

Older driver killed and seriously injured (KSI) casualties in Northern Ireland, 2010-2019



Analysis, Statistics and Research Branch

Department for Infrastructure Clarence Court 10-18 Adelaide Street Belfast

Contact: Jonathan Irwin Tel: 028 90 346 270 Email: asrb@nisra.gov.uk Department for
Infrastructure

An Roinn
Bonneagair

www.infrastructure-ni.gov.uk

Published July 2021

Contents

Key Points	Page 2
•	Page 3
Infographic	Page 4
Introduction	Page 5
Headline Statistics – Drivers of motor vehicles	Page 6
Older Drivers	Page 8
Responsibility	Page 10
Distance Travelled	<u>Page 12</u>
Causation	<u>Page 13</u>
Day of week and time of day	<u>Page 14</u>
Location	<u>Page 15</u>
Speed Limit	<u>Page 18</u>
Key Performance Indicator 8	<u>Page 19</u>
2019 position	Page 20
Conclusion	Page 20
Appendix	Page 22

Definitions

Driver: Drivers of hackneys, cars, motor caravans, LGVs, HGVs, cars used as taxis, minibuses and buses.

Older Driver: Drivers aged 70 years and older.

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.

Urban Roads: Urban roads are defined as roads with speed limit less than or equal to 40mph.

Rural Roads: Rural roads are roads with a speed limit greater than 40mph (excluding motorways and dual carriageways).

Key Points

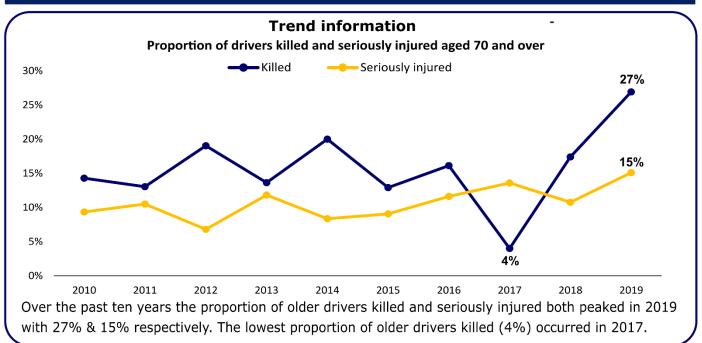
- There have been 253 drivers killed on Northern Ireland roads between 2010 and 2019, 41 per cent of all road users killed.
- Drivers aged 70 and over accounted for 16 per cent (40) of all drivers killed during this period.
- In total, a driver was deemed responsible for 422 fatalities and 5,283 serious injuries during 2010 to 2019.
- From 2010 to 2019 a driver aged 70 and over was responsible for twelve per cent of all fatalities (51) and nine per cent (499) of all serious injuries where a driver was deemed responsible for the collision.
- Both younger drivers (aged 17-29) and older drivers (aged 70+) are a higher risk of being in a KSI collision per 100 million miles driven than any other age groups.
- Inattention and turning right at junctions appear to represent a high collision risk for older drivers.
- The greatest number of older driver KSIs occurred on a Tuesday followed by a Monday, both days together accounting for 33% of all older driver KSIs.
- The greatest number of older driver KSIs occurred between 2:00 and 4:00pm, accounting for 23% of older driver KSIs.
- Older drivers were overrepresented in the afternoon with 58% of those aged 70 or over killed or seriously injured between 12pm and 6pm – this compares with 37% of all driver KSIs recorded between these times.
- Nearly three fifths (59 per cent) of drivers aged 70 and over were killed or seriously injured on rural roads, 32 per cent on urban roads and 9 per cent on motorways or dual carriageways. This compared to 73 per cent - rural, 21 per cent - urban and 6 per cent motorway/dual carriageway for those aged under 70 years.
- Nearly a third (32%) of older driver KSIs occurred at a "T or staggered junction", which is greater than the 23% of all driver KSIs that occurred at this type of junction.
- There were no older driver fatalities in Mid & East Antrim and the lowest rates for serious injuries and KSIs occurred in Belfast.
- The highest rate of older driver fatalities occurred in Causeway Coast & Glens, while the highest rates for serious injuries and KSIs occurred in Newry, Mourne & Down.
- The majority of older driver KSIs occurred on roads with a speed limit of 60mph, however, these roads also accounted for the highest proportion of KSI for every single age group.

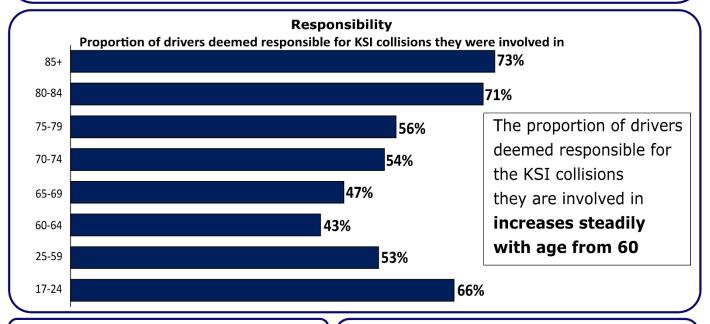


Older driver KSI casualties in Northern Ireland, 2010-2019 Key Findings

Northern Ireland
Statistics and Research Agency
Gniomhaireacht Thuaisceart Éireann
um Staitisticí agus Taighde

Source: PSNI Road Traffic Collision Statistics



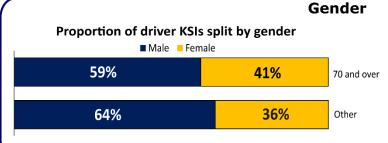




Almost three fifths (58%) of older drivers were killed or seriously injured in the afternoon between 12pm and 6pm



Older driver collisions are more likely to be attributed to careless driving with 'inattention' and 'turning right' the top two causation factors for those aged 70 or over



Female drivers are over represented amongst older driver KSIs when comparing against other drivers. Older females accounted for 41% of older driver KSIs compared with 36% of other driver KSIs

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 percent.
- A reduction in the number of young people (aged 16 to 24) killed or seriously in road collisions by at least 55 per cent.

Key Performance Indicator 8 looks at the rate of people aged over 70 killed or seriously injured in road collisions per 100,000 population aged over 70. For further information on this see page 18 of this report.

This report focuses primarily on older drivers - those aged 70 and over. The road safety of older road users is, to a large extent, affected by the following two factors: physical vulnerability on one hand and functional limitations on the other. It is often claimed that older drivers have an increased collision risk due to different impairments in functional abilities.

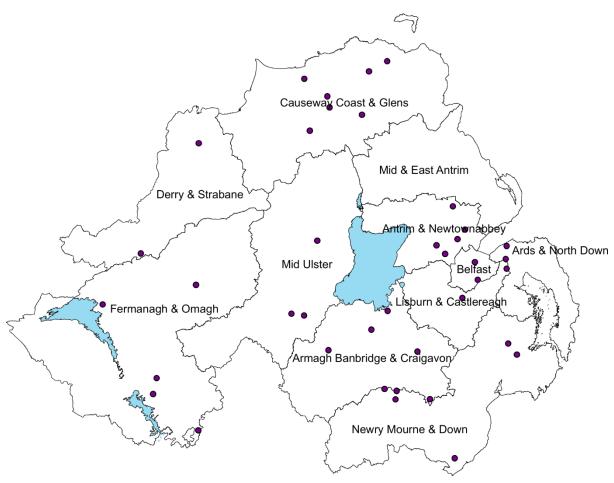
Driving licences are valid until you are 70, after which it is a legal requirement to renew your licence every three years. The purpose of this analysis is therefore to examine whether older drivers are more risky on our roads and the results can be used to help inform whether 70 years of age is appropriate for the renewal of licences every three years. This report will examine the data by various driver age groupings; mainly 17-24yrs, 25-59yrs and those aged 60 and over (with a particular focus on those aged 70 and over).

Headline statistics – Drivers of motor vehicles

(*Drivers of motor vehicles:* Drivers of hackneys, cars, motor caravans, LGVs, HGVs, cars used as taxis, minibuses and buses)

There have been 253 drivers killed on Northern Ireland roads between 2010 and 2019, 41 per cent of all road users killed. Drivers aged 70 and over accounted for 16 per cent (40) of all drivers killed during this period. The map below shows the location of driver fatalities aged 70+, split by Local Government District. The highest number of fatalities (7) occurred in the Causeway Coast and Glens Local Government District, Causeway Coast and Glens also had the highest rate of older driver fatalities per 100,000 population aged 70 and over, with a rate of 36.7, which is more than double the Northern Ireland figure of 17.8. There were no older driver fatalities in Mid and East Antrim during 2010-2019.

Map1: Driver fatalities aged 70 and over in Northern Ireland, 2010-2019



Driver fatalities 2010 – 2019

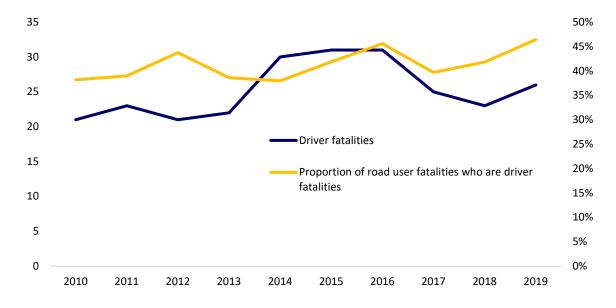
The highest number of driver fatalities were reported in both 2015 and 2016 (31) and the lowest (21) in both 2010 and 2012. The highest proportion of drivers fatalities within the past 10 years were reported in 2016 and 2019 (46%). The peak number of all road user fatalities (79) occurred in 2014.

Table 1: Road User fatalities and proportion of all road user fatalities that are drivers, 2010-2019

Fatalities	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010- 2019
All Road Users	55	59	48	57	79	74	68	63	55	56	614
Drivers (Number)	21	23	21	22	30	31	31	25	23	26	253
Drivers (Proportion)	38%	39%	44%	39%	38%	42%	46%	40%	42%	46%	41%

Source: PSNI Road Traffic Collision Statistics

Figure 1: Drivers killed and drivers killed as a proportion of all road users, 2010 – 2019



There were 2,986 drivers seriously injured over the 10 year period 2010 to 2019, this equated to 38 per cent of all road users seriously injured.

Table 2: Road User Serious Injuries, and proportion of all road user SIs that are drivers, 2010-2019

Serious Injuries	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010 - 2019
All Road Users	892	825	795	720	710	711	828	778	730	774	7,763
Drivers (number)	332	295	294	271	263	254	353	309	297	318	2,986
Drivers (proportion)	37%	36%	37%	38%	37%	36%	43%	40%	41%	41%	38%

Older drivers (aged 70 years and over)

Sixteen per cent of all drivers killed over the ten year period 2010 to 2019 were aged 70 years or over (40 out of 253).

Table 3: Older driver fatalities by age group (70 and over)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010- 2019
70-74	0	2	0	1	0	1	1	0	0	2	7
75-79	0	1	1	2	0	0	4	1	1	3	13
80-84	2	0	2	0	6	3	0	0	1	1	15
85+	1	0	1	0	0	0	0	0	2	1	5
Total	3	3	4	3	6	4	5	1	4	7	40

Source: PSNI Road Traffic Collision statistics

In total, 322 older drivers were seriously injured from 2010 to 2019; eleven per cent of all drivers seriously injured from 2010 to 2019.

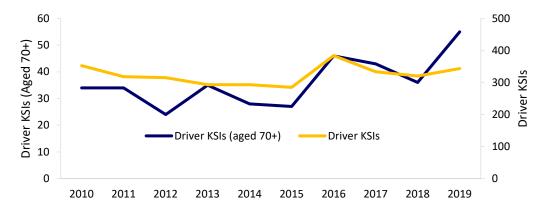
Table 4: Driver seriously injured by age group (70 and over)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010-
											2019
70-74	7	6	8	15	9	7	17	15	8	15	107
75-79	10	10	4	7	8	10	11	13	12	15	100
80-84	9	7	4	4	5	3	11	9	7	8	67
85+	5	8	4	6	0	3	2	5	5	10	48
Total	31	31	20	32	22	23	41	42	32	48	322

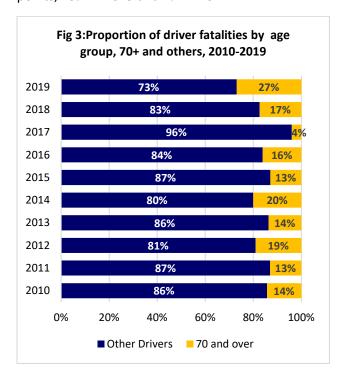
Source: PSNI Road Traffic Collision statistics

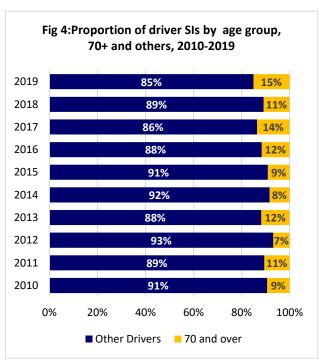
In total, there were 362 older driver KSIs between 2010 and 2019, eleven per cent of all driver KSIs. The number of older driver KSIs appears to fluctuate annually and the highest number was reported in 2019 (55). The highest number for all driver KSIs occurred in 2016 (384).

Figure 2: Driver KSIs aged 70 and over and all driver KSIs, 2010-2019



It can be seen during the period 2010 to 2019, drivers aged 70 and over accounted for a greater proportion of the driver fatalities than serious injuries with the exception of 2017, where the proportion of older driver fatalities was only 4 per cent. In addition, the figures fluctuate year-on-year, the highest proportion of driver fatalities attributed to those over 70 occurred in 2019 (27%), while the lowest proportion occurred in 2017 (4%). The difference between the highest/lowest proportions of driver fatalities was 23 percentage points, whilst the difference between the highest and lowest proportion for driver serious injuries attributed to those over 70 was 8 percentage points, 15% in 2019 and 7% in 2012.

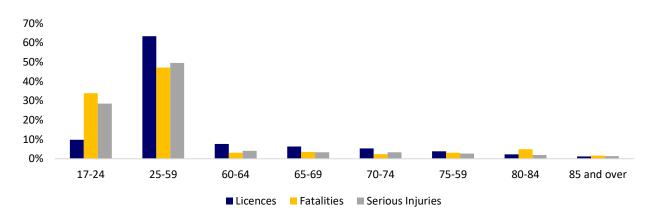




Responsibility

In total, a driver was deemed responsible for 422 fatalities and 5,283 serious injuries during 2010 to 2019. Figure 5 shows, when comparing licence data to the proportion of fatalities where a driver was deemed responsible, the most overrepresented group, and therefore the age-group most at risk to cause a collision, is 17 to 24 year old drivers. They hold 10 per cent of full licences but were responsible for 34 per cent of all fatalities and 29 per cent of serious injuries where a driver was deemed responsible.

Figure 5: Proportion of driver licences* held against the proportion of fatalities and serious injuries where a driver has been deemed responsible by age group, 2010-2019



Source: PSNI Road Traffic Collision statistics, NIDLS, DVA Driver Licensing

*licence data is based on a lift provided from DVA on 31/12/19

Note: More than one driver can be deemed responsible for a collision

Table 5: Number of fatalities, serious injuries where a driver has been deemed responsible by driver age group, 2010-2019 and number of full licences* by age group

Age Group	Fatali	ties	Serious Ir	njuries	Full Licenc	es Held
	Number	%	Number	%	Number	%
unknown	4	1	309	6	0	0
17-24	143	34	1,509	29	110,143	10
25-59	199	47	2,619	50	709,354	63
60-64	13	3	216	4	85,537	8
65-69	15	4	179	3	71,204	6
70-74	10	2	178	3	59,964	5
75-79	13	3	145	3	43,314	4
80-84	21	5	105	2	25,894	2
85 and over	7	2	71	1	13,767	1
Total	422	100	5,283	100	1,119,177	100

Source: PSNI Road Traffic Collision statistics, NIDLS, DVA Driver Licensing

Unknown: Age of driver unknown, includes a small number where driver under 17 years old

*licence data is based on an extract provided from DVA on 31/12/2019

Note: Totals may not add as more than one driver can be deemed responsible for a collision

Focusing on older drivers, from 2010 to 2019 a driver aged 70 and over was responsible for twelve per cent of all fatalities (51) and nine per cent (499) of all serious injuries where a driver was deemed responsible for the collision. By enhancing figure 5 to select only drivers aged 70 and over, figure 6 shows there is a difference in the four age groupings when comparing licence data to the proportion of casualties where the driver has been deemed responsible. Although the numbers are relatively small, figure 6 demonstrates that drivers aged 70-74 years are less likely to be responsible for a fatality or serious injury given the proportion of licences held than the other older age groups. In particular the age groups for 80-84 were deemed responsible for a greater proportion of fatalities than full licences held; however, the proportion of serious injuries is slightly lower.

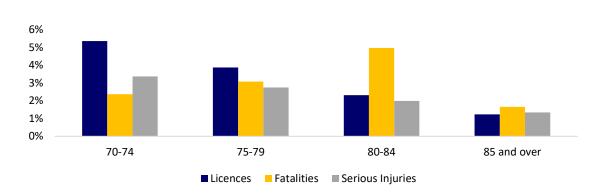


Figure 6: Proportion of older drivers (70+) deemed responsible for fatalities and serious injuries, 2010-19 against the proportion of licences*

Source: PSNI Road Traffic Collision statistics, NIDLS, DVA Driver Licensing

Table 6 shows drivers aged 60-64 are deemed responsible for the lowest proportion of KSI collisions in which they are involved (43 per cent). The age groups that report the highest proportion of responsibility compared to involvement are the younger age group (17-24 years) at 66 per cent and the older age groups (80-84 and 85+), 71 per cent and 73 per cent respectively. Although drivers aged 80 and over were involved in much fewer collisions than their younger counterparts aged 17-24 (as demonstrated in Table: 6), drivers aged 80 and over were more likely to be deemed responsible for a KSI collision in which they are involved.

Table 6: Number of KSI collisions where a driver is involved and those where they have been deemed responsible, 2010 – 2019.

	Unknown/	17-	25-	60-	65-	70-	75-	80-	85+	Total
	under17	24	59	64	69	74	79	84		
Involved	548	1,816	4,372	451	344	277	232	146	88	6623
Responsible	290	1,201	2,297	192	163	150	131	104	64	4555
Proportion	53%	66%	53%	43%	47%	54%	56%	71%	73%	69%
responsible										

Source: PSNI Road Traffic Collision statistics

Note: Totals may not add as more than one driver can be involved in a collision

^{*}licence data is based on a lift provided from DVA on 31/12/2019

Distance Travelled

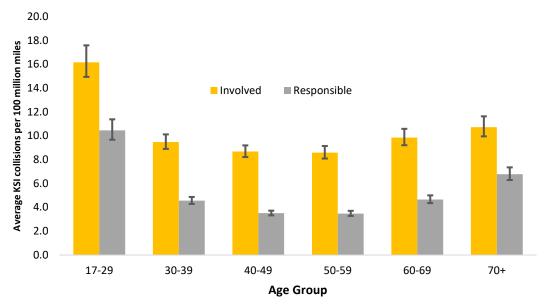
Table 7: Average distance travelled (miles) by car driver mode of travel¹ by age group and gender 2014-2018 - Persons aged 17+ who hold a full car driving licence²

	17-29	30-39	40-49	50-59	60-69	70+	All aged 17+
Male	5,270	6,406	7,205	6,217	4,927	3,764	5,711
Female	5,244	5,981	6,089	5,167	3,210	2,122	4,851
All persons	5,255	6,169	6,609	5,674	4,112	3,030	5,268

Source: Travel Survey for Northern Ireland

Older drivers having an increased collision risk on the roads is supported by the driving exposure analysis in figure 7. The data show that both younger drivers (aged 17-29) and older drivers (aged 70+) are a higher risk of being responsible for a KSI collision per miles driven than any other age groups, 10.5 and 6.8 for 17-29 and 70+ respectively. There were no significant differences between the groups aged from 30 to 69 for being involved in or responsible for a KSI collision. Younger drivers were the most likely to be involved in a KSI collision per miles driven (16.2) and were the only group to demonstrate a significant difference between any other group.

Figure 7: Average KSI collisions per 100 million miles travelled, 2014-2018



Note: Error bars calculated at 95% confidence interval

Source: PSNI Road Traffic Collision statistics, Travel Survey for Northern Ireland

Note: In order to make data comparable with Travel Survey for NI the above age groups have been used.

Aged 70 and over only, 2014-2018

Concentrating on those aged 70 and over, the Travel Survey for Northern Ireland shows that those aged 70 and over had the lowest average distance travelled by car driver mode of travel of all age groups. The data shows that female car drivers travelled less distance on average than their male equivalents (males travelled on average 1,642 more miles than females) and this is also reflected in

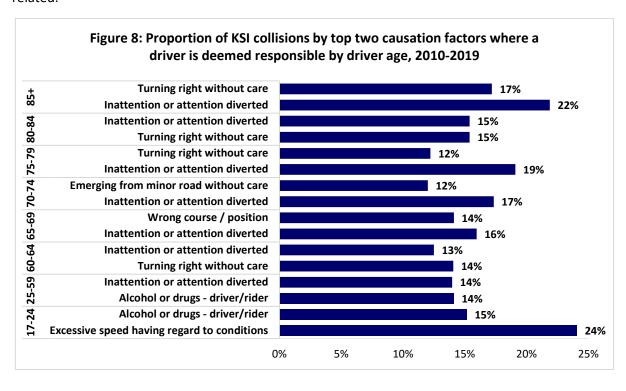
¹ Mode of travel is the form of transport used for a stage of a journey. For example, if a journey consisted of 2 stages, a 5 mile drive in a car to a train station Park 'n' Ride followed by a 15 mile train journey, 5 miles would be assigned to the "car driver" mode of travel and 15 miles to the "NI Railways" mode of travel.

² Analysis includes only persons aged 17+ who held a full car driving licence.

the proportion of older driver KSIs. Female drivers accounted for 44.4 per cent, and males 55.6 per cent, of all older drivers who were killed or seriously injured.

Causation

Figure 8 below demonstrates that the top two causation factors of a collision vary depending on the age of the driver; while younger drivers' collisions are more likely to be caused by speed and drink driving, older driver collisions are more likely to be attributed to careless driving. In particular, inattention and turning right at junctions appear to represent a high collision risk for older drivers. It is recognised that the group '25 to 59 years' covers a wider age range, however, for this set of drivers deemed responsible for a collision, the top two factors were alcohol and careless driving related.



Day of Week/Time of Day

For all drivers, the greatest number of KSIs occurred on a Friday followed by Saturday then Tuesday, the total for these three days accounted for 45 per cent of all driver KSI casualties. The highest number of driver KSIs were reported between 4 and 6pm, this would coincide with those commuting home from work. There were a total of 107 driver KSIs reported between 4 and 6pm on a Friday, this was the most common time period for driver KSIs.

Table 8: All drivers killed or seriously injured by time of day and day of week, 2010-2019

	0001- 0200	0201- 0400	0401- 0600	0601- 0800	0801- 1000	1001- 1200	1201- 1400	1401- 1600	1601- 1800	1801- 2000	2001- 2200	2201- 2400	Total
MON	27	15	5	42	59	34	39	66	63	44	29	25	448
TUE	14	10	5	37	57	34	56	47	67	65	42	27	461
WED	18	9	7	41	46	39	35	53	76	39	58	36	457
THU	15	12	14	27	48	35	44	44	68	59	35	21	422
FRI	12	9	8	42	58	28	46	64	107	42	52	35	503
SAT	24	33	13	24	46	61	46	68	65	39	47	27	493
SUN	40	46	21	15	22	37	45	46	62	44	50	27	455
Total	150	134	73	228	336	268	311	388	508	332	313	198	3239

<u>Key</u>

Hours highlighted in light blue have a lower number of casualties

Source: PSNI Road Traffic Collision statistics

The peak time for driver KSI casualties when focusing on those drivers aged 70 and over occurred between 2 and 4pm; the highest number of driver KSIs occurred between 2 and 4pm on a Wednesday. However, the day that reported the highest number of driver casualties was Tuesday (17 per cent) followed by Monday (16 per cent).

Table 9: Older drivers (aged 70 and over) killed or seriously injured by time of day and day of week, 2010-2019

	0001- 0200	0201- 0400	0401- 0600	0601- 0800	0801- 1000	1001- 1200	1201- 1400	1401- 1600	1601- 1800	1801- 2000	2001- 2200	2201- 2400	Total
MON	0	0	1	0	6	9	11	13	7	5	2	3	57
TUE	0	0	0	0	4	9	12	12	12	6	5	1	61
WED	0	0	0	1	6	10	5	16	4	3	3	2	50
THU	0	0	0	0	0	6	14	13	8	5	5	1	52
FRI	0	1	0	0	1	9	8	11	13	4	1	1	49
SAT	0	0	0	2	5	10	9	10	8	6	3	0	53
SUN	1	0	0	0	2	4	11	8	5	6	3	0	40
Total	1	1	1	3	24	57	70	83	57	35	22	8	362

Kev

Hours highlighted in light blue have a lower number of casualties

Location

Nearly three fifths (59 per cent) of drivers killed or seriously injured aged 70 and over occurred on rural roads, 32 per cent on urban roads and 9 per cent on motorways or dual carriageways. This compared to 73 per cent - rural, 21 per cent - urban and 6 per cent - motorway/dual carriageway for those aged under 70 years. Comparing these two age groups it is noticeable the proportion aged 70+ killed or seriously injured on urban roads was greater than those aged under 70.

73
59
40
20
Rural Roads
Urban Roads
Motorway/Dual Carriageway

Aged Under 70 yrs
Aged 70 yrs and over

Figure 9: Proportion of drivers killed or seriously injured by age grouping and road type, 2010-2019

Source: PSNI Road Traffic Collision statistics

Urban/rural roads split by driver KSI and responsibility for collision, 2010-2019

There were 227 drivers aged 70 to 79 years killed or seriously injured on Northern Ireland roads between 2010 and 2019, the driver casualty was deemed responsible for 57 per cent of these, the comparable figures for 80+ drivers show there were 135 80+ driver KSIs and the driver casualty was deemed responsible for a higher proportion, 79 per cent. When reporting on different road types, the proportion for both older driver age groups deemed responsible for killed or seriously injured casualties were both highest on motorways / dual carriageways with 76% and 88% for 70-79 and 80+ respectively.

Table 10: Number of killed or seriously injured drivers (split by responsibility), by road type and age group, 2010-2019

Road Type	70 to 79	70 to 79	Percentage	80+	80+	Percentage
	Involved	Responsible	Responsible	Involved	Responsible	Responsible
Rural	145	77	53%	68	50	74%
Urban	65	39	60%	51	42	82%
Motorway / Dual	17	13	76%	16	14	88%
Carriageway						
Total	227	129	57%	135	106	79%

Source: PSNI Road Traffic Collision statistics

Location of driver KSIs split by type of junction, 2010-2019

Over half (55%) of driver KSIs occur "Not at or within 20m of a junction", but this varies by age with 57% of KSIs for those aged under 70 and 38% for those aged 70 and over. "Not at or within 20m of a junction" is the single highest proportion for KSIs for each age group, except for those aged 85 and over, where the highest proportion (40%) of KSIs occur at a "T or staggered junction". Nearly a third

(32%) of older driver (70 and over) KSIs occurred at a "T or staggered junction", which is greater than the 23% of all driver KSIs that occurred at this type of junction.

Table 11: Percentage of KSI casualties by junction type and age band 2010-2019

Junction Type	17-24	25-59	60-64	65-69	70-74	75-79	80-84	85+	Total	Under 70	70+
Not at or within	63%	56%	44%	49%	42%	41%	35%	28%	55%	57%	38%
20 m of a junction											
Roundabout	2%	2%	1%	2%	3%	0%	1%	2%	2%	2%	1%
Mini-roundabout	0%	0%	1%	0%	0%	0%	1%	2%	0%	0%	1%
Crossroads	5%	8%	10%	7%	11%	13%	7%	15%	8%	7%	12%
Multiple Junction	1%	1%	1%	2%	0%	0%	2%	2%	1%	1%	1%
Slip road	1%	1%	1%	1%	4%	4%	2%	0%	1%	1%	3%
Private drive /	10%	8%	13%	6%	11%	12%	17%	11%	10%	9%	13%
entrance											
T or staggered	18%	23%	28%	34%	29%	31%	33%	40%	23%	22%	32%
Junction											

Source: PSNI Road Traffic Collision statistics

Location of older driver KSIs split by Local Government District, 2010-2019

The highest rate of fatalities (36.7) occurred in Causeway Coast & Glens, while the highest number of serious injuries (224.2) occurred in Newry, Mourne & Down. The highest rate of KSIs (254.1) occurred in Newry, Mourne & Down. There were no older driver fatalities in Mid & East Antrim and the lowest rates for serious injuries and KSIs occurred in Belfast with 86.7 and 92.1 respectively.

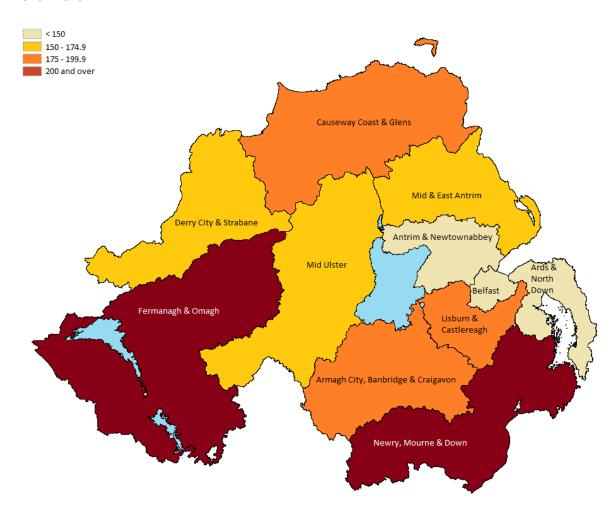
Table 12: Number and rate of fatalities and serious injuries by local government district, 2010-2019

		Serious		Population aged 70	Fatalities	Serious Injuries	KSI
Local Government District	Fatalities	Injuries	KSI	and over	Rate*	Rate*	Rate*
Antrim & Newtownabbey	5	19	24	17,269	29.0	110.0	139.0
Ards & North Down	2	25	27	24,835	8.1	100.7	108.7
Armagh Banbridge &							
Craigavon	6	38	44	23,962	25.0	158.6	183.6
Belfast	2	32	34	36,923	5.4	86.7	92.1
Causeway Coast & Glens	7	28	35	19,063	36.7	146.9	183.6
Derry & Strabane	2	23	25	15,806	12.7	145.5	158.2
Fermanagh & Omagh	5	28	33	13,964	35.8	200.5	236.3
Lisburn & Castlereagh	2	33	35	18,589	10.8	177.5	188.3
Mid & East Antrim	0	30	30	19,139	0.0	156.7	156.7
Mid Ulster	3	21	24	15,229	19.7	137.9	157.6
Newry, Mourne & Down	6	45	51	20,072	29.9	224.2	254.1
TOTAL	40	322	362	224,851	17.8	143.2	161.0

Source: PSNI Road Traffic Casualty Statistics, NISRA Mid-Year Population Estimates (2019)

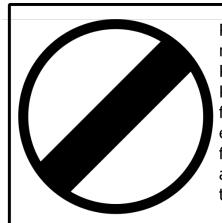
^{*} Rate is calculated per 100,000 resident population aged 70 and over





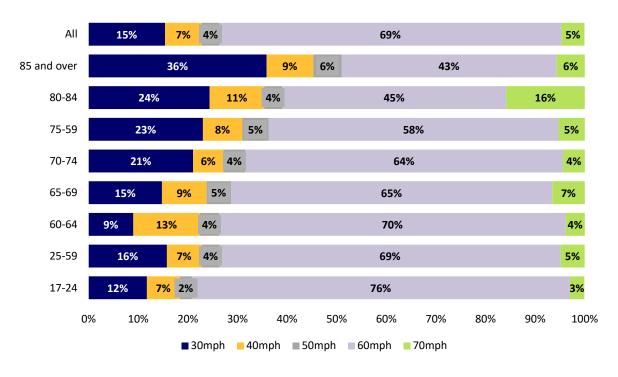
Speed Limit

A quarter (25%) of older driver (aged 70 and over) KSI casualties occurred on roads where the speed limit was 30mph between 2010 and 2019, which is higher than the 14% of KSI casualties for those aged under 70. It is also worth noting that the percentage of KSI casualties that occurred on 30mph roads increases with age for those aged over 70, with 36% of KSI casualties for those aged 85 and over occurring on 30mph roads.



Roads where the speed limit was 60 mph had the highest proportion of KSIs, accounting for 69% of all KSIs. These roads also accounted for the highest proportion of KSI for every single age group; ranging from 43% of KSIs of those aged 85 and over, to 76% of those aged 17 to 24.

Figure 10: Proportion of drivers killed or seriously injured by age grouping and speed limit of road, 2010-2019



Key Performance Indicator 8: Rate of people aged over 70 killed or seriously injured in road collisions per 100,000 population aged over 70.

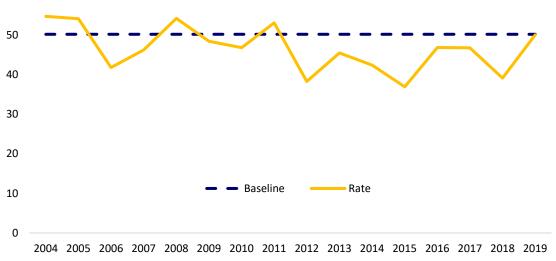
In 2019, there were 104 people aged over 70 who were killed or seriously injured in road traffic collisions in Northern Ireland. This number is the highest recorded in the series and represents a 32% increase since 2018, when 79 were recorded. Car users accounted for over three-fifths (63%) of the KSI casualties of people aged over 70 in 2019 – this is similar to the proportion for all ages (58%). Pedestrian KSIs were over-represented among the over 70s; just over three-in-ten (31%) of the KSI casualties of people aged over 70 in 2019 were pedestrians, compared to only 21% for KSI casualties of all ages. In addition, female KSI casualties were over-represented also among the over 70s: over half (51%) of KSI casualties aged over 70 were female, compared with 37% of all KSI casualties.

Population data is used to calculate the KSI rate for this indicator, and it shows that, in 2019, there were 50.1 people aged over 70 who were killed or seriously injured in road collisions, per 100,000 population aged over 70 years, the highest this rate has been since 2011. Although the number of people over 70 killed or seriously injured in 2019 (104) was 33% greater than the baseline figure (78), due to the growth in this population group over the last decade, the 2019 rate equates to approximately the same as that recorded for the baseline (50.2).

Figure 11: Rate of people aged over 70 killed or seriously injured in road collisions per 100,000 population aged over 70, 2004-2019

60

50



Source: PSNI Road Traffic Casualty Statistics, NISRA Mid-Year Population Estimates

This series has been particularly volatile across the whole reporting period, regularly moving above and below the baseline up to 2012 where it has then remained below, albeit by just 0.2 in 2019. It is useful, therefore, to look at Figure 12 which plots the rates based on a five year rolling average. The chart shows that the underlying trend remained just on or below the baseline until 2007-2011. After that, it moved gradually downwards, averaging 16% below baseline in the 2012-2016 five year period. Since then, there have been small increases and decreases in the rate, to the current figure of 44.1 recorded in 2015-2019, which is 12% lower than the baseline.

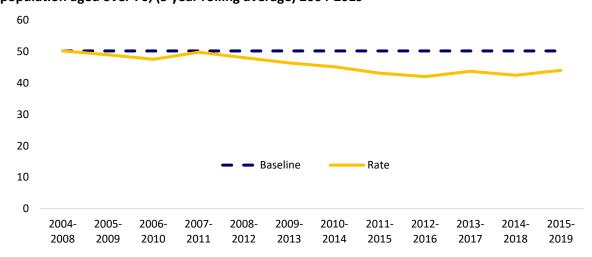


Figure 12: Rate of people aged over 70 killed or seriously injured in road collisions per 100,000 population aged over 70, (5 year rolling average) 2004-2019

Source: PSNI Road Traffic Casualty Statistics, NISRA Mid-Year Population Estimates

2019 Position

There were 56 road user fatalities and 774 serious injuries on Northern Ireland roads in 2019. Drivers of motor vehicles accounted for 26 fatalities (46 per cent) and 318 serious injuries (41 per cent), they were the single largest casualty class in 2019, accounting for the greatest proportion (42 per cent) of all people killed or seriously injured. This is the highest proportion of driver fatalities reported in the ten year period to 2019.

In 2019, drivers aged 70 years and over accounted for 27 per cent (7) of driver fatalities and 15 per cent (48) of serious injuries.

Conclusion

Although the number of all driver KSIs declined between 2010 and 2015 from 353 to 285, they increased to 384 in 2016. The number of KSI fell to 334 in 2017 and remained fairly stable to 2019. The number of older driver KSIs (aged 70 and over) have fluctuated over the period, but have shown an increase in recent years, more than doubling between 2015 and 2019. Indeed the highest proportion (16%) of older driver KSIs in 2010 to 2019 occurred in 2019.

One of the main conclusions that can be drawn from the data, as evidenced by the number of KSI collisions per 100 million miles driven (Figure 7) is that the risk of being in a fatal or serious collision is greater for those aged 70 and over and younger drivers aged 17-29 than for any other age groups. Responsibility was a particular factor for those aged 70 years and over, who were deemed responsible for the second greatest proportion of collisions per 100 million miles driven in which they were involved, second only to 17-29 year olds. There is no statistically significant difference in risk across the 30-39 to 60-69 age groups.

The risk of older drivers in collision responsibility is further evidenced by their overrepresentation in the comparison of collision responsibility and licences held. Although, young drivers (17 to 24) are the most risky driver age group on the roads according to these data (Figure 5), data would also infer

that drivers aged 70 and over are also at an increased risk and in particular, those aged 80 and over are a greater risk than those aged 70 to 79: In the same comparison of collision responsibility and licences held, we can see that as age increases beyond 70, drivers are responsible for greater proportions of KSI collisions; drivers aged 80 and over were overrepresented, and could therefore be considered a higher risk group. However, it is important to note that the fatality numbers are low for these older age groups. In addition, it may be the case that people hold a driving licence but no longer use it. This is more likely the case for older drivers, and for this reason, conclusions can't be drawn from these data alone. Rather, the comparison of KSIs per 100 million miles driven is a much better indicator of risk, and data relating to licences held then used to supplement it.

Collisions by age show two different developments in causation factors; speeding or driving under the influence of alcohol decline with age, whereas offences due to driving carelessness increase. In particular, inattention and junctions appear to represent a high collision risk for older drivers.

Urban roads proved more hazardous for 70 and over drivers compared to those drivers aged below 70, as 32 per cent of drivers aged over 70 were killed or seriously injured on urban roads compared to 21 per cent of those drivers aged below 70. This is further demonstrated in the map at the beginning of the report, as there appears to be a greater prevalence of 70+ driver fatalities in the urban east of the province as opposed to the more rural areas in the west. When examining the split of older driver KSIs by road type, it was found drivers aged 80 years and over were held responsible for a higher proportion of fatalities and serious injuries than those aged 70-79 years on all type of roads.

Appendix

A1: Road User fatalities and proportion of all road user fatalities that are drivers, 2010-2019

Year	All road Users	Drivers (number)	Drivers (proportion)
2010	55	21	38%
2011	59	23	39%
2012	48	21	44%
2013	57	22	39%
2014	79	30	38%
2015	74	31	42%
2016	68	31	46%
2017	63	25	40%
2018	55	23	42%
2019	56	26	46%
Total	614	253	41%

Source: Police Service of Northern Ireland Road Traffic Collision Data

A2: Road User serious injuries and proportion of all road user serious injuries that are drivers, 2010-2019

	All Road		Drivers
Year	Users	Drivers (number)	(proportion)
2010	892	332	37%
2011	825	295	36%
2012	795	294	37%
2013	720	271	38%
2014	710	263	37%
2015	711	254	36%
2016	828	353	43%
2017	778	309	40%
2018	730	297	41%
2019	774	318	41%
Total	7,763	2,986	38%

Source: Police Service of Northern Ireland Road Traffic Collision Data

A3: Older driver fatalities by age group (70 and over)

Age	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010-2019
70-74	0	2	0	1	0	1	1	0	0	2	7
75-79	0	1	1	2	0	0	4	1	1	3	13
80-84	2	0	2	0	6	3	0	0	1	1	15
85+	1	0	1	0	0	0	0	0	2	1	5
Total	3	3	4	3	6	4	5	1	4	7	40

Source: Police Service of Northern Ireland Road Traffic Collision Data

A4: Older Driver serious injuries by age group (70 and over)

Age	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010-2019
70-74	7	6	8	15	9	7	17	15	8	15	107
75-79	10	10	4	7	8	10	11	13	12	15	100
80-84	9	7	4	4	5	3	11	9	7	8	67
85+	5	8	4	6	0	3	2	5	5	10	48
Total	31	31	20	32	22	23	41	42	32	48	322

Source: Police Service of Northern Ireland Road Traffic Collision Data

A5: Driver KSIs aged 70 and over and all driver KSIs, 2010-2019

Age	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010-2019
70-74	7	8	8	16	9	8	18	15	8	17	114
75-79	10	11	5	9	8	10	15	14	13	18	113
80-84	11	7	6	4	11	6	11	9	8	9	82
85+	6	8	5	6	0	3	2	5	7	11	53
Total	34	34	24	35	28	27	46	43	36	55	362

Source: Police Service of Northern Ireland Road Traffic Collision Data

A6: Number and percentage of driver fatalities by age group, 70+ and others, 2010-2019

	Nur	nber	Perce	entage
Year	70 and over	Other Drivers	70 and over	Other Drivers
2010	3	18	14%	86%
2011	3	20	13%	87%
2012	4	17	19%	81%
2013	3	19	14%	86%
2014	6	24	20%	80%
2015	4	27	13%	87%
2016	5	26	16%	84%
2017	1	24	4%	96%
2018	4	19	17%	83%
2019	7	19	27%	73%
Total	40	213	16%	84%

Source: Police Service of Northern Ireland Road Traffic Collision Data

A7: Proportion of driver serious injuries by age group, 70+ and others, 2010-2019

	Nui	mber	Pero	entage
Year	70 and over	Other Drivers	70 and over	Other Drivers
2010	31	301	9%	91%
2011	31	264	11%	89%
2012	20	274	7%	93%
2013	32	239	12%	88%
2014	22	241	8%	92%
2015	23	231	9%	91%
2016	41	312	12%	88%
2017	42	267	14%	86%
2018	32	265	11%	89%
2019	48	270	15%	85%
Total	322	2,664	11%	89%

Source: Police Service of Northern Ireland Road Traffic Collision Data

A8: Number of fatalities, serious injuries where a driver has been deemed responsible by driver age group, 2010-2019 and number of full licences* by age group

Age Group	Fatalitie	es	Serious Inj	uries	Full Licences Held		
	Number	%	Number	%	Number	%	
unknown	4	1	309	6	0	0	
17-24	143	34	1,509	29	110,143	10	
25-59	199	47	2,619	50	709,354	63	
60-64	13	3	216	4	85,537	8	
65-69	15	4	179	3	71,204	6	
70-74	10	2	178	3	59,964	5	
75-59	13	3	145	3	43,314	4	
80-84	21	5	105	2	25,894	2	
85 and over	7	2	71	1	13,767	1	
Total	422	100	5,283	100	1,119,177	100	

Source: PSNI Road Traffic Collision statistics, NIDLS, DVA Driver Licensing

Unknown: Age of driver unknown, includes a small number where driver under 17 years old

Note: Totals may not add as more than one driver can be deemed responsible for a collision

A9: Number of KSI collisions where a driver is involved and those where they have been deemed responsible, 2010 – 2019

	Unknown									
		17-	25-	60-	65-	70-	75-	80-		
	under16	24	59	64	69	74	79	84	85+	Total
Involved	548	1,816	4,372	451	344	277	232	146	88	6,623
Responsible	290	1,201	2,297	192	163	150	131	104	64	4,555
Proportion responsible	53%	66%	53%	43%	47%	54%	56%	71%	73%	69%

^{*}licence data is based on an extract provided from DVA on 31/12/2019

A10: Average distance travelled by car driver mode of travel¹ by age group and gender 2014-2018 - Persons aged 17+ who hold a full car driving licence²

	17-29	30-39	40-49	50-59	60-69	70+	All aged 17+
Male	5,270	6,406	7,205	6,217	4,927	3,764	5,711
Female	5,244	5,981	6,089	5,167	3,210	2,122	4,851
All persons	5,255	6,169	6,609	5,674	4,112	3,030	5,268

Source: Travel Survey for Northern Ireland

A11: Average KSI collisions per 100 million miles travelled, 2014-2018

	Annual		KSI C	ollisions I	nvolved i	KSI Collisions Responsible for				
Age	Average miles	Population	Number	Rate	Upper	Lower	Number	Rate	Upper	Lower
17-29	5,255	307,753	261	16.2	17.6	14.9	169	10.5	11.4	9.7
30-39	6,169	249,405	146	9.5	10.1	8.9	70	4.6	4.9	4.3
40-49	6,609	243,631	140	8.7	9.2	8.2	57	3.5	3.7	3.3
50-59	5,674	254,013	124	8.6	9.1	8.1	50	3.5	3.7	3.3
60-69	4,112	192,023	78	9.9	10.6	9.2	37	4.7	5.0	4.4
70+	3,030	218,951	71	10.7	11.6	10.0	45	6.8	7.4	6.3

Source: PSNI Road Traffic Collision statistics, NIDLS, Travel Survey for Northern Ireland, NISRA mid-year Population estimates

Upper and lower rates are the Upper 95% confidence limit and Lower 95% confidence limit respectively

A12: Proportion of KSI collisions by top two causation factors where a driver is deemed responsible by driver age, 2010-2019

Age Band	Primary Factor for Collision	Percentage
17-24	Excessive speed having regard to conditions	24%
	Alcohol or drugs - driver/rider	15%
25-59	Alcohol or drugs - driver/rider	14%
	Inattention or attention diverted	14%
60-64	Turning right without care	14%
	Inattention or attention diverted	13%
65-69	Inattention or attention diverted	16%
	Wrong course / position	14%
70-74	Inattention or attention diverted	17%
	Emerging from minor road without care	12%
75-79	Inattention or attention diverted	19%
	Turning right without care	12%
80-84	Turning right without care	15%
	Inattention or attention diverted	15%
85+	Inattention or attention diverted	22%
	Turning right without care	17%

¹ Mode of travel is the form of transport used for a stage of a journey. For example, if a journey consisted of 2 stages, a 5 mile drive in a car to a train station Park 'n' Ride followed by a 15 mile train journey, 5 miles would be assigned to the "car driver" mode of travel and 15 miles to the "NI Railways" mode of travel.

² Analysis includes only persons aged 17+ who held a full car driving licence.

A13: All drivers killed or seriously injured by time of day and day of week, 2010-2019

	0001-	0201-	0401-	0601-	0801-	1001-	1201-	1401-	1601-	1801-	2001-	2201-	
	0200	0400	0600	0800	1000	1200	1400	1600	1800	2000	2200	2400	Total
MON	27	15	5	42	59	34	39	66	63	44	29	25	448
TUE	14	10	5	37	57	34	56	47	67	65	42	27	461
WED	18	9	7	41	46	39	35	53	76	39	58	36	457
THU	15	12	14	27	48	35	44	44	68	59	35	21	422
FRI	12	9	8	42	58	28	46	64	107	42	52	35	503
SAT	24	33	13	24	46	61	46	68	65	39	47	27	493
SUN	40	46	21	15	22	37	45	46	62	44	50	27	455
Total	150	134	73	228	336	268	311	388	508	332	313	198	3,239

Source: PSNI Road Traffic Collision statistics

A14: Older drivers (aged 70 and over) killed or seriously injured by time of day and day of week, 2010-2019

	0001- 0200	0201- 0400	0401- 0600	0601- 0800	0801- 1000	1001- 1200	1201- 1400	1401- 1600	1601- 1800	1801- 2000	2001- 2200	2201- 2400	Total
MON	0	0	1	0	6	9	11	13	7	5	2	3	57
TUE	0	0	0	0	4	9	12	12	12	6	5	1	61
WED	0	0	0	1	6	10	5	16	4	3	3	2	50
THU	0	0	0	0	0	6	14	13	8	5	5	1	52
FRI	0	1	0	0	1	9	8	11	13	4	1	1	49
SAT	0	0	0	2	5	10	9	10	8	6	3	0	53
SUN	1	0	0	0	2	4	11	8	5	6	3	0	40
Total	1	1	1	3	24	57	70	83	57	35	22	8	362

Source: PSNI Road Traffic Collision statistics

A15: Proportion of drivers killed or seriously injured by age grouping and road type, 2010-2019

	Nun	nber	Percentage		
Road Type	Aged 70 and over	Other Drivers	Aged 70 and over	Other Drivers	
Rural Roads	213	2,093	59%	73%	
Urban Roads	116	603	32%	21%	
Motorway/Dual C'way	33	181	9%	6%	
Total	362	2,877			

Source: PSNI Road Traffic Collision statistics

A16: Number of drivers killed or seriously injured drivers (split by responsibility), by road type and age group, 2010-2019

Road Type	70 to 79 Involved	70 to 79 Responsible	Percentage Responsible	80+ Involved	80+ Responsible	Percentage Responsible
Rural	145	77	53%	68	50	74%
Urban	65	39	60%	51	42	82%
Motorway / Dual C'way	17	13	76%	16	14	88%
Total	227	129	57%	135	106	79%

A17: Percentage of driver KSI casualties by junction type and age band 2010-2019

Junction Type	17-24	25-59	60-64	65-69	70-74	75-79	80-84	85+	Total	70+	Other
Not at or within	63%	56%	44%	49%	42%	41%	35%	28%	55%	38%	57%
20 m of a junction											
Roundabout	2%	2%	1%	2%	3%	0%	1%	2%	2%	1%	2%
Mini-roundabout	0%	0%	1%	0%	0%	0%	1%	2%	0%	1%	0%
Crossroads	5%	8%	10%	7%	11%	13%	7%	15%	8%	12%	7%
Multiple Junction	1%	1%	1%	2%	0%	0%	2%	2%	1%	1%	1%
Slip road	1%	1%	1%	1%	4%	4%	2%	0%	1%	3%	1%
Private drive /	10%	8%	13%	6%	11%	12%	17%	11%	10%	13%	9%
entrance											
T or staggered	18%	23%	28%	34%	29%	31%	33%	40%	23%	32%	22%
Junction											

Source: PSNI Road Traffic Collision statistics

A18: Number and rate of fatalities, serious injuries and KSIs by Local Government District, 2010-2019

Local Government District	Fatalities	Serious Injuries	KSI	Population aged 70 and over	Fatalities Rate*	Serious Injuries Rate*	KSI Rate*
Antrim & Newtownabbey	5	19	24	17,269	29.0	110.0	139.0
Ards & North Down	2	25	27	24,835	8.1	100.7	108.7
Armagh Banbridge &							
Craigavon	6	38	44	23,962	25.0	158.6	183.6
Belfast	2	32	34	36,923	5.4	86.7	92.1
Causeway Coast & Glens	7	28	35	19,063	36.7	146.9	183.6
Derry & Strabane	2	23	25	15,806	12.7	145.5	158.2
Fermanagh & Omagh	5	28	33	13,964	35.8	200.5	236.3
Lisburn & Castlereagh	2	33	35	18,589	10.8	177.5	188.3
Mid & East Antrim	0	30	30	19,139	0.0	156.7	156.7
Mid Ulster	3	21	24	15,229	19.7	137.9	157.6
Newry, Mourne & Down	6	45	51	20,072	29.9	224.2	254.1
TOTAL	40	322	362	224,851	17.8	143.2	161.0

Source: PSNI Road Traffic Casualty Statistics, NISRA Mid-Year Population Estimates (2019)

A19: Proportion of drivers killed or seriously injured by age grouping and speed limit of road, 2010-2019

	17-	25-	60-	65-	70-	75-	80-	85 and		over	
	24	59	64	69	74	59	84	over	Total	70	other
30mph	12%	16%	9%	15%	21%	23%	24%	36%	15%	25%	14%
40mph	7%	7%	13%	9%	6%	8%	11%	9%	7%	8%	7%
50mph	2%	4%	4%	5%	4%	5%	4%	6%	4%	5%	3%
60mph	76%	69%	70%	65%	64%	58%	45%	43%	69%	55%	71%
70mph	3%	5%	4%	7%	4%	5%	16%	6%	5%	7%	4%

^{*} Rate is calculated per 100,000 resident population aged 70 and over

A20a: Rate of people aged over 70 killed or seriously injured in road collisions per 100,000 population aged over 70, 2004-2019

Year	Persons aged over 70 KSIs	N.I. Population aged over 70 (100,000)	Number of KSIs Per 100,000 Population
		· · · · · · · · · · · · · · · · · · ·	
2004	83	1.52	54.8
2005	83	1.53	54.1
2006	65	1.55	41.8
2007	73	1.58	46.3
2008	87	1.6	54.2
2009	79	1.63	48.5
2010	78	1.67	46.8
2011	90	1.69	53.1
2012	66	1.72	38.3
2013	80	1.76	45.5
2014	77	1.82	42.4
2015	69	1.87	37.0
2016	90	1.92	46.9
2017	92	1.97	46.8
2018	79	2.02	39.2
2019	104	2.08	50.1

Source: PSNI Road Traffic Collision statistics, NISRA Mid-year population estimates

A20b: Rate of people aged over 70 killed or seriously injured in road collisions per 100,000 population aged over 70, (5 year rolling average) 2004-2019

Year	Persons aged over 70 KSIs	N.I. Population aged over 70 (100,000)	Number of KSIs Per 100,000 Population
2004-2008	78	1.56	50.2
2005-2009	77	1.58	49.0
2006-2010	76	1.61	47.6
2007-2011	81	1.63	49.8
2008-2012	80	1.66	48.1
2009-2013	79	1.69	46.4
2010-2014	78	1.73	45.2
2011-2015	76	1.77	43.1
2012-2016	76	1.82	42.1
2013-2017	82	1.87	43.7
2014-2018	81	1.92	42.5
2015-2019	87	1.97	44.1

Source: PSNI Road Traffic Collision statistics, NISRA Mid-year population estimates