

Appendix B: Data Coding System

MVA Data

Information entered in code boxes on the Motor Vehicle Accident Report forms is listed below.

ACCIDENT LOCATION

ON HIGHWAY		OFF HIGHWAY
Non intersection	At railway crossing	Trail
Intersection related	Underpass or tunnel	Frozen lake or river
At intersection	Overpass or bridge	Parking Lot
At/near private drive	Other	Other

IMPACT LOCATION

Within intersection	Two-way left turn lane	Non on roadway-right side
Thru lane	Passing lane	Off highway
Left turn lane	Left shoulder	Other
Right turn lane	Right shoulder	
Right turn channel	Not on roadway-left side	

ENVIRONMENT CONDITION Multiple Choices Allowed

Clear	Freezing rain	Fog, mist, smoke, dust
Rain	Drifting snow	Other
Snow	Strong wind	

LIGHT

Daylight	Dawn-artificial	Dark
Daylight-artificial	Dusk	Dark-artificial
Dawn	Dusk-artificial	Other

TRAFFIC CONTROL

Traffic signal	Police control	Traffic Controller
Stop sign	School guard	No control
Yield sign	School bus	Other
Ped. Crossover	Traffic gate	

TRAFFIC CONTROL CONDITION

Functioning	Obscured	
Not functioning	Missing Damaged	

ROAD CHARACTER

Undivided - one-way	Divided – no barrier	Express lane
Undivided – two-way	Ramp	Transfer lane
Divided with restraining barrier	Collector lane	

ROAD CONDITION

Good	Poor	Under repair or construction
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ROAD SURFACE

Asphalt	Concrete	Steel
Oil treated gravel	Earth	Brick interlocking stone
Gravel or crushed stone	Wood	Other

ROAD SURFACE CONDITION

Dry	Packed	Spilled Liquid
Wet	Ice	Other
Loose snow	Mud	
Slush	Loose sand or gravel	

ROAD ALIGNMENT

Straight on level	Curve on level	
Straight on hill	Curve on hill	

ROAD PAVEMENT MARKINGS

Exist	Obscured	
Non-existent	Faded	

VEHICLE TYPE

Automobile-station wagon	Municipal transit bus	Other farm vehicle
Motorcycle	Inter-city bus	Construction equipment
Moped	Bus (other)	Railway train
Passenger van	School bus	Street car
Pick-up truck	School van	Snow plow
Delivery van	Other school vehicle bus	Ambulance
Tow-truck	Motor home	Fire vehicle
Truck-open	Off-road 2 wheels	Police vehicle
Truck-closed	Off-road 3 wheels	Other emergency vehicle
Truck-tank	Off-road 4 wheels	Bicycle
Truck-dump	Off-road – other	Unknown
Truck-car carrier	Motorized snow vehicle	Truck-other
Truck-tractor	Farm tractor	Other

TOWED VEHICLE

Recreation trailer or semi-trailer-house, tent	Large full trailer	Farm equipment
Boat trailer	Large semi-trailer	Towed motor vehicle
Small utility trailer	Double (semi-trailer - semi-trailer)	Other
Wheeled device or apparatus	Double (semi-trailer – trailer)	

TRAILER TYPE

Van	Tank	Livestock
Flat bed/flat bed with racks	Dump	Other
Low bed/float	Car carrier	

TRAILER CONNECTION-Double Semi-Trailers Only

Single draw bar dolly (A train)	Double draw bar dolly (C Train)	
5 th wheel connection only (B Train)	Other	

VEHICLE CONDITION

No apparent defect	Defect	
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APPARENT DRIVER ACTION

Driving properly	Improper turn	Wrong way on 1-way road
Following too close	Disobeyed traffic control	Improper lane change
Exceeding speed limit	Failed to yield right-of-way	Other
Speed too fast for condition	Improper passing	
Speed too slow	Lost control	

DRIVER / PEDESTRIAN CONDITION

Normal	Ability impaired, drugs	Unknown
Had been drinking	Fatigue	Other
Ability impaired, alcohol (over .08)	Medical or physical disability	
Ability impaired, alcohol	Inattentive	

PEDESTRIAN ACTION

Crossing with right-of-way	Walking on roadway with traffic	Running onto roadway
Crossing without right-of-way	Walking on roadway against traffic	Person getting on/off school bus
Crossing – no traffic control	On sidewalk or shoulder	Person getting on/off vehicle
Crossing ped. crossover	Playing or working on highway	Pushing/working on vehicle
Crossing marked crosswalk without right-of-way	Coming from behind parked vehicle or object	Other

ROAD JURISDICTION

Municipal (excl. Twp. Rd)	County or district	Federal
Provincial highway	Regional municipality	Other
Township	Private property	

CLASSIFICATION OF ACCIDENT

Fatal injury	P.O. only	Other
Non-fatal injury	Non-reportable	

INITIAL DIRECTION OF TRAVEL

North	East	
South	West	

INITIAL IMPACT TYPE

Approaching	Turning movement	
Angle	SMV unattended vehicle	
Rear end	SMV other	
Sideswipe	Other	

VEHICLE MANOEUVER

Going ahead	Changing lanes	Pulling away from shoulder or curb
Slowing or stopping	Merging	Pulling onto shoulder or toward curb
Overtaking	Reversing	Unknown
Turning left	Stopped	Other
Turning right	Parked	
Making 'U' turn	Disabled	

SEQUENCE OF EVENTS (Multiple Choices Allowed)

Moveable Objects		
Other motor vehicle	Railway train	Animal-wild
Unattended vehicle	Street car	Other
Pedestrian	Farm tractor	
Cyclist	Animal-domestic	
Other Events		
Ran off road	Fire/explosion	Debris falling off vehicle
Skidding/sliding	Submersion	Other
Jack knifing	Rollover	
Load spill	Debris on road	
Fixed Objects		
Cable guide rail	Culvert	Crash cushion/treat
Concrete guide rail	Bridge support	Building or wall
Side guide rail	Rock face	Water course
Pole (utility, tower)	Snow bank/drift	Construction marker
Pole (sign, parking meter)	Ditch	Tree, shrub, stump
Fence/noise barrier	Curb	Other
Fixed Object Offset		
Left of Roadway		Right of Roadway
Less than 3.1 m		Less than 3.1 m
3.1 m to 6.0 m		3.1 m to 6.0 m
6.1 m to 9.0 m		6.1 m to 9.0 m
Greater than 9.0 m		Greater than 9.0 m

VEHICLE DAMAGE

None	Moderate	Demolished
Light	Severe	

LOCATION OF VEHICLE DAMAGE OR AREA OF IMPACT (Multiple Choices Allowed)

Right front corner	Left rear	Back complete
Right front	Left centre	Left side complete
Right centre	Left front	Top
Right rear	Left front corner	Undercarriage
Right rear corner	Front centre	No contact
Back centre	Front complete	Unknown
Left rear corner	Right side complete	

Data Matrix Fields

All the fields in the final data matrix are listed here. Although some of the information initially provided electronically by the Traffic Data Centre was not used in the statistical analysis, it is also listed here (the last 16 items).

Collision Report Number
 Missing MVA Report?
 Environment Condition
 Light Conditions
 Traffic Control Device
 Road Condition
 Vehicle Type
 Cyclist's Age
 Cyclist's Sex
 Cyclist's Injuries
 Wearing Helmet?
 Number of Traffic Lanes
 Speed Limit
 Bike Lane?
 Crash Type
 Contributing Factors 1
 Contributing Factors 2
 Contributing Factors 3
 Contributing Factors 4
 Date
 Day
 Time
 Longitude
 Latitude

Street Name 1
 Street Name 2
 Street Name 3
 Municipality
 Patrol Area
 Investigating Officer's Badge Number
 Charges Laid
 No. of Persons Involved
 No. of Vehicles Involved
 Accident Class (Non-reportable, Property Damage Only, Personal Injury)
 Accident Location (Intersection, Non-Intersection, Non-Roadway)
 Vehicles Towed
 Initial Vehicle Direction (Impacting Vehicle)
 Manoeuvre (Impacting Vehicle)
 Impact Type (See Toronto Police Services Collision Typology, Appendix A)
 Safety Equipment in Use

Code Book

Data that was coded for analysis is listed here. Some data (not listed here) did not require special coding (time and date of the collision, etc.). Other information was provided by the Traffic Data Centre but not incorporated into the statistical analysis (see Data Fields, above).

Crash Type	
Code	Description
1	Drive Out At Controlled Intersection
2	Drive Out From Lane or Driveway
3	Motorist Reversing
4	Motorist Right On Red
5	Motorist Right Turn-Other
6	Motorist Opens Vehicle Door
7	Bicyclist Strikes Stopped Vehicle
8	Motorist Left Turn - Facing Cyclist
9	Motorist Left Turn In Front Of Cyclist
10	Motorist Overtaking
11	Ride Out At Mid-block
12	Ride Out At Controlled Intersection
13	Ride Out From Sidewalk
14	Ride Out From Lane or Driveway
15	Wrong Way Cyclist
16	Cyclist Left Turn In Front Of Traffic
17	Cyclist Left Turn - Facing Traffic
18	Cyclist Lost Control
19	Cyclist Caught in Intersection
20	Cyclist Overtaking
21	Drive Into/Out of On-Street Parking
22	Other
23	Unknown

Contributing Factors	
Code	Description
1	vehicular assault
2	child cyclist (inexperience)
3	cyclist inattentiveness/fail to yield
4	cyclist passing on right
5	cyclist disobeying traffic control
6	cyclist impaired
7	cyclist on wrong side of road
8	darkness/poor visibility
9	poor/wet road surface
10	mechanical defect (bicycle)
11	motorist inattentiveness/fail to yield
12	cyclist riding on sidewalk or crosswalk
13	streetcar tracks
14	motorist discharging passenger in l. lane
15	motorist improper/unsafe lane change
16	motorist impaired
17	sight lines obstructed
18	cyclist path obstructed
19	motorist failed to detect cyclist
20	motorist misjudged passing space
21	Motorist disobeying traffic control

Environment Conditions	
Code	Description
1	Clear
2	Rain
3	Snow
4	Freezing Rain
5	Drifting Snow
6	Strong Wind
7	Fog, mist, smoke, dust
99	Other

Light Conditions	
Code	Description
1	Daylight
2	Daylight, artificial
3	Dawn
4	Dawn, artificial
5	Dusk
6	Dusk, artificial
7	Dark
8	Dark, artificial
99	Other

Road Surface Condition	
Code	Description
1	Dry
2	Wet
3	Loose snow
4	Slush
5	Packed Snow
6	Ice
7	Mud
8	Loose sand or gravel
9	Spilled liquid
99	Other

Traffic Control	
Code	Description
1	Traffic Signal
2	Stop Sign
3	Yield Sign
4	Ped Crossover
5	Police Control
6	School Guard
7	School Bus
8	Traffic Gate
9	Traffic Controller
10	No Control
99	Other

Injuries	
Code	Description
0	none
1	minimal
2	minor
3	major
4	fatal

Vehicle Type	
1	Automobile
2	Motorcycle
3	Moped
4	Passenger van
5	Pick-up truck
6	Delivery van
7	Tow truck
8	Truck - open
9	Truck - closed
10	Truck - tank
11	Truck - dump
12	Truck - car carrier
13	Truck - tractor
14	Municipal transit bus
15	Inter-city bus
16	Bus (other)
17	School bus
18	School van
19	Other school vehicle
20	Motor home
21	Off-road 2 wheels
22	Off-road 3 wheels
23	Off-road 4 wheels
24	Off-road - other
25	Motorized snow vehicle
26	Farm tractor
27	Other farm vehicle
28	Construction equipment
29	Railway train
30	Streetcar
31	Snow plow
32	Ambulance
33	Fire vehicle
34	Police vehicle
35	Other emergency veh.
36	Bicycle
37	Taxi
0	Unknown
98	Truck - other
99	Other