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Road Safety Performance Local Government Roads 2019-2023

Supporting Notes – All of Western Australia

The primary source for data in this report is the Government of Western Australia, Road Safety Commission, December 2025, unless otherwise specified in these notes.

Acronyms

AADT Annual Average Daily Traffic

ABS Australian Bureau of Statistics

DBCA Department of Biodiversity, Conservation and Attractions

KSI Killed and seriously injured

MVKT Million Vehicle Kilometres Travelled

MRWA Main Roads Western Australia

RRG Regional Road Group

Killed and Seriously Injured

This pie chart shows the number of people killed and seriously injured (KSI) in the five-year period, 2019-2023, distribution by local and state roads, and the percentage of KSIs on local roads.

Fatality

A fatality is defined as a person killed immediately, or within 30 days of the crash, as a result of injuries sustained in a crash.[1]

Serious Injury

A serious injury is defined as a person who is admitted to hospital as a result of a reported crash.[1]

Local Roads

This pie chart shows the number of people killed and the number of people seriously injured on local roads between 2019-2023. For every death on Western Australian local roads from 2019-2023, there were 11 other people seriously injured. Many of these serious injuries result in permanent disability and change lives forever, placing a burden on public health resources and the community.

Average Cost Per Annum

Road crashes on local roads cost the community, on average, $1.04 billion per year over the five-year period, 2019-2023. This amount is based on the willingness to pay (WTP) model which is used to calculate the average crash cost for WA between 2019-2023. WTP is derived by determining the amount that people are willing to pay for reducing the risk of being fatally or seriously injured[2].

WA Cost per Crash (2019-2023 Average)

Fatal = $9,762,965.00 **Hospital** = $431,857.00

Trend

KSI numbers and rates are changing over time. This graph depicts the progress that has been made in reducing and preventing road trauma on WA roads during the five-year period, 2019-2023. There is a slight downward trend over the five-year period.

Road Network

This section classifies the road network according to whether Main Roads WA (state roads) or Local Government (local roads) is responsible for managing the road infrastructure.

State Roads	Local Roads
All roads managed by MRWA on behalf of the State and Commonwealth Governments	Roads owned and managed by Local Governments (excludes roads in National Parks and on other land managed by DBCA)
Length	**Length**
Total length of roads in kilometres[3]	Total length of roads in kilometres[4]
Percentage of the road network for which MRWA are responsible	Percentage of the road network for which Local Governments are responsible
Travel / Use	**Travel / Use**
An estimate of travel based on MVKT	An estimate of travel based on MVKT
Percentage of MVKT on MRWA managed roads	Percentage of MVKT on Local Government managed roads
KSI rate	**KSI rate**
Average annual KSI rate per 100,000 population. The arrows below show the change in KSI rate from the previous reporting period, 2018-2022	Average annual KSI rate per 100,000 population. The arrows below show the change in KSI rate from the previous reporting period, 2018-2022
↑ Increased ↓ Decreased → Remains the same	↑ Increased ↓ Decreased → Remains the same

Travel / Use (MVKT)

Local Roads

Calculated as the difference between the ABS whole of state MVKT value and the State roads MVKT value using population percent distribution to estimate travel on local roads in WA, assuming that on average each driver representing similar number of persons travels similar distances.

State Roads

Calculated using recorded and estimated AADT values per kilometre. AADT values prior to 2023 are compounded using growth rates from Main Roads WA Traffic Modelling.

Comparing Metro and Regional KSI Numbers and Rates

It can also be useful to consider the KSI rates to see the comparable differences, in the extent of road trauma, between regions. Benchmarking and comparing road safety performance are increasingly being used as an approach to encourage improvements in road safety[5]. Result comparisons help to promote best practice, encourage the adoption of ambitious road safety performance targets and boost political leadership to create a safer road transport system for all[6].

The graph shows the average annual KSI rate per 100,000 population by region with the arrows indicating the change in the average annual KSI rate from the previous reporting period, 2018-2022.

↑ Increased ↓ Decreased → Remains the same

Priority Treatment Areas

Highlighting the crash types resulting in the highest percentages of KSI can assist Local Governments to prioritise their time, resources, and effort towards implementing road safety interventions, specifically those that target the crashes that are causing the most harm to people in their area.

Run-Off-Road Crashes

Run-off-road crashes include the crash types, Off Carriageway Hit Object and Off Carriageway Non-collision.

Intersection Crashes

Intersection crashes include the crash types, Right Angle and Right Turn Thru.

Crash Type

This table gives information about the types of crashes occurring on the local road network. This information can be used to identify priorities and develop strategies that relate specifically to local roads.

This data can provide a rationale that may be used to support the allocation of funds in road program budgets for the installation of safe system treatments that will counteract the crash type. For example, the installation of roadside barriers or sealing shoulders can be used to alleviate run-off-road crashes.

This table shows the crash types for all KSI crashes on local roads in Western Australia for the five-year period, 2019-2023. The arrows indicate the change in the percentage of KSI crashes from the previous report period, 2018-2022.

↑ Increased ↓ Decreased → Remains the same

Crash Type	RUM Codes	Notes
Off Carriageway Non-Collision	71, 73, 81, 83	Loss of control off carriageway
Non-Collision	75, 85	Loss of control on carriageway
Non-Collision	76, 77	These RUM Codes may refer to the crash type Non-Collision which are also loss of control but at an intersection, depending whether an object was hit or not

RUM code details are available on the Main Roads WA website[7].

Road User Type

Information about road user type identifies which user groups were involved in KSI crashes. This information can assist Local Governments in allocating funds to targeted road safety interventions.

Driver/passenger	Motorcyclist	Pedestrian	Cyclist	Bus/truck	Other/unknown
					No icon – represents 7% of road user type

Examples of Treatments by Crash Type and RUM Code

Crash Type	Treatment Examples	RUM Codes
RUN-OFF-ROAD	• Reduce travel speed • Clear zones • Widen shoulders • Road safety barriers • Audible edge lining • Consistent road design and delineation • Reflective guide posts	71. Left off carriageway 72. Left off carriageway into object/vehicle 73. Right off carriageway 74. Right off carriageway into object/vehicle 81. Off carriageway right bend 82. Off carriageway right bend into object 83. Off carriageway left bend 84. Off carriageway left bend into object
NON COLLISION	• Reduce travel speed • Widen shoulders • Consistent road design and delineation • Audible edge lining • Reflective guide posts	75. Lost control on carriageway 85. Out of control on carriageway 76. Left turn (intersection) 77. Right turn (intersection)
INTERSECTION	• Reduce travel speed • Roundabouts • Intersection platforms • Grade separation • Ban selected movements	11. Thru - thru 12. Right - thru 13. Left - thru 14. Thru - right 15. Right - right 16. Left - right 17. Thru - left 18. Right - left 19. Left - left
HIT PEDESTRIAN	• Reduce travel speed • Grade separation • Footpaths • Raised crossings • Pedestrian refuge islands • Improved lighting	1. Near side 2. Emerging 3. Far side 4. Play/work/stand on carriageway 5. Walking with traffic 6. Walking against traffic 7. Driveway 8. On footway 9. Struck while boarding or alighting

Relevant Austroads Guides

- *Safe System Assessment Framework*
- *Guide to Road Safety*
- *Safe System Roads for Local Government*

References

[1] WA Road Safety Commission, Western Australian Road Fatalities and Serious Injuries 2023, https://www.wa.gov.au/government/publications/western-australian-road-fatalities-and-serious-injuries-2023, November 2024.

[2] Rizzi, L., Ortuzar, JDD. (2005), *Estimating the willingness-to-pay for road safety improvements*, Transport Reviews, vol. 26, no. 4, pages 471-485.

[3] Main Roads Western Australia, Main Roads WA Annual Report 2024 – Future Focused, p. 187, https://annualreports.mainroads.wa.gov.au/AR-2024/pdf/MRWA-Annual-Report-2024.pdf

[4] Western Australian Local Government Association, Report on Local Government Road Assets and Expenditure 2023-2024

[5] Wegman, F., Oppe, S. (2010), *Benchmarking road safety performances of countries*, Safety Science, Volume 48, Issue 9, pages 1203-1211.

[6] Chen, F et al. (2016), *Benchmarking road safety performance: Identifying a meaningful reference (best-in-class)*, Accident Analysis & Prevention, Volume 86, pages 76-89.

[7] Main Roads WA, RUM Codes, https://www.mainroads.wa.gov.au/globalassets/technical-commercial/road-safety/road-use-movement-rum-codes.pdf.