



Department for

Infrastructure

An Roinn

Bonneagair

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Motorcyclists killed and seriously injured (KSI) casualties in Northern Ireland,

2015-2019



Analysis, Statistics and Research Branch

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um Staitisticí agus Taighde

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DEFINITIONS

Motorcyclists: Drivers/riders of mopeds and motorcycles. Includes riders of two-wheeled motor vehicles, motorcycle combinations, scooters and mopeds.

Pillion passengers: Passenger on a moped or motorcycle

Collisions: Collisions involving personal injury occurring on the public highway (including footpaths) where someone was killed or seriously injured and in which a vehicle is involved. Collisions are categorised as either 'Fatal', 'Serious' or 'Slight' according to the most severely injured casualty.

Killed: Died within 30 days from injuries received in a 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 the person is detained in hospital: fractures, concussion, internal injuries, crushing, burns, severe cuts and lacerations or severe general shock requiring medical treatment.

KSI/KSI Casualties: Refers to casualties where someone was killed or seriously injured

Young People: Aged between 16 and 24.

Pedestrians: Include children on scooters, roller skates or skateboards; children riding toy cycles on the footpath; persons pushing bicycles or other vehicles or operating pedestrian-controlled vehicles; persons leading or herding animals; occupants of prams or wheelchairs; people who alight safely from vehicles and are subsequently injured; persons pushing or pulling a vehicle; persons other than cyclists holding on to the back of a moving vehicle.

Car Users: Drivers or passengers in a car, light goods vehicle, car driven as a taxi or hackney cab.

Pedal cyclists: Drivers/riders of pedal cycles. Includes children riding toy cycles on the carriageway and the first rider of a tandem.

EXECUTIVE SUMMARY

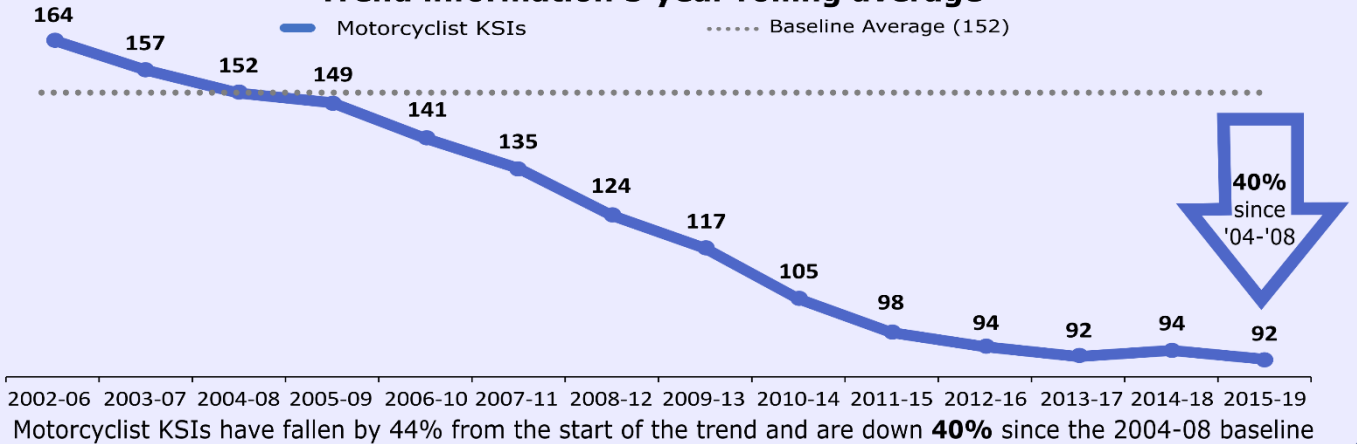
Here are the key statistics that can be derived from motorcyclist KSI casualties occurring on Northern Ireland's roads between 2015 and 2019.

- Motorcyclist KSI casualties have fallen by 44% since the start of the trend in 2002 and are down 40% from the 2004-2008 baseline. It should be noted, though, that this fall is broadly in line with the decline for all road user KSI casualties over the past 15 years.
- There has also been a decline in motorcycle licences which have fallen by a quarter since 2004-2008.
- Although motorcycle users accounted for just 12% of the 2015-2019 total KSIs, their relative risk is highest of all road users when looking at kilometres travelled.
- In terms of casualty profile:
 - 96% of motorcyclist KSIs were male.
 - Older riders made up a higher proportion of fatal or serious injuries. Almost a third of riders killed or seriously injured between 2015 and 2019 were aged 50 and over. This has represented a big shift over the years with this age group accounting for only 9% of KSIs in the baseline period of 2004-2008.
 - This change is reflected in the age increase of motorcycle licence holders and the average age of motorcycle test passes over the years.
- Saturday (82, 18%) and Sunday (96, 21%) had the most motorcyclist KSI casualties, with the weekend accounting for almost two fifths of those killed or seriously injured.
- The worst combined day and hour for riders killed and seriously injured was between 12pm and 1pm on a Sunday when there were 13 recorded.
- Four fifths of motorcycle KSIs occurred during daylight hours with 71% occurring between April and September.
- The most common principal causation factors for motorcycle KSI casualties between 2015 and 2019 were 'inattention or attention diverted' (55 KSI casualties, 12%) 'turning right without care' (54 KSI casualties, 12%) and 'overtaking on offside without care' (48 KSI casualties, 10%).
- In terms of responsibility, the proportions were split almost exactly 50/50 with 227 motorcyclists (49.6%) being responsible for their injuries compared with 231 (50.4%) who were assigned to other road users.
- While motorcyclists were more likely to be responsible for inattention, overtaking and speeding causations, those assigned to another road user were more likely to occur at a junction - over half of these had a junction causation factor assigned (55%).
- A quarter of motorcycle KSIs were single vehicle collisions with 'Inattention or attention diverted' being the most common principal causation factor (27%).
- 70% of motorcycle fatalities were on rural roads and 47% of motorcycle KSIs were on urban roads showing a slight overrepresentation of casualty severity on these roads for each.
- Causeway Coast & Glens was the District Council area with the highest rate of motorcyclist KSIs per 100,000 population with a rate of 8.1. However, the two sites which had the most motorcyclists killed or seriously injured in a 2.5 kilometre radius were located around Belfast. See mapping section on page 21 for more detail.
- Northern Ireland compared favourably in comparison with the rest of the United Kingdom with the lowest rate (4.8 KSI casualties per 100,000 population) of all the regions.
- Only the countries of Finland, Romania and Estonia recorded a lower motorcyclist death rate per million population than Northern Ireland between 2014 and 2018.

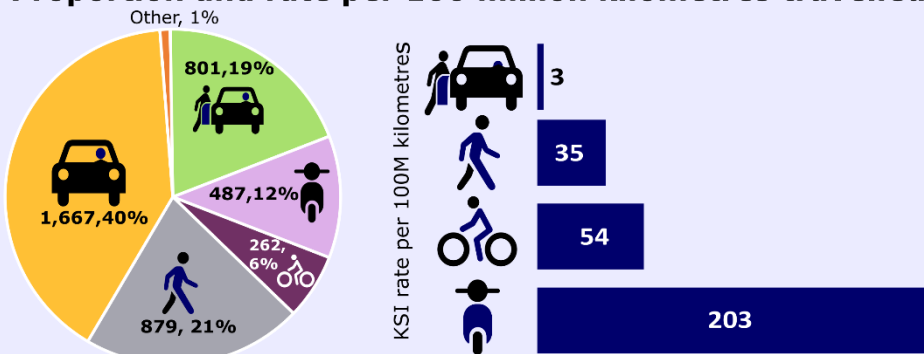


Source: PSNI Road Traffic Collision Statistics

Trend information 5 year rolling average

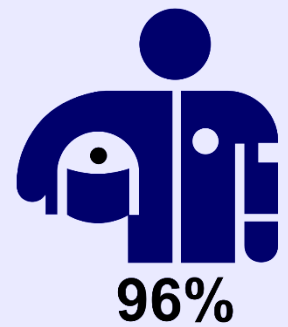


Proportion and rate per 100 million kilometres travelled



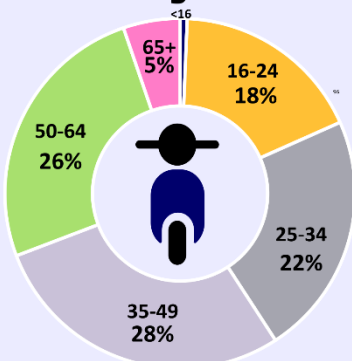
Although motorcycle users accounted for just 12% of the 2015-2019 KSI total, their relative risk is highest of all road users when looking at kilometres travelled

Gender



of motorcyclist KSI casualties were **male**

Age



Older riders made up a higher proportion of fatal or serious injuries than at the start of the trend. Almost a third of motorcyclist KSIs between 2015 and 2019 were aged over 50

When?



Four fifths of motorcyclist KSIs occurred in **daylight hours** while **71%** took place between **April and September**

Single vehicle collisions



A quarter of motorcyclist KSIs were single vehicle collisions

Where?

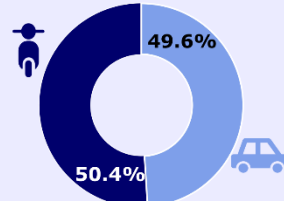


Although the split for KSI casualties was very even, **70% of motorcyclists were killed on rural roads**

How? Responsibility - top 3 causation factors



Principal Causation Factor	KSI Casualties
Inattention	48
Overtaking (offside)	38
Excessive speed	31



Half (49.6%) of all motorcyclist KSIs were attributed to another party



Principal Causation Factor	KSI Casualties
Turning right	49
Emerging (minor road)	41
Emerging (private entrance)	19

INTRODUCTION

Analysis, Statistics and Research Branch (ASRB) in DfI is responsible for producing the statistical content of the Northern Ireland Problem Profile. Historically, this document focused on the latest five year road casualty data and reported on a wide range of road user groups and behaviours. The document had grown in size over the years and was becoming cumbersome to update. It was therefore agreed at the Road Safety Strategy Research Coordination Group (RSSRCG) that ASRB would seek to develop a series of smaller documents which could form the shape of a live Problem Profile and the profile would be maintained and updated regularly to ensure relevance with existing and emerging road safety issues.

The Problem Profile supplements the NI Road Safety Strategy (NIRSS) to 2020 Annual Statistical Report. The NIRSS to 2020 sets out four road safety targets for Northern Ireland as detailed below.

By 2020, and compared with the base year (2004 to 2008 average), there will be:

- A reduction in the number of people killed in road collisions by at least 60 per cent.
- A reduction in the number of people seriously injured in road collisions by at least 45 per cent.
- A reduction in the number of children (aged 0 to 15) killed or seriously injured in road collisions by at least 55 per cent.
- A reduction in the number of young people (aged 16 to 24) killed or seriously injured in road collisions by at least 55 per cent.

Key Performance Indicator 5 looks at the rate of killed or seriously injured motorcyclists per 100 million vehicle kilometres. For further information on this, please see page 8 and 9 of this report.

Motorcyclist Problem Profile, 2015-2019

This profile of motorcyclist KSI casualties is part of a suite of problem profiles produced by ASRB¹ over the last few years. In terms of structure, this report looks at trends of motorcyclists killed or seriously injured from 2002 to 2019 in comparison with the NIRSS 2004-2008 baseline. The profile of these KSIs is then examined by age and gender; followed by an analysis of when and where these motorcycle collisions occur, the top ten principal causes of these collisions and a breakdown of who/what is deemed responsible for them. Other detail includes analysis by speed limit of road and the causation factor of single vehicle collisions. A mapping section reports the number of motorcyclists killed or seriously injured by District Council as well as identifying hotspots that have the most motorcyclist KSI casualties occurring within a 2.5 kilometre radius. Finally, there is also a section comparing the Northern Ireland motorcyclist KSI rate with other regions in the United Kingdom and the motorcyclist death rate with other countries.

Please note that these reports are not platforms for recommendations on policy interventions but provide specific evidence to inform such conversations and/or developments.

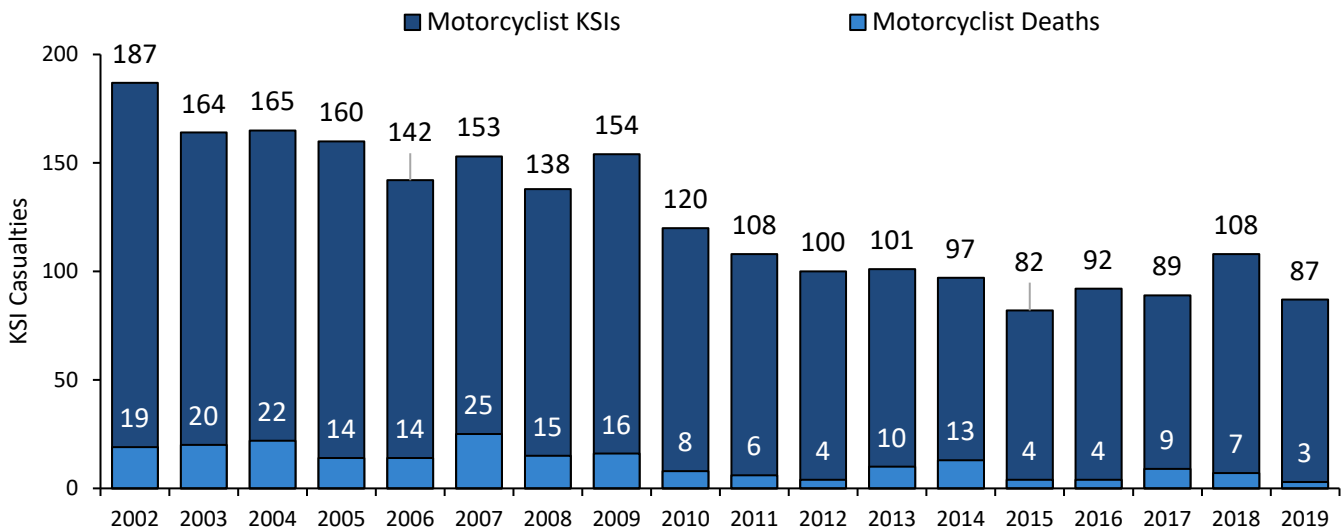
Infographics used in this report have been downloaded from the [Noun project](#)

¹ A previous problem profile on motorcyclist casualties was produced in 2014. For this and other profiles on topics such as rural roads, speeding, drink driving, pedal cyclists, pedestrians, older drivers and the A1 dual carriageway can be found at [Road Safety Research \(opens in a new window\)](#)

TREND INFORMATION

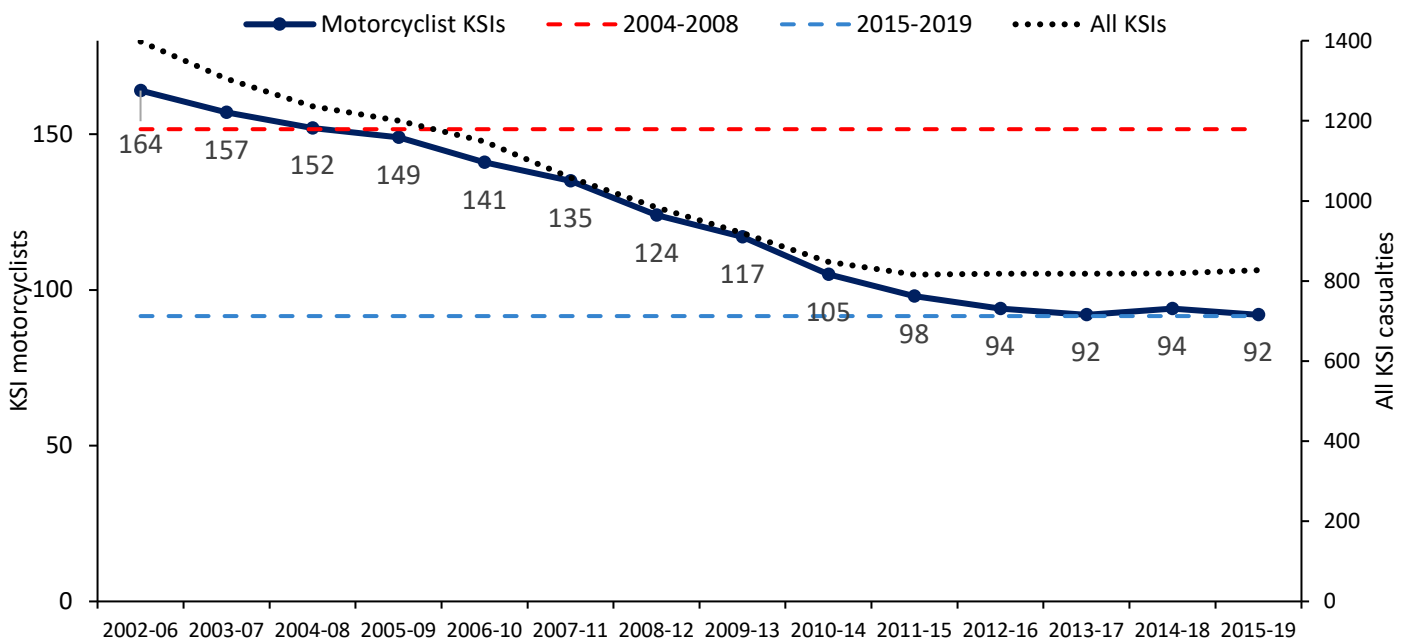
Figure 1 below shows the number of motorcyclists killed or seriously injured (KSIs) over the eighteen year period 2002 to 2019 (Table A1 in the Appendix refers). There was a series high at the start of the trend with 187 motorcyclist KSIs in 2002 and in the seven years following this the numbers each year were in or around 150. However, there was a notable drop off from the 154 recorded in 2009 to 120 in 2010 followed by a gradual decline down to the series low of 82 recorded in 2015, although the numbers have risen and fallen since then.

Figure 1: Number of motorcyclists killed or seriously injured 2002-2019

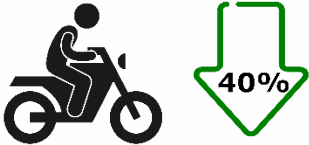


It is useful to look at this information as a five year rolling average which smoothes out annual fluctuations but gives a clear direction of the trend. Figure 2 shows as per the dark blue line, that motorcyclist KSIs have declined from the 164 recorded at the start of the trend and currently sits at 92, an average of 72 or 44% below the 2002-2006 figure and 40% below the Northern Ireland Road Safety Strategy (NIRSS) 2004-2008 baseline. However, it is important to note that the number of people killed or seriously injured (as depicted by the black dotted line) has also fallen at approximately the same rate with 2015-2019 KSI casualties being a third lower than the NIRSS baseline and 41% lower than 2002-2006.

Figure 2: Number of motorcyclists killed or seriously injured rolling five year average 2002-2019



CONTEXT



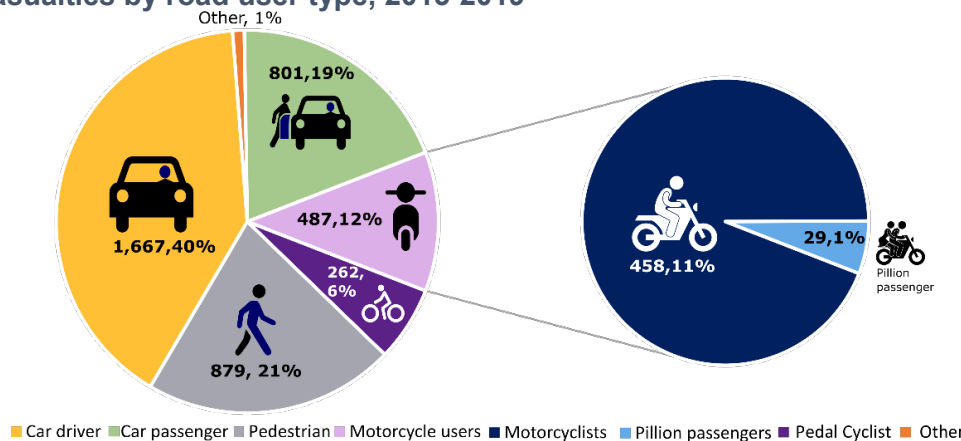
Motorcyclist KSIs have **fallen** by **two fifths** since 2004-08

To add context to Figure 2, changes in KSI casualty numbers by road user type between the Road Safety Strategy baseline period of 2004/08 and 2015/2019 are examined in Table 1 below. As discussed motorcyclist KSIs, in the five years 2015-2019, have decreased by two fifths in comparison to 2004-2008 which is second only to the decrease in KSI casualties amongst passengers. Only pedal cyclists showed any increase in the number killed or seriously injured from that of 15 years ago.

Table 1: Fatal and serious injuries by road user, 2004-2008 Vs 2015-2019

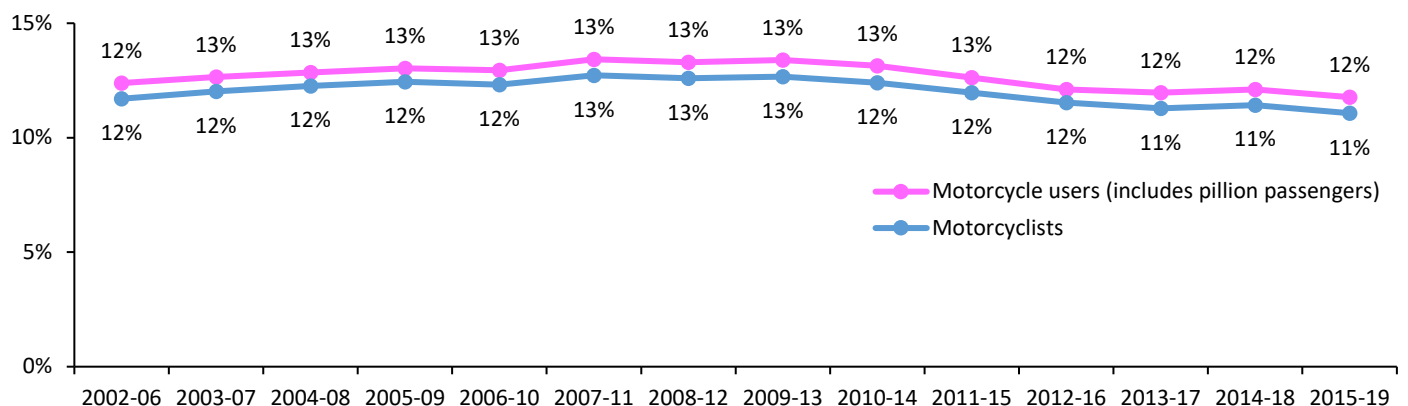
	KSI Casualties		% Change
	2004/08	2015/2019	
Pedestrians	1,036	879	-15%
Drivers of motor vehicles	2,643	1,667	-37%
Motorcyclists	758	458	-40%
Pedal cyclists	152	262	72%
Passengers	1,505	801	-47%
Pillion passengers	36	29	-19%
Other road users	52	41	-21%
Total	6,182	4,137	-33%

Figure 3: KSI casualties by road user type, 2015-2019



Although there has been a steady decline in both motorcyclist and overall KSIs, the proportion of motorcyclists killed or seriously injured as a proportion of the total has remained fairly constant over the years veering slightly between 11% and 13%. Figure 3 above shows that motorcycle users (including pillion passengers) account for 12% of the total for 2015-2019 while Figure 4 shows the proportion that motorcycle KSI casualties made up of the total for each rolling five year period since the beginning of the trend. See Table A2 in the Appendix.

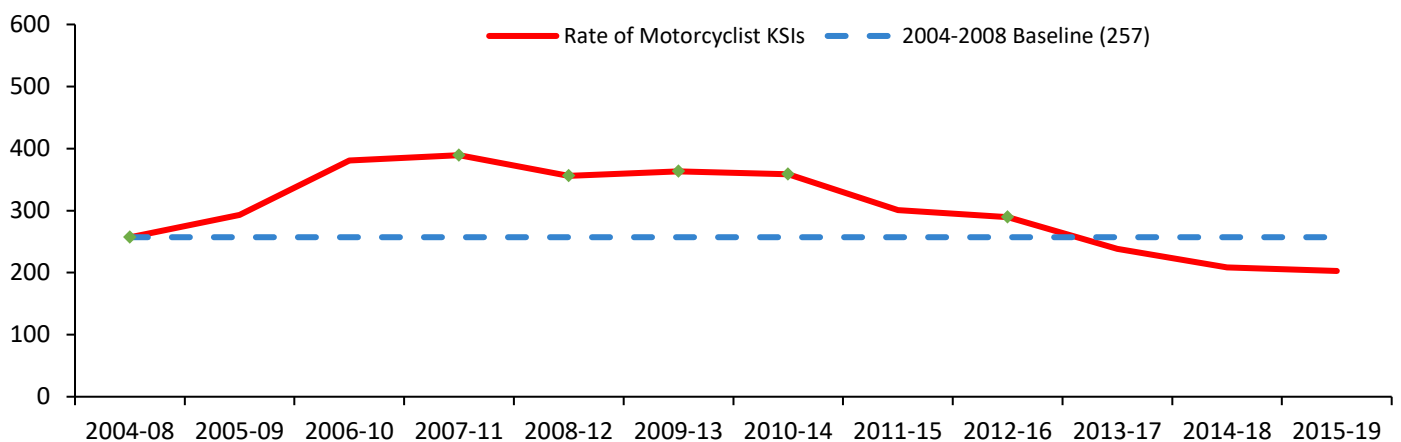
Figure 4: Proportion of KSI casualties that are motorcycle users rolling five year average 2002-2019



Using absolute counts is only one way to look at the casualty numbers and although these are informative, they tell us very little about the levels of risk experienced by different road user groups or how this risk may be changing over time. For example, on a pure casualty count basis, car occupants appear to be the most vulnerable road user group as they account for the greatest number of casualties each year. However, this does not take into account the approximate four fifths of overall miles travelled per person per year by car, suggesting a lower than expected risk for this group.

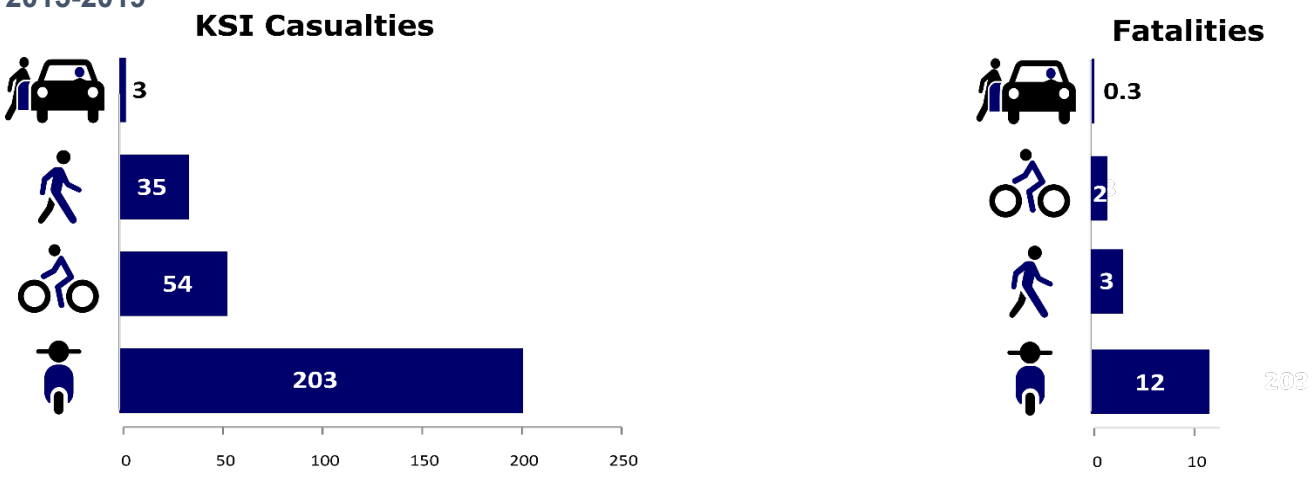
Key Performance Indicator 5² within the Northern Ireland Road Safety Strategy looks at the level of exposure a motorcycle rider faces, using the distance travelled by motorcyclists each year (as reported in the Travel Survey for Northern Ireland (TSNI)). So, rather than absolute numbers, we instead look at the motorcycle KSI casualty rate in terms of the number of KSI casualties per kilometres travelled. This shows that for the five year average between 2015 and 2019, that you would expect 203 motorcyclist KSIs for every 100 million kilometres travelled by riders. See Figure 5 which presents the rolling average rate of motorcyclist KSIs over the full time period so that annual fluctuations are accounted for.

Figure 5: Rate of motorcyclist KSIs per 100 million kilometres travelled (five year average), 2004-2019³



In comparison with the other road user groups as depicted in Figure 6, the 203 motorcyclist KSIs per 100 million kilometres travelled is by far the highest while car occupants actually have the lowest rate (approximately 3 people per 100M kilometres). This carries through with fatalities, with the rate of 12 motorcyclist deaths per 100 million kilometres far outweighing car user fatalities and the other groups. Refer to Table A4 in the Appendix for further information.

Figure 6: Rate of KSI casualties and fatalities per 100 million kilometres travelled by road user type, 2015-2019

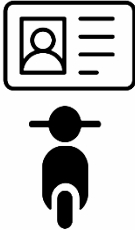


² See page 21 of the [Northern Ireland Road Safety Strategy to 2020 Annual Statistical Report 2020 \(infrastructure-ni.gov.uk\)](https://www.infrastructure-ni.gov.uk) and Tables 9-9c in the [associated spreadsheet](#)

³ Statistically significant data points highlighted in green (based on statistically significant changes in distance travelled compared with the baseline).

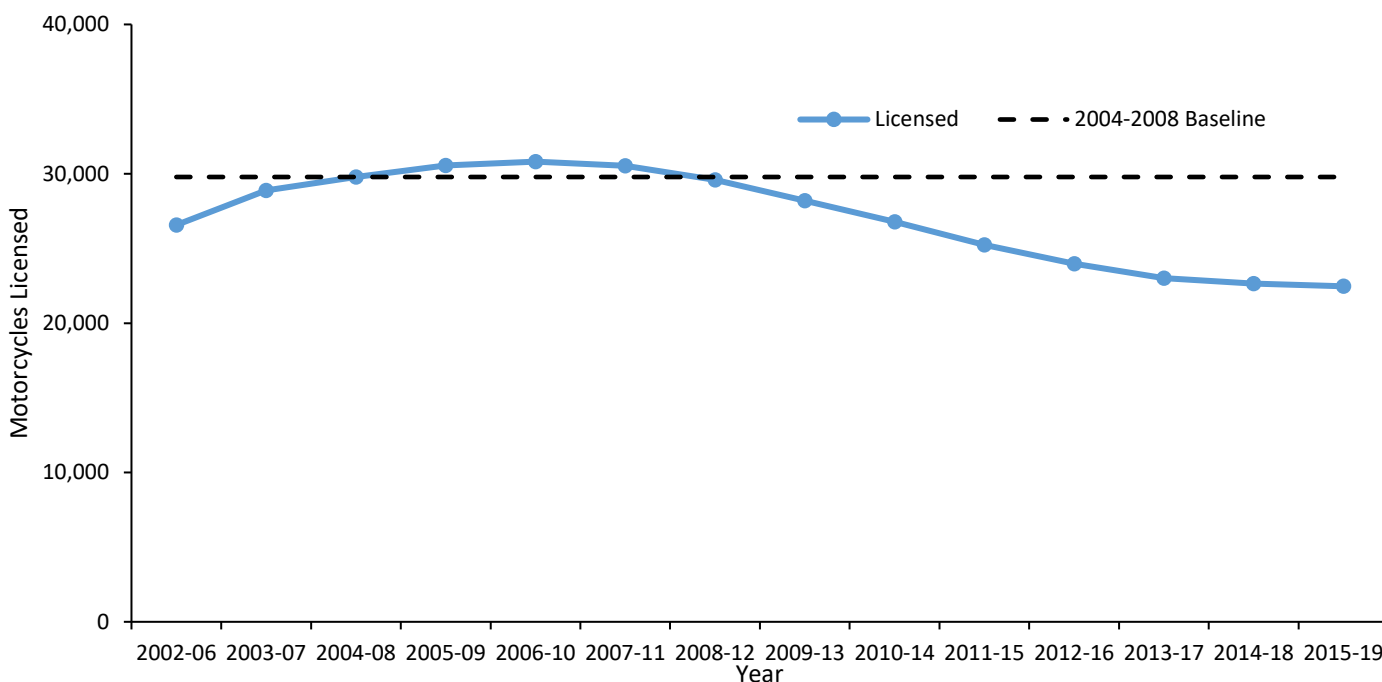
The overall distance travelled by motorcyclists decreased at the start of the reporting period up until 2010 to 2014, however, the decreases seen in motorcycle distance travelled at the start of the reporting period was at a greater rate than the decrease in motorcycle KSIs, which explains why the rate increased at the start of the trend. Since 2010-2014, the distance travelled by motorcyclists has increased, while motorcycle KSIs have continued to fall which shows why the rate in more recent years has fallen gradually, with the current level being 21% lower than the rate recorded at the baseline.

To give some context as to why both the number of KSIs and the rate for motorcyclists have declined, it is interesting to look at the number of motorcycles licensed over this time period. This information is sourced from the Northern Ireland Transport Statistics for the years 2002 to 2013 and from the Driver & Vehicle Agency Statistics from 2014. Figure 7 presents the trend below and you can clearly see that while the number licensed at the start remained fairly high and even increased in the early years, there has been a decline since the five year average of 30,813 recorded between 2006 and 2010 to the 22,467 recorded for 2015 to 2019, which is almost a quarter lower than the 2004 to 2008 baseline.



Motorcycle licences
have **fallen by a
quarter** since
2004-2008

Figure 7: Number of motorcycles licensed (five year average), 2002-2019



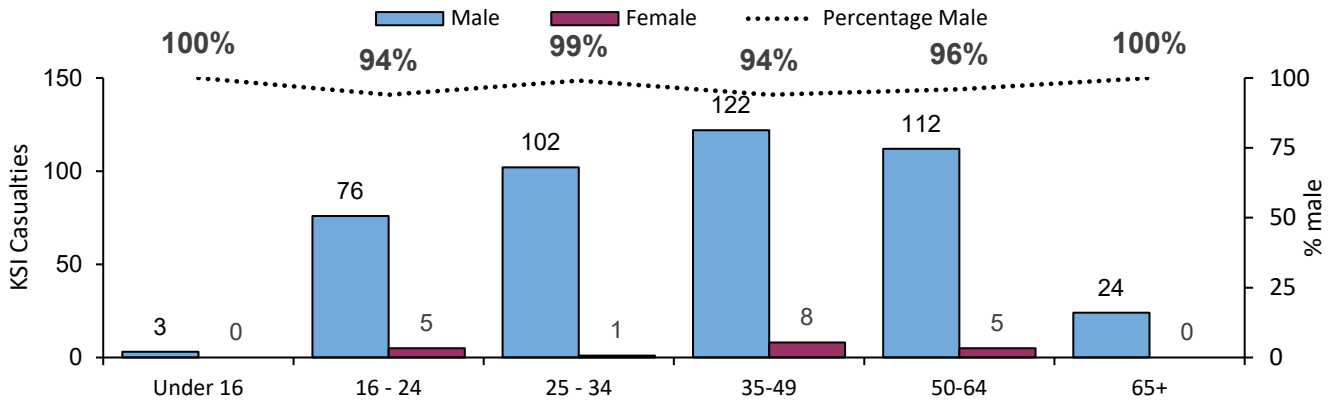
Examining all the trend data presented above paints an interesting picture. The rate of motorcycle KSIs per kilometres travelled has decreased slightly since the baseline, and at a faster rate than all KSI casualties, meaning that the risk of death and serious injury while on a motorcycle has decreased from that of 15 years ago. However, the fact that motorcyclist fatalities and KSI casualties account for the highest risk of all road users per 100 million kilometres travelled and that the number of motorcycle miles travelled accounts for far less than 1% of all road users but still accounts for 11% of overall KSIs in 2015-2019, yields insight as to why **motorcyclists are deemed a vulnerable road user**.

PROFILE OF MOTORCYCLIST KSI CASUALTIES

Gender

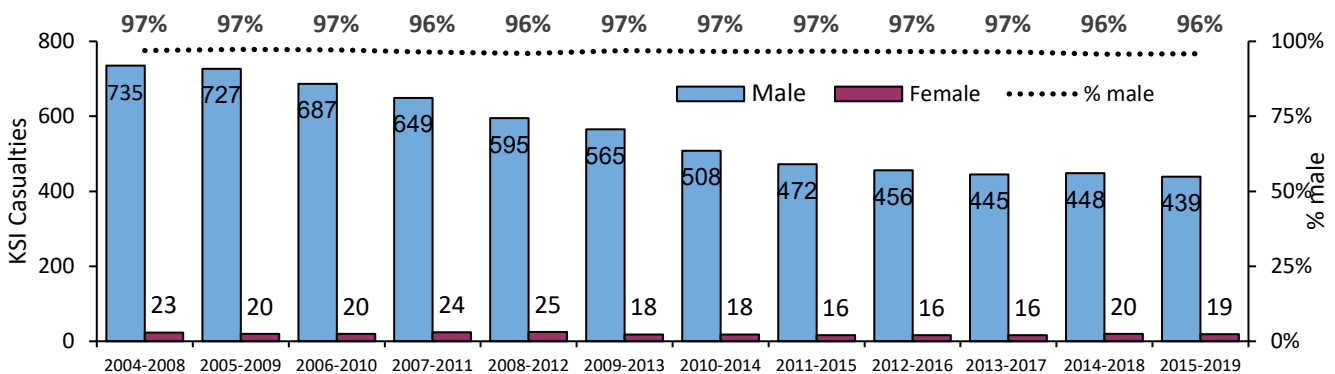
The number of motorcyclist KSIs by age and gender for 2015 to 2019 is presented below in Figure 8 with the proportion of males by age group highlighted in the dotted line.

Figure 8: Motorcyclist KSI casualties by gender, 2015-2019



Of the 458 motorcyclists killed or seriously injured between 2015 and 2019, the overwhelming majority were male (439 males and 19 females) equating to 96% which is typical of the proportion of males observed over the trend with the percentages varying between 96 and 97 percent for each five year rolling period.

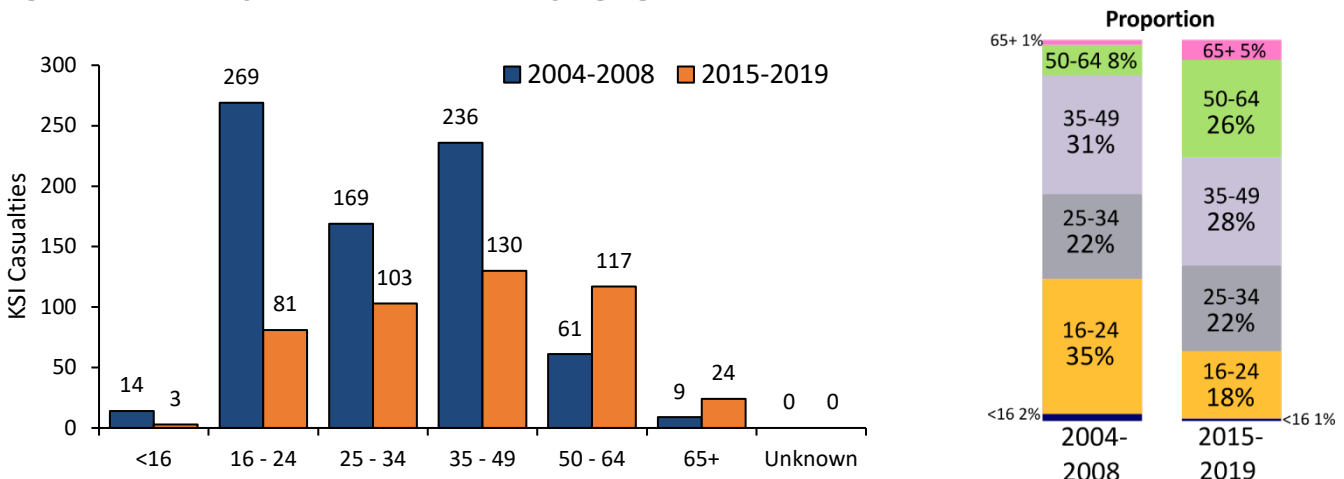
Figure 9: Motorcyclist KSI gender breakdown 2004 to 2019 (5 year totals)



Age

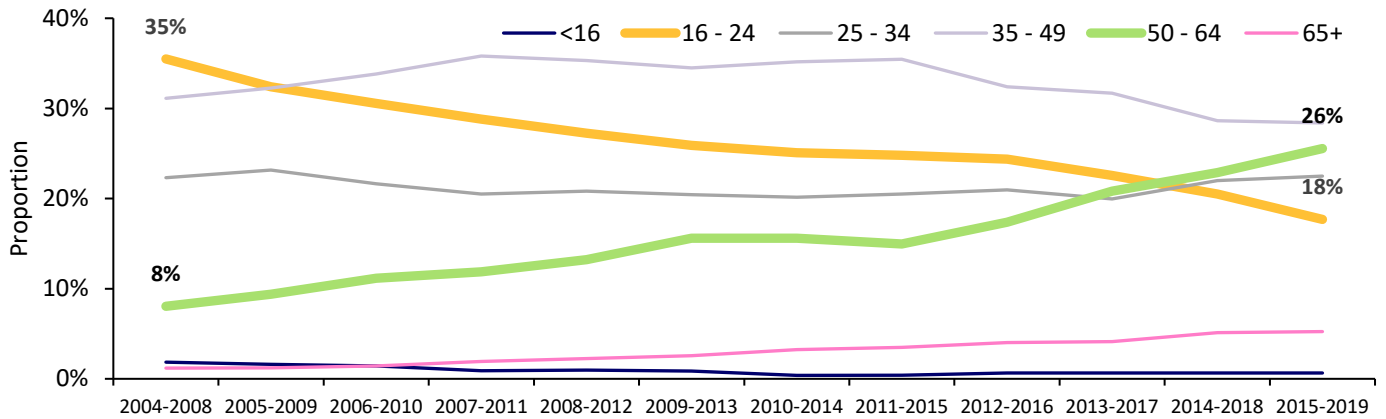
Although, there is little movement when it comes to gender with the numbers being predominantly male, what is interesting is that there seems to be a shift over time for age group. Figure 10 shows the numbers and proportions for 2015 to 2019 compared with the 2004 to 2008 baseline:

Figure 10: Motorcyclist KSI casualties by age group 2015-2019 vs 2004 to 2008



There has been a big change in proportion in two of the age groups in particular when comparing 2004-2008 with 2015-2019 with **a large decrease in motorcyclist KSIs for those aged 16 to 24** (a decrease of 70%) and in contrast, **a large increase in motorcyclist KSIs of the 50 to 64 age group** (up 92%). These are reflected in the proportions with the 16 to 24 age group which previously had the most motorcyclists killed or seriously injured falling from 35% in 2004-2008 to 18% in 2015 to 2019 and those aged 50-64 increasing from 8% to 26%. The chart below demonstrates clearly the fall in proportion of KSIs of those younger riders (depicted by yellow line) and the increase of 50 to 64 year olds (green line) over the fifteen year period.

Figure 11: Proportion of Motorcyclist KSI casualties by age group 2004 to 2019 (five year totals)



What has led to this change in proportion over the years? Unfortunately the numbers are too small to produce a robust analysis using the TSNi for the average distance travelled by each age group on motorcycle to compare with the findings in this report. However, one of the things that may have had an impact was the introduction of Compulsory Basic Training (CBT) in Northern Ireland on February 2011 which must be completed by people wishing to ride a motorcycle or moped unaccompanied on the road. Data from the Driver and Vehicle Agency (DVA) would appear to back up the fact that the average age of those passing their test appears to be increasing (Figure 12 and Table A8 in Appendix) and that the age breakdown of those with a motorcycle licence since 2012 has shown a dramatic reduction in licences owned by young people while licences held by the 55-64 age category is the only one to increase. See Table 2 and Figure 13 below.

Figure 12: On road motorcycle test passes with average age 2004-2019

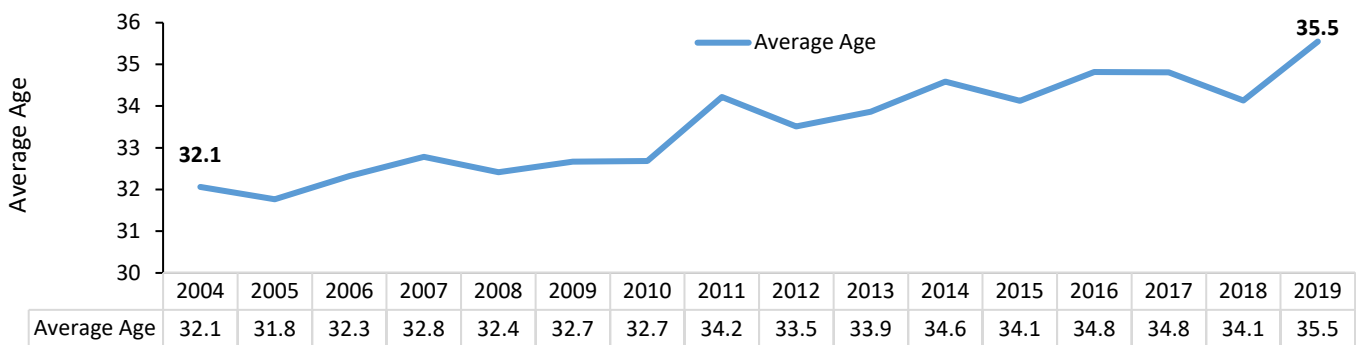
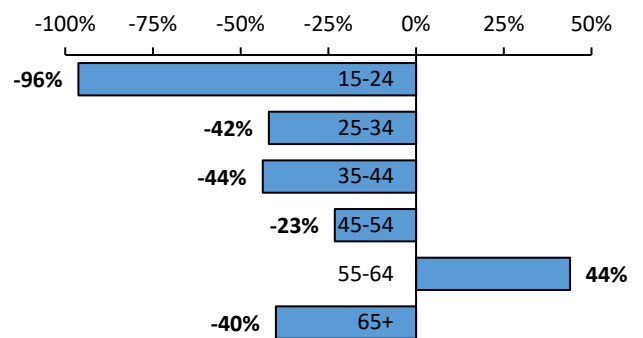


Table 2 and Figure 13: Full motorcycle licence holders and percentage change since 2012

Age Group	As at 31 st Dec 2012	As at 31 st Dec 2020
15-24	1,397	52
25-34	6,948	4,034
35-44	14,278	8,034
45-54	19,629	15,089
55-64	11,671	16,792
65+	55,751	33,458
Total	109,674	77,459



WHEN DO MOTORCYCLIST KSI CASUALTIES OCCUR?

TIME AND MONTH

81% of motorcyclist KSIs occurred during daylight hours. Three quarters happened between 10am and 8pm and 71% were in the summer months between April and September

In the five years 2015-2019, almost two fifths of motorcyclists killed or seriously injured occurred at the weekend, with 178 of the 458 KSI casualties being recorded on a Saturday (82, 18%) or a Sunday (96, 21%). In comparison, there was a daily average of 56 motorcyclist KSIs (12%) throughout the working week. The greatest single hour for motorcyclist KSI casualties was between 12pm and 1pm on a Sunday, when 13 took place. There was also 11 recorded on Sunday in the hour previous between 11am and 12pm which is the joint second highest time along with Monday between 2pm and 3pm, Wednesday between 6pm and 7pm and Thursday between 5pm and 6pm. Taking the week as a whole, the greatest number of motorcyclists killed or seriously injured occurred between 2pm and 3pm with 52 KSIs (11%) with the next highest period being between 5pm and 6pm with 45 (10%). In

fact, three quarters of those killed or seriously injured occurred between 10am and 8pm. This is largely determined by the high number occurring between those hours on a Saturday or Sunday with 151 of the 178 (85%) KSI motorcyclist KSI casualties happening at this time during the weekend. See Table 3 below:

Table 3: Motorcyclist KSI casualties by day and hour 2015-2019

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total	
	0	1	2	2	2	1	0	8	0601 - 0700
	2	3	1	4	2	1	0	13	0701 - 0800
	2	2	4	6	3	1	1	19	0801 - 0900
	1	1	4	2	0	3	2	13	0901 - 1000
	0	1	1	5	1	5	8	21	1001 - 1100
	1	1	1	2	2	6	11	24	1101 - 1200
	2	2	5	2	2	4	13	30	1201 - 1300
	4	3	2	4	4	7	5	29	1301 - 1400
	11	6	5	4	7	9	10	52	1401 - 1500
	6	4	2	5	5	6	9	37	1501 - 1600
	2	6	5	9	1	7	9	39	1601 - 1700
	8	1	3	11	7	6	9	45	1701 - 1800
	3	3	11	5	2	7	4	35	1801 - 1900
	2	3	2	3	5	9	7	31	1901 - 2000
	3	0	1	2	5	2	4	17	2001 - 2100
	3	1	0	4	2	2	0	12	2101 - 2200
	2	1	3	3	1	1	1	12	2201 - 2300
	0	0	0	3	3	1	1	8	2301 - 2400
	1	0	0	0	0	0	1	2	0001 - 0100
	0	1	0	0	1	2	0	4	0101 - 0200
	0	0	0	1	0	0	1	2	0201 - 0300
	1	0	0	0	1	1	0	3	0301 - 0400
	0	0	0	0	0	1	0	1	0401 - 0500
	0	0	0	1	0	0	0	1	0501 - 0600
Total	54	40	52	78	56	82	96	458	

Figure 14: Motorcyclist KSI casualties by time of day – weekday vs weekend, 2015-2019

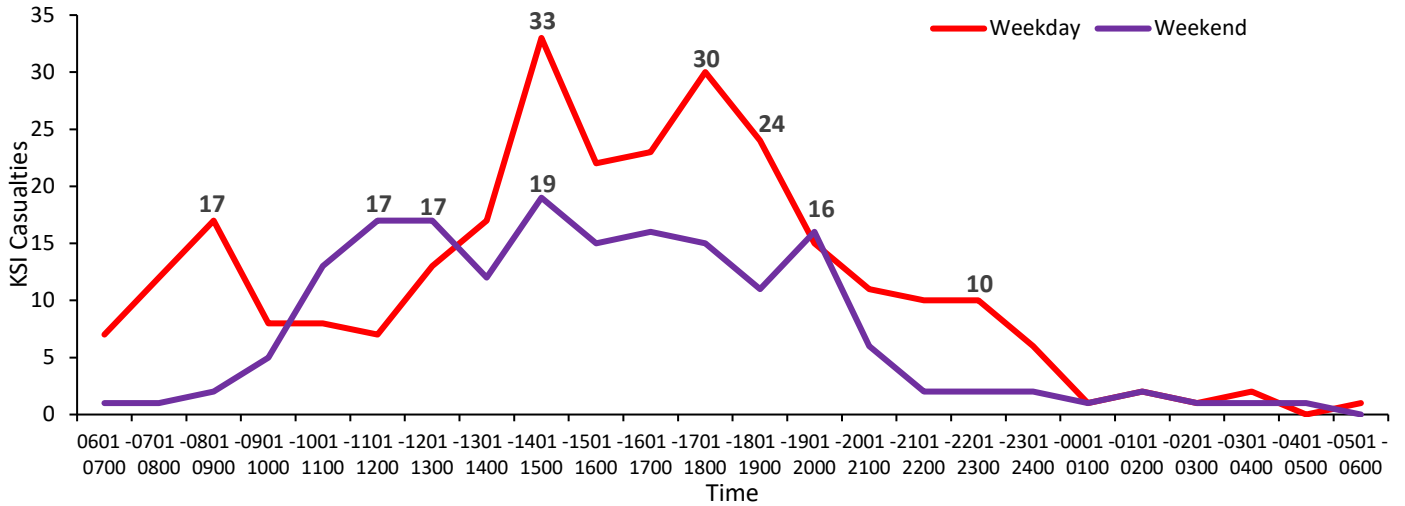
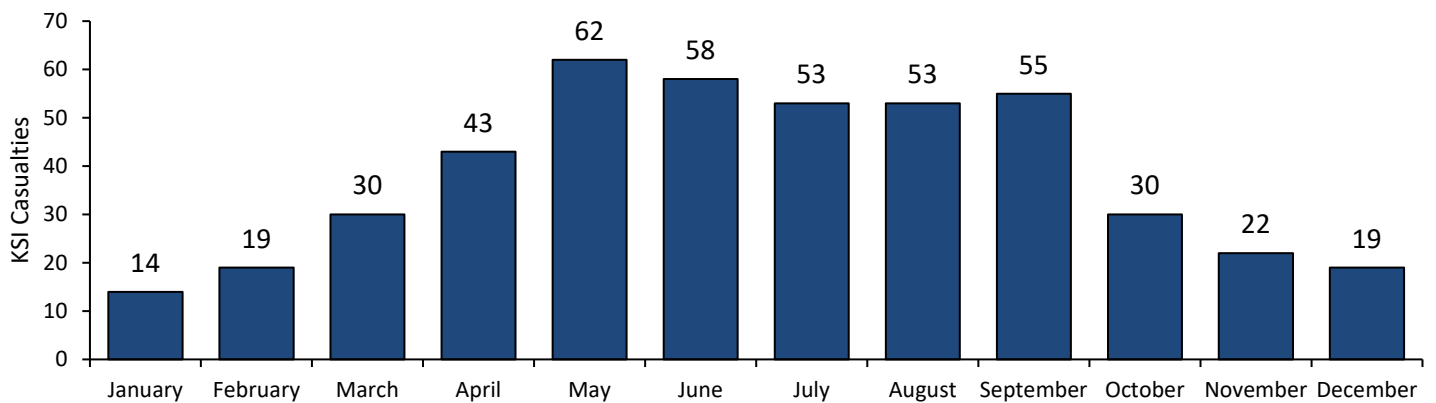


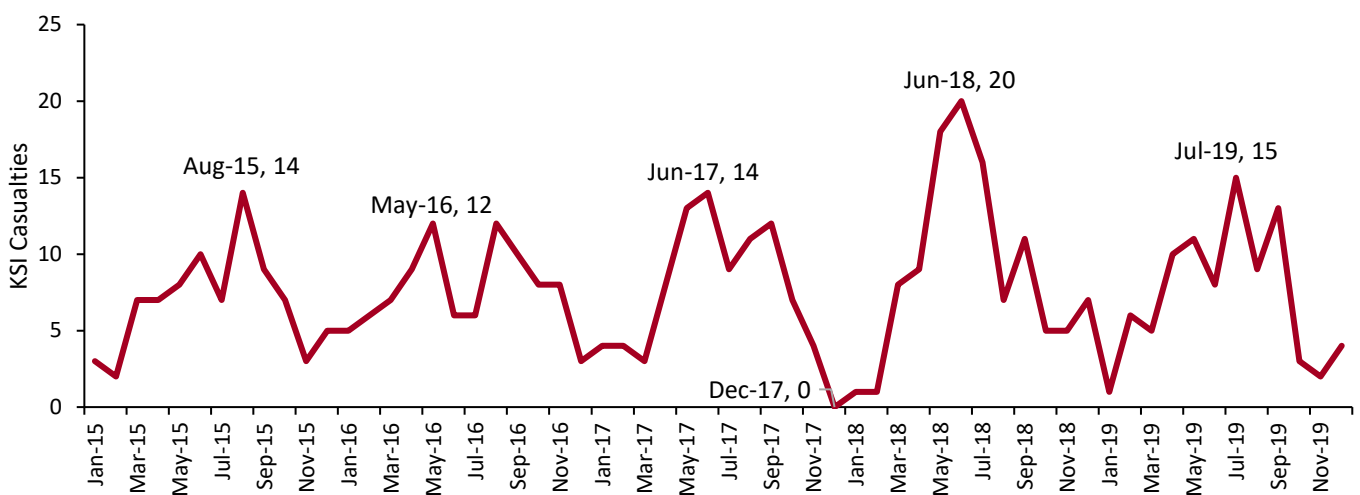
Figure 14 presents the number of motorcyclist KSI casualties by time of day for both Monday to Friday and at the weekend. There are slight peaks for weekdays at the rush hour times of between 8am and 9am and 5pm and 6pm that don't occur during the weekend and the numbers remain noticeably higher between Monday and Friday until 11pm with the exception of 11am to 1pm which are much more pronounced in the weekend figures than through the working week.

Figure 15: Motorcyclist KSI casualties by month of year, 2015-2019



Examining a monthly breakdown in Figure 15 quite clearly shows a split between spring and summer and autumn and winter months with the six month period of April to September accounting for 324 (71%) of the 458 KSI casualties. January (14), February (19) and December (19) were the months with the fewest while May (62) and June (58) had the highest. As Figure 16 shows, there is quite clearly a seasonal trend with motorcycle casualties with the peaks occurring in the summer months and troughs appearing in the winter.

Figure 16: Motorcyclist KSI casualties for each month, 2015-2019

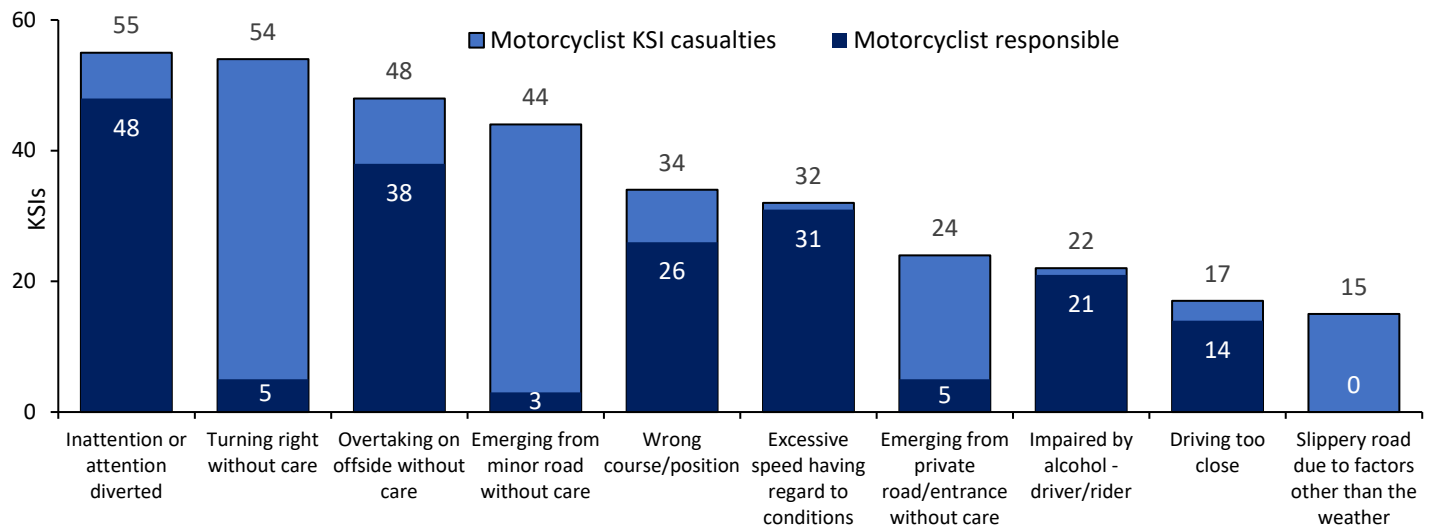


WHAT CAUSES MOTORCYCLIST KSI?

Details of factors that contribute to road traffic collisions are recorded by the Police Service of Northern Ireland (PSNI). The factors are somewhat subjective, having been recorded by the police officer at the scene of the collision; however, causation factors are validated by the statistics branch of PSNI and the data are considered robust, especially in the case of fatal and serious collisions.

Figure 17 shows the top ten principal causation factors for motorcyclist KSI casualties with the dark blue shading indicating the number where the motorcyclist themselves was responsible. 'Inattention or attention diverted' and 'turning right without care' were ranked first and second overall with 55 and 54 motorcyclist KSIs respectively. It is clear that responsibility differs quite considerably depending the causation factor with 48 motorcyclists being responsible for the inattention causation (87%) while turning right without care had only five motorcyclists responsible (9%).

Figure 17: Top ten principal causation factors for motorcyclist KSI casualties, 2015-2019



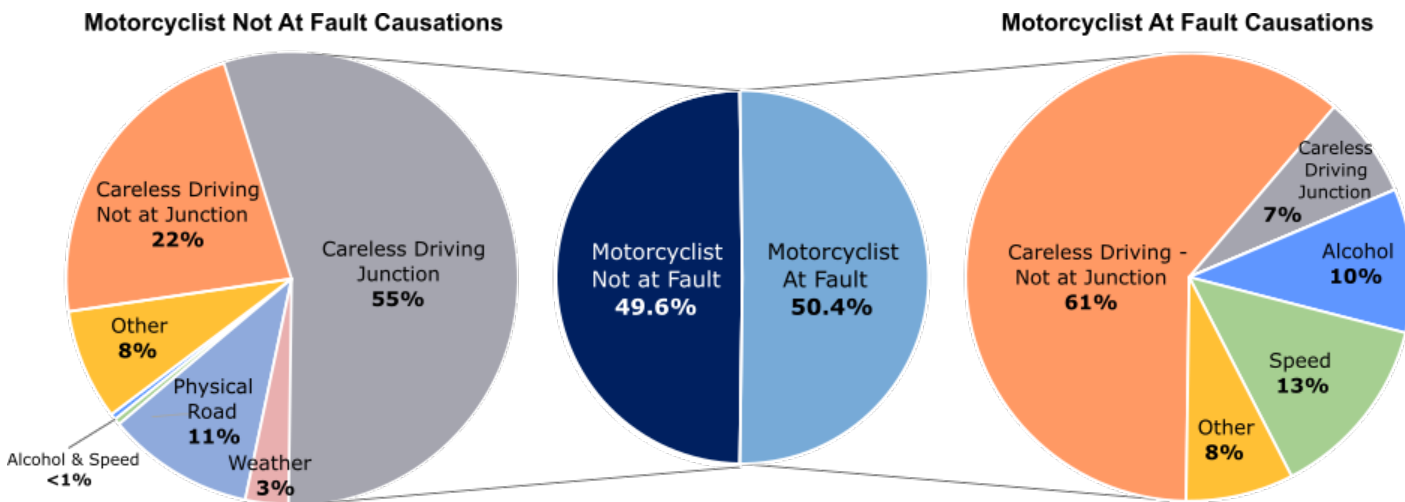
This is further demonstrated in Table 4 below which shows the numbers for each grouped causation split by responsibility with careless driving further split to show those that occurred at junctions or not. Of the 458 motorcyclists who were killed or seriously injured between 2015 and 2019, the numbers in terms of responsibility are split almost down the middle with 227 (49.6%) of the motorcyclists not being attributed responsibility for their injuries and the other 231 (50.4%) being deemed responsible.

Table 4: Motorcyclist KSI Casualties by responsibility and causation factor type, 2015-2019

Principal Causation Factor	Motorcyclists Not Responsible	Motorcyclists Responsible	KSI Total
Driver/Rider Fault			
Alcohol or Drugs – Driver/Rider	1	24	25
Excessive Speed having regard to conditions	1	31	32
Careless Driving – Non Junction	51	141	192
Careless Driving - Junction	125	17	142
Other Driver Rider Fault	1	18	19
Total	179	231	410
Passenger Fault			
Passenger Fault	0	0	0
Pedestrian Fault			
Pedestrian Fault	2	0	2
Vehicle Defects			
Vehicle Defects	5	0	5
Obstructions			
Obstructions	3	0	3
Physical Road			
Physical Road	24	0	24
Weather			
Weather	7	0	7
Miscellaneous			
Miscellaneous	7	0	7
Total	227 (49.6%)	231 (50.4%)	458

Ninety percent of the principal causations for motorcyclist KSIs were due to driver/rider fault with almost three quarters (73%) due to careless driving, but you can see how these differ depending on responsibility. Figure 18 displays the proportions for grouped causation by responsibility below.

Figure 18: Motorcyclist KSI casualties, causations by responsibility 2015-2019

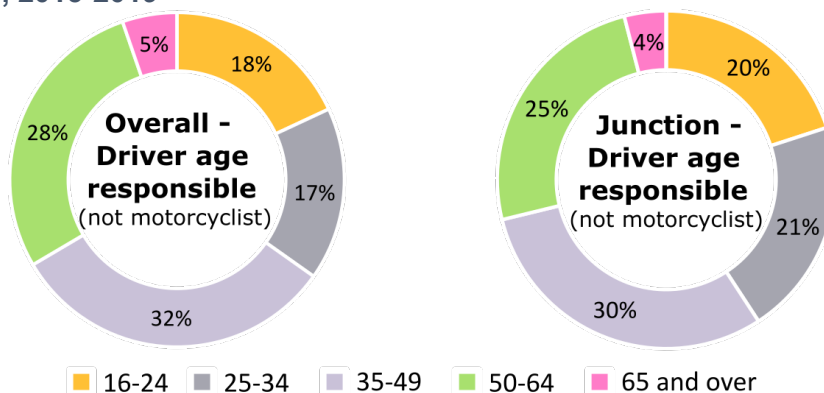


Motorcyclists Not Responsible

The majority of the grouped causation factors where the motorcyclist was not at fault were careless driving causations which occurred at a junction (55%) with the top 3 causation factors for motorcyclists not being responsible between 2015 and 2019 being ‘turning right without care’, ‘emerging from minor road without care’ and ‘emerging from private road/entrance without care’ making up the top 3. Evidently, emerging from a junction or turning at a junction is a big factor in collisions involving a motorcycle where the motorcyclist was not at fault – many collisions occur when a car is turning right and a motorcycle is continuing straight perhaps because the driver of the car does not see the motorcycle in their blind spot. Similarly cars emerging from minor or private roads and entrances may not anticipate the motorcyclist due to their size and speed and proceed onto the main road in front of the motorcyclist when it is not safe to do so.

In terms of age group, the younger age categories are slightly more overrepresented for collisions at a junction than observed overall indicating that drivers aged 17 to 24 and 25 to 34 are more likely to cause collisions with motorcyclists at junctions. See comparison in Figure 19 below:

Figure 19: Age breakdown of drivers¹ responsible overall and at a junction where the motorcyclist was not responsible, 2015-2019



¹ Although car drivers cannot legally drive until they are 17, these age groups are chosen to reflect the KSI casualty age breakdown and also to reflect that it is legal to drive a moped at 16

Motorcyclists Responsible

Regarding collisions where the motorcyclist was responsible shows that far fewer of these occur at junctions with just 17 (7%) of the 231 responsible KSIs in the last five years having a junction related principal causation factor. Instead, the top three factors were ‘Inattention or attention diverted’ (48 motorcyclist KSIs),

'overtaking on offside without care' (38 motorcyclist KSIs) and 'excessive speed having regard to conditions' (31 motorcyclist KSIs) with these three alone accounting for over half the number of motorcyclists killed or seriously injured where the rider was responsible. Other factors which feature prominently where a motorcyclist is responsible is 'wrong course/position' with 26 out of the 34 KSI casualties assigned to the motorcyclist. 'Impaired by alcohol – driver/rider' and 'inexperience with type of vehicle' are also relatively high with 21 and 12 motorcyclists killed or seriously injured having these factors assigned respectively.

Figure 20 below shows an overall breakdown by age compared with the top three causation factors for motorcyclist responsibility. It shows that the older age groups were much more likely to be at fault for inattention with the 50-64 and 65+ age groups accounting for half of this causation. In contrast, the 25 to 34 age group were more overrepresented in overtaking on the offside with approximately a third of motorcyclists responsible being from this age range while younger riders were much more likely to speed with riders aged 16 to 34 accounting for over half the speeding causations.

Figure 20: Age breakdown of motorcyclists responsible overall and by selected causation factor, 2015-2019

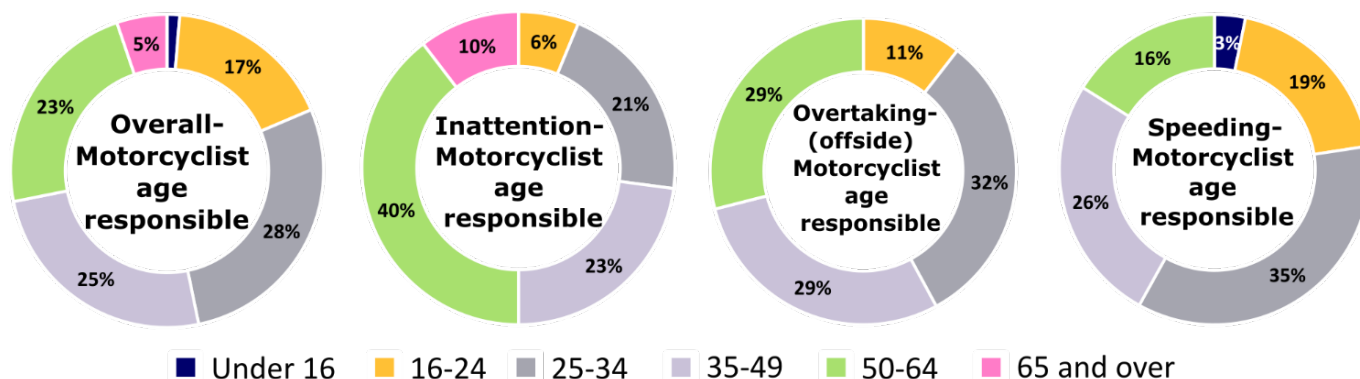
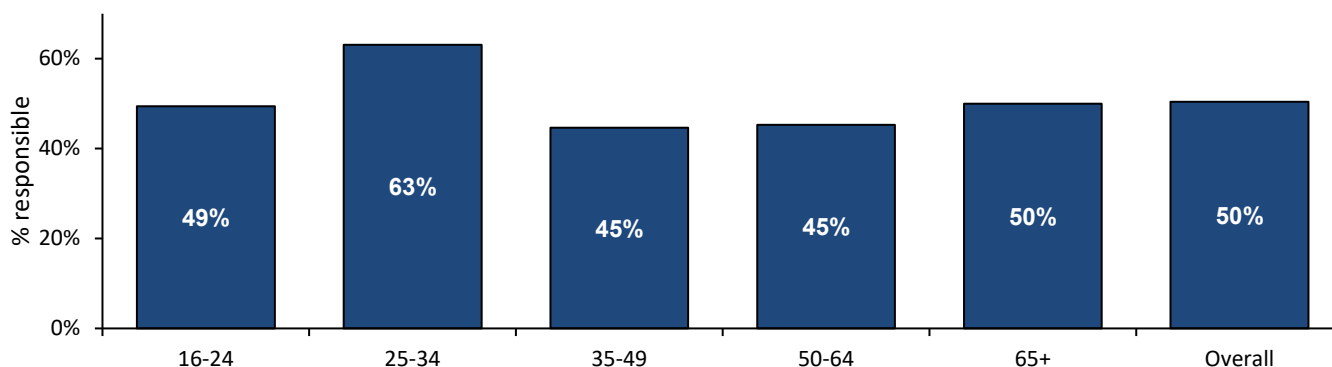


Table 5: Motorcyclist KSI Casualties by responsibility and age group, 2015-2019

Age Group	Motorcyclist not Responsible	Motorcyclists Responsible	Total
Under 16	0	3	3
16-24	41	40	81
25-34	38	65	103
35-49	72	58	130
50-64	64	53	117
65+	12	12	24
Total	227	231	458

Looking further at the age split by responsibility in Table 5 reveals further insight. The 25-34 age group were more likely to be responsible for their own injuries with almost two-thirds (63%) of motorcyclist KSIs in this age range responsible for their collisions. Interestingly, the two age bands that reported the most casualties had the lowest level of responsibility – 45% both for those aged 35-49 years and 50-64 years.

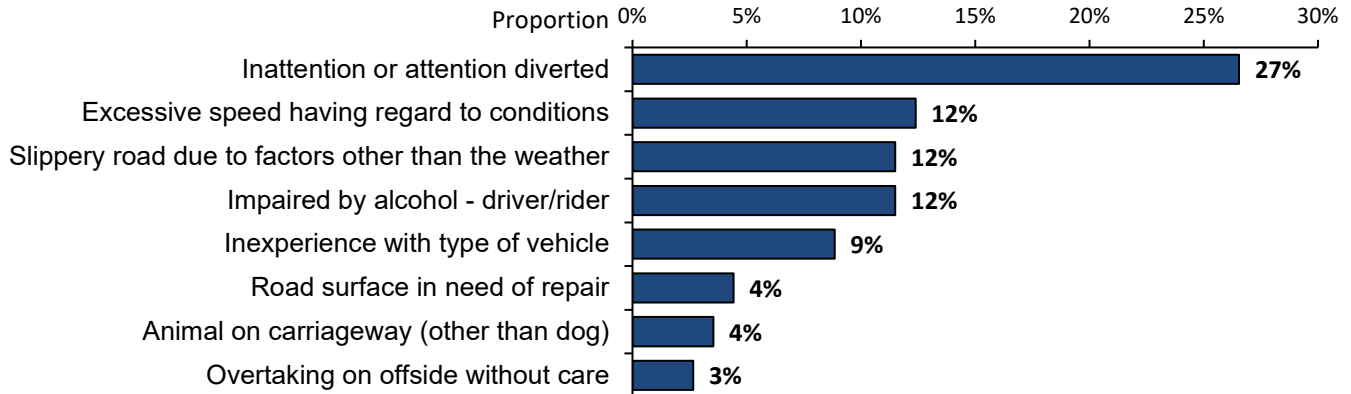
Figure 21: Percentage of motorcyclist KSIs responsible by age group, 2015-2019



SINGLE VEHICLE COLLISIONS

There were 113 motorcyclists killed or seriously injured due to single vehicle collisions between 2015 and 2019 equating to a quarter (25%) of the 458 motorcyclist KSI casualties total. The top causation factors of motorcycle single vehicle collisions are presented below with 'inattention or attention diverted' accounting for the most of these with 30 (27%). 'Excessive speed having regard to conditions', 'slippery road due to factors other than the weather' (i.e. oil) and 'impaired by alcohol – driver/rider' were all next highest with 12%.

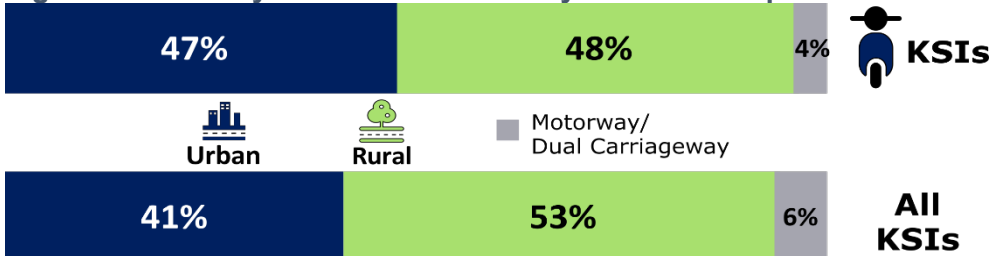
Figure 22: Main causes of single vehicle motorcycle KSI casualties, 2015-2019



WHERE DO MOTORCYCLIST KSIs OCCUR?

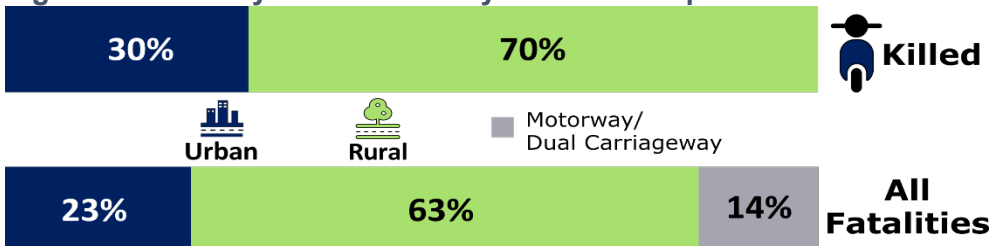
The number of motorcyclist KSI casualties were more or less evenly split with 216 of the 458 KSIs (47%) occurring on urban roads⁴, 222 (48%) occurring on rural roads and 20 (4%) on a motorway or dual carriageway. This compares with the 41% and 53% for all KSI casualties that occur on urban roads and rural roads respectively, meaning that motorcycle KSIs are slightly overrepresented on urban roads and slightly underrepresented on rural roads. See Figure 23 below:

Figure 23: Motorcyclist KSI casualties by location compared with all KSI casualties, 2015-2019



However, this trend is reversed when you look at the split of motorcycle fatalities compared with all road users killed. Figure 24 below refers. More motorcyclists were killed on rural roads with 19 out of the 27 fatalities (70%) occurring on roads with a speed limit greater than 40 miles per hour. This is higher proportionally than the 63% of deaths on country roads observed for all fatalities, probably because motorcycle collisions on rural roads tend to occur at high speeds, and therefore the risk of the motorcyclist being killed due to their vulnerability is greater.

Figure 24: Motorcyclist fatalities by location compared with all fatalities, 2015-2019



⁴ Urban roads are defined as roads with speed limit less than or equal to 40mph, while rural roads are roads with a speed limit greater than 40mph (excluding motorways and dual carriageways)

You can see from Figure 25 that all of the rural road fatalities occurred on roads with a 60 mile per hour speed limit (the national speed limit of country roads) but it is perhaps worth noting that over a fifth (22%) of motorcycle fatalities (22%) and two fifths of motorcyclists seriously injured (41%) occurred on roads with a speed limit of just 30 miles per hour. Table 6 shows a breakdown of motorcyclist KSIs by carriageway type and you can see from this that the vast majority of these occurred on a single carriageway (92%).

Figure 25: Motorcyclist KSI casualties by speed limit of road and severity, 2015-2019

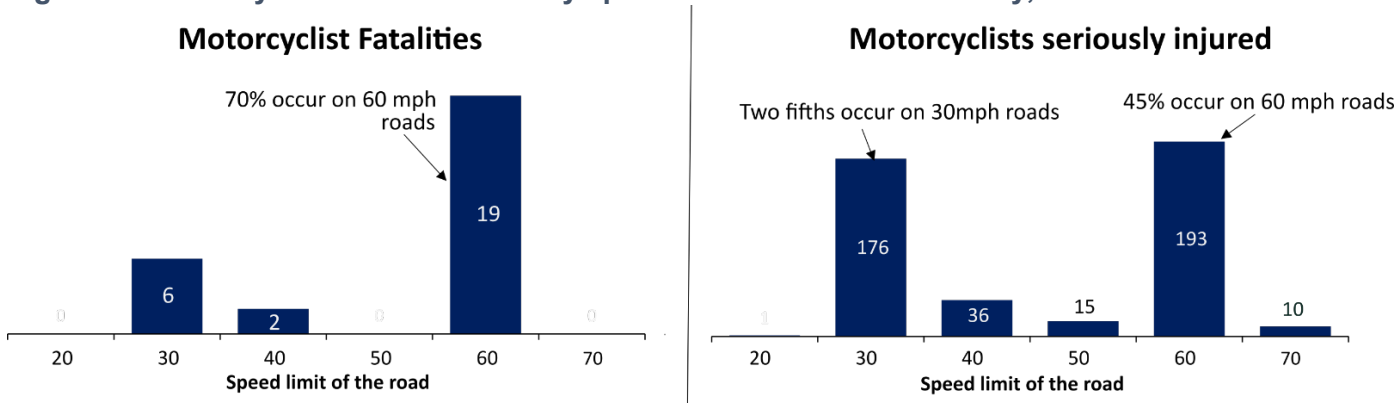
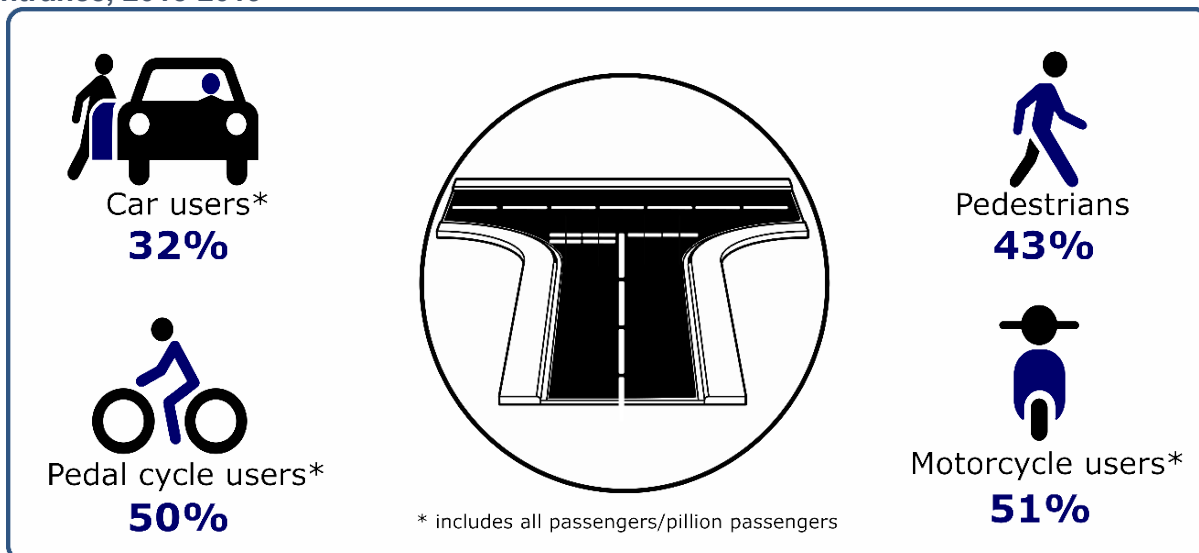


Table 6: Motorcyclist KSIs by severity of injury and carriageway type, 2015-2019

	Killed	Seriously Injured	Total
Roundabout	0	10	10
One way Street	0	4	4
Dual Carriageway	0	17	17
Motorway	0	3	3
Single Carriageway	27	396	423
Slip Road	0	1	1
Total	27	431	458

Regarding junctions, over half of all motorcyclist KSI casualties between 2015 and 2019 took place at either a T or staggered junction (37%) or a private entrance or drive (14%). Figure 26 gives the proportion for each road user over the 5 year period that occurred at a T or staggered junction or private drive/entrance. See Table A17 in the Appendix for a full breakdown. KSIs amongst motorcyclists at these junctions have the highest proportion by category, much higher than the equivalent proportion of car driver KSIs (32%) and gives further evidence along with the high proportion of junction causation factors on page 14 just how deadly these junctions are for motorcycle riders.

Figure 26: Proportion of road user KSI casualties that occur at a T or staggered junction or private drive/entrance, 2015-2019

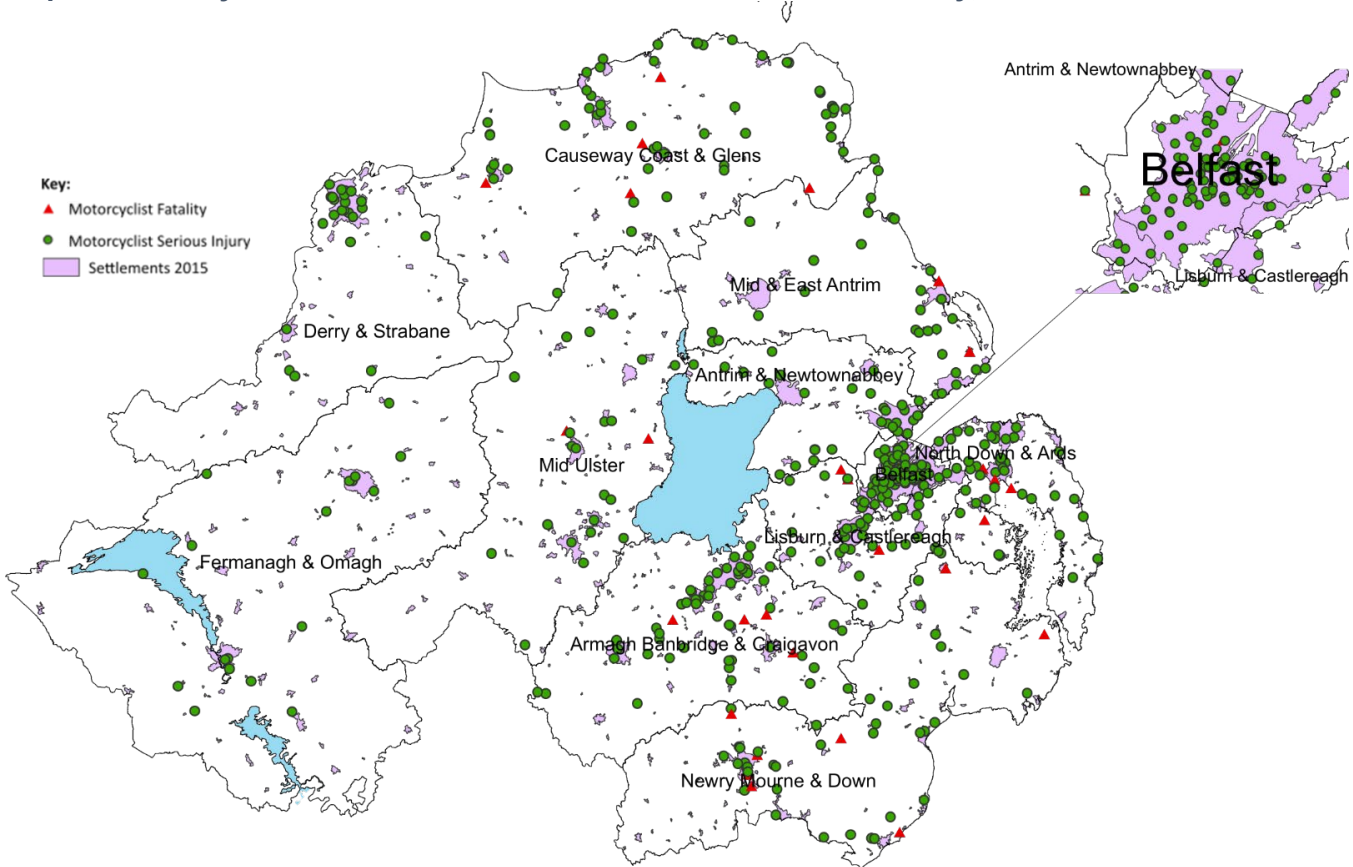


MAPPING

The below map shows motorcyclist KSIs in Northern Ireland in 2015-2019, plotted on the 2015 settlements overlay (displayed in purple) as defined by NISRA⁵. The majority of these KSIs occurred in the east of the country, with Belfast reporting the most while Newry, Mourne & Down LGD reported the most motorcyclist deaths over the five year period with eight.

Clusters of KSIs appear in towns and cities, with approximately 43% of motorcyclists killed or seriously injured between 2015 and 2019 occurring in urban settlements (those having a population of more than 5,000 people). This means that 57% of motorcyclist KSIs over the five years occurred in rural areas, with 53% of the total occurring in open countryside. The corresponding proportions for motorcycle fatalities showed just three deaths (11%) occurred in urban areas and of the other 24 (89%) which took place in rural areas, 21 (78%) occurred outside of any settlement⁶. A further breakdown by settlement band is available in Table A18 in the Appendix.

Map 1 – Motorcyclist KSIs in Northern Ireland with settlement overlay, 2015-2019



Clusters around towns and cities are not unexpected as these are more heavily populated areas. Map 2 below therefore aims to take account of the differing population densities by plotting the rate of motorcyclist KSI casualties in each Local Government District in 2015-2019 per 100,000 population. Causeway Coast & Glens reports the highest motorcyclist rate per population (8.1), perhaps highlighting this areas enthusiasm for motorcycling and the coast roads popularity as a destination amongst motorcycle riders as well. The next highest LGD was Armagh, Banbridge and Craigavon (5.6) and third was Newry, Mourne and Down with 5.4. There were also relative high rates for Belfast and its surrounding council areas as well. Indeed studying the map, there seems to be an east/west split with Derry & Strabane reporting the lowest KSI rate with 3.0 motorcyclists killed or seriously injured per 100,000 population and Fermanagh & Omagh and Mid Ulster also showing a comparatively low KSI rate at 3.1 for both. See Table 7 below for the rates for each LGD.

⁵ [NISRA Settlement Guidance \(opens in a new window\)](#)

⁶ This differs from the 47% KSIs on urban roads and 70% on rural roads reported in Figure 23 and Figure 24 on page 17. The map above refers to urban settlements (> =5000 people), while Figure 23 and 24 refers to the speed limit of the roads.

Map 2 – Rate of Motorcyclist KSIs in Northern Ireland per 100,000 population, 2015-2019

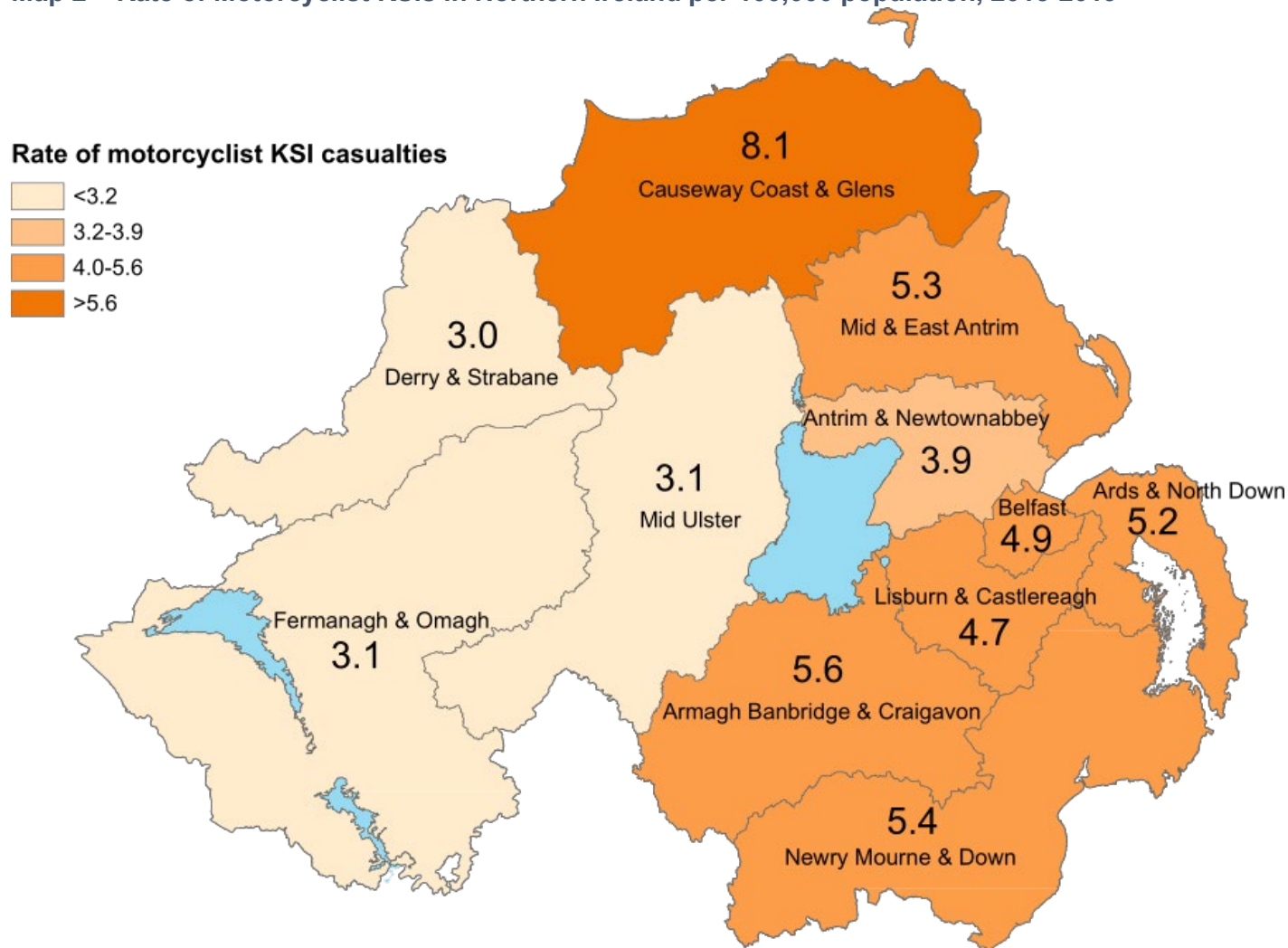


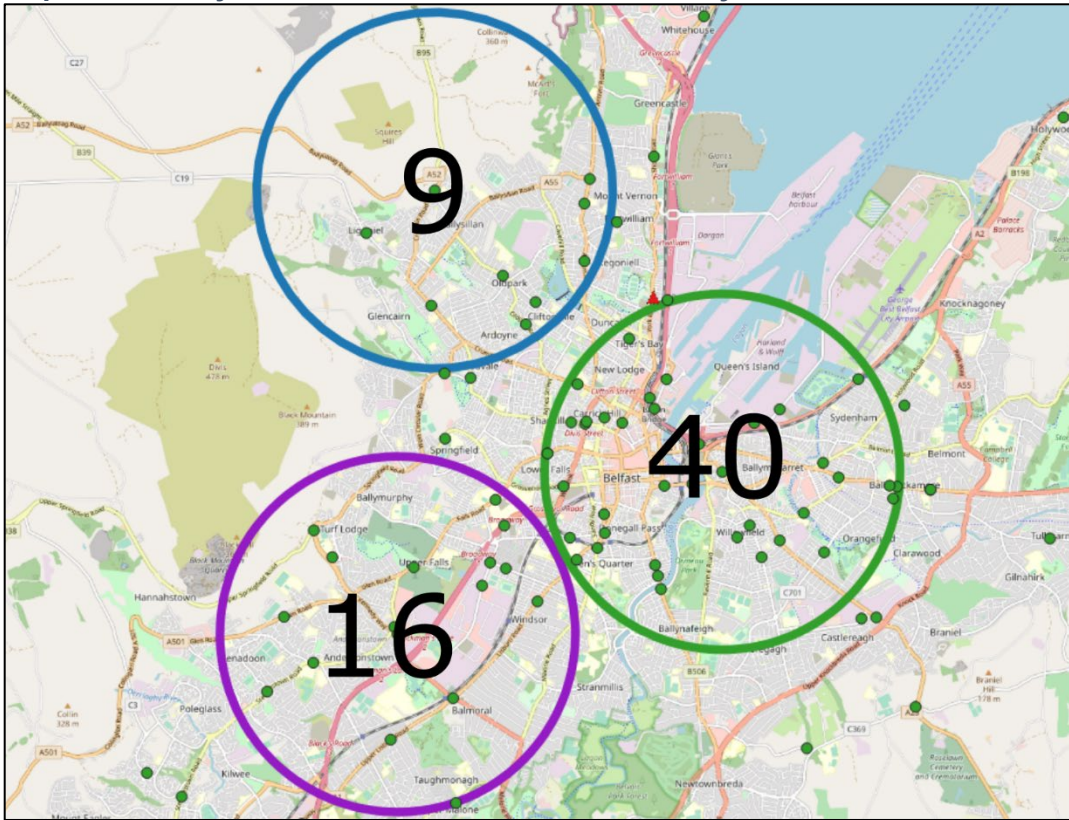
Table 7: Motorcycle KSI casualties per 100,000 population by District Council 2015-2019

	Fatalities	KSI Casualties	Annual Average KSI Casualties	2019 Mid-Year Population Estimate	Rate^ KSIs/ (deaths) per 100,000 population (of yearly average)
Antrim & Newtownabbey	0	28	5.6	143,504	3.9
Ards & North Down	4	42	8.4	161,725	5.2
Armagh City, Banbridge & Craigavon	4	60	12.0	216,205	5.6
Belfast	1	85	17.0	343,542	4.9
Causeway Coast & Glens	3	59	11.8	144,838	8.1
Derry City & Strabane	0	23	4.6	151,284	3.0
Fermanagh & Omagh	0	18	3.6	117,397	3.1
Lisburn & Castlereagh	3	34	6.8	146,002	4.7
Mid & East Antrim	2	37	7.4	139,274	5.3
Mid Ulster	2	23	4.6	148,528	3.1
Newry, Mourne & Down	8	49	9.8	181,368	5.4
Northern Ireland	27	458	91.6	1,893,667	4.8

MOTORCYCLIST KSI COLLISION HOTSPOTS

Examining collision sites which have the greatest numbers of motorcyclist KSI casualties within a 2.5 kilometre radius for the five year period 2015-2019 identifies three locations within Belfast City LGD⁷. These are shown in the map below:

Map 3 – Motorcycle KSI collisions within Belfast City LGD, 2015-2019



City Centre

By far the highest number of motorcyclist's killed or seriously injured (40) within a 2.5 kilometre radius occurred in Belfast City Centre which is shown by the green circle on the map. This area covers most of Belfast extending from the Queens Quarter to the south of the city to the Shankill in the West, Ballyhackamore in the East and the Tiger's Bay area to the North. It is unsurprising that the numbers are so high within this area considering the volume of commuter traffic within Belfast and the main thoroughfares to the City Centre including the Ormeau Road, Lisburn Road, Castlereagh Road, Sydenham Bypass and the Westlink all have at least one motorcyclist KSI occurring on these roads within the last five years.

South and West Belfast

There were 16 motorcycle KSI casualties in the area south west of Belfast depicted by the purple circle. This area encompasses Finaghy, Balmoral, Andersonstown, Turf Lodge and Ballymurphy. Serious motorcycle collisions within this 2.5 kilometre radius took place on the Stewartstown Road, Andersonstown Road, Glen Road, Upper Lisburn Road, Lisburn Road, Tate's Avenue and Boucher Road.

North Belfast

Of the nine motorcycle KSIs to the north of Belfast displayed in the blue circle on the map above, one occurred on the Ligoniel Road, two on the Crumlin Road, two on the Oldpark Road, one on the Cliftonville Road and three on the Antrim Road.

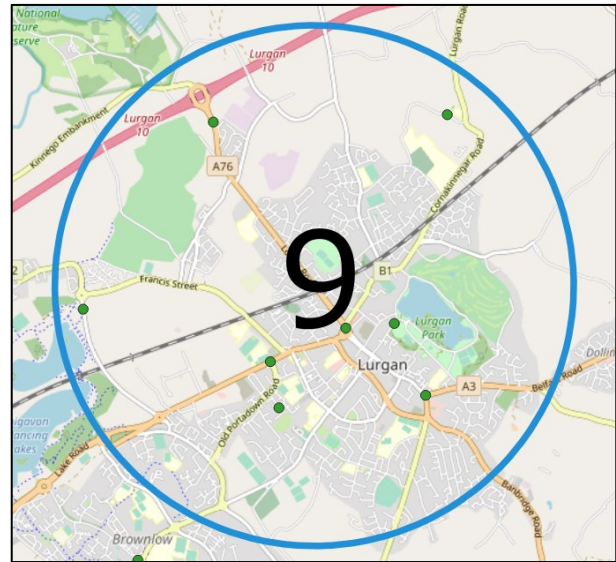
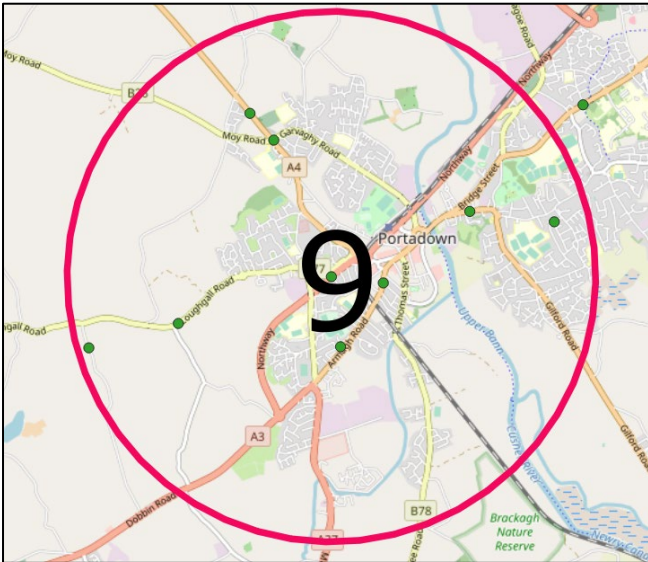
⁷ Please note that it is possible to draw further circles which contain more collisions than the blue and purple circles within a 2.5km radius in Belfast City centre, however, the current map is presented using the criteria that each circle must be comprised of different collisions.

Map 4 – Derry/Londonderry, 2015-2019

Outside of Belfast, there were also 11 motorcyclists seriously injured within 2.5 kilometres of Derry City centre during this period. Ten of the eleven collisions occurred within the orange circle occurred on roads with a speed limit of 30 miles per hour. This again highlights just how susceptible motorcycle riders are to serious injury even at relatively low speeds.

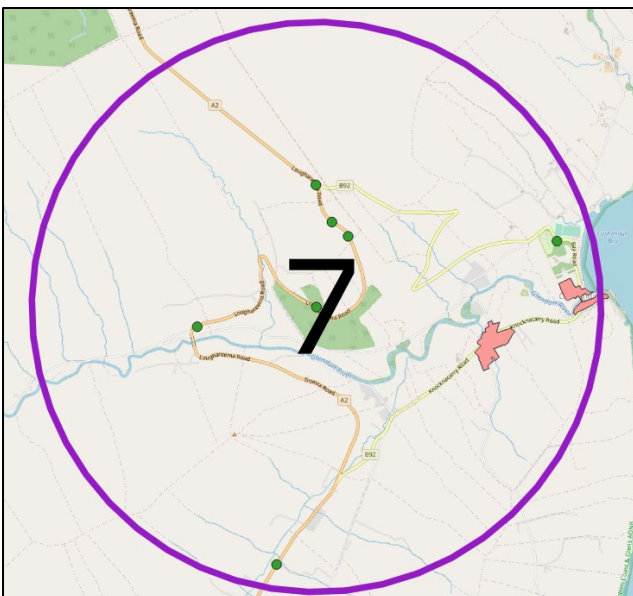


Map 5 and 6 – Lurgan & Portadown, 2015-2019



The Mid Ulster towns of Portadown and Lurgan both had nine motorcyclists seriously injured within a 2.5 kilometre radius in their town area over the five year period, 2015-2019.

Map 7 – Cushendun, 2015-2019

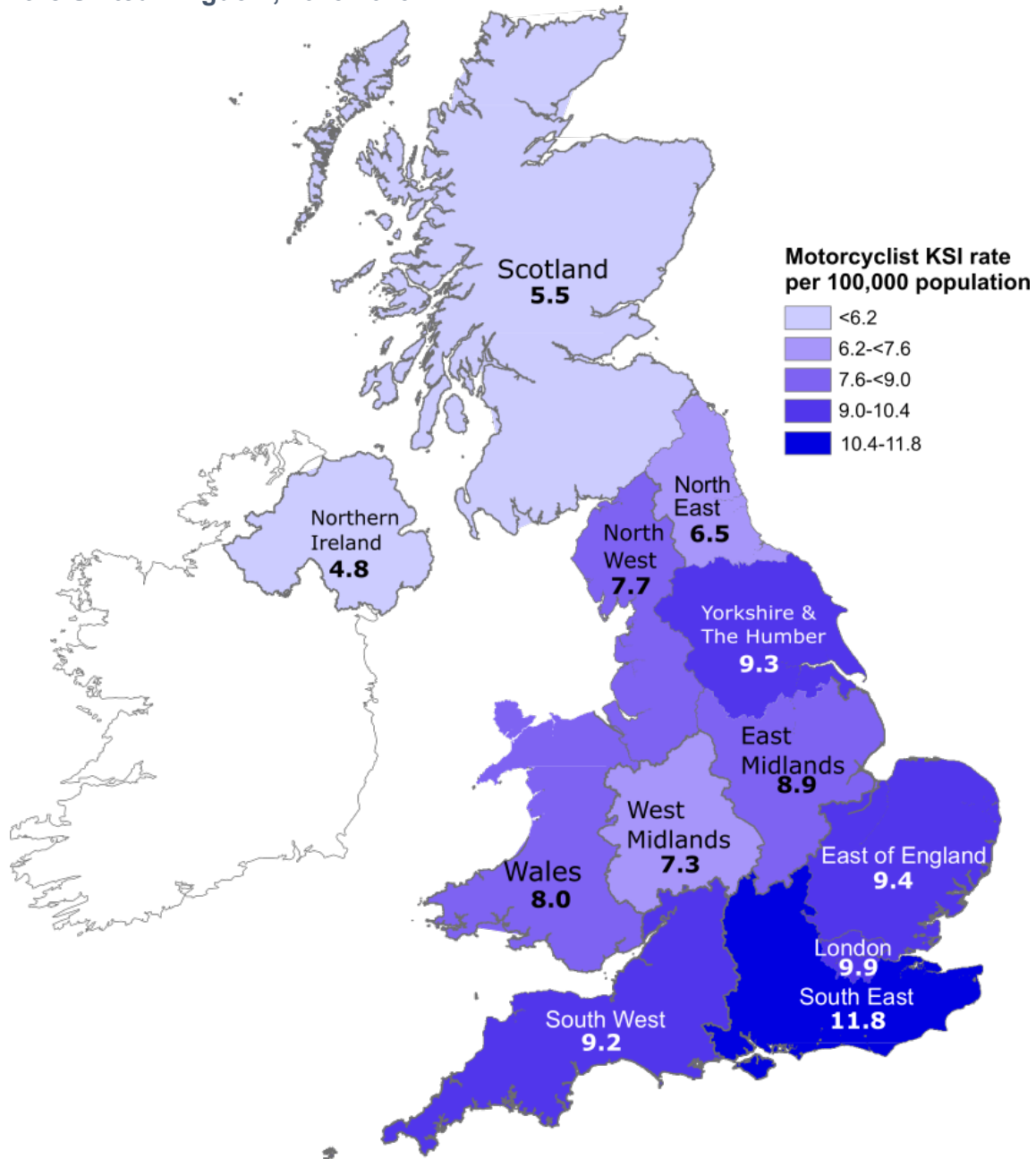


The area which had the highest number of motorcycle fatal and serious collisions within a 2.5 kilometre radius with all the collisions occurring outside an urban settlement was the surrounding the village of Cushendun. This area had seven motorcyclist KSIs within the purple circle with six of these occurring on the twisty A2 as the Tromra Road becomes the Loughareema Road.

COMPARISONS WITH OTHER REGIONS AND COUNTRIES

Using the Department for Transport's table of [KSI \(unadjusted\) casualties by country, English region, local authority and road user type, Great Britain](#) for the years 2015 to 2019 allows for a five year average to be calculated for Scotland, Wales and the English regions. This alongside the 2019 mid year estimates⁸ allows for a rate to be calculated for each region. It can be seen that Northern Ireland has the lowest rate of all the regions at 4.8 KSIs per 100,000 population with Scotland the next lowest at 5.5. At the other end of the scale, the regions in the south of England are all high in comparison with the South East reporting the most with 11.8 motorcyclists killed or seriously injured per 100,000 population followed by London with 9.9, with both these regions showing a rate in excess of twice that of Northern Ireland. A full breakdown of this information can be found in Table A19 of the Appendix.

Map 8 – Rate of Motorcyclist KSIs per 100,000 population in Northern Ireland comparison with other regions in the United Kingdom, 2015-2019



⁸ [Countries of the United Kingdom by population - Wikipedia](#)

Northern Ireland motorcyclist death rate in comparison with other countries

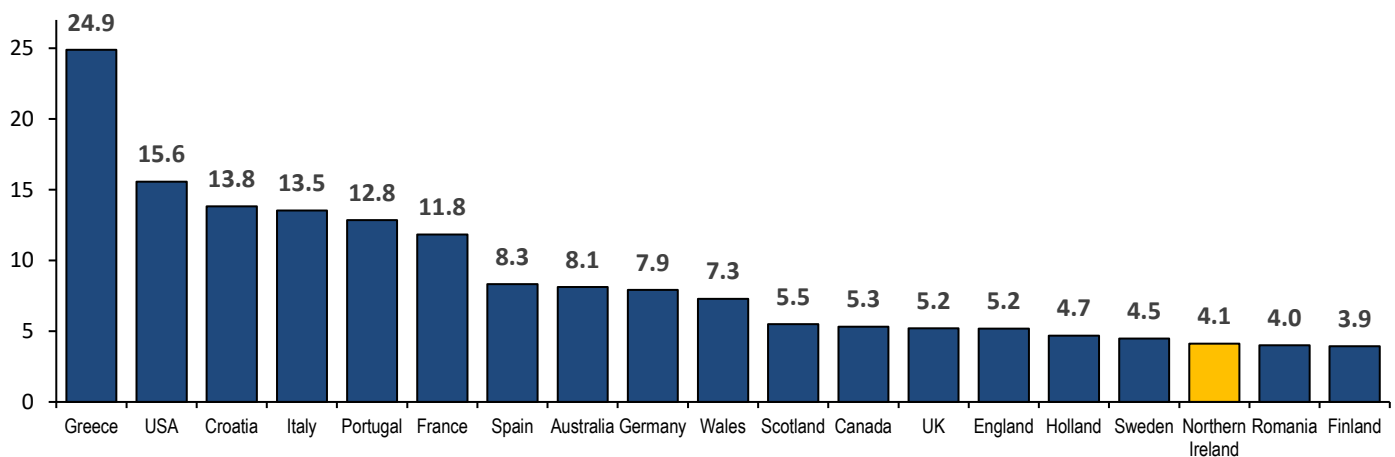
As the latest motorcycle fatality information for a list of selected countries is only available up to 2018, Table 8 below compares the five year average motorcycle deaths for 2014 to 2018 per million population. The information for Europe was sourced from the [CARE database](#) put together by the European Commission while the source for Australia, Canada and the United States of America is footnoted below.

Table 8: International comparisons of motorcyclist death rates by selected country, 2014-2018

Country	Average motorcycle deaths	Per million population	Country	Average motorcycle deaths	Per million population
England	292.2	5.2	France	772.6	11.8
Wales	23.0	7.3	Germany	663.6	7.9
Scotland	30.0	5.5	Greece	259.4	24.9
Northern Ireland	7.8	4.1	Netherlands	80.2	4.7
<i>United Kingdom</i>	<i>353.0</i>	<i>5.2</i>	Hungary	67.6	7.0
Australia ⁹	209.0	8.1	Italy	817.8	13.5
Austria	96.6	10.7	Latvia	12.2	6.5
Belgium	106.0	9.1	Luxembourg	6.6	10.5
Canada ¹⁰	202.6	5.3	Portugal	131	12.8
Croatia	56.8	13.8	Romania	77.0	4.0
Cyprus	14.4	11.9	Slovenia	23.0	11.1
Czech Republic	85.2	8.0	Spain	389.8	8.3
Denmark	30.8	5.3	Sweden	45.2	4.5
Finland	21.8	3.9	USA ¹¹	5,160.6	15.6

Note: Please note that not all countries in the European Commission Care Database reported the number of motorcyclists killed between 2014 to 2018 which is why there is no data for Ireland included in the table above
[European Population figures](#)

Figure 27: Motorcyclist road deaths per million population by selected country, 2014 to 2018 (five year average)



Northern Ireland has the lowest rate in comparison with the rest of the United Kingdom with 4.1 motorcycle deaths per million population during the five year period 2014 to 2018. Only Romania, Finland and Estonia reported a lower death rate than this. By far the highest death rate of all the countries included in this study, was Greece with 24.9 motorcyclists killed per million population while Croatia (13.8) had the second highest death rate in Europe. Outside of Europe, the United States of America had 15.6 motorcyclists killed per million population while Australia and Canada reported rates of 8.1 and 5.3 respectively.

⁹ [Motorcycle Accident Statistics Australia \[2020\]: Crashes + Deaths](#)

¹⁰ [Canadian Motor Vehicle Traffic Collision Statistics: 2018 \(canada.ca\)](#)

¹¹ [Fatal motorcycle crashes in U.S](#)

APPENDIX 1

Figure 28: Motorcyclist Fatalities, 1986-2019

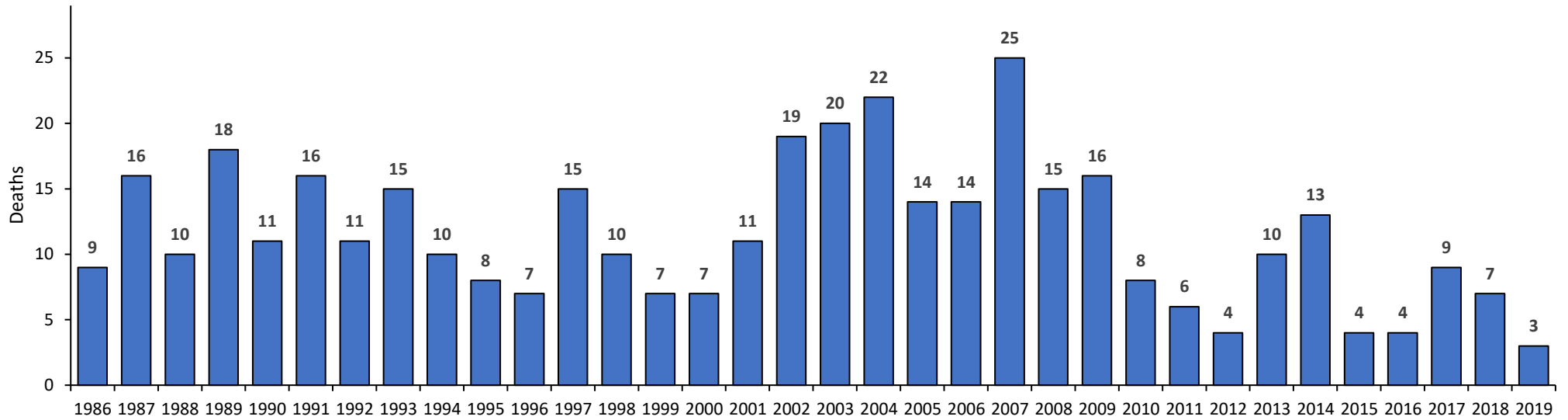
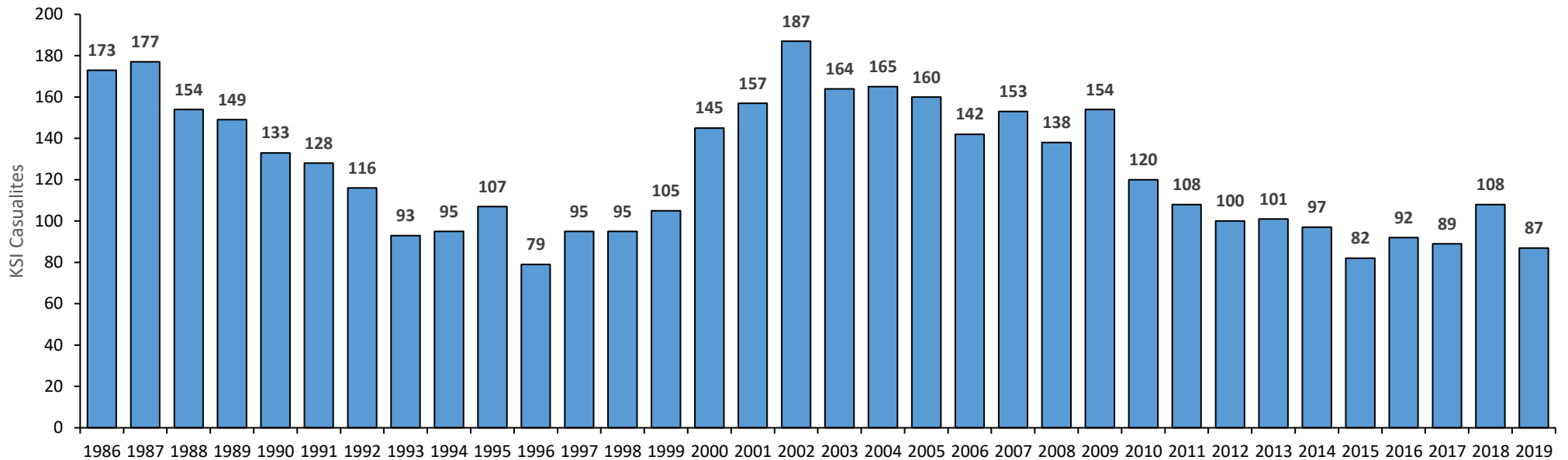


Figure 29: Motorcyclist KSI Casualties, 1986-2019



APPENDIX 2

A1: Motorcyclist casualties by severity of injury alongside pillion passenger and all KSI casualties, 2002-2019

Year	Motorcyclists					Pillion passengers	All
	Killed	Seriously Injured	KSI Casualties	Slightly Injured	Total	KSI Casualties	KSI Casualties
2002	19	168	187	278	465	13	1,676
2003	20	144	164	285	449	11	1,438
2004	22	143	165	311	476	8	1,330
2005	14	146	160	251	411	9	1,208
2006	14	128	142	267	409	7	1,337
2007	25	128	153	297	450	6	1,210
2008	15	123	138	319	457	6	1,097
2009	16	138	154	260	414	7	1,150
2010	8	112	120	255	375	10	947
2011	6	102	108	238	346	8	884
2012	4	96	100	189	289	3	843
2013	10	91	101	210	311	5	777
2014	13	84	97	192	289	5	789
2015	4	78	82	202	284	6	785
2016	4	88	92	193	285	4	896
2017	9	80	89	185	274	8	841
2018	7	101	108	185	293	5	785
2019	3	84	87	185	272	6	830

Source: Police Service of Northern Ireland Road Traffic Collision Data

A2: Motorcyclist KSI casualties and motorcycle user* KSI casualties as a proportion of all KSI casualties rolling five year average, 2002-2019

Year	Motorcyclists KSIs	Motorcycle user* KSIs	All KSIs	Motorcyclist proportion	Motorcycle user* proportion
2002-2006	164	173	1,398	12%	12%
2003-2007	157	165	1,305	12%	13%
2004-2008	152	159	1,236	12%	13%
2005-2009	149	156	1,200	12%	13%
2006-2010	141	149	1,148	12%	13%
2007-2011	135	142	1,058	13%	13%
2008-2012	124	131	984	13%	13%
2009-2013	117	123	920	13%	13%
2010-2014	105	111	848	12%	13%
2011-2015	98	103	816	12%	13%
2012-2016	94	99	818	12%	12%
2013-2017	92	98	818	11%	12%
2014-2018	94	99	819	11%	12%
2015-2019	92	97	827	11%	12%

* includes pillion passengers

A3: Rate of motorcyclist KSIs per 100 million motorcycle kilometres rolling five year average, 2004-2019 (Key Performance Indicator 5 of Northern Ireland Road Safety Strategy)

Year	Motorcyclists KSIs (5 year average) ¹	Motorcycle Kilometres (100 million) ²	Rate	Percentage change from baseline	Percentage change from last year
2004-2008	152	0.59	257.1	-	-
2005-2009	149	0.51	292.9	14%	14%
2006-2010	141	0.37	380.5	48%	30%
2007-2011	135	0.35	389.3	51%	2%
2008-2012	124	0.35	356.2	39%	-9%
2009-2013	117	0.32	363.3	41%	2%
2010-2014	105	0.29	358.7	40%	-1%
2011-2015	98	0.32	301.0	17%	-16%
2012-2016	94	0.33	289.6	13%	-4%
2013-2017	92	0.39	238.1	-7%	-18%
2014-2018	94	0.45	208.3	-19%	-13%
2015-2019	92	0.45	202.7	-21%	-3%
2004-2008 Baseline	152	0.59	257.1		

¹ Source: Police Service of Northern Ireland Road Traffic Collision Data

² Source: Travel Survey for Northern Ireland, Department for Infrastructure, NISRA mid-year population estimates

A4: Rate of KSI casualties and fatalities per 100 million kilometres travelled by road user type, 2015-2019

Road user type	KSIs (5 year average) ¹	Fatalities (5 year average) ¹	Kilometres Travelled (100 million) ²	KSI Rate	Fatality Rate
Pedestrians	176	16	5.03	34.95	3.26
Pedal cyclists	52	2	0.96	54.37	1.66
Motorcyclists	92	5	0.45	202.74	11.95
Car Users	483	38	143.4	3.37	0.26

¹ Source: Police Service of Northern Ireland Road Traffic Collision Data

² Source: Travel Survey for Northern Ireland, Department for Infrastructure, NISRA mid-year population estimates

A5: Motorcycles licensed, 2002-2019

Year	Motorcycles Licensed	Year	Motorcycles Licensed
2002	20,230	2011	28,536
2003	26,682	2012	26,998
2004	27,326	2013	24,345
2005	28,689	2014	24,044
2006	29,922	2015	22,301
2007	31,763	2016	22,142
2008	31,225	2017	22,270
2009	31,156	2018	22,452
2010	30,001	2019	23,170

Source: Northern Ireland Transport Statistics 2002 to 2013 and the Driver & Vehicle Agency 2014-2019

A6: Motorcycles licensed rolling five year average, 2002-2019

Year	Motorcycles Licensed	Percentage change from '04-08 baseline	Percentage change from last year
2002-2006	26,570	-	-
2003-2007	28,876	-	9%
2004-2008	29,785	-	3%
2005-2009	30,551	3%	3%
2006-2010	30,813	3%	1%
2007-2011	30,536	3%	-1%
2008-2012	29,583	-1%	-3%
2009-2013	28,207	-5%	-5%
2010-2014	26,785	-10%	-5%
2011-2015	25,245	-15%	-6%
2012-2016	23,966	-20%	-5%
2013-2017	23,020	-23%	-4%
2014-2018	22,642	-24%	-2%
2015-2019	22,467	-25%	-1%

Source: Northern Ireland Transport Statistics 2002 to 2013 and the Driver & Vehicle Agency 2014-2019

A7: Motorcyclist KSIs by age and gender rolling five year totals, 2004-2019

	Age Group	2004-'08	2005-'09	2006-'10	2007-'11	2008-'12	2009-'13	2010-'14	2011-'15	2012-'16	2013-'17	2014-'18	2015-'19
Male	Under 16	13	11	10	6	6	5	2	2	3	3	3	3
	16-24	264	239	212	187	164	147	128	117	112	100	91	76
	25-34	160	168	147	132	121	113	101	97	97	92	102	102
	35-49	229	232	232	233	210	195	179	166	146	139	126	122
	50-64	60	68	76	77	79	89	80	72	79	92	102	112
	65+	9	9	10	13	14	15	17	17	19	19	24	24
	Total¹	735	727	687	649	595	565	508	472	456	445	448	439
Female	Under 16	1	1	0	0	0	0	0	0	0	0	0	0
	16-24	5	3	4	7	5	4	4	4	3	4	5	5
	25-34	9	5	6	6	8	6	5	3	2	0	1	1
	35-49	7	9	7	8	9	6	6	7	7	7	8	8
	50-64	1	2	3	3	3	2	2	1	3	4	5	5
	65+	0	0	0	0	0	0	0	0	0	0	0	0
	Total¹	23	20	20	24	25	18	18	16	16	16	20	19
Total	Under 16	14	12	10	6	6	5	2	2	3	3	3	3
	16-24	269	242	216	194	169	151	132	121	115	104	96	81
	25-34	169	173	153	138	129	119	106	100	99	92	103	103
	35-49	236	241	239	241	219	201	185	173	153	146	134	130
	50-64	61	70	79	80	82	91	82	73	82	96	107	117
	65+	9	9	10	13	14	15	17	17	19	19	24	24
	Total¹	758	747	707	673	620	583	526	488	472	461	468	458

Source: Police Service of Northern Ireland Road Traffic Collision Data

¹Includes drivers of unknown age

A8: On-road motorcycle test passes with average age, 2004-2019

Year of Test	No. of Test Passes	Average Age at Time of Test*
2004	1,324	32.1
2005	1,409	31.8
2006	1,551	32.3
2007	1,827	32.8
2008	2,355	32.4
2009	1,005	32.7
2010	1,106	32.7
2011	1,592	34.2
2012	1,356	33.5
2013	720	33.9
2014	846	34.6
2015	981	34.1
2016	999	34.8
2017	1,078	34.8
2018	1,006	34.1
2019	1,082	35.5

* Age calculated as days between test date and date of birth, divided by 365.25

Source: Driver & Vehicle Agency

A9: Motorcyclist KSI casualties by light of day, 2015-2019

Light conditions	Number	Proportion
Daylight	372	81%
Darkness	86	19%
Total	458	-

Source: Police Service of Northern Ireland Road Traffic Collision Data

A10: Motorcyclist KSI casualties by month of year, 2015-2019

Month	2015	2016	2017	2018	2019	Total
January	3	5	4	1	1	14
February	2	6	4	1	6	19
March	7	7	3	8	5	30
April	7	9	8	9	10	43
May	8	12	13	18	11	62
June	10	6	14	20	8	58
July	7	6	9	16	15	53
August	14	12	11	7	9	53
September	9	10	12	11	13	55
October	7	8	7	5	3	30
November	3	8	4	5	2	22
December	5	3	0	7	4	19
Total	82	92	89	108	87	458

Source: Police Service of Northern Ireland Road Traffic Collision Data

A11: Top 10 causation factors for motorcyclist KSI casualties, 2015 - 2019

Principal Causation Factor	Motorcyclist not responsible	Motorcyclist responsible	Total
Inattention or attention diverted	7	48	55
Turning right without care	49	5	54
Overtaking on offside without care	10	38	48
Emerging from minor road without care	41	3	44
Wrong course/position	8	26	34
Excessive speed having regard to conditions	1	31	32
Emerging from private road/entrance without care	19	5	24
Impaired by alcohol - driver/rider	1	21	22
Driving too close	3	14	17
Slippery road due to factors other than the weather	15	0	15
Other Factors	73	40	113
Total	227 (49.6%)	231 (50.4%)	458

Source: Police Service of Northern Ireland Road Traffic Collision Data

A12: Motorcyclist KSI casualties by age group of road user responsible split by responsibility for selected causation factors, 2015-2019

Age group	Motorcyclist Not Responsible		Motorcyclist Responsible				Overall
	Junction related	All	Inattention	Overtaking (offside)	Speeding	All	
Under 16	0	0	0	0	1	3	3
16-24	25	41	3	4	6	40	81
25-34	26	38	10	12	11	65	103
35-49	38	72	11	11	8	58	130
50-64	31	64	19	11	5	53	117
65+	5	12	5	0	0	12	24
Total	125	227	48	38	31	231	458

Source: Police Service of Northern Ireland Road Traffic Collision Data

A13: Top causation factors for single vehicle motorcyclist KSI casualties, 2015 - 2019

Principal Causation Factor	Total KSI casualties	Proportion
Inattention or attention diverted	30	27%
Excessive speed having regard to conditions	14	12%
Slippery road due to factors other than the weather	13	12%
Impaired by alcohol - driver/rider	13	12%
Inexperience with type of vehicle	10	9%
Road surface in need of repair	5	4%
Animal on carriageway (other than dog)	4	4%
Overtaking on offside without care	3	3%
Other Factors	21	-
Total	113	

Source: Police Service of Northern Ireland Road Traffic Collision Data

A14: Motorcyclist KSI casualties vs all KSI casualties by speed limit of road, 2015 to 2019

KSI Casualties	Urban	%	Rural	%	Motorway/ Dual C'way	%	Total
Motorcyclists	216	47%	222	48%	20	4%	458
All	1,688	41%	2,204	53%	245	6%	4,137

Source: Police Service of Northern Ireland Road Traffic Collision Data

A15: Motorcyclist fatalities vs all fatalities by speed limit of road, 2015 to 2019

Fatalities	Urban	%	Rural	%	Motorway/ Dual C'way	%	Total
Motorcyclists	8	30%	19	70%	0	0%	27
All	74	23%	199	63%	43	14%	316

Source: Police Service of Northern Ireland Road Traffic Collision Data

A16: Motorcyclist KSI casualties by severity and speed limit of road, 2015 to 2019

Speed limit of road	Killed	%	Seriously Injured	%	Total
20	0	0%	1	0.2%	1
30	6	22%	176	41%	182
40	2	7%	36	8%	38
50	0	0%	15	3%	15
60	19	70%	193	45%	212
70	0	0%	10	2%	10
Total	27	-	431	-	458

Source: Police Service of Northern Ireland Road Traffic Collision Data

A17: KSI casualties by junction type for all road users, 2015-2019

Junction	Car Users	Pedestrians	Pedal cyclists	Motorcycle Users ¹	Total*
Not at or within 20m of junction	1,347	378	89	174	2,036
Roundabout	56	24	22	16	122
Mini Roundabout	5	7	1	1	14
Crossroads	195	68	12	29	308
Multiple Junction	30	24	7	11	72
Slip Road	20	2	1	8	32
Private drive/entrance	230	79	27	68	415
T or staggered junction	532	297	103	180	1,138
Total	2,415	879	262	487	4,137

Source: Police Service of Northern Ireland Road Traffic Collision Data

¹ Includes pillion Passengers * Includes other road users

A18: Motorcyclist fatalities and KSI casualties by settlement band, 2015 to 2019

Settlement Band	Classification	Examples	Urban /Rural	Fatalities	KSIS	%
A	Belfast	Belfast City	Urban	1	76	17%
B	Derry City	Derry City	Urban	0	14	3%
C	Large Town	Coleraine, Lisburn	Urban	2	79	17%
D	Medium Town	Enniskillen, Limavady	Urban	0	15	3%
E	Small Town	Comber, Greenisland,	Urban	0	11	2%
F	Intermediate Settlement	Richhill, Saintfield,	Rural	1	4	1%
G	Village	Magheralin,, Rathfriland	Rural	1	4	1%
H	Population less than 1,000	Ballyrobert, Stewartstown	Rural	1	10	2%
-	Open Countryside	-	Rural	21	245	53%
Total				27	458	

Source: Police Service of Northern Ireland Road Traffic Collision Data

A19: Rate of Motorcyclist KSIs per 100,000 people, Northern Ireland comparison with other regions in the United Kingdom, 2015-2019

Region	2015	2016	2017	2018	2019	Average	Population	Rate*
North East	186	173	170	159	178	173.2	2,669,941	6.5
North West	578	629	592	561	469	565.8	7,341,196	7.7
Yorkshire/Humberside	495	542	516	514	479	509.2	5,502,967	9.3
East Midlands	432	440	428	413	436	429.8	4,835,928	8.9
West Midlands	442	480	426	412	395	431	5,934,037	7.3
Eastern	570	676	581	547	542	583.2	6,236,072	9.4
London	540	681	1,099	1,084	1,021	885	8,961,989	9.9
South East	1,102	1,171	1,067	1,063	1,014	1,083.4	9,180,135	11.8
South West	506	528	500	543	520	519.4	5,624,696	9.2
England	4,851	5,320	5,379	5,296	5,054	5,180	56,286,961	9.2
Wales	273	254	252	240	247	253.2	3,152,879	8.0
Scotland	283	298	310	315	303	301.8	5,463,300	5.5
Northern Ireland	82	92	89	108	87	91.6	1,893,667	4.8
United Kingdom	5,489	5,964	6,030	5,959	5,691	5,826.6	66,796,807	8.7

Source: Police Service of Northern Ireland Road Traffic Collision Data, Office for National Statistics

* Per 100,000 people

[Countries of the United Kingdom by population - Wikipedia](#)