



Transport
for NSW

Centre for Road Safety

Definitions and notes to support road crash data

NSW Centre for Road Safety, October 2018

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1 Crash statistics

1.1 Guidelines

Our statistics are confined to crashes that conform to the national guidelines for reporting and classifying road vehicle crashes. The guidelines include crashes that meet all of these criteria:

- Were reported to the police
- Occurred on a road open to the public
- Involved at least one moving road vehicle
- Involved at least one person being killed or injured or at least one motor vehicle being towed away.

Reports for some crashes are not received until well into the following year and after the annual crash database has been finalised. These amount to fewer than 1 per cent of recorded crashes and are counted in the following year's statistics.

1.2 Crash reporting

Before 2000, Section 8 (3) of the Traffic Act 1909 required a road crash in NSW to be reported to the police when any person was killed or injured, or there was property damage of more than \$500.

On 1 December 1999, the Traffic Act was repealed and replaced by new traffic legislation including the adoption of the Australian Road Rules. The new traffic legislation is found in the Road Transport (General) Act 1999 and the Road Transport (Safety and Traffic Management) Act 1999 and the regulations made under those Acts.

Rule 287 (3) of the Road Rules requires a crash to be reported to police when any person is killed or injured; when drivers involved in the crash do not exchange particulars; or when a vehicle involved in the crash is towed away.

2 Interactive crash statistics

2.1 Date of crash

Data presented in these displays is based on the 'reporting year' of the crash to police.

2.2 Road User data

In some displays the Road User values 'Other Controller' (e.g horse riders) and 'Other Passenger' (e.g train or light rail passenger) have been suppressed. However, the Grand Total will include these values.

2.3 Pedal cycle crashes

There are two means for which pedal cycle crashes are identified and included in the CRS crash database. The first is where pedal cycle crashes are reported to NSW Police. The injury severity of the pedal cyclists involved is determined by the regular linkage of these records with NSW Ministry of Health data collections. A pedal cyclist record linked to a hospital stay is classified as a 'matched serious injury'.

Many pedal cyclists admitted to a hospital are for various reasons unable to be linked to a police report. This second process of identification results in a cohort of seriously injured pedal cyclists classified as 'unmatched serious injuries'.

Interactive crash statistic displays that only use matched serious injuries will therefore under report the extent of road trauma involving pedal cyclists.

3 Definitions and notes

Aboriginal: A classification of Aboriginal or Torres Strait Islander status based on the Enhanced Reporting of Aboriginality (ERA) variable derived from linked Health datasets.

Alcohol involved in crash: Determined by whether any of the vehicle drivers or riders in the crash had an illegal level of alcohol.

Animal rider: A person sitting on or riding a horse or other animal.

Articulated truck: Any articulated tanker, semi-trailer, low loader, road train or B-double.

Bicycle rider: See Pedal cycle rider.

Bus: Includes State Transit Authority bus and long distance/tourist coach.

Car: Includes sedan, station wagon, utility (based on car design), panel van (based on car design), coupe, hatchback, sports car, passenger van and four-wheel-drive passenger vehicle.

Carriageway: That part of the road improved or designed to be ordinarily used by moving vehicles. When a road has two or more of these parts, divided by a median strip or other physical separation, each of these is a separate carriageway.

Casualty: Any person killed or injured because of a crash.

Controller: A person occupying the controlling position of a road vehicle.

Country: All local government areas except Newcastle, Lake Macquarie, Wollongong and Shellharbour, as well as those in metropolitan Sydney.

Crash: Any unplanned event involving a road vehicle on a road that results in death, injury or property damage and is reported to the police.

Crash type: The type of crash grouped according to the road user movement code recorded (see Road user movement code).

Driver: A controller of a motor vehicle other than a motorcycle

Emergency vehicle: Includes ambulance, fire brigade vehicle, police patrol car (or van) and tow truck.

Fatal crash: A crash for which there is at least one fatality.

Fatality: A person who dies within 30 days from injuries received in a road traffic crash.

Footpath: That part of the road which is ordinarily reserved for pedestrian movement as a matter of right or custom.

Heavy truck: Any heavy rigid truck or articulated truck.

Heavy rigid truck: Any rigid lorry or rigid tanker with a tare weight in excess of 4.5 tonnes.

High Threat to Life Indicator (HTTL): An alternative dimension of severity based on a person's probability of survival. This metric is based on a person's worst injury where the lowest SRR (Survival Risk Ratio) of all diagnosis codes for the first admission is used to calculate ICISS (ICD-based Injury Severity Score). ICISS values are banded into two categories and have the following survival probabilities:

Yes - at most 94.1%

No – at least 94.1%

Injury severity category: A dimension of severity based on a person's probability of survival. This metric is based on a person's worst injury where the lowest SRR (Survival Risk Ratio) of all diagnosis codes for the first admission is used to calculate ICISS (ICD-based Injury Severity Score). ICISS values are banded into four categories and have the following survival probabilities:

Maximum severity - at most 85.4%

High severity - between 85.4% and 96.5%

Moderate severity - between 96.5% and 99.2%

Minimum severity - at least 99.2%

Intersection crash: A crash where the first impact occurs at or within 10 metres of an intersection.

Killed: See Fatality.

LGA: The local government area where the crash occurred.

Light truck: Includes panel van (not based on car design), utility (not based on car design) and mobile vending vehicle.

Location of injury: Location of Injury is also derived from the Principal Diagnostic Code of the first linked Admitted Patient Data Collection (APDC) record of the patient. It provides a description of the region of the body the principal injury occurred.

Metropolitan: All local government areas in metropolitan Sydney, as well as Newcastle, Lake Macquarie, Wollongong and Shellharbour.

Minor / Other injured: A person identified as a casualty in the Police crash report data who is not matched to a hospital stay or an emergency department attendance record; or a previously defined No Injury CrashLink record matched to a SIRA CTP record with an MAIS Score of 1 (Minor).

Moderately injured: A person identified in CrashLink (casualty or driver or rider) who is matched to an emergency department attendance record on the same day or on the day after a crash but was not killed or not subsequently admitted to hospital; or a previously defined Minor/Other or No Injury CrashLink record matched to a SIRA CTP record with a MAIS score of 2 (Moderate) or higher.

Motor vehicle: Any road vehicle that is mechanically or electrically powered but not operated on rails.

Motorcycle: Any mechanically or electronically propelled two or three-wheeled machine with or without sidecar. Includes solo motorcycle, motorcycle with sidecar, motor scooter, mini-bike, three-wheeled special mobility vehicle and moped (motorised 'pedal cycle').

Motorcycle passenger: A person on but not controlling a motorcycle.

Motorcycle rider: A person occupying the controlling position of a motorcycle.

Motorcyclist: Includes motorcycle riders and motorcycle passengers.

Natural lighting conditions: The natural lighting at the time of the crash.

Nature of injury: Nature of Injury is derived from the Principal Diagnostic Code of the first linked Admitted Patient Data Collection (APDC) record of the patient. It describes the kind of injury sustained by the person.

Newcastle metropolitan area: The local government areas of Newcastle and Lake Macquarie cities.

Non-casualty crash: A crash in which at least one vehicle is towed away where there is no death and no person injured.

Passenger: Any person, other than the controller, who is in, on, boarding, entering, alighting or falling from a road vehicle at the time of the crash, provided a portion of the person is in or on the road vehicle.

Pedal cycle: Any two or three-wheeled device operated solely by pedals and propelled by human power except toy vehicles or other pedestrian conveyances. Includes bicycles with side-car, trailer or training wheels attached.

Pedal cycle passenger: A person on but not controlling a pedal cycle.

Pedal cycle rider: A person occupying the controlling position of a pedal cycle.

Pedal cyclist: Includes pedal cycle riders and pedal cycle passengers.

Pedestrian: Any person who is not in, on, boarding, entering, alighting or falling from a road vehicle at the time of the crash.

Pedestrian conveyance: Any device, ordinarily operated on the footpath, by which a pedestrian may move, or by which a pedestrian may move another pedestrian or goods. Includes non-motorised scooter, pedal car, skateboard, roller skates, in-line skates, toy tricycle, unicycle, push cart, sled, trolley, non-motorised go-cart, billycart, pram, wheelbarrow, handbarrow, non-motorised wheelchair or any other toy device used as a means of mobility.

Reporting year: The year in which the crash was recorded for reporting purposes.

RMS Region: A proxy for Road and Maritime Services (RMS) Region derived from the location of the hospital where the person was first admitted.

Road: The area devoted to public travel within a surveyed road reserve. Includes a footpath and cycle path inside the road reserve and a median strip or traffic island.

Road vehicle: Any device (except pedestrian conveyance) upon which or by which any person or property may be transported or drawn on a road.

Road surface condition: The condition of the road surface at the crash location (e.g. wet, dry).

Road user: The class of road user (e.g. driver, pedestrian).

Road user movement code: The road user movement or RUM code describing the first impact for the crash. See Appendix A.

Serious injury status: Total serious injuries comprise two categories: those persons that are matched to a police report and those persons that are not matched to a police report.

Seriously injured (matched): a person identified in CrashLink (casualty or driver or rider) who is matched to a hospital admission record on the same day or on the day after a crash and did not die within 30 days of the crash, and is admitted with at least one injury diagnosis; or linked to an iCare (Lifetime Care) participant record.

Seriously injured (unmatched): a person not matched to a police report but has been identified as having an injury on a public road for the hospital stay.

Sydney metropolitan area: The local government areas of Bayside, Blacktown, Burwood, Camden, Campbelltown, Canada Bay, Canterbury-Bankstown, Cumberland, Fairfield, Georges River, Hornsby, Hunters Hill, Inner West, Ku-ring-gai, Lane Cove, Liverpool, Mosman, North Sydney, Northern Beaches, Parramatta, Penrith, Randwick, Ryde, Strathfield, Sutherland, Sydney, The Hills, Waverley, Willoughby and Woollahra.

Weather: The weather conditions at the time of the crash.

Wollongong metropolitan area: The local government areas of Wollongong and Shellharbour cities.

4 Speeding and fatigue involvement

4.1 Speeding

It is not always clear from police reports if speeding (excessive speed for the prevailing conditions) was a contributing factor in a road crash.

We consider speeding to have been a contributing factor if at least one speeding motor vehicle was in a crash. We say a motor vehicle was speeding if it meets any of these conditions:

- The vehicle's driver or rider was charged with a speeding offence
- Police said the vehicle was travelling at excessive speed
- The speed of the vehicle was faster than that allowed for the licence class of the driver or rider, or the vehicle weight (introduced 1 January 2010)
- The speed of the vehicle was higher than the speed limit
- While on a curve the vehicle jack-knifed, skidded, slid or the controller lost control
- The vehicle ran off the road on a bend or turning a corner and the driver or rider was not distracted by something, or affected by drowsiness or sudden illness, and was not swerving to avoid another vehicle, animal or object, and the vehicle did not have equipment failure

4.2 Fatigue

It is not always clear from police reports if fatigue was a contributing factor in a road crash. We consider fatigue to have been a contributing factor if at least one fatigued vehicle driver or rider was in a road crash. We define a vehicle driver or rider to be fatigued if they meet any of these conditions:

- Police said the motor vehicle driver or rider was asleep, drowsy or tired
- The vehicle travelled onto the incorrect side of a straight road and had a head-on collision (and was not overtaking another vehicle and no other relevant factor was found)
- The vehicle ran off a straight road or off the road to the outside of a curve and the vehicle was not travelling at excessive speed and there was no other relevant factor found for the crash.

5 Appendix A - Road user movement code table

PEDESTRIANS (on foot or in toy/pram)	VEHICLES FROM ADJACENT DIRECTION (Intersections only)	VEHICLES FROM OPPOSING DIRECTION	VEHICLES FROM SAME DIRECTION	MANOEUVRING	OVERTAKING	ON PATH	OFF PATH, ON STRAIGHT	OFF PATH, ON CURVE OR TURNING	MISCELLANEOUS
NEAR SIDE 00	CROSS TRAFFIC 10	HEAD ON (not overtaking) 20	REAR END 30	U TURN 40	HEAD ON (including side swipe) 50	PARKED 60	OFF CARRIAGEWAY TO LEFT 70	OFF CARRIAGEWAY LEFT ON RIGHT BEND 80	FELL IN / FROM VEHICLE 90
EMERGING 01	RIGHT FAR 11	RIGHT THROUGH 21	LEFT REAR 31	U TURN INTO FIXED OBJECT / PKD VEHICLE 41	OUT OF CONTROL 51	DOUBLE PARKED 61	LEFT OFF CARRIAGEWAY INTO OBJECT / PARKED VEHICLE 71	OFF CARRIAGEWAY LEFT ON RIGHT BEND INTO OBJECT / PARKED VEHICLE 81	LOAD OR MISSILE STRUCK VEHICLE 91
FAR SIDE 02	LEFT FAR 12	LEFT THROUGH 22	RIGHT REAR 32	LEAVING PARKING 42	PULLING OUT 52	ACCIDENT OR BROKEN DOWN 62	OFF CARRIAGEWAY TO RIGHT 72	OFF CARRIAGEWAY RIGHT ON RIGHT BEND 82	STRUCK TRAIN / AEROPLANE 92
PLAYING, WORKING, LYING, STANDING ON CARRIAGEWAY 03	RIGHT NEAR 13	RIGHT / LEFT 23	LANE SIDE SWIPE 33	ENTERING PARKING 43	OVERTAKE TURNING 53	VEHICLE DOOR 63	RIGHT OFF CARRIAGEWAY INTO OBJECT / PARKED VEHICLE 73	OFF CARRIAGEWAY RIGHT ON RIGHT BEND INTO OBJECT / PARKED VEH 83	PARKED VEHICLE RUN AWAY INTO OBJECT / PARKED VEH 93
WALKING WITH TRAFFIC 04	TWO RIGHT TURNING 14	RIGHT / RIGHT 24	LANE CHANGE RIGHT (not overtaking) 34	PARKING VEHICLES ONLY 44	CUTTING IN 54	PERMANENT OBSTRUCTION ON CARRIAGEWAY 64	OUT OF CONTROL ON CARRIAGEWAY 74	OFF CARRIAGEWAY RIGHT ON LEFT BEND 84	PARKED VEHICLE RUN AWAY INTO VEHICLE 94
FACING TRAFFIC 05	RIGHT / LEFT FAR 15	LEFT / LEFT 25	LANE CHANGE LEFT 35	REVERSING 45	PULLING OUT REAR END 55	TEMPORARY ROADWORKS 65	OFF END OF ROAD / 'T' INTERSECTION 75	OFF CARRIAGEWAY LEFT ON LEFT BEND INTO OBJECT / PARKED VEHICLE 85	STRUCK WHILE BOARDING OR ALIGHTING VEHICLE 95
ON FOOTPATH / MEDIAN 06	LEFT NEAR 16		RIGHT TURN SIDE SWIPE 36	REVERSING INTO FIXED OBJECT / PARKED VEHICLE 46		STRUCK OBJECT ON CARRIAGEWAY 66	OFF CARRIAGEWAY LEFT ON LEFT BEND 86		
DRIVEWAY 07	LEFT / RIGHT FAR 17		LEFT TURN SIDE SWIPE 37	EMERGING FROM DRIVEWAY 47		ANIMAL (not hidden) 67	OFF CARRIAGEWAY LEFT ON LEFT BEND INTO OBJECT / PARKED VEHICLE 87		
	TO LEFT TURNING 18			FROM FOOTPATH 48			OUT OF CONTROL ON CARRIAGEWAY 88	OTHER 98	
OTHER PEDESTRIAN 09	OTHER ADJACENT 19	OTHER OPPOSING 29	OTHER SAME DIRECTION 39	OTHER MANOEUVRING 49	OTHER OVERTAKING 59	OTHER ON PATH 69	OTHER STRAIGHT 79	OTHER CURVE 89	UNKNOWN 99