Swindon's Road Safety Strategy

Appendix A – 2019 Collision Data Review

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Swindon Borough Council

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Appendix A – Collision Data Analysis & Review 2019

1. Introduction

Collision data for the calendar years of 2015–2019 has been reviewed in order to provide an understanding of the underlying patterns and trends of the collisions and casualties for the roads in the Swindon Borough Council area.

Data is provided by Wiltshire Police and covers collisions resulting in:

- Death – which occurred within 30 days of the collision
- Serious injury – an injury for which a person is detained in hospital as an "in-patient", or any of the following injuries whether or not they are detained in hospital: fractures, concussion, internal injuries, crushings, burns (excluding friction burns), severe cuts, severe general shock requiring medical treatment
- Slight injury – an injury of a minor nature such as a sprain (including neck whiplash injury), bruise or cut which are not judged to be severe, or slight shock requiring roadside attention. Includes injuries not requiring medical treatment.

2. Swindon Overview

*** Swindon figures do not include HE roads, i.e. M4, A419**

The collision figures provide a picture of the numbers of incidents over the past five years and collision figures for Swindon in 2019 are predominantly down on both 2018 and the average of the previous 4 years. The exception is those categorised as Serious. There was one fatality in Swindon in 2019.

Table 1 – Swindon Collision trends by year

	2015	2016	2017	2018	2019	TOTAL	+/- 2019 v. 4yr avg	+/- 2019 v. 2018
Fatal	3	1	5	7	1	**17**	-75.00%	-85.71%
Serious	55	69	44	55	59	**282**	5.83%	7.27%
Slight	341	371	293	296	294	**1595**	-9.61%	-0.68%
TOTAL	399	441	342	358	354	**1894**	-8.05%	-1.12%
KSI	58	70	49	62	60	**299**	0.42%	-3.23%

Swindon's casualty figures have been compared with national, regional and some other Local Authorities. Swindon's total casualties have increased on 2018 but are down on the 4-year average. All of the comparator sites also show a reduction on the 4-year average and Swindon's percentage decrease is the lowest of the group featured here.

Table 2 – Total Casualties

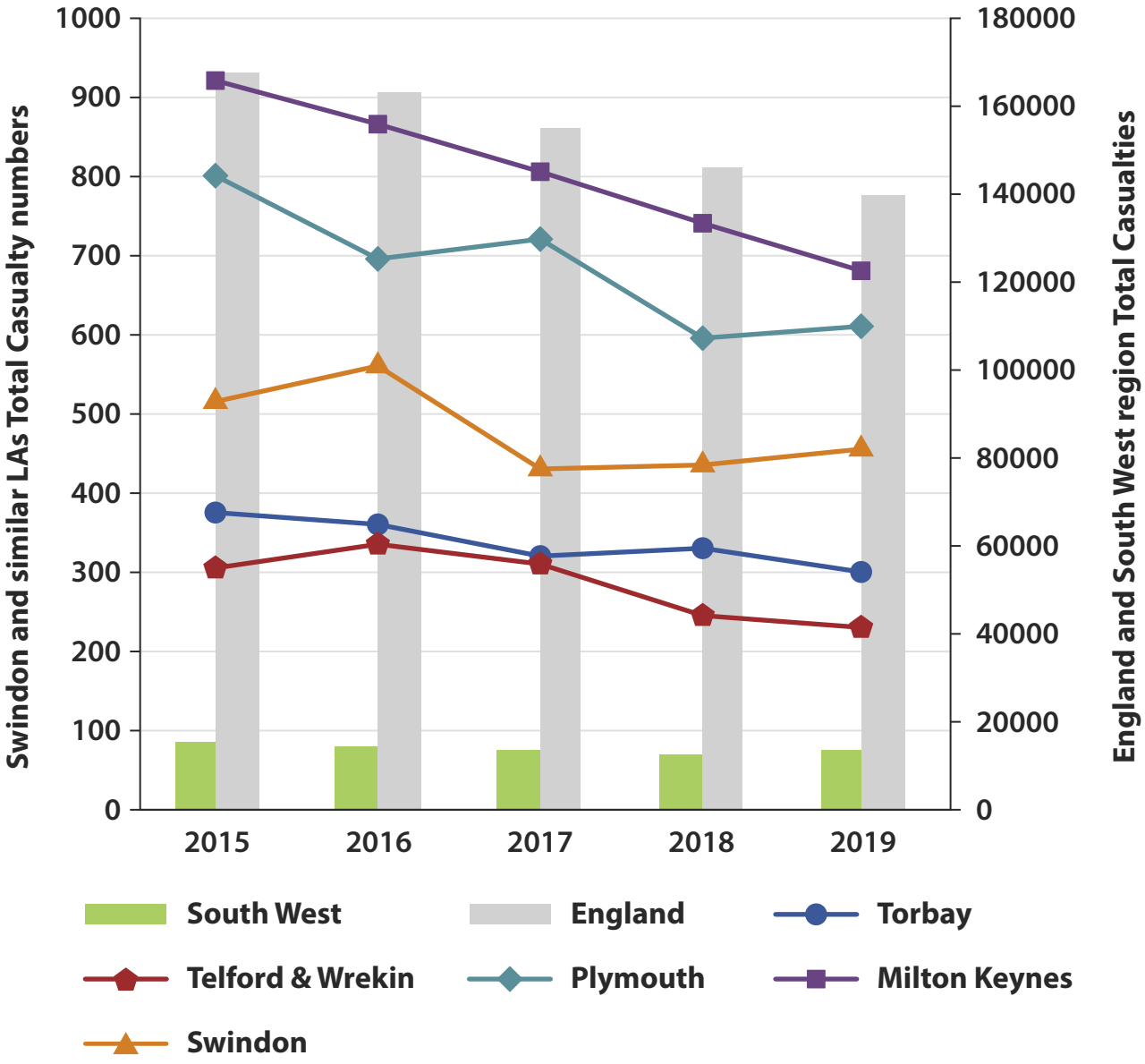
	15/18 avg*	2015	2016	2017	2018	2019	+/- 2019 v. 15-18 avg.	+/- 2019 v. 2018
Swindon	**486**	**517**	**561**	**431**	**435**	**454**	**-6.58%**	**4.37%**
Milton Keynes	835	921	865	809	743	683	-18.15%	-8.08%
Plymouth	706	804	698	722	598	610	-13.54%	2.01%
Telford & Wrekin	300	308	337	310	246	229	-23.73%	-6.91%
Torbay	348	377	359	322	332	302	-13.09%	-9.04%
Wiltshire excl Swindon	1385	1523	1506	1313	1198	1275	-7.94%	6.43%
South West	14117	14894	14733	13780	13061	13139	-6.93%	0.60%
England	158259	167577	163646	155368	146445	139779	-11.68%	-4.55%

*Figure rounded to nearest whole number

Green text <= 2015/18 average **Red text > than 2015/18 average**

Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

Figure 1. Total Casualties



The reduction in numbers of total casualties can clearly be seen for other authorities, notably Milton Keynes. In 2018 and 2019, Swindon has seen an increase in total casualties on the respective previous years. This increase is more than that seen for the South West region and is against the England trend which shows a year-on-year reduction.

Table 3 – KSI Casualties

	15/18 avg*	2015	2016	2017	2018	2019	+/- 2019 v. 15-18 avg.	+/- 2019 v. 2018
Swindon	**63**	**65**	**73**	**53**	**62**	**64**	**1.19%**	**3.23%**
Milton Keynes	94	89	107	93	86	60	-36.00%	-30.23%
Plymouth	96	78	96	110	99	94	-1.83%	-5.05%
Telford & Wrekin	48	41	45	54	50	45	-5.26%	-10.00%
Torbay	48	37	48	51	56	57	18.75%	1.79%
Wiltshire excl Swindon	229	233	239	215	228	234	2.30%	2.63%
South West	2195	2148	2226	2211	2196	2146	-2.24%	-2.28%
England	23020	20929	22900	23825	24424	24343	5.75%	-0.33%

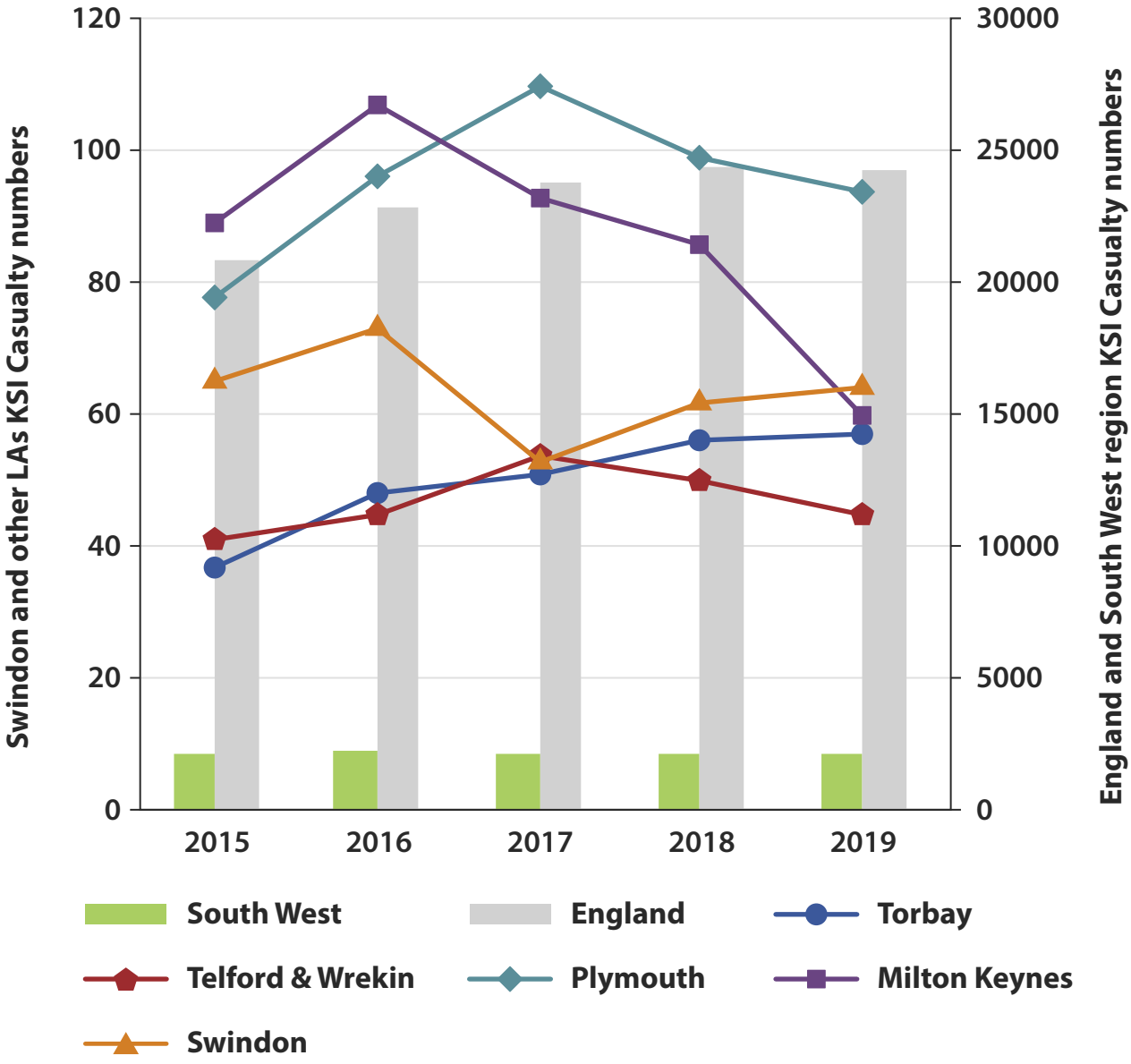
*Figure rounded to nearest whole number

Green text <= 2015/18 average **Red text > than 2015/18 average**

Swindon's KSI casualties have increased for 2019 on 2018 and on the average of the previous 4 years. Wiltshire and Torbay also show an increase on both the previous year and the 4-year average. The other Local Authorities, along with the South West region and England all show a reduction on the previous year and except for England, a reduction on the average of the previous 4 years.

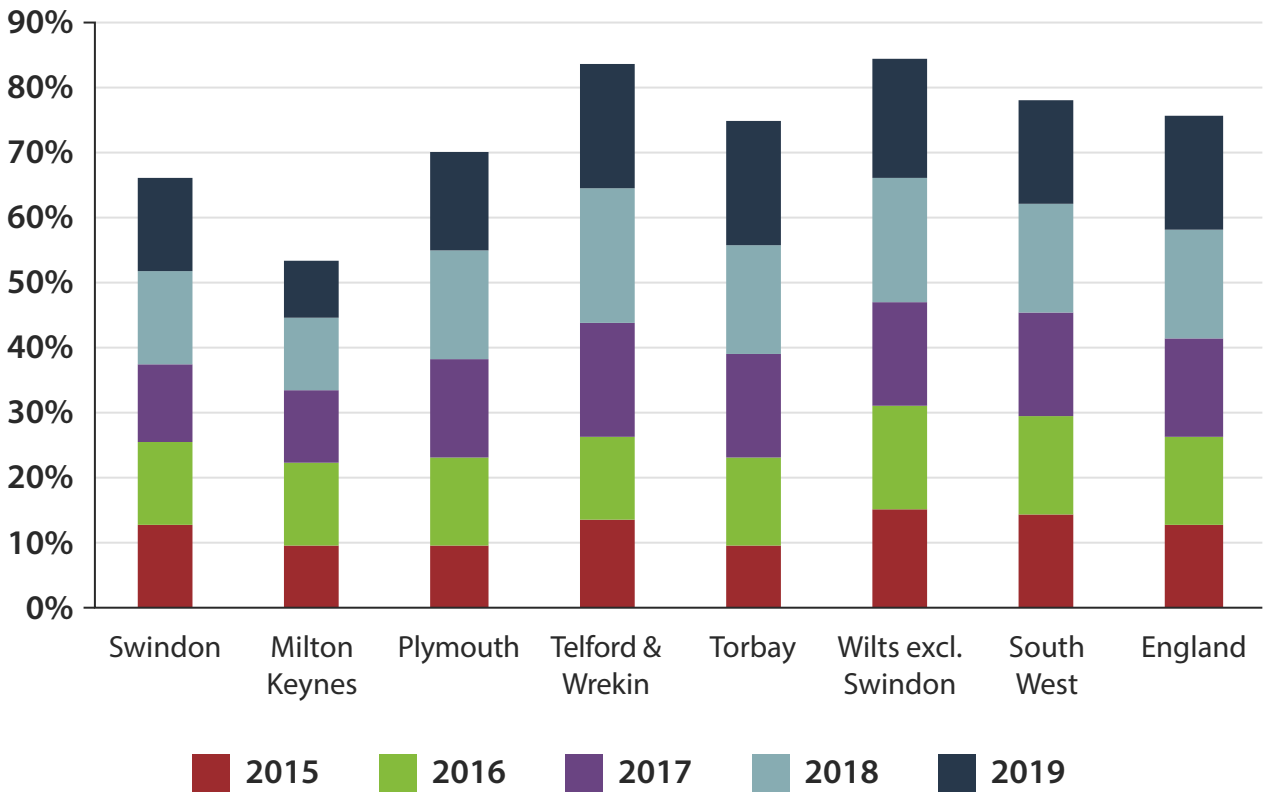
Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

Figure 2. KSI Casualties



As with total casualties, Swindon shows an increase in KSI casualties in 2018 and 2019 over their respective previous years. The increase in 2019 goes against the national and regional trends which both show a slight reduction on 2018.

Figure 3. KSI Casualties as a proportion of Total Casualties



Despite the increases in Swindon in both total and KSI casualties, in 2017, 2018 and 2019, Swindon has the second lowest proportion of KSI casualties to total casualties, bettered only by Milton Keynes.

The casualty rate, as measured by vehicle miles rather than population, shows Swindon in 2019 to be on a par with the rate for the South West region and lower than those for England. Only 2 of the Local Authorities featured in the table below, Wiltshire and Telford & Wrekin were lower than Swindon.

Table 4 – Casualty rate per billion vehicle miles

	15/18 avg*	2015	2016	2017	2018	2019	+/- 2019 v. 15-18 avg.	+/- 2019 v. 2018
Swindon	**416**	**448**	**484**	**374**	**359**	**365**	**-12.40%**	**1.69%**
Milton Keynes	498	566	515	474	436	392	-21.20%	-10.06%
Plymouth	758	874	752	771	635	624	-17.71%	-1.70%
Telford & Wrekin	315	341	363	316	240	221	-29.77%	-7.77%
Torbay	778	854	808	719	730	666	-14.41%	-8.83%
Wiltshire excl Swindon	363	410	395	339	308	321	-11.67%	4.09%
South West	409	448	430	391	368	360	-11.89%	-1.97%
England	536	586	558	519	483	451	-15.86%	-6.54%

*Figure rounded to nearest whole number

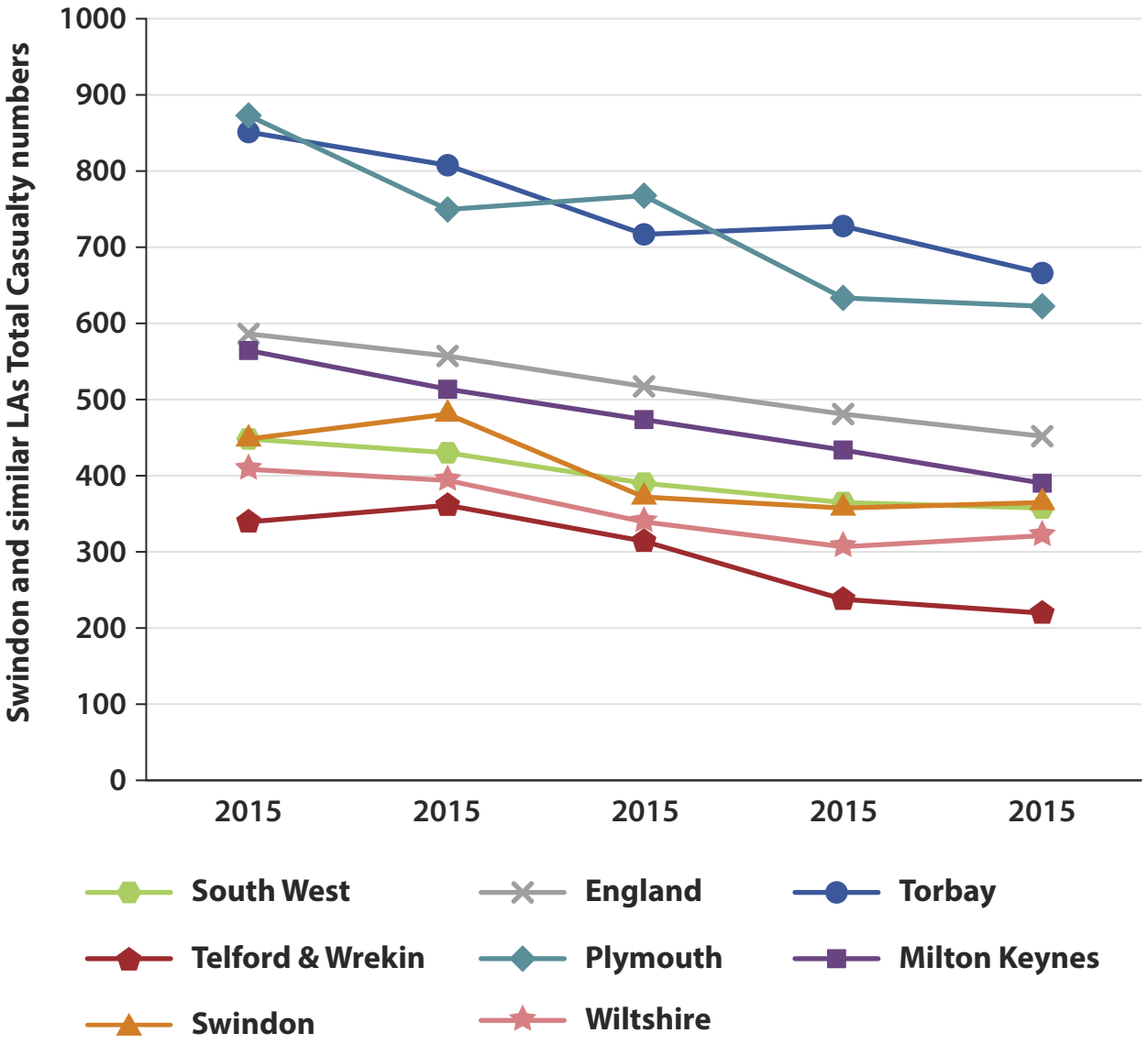
Green text <= 2015/18 average **Red text > than 2015/18 average**

Source:
https://www.gov.uk/government/statistical-data-sets/ras30-reported-casualties-in-road-accidents

The casualty rate for Swindon has decreased on the 4-year average as have all of the comparator sites. Swindon's rate is up on 2018 and although the increase is marginal, there are reductions nationally, regionally, and in all the other Local Authorities featured here, with the exception of Wiltshire.

Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

Figure 4. Casualties per billion vehicle miles

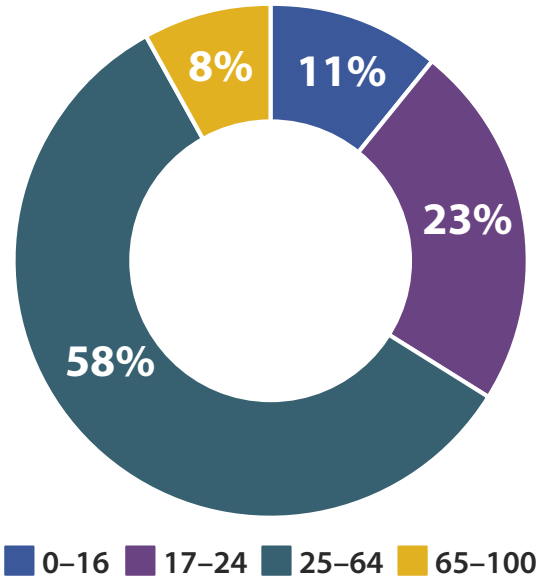


3. Analysis by Age and Gender

Table 5 – Total Casualty trends by Age Group

Age group	2015	2016	2017	2018	2019	+/- 2019 v. 4yr avg	+/- 2019 v. 2018
0–16	52	61	45	54	52	-1.89%	-3.70%
17–24	125	123	94	81	102	-3.55%	25.93%
25–64	298	335	261	263	263	-9.08%	0.00%
65+	42	42	31	37	37	-2.63%	0.00%
Total	**517**	**561**	**431**	**435**	**454**	**-6.58%**	**4.37%**

Figure 5. 2019 Total Casualties by Age Group



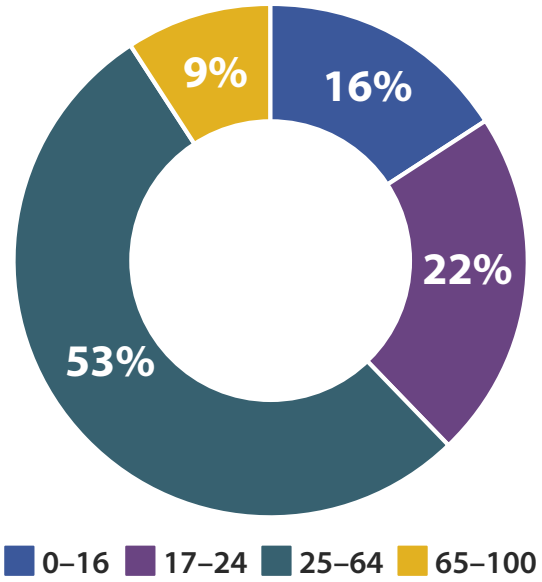
For 2019, as for 2018, the 25–64 age group has the highest proportion of total casualties. With the 17–24 age group having the highest increase on 2018 and with all other comparisons showing a downward or mainly flat trend for 2019.

Table 6 – KSI Casualty trends by Age Group

Age group	2015	2016	2017	2018	2019	+/- 2019 v. 4yr avg	+/- 2019 v. 2018
0–16	5	6	3	8	10	81.82%	25.00%
17–24	13	17	12	9	14	9.80%	55.56%
25–64	37	40	34	39	34	-9.33%	-12.82%
65+	10	10	4	6	6	-20.00%	0.00%
Total	**65**	**73**	**53**	**62**	**64**	**1.19%**	**3.23%**

Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

Figure 5. 2019 Total Casualties by Age Group



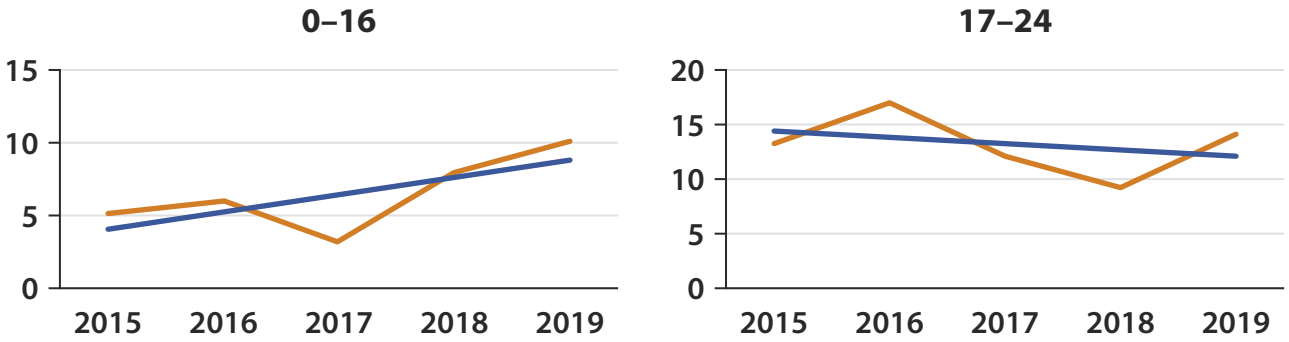
For KSI casualties, the 17–24 age group shows an increase on the 4 year average and a more than 50% increase on 2018 and with 22% this group has the second largest proportion of KSI casualties.

The 0–16 age group shows an increase on 2018 and a more than 80% increase on the average of the previous 4 years although with 16%, they represent the second smallest proportion of KSI casualties.

For total casualties, and despite the upturn in actual numbers for the 17–24 age group in 2019, across all age groups there is a predominantly downward trend and 2019 continues that trend.

For KSI casualties, Figure 7 shows the uptick in actual numbers of casualties for 2019 for both 0–16 and 17–24 year olds. It also shows that despite the increase, again for 17–24 year olds, as for the 25–64 and 65+ age groups, the trend is downward, whereas for 0–16 year olds the trend is upward as it was in 2018.

Figure 7. Child (0–16 years) KSI (with trend line) and 17–24 (with trend line)

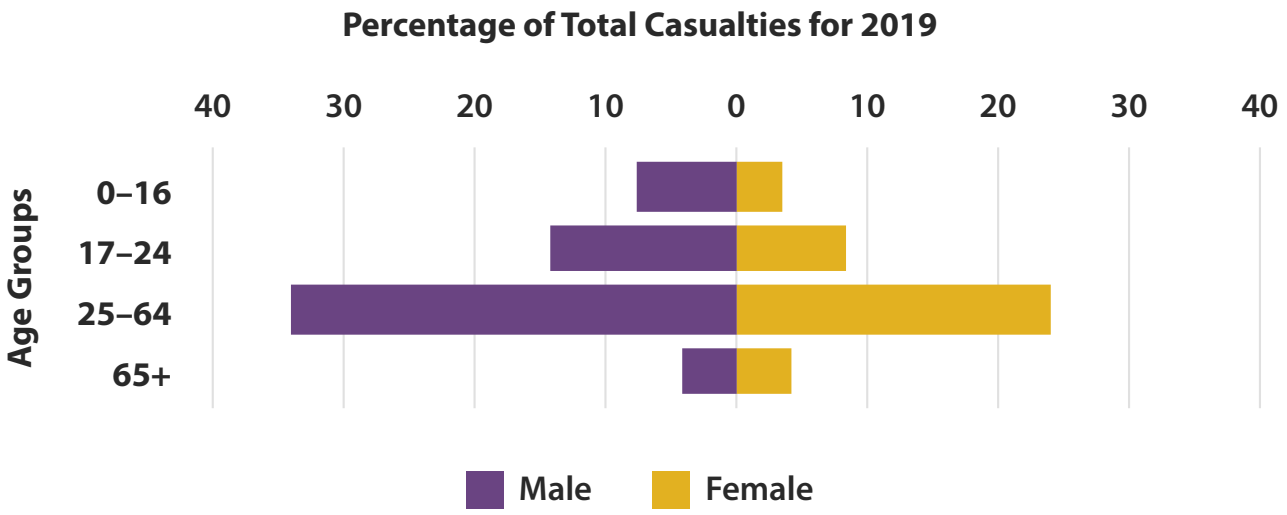


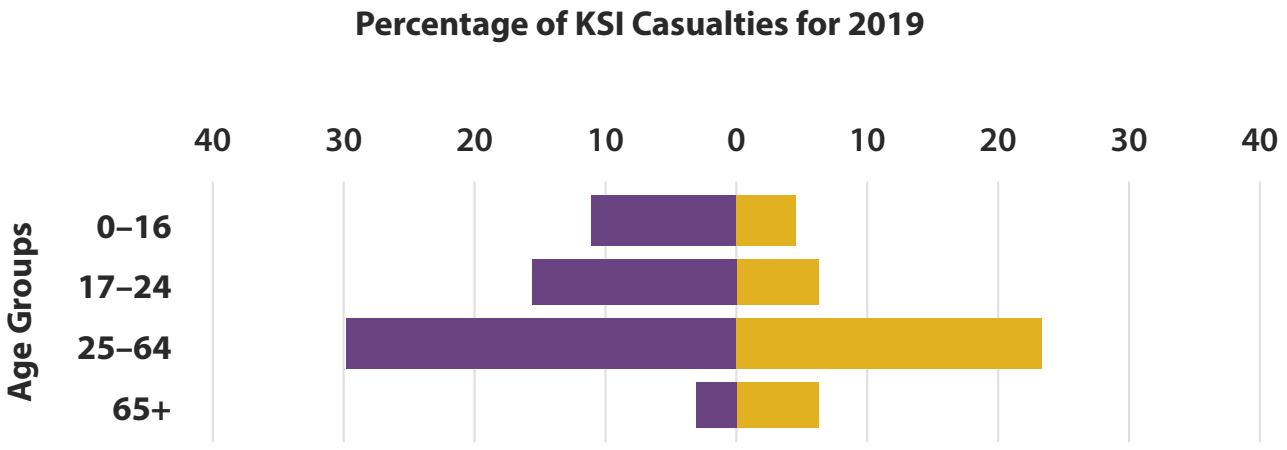
As with the previous year, for 2019 there are many more male casualties in most of the age groups for both Total and KSI casualties. The exception, again being the 65+ age group, where the casualty figures are more for females than for males.

Table 7 – 2019 Casualties by Age

	0–16		17–24		25–64		65+	
	Female	Male	Female	Male	Female	Male	Female	Male
KSI	3	7	4	10	15	19	4	2
Total	17	35	38	64	109	154	19	18

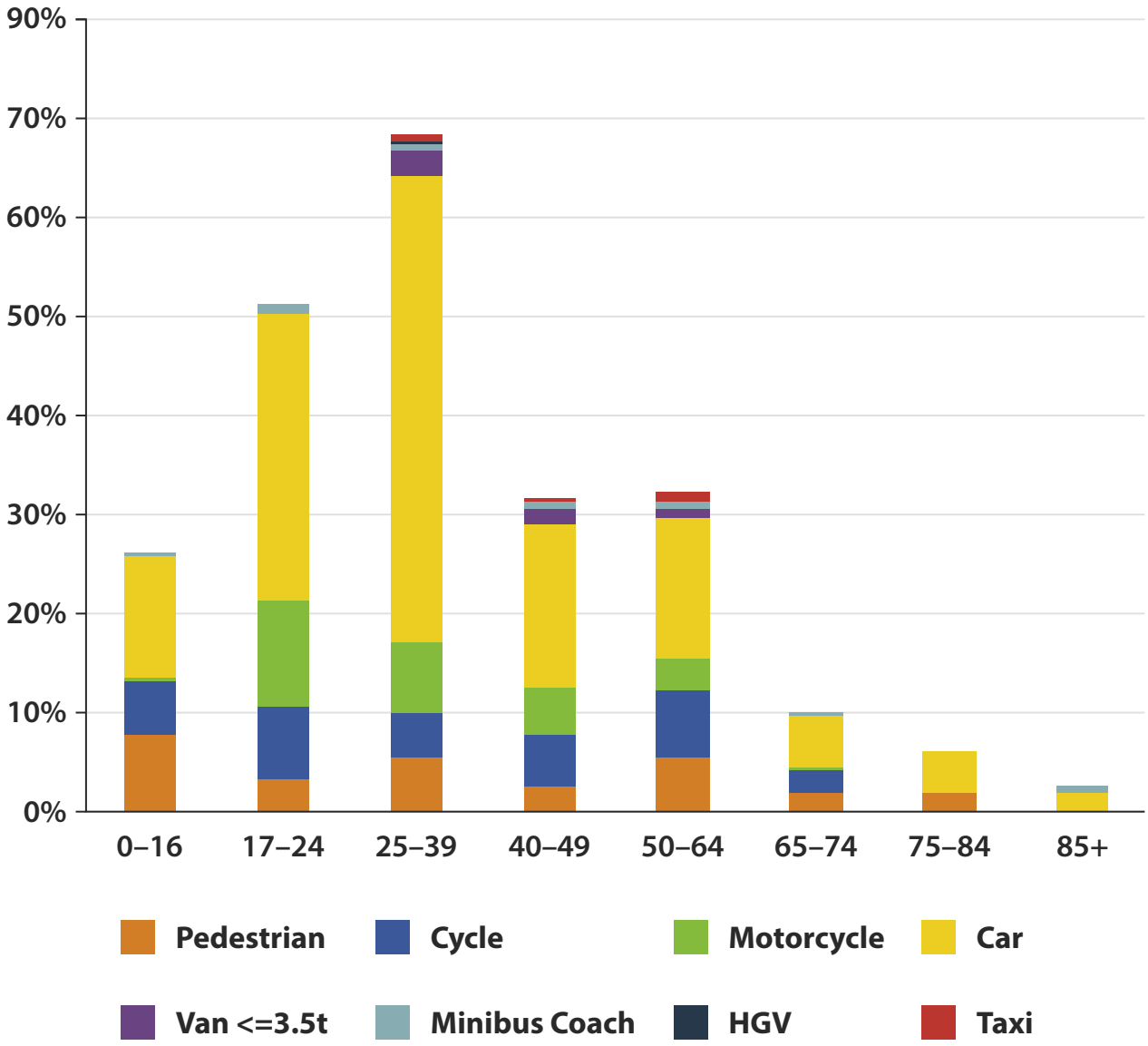
Figure 8. Age / Gender breakdown for 2019 – percentage of Total and KSI casualties





By further expanding the breakdown of the 2 older age groups, it can be seen that for 2019, casualties are in fact more prevalent in the younger end of both the 25–64 and 65+ age groups.

Figure 9. 2019 Total Casualties by Vehicle Type and Age



Note: In Figure 9, Driver/rider and Passenger casualty numbers have been combined

4. Analysis by Mode of Transport / Class of Casualty

Vehicle drivers comprise the greatest proportion of the 454 total casualties for 2019 (40.5%). However, they are down on 2018 and on the average of the previous 4 years.

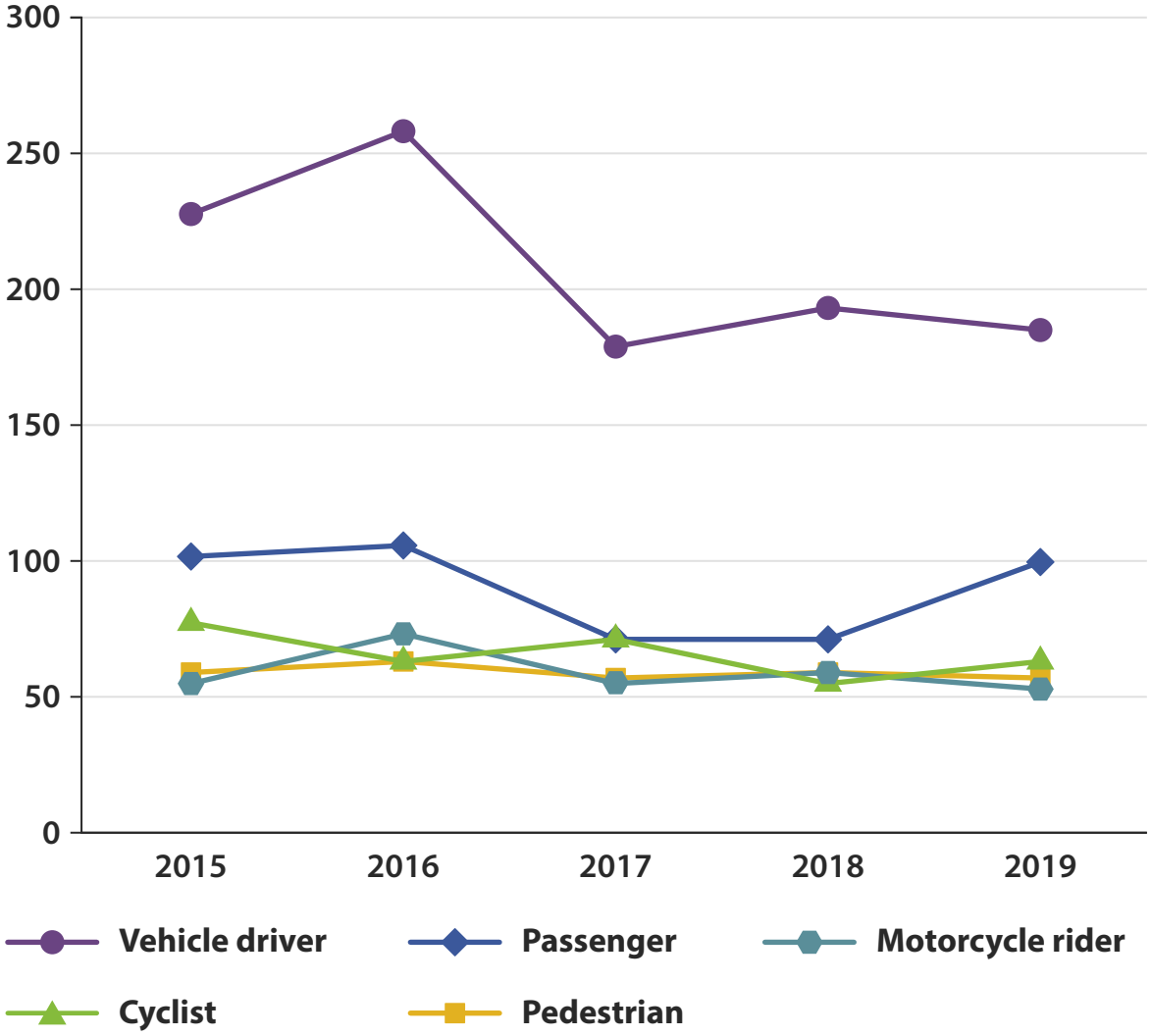
Table 8 – Swindon Casualty trends by Mode

	2015	2016	2017	2018	2019	+/- 2019 v. 4yr avg	+/- 2019 v. 2018
Vehicle driver	226	258	179	193	184	-14.02%	-4.66%
Passenger	101	105	70	71	100	15.27%	40.85%
Motorcycle rider	54	72	55	58	52	-12.97%	-10.34%
Cyclist	77	63	70	55	62	-6.42%	12.73%
Pedestrian	59	63	57	58	56	-5.49%	-3.45%
Total	**517**	**561**	**431**	**435**	**454**	**-6.58%**	**4.37%**

Cyclist casualty figures have also increased on 2018 but are down on the average of the previous 4 years.

Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

Figure 10. Swindon Casualty Trends by Mode



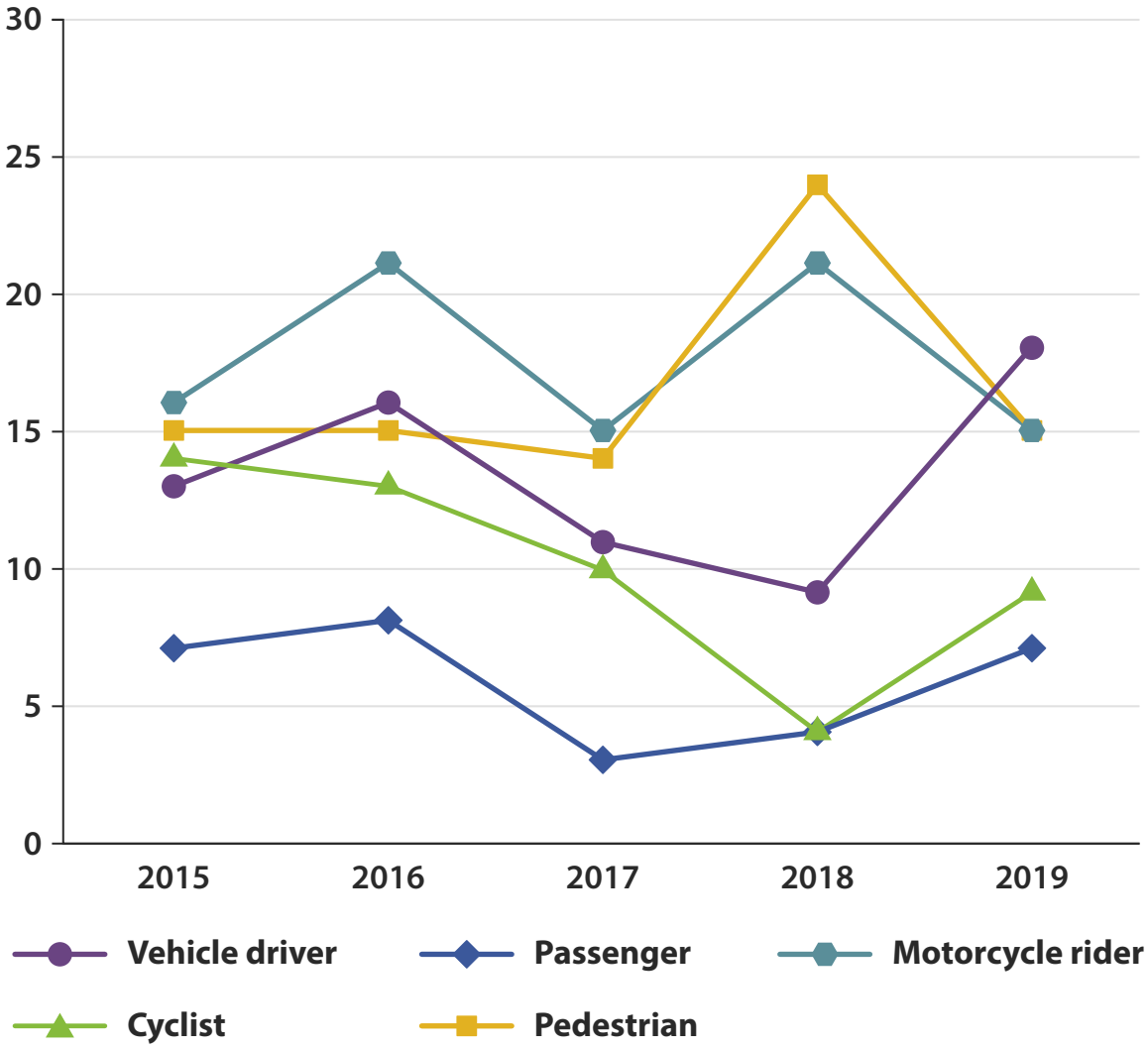
This shows the 2 areas, 'Passenger' and 'Cyclist', where there have been increases for the total 2019 figure on the 2018 figure.

Table 9 – KSI Casualty trends by Mode

	2015	2016	2017	2018	2019	+/- 2019 v. 4yr avg	+/- 2019 v. 2018
Vehicle driver	226	258	179	193	184	-14.02%	-4.66%
Passenger	101	105	70	71	100	15.27%	40.85%
Motorcycle rider	54	72	55	58	52	-12.97%	-10.34%
Cyclist	77	63	70	55	62	-6.42%	12.73%
Pedestrian	59	63	57	58	56	-5.49%	-3.45%
Total	**517**	**561**	**431**	**435**	**454**	**-6.58%**	**4.37%**

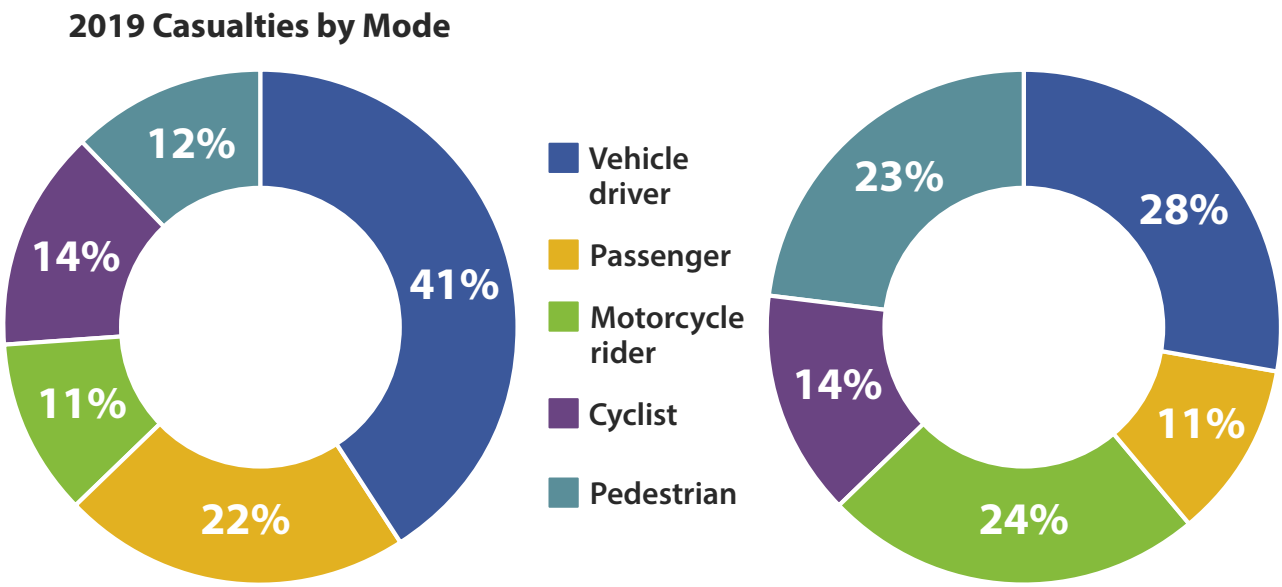
Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

Figure 11. KSI Casualty Trends by Mode



For 2019, the marked uptick in the KSI casualties for Vehicle Drivers and Cyclists is mostly accounted for in the increases in the driver / riders in the younger age groups. Of the 7 KSI casualties who were passengers, 4 are in the 0–16 age group.

Figure 12. 2019 Casualties by Mode / 2019 KSI Casualties by Mode



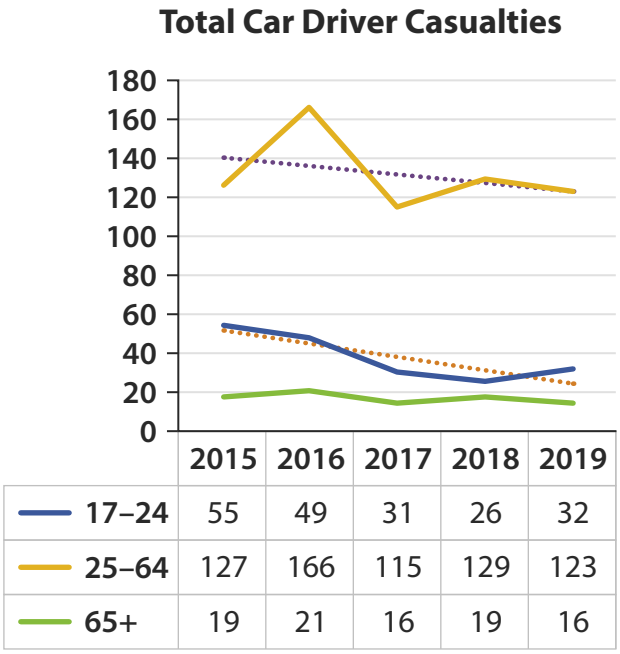
The 42 Driver / Rider KSI casualties are fairly evenly split between vehicles, motorcycles and pedal cycles and make up 65% of all KSI casualties for 2019. Pedestrian KSI casualty numbers are down on previous years but still make up 23% of KSI casualties in 2019.

4.1. Car Drivers

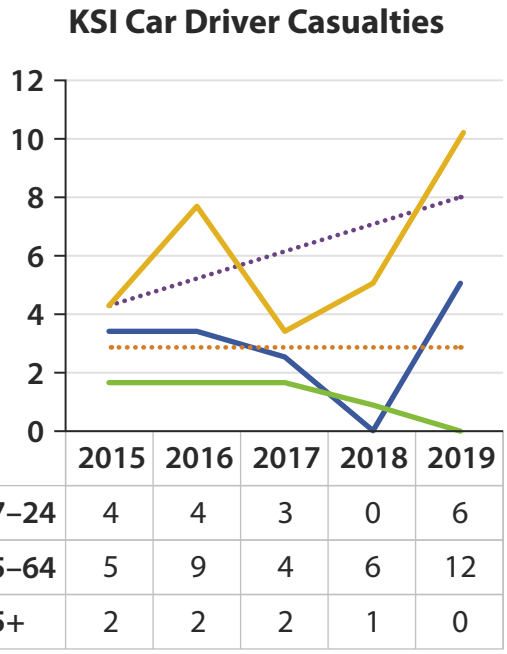
Total casualty data for drivers of private cars shows that for the 17–24 age groups, the numbers for 2019 have increased on 2018 by 23% but have decreased by 20% when compared with the average of the previous 4 years. The 25–64 and 65+ age groups have both shown a decrease for total casualties when compared with 2018 and with the average of the previous 4 years.

There were no KSI casualties for the 65+ age group in 2019 however, the 17–24 and 25–64 age groups show large percentage increases when comparing 2019 with 2018 and with the average of the previous 4 years. The trend in KSI casualties for the 25–64 age group is upwards, whereas although the 17–24 age group shows a marked increase for 2019, as Figure 13 shows, the trend is flat.

Figure 13. Car Driver Casualties by Age



	2015	2016	2017	2018	2019
17–24	55	49	31	26	32
25–64	127	166	115	129	123
65+	19	21	16	19	16



	2015	2016	2017	2018	2019
17–24	4	4	3	0	6
25–64	5	9	4	6	12
65+	2	2	2	1	0

Trend line – 17–24 shown as dotted orange line, 25–64 shown as dotted purple line

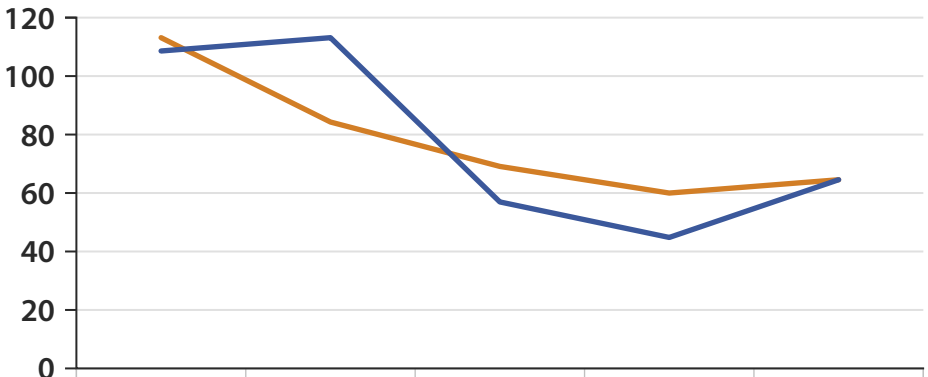
4.1.1. Young Drivers (17–24 years)

With 18.7%, this age group has the second highest proportion of total car driver casualties and in Figure 13 can be seen to have increased on 2019. However, with a decrease on the average of the previous 4 years, the total figure for 2019 can be seen to be reverting to the average. Figure 13 also shows the trend for total car driver casualties to be downward still for this age group.

As noted above, the trend for KSI casualties for this age group appears to be flat however, the figure for 2019 is still more than double the average of the previous 4 years and is a third of all KSI car driver casualties.

The gender split for car drivers for this age group shows the increase in total casualties on 2018 is largely accounted for by male car drivers.

Figure 14. Car Driver Casualties for 17–24 by Gender



	2015	2016	2017	2018	2019
Male	55	49	31	26	32
Female	127	166	115	129	123

Table 10 – KSI Car Driver Casualties for 17–24 by gender

	2015	2016	2017	2018	2019
Male	4	4	1	0	3
Female	0	0	2	0	3

With low numbers running in parallel for the past 2 years these KSI figures are too small to usefully represent in a chart. In Table 10 it can be seen that the increase in KSI casualties for car drivers in this age group is equally split between Male and Female and is an increase on the previous year.

4.2. Motorcycle Driver / Riders

For 2019, despite the decrease in numbers overall, motorcycle riders represent almost a quarter of all KSI casualties. Of the 52 Driver / Rider casualties, females, with 6 casualties and 2 KSI casualties, represent 11.5% of the total casualties and just over 13% of the KSI casualties, both up on last year when they were 5% and 10% respectively. In addition, the one fatality in Swindon in 2019 is a female motorcycle rider.

Male casualties correspondingly represent 88.5% of the total and just under 87% of the KSI casualties for this year.

Table 11 – 2019 Total Casualties by Motorcycle Engine Size

		50cc & under	50–125cc	125–500cc	Over 500cc	cc unknown	Total
0–16	**Female**	0	0	0	0	0	**0**
	Male	1	0	0	0	0	**1**
17–24	**Female**	0	2	0	1	0	**3**
	Male	0	10	0	3	4	**17**
25–64	**Female**	0	2	0	1	0	**3**
	Male	0	10	6	8	3	**27**
65+	**Female**	0	0	0	0	0	**0**
	Male	0	1	0	0	0	**1**
Total		**1**	**25**	**6**	**13**	**7**	**52**

All but 2 of the total casualties occur in the 17–24 and 25–64 age groups.

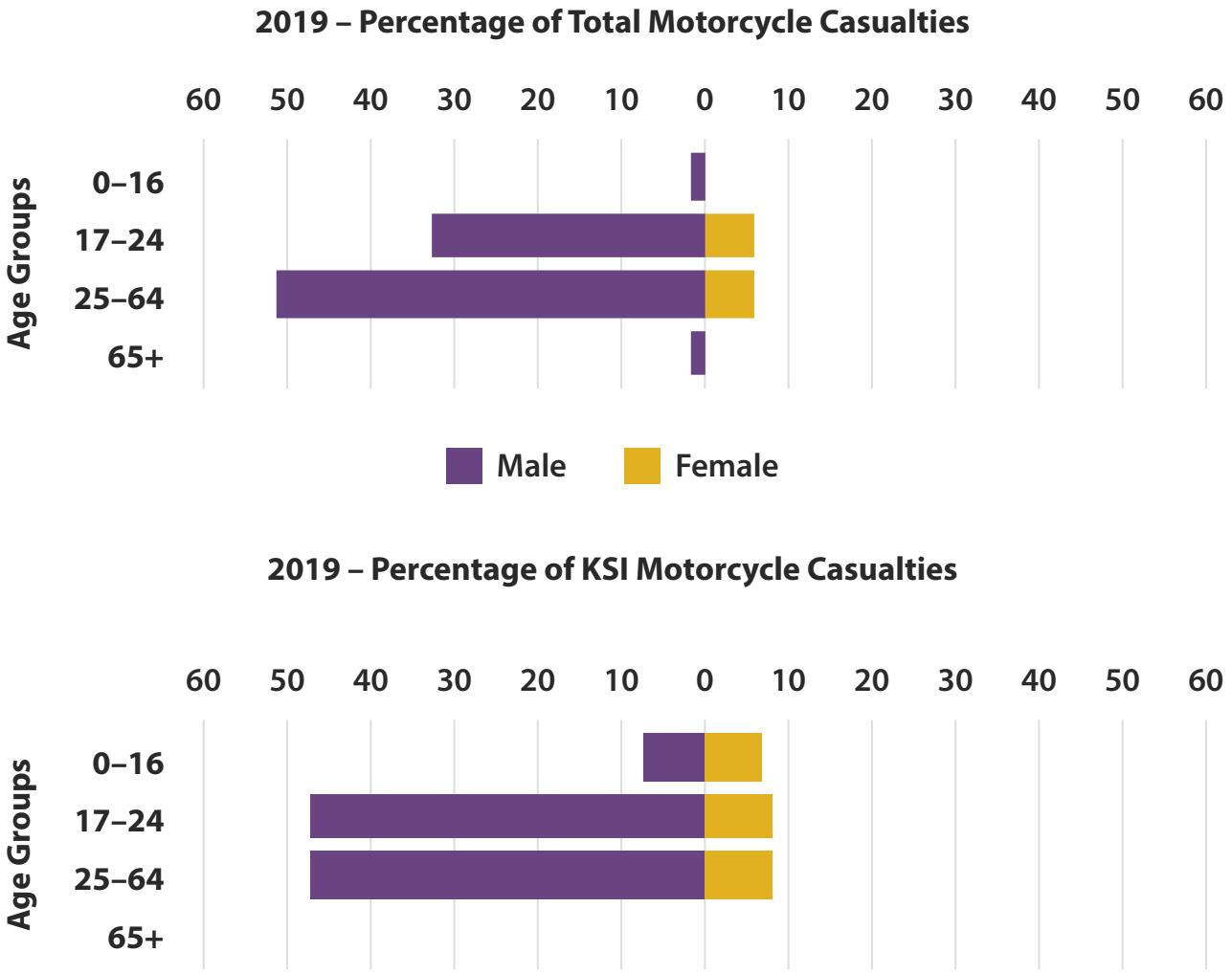
Table 12 – 2019 KSI Casualties by Motorcycle Engine Size

		50cc & under	50–125cc	125–500cc	Over 500cc	cc unknown	Total
0–16	**Female**	0	0	0	0	0	**0**
	Male	1	0	0	0	0	**1**
17–24	**Female**	0	0	0	1	0	**1**
	Male	0	5	0	1	0	**6**
25–64	**Female**	0	0	0	1	0	**1**
	Male	0	0	3	3	0	**6**
65+	**Female**	0	0	0	0	0	**0**
	Male	0	0	0	0	0	**0**
Total		**1**	**5**	**3**	**6**	**0**	**15**

There are no KSI casualties in the 65+ age group. The one fatality in 2019 is in the 25–64 age group, a female rider on a bike in the 'Over 500cc' category.

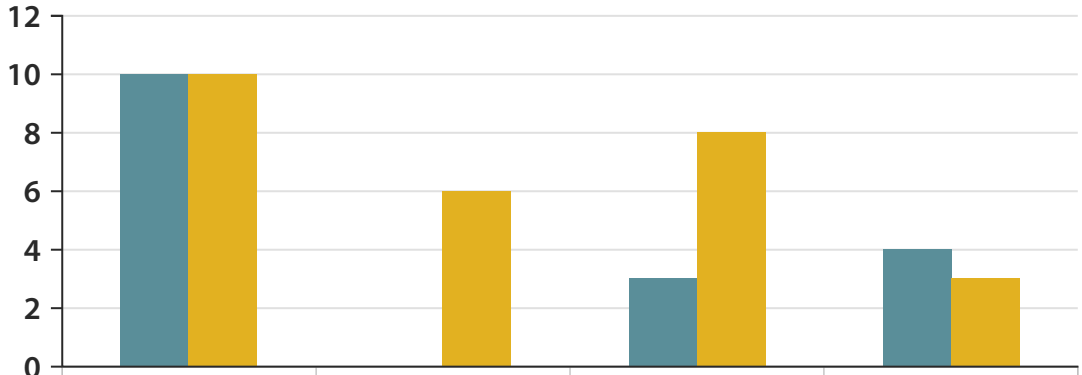
These 2 graphs highlight the predominance of male casualties over female. Also that the 17–24 and 25–64 age groups represent most of the total and KSI motorcycle casualties.

Figure 15. 2019 Percentage of Motorcycle Casualties by Age and Gender



The graphs below show the 2 predominant age groups with motorcycle engine size breakdown for male casualties.

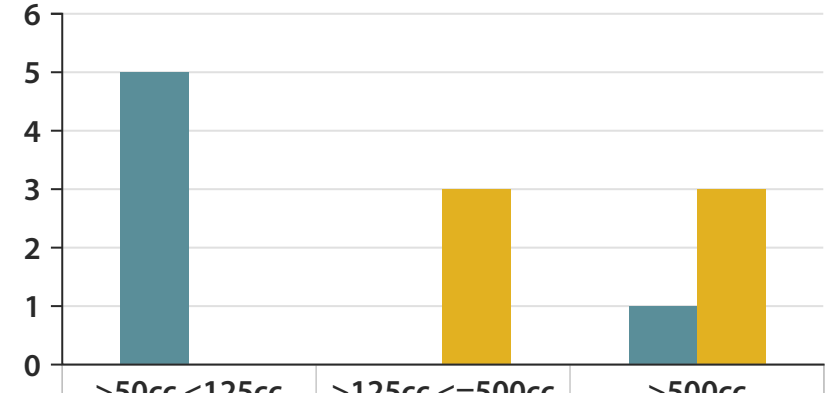
Figure 16. 2019 Male Casualties by Motorcycle Engine Size (2 predominant Age Groups only)



	>50cc <125cc	>125cc <=500cc	>500cc	Unknown cc
17–24	10	0	3	4
25–64	10	6	8	3

There were no casualties for these age groups in the 50cc & under category. With 20 casualties, the 50–125cc motorbike category has the largest number of all male casualties and this is split evenly between the 2 age groups. The over 500cc motorbike category is the next highest with 11 overall and 8 in the 25–64 age group. The graph also shows that the 25–64 age group has a greater proportion (61%) of the 44 male casualties for these 2 age groups.

Figure 17. 2019 Male KSI Casualties by Motorcycle Engine Size (2 predominant Age Groups only)



	>50cc <125cc	>125cc <=500cc	>500cc
17–24	5	0	1
25–64	0	3	3

There were no KSI casualties in the cc unknown category. The largest proportion of KSI casualties for a single age group is in the 50–125cc motorbike category with 5 for the 17–24 age group. Across all of the categories of motorcycle, the 2 age groups are split evenly with 6 each and the casualties for the 25–64 age group occurring in the larger bike categories.

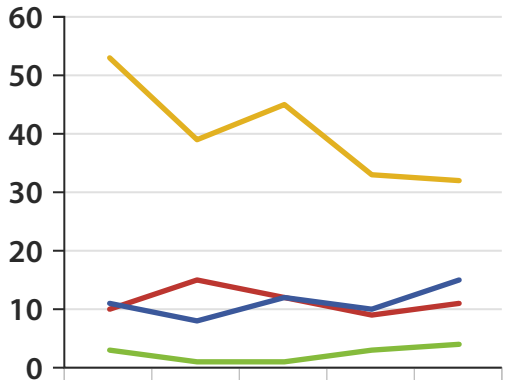
4.3. Pedal Cycles

As seen in the previous section, total cycle casualties are up on 2018 and down on the average of the previous 4 years.

The KSI casualty figure for cyclists for 2019 has increased by more than half on 2018.

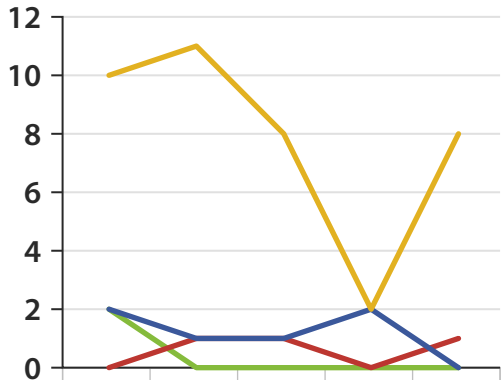
Figure 18. Cycle Casualties by Age

Total Cycle Casualties



	2015	2016	2017	2018	2019
0–16	10	15	12	9	11
17–24	11	8	12	10	15
25–64	53	39	45	33	32
65+	3	1	1	3	4

KSI Cycle Casualties



	2015	2016	2017	2018	2019
0–16	0	1	1	0	1
17–24	2	1	1	2	0
25–64	10	11	8	2	8
65+	2	0	0	0	0

It can now be seen that the increase for 2019 in total casualties is most marked in the 17–24 age group with a smaller increase in the 0–16 age group. The KSI casualty increase is most marked in the 25–64 age group with a smaller increase again in the 0–16 age group. There are no KSI casualties in the 17–24 and 65+ age groups.

Male cyclists account for the increases in the total casualties for the 2 younger age groups and the single 0–16 year old KSI casualty is male. Both genders contribute to the increase in the KSI casualty figure in the 25–64 age group.

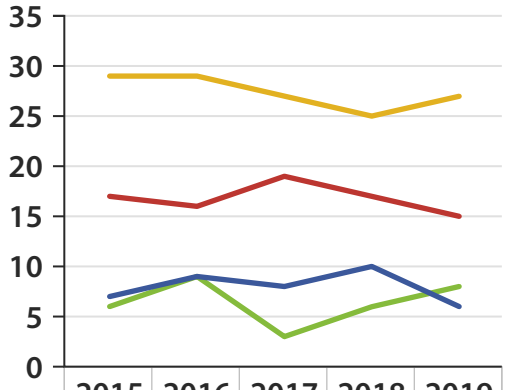
4.4. Pedestrians

The graphs below demonstrate that for 2019, there are small increases on the previous year in the pedestrian total casualties for the 25–64 and 65+ age groups. The numbers are down on 2018 for the 2 younger age groups, by almost half for the 17–24 year olds.

Pedestrian KSI casualty numbers for 2019 are down for almost all of the age groups, by almost half for the 17–24 and 25–64 year olds. The exception is the 65+ age group, where it is the same as it was for 2018.

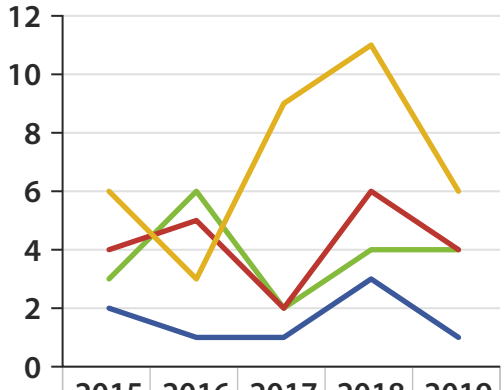
Figure 19. Pedestrian Casualties by Age

Total Pedestrian Casualties



	2015	2016	2017	2018	2019
0–16	17	16	19	17	15
17–24	7	9	8	10	6
25–64	29	29	27	25	27
65+	6	9	3	6	8

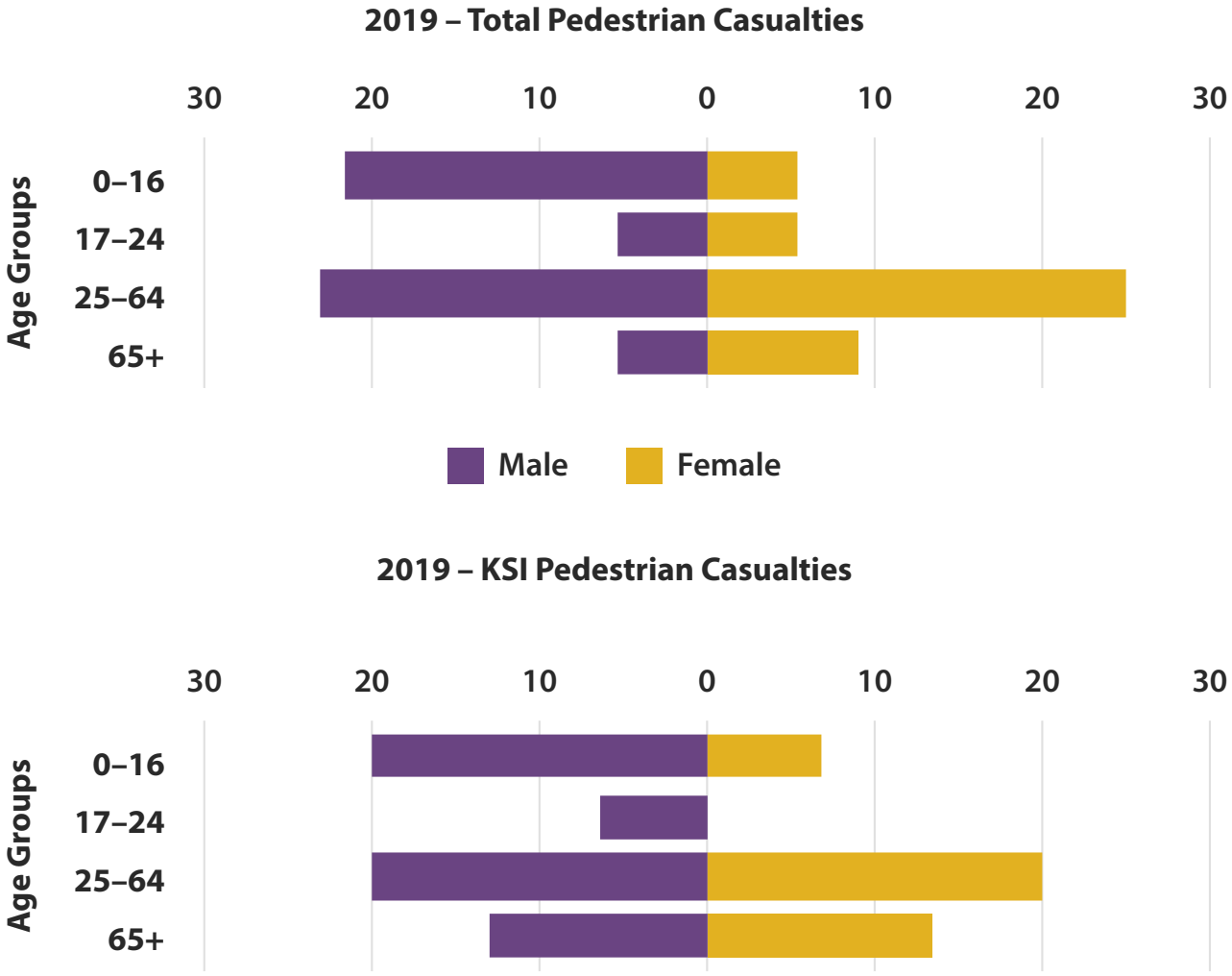
KSI Pedestrian Casualties



	2015	2016	2017	2018	2019
0–16	4	5	2	6	4
17–24	2	1	1	3	1
25–64	6	3	9	11	6
65+	3	6	2	4	4

In 2019, as for 2018, male pedestrians are more likely than females, to be reported as injured in collisions. The age breakdown does however show, that for 2019, it is the 2 younger age groups where this is the case whereas in the older age groups it is females that have the higher numbers of total casualties.

Figure 20. Age / Gender breakdown for 2019 – proportion of Total and KSI Pedestrian casualties



The largest age group, 25–64, has the corresponding highest proportion (48%) of total pedestrian casualties and in 2019, females are just ahead of males. Each gender has an equal proportion of KSI casualties for this age group.

The 0–16 age group follows close behind with nearly 27% of the total pedestrian casualties and almost a quarter of the KSI casualties. Males account for a much greater proportion of total casualties and a higher proportion of the KSI casualties for this age group.

In contrast to 2018 where Swindon was out of step with the Department for Transport (DfT) figures, in 2019 Swindon's 3% decrease in total pedestrian casualties on 2018 mirrors the DfT figure for England. The reduction of 37.5% in Swindon's KSI pedestrian casualties on 2018, is better than the DfT KSI numbers for England, where these also show a 3% decrease.

4.5. Large Vehicles – Van, Bus, HGV

In 2019, casualties resulting from collisions involving these vehicle types, represents nearly 17% of the total casualties. However, as Table 13 shows, the vast majority of those are accounted for by collisions involving vans at or under 3.5t. With this type of vehicle excluded, the other large vehicles together account for just over 5%.

Table 13 – Casualties by large vehicle type involved

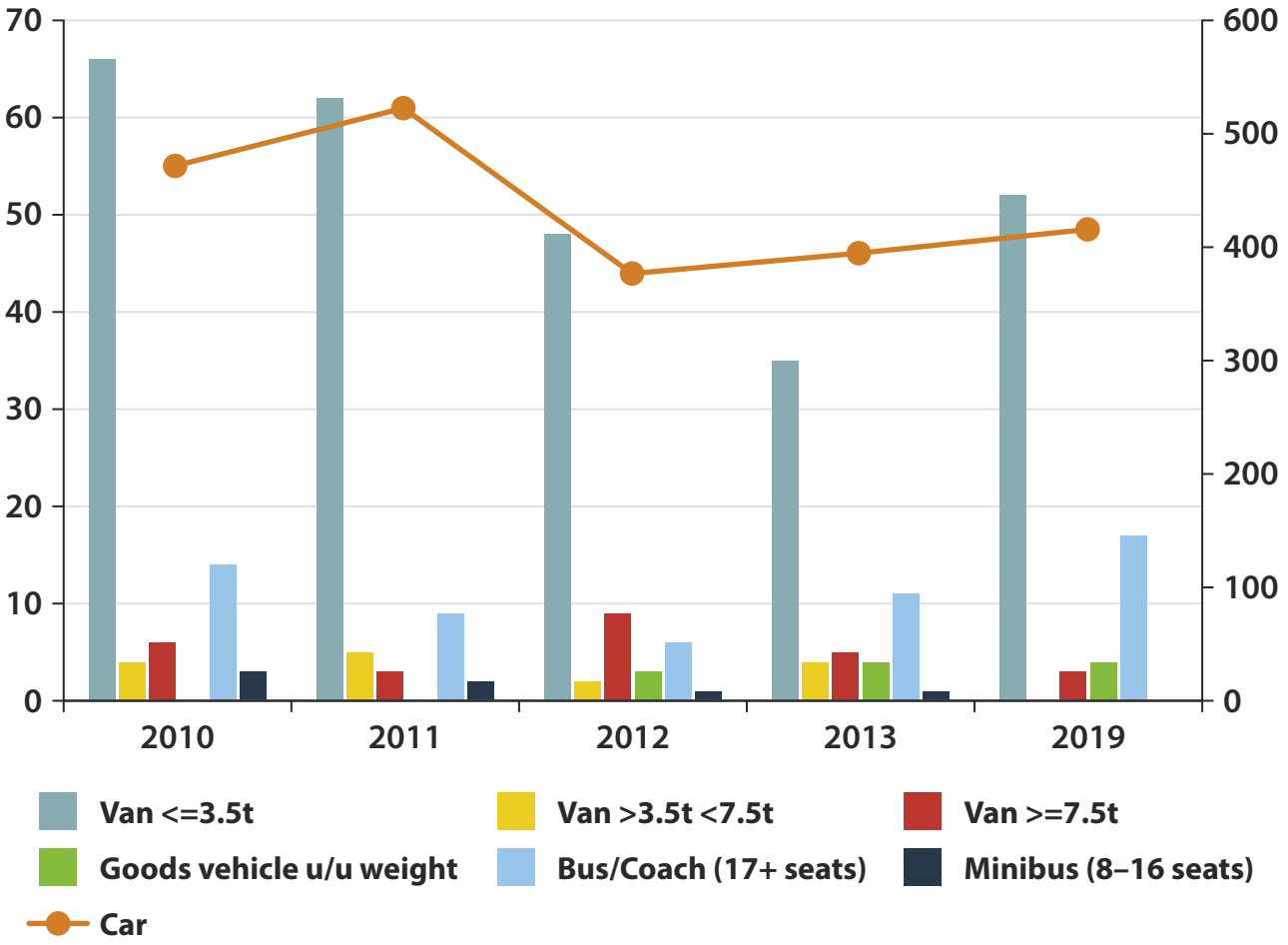
	2015	2016	2017	2018	2019	+ / – 2019 on 2015–2018 Avg.	+/- 2019 v. 2018
All Casualties	**517**	**561**	**431**	**435**	**454**	**-6.58%**	**4.37%**
Minibus (8–16 seats)	3	2	1	1	0	-100.00%	-100.00%
Bus / Coach (17+ seats)	14	9	6	11	17	70.00%	54.55%
Van <= 3.5t	66	62	48	35	52	-1.42%	48.57%
Van > 3.5t < 7.5t	4	5	2	4	0	-100.00%	-100.00%
Van >= 7.5t	6	3	9	5	3	-47.83%	-40.00%
Goods vehicle u/k weight	0	0	3	4	4	128.57%	0.00%

Note 1: The figures do not reflect whether the larger vehicles are a causal factor, simply that they were involved.

Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

The graph below further illustrates the low numbers for the larger vehicles by including the number of casualties involving cars (orange line using the axis on the right) and the numbers involving the larger vehicles (columns using the axis on the left).

Figure 21. Total Casualties by Vehicle Type



Note: There are gaps in the columns denoting where there have been no casualties involving the corresponding vehicles, e.g. for 2019 there were no casualties involving minibuses nor vans between 3.5t and 7.5t.

The smaller category of van (<= 3.5t) features every year and with 52 casualties, collisions involving this type of vehicle accounts for just over 11% of all casualties in 2019, the largest proportion of the vehicle types in this group. The numbers are up for 2019 on 2018 but are down on the average of the previous 4 years.

Within the whole group of larger vehicles, there were 2 KSI casualties in 2019, a goods vehicle of unknown weight in collision with a pedestrian, and a passenger on a Bus/Coach.

There were 2 fatalities throughout the 5 year period. Both were pedestrians, in collision with a van under 3.5t in 2016, and with a van between 3.5t and 7.5t in 2017.

5. Environmental and other factors

5.1. Journey purpose

The purpose of a journey is more often recorded as either 'Other' or 'Unknown'. For 2017 and 2018, just over 70% of their respective total casualties has journey purpose recorded in this way and the proportion has gone up in 2019 to just over 77%.

Table 14 – Total Casualties by recorded Journey purpose

	2017	2018	2019
Journey as part of work	51	47	55
Commuting to / from work	70	69	38
Taking pupil to / from school	3	9	6
Pupil riding to / from school	1	2	4
Other	158	149	157
Unknown	148	159	194
Total	**431**	**435**	**454**

Where journey purpose has been recorded with a specific value, 'Journey as part of work' and 'Pupil riding to / from school' are the only categories that have gone up in comparison with 2018. There is no increase in the numbers of KSI casualties for any categories recorded with a specific value, and no KSI casualties at all in the 'Pupil riding to / from school' category.

Where specific sites are reviewed and investigated, location / time / day / month information can be used as a proxy to deduce journey purpose and thus conclude whether it is a factor. Note: Journey purpose is not featured in the latest Department for Transport (DfT) report dated 30 September 2020 ('Reported road casualties in Great Britain: 2019 annual report').

5.2. Impairment / distraction

In 2019 the number of collisions where the following factors have been attributed is very low. This could mean that these are not as common as is anecdotally supposed or, because attribution of these factors is not possible, or very difficult, at the point at which the data is collected and recorded.

For example, Table 15 shows the numbers of KSI casualties over the past 5 years where not wearing a seatbelt could be attributed as a factor in the severity of the injury. The numbers

of KSI casualties where 'Seatbelt – not worn' is very low and for 2019, excluding the 'not applicable' category, accounts for just under 5% of the remaining KSI casualties.

Table 15 – KSI Casualties by whether Seatbelt worn

	2015	2016	2017	2018	2019
Seatbelt – worn and independently confirmed	0	3	6	3	1
Seatbelt – worn but not independently confirmed	2	6	5	4	12
Seatbelt – not worn	3	2	0	1	1
Seatbelt – unknown	13	12	0	5	7
Seatbelt – not applicable	47	50	42	49	43

This is echoed in the numbers for total casualties where 'Seatbelt – not worn' accounts for under 2% of the applicable casualties.

This trend of low numbers is also echoed in the table below and thus it is reasonable to suppose that these factors are under-recorded.

Table 16 – Collisions by contributory factors

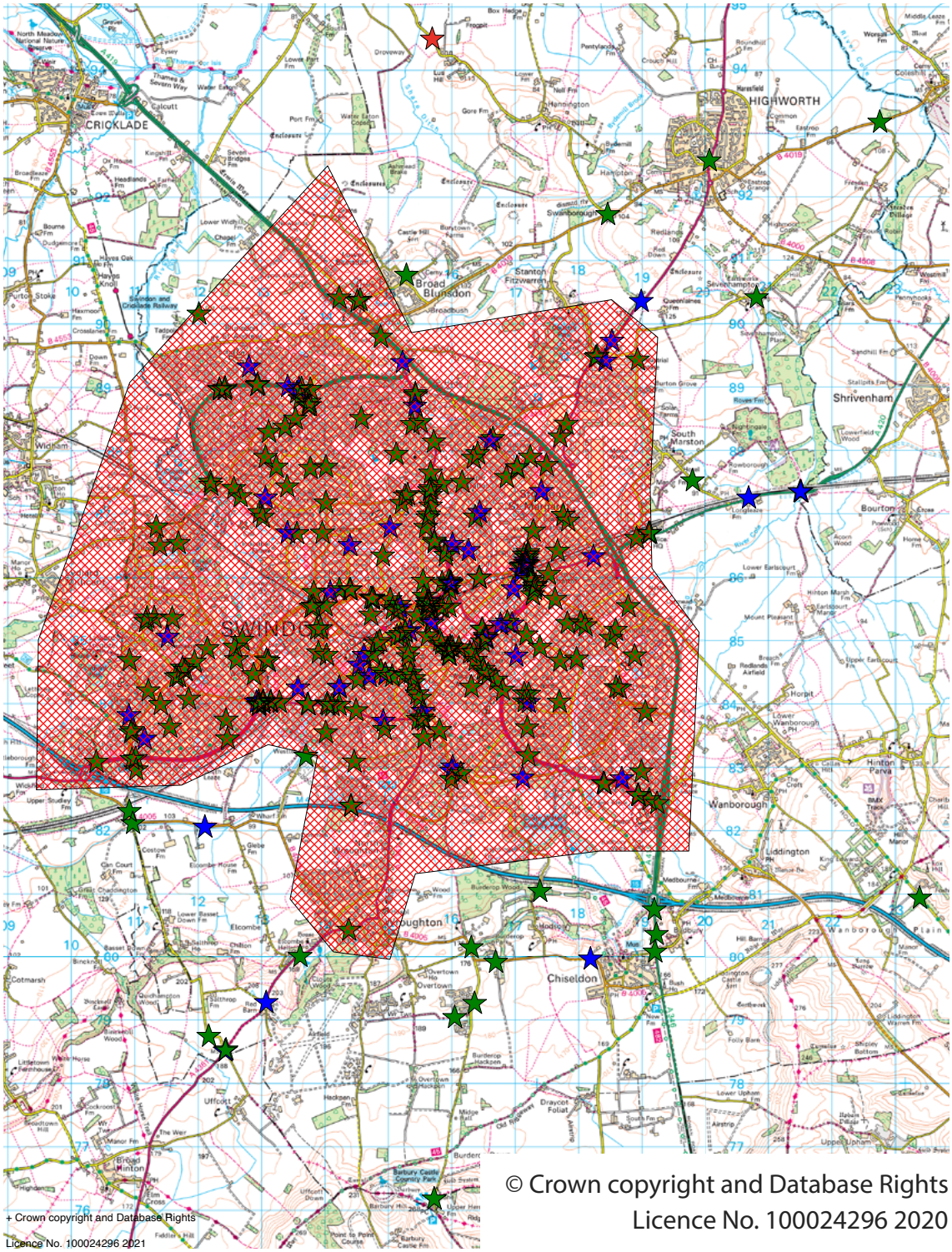
	2015	2016	2017	2018	2019
501 Impaired by alcohol – very likely	14	26	24	28	9
502 Impaired by drugs (illicit or medicinal) – very likely	1	4	-	2	4
508 Driver using mobile phone – very likely	-	1	-	1	-
509 Distraction in vehicle – very likely	8	7	5	5	4
806 Impaired by alcohol – pedestrian – very likely	7	6	3	3	3
807 Impaired by drugs (illicit or medicinal) – pedestrian – very likely	-	-	-	1	-

These low numbers are in line with the national figures where, for example in 2019, 420 collisions are recorded with 'Driver using mobile phone' i.e. less than 1%.

Note: Contributory Factors are part of the review of the Stats19 data collection.

5.3. Rural locations

Collisions and casualties in 2019 counted as rural, are those that fall outside the area shown in red below.



★ **Fatal**
★ **Serious**
★ **Slight**

Table 17 – Rural Collisions

Collisions	2015	2016	2017	2018	2019	+ / – 2019 on 2015–2018 Avg.	+ / – 2019 on 2018
KSI	7	11	7	8	8	-3.03%	0.00%
Total	47	44	37	41	31	-26.63%	-24.39%

The numbers of total rural collisions in 2019 are down by around a quarter when compared with 2018 and the average of the previous 4 years. KSI rural collisions have remained the same as 2018 and are down on the average of the previous 4 years.

Table 18 – Rural Casualties

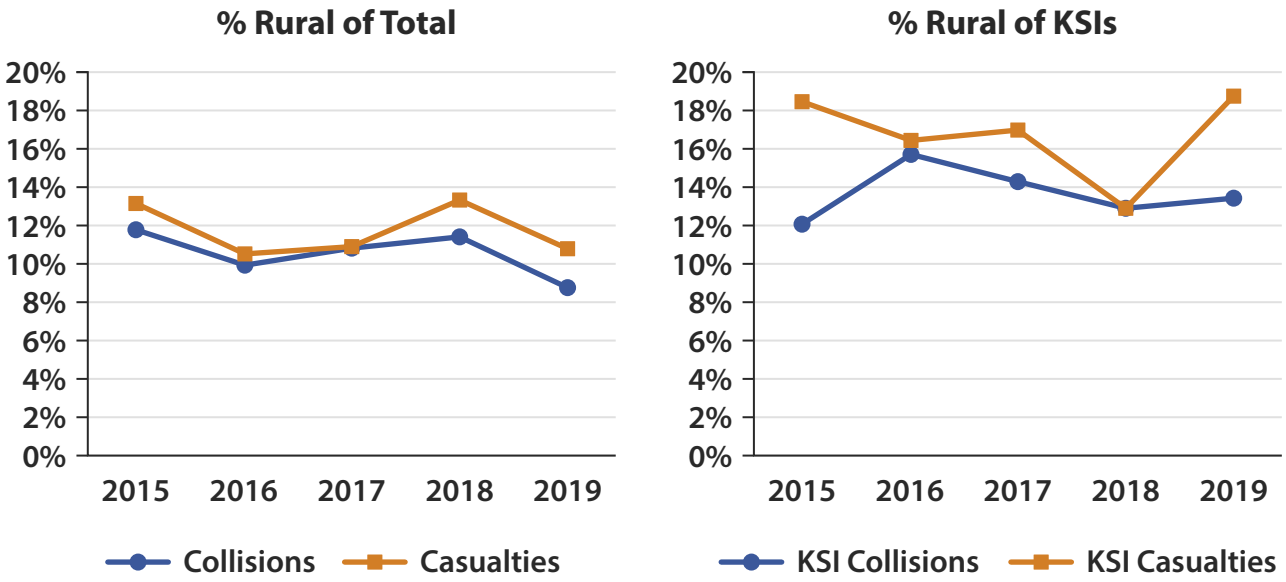
Collisions	2015	2016	2017	2018	2019	+ / – 2019 on 2015–2018 Avg.	+ / – 2019 on 2018
KSI	12	12	9	8	12	17.07%	50.00%
Total	68	59	47	58	49	-15.52%	-15.52%

Total rural casualties are also down on 2018 and on the average of the previous 4 years. KSI casualties are up on both comparators and the single fatality for Swindon in 2019 occurred in a rural location.

For rural incidents as a percentage of all Swindon collisions and casualties, 2019 is down on the previous year for total collisions and casualties, whilst KSI collisions are slightly up and KSI casualties are up from just under 13% in 2018 to just under 19% in 2019. With 12 rural KSI casualties they represent almost one-fifth of all Swindon KSI casualties for 2019.

Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

Figure 22. Rural as a Percentage of Total and KSI



5.4. Bends

There is not a simple identifier recorded for these type of incidents and so they are counted where 'bend' is present in the description of the incident.

Table 19 – Collisions where 'bend' present

Collisions	2015	2016	2017	2018	2019	+ / – 2019 on 2015–2018 Avg.	+ / – 2019 on 2018
KSI	10	3	2	3	3	-33.33%	0.00%
Total	23	15	13	11	8	-48.39%	-27.27%

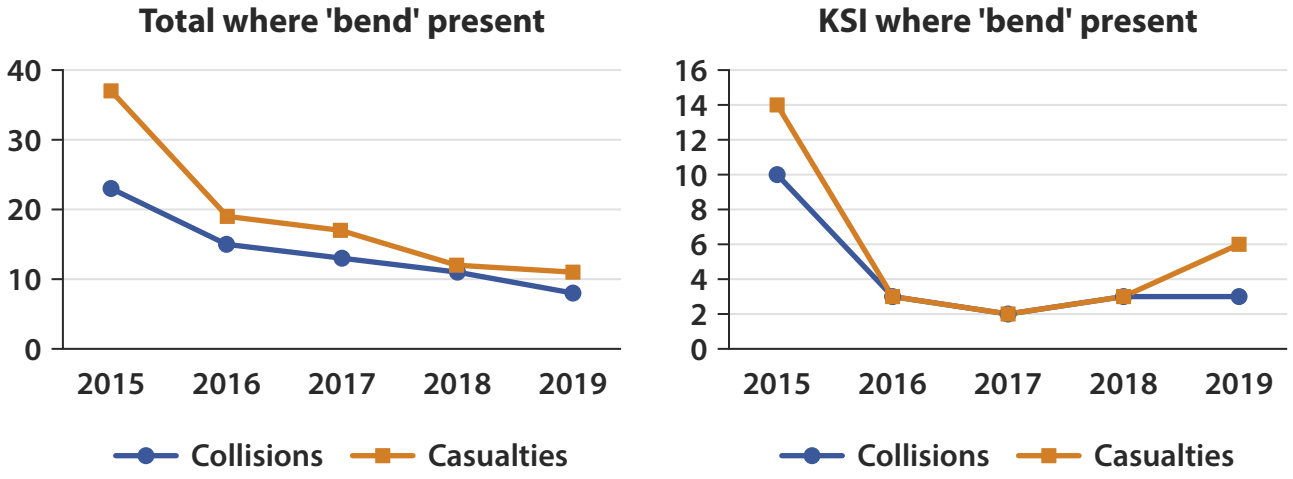
Table 20 – Casualties where 'bend' present

Collisions	2015	2016	2017	2018	2019	+ / – 2019 on 2015–2018 Avg.	+ / – 2019 on 2018
KSI	14	3	2	3	6	9.09%	100.00%
Total	37	19	17	12	11	-48.24%	-8.33%

Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

KSI casualties for 2019 are double that of 2018 and the previous 2 years therefore, when specific sites are reviewed and investigated, particular attention will be paid to whether 'bend' could be a significant factor. There have however, been no fatalities over the same period. There is a decreasing trend in the total numbers of collisions and casualties for this type of incident in Swindon.

Figure 23. Collisions and casualties where 'bend' present



5.5. Roadside Objects

For 2019, numbers are down across the board in comparison with 2018 and with the average of the previous 4 years and there were no fatalities involving roadside objects.

Table 21 – Collisions involving a roadside object

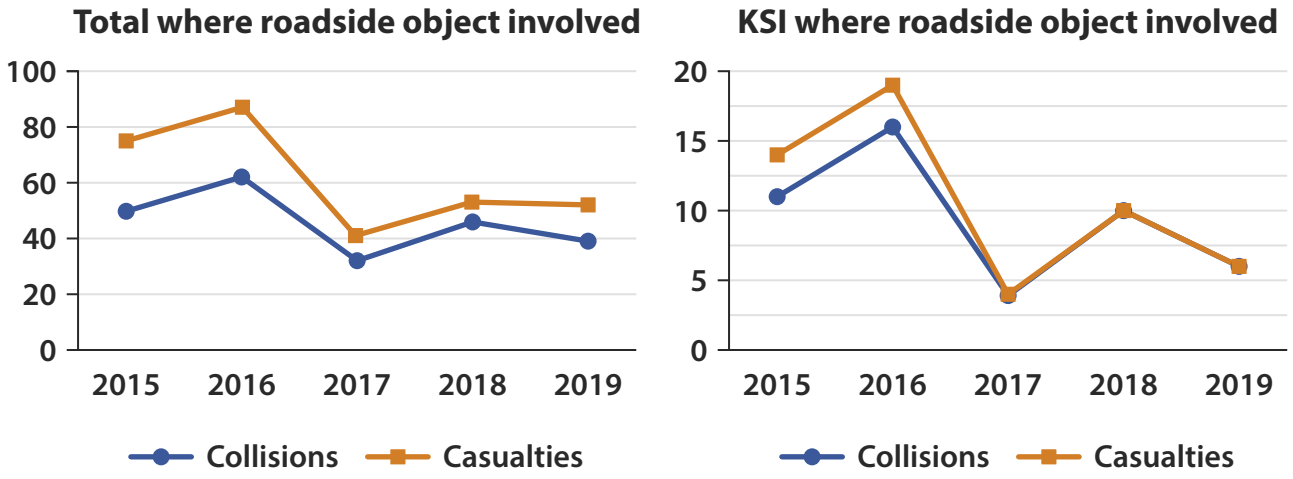
Collisions	2015	2016	2017	2018	2019	+ / – 2019 on 2015–2018 Avg.	+ / – 2019 on 2018
KSI	11	16	4	10	6	-41.46%	-40.00%
Total	51	62	32	46	39	-18.32%	-15.22%

Table 22 – Casualties involving a roadside object

Collisions	2015	2016	2017	2018	2019	+ / – 2019 on 2015–2018 Avg.	+ / – 2019 on 2018
KSI	14	19	4	10	6	-48.94%	-40.00%
Total	75	87	41	53	52	-18.75%	-1.89%

Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

Figure 24. Collisions and casualties involving a roadside object



For the 3 most recent years, where the numbers for KSI collisions are the same as for KSI casualties, the KSI graph plots both lines, but only one is visible.

5.6. Red light running

These are recorded as '301 – Disobeyed automatic traffic signal' where it is the conclusion of the officer attending the scene that running a red light was a likely cause of the incident.

For 2019, numbers are markedly up across the board in comparison with 2018 and with the average of the previous 4 years. There were no fatalities for this type of incident.

Table 23 – Collisions – red light running

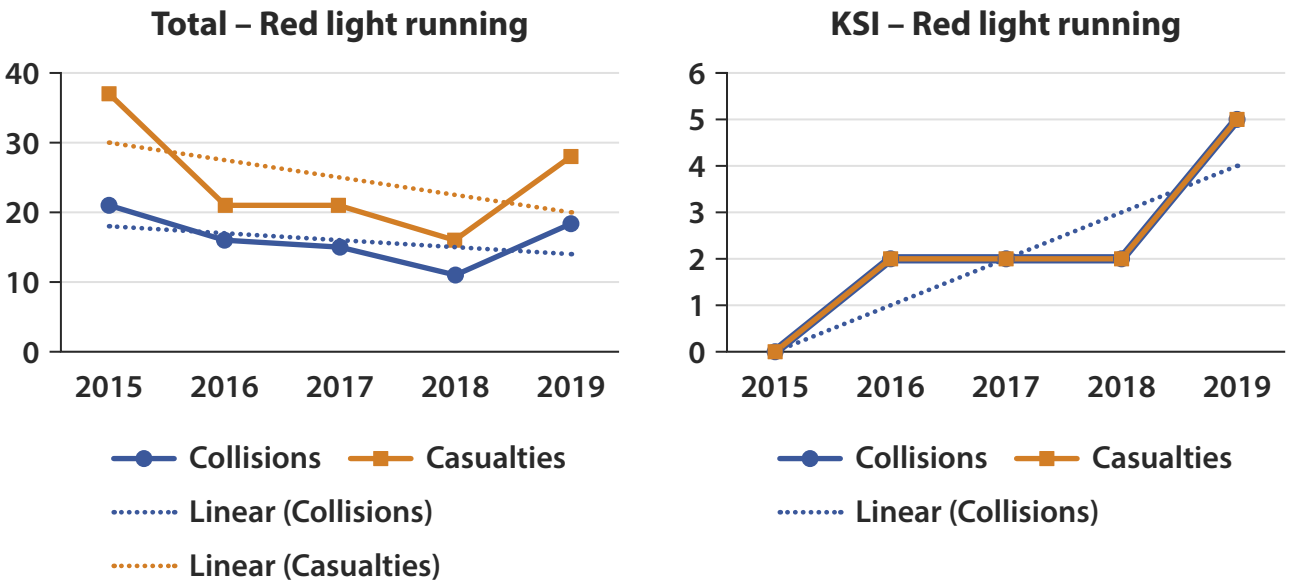
Collisions	2015	2016	2017	2018	2019	+ / – 2019 on 2015–2018 Avg.	+ / – 2019 on 2018
KSI	0	2	2	2	5	233.33%	150.00%
Total	21	16	15	11	18	14.29%	63.64%

Table 24 – Casualties – red light running

Collisions	2015	2016	2017	2018	2019	+ / – 2019 on 2015–2018 Avg.	+ / – 2019 on 2018
KSI	0	2	2	2	5	233.33%	150.00%
Total	37	21	21	16	28	17.89%	75.00%

Note: Killed or Seriously Injured is abbreviated to KSI throughout the document and equates to 'Fatal' + 'Serious'. Figure in tables are shown as red when >=20% different to the figure for comparison and green when >= -20%

Figure 25. Collisions and casualties attributed to 'Disobeyed automatic traffic signal'



Note: For the 5 years shown, where the numbers for KSI collisions are the same as for KSI casualties, the KSI graph plots both lines, but only one is visible.

Despite the uptick, 2019 does still continue the decreasing trend in Swindon for total collisions and casualties involving red light running. However, KSI collisions and casualties do show an upturn.

5.7. Other Contributory Factors

The form used by the police to report collision data includes a list of 78 contributory factors. Up to 6 factors can be recorded for each collision. Not every collision will have contributory factors recorded and many will have more than one. As in 2018, the top 4 for Swindon mirror the top 4 for Great Britain for 2019:

		Percentage of collisions	
Category	**Contributory Factor**	**Swindon**	**Great Britain**
Driver / rider error or reaction	405 Failed to look properly	31	37
	406 Failed to judge other persons path or speed	18	20
	403 Poor turn or manoeuvre	7	12
Behaviour or inexperience	602 Careless / reckless / in a hurry	11	16

The contributory factor in 5th place for Swindon for 2019 is a category for pedestrians only, and Swindon in 2019 also reflects the top contributory factor for pedestrian collisions for Great Britain:

		Percentage of collisions	
Category	**Contributory Factor**	**Swindon**	**Great Britain**
Pedestrian only	802 Failed to look properly	5	8

Where specific sites are reviewed and investigated, the contributory factors can be used to help to identify localised issues.

5.8. Areas of deprivation

In March 2018, Public Health England published a report ('Reducing unintentional injuries on the roads among children and young people under 25 years'). The report stated that children and young people who live in more deprived areas are at greater risk than those from the most affluent. It further went on to state that "Among pedestrians in the 5 to 9 years age group, the rate of fatal and serious injuries to children living in the 20% most deprived areas is six times higher than to children in the 20% least deprived".

The map below, shows the index of Multiple Deprivation areas in Swindon and each coloured dot represents a child (0–16 years old) Killed or Seriously Injured in the five year period and is plotted to their home postcode area. The map, together with Table 25 shows that across a range of comparators, there are more child KSI casualties in areas of more deprivation (coloured beige / brown on the map) than in areas of less deprivation (coloured grey / purple on the map). The map also shows that for the 5–9 year old age group over the five year period, there were 4 KSI pedestrian casualties living in the most deprived areas (coloured darkest brown on the map) and none in the least deprived areas (coloured deepest purple on the map).

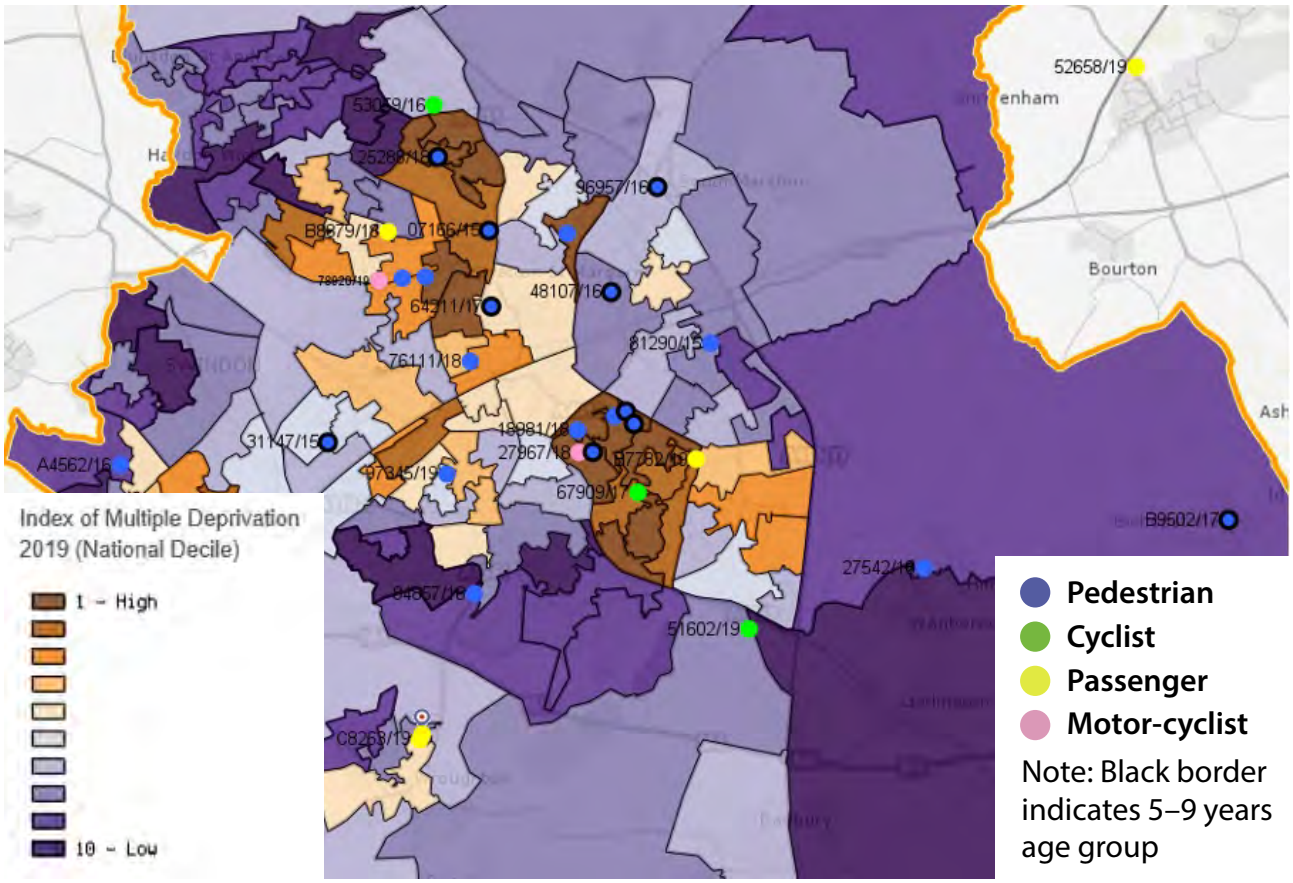


Table 25 – Child (0–16) KSI Casualties (where children live)

		5 year period (2015–2019)		2019	
		Areas of more deprivation	Areas of less deprivation	Areas of more deprivation	Areas of less deprivation
Casualties	Pedestrian	12	9	3	1
	Cyclist	2	1	1	0
	Passenger	4	2	3	1
	Motorcycle rider	2	0	1	0
Total Casualties		**20**	**12**	**8**	**2**
Total Collisions		**18**	**13**	**7**	**2**

The total casualty figures for 2019 in Table 25 show that in Swindon, children who are Killed or Seriously Injured in collisions, are 4 times more likely to be living in areas of more deprivation than in areas of less deprivation.

6. Collision and Casualty Analysis Summary for 2019

- The total number of collisions on Swindon's network are continuing on a downward trend.
- Swindon's total casualties are up on 2018 but are down on the previous 4-year average.
- Killed or Seriously Injured casualty numbers were up on 2018, by just over 3%. This increase goes against the national and regional trends which both show a slight reduction on 2018.
- Drivers of private cars in the 25–64 age group represent the highest number of total and KSI casualties of all the age groups. Twice as many car casualties are aged 25–39 than aged 40–64.
- 17–24 year olds have the second highest proportion of total casualties and saw a nearly 26% increase on 2018.
- There was no increase in total casualties for the child (0–16) or 65+ age groups against either the 4-year average or 2018 figures.
- Across all age groups, males represent 60% of all casualties and just under 60% of KSI casualties and they outnumber females in both total and KSI casualties for all but the 65+ age group.
- In 2019 passengers and cyclists represented the greatest increases in total casualties by road user group.
- KSI casualty figures show increases in the same classes but additionally Vehicle Drivers where KSI casualties doubled on 2018 and increased by nearly 50% on the average of the previous 4 years.
- Pedestrians and motorcycle riders comprise almost one quarter each of the total KSI casualties.
- Cyclist total casualties are down on the 4-year average but up on 2018 and this increase can be seen across nearly all of the age groups and is most notable in the 17–24 age group.
- KSI cyclist casualties have increased most in the 25–64 age group. Further investigation shows this to be accounted for mostly by the older end of this age group (50–64 year olds).

- Swindon's 3% decrease in total pedestrian casualties mirrors the DfT figure for England.

- Smaller vans (under or equal to 3.5t) account for 68% of casualties involving larger vehicles.

- For incidents of red light running, numbers are markedly up with total casualties up by 75%
  on 2018 and KSI collisions and casualties are more than double those of the previous year.

- In 2019, Swindon has 4 times more 0–16 year olds, who are Killed or Seriously Injured in collisions, living in areas of more deprivation than those who live in areas of less deprivation.

Based on the data analysed over the past 5 years and taking into account the trends in both Total and KSI collisions and casualties, the areas judged appropriate for further review and investigation for 2019 are:

- Drivers of private cars, particularly in the 17–39 age group;
- Motorcycle riders, particularly in the 17–39 age group;
- Areas of particular vulnerability for cyclists and pedestrians;
- Signal controlled junctions.

Appendix B – Action Plan

	Resources		Timescale		Safe System Pillars				
Action	Staff time	Capital Funding	Year 1–2021/22	Year 2–2022/23	Safe roads & mobility	Safe Road Users	Safe Speeds	Safe Vehicles	Post-crash response
Governance & Review									
Develop a Partnership Strategic plan Working with partners to develop and agree a strategic plan to inform collaborative working	✔				✔	✔	✔	✔	✔
Route Performance Index Develop a route performance index to deliver a Safe Systems approach to road safety	✔				✔	✔	✔		
Transport Development: Planning Raise the profile of local safety issues so that they are considered early within the planning stages of any new development	✔				✔		✔		
Transport Development: Technical Approvals Work with colleagues to approve developer plans that do not compromise road safety	✔				✔		✔		
Road Safety Audits: Promote the completion of road safety audits to ensure designs and completed works are as safe as possible	✔				✔				

Fatal Collisions Maintain cross-agency review of collisions resulting in fatal injury	✔				✔	✔	✔	✔	✔
School Crossing Patrols Support our School Crossing Patrols in their on-going work	✔					✔			
Operators Licences Consider road safety issues in relation to Operators licence applications	✔				✔				
Pedestrian Crossing Review Continue the annual review of requests for pedestrian crossing improvements	✔				✔	✔	✔		
Collision Review Undertake an annual review of road traffic collision data to identify new and emerging patterns and trends	✔				✔	✔	✔		✔
Traffic Surveys Review and redefine our network of traffic data collection equipment to monitor traffic conditions across the network	✔	✔			✔		✔		
Keeping a safe network Regular reviews of our highway asset management policies and strategies to ensure statutory obligations are met and best practice promoted to ensure that our highway network is kept in a safe and serviceable condition	✔				✔		✔		
Future Strategy Review and update our Road Safety Strategy to 2030	✔				✔	✔	✔	✔	✔

Action	Resources		Timescale		Safe System Pillars				
	Staff time	Capital Funding	Year 1–2021/22	Year 2–2022/23	Safe roads & mobility	Safe Road Users	Safe Speeds	Safe Vehicles	Post-crash response
Education and awareness campaigns									
General Campaigns Deliver local and support national campaigns aligned to local casualty needs	✔					✔	✔	✔	
Road Safety Week Link into national campaigns strengthening shared responsibility messages locally	✔				✔	✔	✔	✔	
Children 0-15: Safety Issues response Respond as required to emerging risk areas or incidents to maximise local impact and awareness of specific safety issues	✔					✔			
Children 0-15: Educational material Provide access to online and printed materials to teachers and early years providers to utilise and deliver (Stop, Look, Listen, safer road use)	✔					✔			
Junior Good Citizen Promote and contribute to Junior Good Citizen	✔					✔			
Pedestrians Promote and educate on the safe use of pedestrian facilities and adoption of safe walking behaviours	✔				✔	✔			

Older Drivers Support older drivers to retain their independent mobility whilst remaining safe on the road.	✔					✔			
Cyclists: Bikeability Promotion and delivery of Bikeability courses to school age children and adults	✔				✔	✔		✔	
Cyclists: Cycling Road Safety Campaign materials, campaign delivery and campaign evaluation	✔				✔	✔			
Motorcyclists: Biker Down events Support local Biker Down events	✔					✔			
Motorcyclists: Bikesafe events Led by the Police but supported by the Council	✔					✔			
Young Drivers: Swindon Young Drivers Support Swindon Young Drivers in delivering key messages to young drivers	✔					✔		✔	
Young Drivers: Safe Drive, Stay Alive Led by Dorset & Wiltshire Fire Service, supported by the Council	✔					✔			
Employers: Driver Safety Support and promote Highways England's Driving for Better Business initiative to local employers	✔					✔		✔	
Employers: Education Deliver targeted education to employers where drivers have been identified as high risk due to intelligence received	✔					✔			
Electric Vehicles Support the introduction of a network of electric vehicle charging points across Swindon	✔							✔	

	Resources		Timescale		Safe System Pillars				
Action	Staff time	Capital Funding	Year 1–2021/22	Year 2–2022/23	Safe roads & mobility	Safe Road Users	Safe Speeds	Safe Vehicles	Post-crash response
Engineering									
School Safe Environment Zones Deliver a 5 year capital programme of road safety improvements around schools and for the school journey	✔	✔			✔	✔	✔		
Collision reduction schemes Deliver road safety engineering improvements to reduce casualties on our roads	✔	✔			✔		✔		
Pedestrian Crossing Improvements Deliver improvements at priority sites identified in the annual review	✔	✔			✔	✔			
Passive Safety Identify areas of high risk where passively safe street furniture improvements are required	✔	✔			✔				
Speed Limits Review speed limits to ensure they remain appropriate and enforceable	✔						✔		
Parking Review Review and deliver parking controls to achieve better road safety as a result of parking behaviours	✔				✔				

Skid resistance Ensure that the skid resistance of the classified road network will be regularly inspected and that sites presenting significant risk will be prioritised for investment in accordance with the Skid Resistance Management Plan	✔				✔				
Street Lighting Design and deliver lighting solutions that ensure efficient and appropriate levels of illumination	✔	✔			✔				
Minor Works Improvements Consider and prioritise requests for minor works on the highway in relation to the road safety benefit they offer	✔	✔			✔		✔		
Intelligent Transport Systems (ITS) Support the introduction of ITS (SCOOT, UTMC) to assist in the safe and efficient operation of the highway network	✔				✔		✔		
Active Travel Contribute to the preparation of the Local Cycling and Walking Infrastructure Plan (LCWIP) to identify and secure walking & cycling improvements around the network	✔				✔				
Vehicle Activated Signs Support the procurement and distribution of vehicle activated signs by Town / Parish Councils	✔						✔		

Action	Resources		Timescale		Safe System Pillars				
	Staff time	Capital Funding	Year 1–2021/22	Year 2–2022/23	Safe roads & mobility	Safe Road Users	Safe Speeds	Safe Vehicles	Post-crash response
Enforcement									
School parking enforcement Continued use of the Council camera car to enforce parking outside schools, targeting schools with known compliance issues	✔				✔				
Parking Enforcement Regular enforcement using walked and mobile enforcement activities to improve parking compliance	✔				✔				
Community Speedwatch Support community led initiative to tackle local speeding concerns	✔						✔		
Roads Policing Support Wiltshire Police in their road policing activities where possible	✔				✔	✔	✔	✔	✔
Speed Enforcement Share traffic speed data with the Police to assist in the intelligence led allocation of resources for effective speed enforcement	✔						✔		

Compliance									
Passenger Transport Services Continued monitoring to ensure licences, insurances, DBS (Disclosure Barring Service) are compliant	✔							✔	
HGV's / Overloading Work with partners in a multi-agency approach to target and enforce issues such as overloading, vehicle condition, driver hours.	✔							✔	
Used Vehicle Sales (Safety) Promote the Buy with Confidence trader approval scheme for those purchasing new used vehicles	✔							✔	
Hire Vehicles (Safety) Follow up complaints regarding supply of unroadworthy hire vehicles	✔							✔	
Swindon Council standards Be a shining example of best practice in terms of fleet management and employee code of conduct	✔							✔	
Bus Drivers Must hold a Certificate of Professional Competence for Drivers (includes Customer Care and Safeguarding)	✔					✔		✔	
Taxi Drivers Maintain driver licencing and training standards	✔					✔		✔	
Vehicles Standards Promoting the use of newer and safer vehicles on our road network	✔							✔	

Economy & Development

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