables: Crashes, Vehicles, Persons

- Two columns renamed
- 4 columns derived

stg_nyc_mv_collision_persons

UNIQUE_ID	BIGINT
COLLISION_ID (FK)	BIGINT
CRASH_DATE	DATETIME
CRASH_TIME	TIME/DATETIME
PERSON_ID	VARCHAR(80)
PERSON_TYPE	VARCHAR(80)
PERSON_INJURY	VARCHAR(80)
VEHICLE_ID	VARCHAR(80)
PERSON_AGE	INTEGER
EJECTION	VARCHAR(80)
EMOTIONAL_STATUS	VARCHAR(80)
BODILY_INJURY	VARCHAR(80)
POSITION_IN_VEHICLE	VARCHAR(255)
SAFETY_EQUIPMENT	VARCHAR(255)
PED_LOCATION	VARCHAR(255)
PED_ACTION	VARCHAR(255)
COMPLAINT	VARCHAR(255)
PED_ROLE	VARCHAR(255)
CONTRIBUTING_FACTOR_1	VARCHAR(255)
CONTRIBUTING_FACTOR_2	VARCHAR(255)
PERSON_SEX	VARCHAR(10)
DI_PID	VARCHAR(20)
DI_CreateDate	DATETIME

stg_nyc_mv_collisions_BigQuery

COLLISION_ID	BIGINT
collision_dt	DATETIME
collision_day	DATE
collision_time	TIME/DATETIME
collision_hour	INTEGER
collision_dayoftheweek	INTEGER
borough	VARCHAR(40)
zip_code	VARCHAR(40)
off_street_name	VARCHAR(40)
on_street_name	VARCHAR(40)
cross_street_name	VARCHAR(40)
latitude	NUMERIC(24,6)
longitude	NUMERIC(24,6)
location	VARCHAR(256)
contributing_factor_vehicle_1	VARCHAR(256)
contributing_factor_vehicle_2	VARCHAR(256)
contributing_factor_vehicle_3	VARCHAR(256)
contributing_factor_vehicle_4	VARCHAR(256)
contributing_factor_vehicle_5	VARCHAR(256)
number_of_cyclist_injured	INTEGER
number_of_cyclist_killed	INTEGER
number_of_motorist_injured	INTEGER
number_of_motorist_killed	INTEGER
number_of_pedestrians_injured	INTEGER
number_of_pedestrians_killed	INTEGER
number_of_persons_injured	INTEGER
number_of_persons_killed	INTEGER
vehicle_type_code1	VARCHAR(80)
vehicle_type_code2	VARCHAR(80)
vehicle_type_code3	VARCHAR(80)
vehicle_type_code4	VARCHAR(80)
vehicle_type_code5	VARCHAR(80)
DI_JobID	VARCHAR(20)
DI_CreateDate	DATETIME

stg_nyc_mv_collision_vehicles

UNIQUE_ID	BIGINT
COLLISION_ID (FK)	BIGINT
CRASH_DATE	DATETIME
CRASH_TIME	TIME/DATETIME
VEHICLE_ID	VARCHAR(80)
STATE_REGISTRATION	VARCHAR(80)
VEHICLE_TYPE	VARCHAR(80)
VEHICLE_MAKE	VARCHAR(80)
VEHICLE_MODEL	VARCHAR(80)
VEHICLE_YEAR	VARCHAR(80)
TRAVEL_DIRECTION	VARCHAR(255)
VEHICLE_OCCUPANTS	INTEGER
DRIVER_SEX	VARCHAR(80)
DRIVER_LICENSE_STATUS	VARCHAR(255)
DRIVER_LICENSE_JURISDICTION	VARCHAR(255)
PRE_CRASH	VARCHAR(255)
POINT_OF_IMPACT	VARCHAR(255)
VEHICLE_DAMAGE	VARCHAR(255)
VEHICLE_DAMAGE_1	VARCHAR(255)
VEHICLE_DAMAGE_2	VARCHAR(255)
VEHICLE_DAMAGE_3	VARCHAR(255)
PUBLIC_PROPERTY_DAMAGE	VARCHAR(1024)
PUBLIC_PROPERTY_DAMAGE_TYPE	VARCHAR(1024)
CONTRIBUTING_FACTOR_1	VARCHAR(255)
CONTRIBUTING_FACTOR_2	VARCHAR(255)
DI_PID	VARCHAR(20)
DI_CreateDate	DATETIME

How develop Data Model

- Source systems analysis (data sources)
 - Any documentation
 - ~~Talk to the SME (subject matter expert)~~
 - Data profiling (if possible)
 - Ingest data into staging table for further data analysis
- Examine data for:
 - Data consistency
 - Columns use differently between data sources or at different times even within a single data source
 - Data quality
 - Invalid data values
 - Invalid data types
 - Data structures that are too normalized or too denormalized
 - Redundant data
 - Pre-summarized data
 - Repeating groups
- Map Source Tables, Columns to Integration Tables, columns