



Department for Transport

## Reported road casualties in Great Britain: provisional estimates involving illegal alcohol levels: 2018

### 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 2018.

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

Final 2018 estimates, based on more complete data, will be published in August 2020.

### 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).

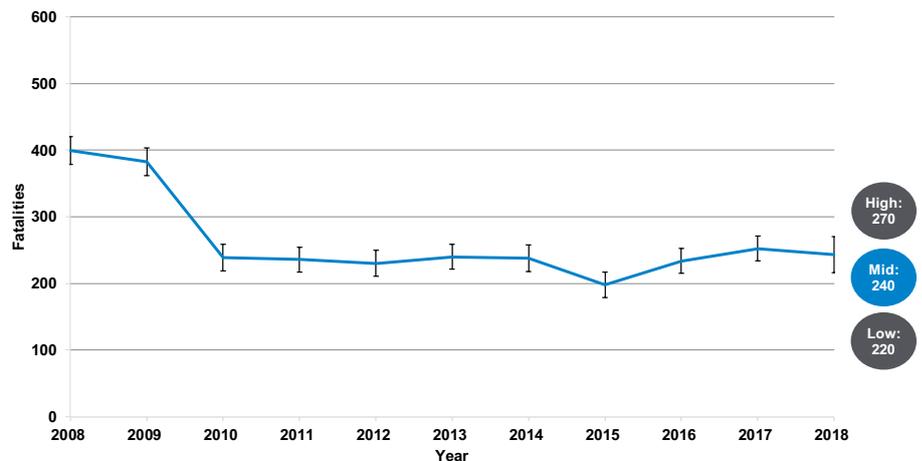
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Provisional estimates for 2018 show that between **220 and 270** people were killed in accidents in Great Britain where at least one driver was over the drink-drive limit, with a central estimate of **240** deaths.

- The provisional estimate of **fatalities** for 2018 is similar to levels seen since 2010 and the fall from 250 in 2017 is **not statistically significant** (see definition opposite).

**Chart 1: Fatalities in reported drink-drive accidents: GB 2008-2018; error bars show 95% confidence intervals**



[RAS51001]

- An estimated 8,700 people were **killed or injured** when at least one driver was over the drink-drive limit. This represents an **increase** of 1% from 8,600 in 2017, although it is lower than in 2016.
- The **total number of accidents where at least one driver was over the alcohol limit** rose by 4% to 5,900 in 2018.

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# Casualties in drink-drive accidents in 2018

The provisional central estimate of the number of deaths in accidents with at least one driver over the alcohol limit for 2018 is **240**. This represents about 13% of all deaths in reported road accidents in 2018. **The central estimate for 2018 is lower than the final figure for 2017, but the decrease is not statistically significant.** The 95% confidence range indicates that we can be 95% certain that the **true figure, is between 220 and 270 fatalities.**

The provisional estimate for 2018 is based on coroners' and procurators' fiscal reports for 47% of the drivers or riders who were killed in road traffic accidents in 2018 in addition to breath tests taken at the scene (see definitions opposite). The final figure for 2018 will be published in August 2020, and is likely to be based on around 60-70% of drivers who died in road accidents. Therefore the **final 2018 figure may be different from this provisional estimate.**

## Definitions

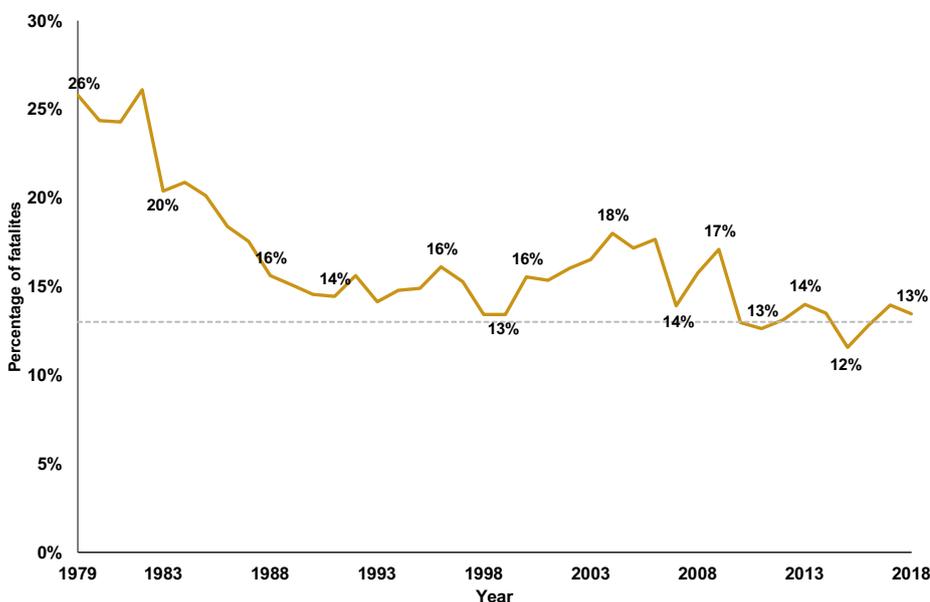
**Drink-drive accident:** A reported incident on a public road in which someone is killed or injured, where at least one of the motor vehicle drivers or riders involved met one of these criteria:

- 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).
- refused to give a breath test specimen when requested by the police (other than when incapable of doing so for medical reasons).
- 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](#).

**Chart 2: Fatalities in reported drink-drive accidents as a proportion of all fatalities: GB, 1979-2018**

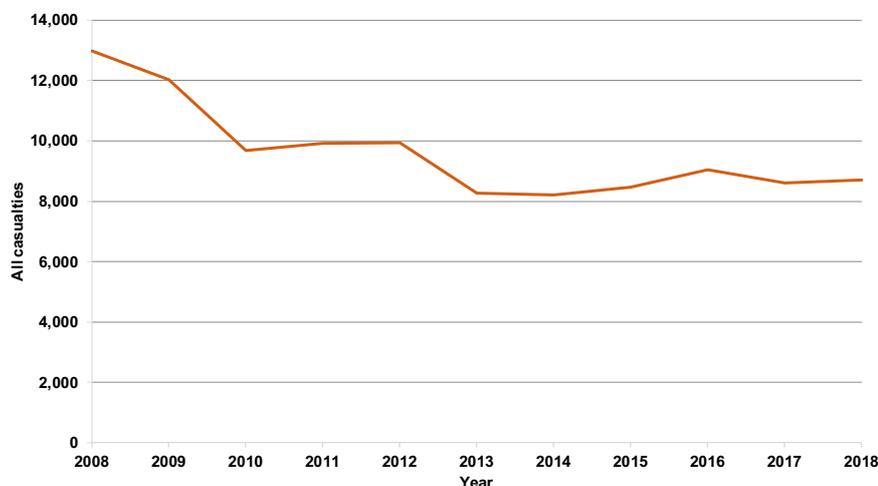


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The prevalence of drink-driving in road deaths has fallen over time. In 1979, 26% of road deaths occurred in accidents where at least one driver/rider was over the drink-drive limit. This had fallen to 16% by 1988. Since 2010 the percentage of road deaths that are drink-drive related has been around 13%.

The central estimate of the number of **drink-drive casualties of all severities** in 2018 is 8,700, an increase of 1% on 2017. This is 4% lower than the number in 2016.

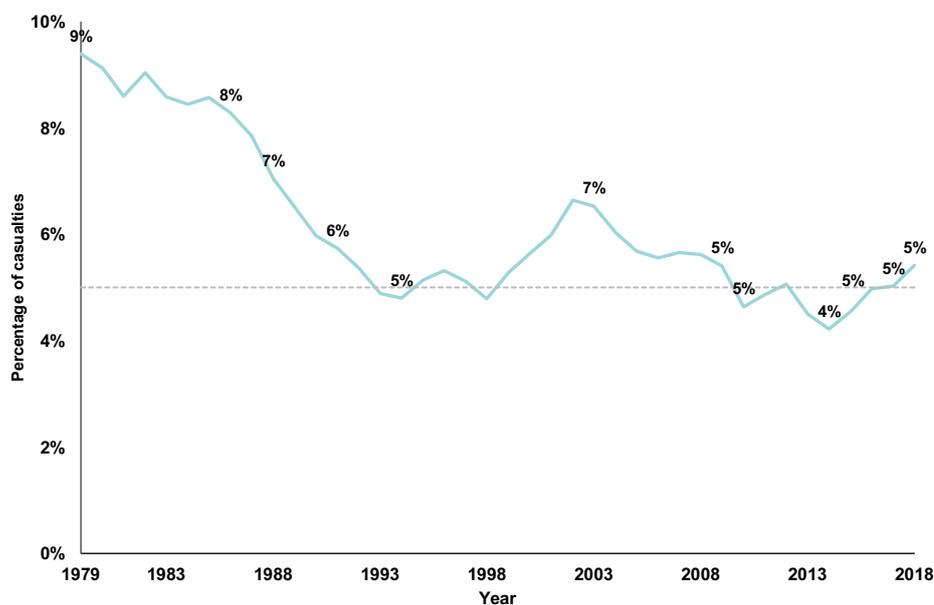
**Chart 3: Total casualties in reported drink-drive accidents: GB 2008-2018**



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It is provisionally estimated that around 5% of all casualties in reported road accidents in 2018 were involved in accidents in which at least one driver or rider was over the drink-drive limit.

**Chart 4: Casualties in reported drink-drive accidents as a proportion of all casualties: GB, 1979-2018**



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In 1979, 9% of road casualties occurred in accidents in which at least one driver/rider was over the drink-drive limit. This has fallen to 6% by 1990 and has mainly varied around 5% since then.

## Uncertainty

These statistics, especially the number of fatalities, are subject to considerable uncertainty (see Sampling uncertainty on page 6). This means that it is impossible to be sure of the precise number of fatalities, so ranges and confidence intervals are used for fatalities throughout the publication.

## 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.

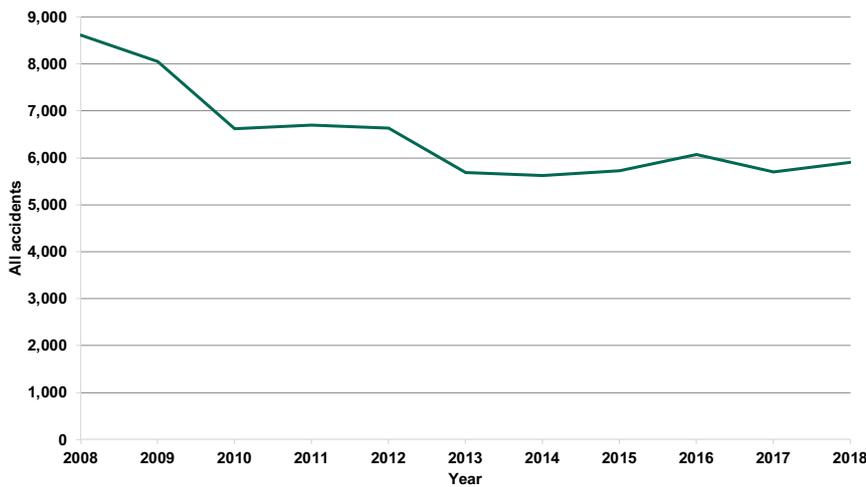
For instance, for 2018 we have an upper limit 270 fatalities and lower limit of 220. This means that we are 95% confident that the true number for 2018 will fall between these values, but most likely towards the centre of this range.

# Number of drink-drive accidents in 2018

There were an estimated 210 **fatal drink-drive accidents** in 2018. This is a decrease from 220 in 2017 and the lowest level since 2015, but the reduction from 2017 is **not statistically significant**.

The **total number of drink-drive accidents** of all severities rose by 4% from 2017 to 2018 to 5,900, but is still 3% below the level seen in 2016. This means that around 5% of all reported road traffic accidents in 2018 involved at least one driver/rider over the legal alcohol limit.

**Chart 5: Number of reported drink-drive accidents: GB 2008-2018**



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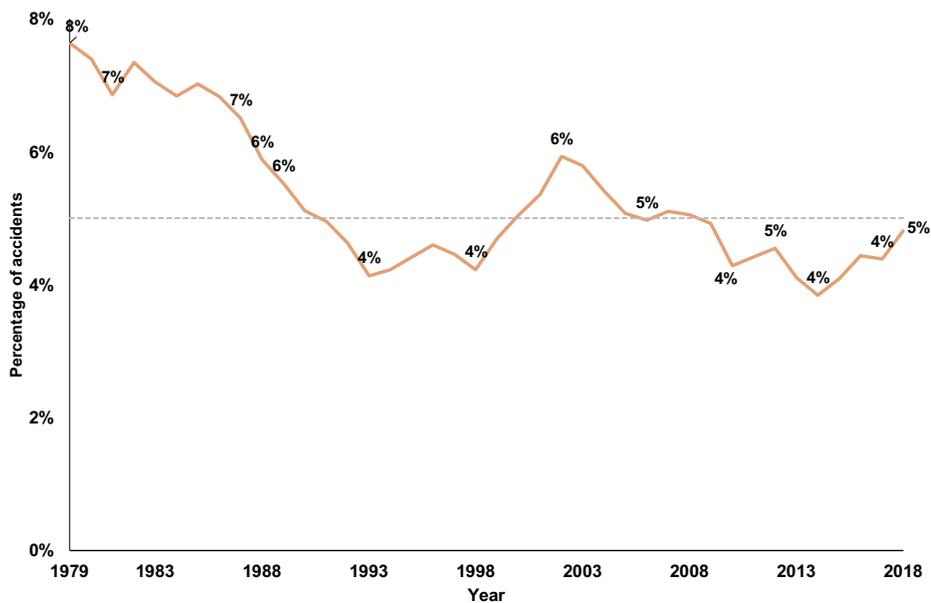
## Table published with this release

With this release, the headline table on drink-driving, [RAS51001](#), has been updated with provisional 2018 figures. It shows accidents and casualties by severity since 1979. The final update for 2018 will be published in August 2020.

## How do provisional estimates 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 (47% 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.

**Chart 6: Reported drink-drive accidents in comparison with overall reported accidents: GB, 1979-2018**



[RAS51001]

In 1979, 8% of reported road accidents were drink-drive related. This has fallen to 6% by 1988 and has been generally around 5% since then.

## Reviewing the frequency and improving the timeliness of drink-drive estimates

We want to further improve the quality and timeliness of road safety data. Currently, provisional drink-drive estimates are released 14 months after the end of the year reported on (with a return rate typically around 30% from coroners although higher at 47% in this release), and final estimates are released 20 months after the end of the year (with a return rate around 60% from coroners).

The range of uncertainty associated with the lower return rate at the provisional stage means that it is very unlikely the provisional publication can detect significant changes in the underlying trends. Therefore the road safety team aims to reduce the number of drink-drive publications from two (one provisional in February and one final in August) to one, more timely, release.

The road safety team is working to allow the data collection from coroners to start earlier and more regularly based on STATS19 data. The aim is to improve the overall response rate and allow one publication of drink-drive estimates to be released less than 20 months after the end of the year. This approach is currently being tested and progress will be reported on in due course.

Feedback from users on this approach is welcome at [roadacc.stats@dft.gov.uk](mailto:roadacc.stats@dft.gov.uk).

## Background on legislation

The Road Safety Act 1967 introduced the first drink-driving limit in the UK, set at a maximum blood alcohol concentration of 80mg of alcohol per 100ml of blood (or the equivalent 107mg of alcohol per 100ml of urine). It became an offence to drive, attempt to drive or be in charge of a motor vehicle on a road or other public place with a BAC that exceeded the maximum prescribed legal limit. The 1967 Act also made it an offence to fail to provide a specimen for a laboratory test without reasonable excuse.

[The Transport Act 1981](#) introduced evidential breath testing and established a maximum breath alcohol concentration of 35 micrograms of alcohol in 100ml of breath. This was implemented in 1983. Today, people are given a preliminary breath test at the roadside and then taken back to the police station for an evidential breath test.

Drink-driving legislation has been strengthened over the years, including tougher penalties for offenders which can include potentially unlimited fines, disqualification from driving, or facing imprisonment for the most serious offences.

On 5 December 2014, Scotland reduced the legal BAC limit for all drivers from 80mg/100ml of blood to 50mg/100ml. The drink drive limit introduced by the 1967 Act remains in place for England and Wales today.

## Evaluation of changes to the drink-drive limit

An independent evaluation of the impact of the limit reduction in Scotland led by the University of Glasgow was [published in the Lancet](#) on 12 December 2018. This evaluation took advantage of the natural experiment created by the lowering of the legal blood alcohol limit in Scotland only and compared data on weekly road traffic accident rates and alcohol consumption (off and on sales data) between Scotland (the intervention group) and England and Wales (the control group). The study found that lowering the drink-drive limit was not associated with any reduction in total accident rates or serious and fatal accident rates, but that the change was associated with a small reduction in per-capita alcohol consumption from on trade alcohol sales.

## 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% of relevant cases (averaging 62% between 2011 and 2017) for final estimates. Provisional estimates for 2018 are based on 47% of relevant cases.

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 54% of fatalities in 2018 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.

### Changes in systems for severity reporting

The figures since 2016 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. Further details are in the [2018 annual report](#).

### Methodology details

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

### Next release

Updated 2018 final estimates for casualties in reported drink-drive accidents will be published in August 2020.

## 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. Further information on the National Statistics designation of this statistical release can be found here: <https://www.gov.uk/government/publications/road-accidents-and-safety-statistics-guidance/national-statistics-status-of-reported-road-casualties-statistics>.

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>.