



Department for Transport

Reported road casualties in Great Britain: Estimates for accidents involving illegal alcohol levels: 2016 (provisional)

About this release

This publication presents provisional 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 2016.

Figures are derived from the STATS19 forms completed by the police plus toxicology data for road fatalities from coroners and procurators fiscal.

Final 2016 estimates, based on more complete data, will be published in August 2018.

Uncertainty

These statistics, especially the number of fatalities, are subject to considerable uncertainty (see Sampling uncertainty on page 5). 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

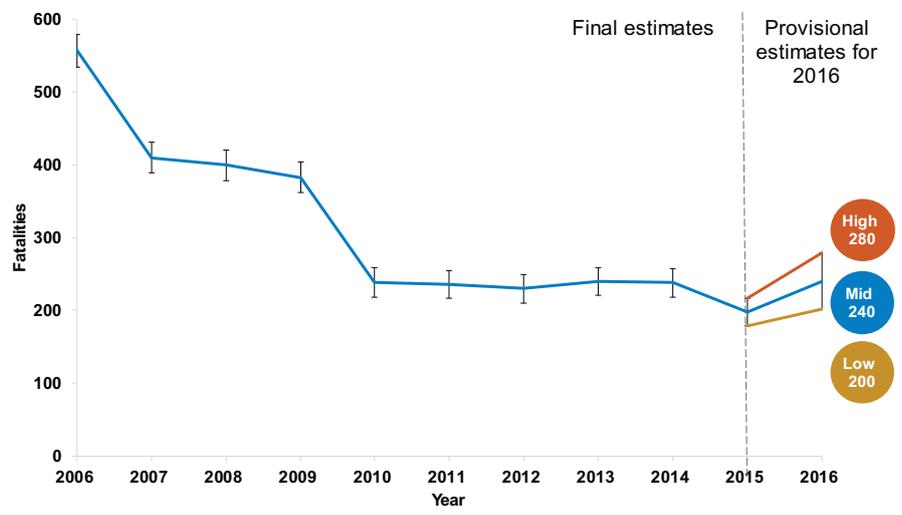
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Provisional estimates for 2016 show that between 200 and 280 people were killed in accidents in Great Britain where at least one driver was over the drink-drive limit, with a central estimate of 240 deaths.

- The provisional estimate of **fatalities** for 2016 is higher than in 2015 and the provisional rise is **statistically significant**. However, the estimate for 2016 is **very similar** to the level during the years 2010 to 2014.
- An estimated 9,050 people were **killed or injured** when at least one driver was over the drink-drive limit. This represents a **statistically significant rise** from 8,470 in 2015, and is the highest number since 2012.
- The **total number of collisions and accidents where at least one driver was over the alcohol limit** rose by 6 per cent to 6,080 in 2016 and is **statistically significant**.

Chart 1: Fatalities in reported drink-drive accidents: GB 2006 to 2016; error bars show 95% confidence intervals

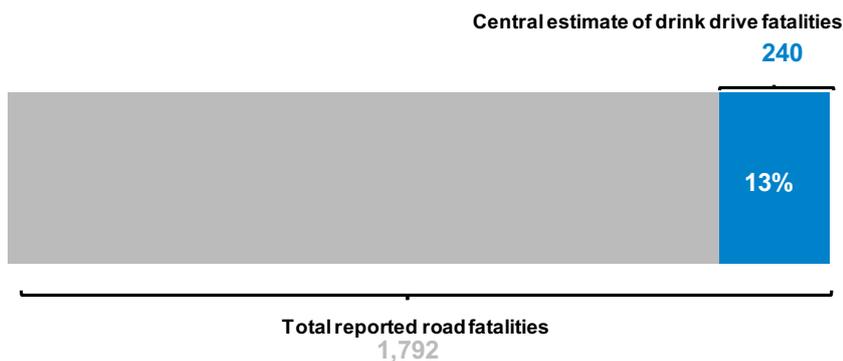


Casualties in drink-drive accidents in 2016

The provisional central estimate of the number of deaths in accidents with at least one driver over the alcohol limit for 2016 is **240**. This represents about 13 per cent of all deaths in reported road accidents in 2016. **The central estimate for 2016 is higher than the final figure for 2015 and the increase is statistically significant.** The 95% confidence range indicates that we can be 95% certain that the **true figure, as opposed to the estimate, falls somewhere between 200 and 280 fatalities.**

The provisional estimate for 2016 is based on coroners' and procurators' fiscal reports for 27 per cent of the drivers or riders who were killed in road traffic accidents in 2016 in addition to breath tests taken at the scene (see definitions opposite). This percentage of reports is lower than average for the release of provisional results so there is a greater than usual uncertainty in the figures. The final figure for 2016 will be published in August 2018, and is likely to be based on around 60-70 per cent of drivers who died in road accidents. Therefore the **final 2016 figure may be different from this provisional estimate.**

Chart 2: Fatalities in reported drink-drive accidents in comparison with overall fatalities: GB, 2016



The central estimate of the number of **overall drink-drive casualties of all severities** in 2016 is 9,050 an increase of 7 per cent on 2015. If it holds to be correct when the final estimates are released in August 2018 it will be the highest level of drink-drive non-fatal casualties since 2012. **The indicated increase from 8,470 in 2015 is statistically significant.**

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) or 22 micrograms (in Scotland).
- died, within 12 hours of the accident, and was subsequently found to have more than 80 milligrams of alcohol per 100ml of blood (in England and Wales) or 50 milligrams (in Scotland).

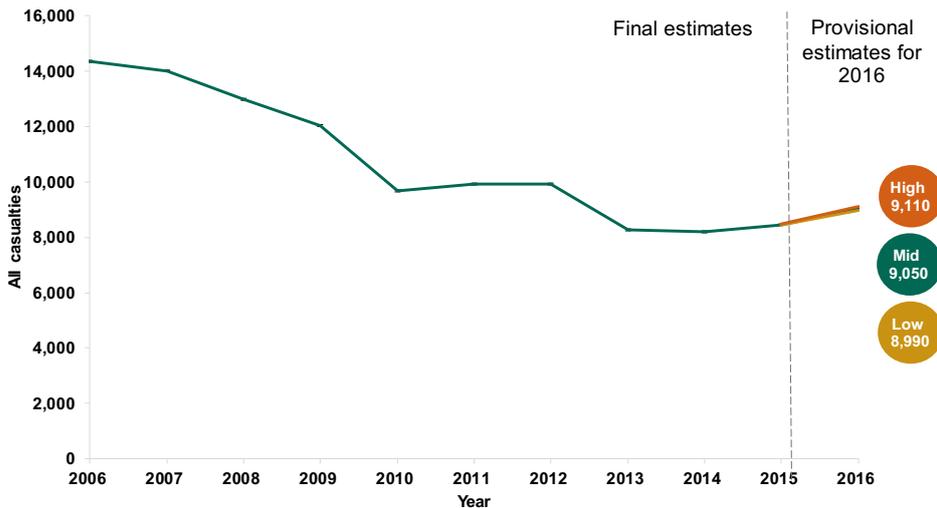
Drink-drive casualties: All road users killed or injured in drink-drive accidents.

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

Statistically Significant

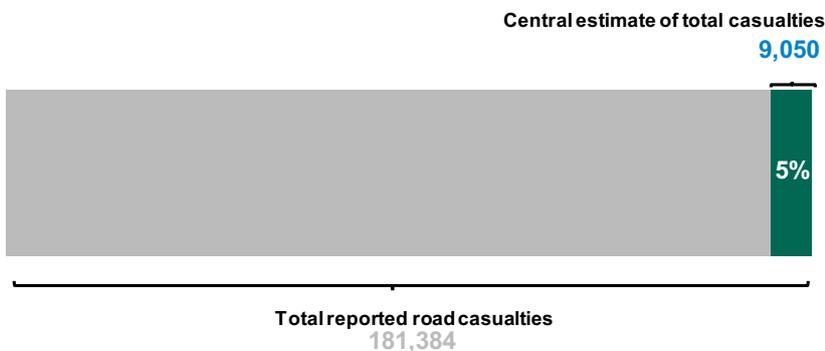
The **95% confidence level** is the standard against which statistics are typically tested. It means that in 100 years with the same risk of fatalities (or injury), 95 of those years will result in a number of fatalities (or injuries) between a given range. If the actual change falls outside of this 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).

Chart 3: Total casualties in reported drink-drive accidents: GB 2006 to 2016



It is provisionally estimated that around 5 per cent of all casualties in reported road accidents in 2016 were involved in accidents in which at least one driver was over the drink-drive limit.

Chart 4: Casualties in reported drink-drive accidents in comparison with overall casualties: GB, 2016



Reported drink-drive accident totals

There were an estimated 230 **fatal drink-drive accidents** in 2016. This is an increase from 170 in 2015 and is **statistically significant**.

The total number of drink-drive accidents of all severities rose by 6 per cent to 6,080 in 2016 and the highest since 2012. About 4 per cent of all reported road traffic accidents in 2016 involved at least one driver over the legal alcohol limit.

95% confidence interval

The bars on chart 1 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 2016 we have an upper limit 280 fatalities and lower limit of 200. This means that we are 95% confident that the true number for 2016 will fall between these values, but most likely towards the centre of this range.

2010 - 2014 average

2016 Drink drive casualties compared with 2010-2014 average:

Killed	1% ns
All casualties	2% *
Accidents	3% *

ns not significant

* significant at 95% level

How do provisional estimate differ from the final estimates?

The provisional estimates have a wider range than the final estimates. This is because the provisional estimates are based on fewer toxicology reports (27% for this release) from coroners and procurators fiscal. The final estimates will be based on more reports and will, therefore, increase the accuracy of the results.

Table RAS51001: Casualties in reported drink-drive accidents: GB 1979 to 2016

Year	Accidents ¹				Casualties ¹					
	Fatal	Serious ³	Slight ³	Total	95% CI	Killed	95% CI	Serious ³	Slight ³	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
1981	1,200	4,940	10,900	17,040	:	1,420	:	7,370	19,160	27,950
1982	1,300	5,420	12,070	18,800	:	1,550	:	8,010	20,660	30,220
1983	950	4,750	11,430	17,130	:	1,110	:	6,800	18,610	26,520
1984	1,000	4,790	11,540	17,320	:	1,170	:	6,820	19,410	27,390
1985	900	4,900	11,460	17,260	:	1,040	:	6,810	19,380	27,220
1986	850	4,590	11,510	16,940	:	990	:	6,440	19,220	26,650
1987	780	4,220	10,560	15,560	:	900	:	5,900	17,670	24,470
1988	680	3,660	10,190	14,520	:	790	:	5,100	16,860	22,740
1989	700	3,390	10,300	14,390	:	810	:	4,790	16,620	22,220
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
2016 (P)	230	1,000	4,860	6,080	200	240	280	1,260	7,550	9,050

1. Estimates are rounded to the nearest ten.

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

3. Changes in severity reporting systems for a large number of police forces in 2016 mean that serious injury figures, and to a lesser extent slight injuries, are not comparable with earlier years. More information is available in the 2016 annual report

(P) = Provisional

Strengths and weaknesses of the data

Sampling uncertainty

Toxicology data are not available for all killed drivers / riders recorded in STATS19 and are typically available for around 60 to 70 per cent of relevant cases (averaging 62 per cent between 2011 and 2015). To account for the killed drivers without a known Blood Alcohol Content (BAC), the casualties from the known cases are scaled up. The estimates are therefore 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 any other severity level.** The reason for this is that 53 per cent of the fatalities in 2016 were motor vehicle drivers themselves.

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 as set out in the Code of Practice for Official Statistics. They undergo quality assurance reviews to ensure that they meet customer needs. The statistics were last assessed during 2013 and the report, [number 258](#), is available.

Details of Ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found [here](#).

Changes in systems for severity reporting

The 2016 figures have been affected by a large number of police forces changing their reporting systems during the year which has had a large impact on the classification of non-fatal number of serious injuries recorded in 2016. Further details are in the [2016 Annual report](#).

Additional tables published with this release

Self reporting drink and drug drive statistics from the [Crime Survey](#) for England and Wales for 2016/17.

[Breath tests and breath test failures](#) for drivers and riders involved in reported road accidents in 2016.

Digital [Roadside breath tests](#) results for 2016.

Estimated number of reported accidents involving a car drink driver [by age](#) for 2015.

Reported roadside [breath tests and breath test failures](#) for England and Wales for 2016.

Reported [motorcyclist breath tests](#) and failure rates by age in Great Britain for 2016

Methodology details

A [methodology note](#) is available describing how the estimates are compiled from the sources.

Next release

Updated 2016 final estimates for casualties in reported drink-drive accidents are scheduled to be published in August 2018.