



Western Australian Road Fatalities and Serious Injuries

2023

Acknowledgement of Country

The Government of Western Australia and the Road Safety Commission acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures; and to Elders both past and present.

The Road Safety Commission is privileged to be situated on Wadjuk Noongar Boodjar. Through our work, the Commission strives to tread lightly on Boodjar.

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Western Australian Road Fatalities and Serious Injuries 2023

Introduction

The Road Safety Commission works to reduce road trauma on Western Australian (WA) roads, including through leading implementation of the WA Government's *Driving Change - Road Safety Strategy for Western Australia 2020-2030* which provides a framework to guide improved road safety outcomes.

This publication reports on people who were Killed and Seriously Injured (KSI) in reported crashes on WA roads or road-related areas open to the public. This excludes KSI resulting from a driver's medical episode or a premeditated intent to cause harm (including suicide).

It should be noted that KSI data and road safety data more broadly has limitations, due to accessibility, quality, and timeliness of information.

Work is underway across the WA Government and with other jurisdictions to improve this important dataset.

Information for this report has been sourced from Main Roads WA Integrated Road Information System (IRIS). Additional data has been reproduced and interpreted with permission from the WA Police Force, the Department of Transport and the Australian Bureau of Statistics (ABS).

This report uses data over five years (2018-2022; see **Figure 1**), also referred to as the five-year average (5YA), to contextualise 2023 KSI information and to identify insights that may help inform further research and improved road safety outcomes.



Figure 1: Western Australia Killed or Seriously Injured (KSI) for 2018-2023

Unless otherwise identified, the Road Safety Commission prepared the information reported here using data from the Main Roads WA Integrated Road Information System (IRIS). This data is accurate as at 6 March 2024.

Numbers may change in the future due to police investigation or coronial inquiry. For this reason, comparisons between this publication and others may result in discrepancies. Definitions of categories and regional boundaries differ from data sourced from WA Police Force systems and should not be used for comparison purposes. This includes the Western Australian Road Fatalities 2023 Report: <https://www.wa.gov.au/government/publications/western-australian-road-fatalities-2023>

2023 Year in review

DEMOGRAPHICS

 **2.1M+** LICENSED DRIVERS IN WA

2.6M+ REGISTERED MOTORISED VEHICLES ON WA ROADS

2.34M+
light vehicles



0.13M+
motorcycles



0.15M+
heavy vehicles



OUTCOMES

1,573
people KSI in
1,370 crashes



158 fatalities
FROM 148
CRASHES



1,415 PEOPLE SERIOUSLY INJURED from 1,222 crashes

847 PEOPLE KSI IN MULTI-VEHICLE CRASHES



Males aged 17-19 had the highest KSI rate (per 100,000)



1007 DRIVERS/RIDERS KSI CRASHES; OF THESE 9% UNLICENSED

34% OF ALL FATALITIES involved colliding with an object



GEOGRAPHY



Regional areas had **56%** of all fatalities



Regional areas saw a **17%** decrease in fatalities*

Metropolitan areas had a 22% increase in fatalities*



METROPOLITAN AREAS HAD 2/3 OF SERIOUS INJURIES

ROAD USERS

66% OF PEOPLE KSI WERE IN CARS



18% OF KSI WERE MOTORCYCLISTS

Pedestrian** KSI were **11% above the 5YA**



INFLUENCING FACTORS

MORE THAN 885,000 TRAFFIC INFRINGEMENTS were issued***



SPEED REMAINS THE NUMBER ONE CAUSE OF CAR CRASHES; speeding infringements increased by 9%

22% OF MOTORCYCLE KSI were attributed to speed



65% OF FATALITIES were motor vehicle occupants



of these **22%** were not wearing a seatbelt



Of the fatalities in regional **AREAS 78% OCCURRED IN** speedzones $\geq 100\text{km/h}$



* compared with the 5YA

** eRideables are classified in subset of pedestrian crash data as of 2022

*** speed, mobile phone and red-light offences

Some of these statistics were derived from WA Department of Transport; Driver and Vehicle Services.

Western Australian Road Fatalities and Serious Injuries 2023

Map of Fatal and Serious Injury crashes (2018-2023)

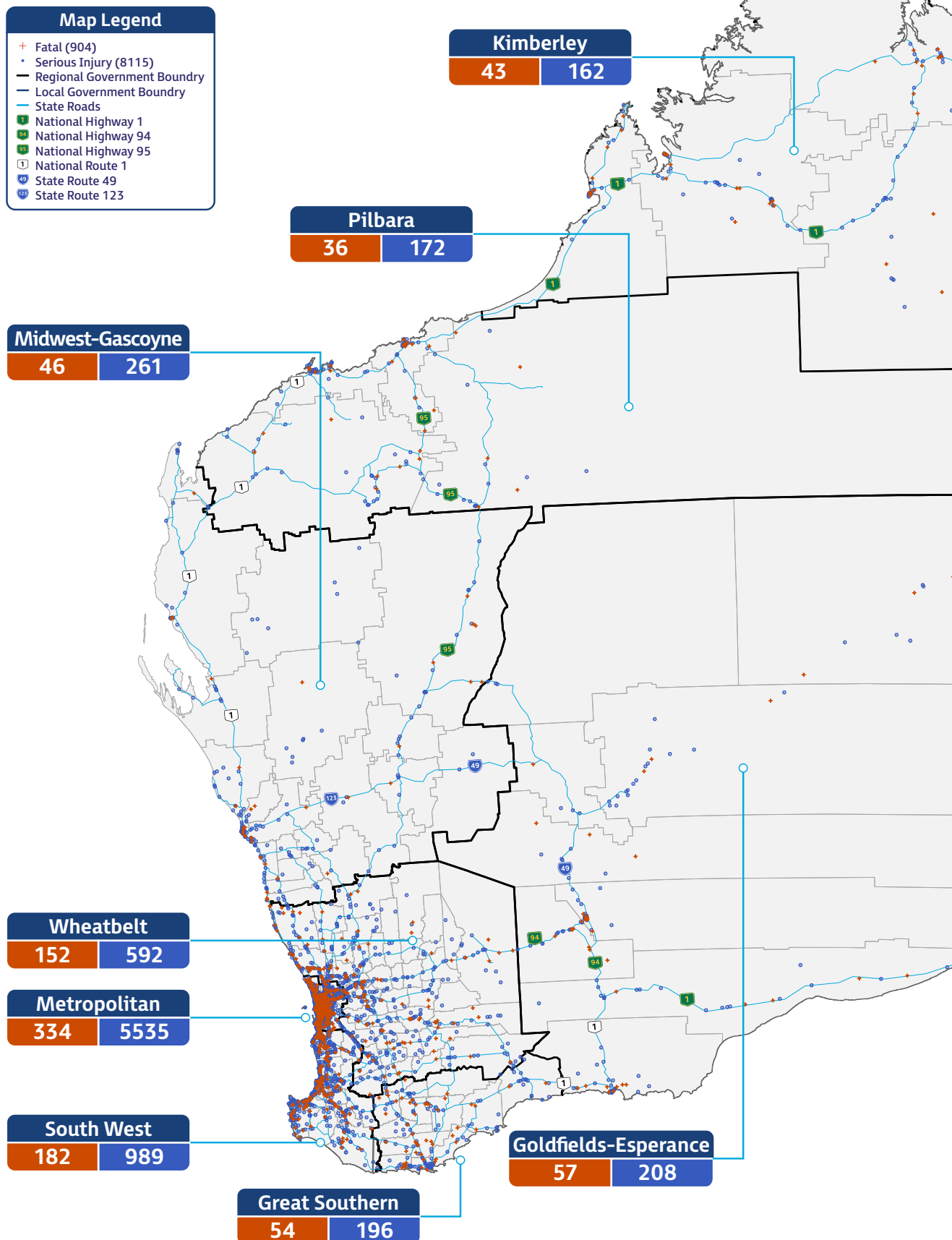


Figure 2: Western Australia Fatal and Serious Injury crashes (2018-2023)

* dots without a connecting line represent crashes on local roads

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by speed limit

Speed remains the primary contributing factor to road crashes. The following results should take into consideration there are a greater number of roads with allocated speed zones of 50km/h, 60km/h, 70km/h and 110km/hr¹.

In 2023, 60% of all serious injuries occurred on roads with posted speed limits of 50km/h, 60km/h or 70km/h; the greatest number of fatalities (41%) occurred on roads with 110km/h posted speed limits (see **Figure 3** and **Table 1**).

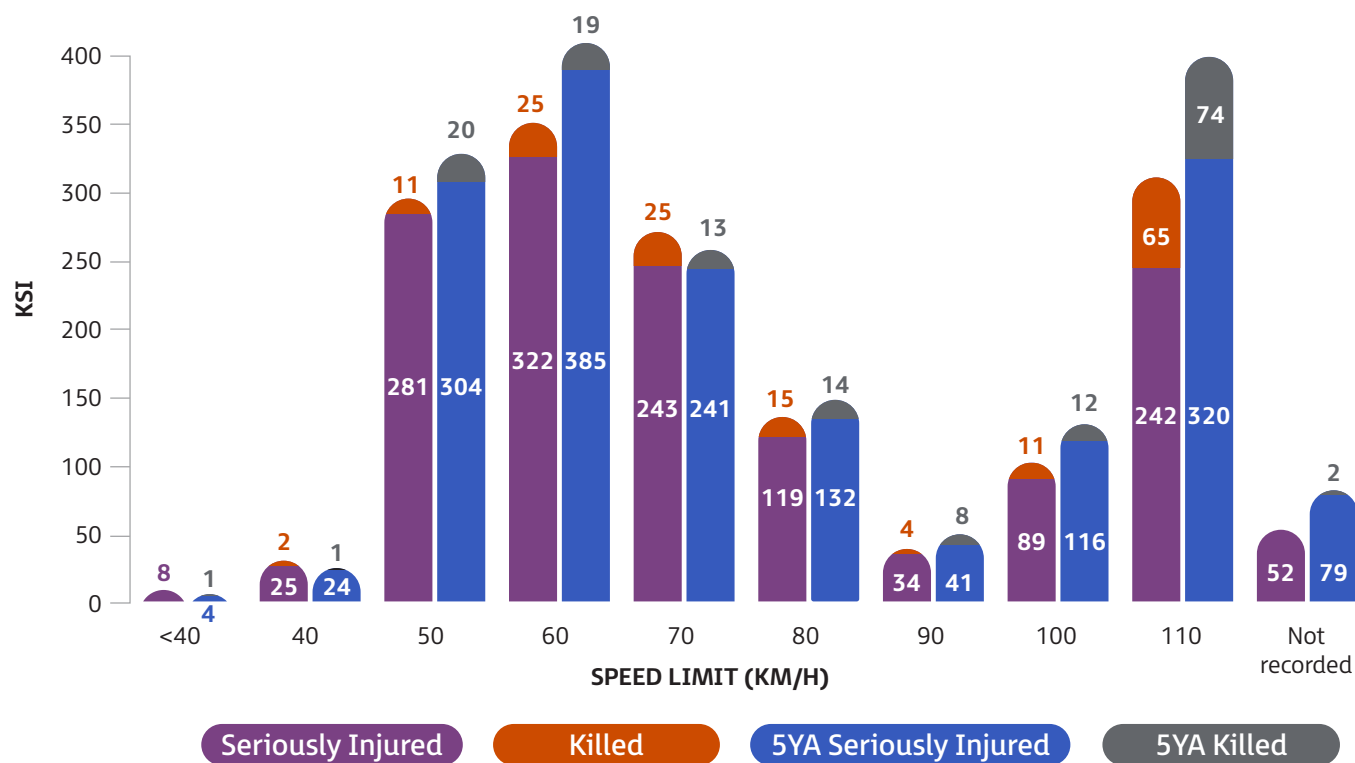


Figure 3: Killed or Seriously Injured (KSI) by speed limit

Table 1: Killed or Seriously Injured (KSI) by speed limit

Speed limit (km/h)	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
<40	1.0	4.0	5.0	0	8	8	-100.0%	100.0%	60.0%
40	1.2	24.2	25.4	2	25	27	66.7%	3.3%	6.3%
50	20.2	304.4	324.6	11	281	292	-45.5%	-7.7%	-10.0%
60	19.2	385.2	404.4	25	322	347	30.2%	-16.4%	-14.2%
70	12.6	241.0	253.6	25	243	268	98.4%	0.8%	5.7%
80	14.2	131.8	146.0	15	119	134	5.6%	-9.7%	-8.2%
90	7.6	41.4	49.0	4	34	38	-47.4%	-17.9%	-22.4%
100	12.0	116.2	128.2	11	89	100	-8.3%	-23.4%	-22.0%
110	74.2	319.6	393.8	65	242	307	-12.4%	-24.3%	-22.0%
Not recorded	1.6	79.4	81.0	0	52	52	-100.0%	-34.5%	-35.8%
Total	163.8	1647.2	1811.0	158	1415	1573	-3.5%	-14.1%	-13.1%

¹Online: <https://portal-mainroads.opendata.arcgis.com/datasets/legal-speed-limits/explore> (updated 18 June 2024; accessed 21 June 2024)

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by road type

An improvement has been observed in the 2023 KSI figures in comparison to the 5YA on both state and local roads (see **Figure 4** and **Table 2**). KSI on state roads over the 5YA showed a consistent decrease where local roads remain steady.

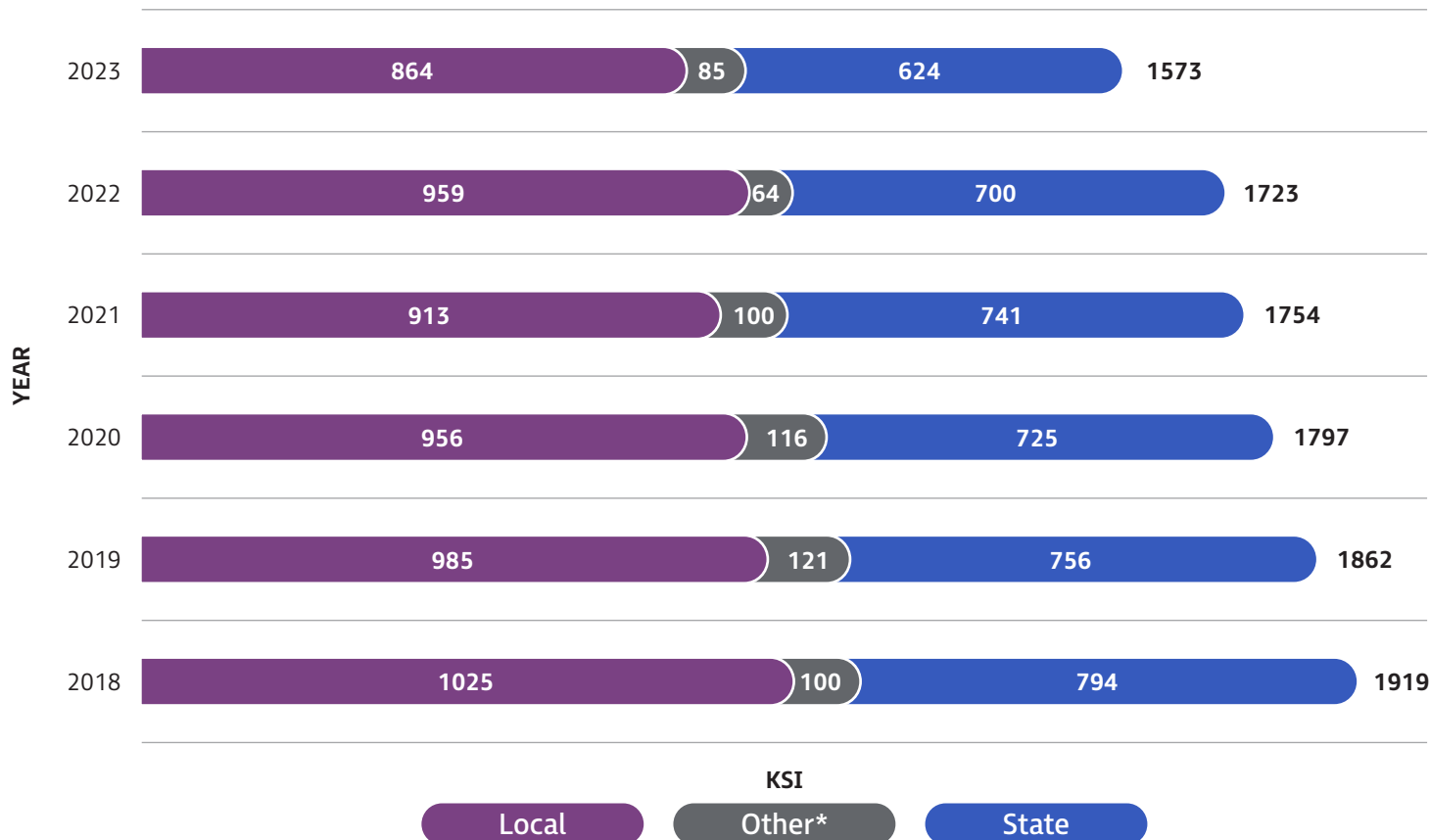


Figure 4: Killed or Seriously Injured (KSI) by road type (2018-2023)

Table 2: Killed or Seriously Injured (KSI) by road type

Road type	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
State roads	79.8	663.4	743.2	83	541	624	4.0%	-18.5%	-16.0%
Local roads	77.6	890.0	967.6	71	793	864	-8.5%	-10.9%	-10.7%
Other/ unknown*	6.4	93.8	100.2	4	81	85	-37.5%	-13.6%	-15.2%
Total	163.8	1647.2	1811.0	158	1415	1573	-3.5%	-14.1%	-13.1%

* Other - includes road-related areas and where location is not recorded, for example, national parks open to the public and Principal Shared Paths.

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by regions

KSI data for this report has been derived from Main Roads systems and reflects Main Roads' designated regional boundaries, which differ from WA Police Force regional boundaries.

Table 3 depicts 2023 KSI across all regions was 13% below the previous 5YA. The greatest change was observed in the Kimberley and the South West regions, with reductions of 30% and 21% respectively. The Pilbara region was the only regional area to record an increase in fatality numbers (55%) in 2023 against the 5YA.

Table 3: Killed or Seriously Injured (KSI) by Main Roads region

Main Roads regions	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
Metropolitan	56.4	1070.8	1127.2	69	941	1010	22.3%	-12.1%	-10.4%
Regional	107.4	576.4	683.8	89	474	563	-17.1%	-17.8%	-17.7%
Goldfields-Esperance	11.6	44.8	56.4	6	47	53	-48.3%	4.9%	-6.0%
Great Southern	9.6	41.6	51.2	8	37	45	-16.7%	-11.1%	-12.1%
Kimberley	8.4	45.6	54.0	4	34	38	-52.4%	-25.4%	-29.6%
Mid-West Gascoyne	9.2	57.8	67.0	8	49	57	-13.0%	-15.2%	-14.9%
Pilbara	5.8	40.6	46.4	9	30	39	55.2%	-26.1%	-15.9%
South West	34.2	208.2	242.4	29	163	192	-15.2%	-21.7%	-20.8%
Wheatbelt	28.6	137.8	166.4	25	114	139	-12.6%	-17.3%	-16.5%
WA Total	163.8	1647.2	1811.0	158	1415	1573	-3.5%	-14.1%	-13.1%

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by time and day

The risk of road crashes and potential for injury varies depending on the time of the day and day of the week. Weekdays typically have a higher traffic volume (business and school commuting) while weekends have lighter traffic volume, but a likely increase in risky driving behaviour.

In 2023, KSI were most likely to occur on a Friday (17%; see **Table 4**); this remains unchanged over the 5YA. Afternoon hours (Noon - 1800hrs) had 41% KSI in comparison to any other time of the day, with the risk of serious road crashes greatest between 1500hrs-1800hrs. This remained consistent in both metropolitan and regional areas.



41% OF KSI
occurs between
Noon – 1800hrs



17% OF KSI
occurs on Friday



18% FATALITIES
occurs on Sunday

Table 4: 2023 comparison of time and day for people Killed or Seriously Injured (KSI) in road crashes

Day of week	Midnight - 2:59am	3:00am - 5:59am	6:00am - 8:59am	9:00am - 11:59am	Noon - 2:59pm	3:00pm - 5:59pm	6:00pm - 8:59pm	9:00pm - 11:59pm	Total	Percentage
Monday	3	6	37	23	34	60	27	13	203	13%
Tuesday	9	13	26	38	40	49	31	15	221	14%
Wednesday	3	8	23	39	38	47	36	23	217	14%
Thursday	5	7	28	33	37	47	32	11	200	13%
Friday	6	8	30	29	48	67	45	32	265	17%
Saturday	19	12	18	34	47	48	26	21	225	14%
Sunday	17	11	21	52	43	43	35	12	234	15%
Total	62	65	183	248	287	361	232	127	1565	

* 8 KSI crashes have been excluded as time of day was not recorded.

Table 5 shows fatality risk was greatest overall on a Sunday (18%). When focusing on fatalities, 1500hrs - 1800hrs remained at most risk (23%). The 2023 numbers were consistent with WA-wide reporting between 2018-2022, where both Saturday (16%) and Sunday (18%) consistently had the greatest fatality risk.

Table 5: 2023 comparison of time and day for people killed in road crashes**

Day of week	Midnight - 2:59am	3:00am - 5:59am	6:00am - 8:59am	9:00am - 11:59am	Noon - 2:59pm	3:00pm - 5:59pm	6:00pm - 8:59pm	9:00pm - 11:59pm	Total	Percentage
Monday	0	0	1	4	2	6	1	3	17	11%
Tuesday	3	2	0	2	6	4	3	2	22	14%
Wednesday	1	1	2	3	5	6	4	3	25	16%
Thursday	1	2	0	6	3	4	1	5	22	14%
Friday	0	0	2	2	2	6	3	3	18	11%
Saturday	3	1	4	3	3	7	2	2	25	16%
Sunday	0	2	8	5	5	4	3	2	29	18%
Total	8	8	17	25	26	37	17	20	158	

** Minimal differences observed between KSI and serious injuries, therefore no table created.

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by age and sex

Males remained consistently overrepresented as drivers who are seriously injured (53%), with females most likely to be seriously injured as a passenger (59%; see **Figure 5**).

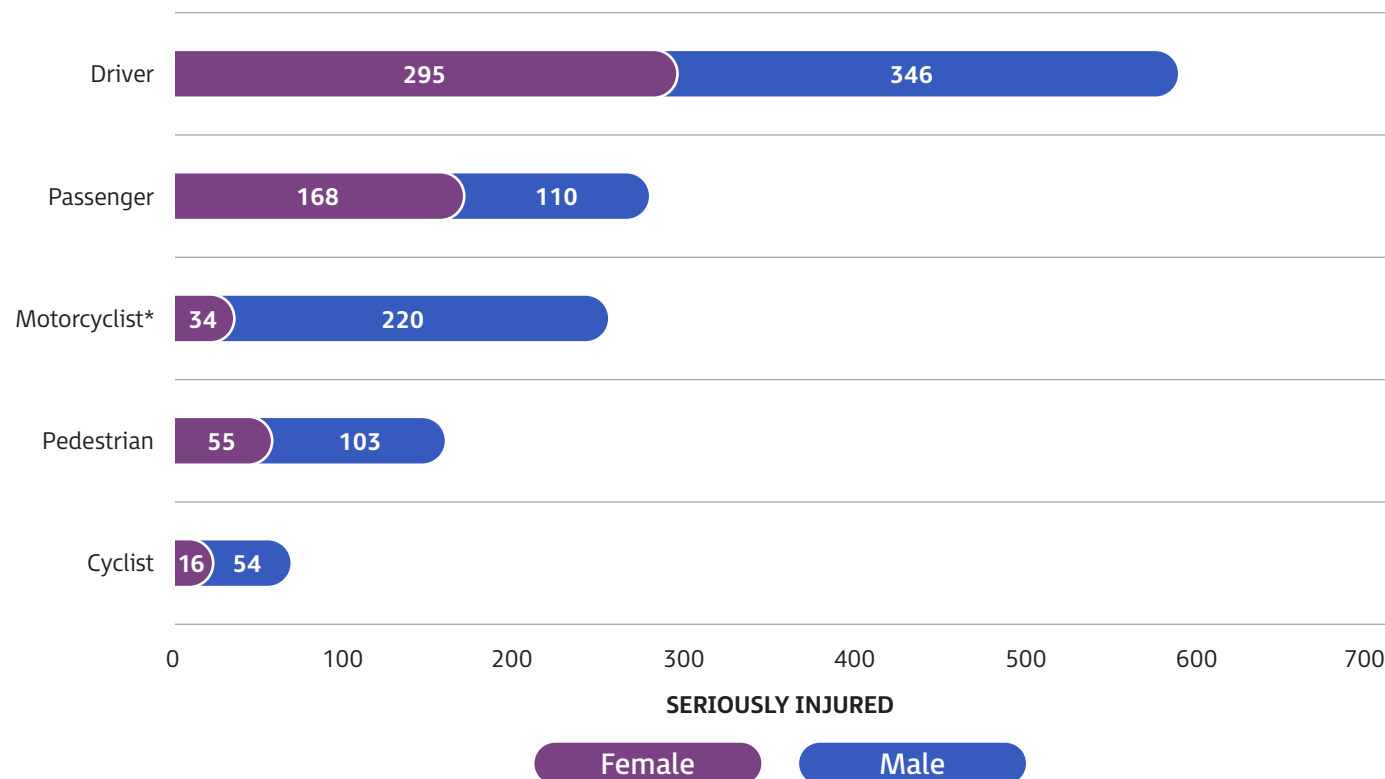


Figure 5: 2023 road users Seriously Injured by sex

* Includes 11 females and two male motorcycle pillions.

In 2023 males were four times more likely to be killed than females, making up 80% of all fatalities on WA roads in 2023 (see **Table 6** and **Figure 6**). Male drivers and motorcycle riders were seven times more likely to be killed in crashes than female drivers or riders.

Table 6: Killed or Seriously Injured (KSI) by sex

Sex	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
Male	123.2	968.0	1091.2	127	833	960	3.1%	-13.9%	-12.0%
Female	40.2	667.0	707.2	31	570	601	-22.9%	-14.5%	-15.0%
Not recorded	0.4	12.2	12.6	0	12	12	-100.0%	-1.6%	-4.8%
Total	163.8	1647.2	1811.0	158	1415	1573	-3.5%	-14.1%	-13.1%

People Killed or Seriously Injured (KSI) by age and sex

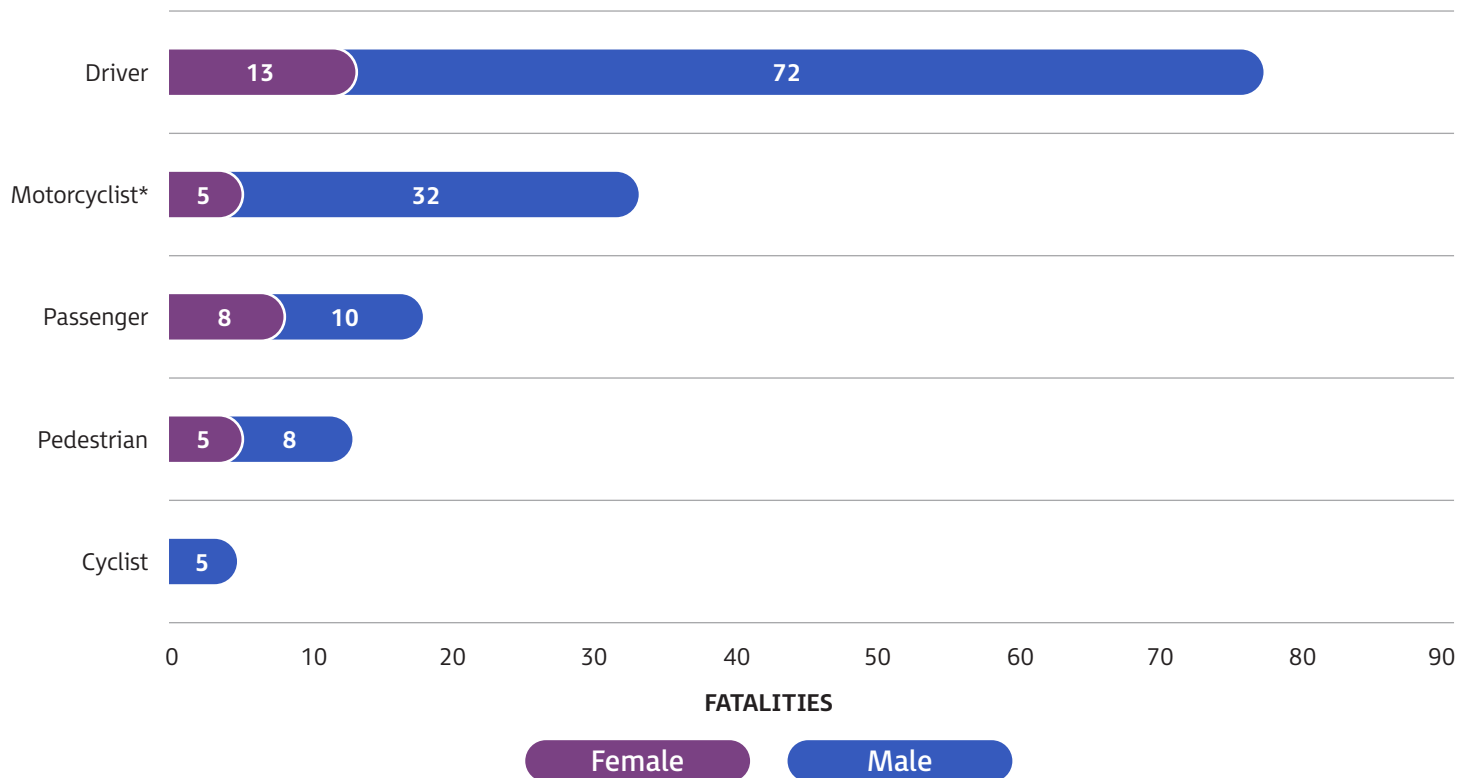


Figure 6: 2023 road users fatalities by sex

* Includes three female motorcycle pillion.

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by age and sex

Table 7 shows the most at-risk age group was 20-29 accounting for 20% of all KSI in 2023. Males aged 20-29 had the highest KSI (13%) and number of fatalities (18%); this remains consistent with the 5YA.

Table 7: Killed or Seriously Injured (KSI) by road user age group and sex

Age	Sex	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
		Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
0 - 16	Female	2.8	44.0	46.8	1	36	37	-64.3%	-18.2%	-21.0%
	Male	5.8	68.2	74.0	4	64	68	-31.0%	-6.2%	-8.0%
	Not Recorded	0.4	0.6	1.0	0	0	0	-100.0%	-100.0%	-100.0%
17 - 19	Female	2.8	51.0	53.8	0	49	49	-100.0%	-3.9%	-9.0%
	Male	6.8	64.2	71.0	6	54	60	-11.8%	-15.9%	-15.0%
	Not Recorded	0.0	0.0	0.0	0	0	0	0.0%	0.0%	0.0%
20 - 29	Female	8.8	139.0	147.8	3	114	117	-65.9%	-18.0%	-21.0%
	Male	27.2	202.2	229.4	29	171	200	6.6%	-15.4%	-13.0%
	Not Recorded	0.0	1.2	1.2	0	2	2	0.0%	0.0%	67.0%
30 - 39	Female	7.0	100.6	107.6	5	88	93	-28.6%	-12.5%	-14.0%
	Male	18.6	169.8	188.4	20	140	160	7.5%	-17.6%	-15.0%
	Not Recorded	0.0	1.2	1.2	0	0	0	0.0%	0.0%	-100.0%
40 - 49	Female	4.4	77.0	81.4	7	64	71	59.1%	-16.9%	-13.0%
	Male	20.2	146.6	166.8	17	118	135	-15.8%	-19.5%	-19.0%
	Not Recorded	0.0	0.4	0.4	0	1	1	0.0%	0.0%	150.0%
50 - 59	Female	3.4	81.2	84.6	3	68	71	-11.8%	-16.3%	-16.0%
	Male	17.8	131.8	149.6	22	109	131	23.6%	-17.3%	-12.0%
	Not Recorded	0.0	0.6	0.6	0	0	0	0.0%	0.0%	-100.0%
60 - 69	Female	4.0	67.0	71.0	5	63	68	25.0%	-6.0%	-4.0%
	Male	11.4	85.8	97.2	9	89	98	-21.1%	3.7%	1.0%
	Not Recorded	0.0	0.4	0.4	0	1	1	0.0%	0.0%	150.0%
70 - 79	Female	2.2	52.2	54.4	2	41	43	-9.1%	-21.5%	-21.0%
	Male	7.2	47.8	55.0	12	50	62	66.7%	4.6%	13.0%
	Not Recorded	0.0	0.2	0.2	0	1	1	0.0%	0.0%	400.0%
80+	Female	4.6	40.2	44.8	5	41	46	8.7%	2.0%	3.0%
	Male	7.6	33.0	40.6	8	33	41	5.3%	0.0%	1.0%
	Not Recorded	0.0	0.0	0.0	0	1	1	100.0%	100.0%	100.0%
Not Recorded	Female	0.2	14.8	15.0	0	6	6	-100.0%	-59.5%	-60.0%
	Male	0.6	18.6	19.2	0	5	5	-100.0%	-73.1%	-74.0%
	Not Recorded	0.0	7.6	7.6	0	6	6	0.0%	0.0%	-21.0%
Total		163.8	1647.2	1811.0	158	1415	1573	-3.5%	-14.1%	-13.0%

People Killed or Seriously Injured (KSI) by age and sex

Figure 7 shows there has been little change in KSI within each age group over the five years. Ages 20-49 had 50% of all KSI, where those aged 0-59 have shown a reduction in KSI over the five years and those aged 60+ remaining stable in KSI records.

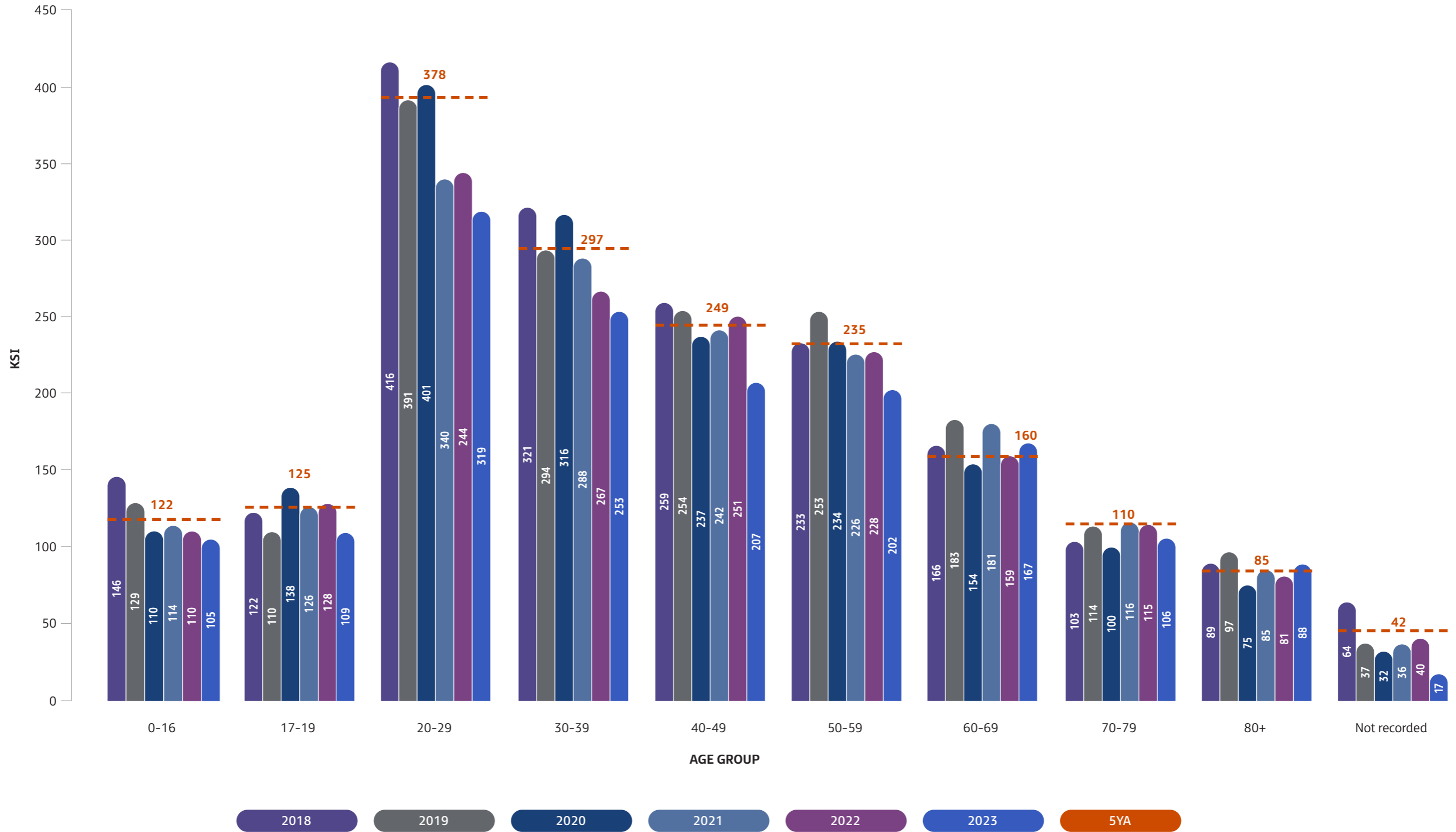


Figure 7: Killed or Seriously Injured (KSI) across age groups over years (2018-2023)

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People Killed or Seriously Injured (KSI) by age and sex

Table 8 shows in 2023 young people per 100,000 population* had the highest KSI rate, 107 per 100,000 population* in ages 17-19. It should be noted, this was lower compared to the 5YA (133). Those aged 20-29 had the second highest rate (85 per 100,000 population); this is consistent with the 5YA.

When sex is considered in conjunction with age per 100,000 population, the most at-risk were males aged 17-19, followed by females of the same ages (see **Figure 8**).

Table 8: Age-specific rate of Killed or Seriously Injured (KSI) per 100,000 population*

Age	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
0-16	1.5	19.2	20.7	0.8	16.4	17.2	-47.0%	-15.0%	-17.0%
17-19	10.2	122.6	132.8	5.9	101.4	107.3	-42.0%	-17.0%	-19.0%
20-29	10.1	96.1	106.2	8.5	76.1	84.5	-16.0%	-21.0%	-20.0%
30-39	6.3	66.5	72.8	5.7	52.4	58.1	-10.0%	-21.0%	-20.0%
40-49	6.8	62.2	69.0	6.3	48.3	54.6	-7.0%	-22.0%	-21.0%
50-59	6.3	63.2	69.4	7.1	50.1	57.2	13.0%	-21.0%	-18.0%
60-69	5.5	55.1	60.6	4.7	51.0	55.6	-15.0%	-7.0%	-8.0%
70-79	5.1	54.4	59.5	6.6	43.5	50.1	29.0%	-20.0%	-16.0%
80+	12.3	73.8	86.0	11.5	66.5	78.0	-7.0%	-10.0%	-9.0%
Total	6.1	60.9	66.9	5.5	49.1	54.6	-10.0%	-19.0%	-18.0%

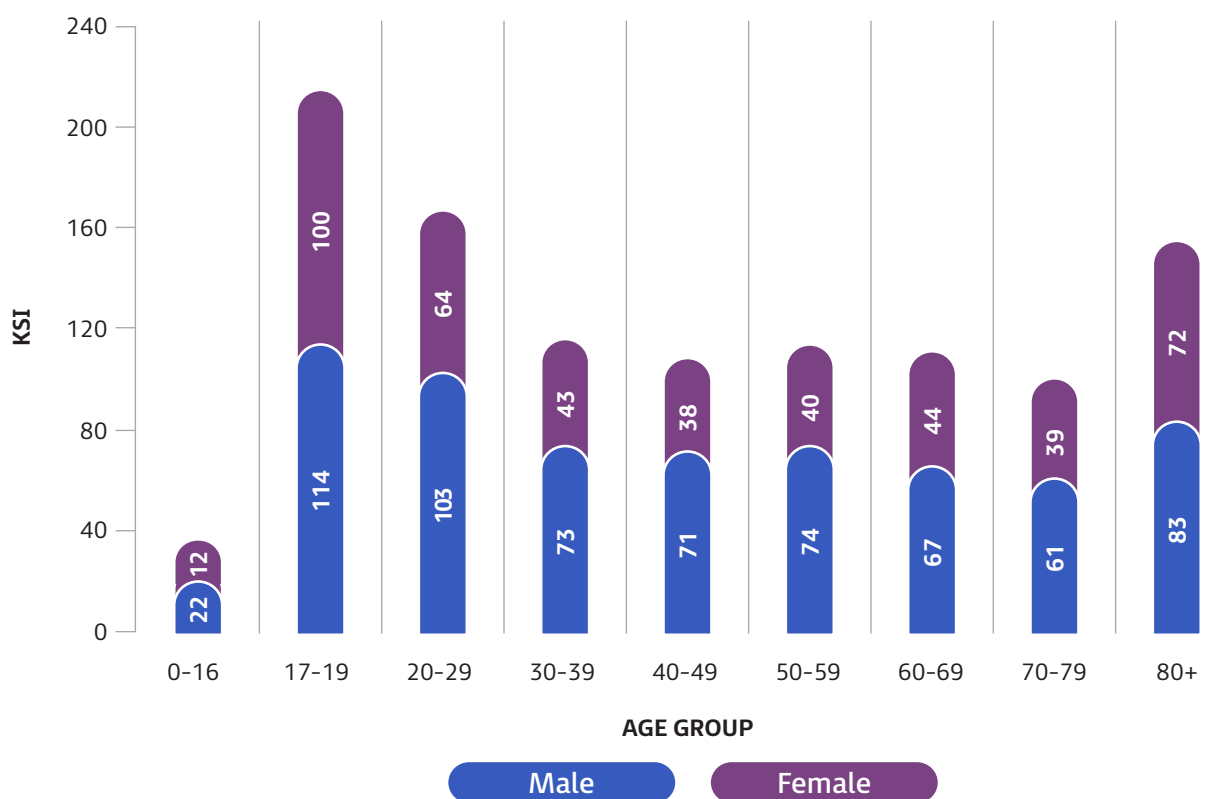


Figure 8: Killed or Seriously Injured (KSI) per 100,000 population by age group and sex in 2023

* Population counts were derived from Australian Bureau of Statistics. (2023). Regional population by age and sex, September 2023. Retrieved from: <https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/sep-2023#data-downloads-data-cubes>

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by road user type and mode of transport

eRideables* were first permitted to be used on WA public roads and paths in December 2021, and as of 2022, eRideables have been captured within the pedestrian subset of crash data. This data may also include devices outside of the legislation (such as those that are over the weight/speed limits etc). Further insights regarding eRideables will be available as the KSI dataset matures.

Over the past five years pedestrians were the only group to see a change in KSI, with serious injuries increasing in 2022 (see **Figure 9** and **Table 9**).

As seen in **Figure 9**, since 2018 there has been a small but consistent decrease in serious injuries across a broad range of transport modes. KSI in cyclists, motorcyclists and light vehicle occupants remain largely unchanged, with serious injury averages remaining mostly consistent since 2018. With eRideable classification in 2022, pedestrian KSI numbers have increased both in 2022 (18%) and 2023 (11%); compared to the 5YA.

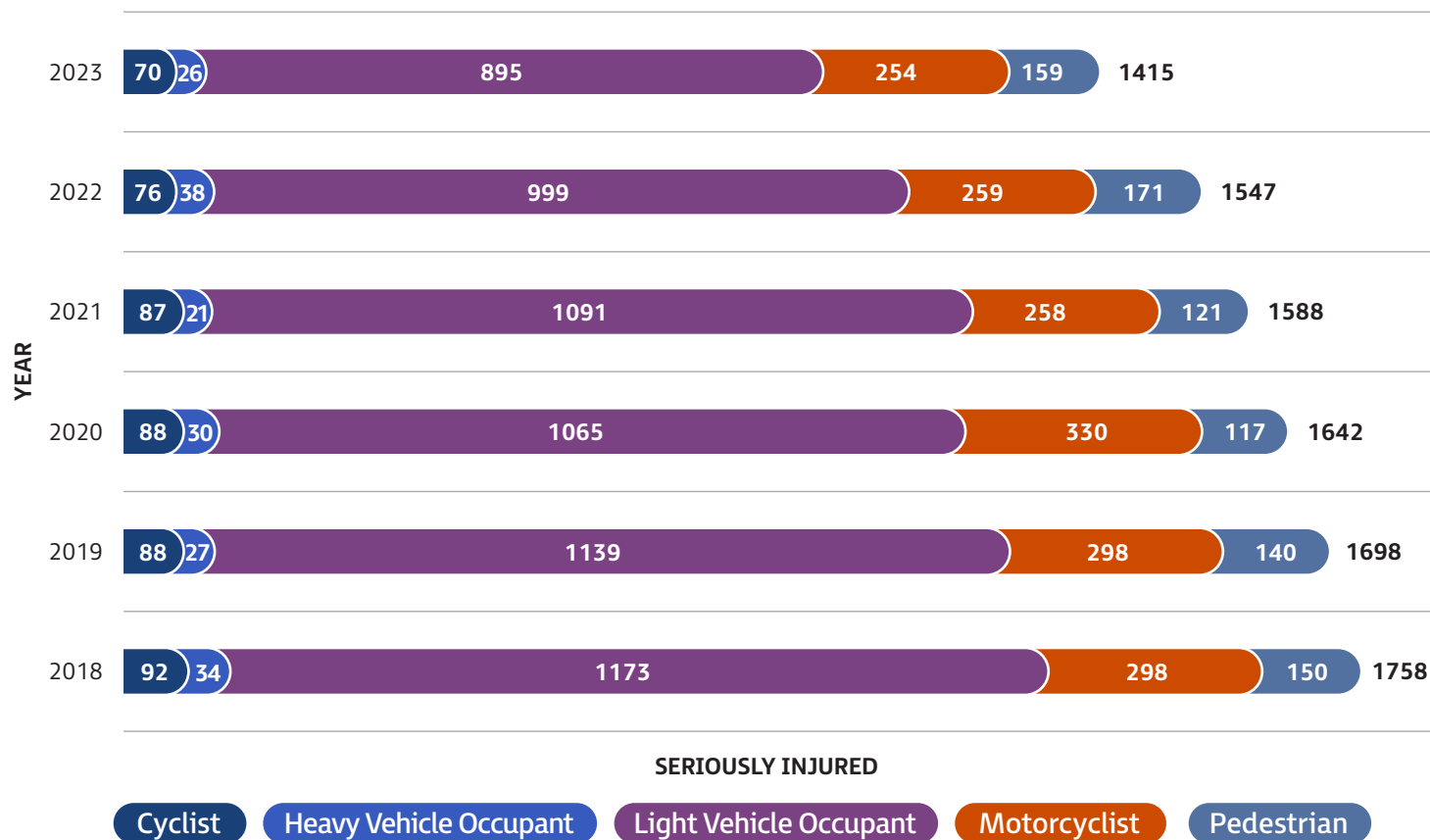


Figure 9: Seriously Injured by vehicle type (2018–2023)**

* An eRideable is an electric rideable device, such as a scooter or skateboard, that:

- has at least one wheel
- is designed to be used by only one person
- is no more than 125cm long, 70cm wide and 135cm high
- is 25kg or less
- has a speed limit of 25km/h on level ground.

There is no restriction on power output for eRideables as long as it complies with the speed, size and weight limits outlined above.

** Bus/multi-seater van and Other/Unknown have not been depicted in graph due to minimal numbers. However, are included in total numbers.

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People Killed or Seriously Injured (KSI) by road user type and mode of transport

Table 9: Killed or Seriously Injured (KSI) by their mode of transport

Vehicle type	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
Light vehicle	106.4	1093.4	1199.8	93	895	988	-12.6%	-18.1%	-17.7%
Heavy vehicle*	6.8	30.0	36.8	10	26	36	47.1%	-13.3%	-2.2%
Bus/multi-seater van	0.6	8.4	9.0	0	9	9	-100.0%	7.1%	0.0%
Motorcycle	30.6	288.6	319.2	37	254	291	20.9%	-12.0%	-8.8%
Bicycle	3.8	86.2	90.0	5	70	75	31.6%	-18.8%	-16.7%
Pedestrian**	15.4	139.8	155.2	13	159	172	-15.6%	13.7%	10.8%
Other***	0.2	0.8	1.0	0	2	2	-100.0%	150.0%	100.0%
Total	163.8	1647.2	1811.0	158	1415	1573	-3.5%	-14.1%	-13.1%

* Heavy vehicle may include a truck, people mover, semi-trailer, truck trailer, road train.

** Pedestrians are not limited to people walking and can include those riding an animal, a motorised wheelchair, skateboarder or scooter rider.

In 2022 eRideables were classified in the pedestrian sub category.

*** Other refers to vehicles towing items including but not limited to caravans, camper trailers, horse floats, boats etc.

Road user fatalities continue to fluctuate, but have largely remained stable over the five years (see **Figure 10**).

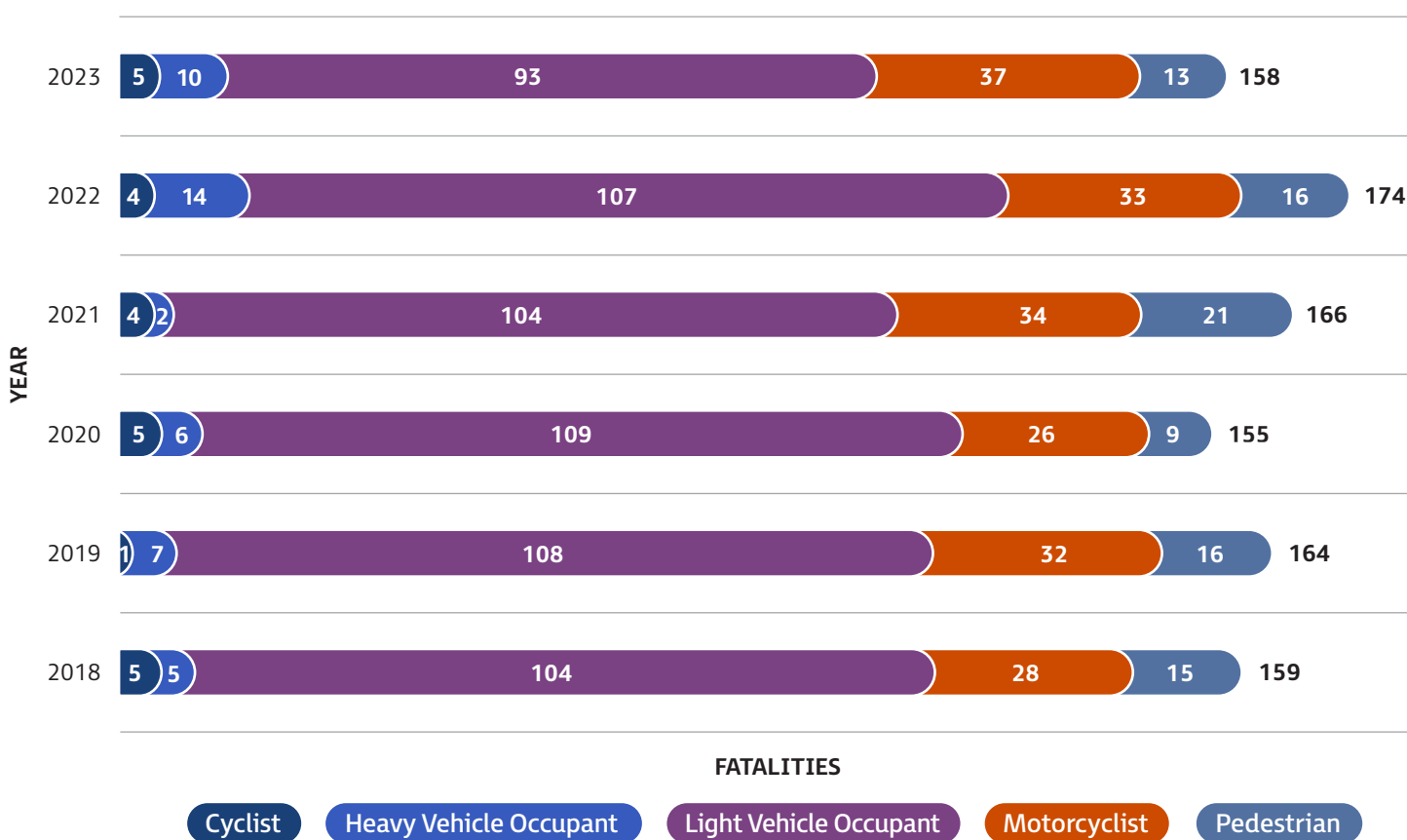


Figure 10: Fatalities by vehicle type (2018-2023)***

*** Bus/multi-seater van and Other/Unknown have not been depicted in graph due to minimal numbers. However, are included in total numbers.

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by nature of the crash

The most common causes of serious injuries were right-angle crash (21%) and hit object (20%). These two forms of crashes have consistently remained the most common for serious injuries compared with all other crash nature over the last five years (see **Figure 11** and **Table 10**).

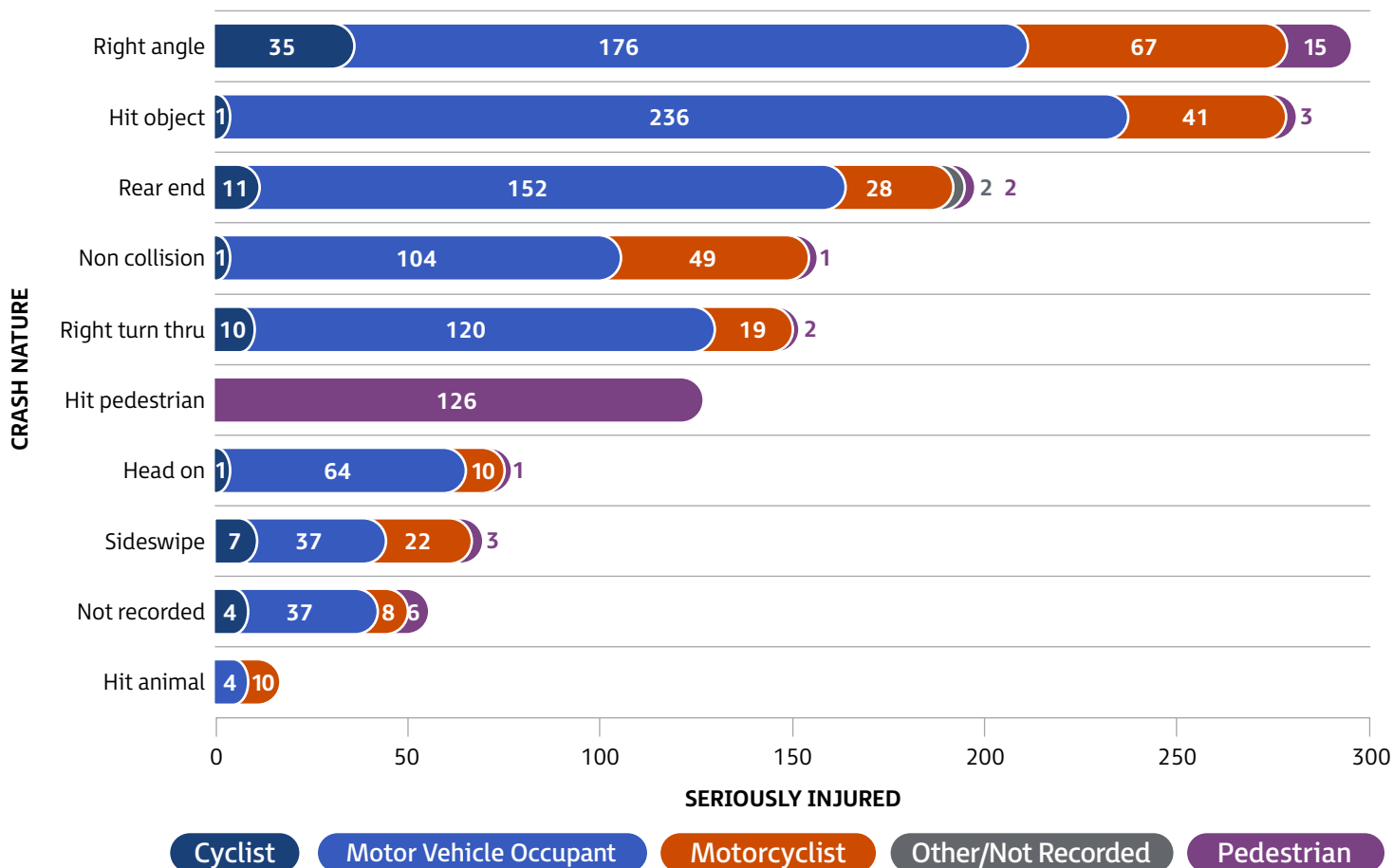


Figure 11: 2023 serious injuries by nature of crash

The most common types of crashes resulting in a fatality in 2023 were 34% hit object (such as a tree or power pole), 16% non collision and 14% head on collision (see **Figure 12** and **Table 10**). Hitting an object has been the most fatal type of crash since 2018 (42% of all fatalities across the 5YA).

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by nature of the crash

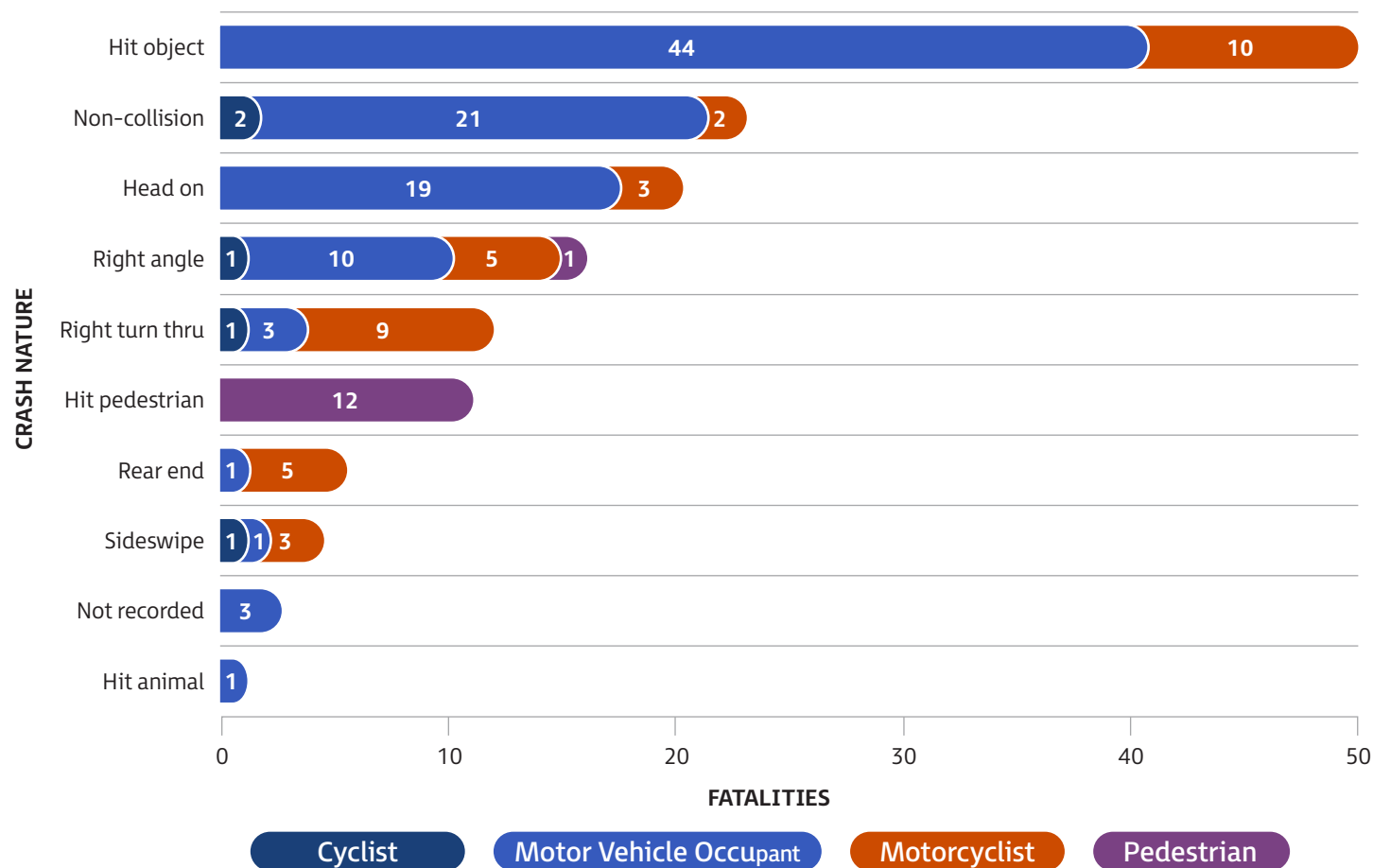


Figure 12: 2023 fatalities by nature of crash

Table 10: Killed or Seriously Injured (KSI) by nature of the crash

Crash nature	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
Multi vehicle*	51.4	888.8	940.2	63	784	847	22.6%	-11.8%	-9.9%
Rear end	7.8	230.8	238.6	6	195	201	-23.1%	-15.5%	-15.8%
Head on	19.2	96.6	115.8	22	76	98	14.6%	-21.3%	-15.4%
Sideswipe**	2.8	77.8	80.6	5	69	74	78.6%	-11.3%	-8.2%
Right angle	14.8	312.4	327.2	17	293	310	14.9%	-6.2%	-5.3%
Right turn thru	6.8	171.2	178.0	13	151	164	91.2%	-11.8%	-7.9%
Single vehicle	106.8	700.2	807.0	92	576	668	-13.9%	-17.7%	-17.2%
Hit pedestrian	13.8	130.6	144.4	12	126	138	-13.0%	-3.5%	-4.4%
Hit animal	1.6	16.0	17.6	1	14	15	-37.5%	-12.5%	-14.8%
Hit object	68.4	331.6	400.0	54	281	335	-21.1%	-15.3%	-16.3%
Non collision	23.0	222.0	245.0	25	155	180	8.7%	-30.2%	-26.5%
Not recorded	5.6	58.2	63.8	3	55	58	-46.4%	-5.5%	-9.1%
Total	163.8	1647.2	1811.0	158	1415	1573	-3.5%	-14.1%	-13.1%

* Multi vehicle may include a motor vehicle and a bicycle.

** Not including near-head on.

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by behaviour

Quantifying behavioural factors in road crashes is a complex challenge. Much of the existing crash data is based on suspected causation established on preliminary assessments of crash circumstances.

Speed, Fatigue and Inattention

As seen in **Figure 13** and **Table 11**, 2023 reported behavioural factors of speed, fatigue and inattention were the lowest compared to the previous five years. However, speed continues to be the primary contributing factor identified for road crashes; showing the least improvement over five years compared to fatigue and inattention.

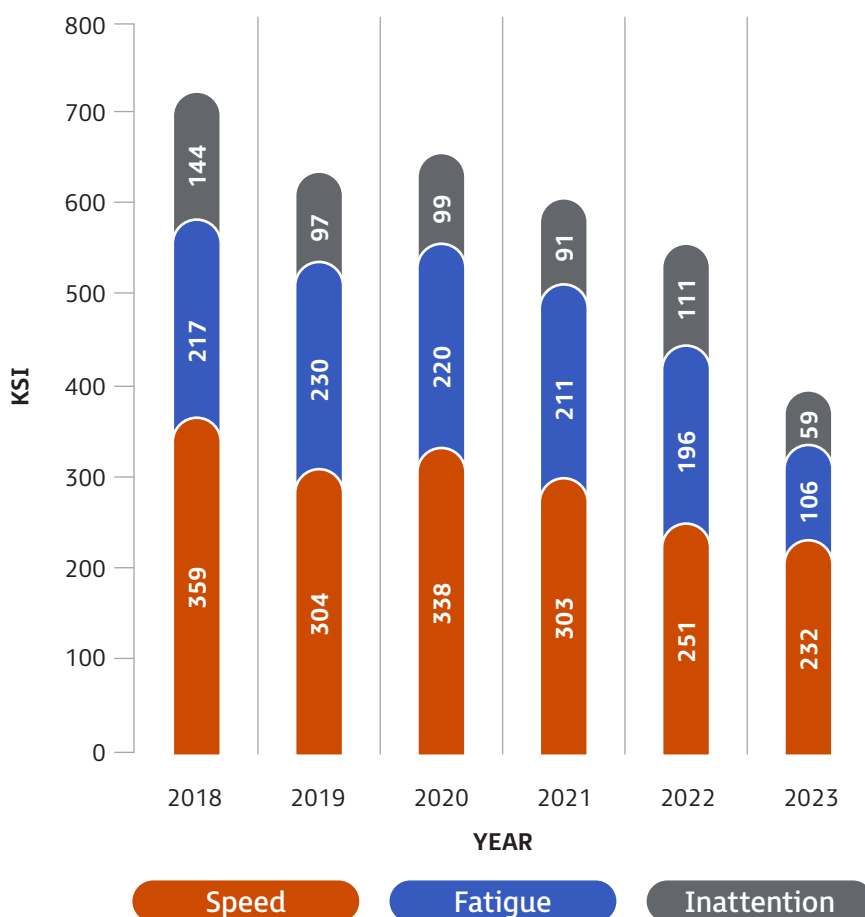


Figure 13: Killed or Seriously Injured (KSI) in crashes suspected to involve behavioural factors* (2018-2023)

Table 11: Killed or Seriously Injured (KSI) in crashes suspected to involve behavioural factors*

Behavioural factor suspected	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
Speed-related	64.0	248.0	312.0	55	177	232	-14.1%	-28.6%	-25.6%
Fatigue-related	34.2	180.6	214.8	32	74	106	-6.4%	-59.0%	-50.7%
Inattention-related	27.6	80.8	108.4	14	45	59	-49.3%	-44.3%	-45.6%

* These counts cannot be summed as more than one factor can be attributed to a crash. Alcohol involvement is not available due to changes in data sharing arrangements.

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by behaviour

Unlicensed Driver / Riders*

In 2023 unlicensed drivers or riders accounted for 9% of KSI, a decrease of 34% in comparison to the unlicensed 5YA* (see **Table 12**).

Table 12: Killed or Seriously Injured (KSI) by license type

KSI by licence types*	2023	5YA (2018-2022)	% changes 2023 v 5YA
All licence types KSI Learner and Full Licence (incl. Provisional)	692	847	-18%
Licence holders KSI Western Australia Inclusive of Ordinary, Extra-ordinary and Probationary Licence	658	827	-20%
Learner's Permit Only KSI	34	20	67%
Unlicensed** drivers KSI	86	131	-34%

* 229 drivers or riders had no motor vehicle license recorded.

** A driver who is unlicensed may not have a WA motor vehicle license, or their license was either suspended or cancelled at the time of the road crash.

Table 13 and **Figure 14** shows in 2023 there was a decrease in unlicensed KSI across all road user groups compared to the 5YA (light vehicles 38%, motorcycles 25% and heavy vehicles 30%).

Unlicensed drivers killed in 2023 declined by 13%, and those seriously injured decreased by 37% in comparison to the 5YA.

Table 13: Drivers or riders Killed or Seriously Injured (KSI) by mode of transport and license status

Mode of Transport	Licensed			Unlicensed		
	5YA	2023	% change	5YA	2023	% change
Light vehicle	629	501	-20%	66	41	-38%
Heavy vehicle	24	21	-12%	4	3	-25%
Motorcycle	192	168	-13%	60	42	-30%

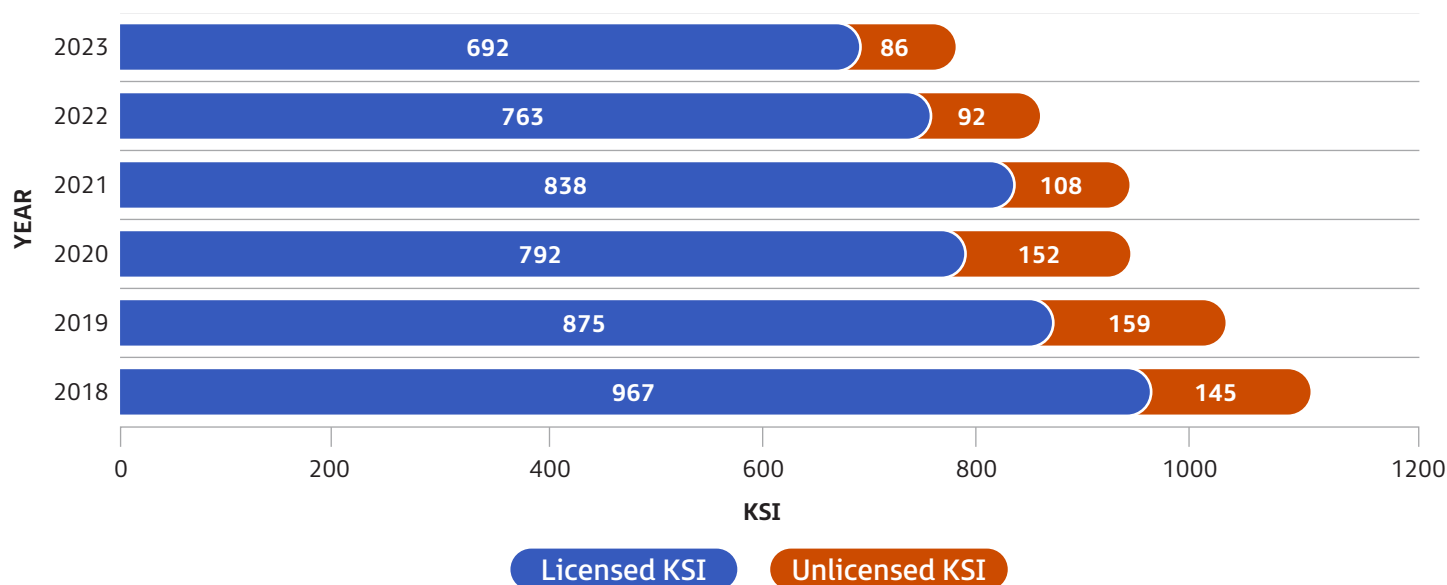


Figure 14: Killed or Seriously Injured (KSI) of licensed vs unlicensed drivers or riders (2018-2023)

* some data has been sourced from Department of Transport.

Western Australian Road Fatalities and Serious Injuries 2023

People Killed or Seriously Injured (KSI) by behaviour

Seatbelts and Helmets

KSI numbers over the 5YA has seen minimal change in the use of seatbelts and helmets (see **Figure 15**). Overall, seatbelt use was high (68%) in motor vehicle KSI crashes, consistent with the 5YA (70%).

In 2023, 65% of fatalities were motor vehicle occupants (103) and of these, 22% were not using a seatbelt (see **Table 14**). In 2023, motorcyclist (15) were recorded as not wearing helmets in KSI crashes, which is consistent with the 5YA (12; see **Table 15**).

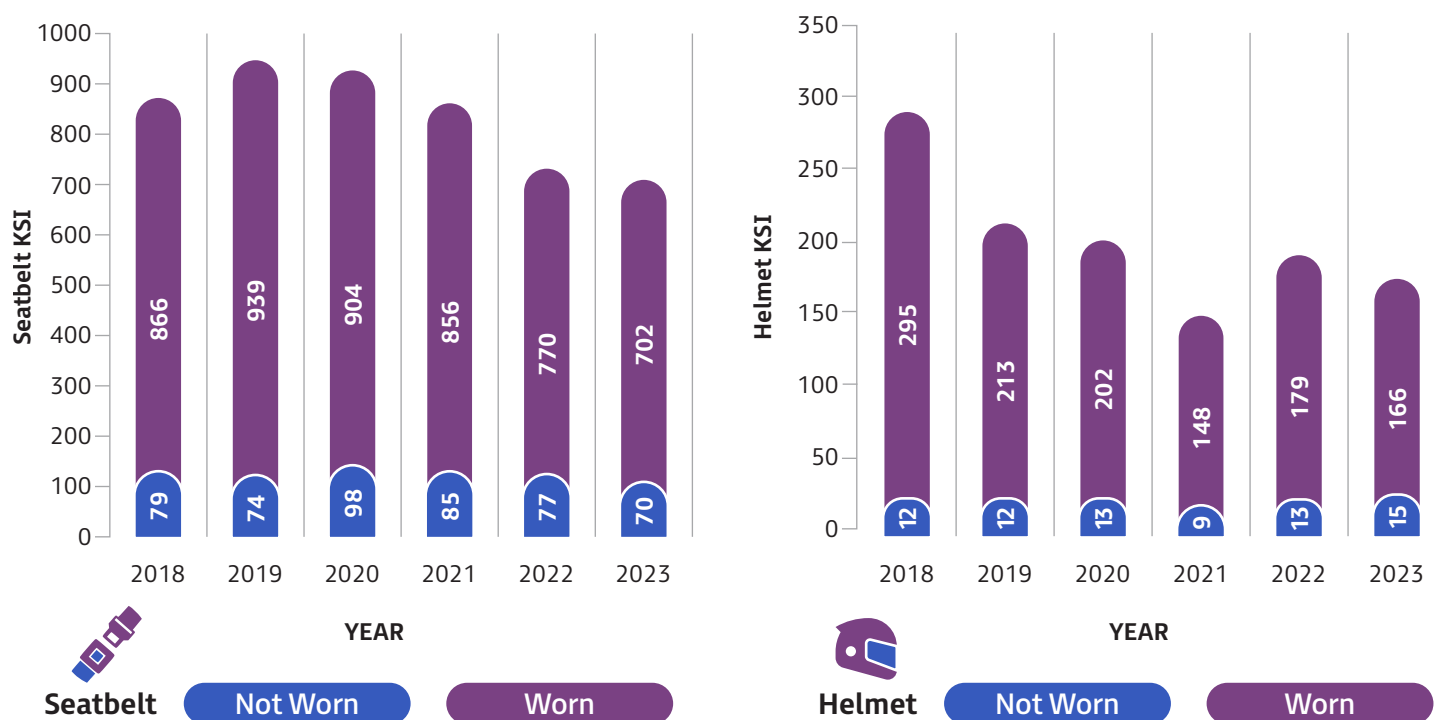


Figure 15: Killed or Seriously Injured (KSI) across five years of seatbelt and helmet use

Table 14: Killed or Seriously Injured (KSI) not using a seatbelt

	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
Motor vehicle driver	14.6	26.8	41.4	17	24	41	16.4%	-10.4%	-1.0%
Motor vehicle passenger	8.6	32.6	41.2	6	23	29	-30.2%	-29.4%	-29.6%
Total	23.2	59.4	82.6	23	47	70	-0.9%	-20.9%	-15.3%

Table 15: Killed or Seriously Injured (KSI) not using a helmet

	5 Year Average (5YA)			2023			% Change (2023 v 5YA)		
	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI	Killed	Seriously Injured	KSI
Motorcycle rider	1.2	8.6	9.8	1	13	14	-16.7%	51.2%	42.9%
Motorcycle pillion	0.0	2.0	2.0	0	1	1	0.0%	-50.0%	-50.0%
Motorcyclist	1.2	10.6	11.8	1	14	15	-16.7%	32.1%	27.1%
Cyclist	0.6	9.2	9.8	1	3	4	66.7%	-67.4%	-59.2%
Total	1.8	19.8	21.6	2	17	19	11.1%	-14.1%	-12.0%

