Metropolitan

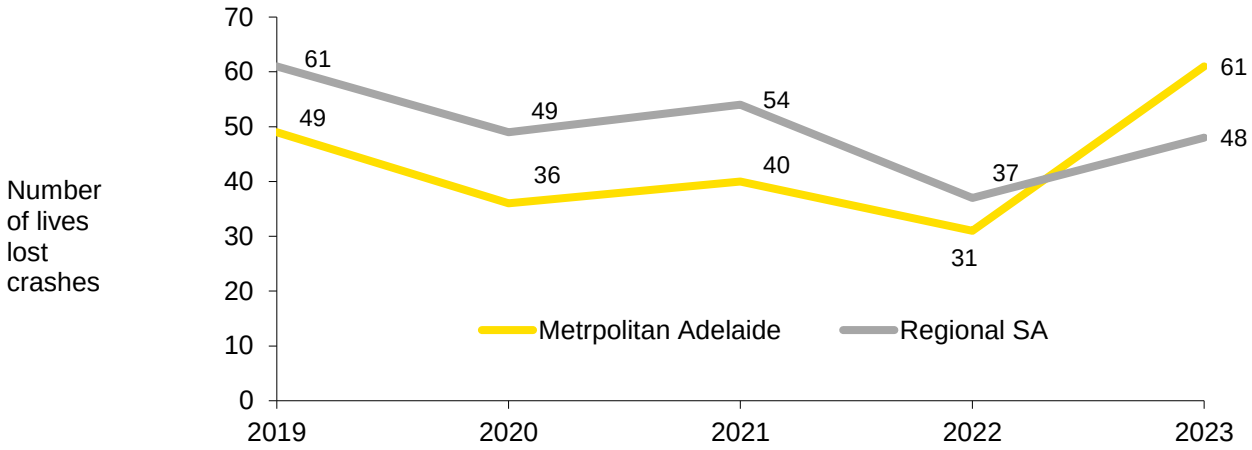
Road crashes in South Australia, 2019-2023

Overview

Over 1.44 million people, 78% of the State's population, live in metropolitan Adelaide (Australian Bureau of Statistics, June 2023). The urban road environment is generally characterised by large traffic volumes during commuter peak periods, numerous intersections and higher numbers of pedestrians and cyclists compared to regional areas. Between 2019 and 2023), 85% of South Australia's minor injury crashes, 67% of serious injury crashes and 47% of crashes resulting in a life lost occurred in metropolitan Adelaide.

The greater Adelaide statistical area, which extends from Roseworthy in the north to Sellicks Hill in the south and Harrogate in the east, is used to define metropolitan crashes in this report[1]. Despite the regions greater population, generally there are a lower number of crashes where a life was lost in the metropolitan Adelaide area than in regional areas across 2019 to 2023 as indicated in Figure 1. However, the number of crashes where a life was lost in the metropolitan Adelaide area was higher than in regional areas in 2023. The number of crashes where a life was lost in both the regional and metropolitan areas was highest in 2023 while compared to the past years (Figure 1).

Figure 1: Number of crashes where a life was lost by area, South Australia, 2019-2023



[1] www.abs.gov.au/statistics/standards/australian-statistical-geography-standard-asgs-edition-3/jul2021-jun2026

Table 1 shows that most minor and serious injury crashes occurred in metropolitan Adelaide, whilst more crashes that resulted in a life lost occurred in regional areas.

Table 1: Number of crashes by area, South Australia, 2019-2023

	Metropolitan Adelaide				Regional South Australia			
Year	Lives lost crashes	Serious injury	Minor injury	Total crashes	Lives lost crashes	Serious injury	Minor injury	Total crashes
2019	49	504	3393	3946	61	225	544	830
2020	36	428	2773	3237	49	196	486	731
2021	40	523	3021	3584	54	193	525	772
2022	31	338	2445	2814	37	237	462	736
2023	61	455	2470	2986	48	257	440	745
5-year Average	**43**	**450**	**2820**	**3313**	**50**	**222**	**491**	**763**

Speeds

Major traffic routes in the metropolitan Adelaide area with a speed limit of 60km/h account for the highest traffic volumes and a large proportion of crashes occur on these roads. In addition, there is more congestion (especially during peak commuting times) and frequent intersections providing the opportunity for vehicles and other road users to come into conflict. Table 2 shows that for the past five years, 45% of crashes resulting in a life lost or serious injury in the metropolitan Adelaide area occurred on 60km/h roads and 25% were on 50km/h speed limit roads.

Table 2: Lives lost or serious injury crashes by speed limit, metropolitan Adelaide, South Australia, 2019-2023

Speed limit	Lives lost and serious injury crashes n (%)
less than 50km/h	73 (3%)
50km/h	615 (25%)
60km/h	1101 (45%)
70-90km/h	533 (22%)
100-110km/h	144 (6%)
Total	**2466**

Crash types

Over the past five years, the most common type of crashes resulting in a life lost or serious injury in the metropolitan Adelaide area was a vehicle colliding with a fixed object (24%). Fixed object collisions are over-represented in life lost and serious injury collisions. Right angle crashes were the next most common crash type (19%). As shown in Figure 2, hitting a pedestrian (15%) was also a common type of crash in metropolitan Adelaide. Around 38% of all crashes resulting in a life lost or serious injury in the metropolitan area were single vehicle crashes.

Figure 2: Percent of lives lost and serious injury crashes by type, metropolitan Adelaide, 2019-2023

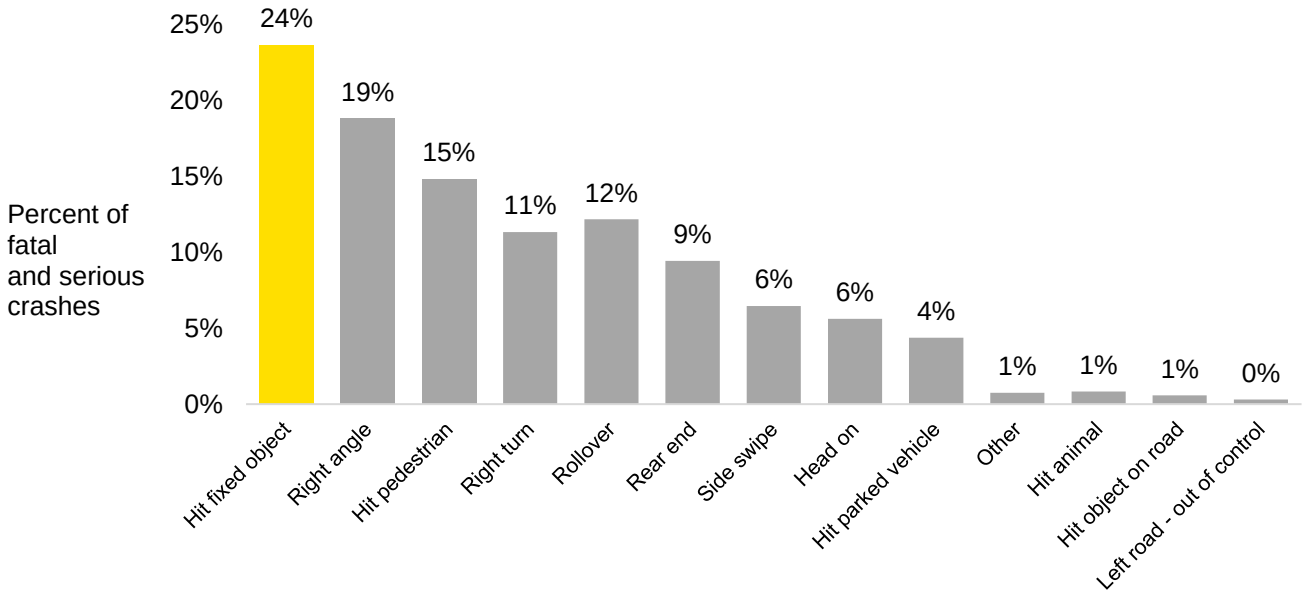


Figure 3: Percent of minor injury crashes per year by crash type, metropolitan Adelaide, 2019-2023

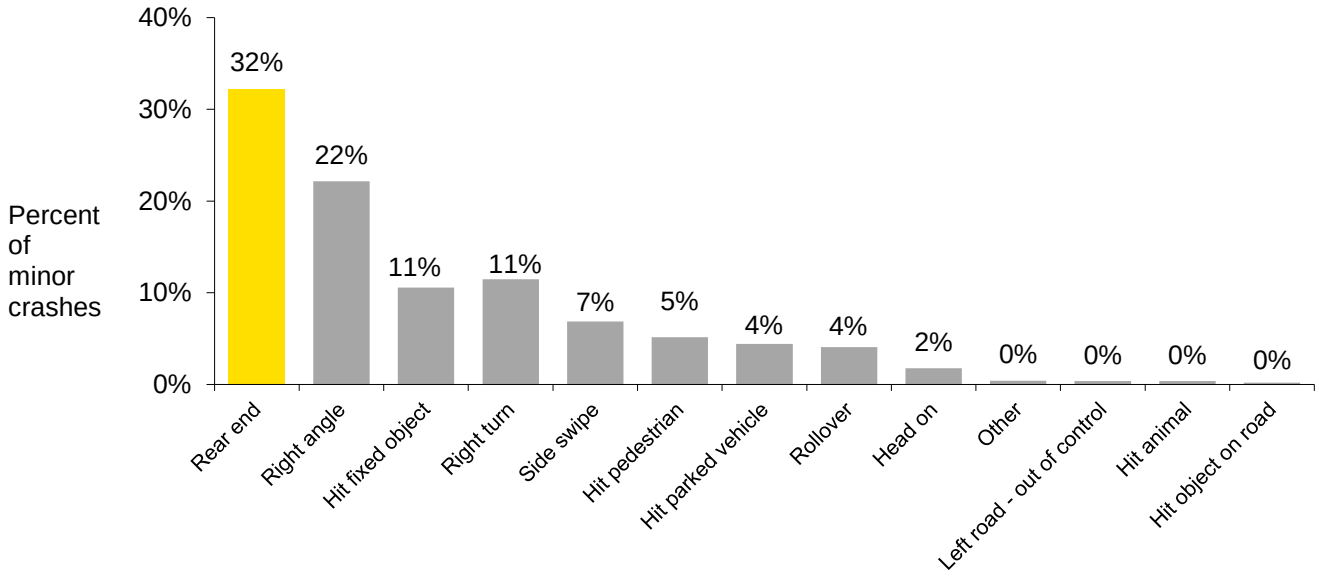
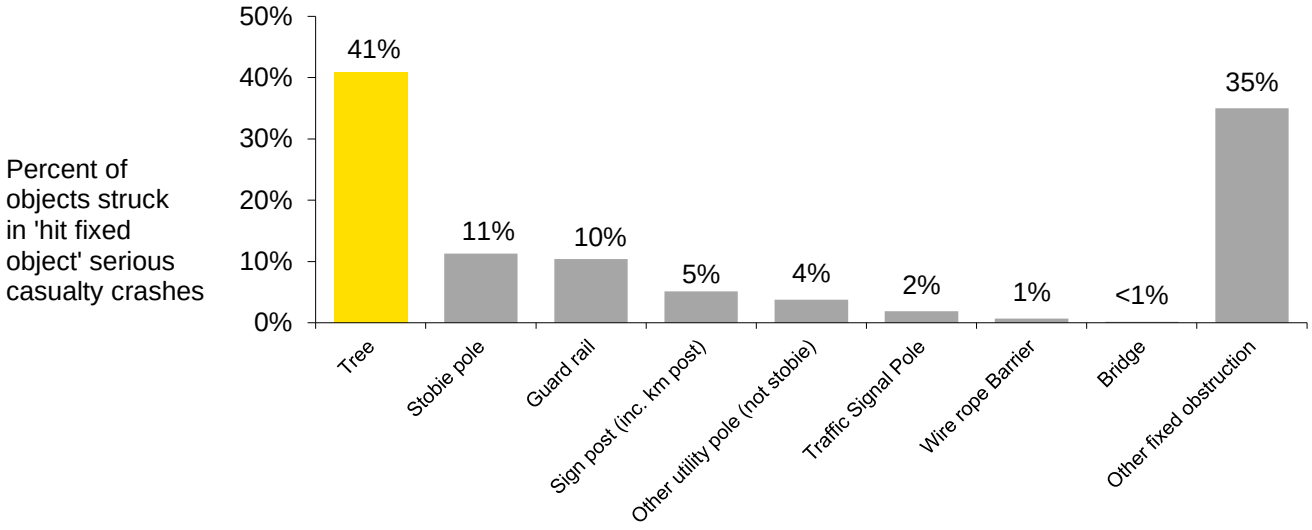


Figure 3 shows that the distribution of crash types differs for minor injury crashes, whereby rear end collisions accounted for 32% of minor injury crashes over the past five years in South Australia.

Hit fixed object crashes

As shown in Figure 4, the most common type of object struck in hit fixed object crashes that resulted in a life lost or serious injury were trees and poles. 'Other fixed obstructions' can include fences, embankments, fire hydrants, Telstra or SA Power Networks boxes. Some crashes result in a vehicle colliding with more than one roadside fixed object.

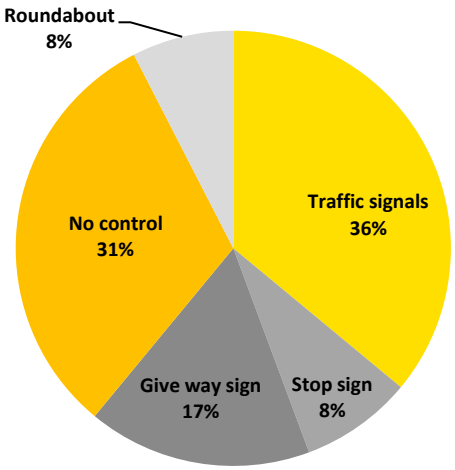
Figure 4: Types of objects struck in 'hit fixed object' type lives lost or serious injury crashes in metropolitan Adelaide, 2019-2023



Intersections

Over the past five years, 25% of all crashes resulting in lives lost and 44% of serious injury crashes in metropolitan Adelaide occurred at intersections. It is not unusual that crashes are concentrated at intersections because they are the point on the road network where traffic movements conflict with one another. Of the crashes resulting in a life lost or serious injury at intersections in metropolitan Adelaide area, 36% were controlled by traffic signals, 31% occurred at intersections with no signal/signed controls and the remaining were controlled in other ways, as illustrated in Figure 5.

Figure 5: Intersection lives lost and serious injury crashes and the corresponding traffic control – metropolitan Adelaide, 2019-2023

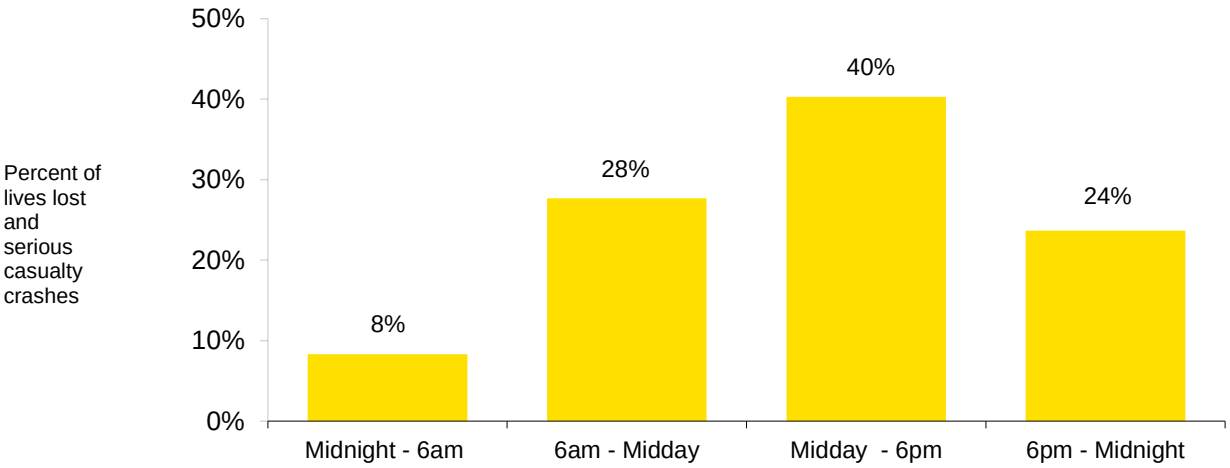


Crashes resulting in a life lost or serious injury at intersections with no control for the last five years were primarily right angle (35%) and right turn (21%). Other crash types include hit pedestrian (12%), hit fixed object (10%) and rear end (7%). Crashes at signalised intersections are mainly right turn (33%) and right angle crashes (22%), with a further 12% as a result of hitting a pedestrian and 12% were a rear end collision.

Time

Figure 6 indicates that most metropolitan Adelaide crashes that result in a life lost or serious injury occur during daylight hours. From 2019 to 2023, 28% occurred in the morning between 6am and midday, 40% occurred in the afternoon between midday to 6pm, 24% occur between 6pm and midnight, and the remaining occur between midnight and before 6am.

Figure 6: Lives lost and serious injury crashes by time, metropolitan Adelaide, 2019-2023



Pedestrians[2]

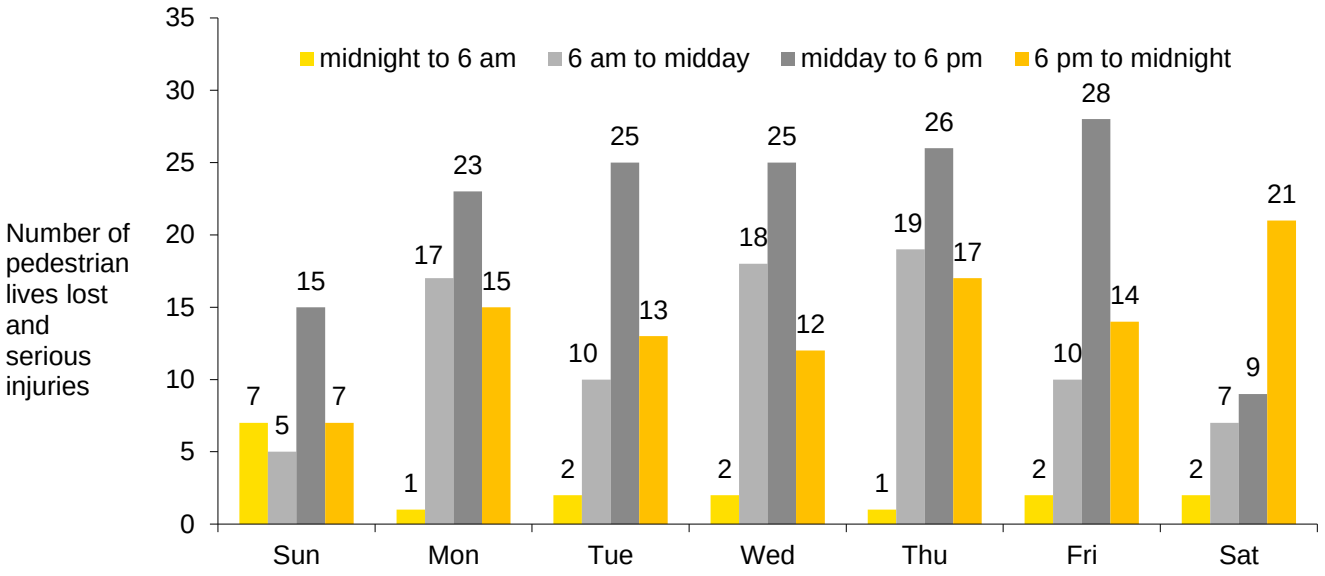
Between 2019 and 2023, 65% of South Australian pedestrian lives lost occurred in metropolitan Adelaide. There were on average 10 pedestrian deaths, 61 serious injuries and 155 minor injuries to pedestrians in metropolitan Adelaide each year as shown in Table 3.

Table 3: Pedestrian casualties by severity - metropolitan Adelaide, South Australia, 2019-2023

Year	Lives lost	Serious injuries	Minor injuries	Total
2019	18	67	193	275
2020	3	49	131	183
2021	11	73	159	243
2022	5	66	140	211
2023	14	50	150	214
5-year average	**10**	**61**	**155**	**225**

Figure 7 shows that the highest frequency of pedestrian lives lost and serious injuries occurred on a Wednesday and Friday between midday and 6pm. 43% of all crashes resulting in a life lost or serious injury occur between midday and 6pm (across all days).

Figure 7: Number of pedestrian lives lost and serious injury crashes in metropolitan Adelaide by time of day and day of week, 2019-2023



The majority (70%) of pedestrian lives lost and serious injuries occur on midblock sections of the road rather than at intersections. Over the past five years, 36% of intersection pedestrian serious casualties occurred where there was no traffic control. Between 2019 and 2023, 55% of crashes in metropolitan

[2] Pedestrians include gopher & wheelchair users.

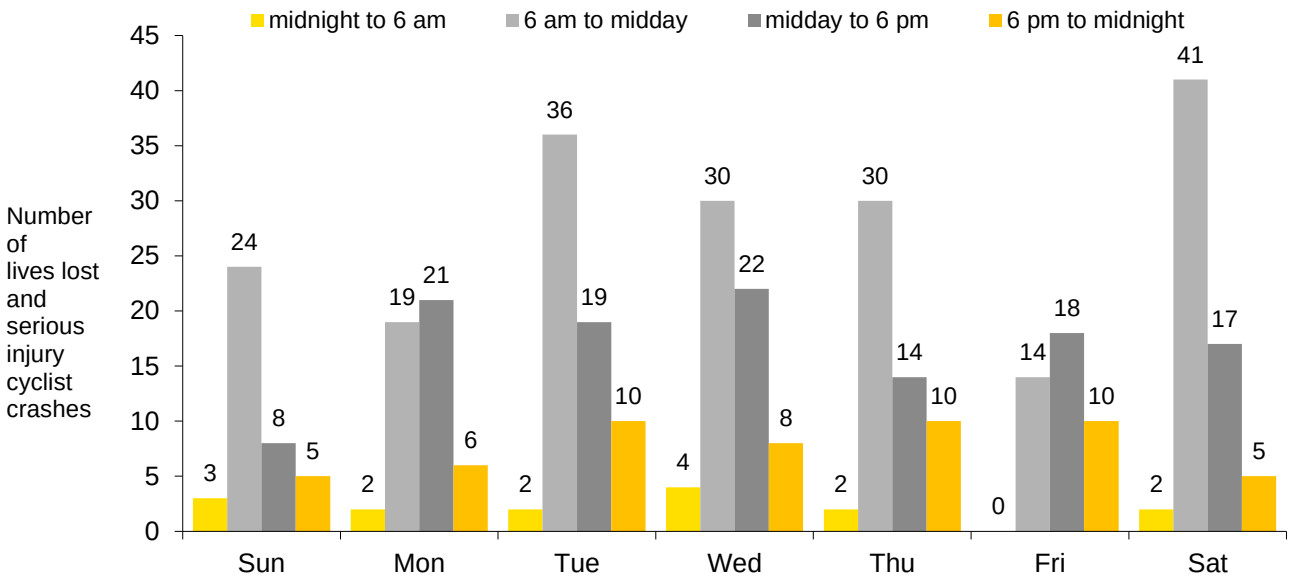
Adelaide resulting in a life lost or serious injury involving a pedestrian occurred on roads with a 50km/h speed limit and a further 30% were on roads with a 60km/h speed limit.

Cyclists

Cyclists are also vulnerable road users and over the past five years, around half (72%) of lives lost and 91% of serious injuries to cyclists occurred on metropolitan Adelaide roads. On average four cyclists were killed and 73 were seriously injured in the metropolitan Adelaide area each year. Just under half of all cyclists killed and serious injuries reported occurred at intersections (45%). Of these, 56% occurred at a T-junction and 44% were at a crossroad.

Figure 8 shows that most cycling collisions occur during daylight hours, 51% between 6am to midday and 31% between midday and 6pm. More information about cyclist road crashes can be found in the Cyclist fact sheet.

Figure 8: Number of reported cyclist lives lost or serious injury crashes in metropolitan Adelaide by time of day and day of week, 2019-2023



Definitions of police reported casualty types:

Casualty crash – crash where at least one life lost, serious injury or minor injury occurs.

Casualty – A life lost, serious injury or minor injury.

Fatal crash – A crash for which there is at least one life lost.

Life lost – A person who dies within 30 days of a crash as a result of injuries sustained in that crash.

Serious injury crash – A non-fatal crash in which at least one person is seriously injured.

Serious injury – A person who sustains injuries and is admitted to hospital for a duration of at least an overnight stay as a result of a road crash and who does not die as a result of those injuries within 30 days of the crash.

Minor injury crash – A crash in which at least one person sustains injury but no person is admitted to hospital or dies within 30 days of the crash.

Minor injury – A person who sustains injuries that require medical treatment, either by a doctor or in a hospital, because of a road crash and who was not admitted to hospital and who does not die as a result of those injuries within 30 days of the crash.

Property damage only crash – A crash resulting in property damage in excess of the prescribed amount in which no person is injured or dies within 30 days of the crash.

Data sources

The data presented in this report was obtained from the Department for Infrastructure and Transport Road Crash Database. The information was compiled from police reported road casualty crashes only.

Note- Percentage totals may not add to 100% due to rounding.

Enquiries

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