



Department for Transport

Reported road casualties in Great Britain: quarterly provisional estimates year ending September 2017

There were 1,720 road deaths in the year ending September 2017, which is not statistically different from the year ending September 2016.

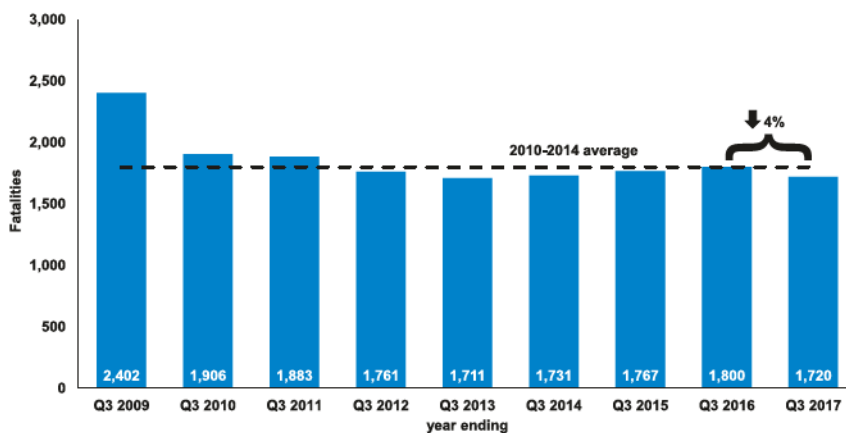
About this release

This publication provides the number of personal-injury road traffic accidents in Great Britain that were reported to the police for the year ending September 2017. It also includes the number of people killed or injured in these accidents and which road user group they were in.

In this publication

- Overall results [p2](#)
- Road user type [p4](#)
- Background to trends [p7](#)
- Changes to reporting [p8](#)
- Conclusions [p10](#)
- Data limitations [p11](#)
- Background [p12](#)

Road deaths: GB, rolling years ending September, 2009-2017



- A total of 27,010 people were **killed or seriously injured** (KSI casualties) in the year ending September 2017. **Comparisons of this figure with earlier years should be interpreted with caution due to changes in systems for severity reporting by some police forces.**
- There were 174,510 **casualties of all severities** in the year ending September 2017, **down by 5 per cent** from the previous year. This change is statistically significant at the 95% confidence level.
- **Motor traffic levels rose by 1.0 per cent** compared with the year ending September 2016.
- The overall **casualty rate per vehicle mile decreased by 5 per cent** over the same period.

Follow @DfTStats

What we can conclude: There has been a statistically significant decrease in the number of casualties of all severities in road traffic accidents between the years ending September 2016 and 2017. This indicates that there are a number of factors that have combined together to improve some aspects of safety on Britain's roads.

What we cannot conclude: Although the number of people killed in road traffic accidents has decreased between years ending September 2016 and 2017, this change is small enough that it can be explained by the natural variation in deaths over time. The serious injuries figures have been substantially affected, and to a much lesser degree slight injuries, by changes in systems for severity reporting by about half of all police forces. As a result, comparisons with year ending June 2016 serious injuries in particular should be interpreted with caution.

Overall results

Rolling year ending September 2017 ([Table RAS45001](#))

- In the year ending September 2017, there were 1,720 **reported road fatalities**, a 4 per cent decrease from 1,800 in the previous year. This decrease is **not statistically significant** and it is likely that the natural variation in the figures explains the change.
- There were 27,010 **killed or seriously injured** casualties (KSIs) in reported road traffic accidents, for the year ending September 2017. This figure is not comparable to the year ending September 2016 due to severity reporting changes (**see changes in systems for severity reporting box on page 3**).
- The **total number of casualties decreased by 5 per cent** to 174,510 (see **Chart 1**). This change is **statistically significant** at the 95% confidence level.
- Motor vehicle traffic increased by 1.0 per cent over the same twelve months.

[Table RAS45001](#): Reported road casualties by severity, GB: year ending September 2017

ALL CASUALTIES	Number/percentage change compared with previous 12 months		
	Oct-15 to Sep-16	Oct-16 to Sep-17 (P)	Percentage change
Killed	1,800	1,720	U4%
KSI ^{1,2}	25,420	27,010	R6%
Slightly injured ²	157,327	147,490	U6%
All casualties	182,747	174,510	U5%

P Provisional estimates

1 Killed or seriously injured

2 The year ending September 2017 figures for seriously injured and slightly injured casualties compared to September 2016 should be interpreted with caution due to changes in severity reporting by some police forces. Please see the changes in systems for severity reporting for more information.

Definition

Casualty: A person killed or injured in an accident. Casualties are sub-divided into killed, seriously injured and slightly injured.

Rolling year: a period of 12 months that begins and ends on a set day. In this publication the rolling year ending September 2017 represents the 12 months beginning on the 1st October 2016 and ending on the 30th September 2017.

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

Uncertainty

The figures in this publication are estimates and are subject to revision in future releases. See the [uncertainty section](#).

2010-2014 average

The 2010-14 average is used as a comparison time frame in both this publication and the accompanying statistical tables.

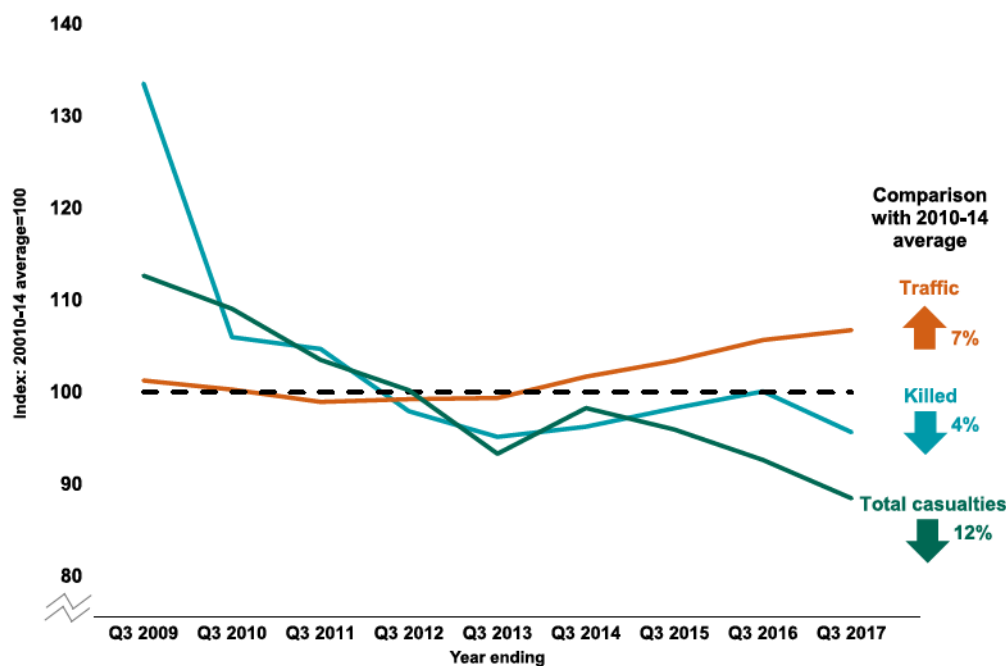
Statistical significance

The number of casualties can fluctuate from year to year and there is interest in knowing the extent to which these fluctuations represent an indication of a real underlying trend as opposed to random year-to-year variation.

A **statistically significant** change is one we can be sure is large enough that it can be considered as an indication of a real underlying trend.

A change that is **not statistically significant** is one that is likely to have come about by chance and therefore represents random year-to-year variation.

Chart 1: Killed casualties, total casualties and traffic compared with the 2010-14 average, GB, years ending September 2009 to 2017



Changes in systems for severity reporting

The figures for year ending September 2017 have been affected by a large number of police forces changing their reporting systems. It is likely that the recording of injury severity is more accurate for forces using these new reporting systems; this has had a large impact on the number of serious injuries recorded (25,290 compared with 23,620 in the year ending September 2016). Some of these serious injuries may previously have been classified as slight injuries which means that the serious injury figures are not comparable to previous years. Consequently, no comparisons of serious injuries with previous years are made in the commentary. [See page 7 for further details.](#)

Figures for July to September 2017 ([RAS45002](#))

- Between July and September 2017, 450 people were **killed** in reported road accidents. This is a decrease of 1 per cent compared to the same quarter of 2016.
- There were 7,250 **killed or seriously injured** casualties and 36,400 **slightly injured** casualties during this quarter.
- **Casualties of all severities** decreased by 6 per cent to 43,650 in comparison with the same quarter in 2016.
- Motor traffic levels increased by 0.5 per cent compared to the same quarter in 2016.

Tables

- Reported road casualties by severity (estimates): Great Britain, rolling annual totals, quarterly, table [RAS45001](#).
- Road traffic (vehicle miles) by vehicle type in Great Britain, quarterly from 1993, table [TRA2501](#).
- Reported road casualties by severity (estimates): Great Britain, quarterly and annual, table [RAS45003](#).

Table RAS45002: Reported road casualties by severity: GB, July to September 2017

ALL CASUALTIES	Number/percentage change compared with same quarter last year		
	Q3 2016	Q3 2017 (P)	Percentage change
Killed	455	450	↓1%
KSI ^{1, 2}	7,031	7,250	↑3%
Slightly injured ²	39,531	36,400	↓8%
All casualties	46,562	43,650	↓6%

P Provisional estimates

1 Killed or seriously injured

2 Quarter 3 2017 figures for seriously injured and slightly injured casualties compared to quarter 3 2016 should be interpreted with caution due to changes in severity reporting by some police forces. Please see the changes in reporting systems section for more information.

Interpretation of quarterly changes

Quarterly casualty figures are prone to fluctuation as they are strongly affected by external factors such as the weather. Therefore the changes in quarterly casualty figures in this release should be **interpreted with caution** and they **may not be indicative of an ongoing trend**.

Casualty rates (tables RAS45006 and RAS45007)

- In the year ending September 2017, fatalities decreased by 4 per cent and traffic levels rose by 1.0 per cent compared with the previous year. As a result, the **fatality rate per billion vehicle miles** decreased by 5 per cent to 5.
- Total casualties decreased by 5 per cent over the same period. When combined with the rising traffic volume the overall **casualty rate per billion vehicle miles** decreased by 5 per cent in the year ending September 2016 to 531.
- In the latest quarter, in comparison with the third quarter of 2016, fatalities decreased by 1 per cent, and overall casualties decreased by 6 per cent in the period July to September 2017. Over the same period, traffic levels increased by 0.5 per cent. As a result, the **fatality rate per billion vehicle miles** decreased by 2 per cent to 5 and the **overall casualty rate fell** by 7 per cent over the same period to 510.

Road user type

Rolling year ending September 2017 ([RAS45006](#))

- The total number of **pedestrian casualties increased** by 4 per cent in the year ending September 2017. There were 24,540 pedestrian casualties, of which 6,270 (26 per cent) were killed or seriously injured.
- The total number of **pedal cyclist casualties remained unchanged**. There were 18,450 pedal cyclist casualties, of which 3,750 (20 per cent) were killed or seriously injured.
- The total number of **casualties for motorcycle and car users decreased** in the year ending September 2017. There were 18,620 motorcycle user casualties, a decrease of 4 per cent compared

2010-2014 average



Car occupant casualties in the year ending September 2017 compared with the 2010-2014 average:

All casualties ↓ 16%

to the previous year (19,355). There were 6,050 (32 per cent) motorcycle users killed or seriously injured. There were 101,160 car user casualties, a decrease of 8 per cent compared to the previous year (110,250), of which, 9,680 (10 per cent) car users were killed or seriously injured.

- There were 15,850 **child (aged 0-15) casualties** in the year ending September 2017, decreasing slightly compared to the previous year. Of these, 2,230 (14 per cent) were killed or seriously injured. Child pedestrian casualties decreased by 2 per cent in the year ending September 2017, from 6,106 to 5,960, of which 1,360 (23 per cent) were killed or seriously injured.

- **Table RAS45006: Total casualties by road user type: GB, year ending September 2017**





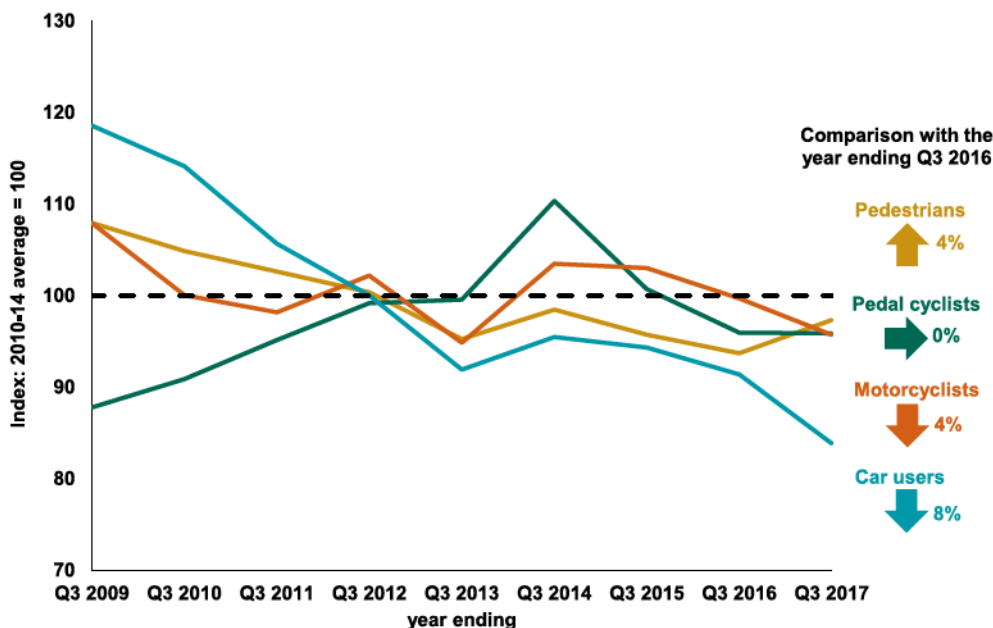
ROAD USER TYPE	Number/Percentage change compared with previous 12 months		
	Oct-15 to Sep-16	Oct-16 to Sep-17 (P)	Percentage change
 Car users	110,250	101,160	↓8%
 Motorcycle users	19,355	18,620	↓4%
 Pedal cyclists	18,467	18,450	↔0%
 Pedestrians	23,624	24,540	↑4%
All	182,747	174,510	↓5%
All Child Casualties	16,033	15,850	↓1%

Chart 2: Total casualties by road user type, GB: rolling years ending September, 2009 to 2017



2010-2014 average



Motorcycle user

casualties in the year ending September 2017 compared to the 2010-2014 average:

All casualties  4%

2010-2014 average



Pedal cyclist

casualties in the year ending September 2017 compared to the 2010-2014 average:

All casualties  4%

2010-2014 average



Pedestrian

casualties in the year ending September 2017 compared to the 2010-2014 average:

All casualties  3%

2010-2014 average



Child (aged 0-15)

casualties in the year ending September 2017 compared to the 2010-2014 average:

All casualties  11%

Figures for July to September 2017 ([RAS45007](#))

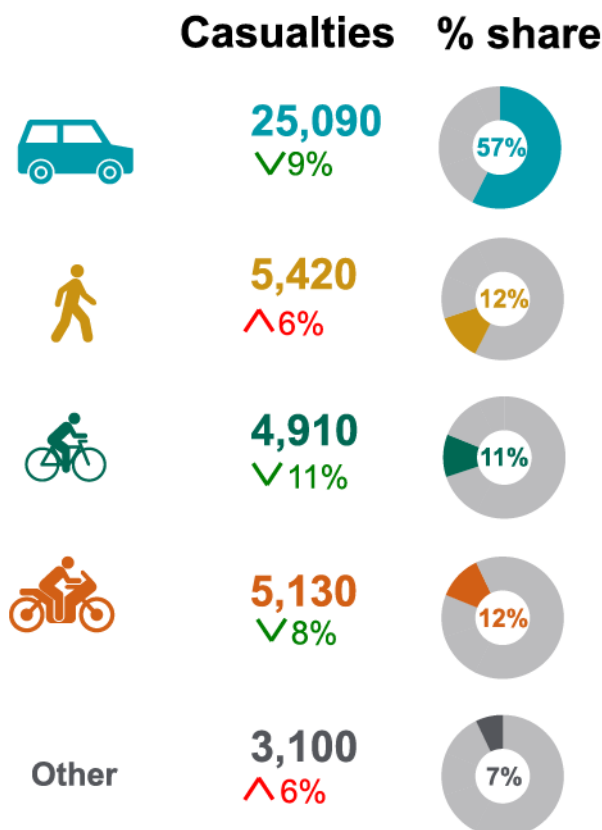
- In quarter 3 2017, the total number of all **pedestrian casualties** increased by 6 per cent to 5,420. Of which, 1,470 (27 per cent) were killed or seriously injured.
- **Pedal cyclist casualties** decreased by 11 per cent to 4,910 in the third quarter of 2017 compared with the third quarter of 2016. **Motorcyclist casualties** also decreased during this period by 8 per cent to 5,130.
- **Car user casualties** decreased by 9 per cent to 25,090 in the third quarter of 2017 compared to the third quarter of 2016 (27,430). The majority of these, 22,550 (90 per cent), were slightly injured.
- **Child casualties** decreased by 5 per cent to 4,200 in the third quarter of 2017. Of these, 630 (15 per cent) were killed or seriously injured. **Child pedestrian casualties** decreased by 7 per cent to 1,380 casualties, 350 (25 per cent) being killed or seriously injured.

Tables

• Reported road casualties by severity and road user type (estimates): Great Britain, rolling annual totals, updated quarterly, table [RAS45006](#).

• Reported road casualties by severity and road user type (estimates): Great Britain, latest available quarter, table [RAS45007](#).

Figure 1: Total casualties by road user type and percentage change compared to July to September 2016: GB, July to September 2017 ([Table RAS45007](#))



Background to trends

Uncertainty in the provisional estimates

The provisional statistics are based on data supplied by police forces with **some imputation** to account **for months that are either missing entirely or for which more records are expected later** in the year. Data are incomplete for September 2017 for Bedfordshire, Cambridgeshire, Dorset and North Wales Police. In addition, data for the Metropolitan Police Service (MPS) has only been provided by Transport for London (TfL) in an aggregated form for all months apart from January and February 2017 which means that it has not been possible to produce **Tables RAS45009 and RAS45010** which relate to breakdowns by road type.

The Metropolitan Police Service (MPS) implemented its Injury-Based Severity Reporting System, Case Overview and Preparation Application (COPA) in November 2016. Initial technical and data quality issues have led to delays in the provision of London's STATS19 data to the Department for Transport (DfT) database.

There is now a risk that DfT will miss its annual publication deadline for issuing final main results for 2017 at the end of June. DfT, Transport for London (TfL) and the MPS are continuing to work in collaboration to resolve data issues.

There have been substantial changes to previous supplied aggregated totals for London's provisional results. For serious casualties in Q1 and Q2 the MPS figures have been revised downwards by 11 per cent, following a quality assurance process. The changes for London have led to an adjustment for Great Britain of about 2 per cent for serious casualties for Q1 and Q2 which is substantial given the scale of year on year changes observed in the national series.

Changes in reporting systems used by police forces

Approximately half of English police forces adopted the CRASH (Collision Recording and Sharing) system for recording reported road traffic collisions at the end of 2015 or the first part of 2016, although Surrey has been using the system since November 2012. In addition, the Metropolitan Police Service (MPS) switched to a new reporting system called COPA (Case Overview Preparation Application) from September 2016.

In CRASH and COPA, the police officer records the types of injuries suffered by the casualty rather than the severity (severity is measured simply as 'slight' or 'serious'). Under other systems, to record severity directly, police officers need to determine themselves which injury type classifies into each of the two severity types. CRASH and COPA, in contrast, automatically converts the injury type to a severity classification which eliminates the uncertainty that arises from the officer having to make their own judgement. If this hypothesis is demonstrated to be correct then it means that the new severity level data from these systems are more accurate than the data from other systems.

Definitions

CRASH: Collision Recording and Sharing system. This is a centralised system used by some police forces to record road traffic collisions.

COPA: Case Overview Preparation Application. This is a system used by the Metropolitan Police Service to record road traffic collisions.

Table a shows the link between injury and injury severity as used in the CRASH system.

Table a: Classification of injury severity using the CRASH reporting system

Injury in CRASH	Detailed severity	Severity classification
Deceased	Killed	Killed
Broken neck or back	Very Serious	Serious
Severe head injury, unconscious	Very Serious	Serious
Severe chest injury, any difficulty breathing	Very Serious	Serious
Internal injuries	Very Serious	Serious
Multiple severe injuries, unconscious	Very Serious	Serious
Loss of arm or leg (or part)	Moderately Serious	Serious
Fractured pelvis or upper leg	Moderately Serious	Serious
Other chest injury (not bruising)	Moderately Serious	Serious
Deep penetrating wound	Moderately Serious	Serious
Multiple severe injuries, conscious	Moderately Serious	Serious
Fractured lower leg / ankle / foot	Less Serious	Serious
Fractured arm / collarbone / hand	Less Serious	Serious
Deep cuts / lacerations	Less Serious	Serious
Other head injury	Less Serious	Serious
Whiplash or neck pain	Slight	Slight
Shallow cuts / lacerations / abrasions	Slight	Slight
Sprains and strains	Slight	Slight
Bruising	Slight	Slight
Shock	Slight	Slight

Table b shows the police forces which used either CRASH or COPA for at least part of 2016. **Table c** provides aggregated information on the number of accidents and casualties by severity observed year on year for forces which were using CRASH or COPA in 2016 compared to those which continued to use previous systems.

Tentatively, using forces which had no change in system as an indicator for the underlying change from 2015 to 2016, this would suggest that taking out the effects of moving to CRASH or COPA would show that both serious accidents and serious casualties would have been virtually unchanged compared with 2015. The effect on slight accidents would have been to show a marginally larger decline in the level shown in the statistics if there had been no changes in reporting systems.

Given that a number of forces were not using CRASH for the whole of 2016, further differences in reporting are going to be a feature of the 2017 data even if no more forces change reporting system.

Table b: Adoption dates for CRASH or COPA by police force

Police Force	System Used	Adoption Date
Bedfordshire	CRASH	April 2016
Cambridgeshire	CRASH	May 2016
City of London	CRASH	November 2015
Cumbria	CRASH	January 2016
Devon and Cornwall	CRASH	December 2015
Durham	CRASH	March 2016
Essex	CRASH	November 2015
Gloucestershire	CRASH	November 2015
Hertfordshire	CRASH	April 2016
Humberside	CRASH	January 2016
Kent	CRASH	January 2016
Metropolitan Police Service	COPA	September 2016
Norfolk	CRASH	February 2016
Northumbria	CRASH	April 2016
South Yorkshire	CRASH	January to February 2013, then January 2016 onwards
Staffordshire	CRASH	May 2015
Suffolk	CRASH	February 2016
Surrey	CRASH	November 2012
Warwickshire	CRASH	November 2015
West Mercia	CRASH	December 2015
West Midlands	CRASH	November 2015

Note that adoption dates are indicative as there can be phased introduction of new systems

The early indications are that switching to CRASH / COPA has added between 5 and 15 per cent to the Great Britain total for serious injuries, although it appears the percentage is relatively much larger for COPA. This is still very much a preliminary estimate, and the Department, along with Transport for London, intends to publish more detailed research and analysis looking at the effects of switching to the CRASH and COPA systems in due course. As a starting point the Methodology Advisory Service in the Office for National Statistics has been commissioned to undertake some research to provide guidance to users in understanding these effects, but also to establish methods to produce adjusted back-estimates of already published severity based data. This will enable the Department for Transport (DfT) to produce consistent time series which are independent of the reporting system used.

Table c: Comparison of reported accidents and casualties for forces using CRASH/COPA and forces not using CRASH/COPA

Accidents/Casualties	Forces using CRASH/COPA in 2016			Forces not using CRASH/COPA in 2016		
	2015	2016	% change	2015	2016	% change
Fatal accidents	733	750	2%	883	945	7%
Serious accidents	9,007	10,813	20%	11,031	10,912	-1%
Slight accidents	65,387	63,092	-4%	53,015	50,109	-5%
Fatal casualties	791	787	-1%	939	1,005	7%
Serious casualties	9,869	11,864	20%	12,275	12,237	0%
Slight casualties	87,898	85,351	-3%	74,417	70,140	-6%

Conclusions

Although there has been a decrease in fatalities and total casualties in the year ending September 2017, **these changes should be interpreted with caution. The decrease in fatalities in the year ending September 2017 is not statistically significant.** Therefore we cannot be sure that there has been a real change in fatalities. Instead this decrease is **likely to have come about by chance.**

The **decreases in total casualties are statistically significant** so this indicates that there has been a real improvement. Even this cannot be taken for certain, though. An **alternative explanation** could be that police forces are **less likely to attend accidents** which only result in slight injuries. This would lead to a decrease in casualties recorded.

As discussed in the section on uncertainty, there are a number of police forces with data missing for periods of the year. This also creates **uncertainty in these estimates.** Once the missing data from these forces become available later in the year it is possible that there could be notable revisions to the year to date data for 2017.

Further information

A full list of the definitions used in this publication can be found here: www.gov.uk/government/uploads/system/uploads/attachment_data/file/462818/reported-road-casualties-gb-notes-definitions.pdf.

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

Tables

Reported road casualties by police force area, rolling annual totals, updated quarterly, table [RAS45011](#).

Next release

The next release of reported road casualty statistics, will be the reported road casualties in Great Britain main results for 2017. This will be published in June 2018.

Strengths and weaknesses of the data

- The quarterly figures are based on estimates. No single quarter's figures should be taken in isolation as an indication of long-term trend, as there are seasonal fluctuations particularly in the smaller categories of road user. The 2017 Q3 results are based on complete (July to September 2017) figures provided by 39 police authorities with partial data for four authorities. Adjustments are made to take account of missing data. [Table RAS45011](#) provides a list of which police authorities are included in these figures. As described above, there is considerable uncertainty in the adjustments.
- Comparison of road accident reports with death registrations shows 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, as hospital, survey and compensation claims data all indicate a higher number of casualties than suggested by police accident data.
- 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 kept in mind when using and analysing the figures. However, police data on road accidents (STATS19), whilst not perfect, remain the most detailed, complete and reliable single source of information on road casualties covering the whole of Great Britain, in particular for monitoring trends over time.
- Following requests from users, we have started to include casualty rates in the quarterly release i.e. casualty rates per mile. They are based on provisional casualty and traffic estimates and are subject to revision at the end of the year.
- Provisional traffic estimates do not include pedal cycling estimates. We have attempted to adjust for this in the figures by adding in approximately 1% extra vehicle miles. This ratio is based on the relationship between all motor vehicle traffic and pedal cycle traffic for 2014 to 2016.
- The figures in this release are based on information available to DfT as at 30 January 2018.

Background notes

- The Reported Road Casualties Great Britain Quarterly Provisional Estimates web page provides further detail of the key findings presented in this statistical release. The tables are available at: www.gov.uk/government/statistics/reported-road-casualties-in-great-britain-provisional-estimates-july-to-september-2017
- A note on methodology can be found at: www.gov.uk/government/publications/road-accidents-and-safety-statistics-guidance
- 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 first assessment report (report number 4) and letter confirming that the statistics have been designated as National Statistics are available at: <https://www.statisticsauthority.gov.uk/publication/statistics-on-reported-road-casualties/>. The statistics were reassessed during 2013 and the report, number 258, was published at the link above on the 25th July 2013.
- Details of Ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found here: www.gov.uk/government/publications/road-accident-and-safety-statistics-pre-release-access-list
- The latest annual road safety publication, Reported road casualties Great Britain, annual report: 2016, is available at: www.gov.uk/government/statistics/reported-road-casualties-great-britain-annual-report-2016.



To hear more about DfT statistics publications as they are released please follow us on Twitter via our @DfTstats account: <http://www.twitter.com/DfTstats>. TWITTER, TWEET, RETWEET and the Twitter logo are trademarks of Twitter, Inc. or its affiliates