



Department for Transport

Reported road casualties in Great Britain: Estimates for accidents involving illegal alcohol levels: 2015 (final)

About this release

This publication presents the final estimates of casualties arising from reported accidents involving at least one motor vehicle driver or rider over the legal alcohol limit for driving, in Great Britain in 2015.

Figures are derived from the Stats19 forms completed by the police plus toxicology data for road fatalities from coroners and procurators fiscal.

Uncertainty

These statistics, especially the number of fatalities, are subject to considerable uncertainty. This means that it is impossible to be sure of the precise number of casualties, so ranges and confidence intervals are used throughout the publication.

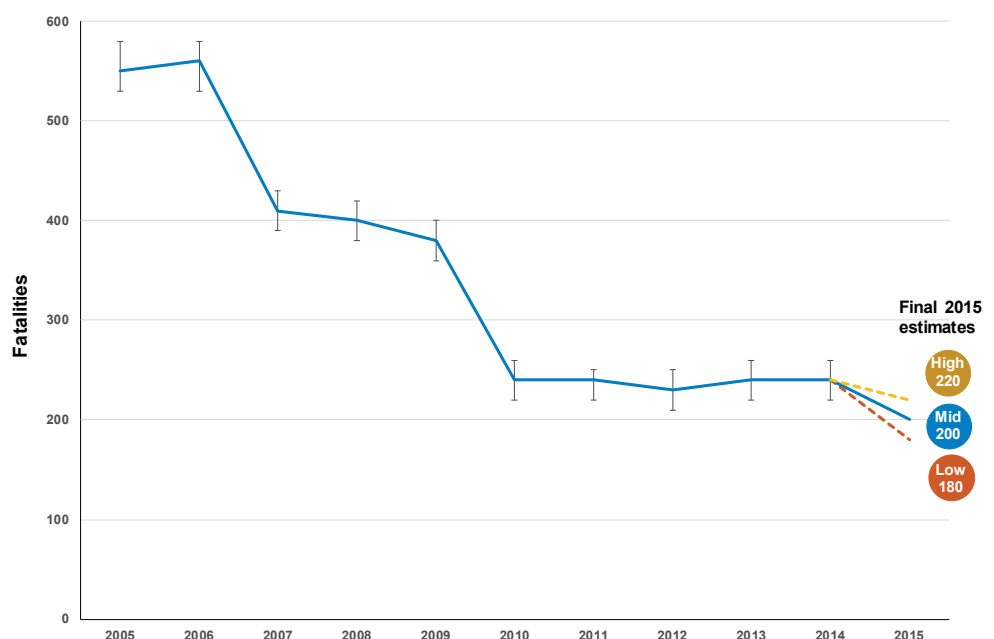
In this publication

- Final estimates 2015..... [p2](#)
- Long term trends [p5](#)
- Breath test data..... [p7](#)
- Other data sources [p9](#)
- Strengths & weaknesses...[p10](#)

Final estimates for 2015 show that 200 people were killed in accidents in Great Britain where at least one driver was over the drink drive limit.

- Although the final estimate for 2015 shows that the number of fatalities has fallen by 40 since 2014, this change is not statistically significant.
- 1,370 people were estimated to have been killed or seriously injured in drink drive accidents. This represents a statistically significant rise from 1,310 in 2014, and is the highest estimate since 2012.
- The estimated total number of accidents where at least one driver was over the alcohol limit rose by 2 per cent to 5,730 in 2015.
- Since 1979 there has been a 71 per cent reduction in the number of drink drive accidents, and a 73 per cent reduction in casualties.

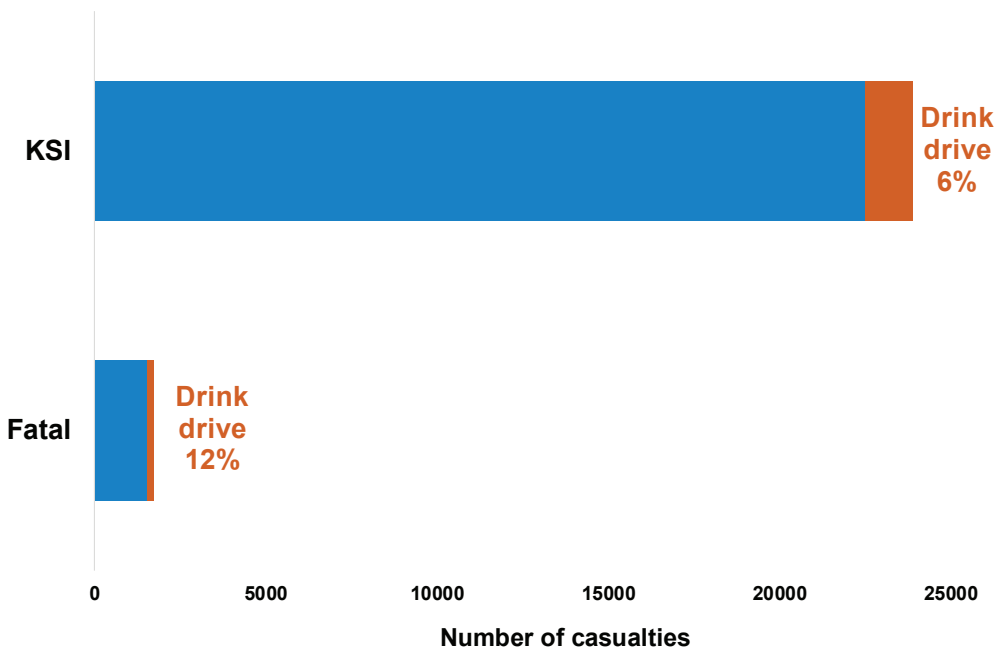
Chart 1: Killed casualties in reported drink drive accidents: GB 2005 to 2015; error bars show 95% confidence intervals



Casualties in drink drive accidents in 2015

The final central estimate of the number of deaths in accidents with at least one driver over the alcohol limit for 2015 is 200. This represents about **12 per cent of all deaths** in reported road accidents in 2015. Although the central estimate for 2015 is lower than the final figure for 2014, the **difference is not statistically significant** and continues a period of stability recorded since 2010.

Chart 2: Killed or seriously injured (KSI) drink drive casualties as a proportion of all road traffic KSIs: GB, 2015



Definitions

Drink drive accident: A reported incident on a public road in which someone is killed or injured, where at least one of the motor vehicle drivers or riders involved met one of these criteria:

- refused to give a breath test specimen when requested by the police (other than when incapable of doing so for medical reasons)
- failed a roadside breath test by registering above 35 micrograms of alcohol per 100ml of breath in England and Wales, and above 22 micrograms of alcohol per 100ml of breath in Scotland
- died and was subsequently found to have more than 80 milligrams of alcohol per 100ml of blood in England and Wales, and more than 50 milligrams in Scotland

Drink drive casualties: All road users killed or injured in drink drive accidents.

A full list of the casualty definitions used in this release can be found [here](#).

The fatalities figure is an estimate based on coroners' and procurators' fiscal reports for 60 per cent of the drivers or riders who were killed in road traffic accidents in 2015. As the figure is based on a sample, **the true figure could be between 180 and 220 fatalities** at a 95% confidence level.

The number of **killed or seriously injured (KSI) casualties in 2015 was 1,370** (6 per cent of KSI casualties reported in all road traffic accidents). Although this figure has been revised downwards from the provisional estimate of 1,380, it still represents the **first rise in drink drive KSI casualties since 2011**. The increase from 1,310 KSI casualties in 2014 is **statistically significant**.

2010-2014 average

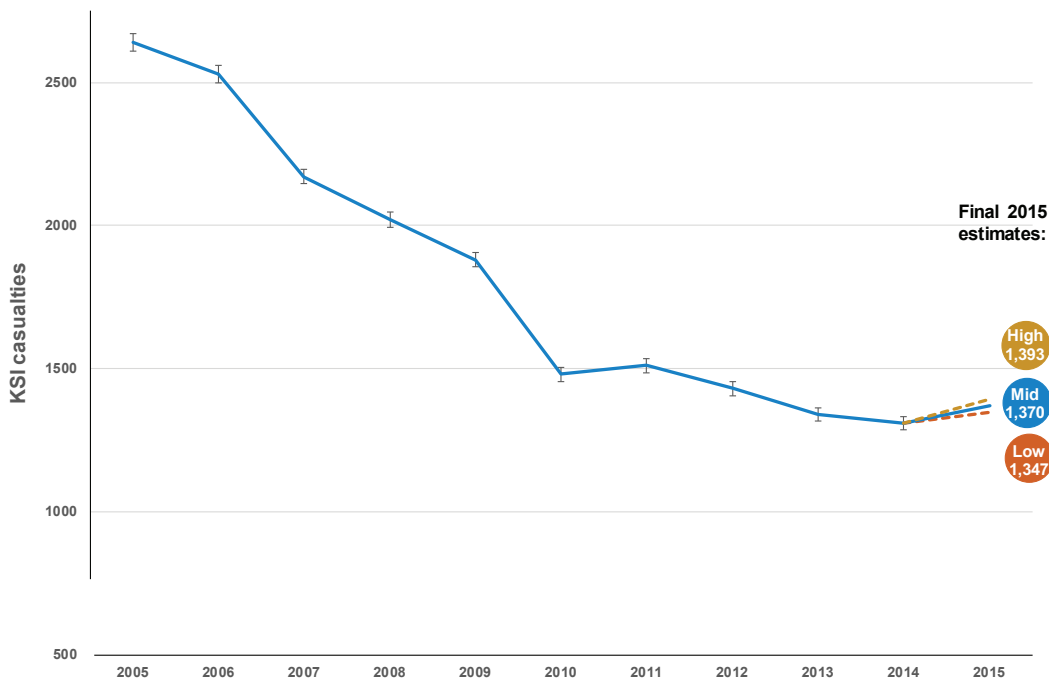
2015 drink drive casualties compared with 2010-2014 average:

Killed	↓ 16% (ns)
Serious	↓ 1% (ns)
KSI	↓ 3% (ns)
All casualties	↓ 8% *
Accidents	↓ 8% *

(ns) = not significant

* = significant at 95% level

Chart 3: Killed or seriously injured (KSI) casualties in reported drink drive accidents: GB 2005 to 2015; error bars show 95% confidence intervals



Statistically Significant

The **95% confidence level** is the standard against which statistics are typically tested. It means that in 100 years with the same risk of fatalities (or injury), 95 of those years will result in a number of fatalities (or injuries) between a given range. If the actual change falls outside of this range then we can be 95% confident that the change is as a result of a genuine trend (statistically significant) rather than a product of chance (not statistically significant).

The observed increase in KSI casualties is primarily driven by an increase in the number of seriously injured casualties in drink drive accidents. The number of **seriously injured casualties increased by 9 per cent** from 1,070 in 2014 to 1,170 in 2015. This is the first rise in serious casualties since 2011 and represents a **statistically significant change**.

The total number of casualties in drink drive accidents for 2015 is 8,470, up 3 per cent on the final 2014 figure. Although this is the first rise in the number of total casualties since 2011, it remains the **third lowest total** on record.

How does this compare with the previous estimate?

Second provisional estimates for 2015 were published in February 2017 (see [here](#)). Compared with the provisional estimates, the final estimates for 2015 published here show the range for fatalities has narrowed. In the second provisional figures the range was 180 to 250. The revised range is from 180 to 220.

This change is due to an increased number of reports becoming available from coroners and procurators fiscal (60% of reports for drivers/riders killed in 2015 compared to 38%). This increases the precision of the figures.

95% confidence interval

The bars on the graph are ranges of values for an estimate which we are 95% confident that the 'true' value falls in.

Technically, it indicates that if many samples of the same population were drawn, 95% of the results would fall between the confidence interval values.

For instance, for 2015 we have an upper bound 220 and lower bound of 180. This means that we are 95% confident that the true number of fatalities for 2015 will fall between 180 and 220 deaths, but most likely towards the centre of this range.

Table RAS51001: Casualties in reported drink drive accidents: GB 1979 to 2015

Year	Accidents ¹				Casualties ¹						Number
	Fatal	Serious	Slight	Total	95% CI	Killed	95% CI	Serious	Slight	Total	
					low er ²		upper ²				
1979	1,380	5,630	12,460	19,470	:	1,640	:	8,300	21,490	31,430	
1980	1,280	5,430	11,860	18,570	:	1,450	:	7,970	20,420	29,830	
1985	900	4,900	11,460	17,260	:	1,040	:	6,810	19,380	27,220	
1990	650	2,910	9,650	13,210	:	760	:	4,090	15,550	20,400	
1991	570	2,590	8,530	11,690	:	660	:	3,610	13,610	17,880	
1992	540	2,360	7,890	10,790	:	660	:	3,280	12,770	16,710	
1993	460	1,870	7,160	9,480	:	540	:	2,660	11,780	14,980	
1994	470	2,090	7,330	9,900	:	540	:	2,840	11,780	15,160	
1995	460	2,140	7,590	10,180	:	540	:	3,000	12,450	16,000	
1996	480	2,150	8,240	10,870	:	580	:	3,010	13,450	17,040	
1997	470	2,140	8,100	10,710	:	550	:	2,940	13,310	16,800	
1998	410	1,860	7,840	10,100	:	460	:	2,520	12,610	15,580	
1999	400	1,850	8,800	11,050	:	460	:	2,470	13,980	16,910	
2000	450	1,950	9,410	11,800	500	530	560	2,540	14,990	18,060	
2001	470	2,020	9,780	12,270	510	530	560	2,700	15,550	18,780	
2002	480	2,050	10,620	13,150	520	550	580	2,790	16,760	20,100	
2003	500	1,970	9,930	12,400	550	580	600	2,590	15,820	18,990	
2004	520	1,790	8,900	11,210	560	580	610	2,340	14,060	16,980	
2005	470	1,550	8,060	10,080	530	550	580	2,090	12,760	15,400	
2006	490	1,480	7,430	9,400	530	560	580	1,970	11,850	14,370	
2007	370	1,400	7,520	9,290	390	410	430	1,760	11,850	14,020	
2008	350	1,280	6,980	8,620	380	400	420	1,620	10,970	12,990	
2009	340	1,180	6,530	8,050	360	380	400	1,500	10,150	12,030	
2010	220	990	5,420	6,620	220	240	260	1,240	8,210	9,690	
2011	220	1,040	5,430	6,690	220	240	250	1,270	8,420	9,930	
2012	210	960	5,460	6,630	210	230	250	1,200	8,510	9,930	
2013	230	880	4,590	5,690	220	240	260	1,100	6,930	8,270	
2014	220	880	4,530	5,620	220	240	260	1,070	6,900	8,210	
2015	170	980	4,570	5,730	180	200	220	1,170	7,100	8,470	

1. Estimates are rounded to the nearest ten.

2. Upper and lower range for fatalities based on 95% confidence interval.

The complete table, with annual data from 1979 to 2015 can be found [here](#).

Reported drink drive accident totals

There were an estimated 170 fatal drink drive accidents in 2015. This is the lowest number of fatal drink drive accidents on record, and the change from 2014 is statistically significant.

In contrast, the total number of drink drive accidents of all severities rose by 2 per cent to 5,730 in 2015. This means around **4 per cent of all road traffic accidents** in 2015 involved at least one driver over the drink limit.

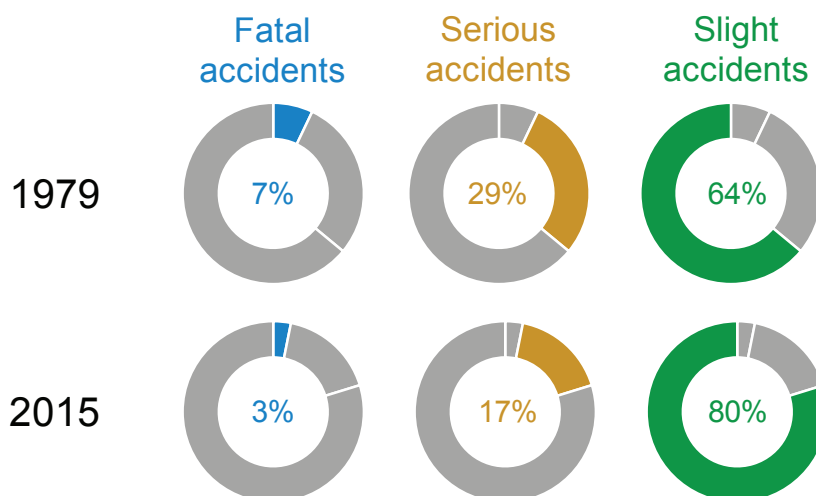
Long term trends

Detailed reporting on drink drive accidents and casualties started in 1979. At that time there were around 19,470 drink drive accidents, accounting for nearly 8% of all personal injury accidents in Great Britain. By 1993 the number of drink drive accidents recorded each year had halved to less than 10,000 and this number has continued to fall in the past twenty years.

It is important to note that over the same timescale the number of overall road traffic accidents has also fallen, from 254,967 in 1979 to 140,056 in 2015 (a 45 per cent reduction). However, **drink drive accidents have had larger falls; down 71 per cent since 1979**. It is therefore likely that some drink drive initiatives have been effective in reducing the number of drink drive accidents.

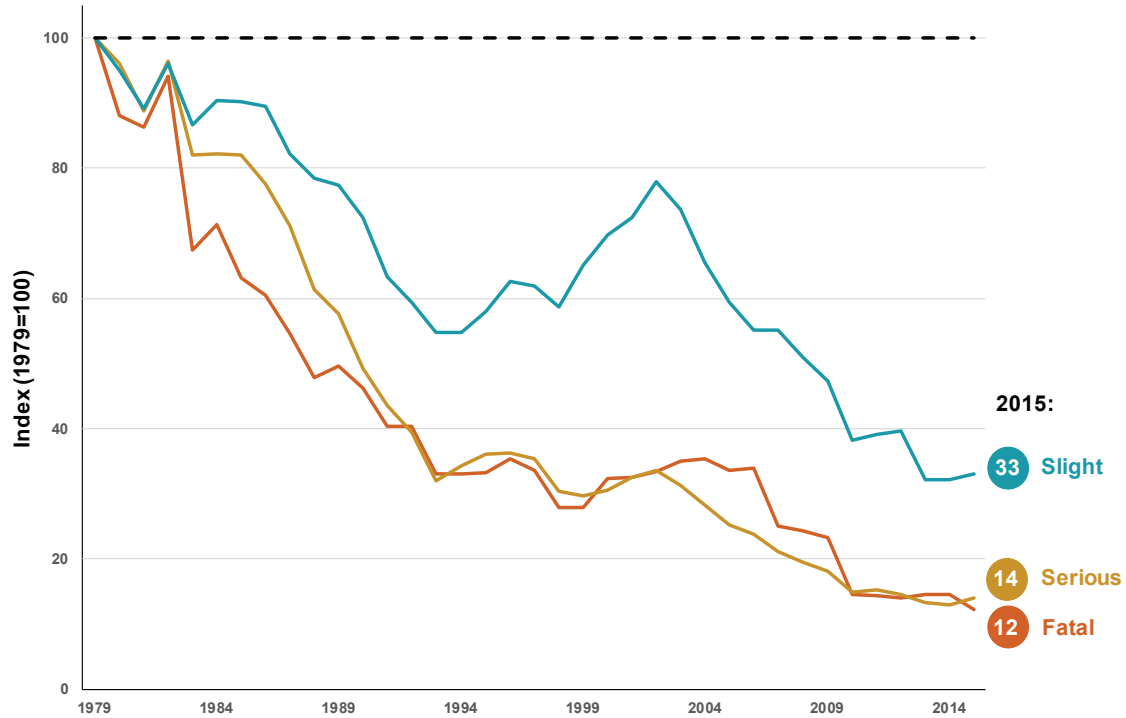
As well as observing a decline in the number of drink drive accidents there has also been a **reduction in the severity of drink drive accidents**. In 1979 the proportion of drink drive accidents that resulted in at least one fatality was 7 per cent; by 2015 this has fallen to 3 per cent. In contrast the proportion of slight accidents has increased from 64 per cent in 1979 to 80 per cent in 2015.

Chart 4: The proportion of drink drive accidents by severity: GB, 1979 and 2015



Since 1979 there has been a significant decline in the number of casualties arising from drink drive accidents. The number of **slight injuries recorded in 2015 is more than 3 times lower than in 1979**, with even greater reduction rates observed in the number of serious and fatal casualties reported.

Chart 5: Central estimates for casualties sustained in reported drink drive accidents: GB, 1979 - 2015 (index 1979 = 100)



Between 1979 and 2015 there was an **86 per cent reduction in the number of serious injuries** recorded, with almost half of the reduction occurring in the first 10 years. There was a period between 1993 and 2002 where the number of serious injuries fluctuated before continuing the downward trend between 2003 and 2011. During this time period there was a 20 per cent reduction. Since 2011 there has been a second period of stabilisation, with small reductions observed each year. The rise in serious injuries reported in 2015 is the **first time there has been a reverse in the trend since 2011**.

The trend for the reduction in fatalities shows a similar pattern to that observed for serious injuries, although greater reductions have been observed across the time period. The **number of fatalities in 2015 is more than 8 times lower than in 1979**. This represents an **88 per cent decline in drink drive fatalities** over a 36 year period.

Impact of drink drive campaigns

An econometric analysis THINK! undertook in 2012 showed that 30 years of drink drive communication campaigns have saved almost 2,000 lives, prevented over 10,000 serious injuries and created a value to society of £3bn.

Source: [Drink Drive IPA paper 2012](#)

Breath test data from reported road accidents

So far this publication has focused on drink drive accidents where at least one motor vehicle driver either refused to give a breath test sample, failed a roadside breath test or died and was subsequently found to have blood alcohol levels above the legal limit. This next section will focus exclusively on breath test data from reported road accidents in 2015.

Day of week and time of day

In 2015 1.6 per cent of drivers involved in road traffic accidents failed a breath test or failed to provide a specimen. The failure rate varied across the week, with a higher proportion of failures reported at the weekend and during the night. The failure rate is nearly three times lower during the week than it is at the weekend, and five times lower between the hours of 8am and 8pm than the same time period during the night.






Chart 6: Percentage of drivers involved in road accidents who failed a breath test, by day of week and time of day: GB 2015

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	All days
00:00 - 04:00	11.8	8.4	8.3	9.6	11.2	12.9	12.9	11.5
04:00 - 08:00	1.1	0.7	0.9	0.8	1.4	7.6	11.4	2.3
08:00 - 12:00	0.4	0.4	0.4	0.3	0.4	1.1	1.8	0.6
12:00 - 16:00	0.6	0.5	0.5	0.6	0.4	0.9	1.1	0.6
16:00 - 20:00	0.6	0.8	0.7	0.8	1.3	2.1	2.2	1.1
20:00 - 24:00	2.7	3.0	2.7	3.3	4.7	5.5	5.5	4.0
All hours	1.0	1.0	0.9	1.1	1.5	3.0	3.7	1.6

Vehicle type

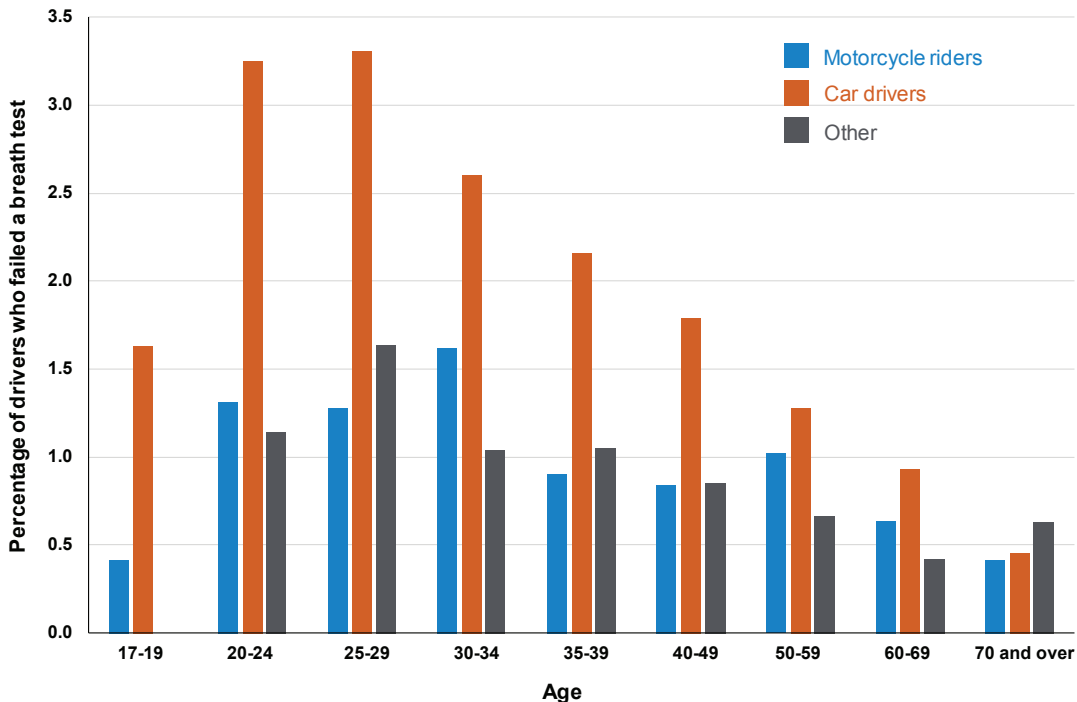
The percentage of drivers involved in road accidents who failed a breath test also varied by vehicle type. Car drivers had the highest failure rate, whilst bus/coach drivers had the lowest failure rate.

Chart 7: Percentage of drivers involved in road accidents who failed a breath test, by vehicle type: GB 2015

Motorcycle riders		1.0
Car drivers		1.8
Bus/coach drivers		0.1
Van/ light goods vehicle drivers		1.3
Heavy goods vehicle drivers		0.4

With the exception of the over 70 age group, car drivers consistently had a higher failure rate at each age group compared to other vehicle drivers. The highest failure rate for motorcyclists was found in the 30-34 age group, whereas the highest failure rate for car drivers and all other vehicle drivers was found in the 25-29 age group.

Chart 8: Percentage of drivers involved in road accidents who failed a breath test by age and vehicle type: GB 2015



Other drivers include: HGV, LGV, bus/coach and a small number of non-motor vehicle drivers

Gender

In 2015 a higher proportion of male car drivers failed a breath test compared to female car drivers. This trend was consistent across all age groups, with male car drivers found to have a failure rate twice as high as female car drivers.

Chart 9: Percentage of car drivers involved in road accidents who failed a breath test by gender: GB 2015



Tables

- Breath tests and breath test failures by drivers and riders involved in reported accidents: [RAS51002](#)
- Reported breath tests and breath test failures, all drivers and riders involved by day of the week and time of day: [RAS51003](#)
- Reported breath tests and breath test failures by road user type and age: [RAS51004](#)
- Motor vehicle drivers and riders involved in personal injury road accidents: breath tests and failures from 2001: [RAS51014](#)
- Car drivers in reported injury accidents, breath tests and failures by age and gender: [RAS51015](#)
- Car drivers in reported injury accidents, breath test and failures by age and region: [RAS51020](#)
- Reported motorcyclist breath tests and failure rates by age: [RAS51021](#)

Other data sources

Statistics on the results of **roadside breath alcohol screening tests**, administered by police forces in England and Wales in 2015, using **digital breath testing devices** can be found [here](#). The devices are able to record exact breath alcohol readings and the result of individual tests, as well as reason for test, and age and gender profiles of those tested. The results are downloaded to data systems on a monthly basis and provided to the Department for Transport. The data are not provided by all police forces so are incomplete and therefore do not cover England and Wales as a whole.

The **Crime Survey for England and Wales** can be used to look at trends in **self-reported drink driving** by age, gender and frequency of alcohol consumption. Within the survey a driver is considered to be anyone who stated they had driven at least once in the past 12 months. Information is also provided for **self-reported drug driving**.

The **motoring tool** produced by the Ministry of Justice can be used to explore trends in **driving convictions**. The tool presents information about activity within the criminal justice system, relating to specific motoring offences. Information is provided by age, gender, court type and area, with details about the outcome of court proceedings including the fine amount and sentence length.

Analysis on the **number of roadside tests** carried out by police in England and Wales is produced by the Home Office. The figures show geographic patterns and seasonal variation. Commentary is also provided to aid the interpretation of the trends.

Breath test from reported road accidents

Breath test figures from reported road accidents in 2016 will be published in September 2017 alongside with the Reported Road Casualties Great Britain: 2016 Annual Report (RCGB).

Digital breath test data

Breath analyser data collected from a proportion of police forces in 2016 will be published in September 2017 alongside the RCGB.

Self-reported drink and drug driving

Data from the Crime Survey for England and Wales is available [here](#).

Driving conviction data

Ministry of Justice data on driving convictions can be found [here](#).

Roadside breath test data

Home Office data on the number of roadside tests (and failures) administered by the police in England and Wales can be found [here](#).

Strengths and weaknesses of the data

Toxicology data are not available for all killed drivers / riders recorded in STATS19 and are typically available for around 60 – 70 per cent of relevant cases (60 per cent for 2015). To account for the killed drivers without a known BAC, the casualties from the known cases are scaled up. The estimates are based on a sample, rather than a complete count, which introduces an element of uncertainty.

Due to the nature of the data used to create these estimates, there is considerably more uncertainty in the number of fatalities and fatal accidents than for any other severity level. The reason for this is that 56 per cent of the fatalities in 2015 were motor vehicle drivers themselves. In accidents where there was a fatality that was not a driver, we are confident that all of the drivers would have been breath-tested at the scene or at a later point (for instance in hospital). However, to know whether the deceased drivers were over the alcohol limit we are reliant on information from coroners and procurators fiscal.

For more information see the uncertainty section in our previous publication available [here](#).

Under-reporting of road casualties

The estimates in this release are based only on those road accidents which are reported to the police. Comparisons of road accident reports with death registrations show that very few, if any, road accident fatalities are not reported to the police. However, it has long been known that a considerable proportion of non-fatal casualties are not known to the police. The data used as the basis for these statistics are therefore not a complete record of all personal injury road accidents, and this should be borne in mind when using and analysing the figures.

Background information

National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure that they meet customer needs. The statistics were last assessed during 2013 and the report, number 258, is available at: <https://www.statisticsauthority.gov.uk/publication/statistics-on-reported-road-casualties/>

Details of Ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found here: <https://www.gov.uk/government/publications/road-accident-and-safety-statistics-pre-release-access-list>

Methodology details

A methodology note describing how the estimates are compiled from the sources is available [here](#). STATS19 forms are completed by the police to record detailed data on the circumstances, casualties and vehicles for reported personal injury accidents.

Next release

Provisional estimates for 2016 will be published in February 2018.