Department for Transport

Older Car Drivers Road Safety Factsheet (2016)

May 2018

This factsheet gives key statistics for older car drivers (aged 70+) involved in police reported road collisions involving personal injury in Great Britain up to 2016 from STATS19 data. Older car drivers are a notable set of road users because of the ageing population and also the increase in older driving licence holders. The factsheet examines the main trends on reported road collisions involving at least one older car driver and the casualties involved in these collisions.

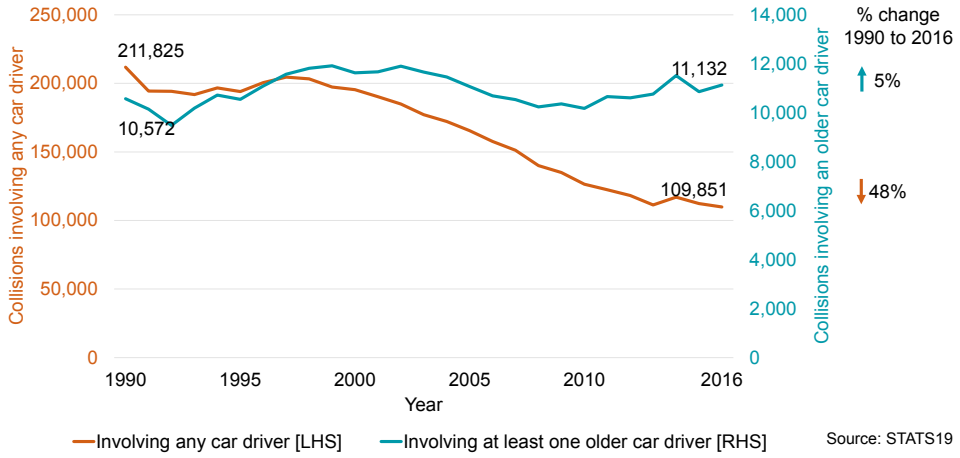
Definition of older car drivers

Within this factsheet, older people and older car drivers are defined as those aged over 70 years old.

Key findings

- **Older car drivers have a slightly lower casualty rate given distance travelled compared to all car drivers.** In 2016, there were 292 older car driver casualties per billion vehicle miles travelled in England, compared to 306 for all car drivers. In recent years the distance driven by older people in England has risen markedly (by 28 per cent) from 1,593 in 2002 to 2,045 in 2016 miles per person per year. **(Chart 13)**
- **Reported road collisions involving personal injury which involved at least one older car driver in Great Britain, and total casualties from these road collisions, increased** by 5 per cent and 7 per cent respectively from 1990 to 2016. However, over the same period, for all car drivers the number of collisions decreased by 48 per cent and casualties by 47 per cent. **(Chart 1 and Chart 8).** Older car driver casualties increased by 22 per cent from 4,327 casualties in 1990 to 5,276 casualties in 2016. **Chart 10**

Chart 1: Personal injury collisions involving at least one older car driver and total personal injury collisions involving any car driver, Great Britain: 1990 to 2016



- Males make up 67 per cent of older driver fatalities compared to females, however relative to the distance driven older female car drivers are more likely to be killed than male drivers. **(Chart 12)**
- In 2016 **72 per cent fatal casualties for older car drivers occurred on rural roads**; this proportion is slightly lower than for all car drivers (77 per cent). **(Chart 16)**
- **The riskiest times for older driver collisions are on weekdays between 4 pm and 8 pm, and in the early hours on any day between midnight and 4 am. However, compared to all drivers the early hours risk is considerably less. (Table 5)**
- **A larger proportion of older car drivers are allocated factors relating to 'driver failed to look properly', 'driver failed to judge other person's path or speed', 'poor turn or manoeuvre', 'loss of control' and 'driver illness or disability, mental or physical'**, compared to all car drivers. **(Table 7)**

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In this factsheet

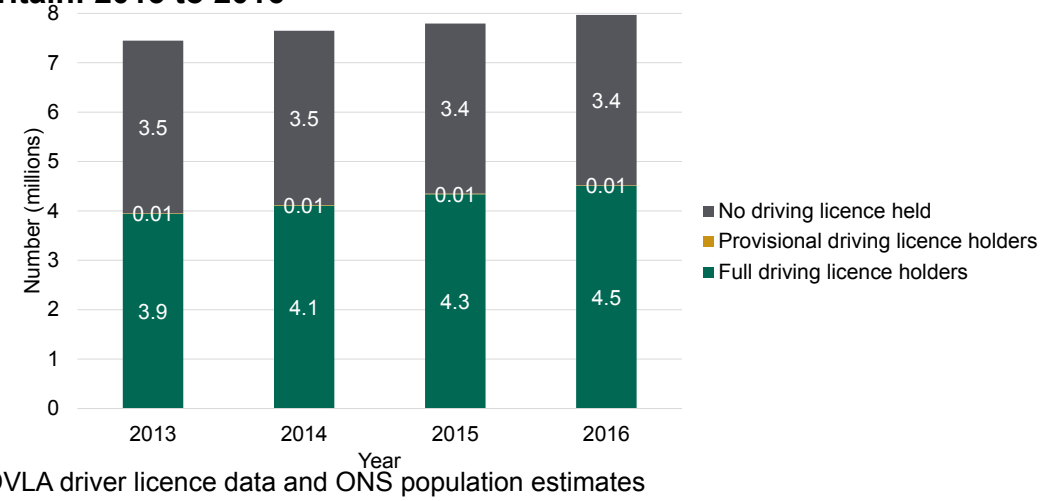
Older car drivers on the roads

Older driver numbers

In 2016 older people accounted for around 12 per cent of all full car driving licence holders in Great Britain. This is 4.5 million people or approximately 57 per cent of older people in Great Britain. An additional 12.8 thousand provisional driving licence holders are older people.

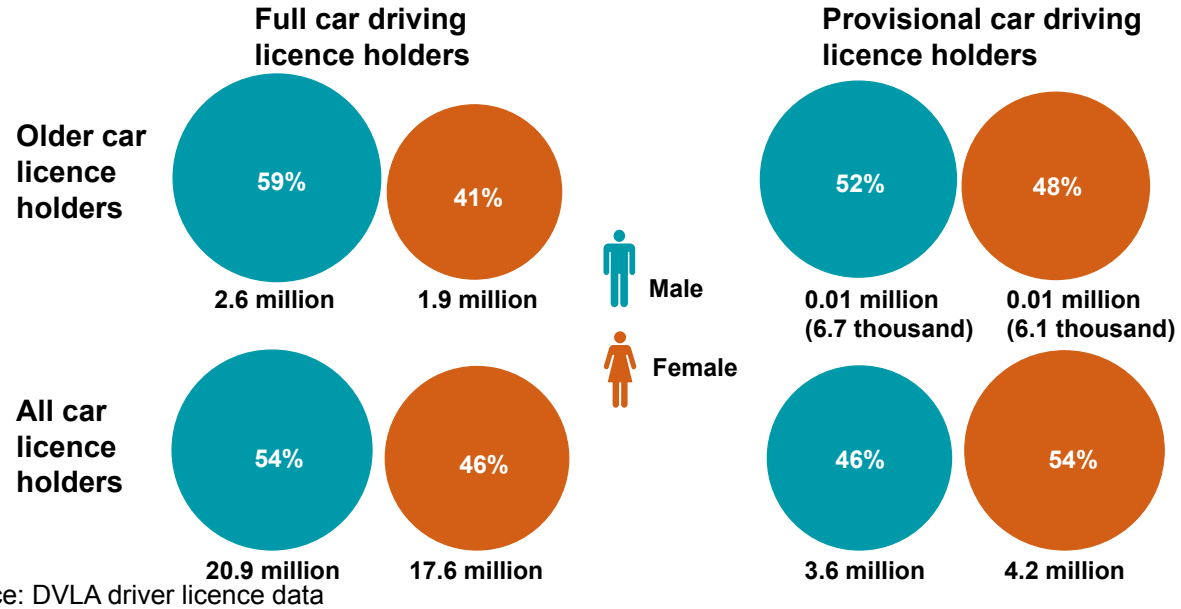
The number of older people holding full driving licences has been increasing in recent years. Between 2013 and 2016 the number of older people holding full driving licences rose by 14 per cent from 3.9 to 4.5 million, whilst the population for this age group increased by 7 per cent from 7.4 million to 8.0 million.

Chart 2: Number of older people (millions) with a full, provisional or no driving licence, Great Britain: 2013 to 2016



Source: DVLA driver licence data and ONS population estimates

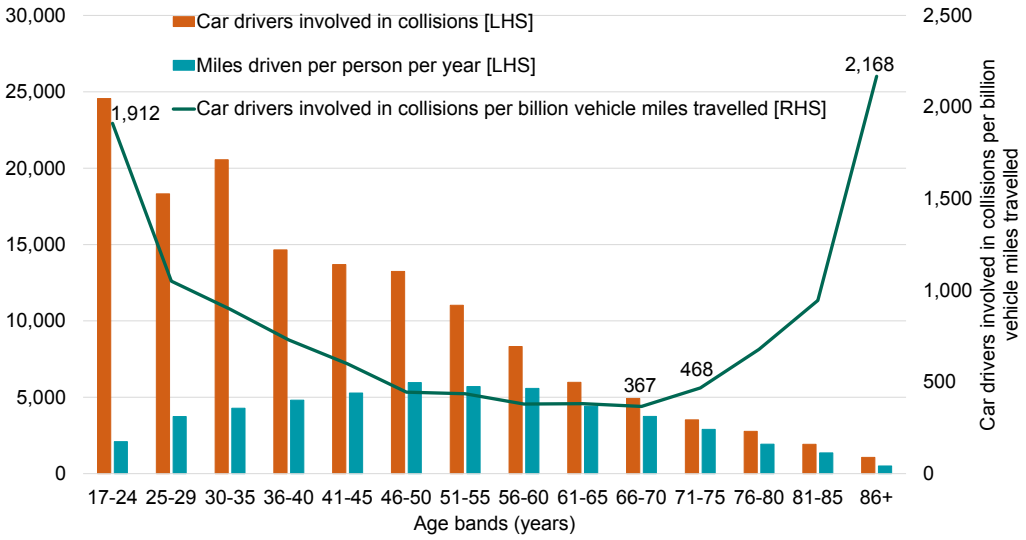
Chart 3: Full and provisional car driving licence holders for older car drivers and all car drivers by gender, Great Britain: 2016



Source: DVLA driver licence data

Car drivers involved in collisions

Chart 4: Number of car drivers involved in collisions, by age, miles driven per person and the rate of car drivers involved in collisions per billion vehicle miles travelled, England: 2016



Source: STATS19, National Travel Survey, and the National Road Traffic Census

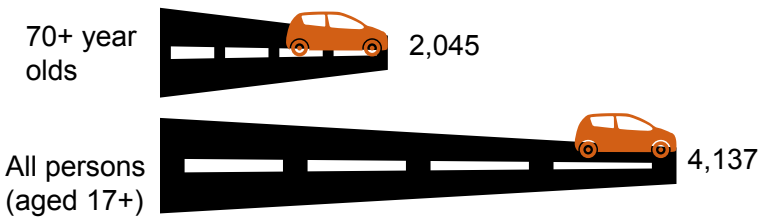
Calculation of rate

'Car drivers involved in collisions' ***divided by*** 'estimated distance travelled by car drivers' within each age band. The estimated distance travelled by age band is calculated using the total distance travelled by cars recorded in the National Road Traffic Census apportioned by the breakdown of total car mileage driven for persons in each age group as recorded in the National Travel Survey.

In 2016, the rate of car drivers involved in reported road collisions per billion vehicle miles travelled begins to increase with age for groups where car drivers are aged over 70 years old. In England, there were 468 car drivers aged 71 to 75 involved in reported road collisions per billion vehicle miles travelled, which is 28 per cent higher than the lowest rate for car drivers which is the 66 to 70 years old age group (367 car drivers per billion vehicle miles travelled). The rate increased markedly from the age group of 81 to 85 and is 2,168 car drivers per billion miles travelled for drivers aged 86 and over which is the highest of any age band.

Distance travelled

Chart 5: Miles driven per person, England: 2016



Source: National Travel Survey (NTS)

The NTS estimates that older people in England drive fewer miles than the average. On average in 2016, an older person drove 2,045 miles per year in comparison with 4,137 miles for all persons.

The NTS estimates that on average older male car drivers tend to travel slightly further than older female car drivers. In 2016 older males drove 73 per cent of relative car distance travelled compared to females who drove 27 per cent. **(Chart 12)**

Definition of journeys made

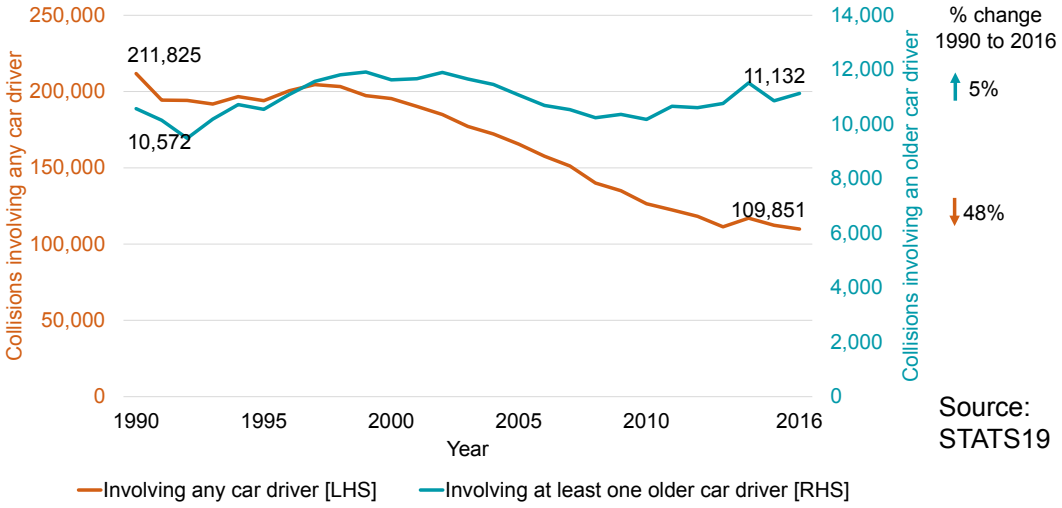
The National Travel Survey collects information about personal travel within Great Britain, by residents of private households in England, along the public highway. Travel off-road, or for commercial purposes (to deliver goods or passengers) is not included.

These figures relate to miles travelled where the mode of travel was "car/van driver". Miles per person per year are based on all the relevant people in the sample (i.e. all individuals aged 70+), whether or not they reported driving somewhere.

Collisions involving at least one older car driver

All collisions

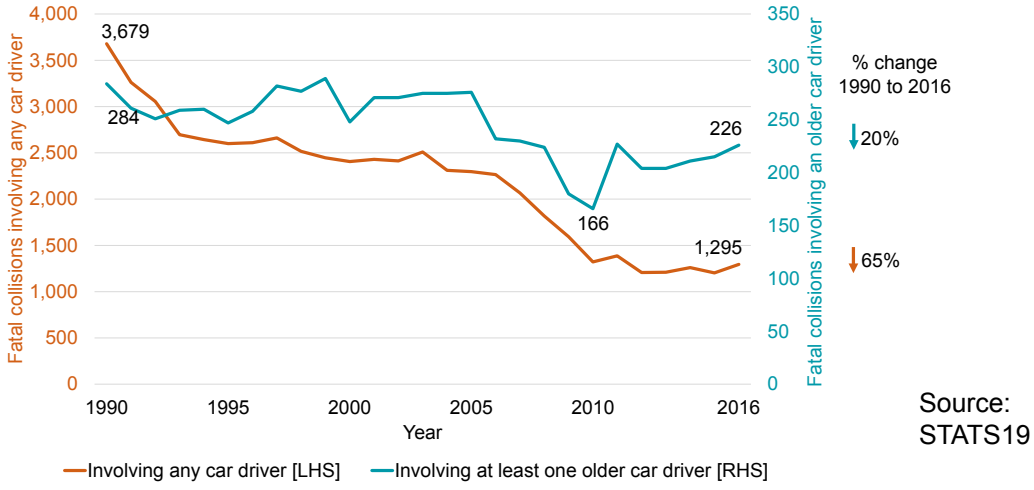
Chart 6: Personal injury collisions involving at least one older car driver and total personal injury collisions involving any car driver, Great Britain: 1990 to 2016



The total number of reported road injury collisions involving at least one older car driver in Great Britain has increased by 5 per cent since the 1990s, from 10,572 injury collisions in 1990 to 11,132 collisions in 2016. The total number of collisions involving any car driver has fallen by 48 per cent, from 211,825 collisions in 1990 to 109,851 collisions in 2016. The number of collisions involving at least one older car driver represented 10 per cent of all injury collisions involving any car driver in 2016, up from 5 per cent in 1990.

Fatal collisions

Chart 7: Fatal collisions involving at least one older car driver and total fatal collisions involving any car driver, Great Britain: 1990 to 2016



The number of fatal collisions involving at least one older car driver in Great Britain has fallen since the 1990s, from 284 fatal collisions in 1990, falling to its lowest in 2010 to 166 fatal collisions and then rising to 226 fatal collisions in 2016, overall a decrease of 20 per cent during this period. Over the same period, the number of fatal collisions involving any car driver fell by 65 per cent, from 3,679 fatal collisions to 1,295. The number of fatal collisions involving at least one older car driver represented 17 per cent of all fatal collisions involving any car driver in 2016, much higher than the 8 per cent for 1990.

Recording of personal injury road collisions in STATS19

STATS19 is the set of data which has to be collected by a Police Officer when an injury road collision is reported to them.

All road collisions involving human death or personal injury occurring on the highway and notified to the police within 30 days of occurrence, and in which one or more vehicles are involved, are to be reported.

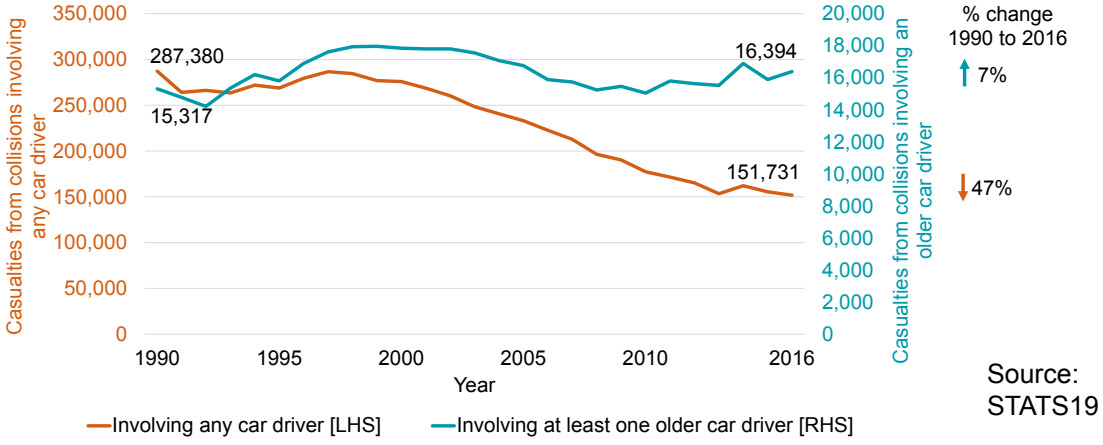
Collisions involving no injury or damage-only collisions are not reported in STATS19.

Within this factsheet, the totals for any car driver exclude about 1 per cent of collisions and casualties where the age is missing or unknown.

Casualties from collisions involving at least one older car driver

All casualties

Chart 8: All casualties from collisions involving at least one older car driver and total casualties from collisions involving any car driver, Great Britain: 1990 to 2016



Source: STATS19

Personal injury road casualties

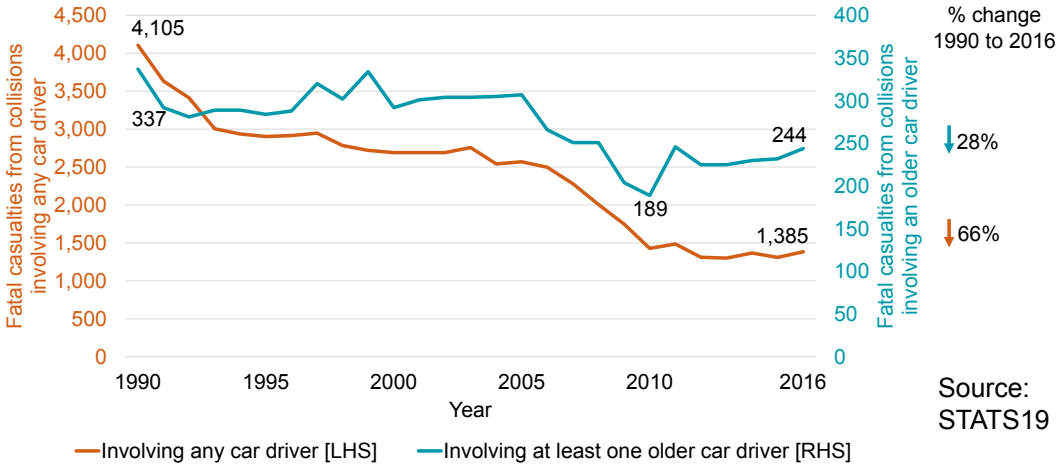
A person killed or injured in a collision. Casualties are sub-divided into killed, seriously injured and slightly injured.

A full list of the definitions used in this release can be found here.

The number of casualties from reported road collisions involving at least one older car driver in Great Britain has increased from 15,317 in 1990 to 16,394 in 2016, up 7 per cent. However, for the same period, casualties involving any car driver decreased by 47 per cent from 287,380 to 151,731. In 2016, the number of casualties involving at least one older car driver represented 11 per cent of casualties involving any car driver, an increase from 5 per cent in 1990.

Fatal casualties

Chart 9: Fatal casualties from collisions involving at least one older car driver and total fatal casualties from collisions involving any car driver, Great Britain: 1990 to 2016

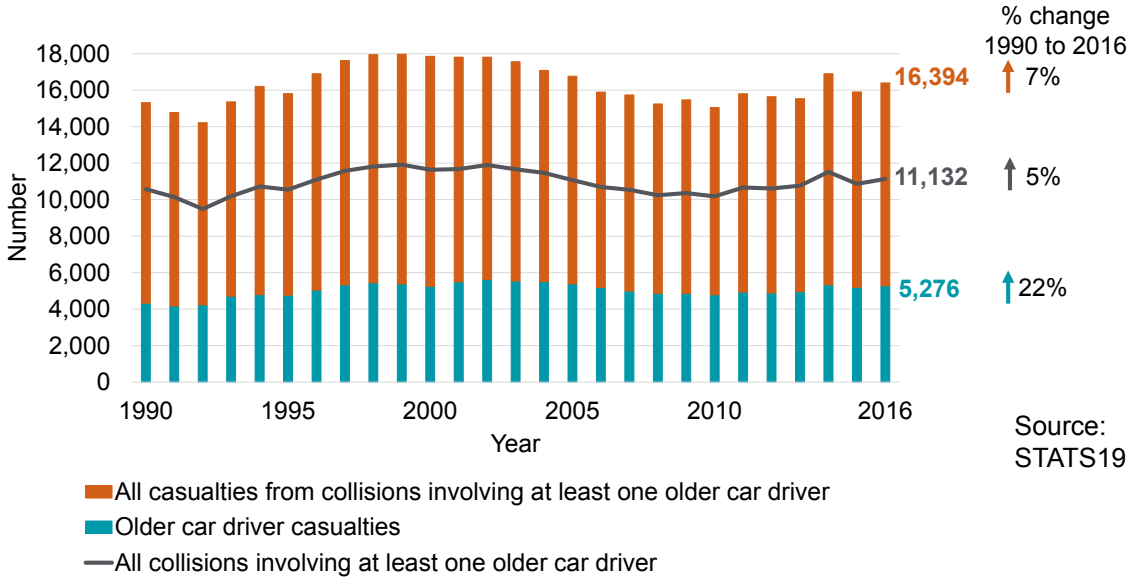


Source: STATS19

The number of fatal casualties from reported road collisions involving at least one older car driver in Great Britain decreased from 337 in 1990 to its lowest in 2010 with 189 fatal casualties and then rising to 244 in 2016, overall a decrease of 28 per cent during this period. The number of fatal casualties involving any car driver also fell during this period, by 66 per cent from 4,105 to 1,385 fatal casualties in 2016. The number of fatal casualties in 2016 involving at least one older car driver represented 18 per cent of fatal casualties involving any car driver, which is an increase from 8 per cent in 1990.

All collisions and casualties

Chart 10: Total collisions involving an older car driver, casualties from these collisions and older car driver casualties, Great Britain: 1990 to 2016



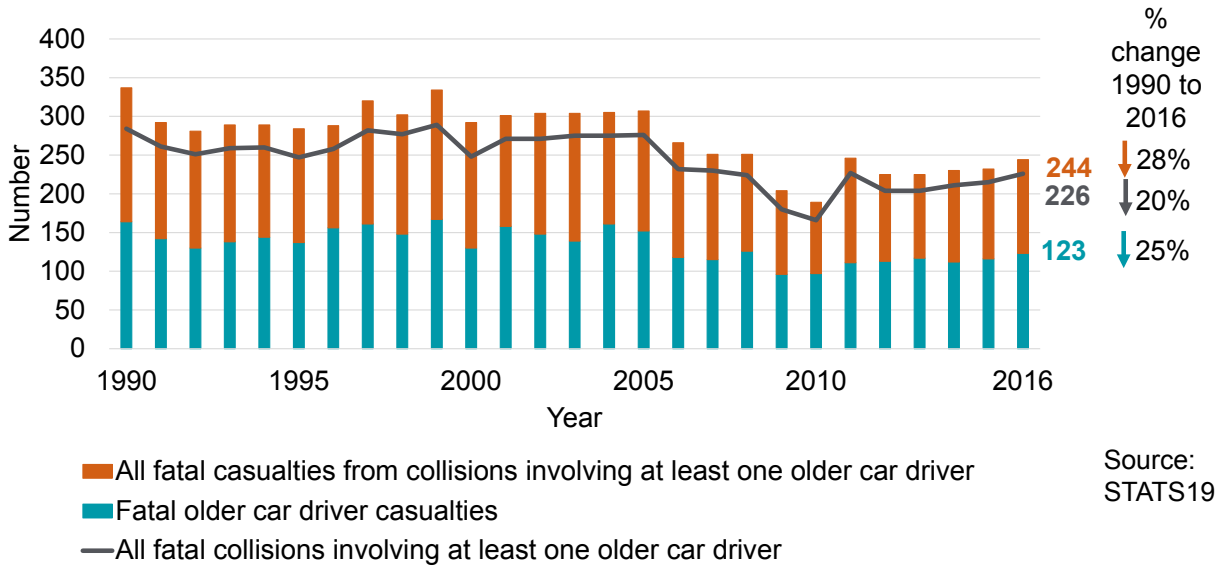
The number of older car driver casualties have increased by 22 per cent from 4,327 casualties in 1990 to 5,276 casualties in 2016. These casualties represented 32 per cent of all casualties for collisions involving an older car driver in 2016, higher than the proportion in 1990 which was 28 per cent.

For injury collisions involving at least one older car driver, the proportion of casualties per collision, has increased very slightly to a ratio of 1.47 casualties per collision in 2016 from 1.45 in 1990. Also, the number of collisions involving at least one older car driver has risen over the years.

Over the period 1990 to 2016, older car driver casualties as a share of all car driver casualties in Great Britain increased from 4 per cent to 7 per cent.

Fatal collisions and casualties

Chart 11: Fatal collisions involving an older car driver, fatal casualties from these collisions and fatal older car driver casualties, Great Britain: 1990 to 2016



Source: STATS19

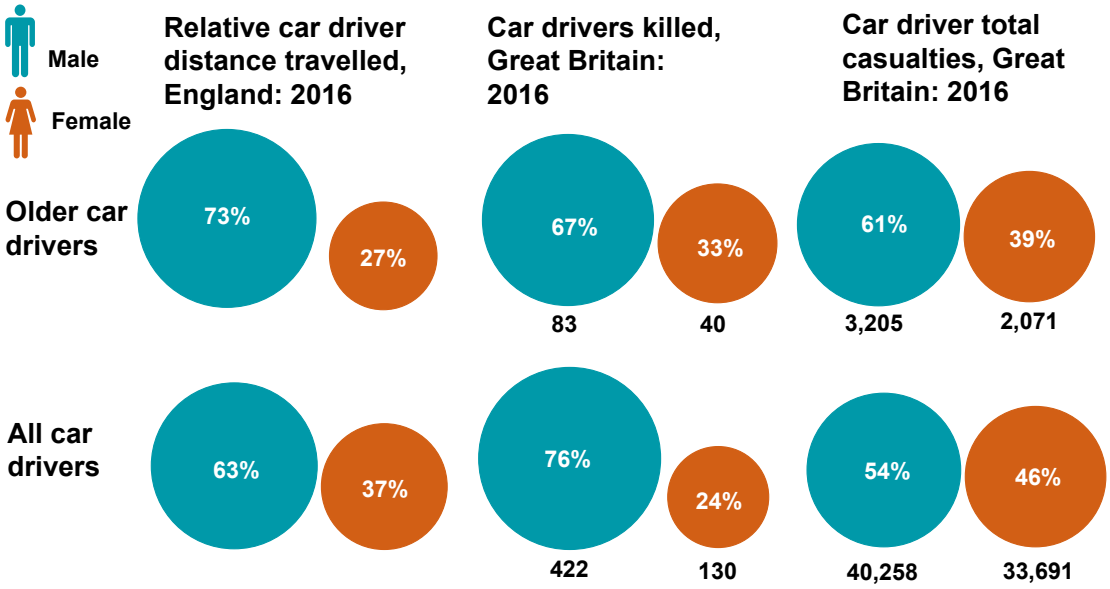
The trend in the number of fatal casualties from collisions involving an older car driver has been flat in the last five years having declined since 1990, with a slight fall in 2010. There are slightly less fatal casualties per collision for collisions involving at least one older car driver with a ratio of 1.08 fatal casualties per fatal accident in 2016 compared to 1.19 in 1990. In 2016 the number of fatal collisions involving at least one older car driver compared to 1990 fell by a slightly lower percentage (by 20 per cent from 284 to 226) than for the number of fatal casualties from these fatal collisions (fallen by 28 per cent from 337 to 244).

For fatal collisions involving an older car driver, the number of older car driver fatal casualties have fallen by 25 per cent from 164 in 1990 to 123 in 2016. The number of older car driver fatal casualties represents 50 per cent of fatal casualties involving an older car driver in 2016, similar to the 49 per cent in 1990.

The total number of car driver fatal casualties for all car drivers in Great Britain has fallen since the 1990s, from a high of 1,426 in 1990 to 552 in 2016, down 61 per cent. Older car driver fatal casualties have increased to 22 per cent of all car driver fatal casualties in 2016, up from 12 per cent in 1990.

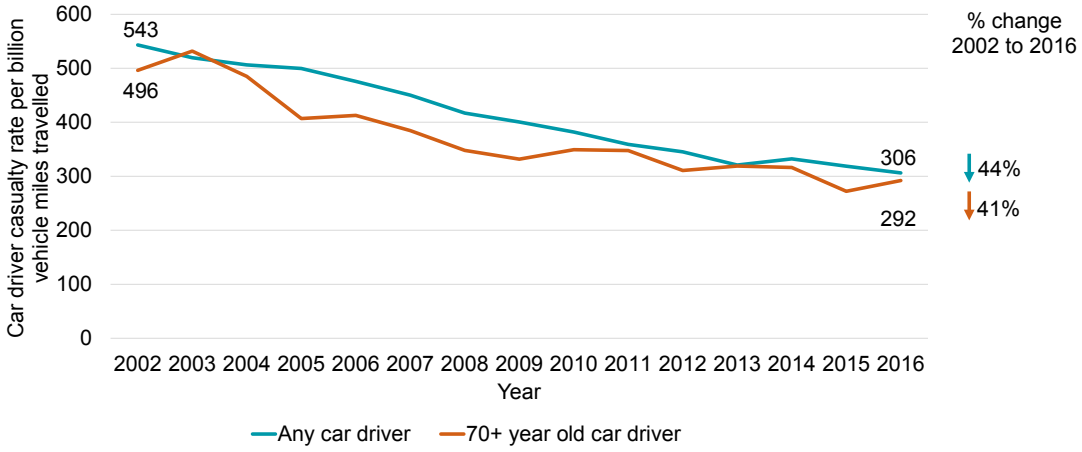
Older car driver casualties by gender

Chart 12: Older and all car drivers by gender, 2016



Relative car driver distance travelled by males aged 70 years and over is higher than for females which suggests that older female car drivers are more likely to be injured or killed than male drivers per mile driven. In 2016, males accounted for a considerably higher proportion of older car driver fatalities with two-thirds (67 per cent) of all older car driver fatalities. The gender split for total casualties is similar to those with fatal casualties, although slightly lower for males (61 per cent).

Chart 13: Car driver casualty rate per billion vehicle miles travelled, England: 2002 to 2016



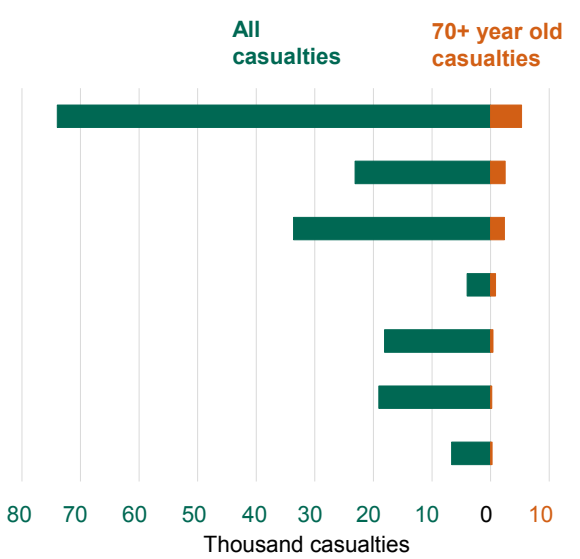
Source: STATS19, the NTS, and the National Road Traffic Census

Older car drivers have a lower casualty rate given distance travelled compared to all car drivers. In 2016, there were 292 older car driver casualties per billion vehicle miles travelled in England, which is a decrease of 41 per cent from 496 in 2002. During this same time the total miles driven per person per year by older people rose from 1,593 to 2,045 miles.

The car driver casualty rate per billion vehicle miles travelled for all car drivers has also decreased, by 44 per cent. In 2016, there were 306 car driver casualties per billion vehicle miles travelled for all car drivers, this is a decrease from 543 in 2002.

Older car drivers (aged 70+) casualties compared with other road users of the same age

Chart 14: Total casualties for 70+ year olds by road user type, Great Britain: 2016



Road user type	Casualties of 70+ year olds as a proportion of all casualties
Car Drivers	7%
Pedestrians	11%
Car Passengers	7%
Bus or coach occupants	21%
Pedal cyclists	2%
Motorcyclists	1%
Other	4%

Source: STATS19

In 2016, the road user group with the largest proportion of casualties for older people was bus or coach occupants, comprising 21 per cent of all bus or coach casualties. The next largest group was pedestrians with 11 per cent of all casualties, followed by both car drivers (7 per cent) and car passengers (7 per cent).

Table 1: Total casualties for 70+ year olds and for all ages by road user type, Great Britain: 2016

Road user type	Casualties of 70+ year olds	*Casualties of 70+ year olds as a proportion of all 70+ year old casualties*	All casualties[1]	*Casualties of all ages as a proportion of total casualties*
Car driver	5,276	*45%*	73,952	*41%*
Pedestrian	2,495	*21%*	23,129	*13%*
Car passenger	2,359	*20%*	33,628	*19%*
Bus or coach occupants	842	*7%*	3,998	*2%*
Pedal cyclist	394	*3%*	18,113	*10%*
Motorcyclist	209	*2%*	19,064	*11%*
Other	249	*2%*	6,654	*4%*
Total	**11,824**	*100%*	**178,538**	*100%*

1. Excludes casualties where age is missing or known

Source: STATS19

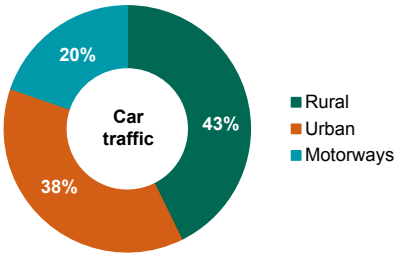
In 2016, car driver casualties accounted for the largest road user type for older people injured in reported road collisions, with 45 per cent. This proportion is higher than for all car driver casualties with 41 per cent of all casualties being car drivers. Older people are also more likely to be a pedestrian and bus or coach occupant casualty with 21 per cent and 7 per cent respectively of all casualties for older people. This compares to 13 per cent of all aged casualties being a pedestrian and 2 per cent a bus or coach occupant casualty. Older people have a similar proportion of car passenger casualties than all casualties, with 20 per cent and 19 per cent respectively.

Older people are less likely to be a pedal cyclist and motorcyclist casualty, with 3 per cent of casualties for older people being pedal cyclists and 2 per cent motorcyclists. For all ages these proportions were 10 per cent pedal cyclist casualties and 11 per cent motorcyclist casualties.

Traffic and casualties by road type

Chart 15: Reported car traffic (for drivers of all ages) by road type, Great Britain: 2016

In 2016, rural roads carried the majority of all car traffic in Great Britain (43 per cent) followed by urban roads (38 per cent) and motorways (20 per cent).

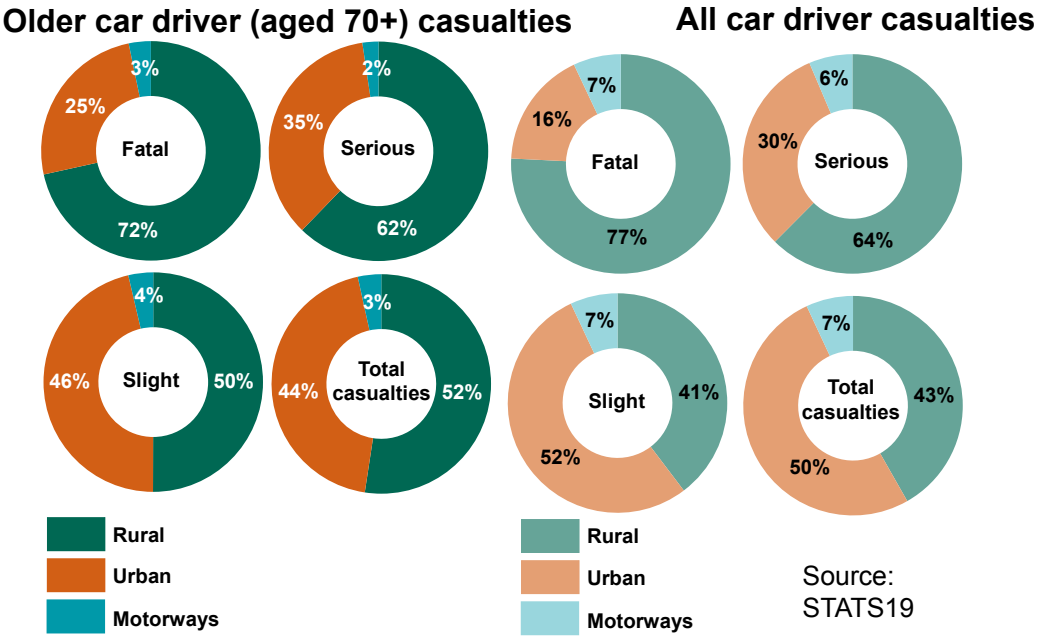


Source: National Road Traffic Census

Definition of traffic

Traffic refers to the total distance travelled by cars and taxis, measured in vehicle miles. This combines the number of cars and taxis on the road, and how far they travel. Traffic estimates for Great Britain are published here.

Chart 16: Older car driver (aged 70+) and all car driver casualties by severity and road type, Great Britain: 2016



Source: STATS19

Urban/rural definition

Urban roads are those within an area of population of 10,000 or more. The definition is based on the 2001 Communities and Local Government definition of Urban Settlements. Roads outside these areas will be classified as Rural. More information is available here.

In 2016, of the 123 older car driver fatalities, the majority (with 72 per cent) occurred on rural roads, 25 per cent on urban roads and 3 per cent on motorways. Collisions that occur on rural roads are more likely to be of a fatal nature in comparison with those on urban roads. The highest rates occur in rural areas. Rural roads will most likely have higher average speeds than urban roads. Rural roads are often more sinuous and narrow in nature, with blind bends, dips and other distractions. The proportion of fatal casualties on rural roads for older car drivers are slightly lower than for all car drivers (77 per cent).

Collisions at lower average speeds on urban roads are less likely to result in serious injuries (or no injuries at all). Consequently, slight casualties are more likely to occur on urban roads. In 2016, 46 per cent of older car driver slight casualties occurred on urban roads, 50 per cent on rural roads and 4 per cent on motorways. This is fairly similar to the breakdown for slight casualties for all drivers.

Despite having higher average speeds, motorways contribute to a small proportion of older driver fatalities and casualties of all severities. In 2016, 3 per cent of older car driver fatalities occurred on motorways, this is 7 per cent for all car driver fatalities. Motorways have a higher level of design standards in comparison with other roads, and with grade separation and barriers between carriageways there is a lower risk of head-on or junction collisions.

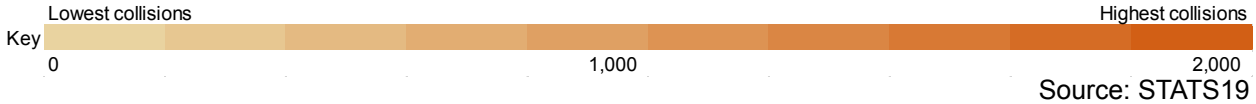
Time of day and day of week

This set of tables explore the day of the week and hour of the day road collisions occur involving an older car driver and any car driver aggregated over ten years.

Collisions involving older car drivers by time of day and day of week

Table 2: Road injury collisions involving at least one older car driver by time of day and day of week, Great Britain: 2007 to 2016

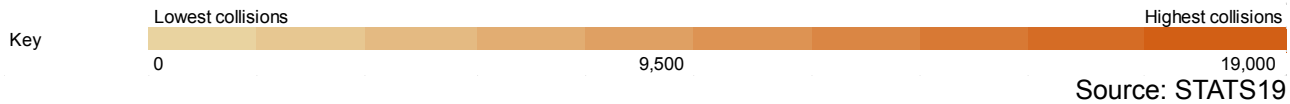
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	*Weekday average*	Saturday	Sunday	*Weekend average*	*Weekly average*
00:00 - 00:59	41	26	25	39	40	***34***	62	87	***75***	***46***
01:00 - 01:59	12	15	10	16	25	***16***	38	54	***46***	***24***
02:00 - 02:59	11	6	5	9	15	***9***	24	31	***28***	***14***
03:00 - 03:59	7	9	6	12	8	***8***	14	22	***18***	***11***
04:00 - 04:59	4	13	13	12	16	***12***	20	15	***18***	***13***
05:00 - 05:59	25	40	23	29	31	***30***	16	27	***22***	***27***
06:00 - 06:59	74	107	86	86	83	***87***	70	61	***66***	***81***
07:00 - 07:59	263	261	301	272	259	***271***	164	111	***138***	***233***
08:00 - 08:59	693	669	712	708	696	***696***	339	247	***293***	***581***
09:00 - 09:59	1,008	1,068	1,049	1,051	1,026	***1,040***	779	565	***672***	***935***
10:00 - 10:59	1,274	1,409	1,373	1,334	1,371	***1,352***	1,294	926	***1,110***	***1,283***
11:00 - 11:59	1,514	1,524	1,529	1,495	1,635	***1,539***	1,565	1,109	***1,337***	***1,482***
12:00 - 12:59	1,373	1,537	1,556	1,534	1,742	***1,548***	1,511	1,285	***1,398***	***1,505***
13:00 - 13:59	1,303	1,371	1,386	1,480	1,573	***1,423***	1,311	1,118	***1,215***	***1,363***
14:00 - 14:59	1,358	1,507	1,547	1,548	1,723	***1,537***	1,235	1,068	***1,152***	***1,427***
15:00 - 15:59	1,649	1,750	1,840	1,779	1,882	***1,780***	1,076	1,076	***1,076***	***1,579***
16:00 - 16:59	1,423	1,636	1,631	1,647	1,643	***1,596***	1,025	1,019	***1,022***	***1,432***
17:00 - 17:59	1,109	1,236	1,237	1,268	1,226	***1,215***	869	769	***819***	***1,102***
18:00 - 18:59	656	784	829	902	874	***809***	698	607	***653***	***764***
19:00 - 19:59	437	601	590	553	548	***546***	507	435	***471***	***524***
20:00 - 20:59	274	308	288	303	311	***297***	280	301	***291***	***295***
21:00 - 21:59	232	247	240	278	253	***250***	226	204	***215***	***240***
22:00 - 22:59	161	183	206	218	241	***202***	234	137	***186***	***197***
23:00 - 23:59	78	77	85	91	160	***98***	178	65	***122***	***105***
Daily average	***624***	***683***	***690***	***694***	***724***	***683***	***564***	***472***	***518***	***636***



Source: STATS19

Table 3: Road injury collisions involving at least one car driver by time of day and day of week, Great Britain: 2007 to 2016

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	*Average (weekdays)*	Saturday	Sunday	*Average (weekends)*	*Weekly average*
00:00 - 00:59	1,987	1,629	1,594	1,912	2,231	***1,871***	4,505	4,943	***4,724***	***4,834***
01:00 - 01:59	1,290	1,012	977	1,120	1,407	***1,161***	3,692	4,302	***3,997***	***4,150***
02:00 - 02:59	879	668	646	808	1,124	***825***	3,062	3,346	***3,204***	***3,275***
03:00 - 03:59	716	593	554	700	932	***699***	2,318	3,019	***2,669***	***2,844***
04:00 - 04:59	654	569	561	595	716	***619***	1,686	2,067	***1,877***	***1,972***
05:00 - 05:59	1,389	1,315	1,246	1,302	1,401	***1,331***	1,621	1,660	***1,641***	***1,650***
06:00 - 06:59	3,500	3,772	3,692	3,659	3,418	***3,608***	2,179	1,893	***2,036***	***1,965***
07:00 - 07:59	9,126	9,939	9,957	9,520	8,455	***9,399***	3,296	2,446	***2,871***	***2,659***
08:00 - 08:59	15,746	17,744	17,824	17,034	14,972	***16,664***	5,093	3,082	***4,088***	***3,585***
09:00 - 09:59	9,724	10,669	10,119	9,957	9,338	***9,961***	6,708	4,740	***5,724***	***5,232***
10:00 - 10:59	7,715	7,975	7,769	7,622	8,169	***7,850***	9,078	6,751	***7,915***	***7,333***
11:00 - 11:59	8,527	8,452	8,467	8,426	9,441	***8,663***	11,416	8,345	***9,881***	***9,113***
12:00 - 12:59	9,584	9,409	9,629	9,445	11,234	***9,860***	12,695	10,158	***11,427***	***10,792***
13:00 - 13:59	9,947	9,830	9,909	10,023	11,912	***10,324***	12,423	10,304	***11,364***	***10,834***
14:00 - 14:59	10,157	10,014	10,146	10,212	12,600	***10,626***	11,762	10,042	***10,902***	***10,472***
15:00 - 15:59	14,109	14,198	14,544	14,540	17,226	***14,923***	10,903	9,853	***10,378***	***10,116***
16:00 - 16:59	15,361	16,008	15,782	16,097	17,560	***16,162***	11,004	9,981	***10,493***	***10,237***
17:00 - 17:59	17,235	18,907	18,928	18,465	18,453	***18,398***	11,716	9,358	***10,537***	***9,948***
18:00 - 18:59	12,517	13,973	14,015	13,917	14,715	***13,827***	10,588	8,670	***9,629***	***9,150***
19:00 - 19:59	8,426	9,463	9,655	9,917	11,441	***9,780***	9,167	7,250	***8,209***	***7,729***
20:00 - 20:59	6,162	6,556	6,676	6,954	8,246	***6,919***	7,033	5,889	***6,461***	***6,175***
21:00 - 21:59	4,893	5,085	5,237	5,567	6,640	***5,484***	5,743	4,834	***5,289***	***5,061***
22:00 - 22:59	3,941	4,208	4,364	4,641	6,119	***4,655***	5,691	3,917	***4,804***	***4,361***
23:00 - 23:59	2,658	2,775	3,031	3,288	5,408	***3,432***	5,340	2,994	***4,167***	***3,581***
Daily average	***7,343***	***7,698***	***7,722***	***7,738***	***8,465***	***7,793***	***7,030***	***5,827***	***6,428***	***6,128***



Source: STATS19

In particular, older driver have at least 50 per cent more collisions than in an average hour during the day for weekdays between 9 am and 6 pm and between 10 am and 6 pm on weekends.

Slightly fewer older driver collisions occur at the weekend, 636 collisions rather than 683 collisions aggregated for ten years by hour on a weekday. These collisions are spread much more evenly across the day at the weekend and although small values there are notably higher numbers in the early morning hours of weekend days compared to weekdays.

The next section considers the risk for collisions involving older car drivers as a proportion of collisions involving any car driver, by time of day and day of the week aggregated for ten years.

Proportion of collisions involving older car drivers by time of day and day of week

Table 4: Road collisions involving at least one older car driver as a proportion of collisions involving at least one car driver, by time of day and day of week, Great Britain: 2007 to 2016

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	*Weekday average*	Saturday	Sunday	*Weekend average*	*Weekly average*
00:00 - 00:59	2%	2%	2%	2%	2%	*2%*	1%	2%	*2%*	*2%*
01:00 - 01:59	1%	1%	1%	1%	2%	*1%*	1%	1%	*1%*	*1%*
02:00 - 02:59	1%	1%	1%	1%	1%	*1%*	1%	1%	*1%*	*1%*
03:00 - 03:59	1%	2%	1%	2%	1%	*1%*	1%	1%	*1%*	*1%*
04:00 - 04:59	1%	2%	2%	2%	2%	*2%*	1%	1%	*1%*	*1%*
05:00 - 05:59	2%	3%	2%	2%	2%	*2%*	1%	2%	*1%*	*2%*
06:00 - 06:59	2%	3%	2%	2%	2%	*2%*	3%	3%	*3%*	*3%*
07:00 - 07:59	3%	3%	3%	3%	3%	*3%*	5%	5%	*5%*	*3%*
08:00 - 08:59	4%	4%	4%	4%	5%	*4%*	7%	8%	*7%*	*4%*
09:00 - 09:59	10%	10%	10%	11%	11%	*10%*	12%	12%	*12%*	*11%*
10:00 - 10:59	17%	18%	18%	18%	17%	*17%*	14%	14%	*14%*	*16%*
11:00 - 11:59	18%	18%	18%	18%	17%	*18%*	14%	13%	*14%*	*16%*
12:00 - 12:59	14%	16%	16%	16%	16%	*16%*	12%	13%	*12%*	*15%*
13:00 - 13:59	13%	14%	14%	15%	13%	*14%*	11%	11%	*11%*	*13%*
14:00 - 14:59	13%	15%	15%	15%	14%	*14%*	10%	11%	*11%*	*13%*
15:00 - 15:59	12%	12%	13%	12%	11%	*12%*	10%	11%	*10%*	*12%*
16:00 - 16:59	9%	10%	10%	10%	9%	*10%*	9%	10%	*10%*	*10%*
17:00 - 17:59	6%	7%	7%	7%	7%	*7%*	7%	8%	*8%*	*7%*
18:00 - 18:59	5%	6%	6%	6%	6%	*6%*	7%	7%	*7%*	*6%*
19:00 - 19:59	5%	6%	6%	6%	5%	*6%*	6%	6%	*6%*	*6%*
20:00 - 20:59	4%	5%	4%	4%	4%	*4%*	4%	5%	*4%*	*4%*
21:00 - 21:59	5%	5%	5%	5%	4%	*5%*	4%	4%	*4%*	*4%*
22:00 - 22:59	4%	4%	5%	5%	4%	*4%*	4%	3%	*4%*	*4%*
23:00 - 23:59	3%	3%	3%	3%	3%	*3%*	3%	2%	*3%*	*3%*
Daily average	*8%*	*9%*	*9%*	*9%*	*9%*	*9%*	*8%*	*8%*	*8%*	*9%*

Source: STATS19

Compared to collisions involving all drivers, the share of collisions involving an older car driver is 9 per cent for an average hour over the week. Older drivers are over-represented during the day with hours between 9 am and 5 pm having proportions higher than 10 per cent on both weekdays and weekends.

The next section considers the risk per distance travelled for collisions involving older car drivers and for collisions involving any car driver, by time of day and day of the week aggregated for ten years.

Exposure risk of injury collisions involving older car drivers by time of day and day of week

Table 5: Reported road injury collisions involving at least one older car driver (aged 70+) by time and day of week relative distance travelled (100 = average risk per mile driven), England: 2007 to 2016

Hour	Weekday average	Weekend avarage
00:00 - 01:59	190	179
02:00 - 03:59	272	271
04:00 - 05:59	115	146
06:00 - 07:59	115	103
08:00 - 09:59	95	67
10:00 - 11:59	77	75
12:00 - 13:59	97	95
14:00 - 15:59	112	92
16:00 - 17:59	141	96
18:00 - 19:59	137	101
20:00 - 21:59	113	96
22:00 - 23:59	103	102

Source: STATS19 and National Travel Survey

Exposure risk calculation

These estimates are based on the combined National Travel Survey responses from 2007-2016. The figures are based on reported trips where the main mode of travel (by distance) was “car/van driver”. For trips starting and ending in a different hour, miles driven are assumed to be evenly spread across the relevant hours. These mileage estimates are limited to personal travel.

Some care needs to be taken in interpreting these exposure risk tables due to the relatively low number of trips which are recorded in the NTS for certain hours of the day which could lead to large statistical uncertainty.

Table 6: Reported road injury collisions involving at least one car driver by time and day of week relative distance travelled (100 = average risk per mile driven), England: 2007 to 2016

Hour	Weekday average	Weekend average
00:00 - 01:59	395	547
02:00 - 03:59	407	1,000
04:00 - 05:59	71	266
06:00 - 07:59	64	94
08:00 - 09:59	93	69
10:00 - 11:59	82	66
12:00 - 13:59	103	86
14:00 - 15:59	111	89
16:00 - 17:59	100	90
18:00 - 19:59	102	106
20:00 - 21:59	138	137
22:00 - 23:59	178	186

Source: STATS19 and National Travel Survey

Table 5 and 6 give an indication of the risk of injury collisions during 2-hour periods for weekdays and weekends. A value of 100 indicates that there are as many collisions as would be expected during a given period, given the total distance travelled during that period. Scores below 100 indicate that there are fewer collisions than would be expected, and scores above 100 indicate that there are more collisions than would be expected. For instance, periods with a score of 50 have half of the expected number of collisions whilst periods with a score of 200 have double the expected number of collisions. The tables therefore give an indication of the times which have a greater risk of collisions which is not necessarily the same time of the day as when the most collisions occur.

Table 2 shows that the greatest number of personal injury collisions for older drivers happen during the day. However, **Table 5** suggests that there are fewer personal injury collisions for older drivers than expected during the daytime hours, in particular the period between 8 am and 2 pm on a weekday and between 8 am and 6 pm at the weekend. The hours with the greater risk are in the evening on weekdays between 4 pm and 8 pm and in the early hours on any day between midnight and 4 am. In particular, between 2 am and 4 am the risk for older drivers is more than 2 times higher on both weekdays and weekends.

For all car drivers **(Table 6)**, the risks between midnight and 4 am are higher than for older drivers.

The highest risk periods are at times when traffic on the roads is relatively low. There could be a number of factors contributing to the observed pattern of collision risk such as an increased likelihood of drivers driving more quickly and recklessly as there is less traffic to slow them down.

Older drink-drivers

Drink-drivers

It is estimated that since 2000 the percentage of reported road casualties from collisions involving an older car driver over the drink-drive limit in Great Britain has been around 1 per cent of reported road casualties involving any car driver over the drink-drive limit.

Drink-drive estimates

See https://www.gov.uk/government/statistics/reported-road-casualties-in-great-britain-estimates-involving-illegal-alcohol-levels-2016 for more information about the published drink-drive data.

Contributory factors to older drivers involved in collisions

Contributory factors provide an insight into how and why collisions occur. The factors are largely subjective as they reflect the opinion of the reporting officer, therefore they should be interpreted with caution. A maximum of six factors can be recorded for each collision. Contributory factors are only recorded for vehicles in collisions where a police officer attended the scene.

Table 7: Top contributory factors attributed to older (aged 70+) and all car drivers involved in reported road collisions, Great Britain: 2016

	Contributory factors attributed to older car drivers involved in reported road collisions			Contributory factors attributed to all car drivers involved in reported road collisions		
Contributory factors[1,2]	**Rank**	**Number**	***Percentage (%)*** [2]	**Rank**	**Number**	***Percentage (%)*** [2]
Driver failed to look properly	1	3,030	*47.0*	1	31,030	*42.0*
Driver failed to judge other person's path or speed	2	1,544	*23.9*	2	15,694	*21.3*
Poor turn or manoeuvre	3	1,053	*16.3*	4	10,798	*14.6*
Loss of control	4	869	*13.5*	5	8,598	*11.7*
Driver illness or disability, mental or physical	5	719	*11.1*	19	1,966	*2.7*
Driver careless, reckless or in a hurry	6	609	*9.4*	3	11,440	*15.5*
Dazzling sun	7	386	*6.0*	17	2,275	*3.1*
Driver nervous, uncertain or panic	8	311	*4.8*	24	1,371	*1.9*
Swerved	9	233	*3.6*	14	2,540	*3.4*
Slippery road (due to weather)	10	218	*3.4*	6	5,669	*7.7*
Travelling too fast for conditions	21	126	*2.0*	7	4,591	*6.2*
Following too close	12	200	*3.1*	8	4,357	*5.9*
Sudden braking	13	185	*2.9*	9	4,298	*5.8*
Driver impaired by alcohol	30	58	*0.9*	10	3,553	*4.8*
Total number of vehicles[1,3]		**6,453**	***100***		**73,800**	***100***

1. Includes only vehicles in collisions where a police officer attended the scene and in which a contributory factor was reported.
2. A vehicle can have more than one contributory factor (up to 6) which means percentage column will exceed 100 per cent.
3. These numbers excludes cases where no contributory factor was reported.

Source: STATS19

Older car drivers and all car drivers share the same top 2 contributory factors. However, a larger proportion of older car drivers are allocated contributory factors relating to *driver failed to look properly* (47.0 per cent) and *driver failed to judge other person's path or speed* (23.9 per cent), than all car drivers.

Also, a larger proportion of older car drivers are allocated factors relating to *poor turn or manoeuvre, loss of control* and *driver nervous, uncertain or panic* compared to all car drivers. In 2016, 16.3 per cent (1,053) older car drivers performed a *poor turn or manoeuvre*, 13.5 per cent (869) were allocated a *loss of control* contributory factor, 4.8 per cent (311) were allocated a factor of *driver nervous, uncertain or panic*.

As contributory factors are based on the judgement of police officers, some of the findings might reflect preconceptions of officers. For instance, they may be more likely to allocate the factor of *driver illness or disability* to an older driver than a younger driver. In 2016, 11.1 per cent of older car drivers (719) were allocated a contributory factor to a road collision of *driver illness or disability, mental or physical*, which was the fifth most common contributory factor. This contributory factor was the nineteenth most common for all car drivers with 2.7 per cent of car drivers (1,966) allocated the contributory factor of *driver illness or disability, mental or physical*.

References and further information

Further information about the Reported Road Casualties Great Britain 2016 can be found here: https://www.gov.uk/government/statistics/reported-road-casualties-great-britain-annual-report-2016

Notes and definitions used in Stats19 can be found here: https://www.gov.uk/government/publications/road-collisions-and-safety-statistics-guidance

Further information on driver licences can be found here: https://data.gov.uk/dataset/driving-licence-data

Further information on distance travelled published from the National Travel Survey can be found here: https://www.gov.uk/government/collections/national-travel-survey-statistics#publications

Further information on traffic estimates are published within the Road Traffic Statistics publication and can be found here: https://www.gov.uk/government/collections/road-traffic-statistics

Further Information

Information about the data collected, notes, definitions and guidance is available here.

Further information on Reported Road Casualties Great Britain, including information about the variables collected on the STATS19 form, historical publications can be found at: https://www.gov.uk/government/publications/road-accidents-and-safety-statistics-guidance and historical factsheets can be found at: https://www.gov.uk/government/statistics/road-safety-factsheets-and-ad-hoc-statistics

The raw data used to create the statistics (except for a few sensitive and personal variables) are available for download here.

National Statistics

National Statistics are produced to high professional standards set out in the Statistics Code of Practice. They undergo regular quality assurance reviews to ensure they meet customer needs.

Feedback

We welcome further feedback on any aspects of the Department's road safety statistics including content, timing, and format via email to roadacc.stats@dft.gov.uk.

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