Department for Transport

Reported road casualties in Great Britain: 2019 annual report

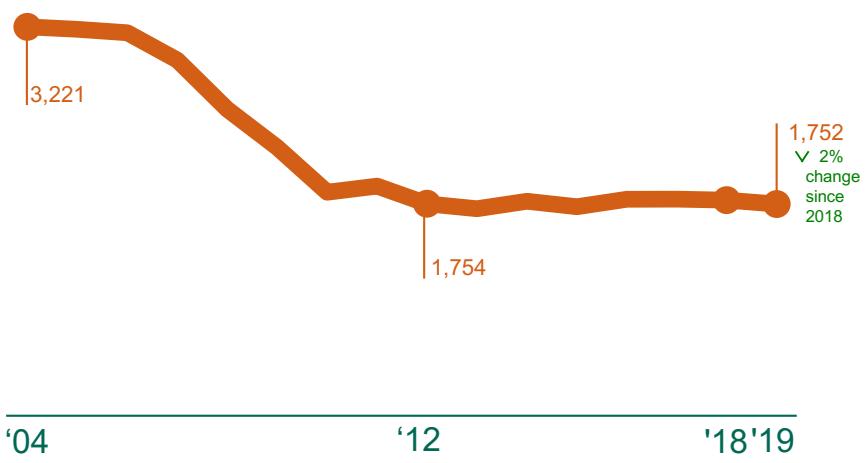
There were 1,752 reported road deaths in 2019, similar to the level seen since 2012, which follows a period of substantial reduction in fatalities from 2006 to 2010.

About this release

This release gives an overview and commentary of reported road casualties in 2019. It provides the number of personal injury road traffic accidents in Great Britain that were reported by the police in 2019 using the STATS19 reporting system. It also includes the number of people killed or injured in these accidents and which road user group they were in. This is the final release of headline accident and casualty figures for 2019 and an update of provisional results published in July 2020.

In this publication

Chart 1: Fatalities in reported road accidents: GB, 2004-2019



- There were 25,945 **serious injuries** in road traffic accidents **reported to the police** in 2019. However, comparison of this figure with earlier years should be interpreted with caution due to changes in systems for severity reporting by some police forces. The report contains further information and an estimate adjusted to account for this discontinuity.
- There was a total of 153,158 **casualties of all severities** in reported road traffic accidents in 2019. This is 5% lower than in 2018 and is the lowest level since 1979 when this statistical series with current definitions and detail began.
- Accounting for change in traffic, the rate of fatalities per billion vehicle miles has fallen by 4% from 5.06 in 2018 to 4.87 fatalities per billion vehicle miles in 2019.

RESPONSIBLE STATISTICIAN: Aimee Murphy Email: roadacc.stats@dft.gov.uk
FURTHER INFORMATION: Media: 020 7944 6898 Public: 020 7944 6595

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Introduction

This publication provides the number of personal injury road traffic accidents in Great Britain that were reported to the police in 2019 using the STATS19 reporting system. It also includes the number of people killed or injured in these accidents and which road user group they were in.

The figures make up part of a long running series going back to 1926. The current set of definitions and detail of information goes back to 1979, providing a long period for comparison.

Further information

Information about the data collected, notes, definitions and guidance is available here: https://www.gov.uk/government/publications/road-accidents-and-safety-statistics-guidance.

The information used to create these statistics are collected by police forces, either through officers attending the scene of accidents or from members of the public reporting the accident in police stations after the incident, or more recently online.

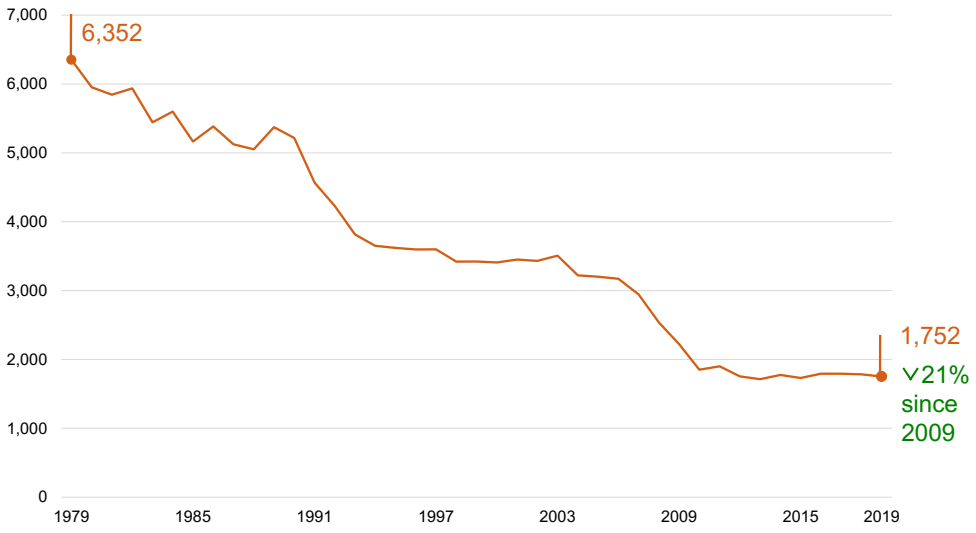
There is **no obligation for people to report all personal injury accidents to the police** (although there is an obligation under certain conditions, as outlined in the Road Traffic Act). These figures, therefore, **do not represent the full range of all accidents or casualties** in Great Britain. Please see the section on strengths and weaknesses of the data for further details.

All accidents that were reported by the police and that occurred on a public highway involving at least one motor vehicle, horse rider or pedal cyclist, and where at least one person was injured are included. Accidents that happened on private land (including private drives) or car parks are not included in the statistics. Damage only accidents that do not result in personal injury are also excluded from these statistics.

Fatalities

A total of 1,752 people were killed in reported road traffic accidents in Great Britain in 2019, similar to the level seen since 2012, which followed a period of substantial reduction in fatalities from 2006 to 2010.

Chart 2: Fatalities in reported road accidents: GB, 1979-2019



Definition

Casualty: A person killed or injured in a reported accident on a public road. 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: https://www.gov.uk/government/publications/road-accidents-and-safety-statistics-guidance.

The number of fatalities in 2019 (1,752) was 2% less than in 2018 (1,784), however, this small decrease may be due to natural variation. The trend in the number of fatalities has been broadly flat since 2010. Previously, and particularly between 2006 and 2010, the general trend was for fatalities to fall. Since that point, most of the year on year changes are either explained by one-off causes (for instance, the snow in 2010) or natural variation. The evidence points towards Britain being in a period when the fatality numbers are broadly stable.

Serious injuries

In 2019, there were 25,945 seriously injured casualties in reported road traffic accidents. This figure is **as reported to the police** and is **not comparable to earlier years** due to changes in severity reporting. From 2016 onwards, figures on the severity of injury 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 in 2016 (24,101), 2017 (24,831), 2018 (25,511) and 2019 (25,945) compared with 2015 (22,144). Some of these serious injuries may previously have been classified as slight injuries which means that the 2016, 2017, 2018 and 2019 serious injury figures are not comparable to previous years and to each other. Please see the strengths and weaknesses section for more information.

The Office for National Statistics (ONS) Methodology Advisory Service have completed analysis to quantify the effect of the introduction of new injury based reporting systems (CRASH and COPA) on the number of slight and serious injuries reported to the police, and to estimate the level of slight and serious injuries as if all police forces were using injury-based reporting systems. This is described in detail in the final ONS methodology report. The final report was published alongside last year's Road Casualties in Great Britain 2018 statistical release to set out how this methodology was finalised: https://www.gov.uk/government/statistics/reported-road-casualties-in-great-britain-annual-report-2018.

This methodology has allowed us to produce the following experimental statistics. This is a developing area, where we continue to welcome users views both on the methodology and on the ways in which you are using the statistics and any challenges you face. Last year we implemented the severity adjustments methodology for the first time and published adjusted figures in a limited number of our statistical tables. This year we have included adjusted figures in all of the statistical tables that are published alongside Reported road casualties in Great Britain, annual report: 2019 and welcome feedback from users. However, in advance of that and to aid user understanding, we included the probabilities of each casualty being serious under injury-based systems alongside the underlying dataset https://data.gov.uk/dataset/cb7ae6f0-4be6-4935-9277-47e5ce24a11f/road-safety-data. This is so that users can reproduce the summary tables and test out some limited further splits. Further guidance is given in the Annex.

The model has been updated in 2020 for use in producing 2019 adjustments, as more police forces moved to an injury based reporting system in 2019. This has led to us revising all previously adjusted figures and seeing an uplift in the adjusted serious injuries compared to the model used in 2018, . This may be due to forces joining CRASH during 2019, such as the Scottish police forces in July 2019 and Sussex in April 2019, therefore we did not have a full year of CRASH data for all affected forces. Over the next few years we expect to update the model further, as more forces move to an injury based reporting system.

Changes in systems for severity reporting

Please see the changes in reporting systems section within the Strengths and Weaknesses chapter for more information on the changes in systems for severity reporting.

The Office for National Statistics have completed work to quantify the effect of the introduction of these systems on the number of slight and serious injuries. An update to the final methodology is available in the Annex.

The majority of tables which accompany the publication present both the numbers of serious and slight injuries **as reported by the police**, and **adjusted for the change in reporting systems** side by side for comparison.

We welcome your feedback on this approach, specifically how you are using these statistics and whether this meets your needs. Please contact us at roadacc.stats@dft.gov.uk.

As a guide to users, we recommend using the adjusted serious injuries data for understanding trends over time. However, for users wishing to look at low level geographic data just for the latest year, you are advised to use the unadjusted data from the open data. This is whilst we complete verification work in the coming year on the use of this modelled approached to small subsets of the data. Further guidance on how to use the adjustments is given in the Annex.

Assuming that all police forces were using injury-based severity reporting systems, the model estimates that there would have been 30,144 serious injuries and 31,896 people killed or seriously injured in 2019.

Chart 3: Serious injuries in reported road accidents (adjusted and reported): GB, 2004-2019

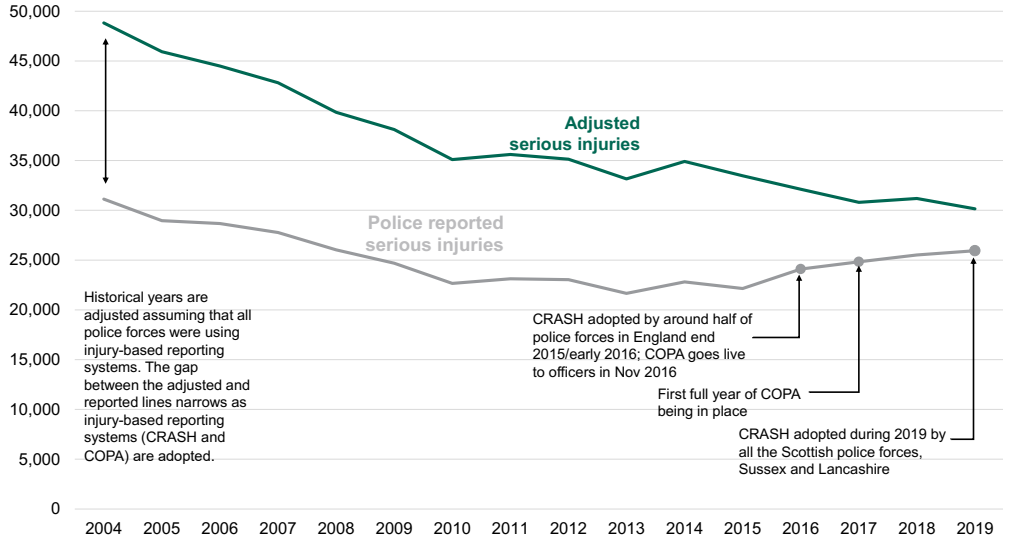


Chart 3 shows that when accounting for changes in reporting, the estimated number of serious injuries since 2010 has declined slightly, at a slower rate than before 2010.

Slight injuries

In 2019, there were 125,461 slightly injured casualties in reported road traffic accidents reported to the police. As explained in the previous section, this figure is **as reported to the police.**

Applying the severity adjustments methodology developed with the Office for National Statistics results in an estimated 121,262 slightly injured casualties, assuming that all police forces were using an injury-based severity reporting system.

Chart 4: Slight injuries in reported road accidents (adjusted and reported): GB, 2004-2019

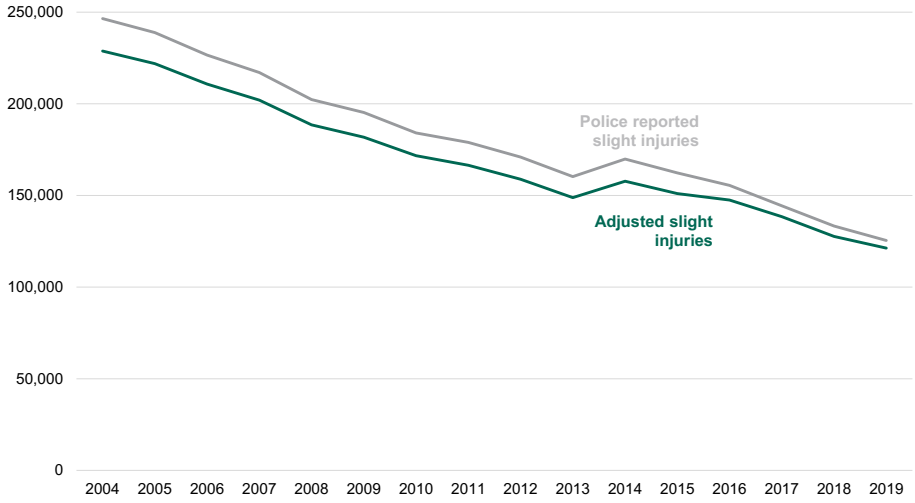


Chart 4 shows that when accounting for changes in reporting, the number of slight injuries in 2016 to 2019 has continued the decreasing trend observed since 2014.

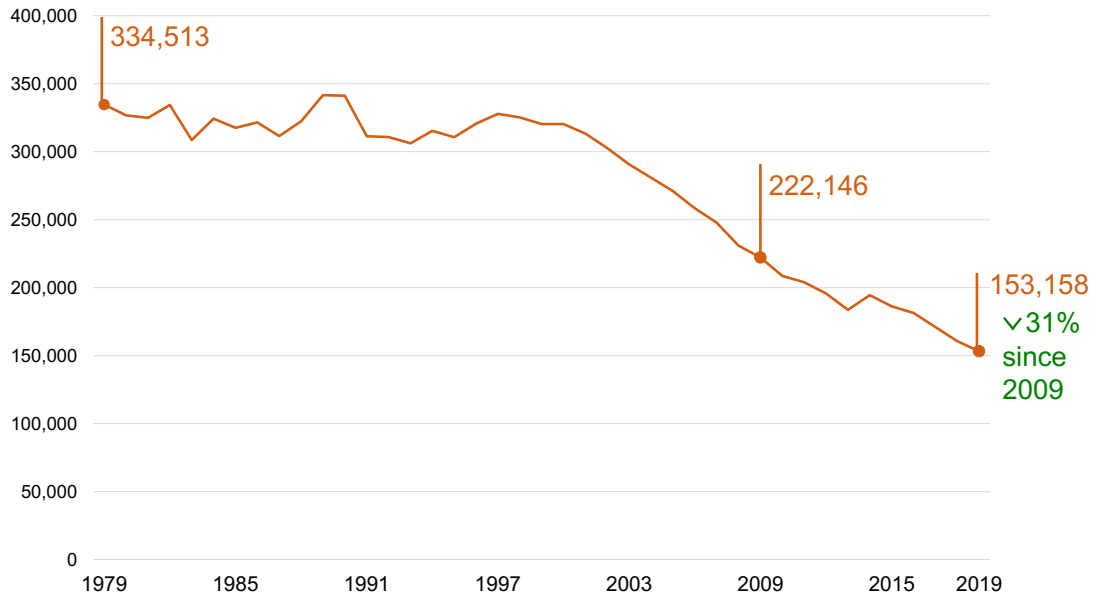
Total casualties

There was a total of 153,158 casualties of all severities in reported road traffic accidents in 2019. This is 5% lower than in 2018 and is the lowest level since 1979 when this statistical series with current definitions and detail began. However, this figure should be interpreted with caution for two reasons:

- It has long been known that non-fatal (and particularly slight) casualties are underreported to the police and therefore this figure is likely to be an underestimate of the total.
- The introduction of online self-reporting by the Metropolitan Police Service at the end of 2016 and a few other forces in 2018 (see online self-reporting section on page 41 for more details), may have affected the number of non-fatal (and particularly slight) casualties reported in these forces and therefore impact the total for Great Britain.

Comparisons to trends in other data sources available seem to suggest little change or a slight fall in casualties would be expected between 2018 and 2019. Please see the strengths and weaknesses section (page 27) for further information.

Chart 5: Casualties in reported road accidents: GB, 1979-2019



The long term trend in the number of casualties in reported road accidents was broadly flat from 1979 to 1998, allowing for natural variation in the number of casualties. Since 1998 there has been a downward trend in the number of casualties.

Summary of trends

The summary table below shows the number of reported road casualties in Great Britain in 2019 compared with previous years. Changes in unadjusted figures are presented for wider context, but it is advised to use the adjusted figures and changes to assess trends over recent years.

		Percentage change from:	
	2019	2018	2009
Killed	**1,752**	↓ 2%	↓ 21%
Seriously injured (unadjusted)[1]	25,945	↑ 2%	↑ 5%
Seriously injured (adjusted)[2]	**30,144**	↓ 3%	↓ 21%
KSI (unadjusted)[1,3]	27,697	↑ 1%	↑ 3%
KSI (adjusted)[2,3]	**31,896**	↓ 3%	↓ 21%
Slightly injured (unadjusted)[1]	125,461	↓ 6%	↓ 36%
Slightly injured (adjusted)[2]	**121,262**	↓ 5%	↓ 33%
All casualties	**153,158**	↓ 5%	↓ 31%

1. As reported to the police.

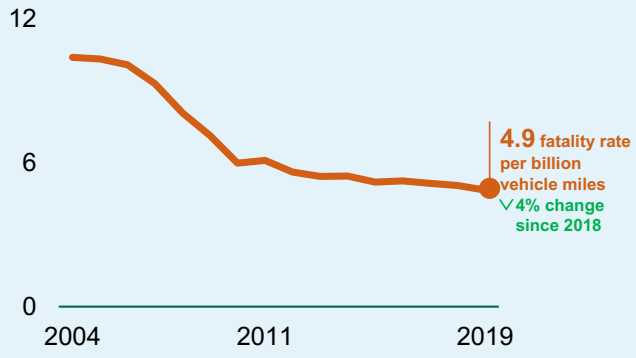
2. Adjusted estimates following methodology from the Office for National Statistics Methodology Advisory Service analysis accounting for change in severity reporting.

3. KSI - Killed or Seriously injured.

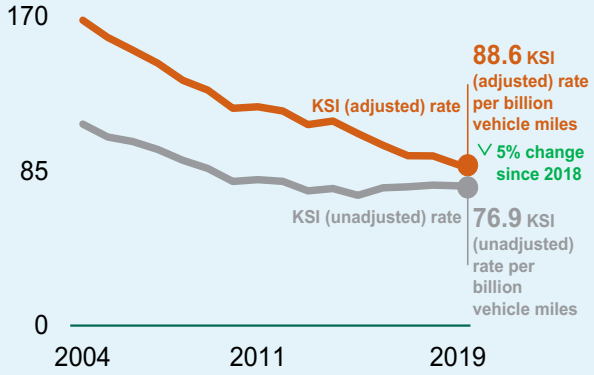
Trends in casualty rates

There are two key ways of looking at casualty numbers, in terms of **absolute counts** or in terms of **rates** taking into account distance travelled. The following graphs show trends in casualties per billion vehicle miles by severity.

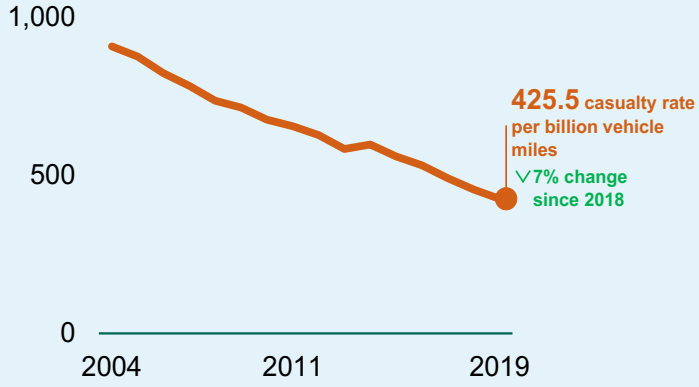
Fatalities per billion vehicle miles



Killed or seriously injured per billion vehicle miles



Total casualties per billion vehicle miles



Traffic
(billion vehicle miles) *

▲2.0%
change since 2018

▲16.6%
change since 2010

* Road traffic estimates in Great Britain, 2019: https://www.gov.uk/government/statistics/road-traffic-estimates-in-great-britain-2019. Traffic figures here exclude pedestrians and include pedal cycles.

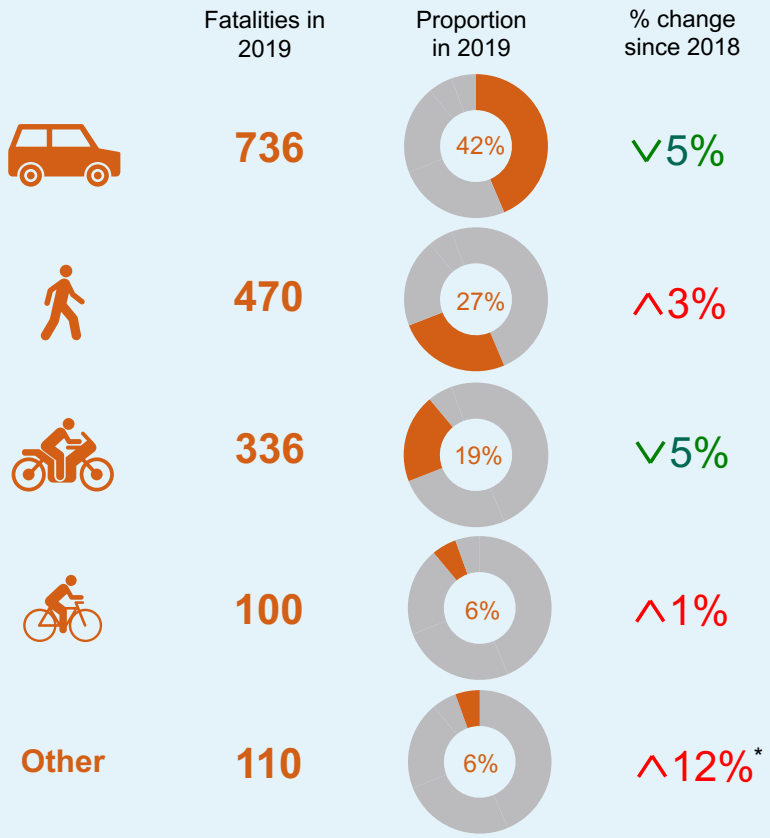
The number of fatalities per billion vehicle miles travelled has fallen slightly from 2009 (7.1) to 4.9 fatalities per billion miles travelled in 2019. When looking at the adjusted series, we see the number of killed or seriously injured casualties per billion vehicle miles decreased sharply until 2010, and declined gradually since to 88.6 people killed or seriously injured per billion vehicle miles travelled in 2019. This is because killed or seriously injured casualty numbers have declined slightly since 2010 while traffic has increased over the same period. The casualty rate per billion vehicle miles travelled decreased between 2009 to 2019 from 714.2 to 425.5 casualties per billion vehicle miles travelled, a decrease of 40%.

Casualties by road user type

In terms of **absolute counts**, **car occupants** (including car drivers and car passengers) come out as the road user group with the greatest number of casualties and fatalities each year (42% of total fatalities and 58% of total casualties in 2019). However, this is unsurprising as cars account for around 80% of the traffic on British roads.

Fatalities by road user type

In 2019, **car occupants** accounted for 42% of road deaths, pedestrians 27%, motorcyclists 19% and pedal cyclists 6%.



**Change should be interpreted with caution, given the underlying numbers for 'other' vehicles are smaller than other road user types.*

In terms of **casualty rates** (casualties per mile travelled) for each mode of transport, there is a group of road users with much higher casualty rates. These are typically referred to as **vulnerable road users** (usually defined as pedestrians, pedal cyclists and motorcyclists). All of these groups have much higher casualty rates per mile travelled in comparison with the other road user groups, as shown in **Chart 6**.

Chart 6: Casualty rate per billion passenger miles by road user type: GB, 2019

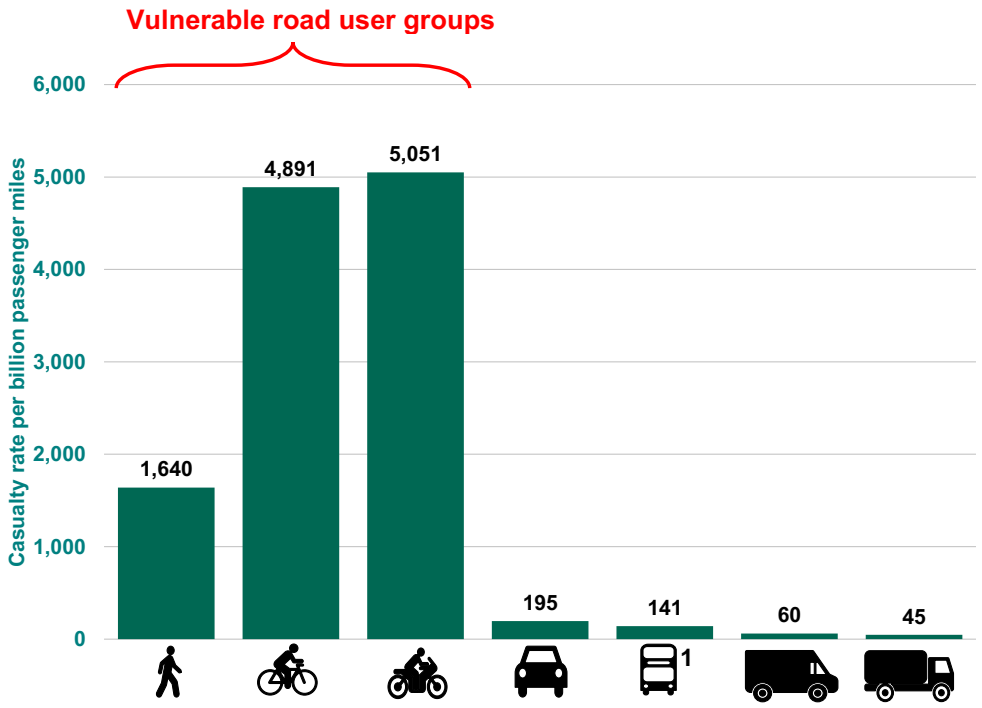
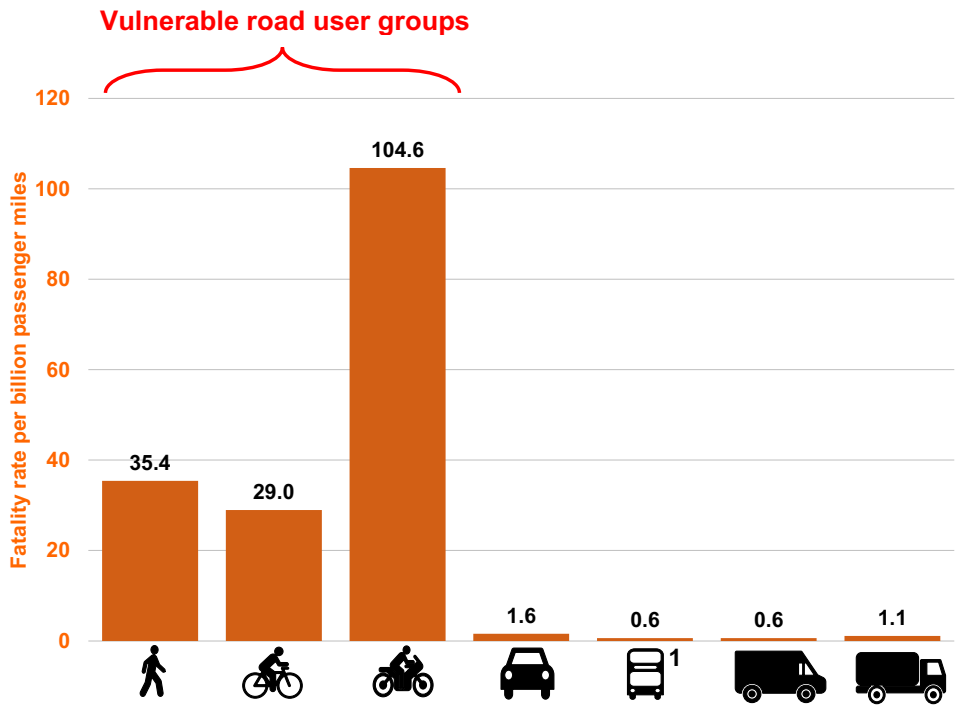


Chart 7: Fatality rate per billion passenger miles by road user type: GB, 2019



1. Bus passenger miles is based on the 2018 mileage figure as there is no 2019 figure available at the time of publication.

The pattern for **pedal cycles** is notable: the overall casualty rate of 4,891 casualties per billion miles cycled is close to the motorcycling casualty rate, whereas the fatality rate of 29.0 per billion miles cycled is much closer to the pedestrian rate. Over time there has been a decrease in the risk of all modes, however, vulnerable road users are still the most at risk.

Useful links

Figures for billion passenger miles by mode of travel are derived from the following sources:

National Travel Survey, 2019: https://www.gov.uk/government/statistics/national-travel-survey-2019

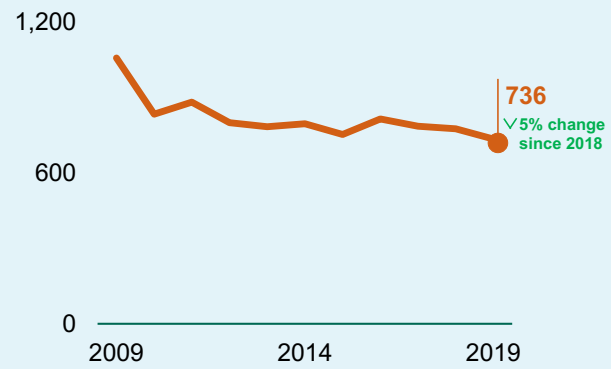
Annual bus statistics: year ending March 2019: https://www.gov.uk/government/statistics/annual-bus-statistics-year-ending-march-2019

Road traffic estimates, Great Britain: 2019: https://www.gov.uk/government/statistics/road-traffic-estimates-in-great-britain-2019.

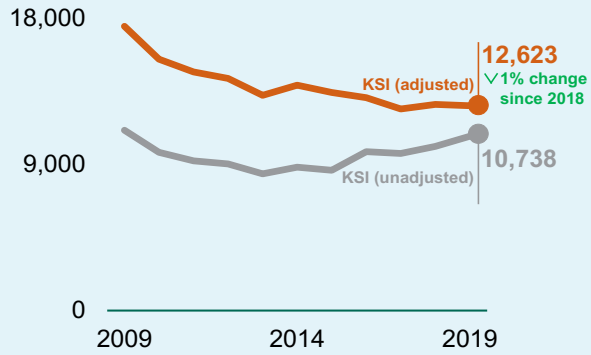
Car occupants

Car occupants continue to account for the **largest proportion of casualties** of all severities. A total of 736 **car occupants** were killed in 2019, down 5% (or 41 fatalities) from 777 in 2018. Even though cars account for the most traffic on Great Britain roads (around 80%), the car occupant fatality rate per billion passenger miles travelled was 1.6 in 2019. The majority of car occupant fatalities were car drivers, with 508 car drivers killed and 228 car passengers killed in 2019. Car occupants represents 42% of all fatalities in reported road accidents in 2019. Overall, car occupant casualties decreased by 5% to 89,331 in 2019 compared to 2018, and was the **lowest on record** representing 58% of all casualties in reported road accidents in 2019.

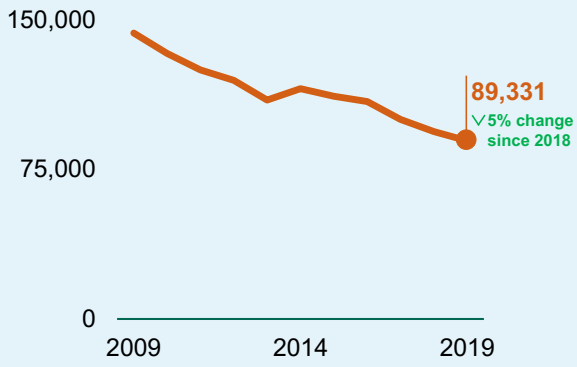
Fatalities



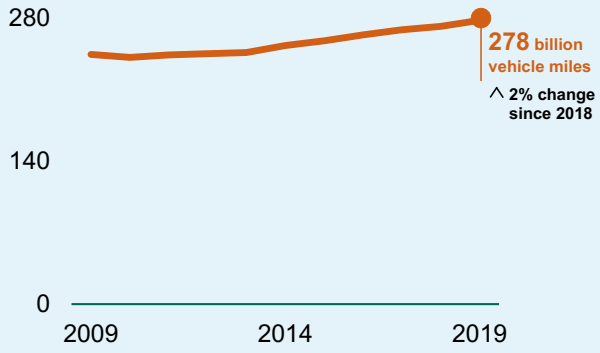
Killed or seriously injured



Total casualties



Traffic
(billion vehicle miles)

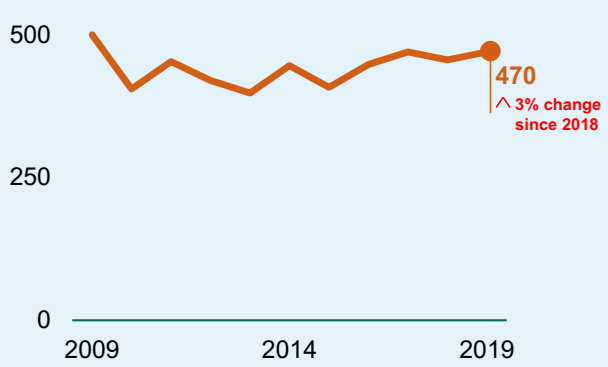


Car and taxi traffic in Great Britain increased by 2% from 2018 to 2019. Although increases in car and taxi traffic can lead to an increase in accidents, other factors can have a stronger influence on road safety.

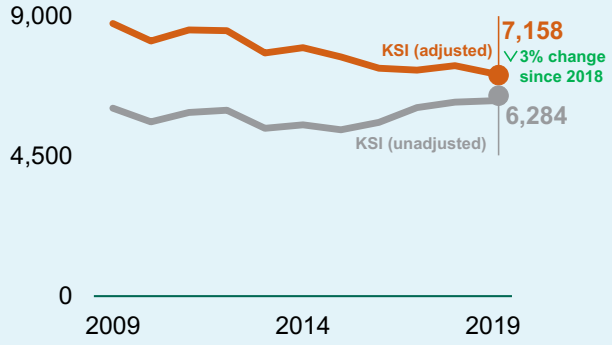
Pedestrians

Although **pedestrian fatalities** increased slightly from 456 in 2018 to 470 in 2019, the number of fatalities has remained broadly constant over the last ten years and year-on-year changes are likely to be due to natural variation. Overall, pedestrian casualties decreased by 3% between 2018 and 2019 to 21,770 pedestrian casualties. Pedestrians represented 14% of all casualties in 2019, a proportion that has increased very slightly in each of the last five years.

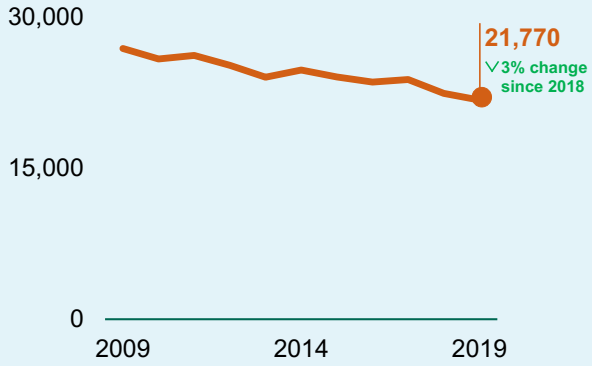
Fatalities



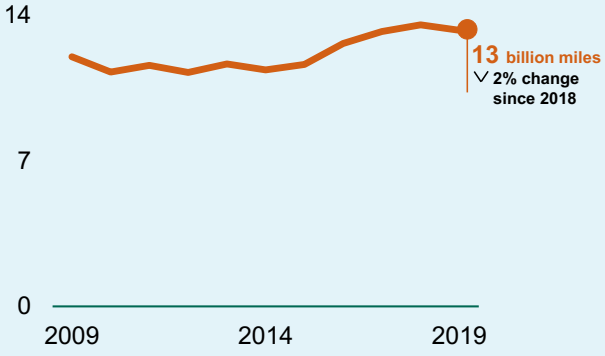
Killed or seriously injured



Total casualties



Distance walked
(billion miles) *



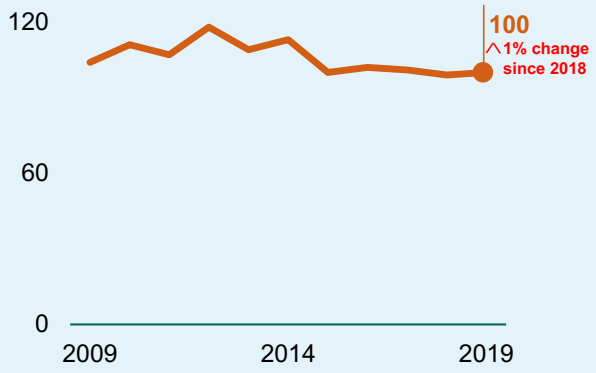
Estimates of distance walked have increased since 2014. However, the 2019 estimate of 13 billion miles walked is 2% less than in 2018.*

* Distance walked in Great Britain up to 2019 is estimated by using National Travel Survey average distance travelled in England for each year multiplied by Great Britain population for that year.

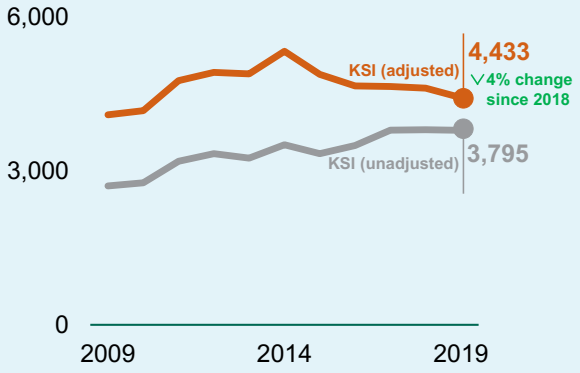
Pedal cyclists

There were 100 **pedal cyclist** fatalities on the roads in 2019, very similar to the level seen since 2009. Any changes since that point are most likely a result of **natural variation** and cannot be attributed to underlying causes.

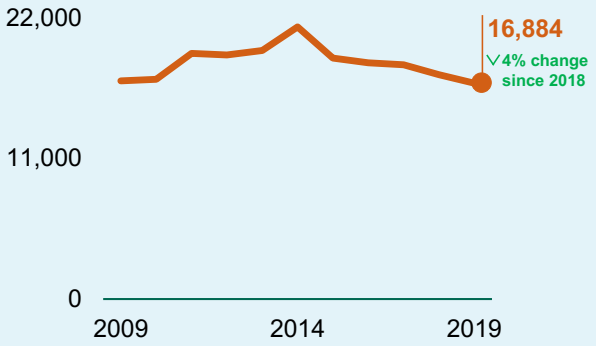
Fatalities



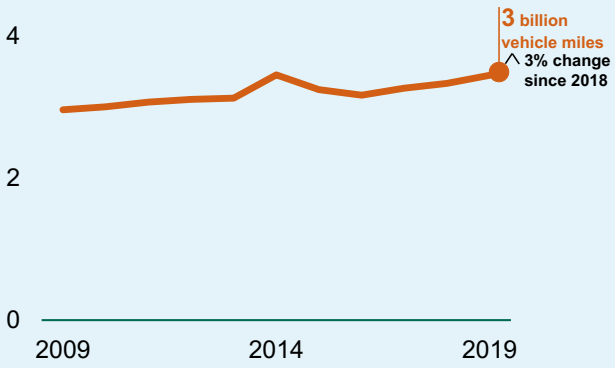
Killed or seriously injured



Total casualties



Traffic
(billion vehicle miles)

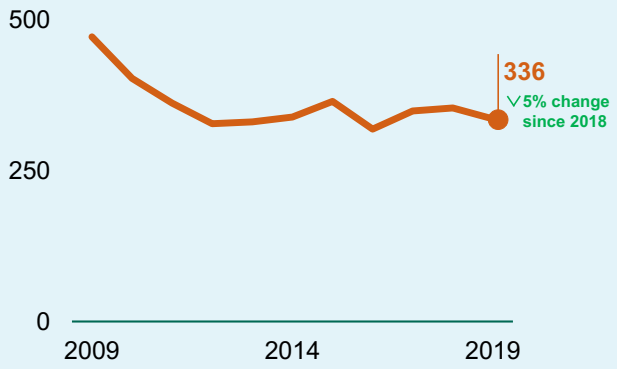


The number of pedal cyclists killed or seriously injured in Great Britain has increased by 8% between 2009 (4,098) to 2019 (4,433) (using the series adjusted for changes in severity reporting). This is partly explained by an increase in pedal cyclist traffic in Great Britain of 16% from 2009 to 2019 (3.0 to 3.5 billion vehicle miles). Overall pedal cyclist casualties decreased by 4% between 2018 and 2019.

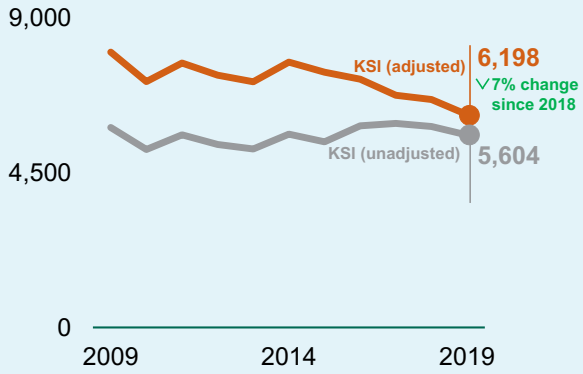
Motorcyclists

Motorcyclist fatalities decreased in 2019 compared to 2018. In total, 336 motorcyclists were killed during 2019, down 5% from 354 in 2018. However, motorcyclist fatalities have fluctuated between 319 and 365 over 2011 to 2019 with no clear trend. Overall motorcyclist casualties decreased by 4% between 2018 and 2019 to 16,224 casualties. Motorcyclist traffic has been stable in the last ten years.

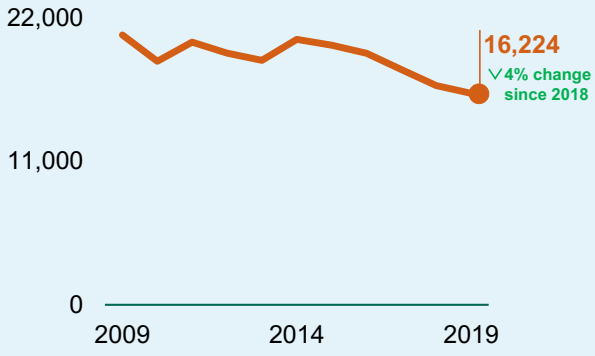
Fatalities



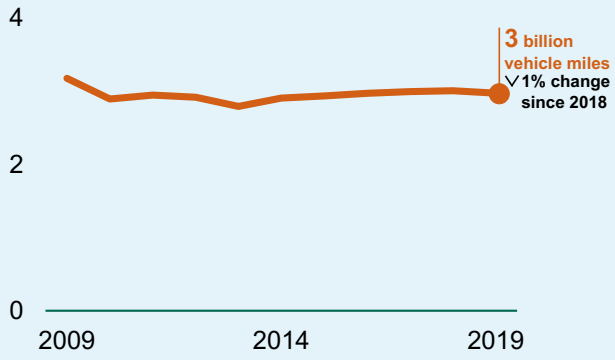
Killed or seriously injured



Total casualties



Traffic
(billion vehicle miles)



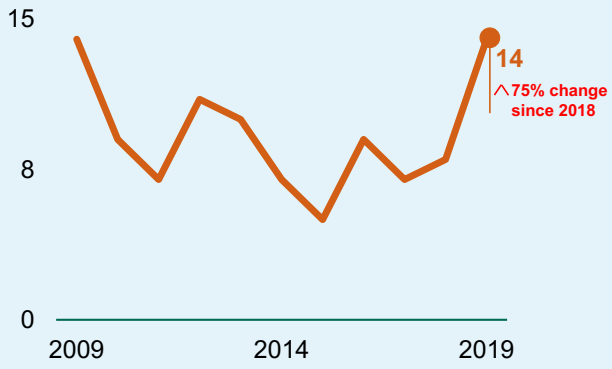
Bus and coach occupants

In 2019, there were 14 **bus and coach occupant** fatalities, of which 12 were bus or coach passengers and 2 were bus or coach drivers. Bus and coach occupant fatalities have fluctuated between 5 and 14 in the last ten years with no clear trend.

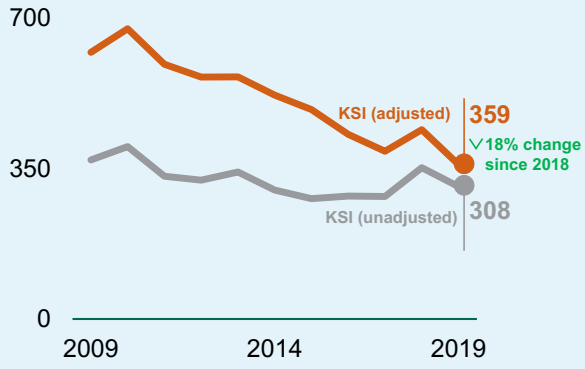
Overall bus and coach casualties have shown a decreasing trend, decreasing by more than a half from 2009 (6,317) to 2019 (3,085). The number of bus and coach occupant casualties have decreased in the last year by 19% from 3,801 in 2018 to 3,085 in 2019, of which in the latest year 91% were passengers. Out of all bus and coach occupant passenger casualties in 2019, 36% were older people (aged 60 and over).

Bus and coach traffic has also shown a decreasing trend in the last ten years. In 2019, bus and coach traffic was 2.4 billion vehicle miles, a decrease of 2% compared to 2018.

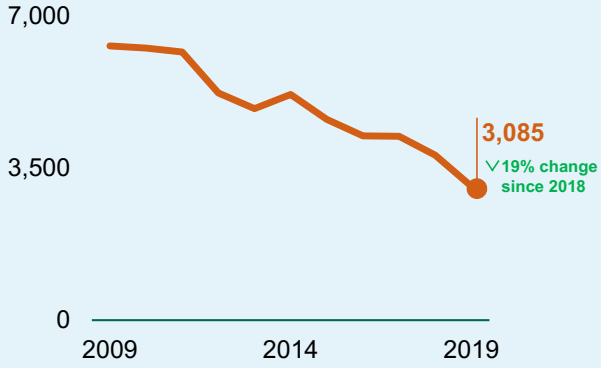
Fatalities



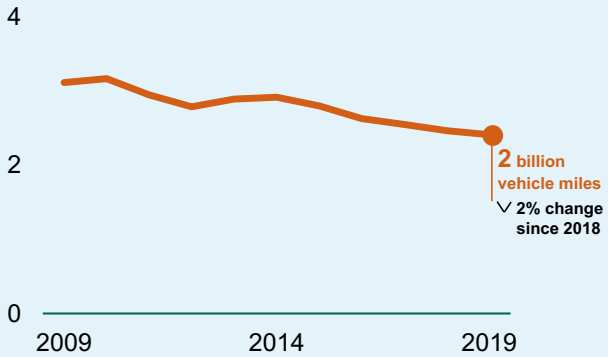
Killed or seriously injured



Total casualties



Traffic
(billion vehicle miles)



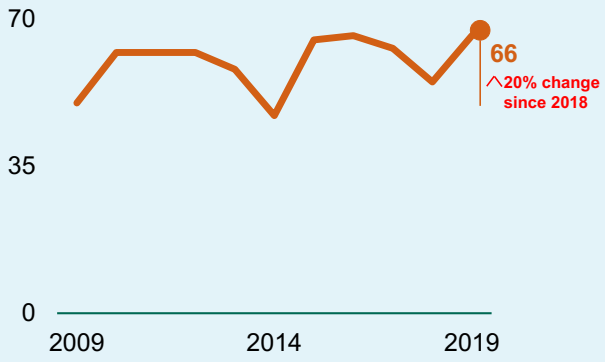
Goods vehicle occupants

In 2019, there were 66 **goods vehicle occupant** (including heavy and light goods vehicles) fatalities, of which 55 were goods vehicle drivers and 11 were goods vehicle passengers. Goods vehicle fatalities have fluctuated between 47 and 66 in the last ten years.

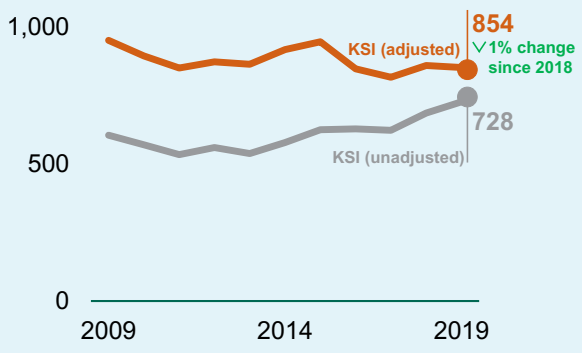
Overall goods vehicle casualties have shown a decreasing trend, decreasing by 2% from 5,071 in 2018 to 4,985 in 2019, of which in the latest year 80% were goods vehicle occupant driver casualties.

Goods vehicle traffic has shown an increasing trend from 2013 to 2019. In 2019, goods vehicle traffic was 73 billion vehicle miles, a slight increase of 2% compared to 2018.

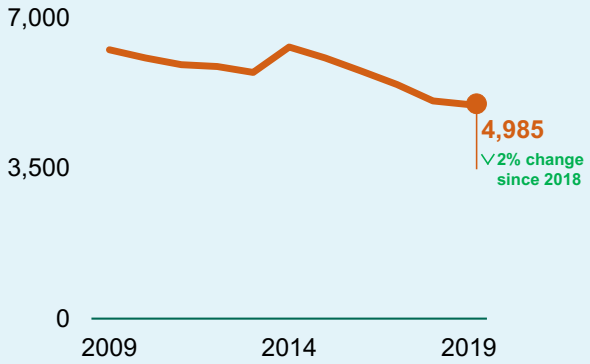
Fatalities



Killed or seriously injured



Total casualties



Traffic
(billion vehicle miles)

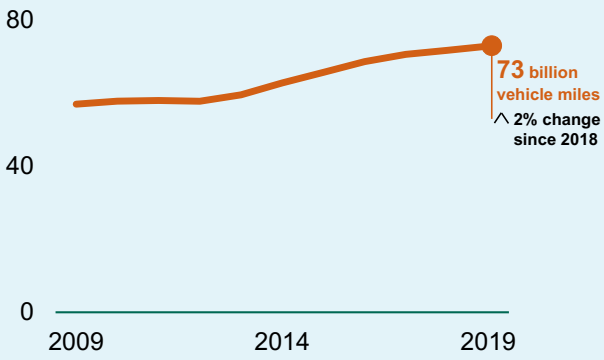
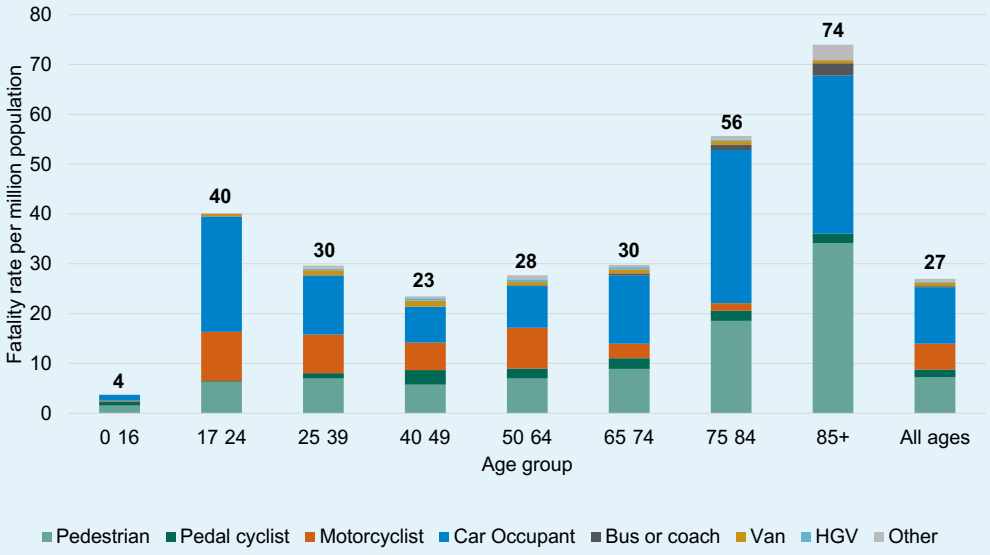
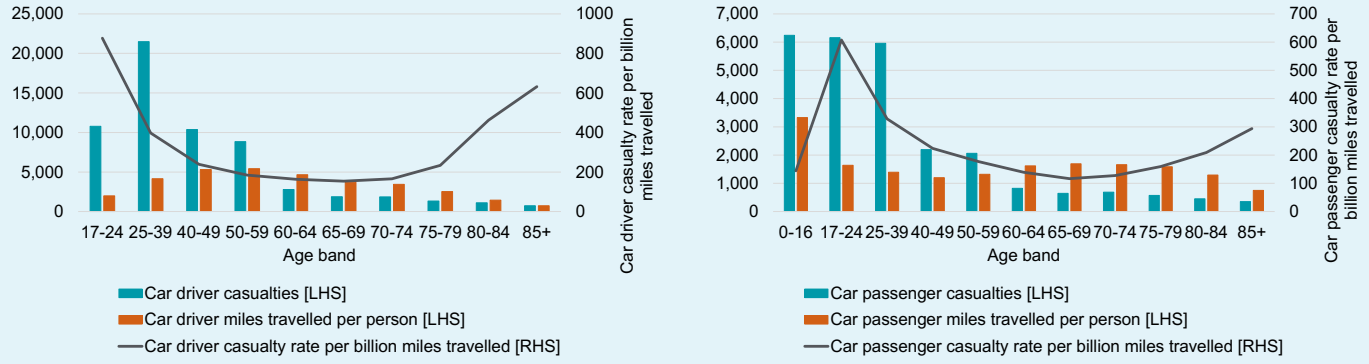


Chart 8: Fatality rate per million population, by age band and road user type, GB: 2019



Car occupant fatality rates per million population are particularly high for 17-24 year olds and those aged 75 and over. Pedestrian fatality rates per million population are particularly high for those aged 75 and over.

Chart 9: Car driver and car passenger casualties per billion miles travelled*, GB: 2019



Young car drivers aged 17-24 and car passengers are more likely to be injured in a road accident than older car drivers and passengers, however, car drivers aged 80+ are substantially more likely to be injured in a car accident than car drivers aged 50-74. The casualty rate per billion miles travelled for car passengers aged 17-24 is twice the rate for car passengers aged 85+. There were 287 people killed from accidents involving a young car driver in 2019, a decrease of 7% from the previous year. There were 444 people killed from accidents involving an older car driver in 2019, an increase of 9% from the previous year.

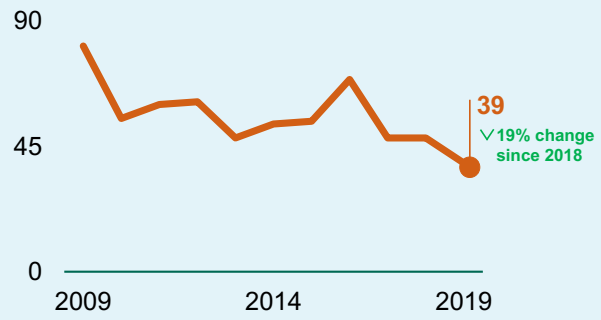
* Miles travelled in Great Britain in 2019 is estimated by using National Travel Survey average distance travelled in England for each year multiplied by Great Britain population for the year 2019.

Children (aged 15 or under)

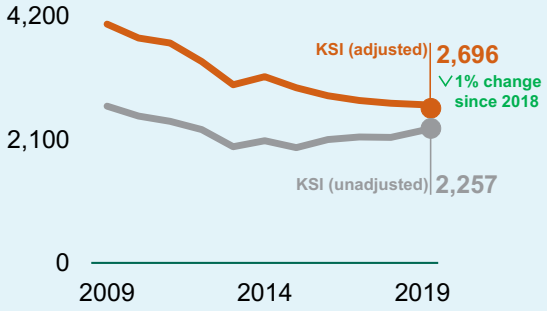
There were 39 **child** deaths in 2019, a decrease from 48 in 2018. Child fatalities have fluctuated between 39 and 69 during 2010 to 2019. Overall child casualties decreased by 5% between 2018 and 2019 to 13,574 casualties in 2019 which is the lowest year on record.

As has been the case historically, child fatalities are mainly **pedestrians** (18 fatalities in 2019), **pedal cyclists** (10 fatalities in 2019) and **car passengers** (8 fatalities in 2019). These are the forms of transport most commonly used by children.

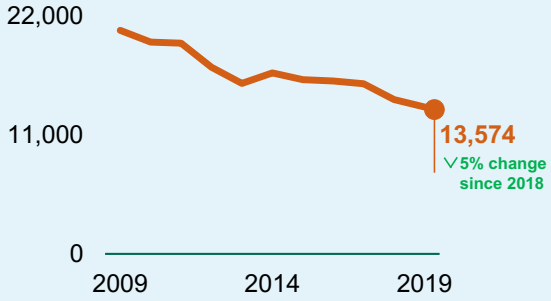
Fatalities



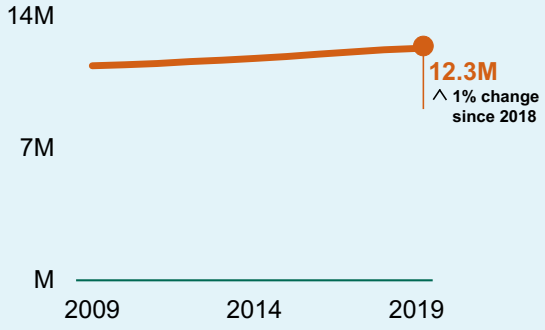
Killed or seriously injured



Total casualties



Population (millions)



These trends are observed despite the population of children aged 0-15 in Great Britain increasing by 8% since 2009.

The population of different age groups in Great Britain is from the Office of National Statistics population figures: https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?opt=3&theme=&subgrp

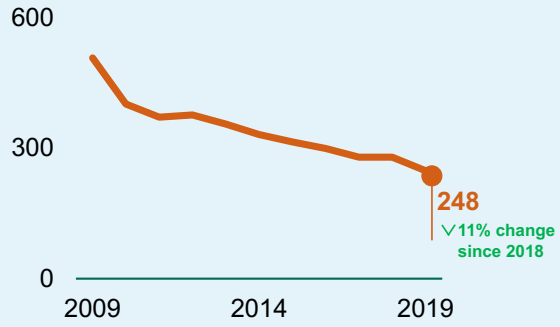
Young casualties (aged 17 to 24)

The number of fatalities aged 17 to 24 in reported road traffic accidents has decreased, with 248 fatalities in 2019 compared with 279 fatalities in 2018. This continues the general year-on-year downward trend. There were 26,988 young casualties of all severities, down 6% from 2018.

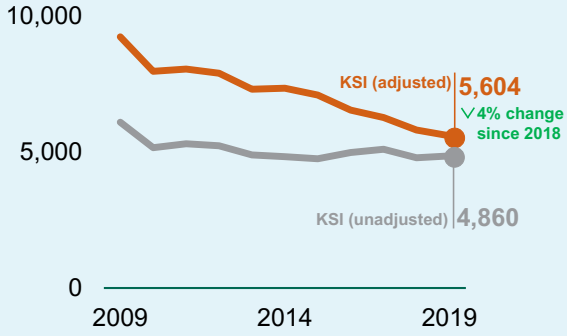
There were fewer young fatalities who were car drivers in 2019 (99 fatalities in 2018 and 88 fatalities in 2019) and as car passengers (67 fatalities in 2018 and 55 fatalities in 2019). There was one young pedal cyclist fatality in 2019 compared with 7 in 2018. There were also fewer young fatalities as pedestrians in 2019 (47 fatalities in 2018 and 39 fatalities in 2019).

The population of young people in Great Britain followed a steady upward trend until 2011. Since 2011 the population of young people in Great Britain gradually fell to 6.2 million people in 2019. The population in this age group has decreased by 1% in 2019 compared with 2018. This decreasing trend may partly explain the downwards trend in fatalities and KSIs seen for this age group. The fatality rate per million population for young people has fallen in recent years.

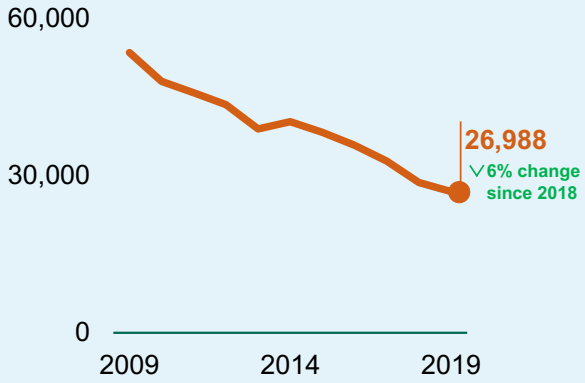
Fatalities



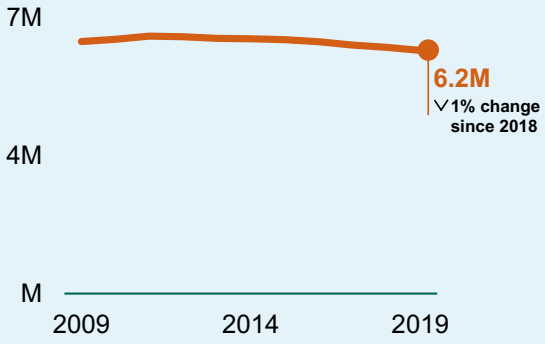
Killed or seriously injured



Total casualties



Population



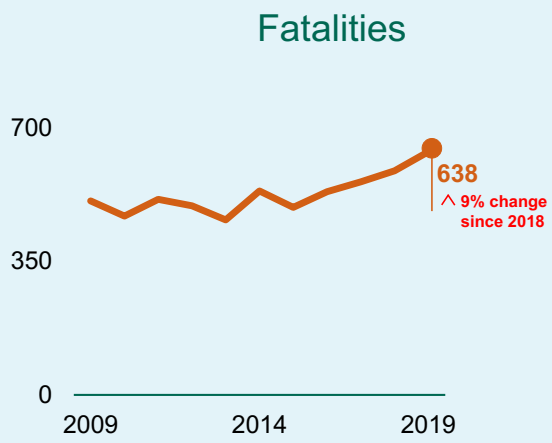
Older casualties (aged 60 and over)

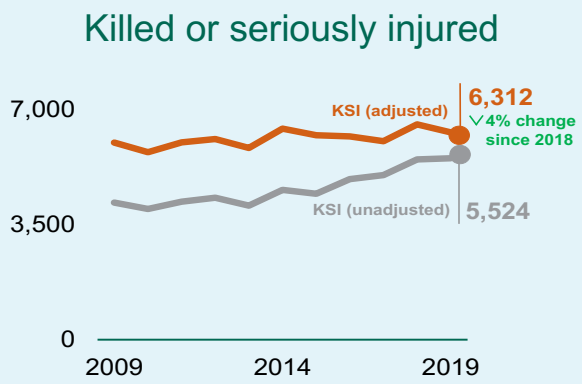
The number of fatalities aged 60 and over in reported road accidents has increased by 9% from 588 in 2018 to 638 in 2019. There has been an increase in older fatalities as both car drivers and passengers, with 203 fatalities as car drivers in 2019 compared to 180 in 2018, and 98 as car passengers in 2019 compared to 79 in 2018.

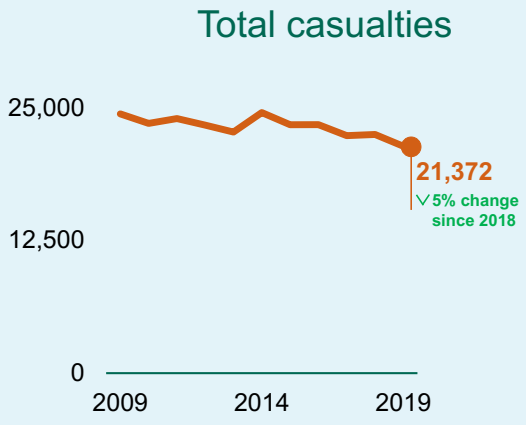
The number of killed or seriously injured casualties aged 60 and over in reported road accidents (using the adjusted severity series) has decreased by 4% from 6,554 in 2018 to 6,312 in 2019.

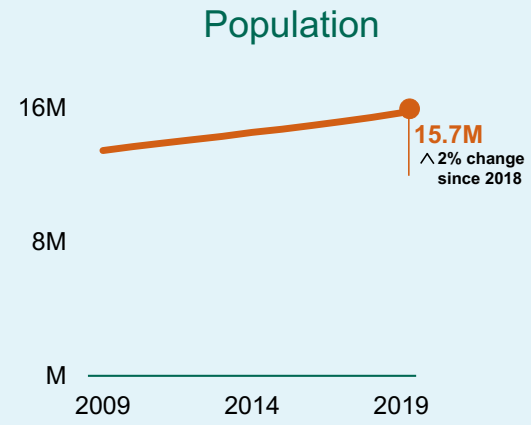
The population in this age group has increased by 2% compared with 2018 and by 17% compared with 2009. This relatively rapidly growing population may partly explain the upturn in fatalities seen for this age group in the last few years. The fatality rate per million population for older people has risen in recent years.

There were 21,372 older casualties of all severities in 2019, a decrease of 5% compared to 2018 (22,483).









The increase in fatalities is seen for all detailed older age groups (60 to 69, 70 to 79, 80 and more) since 2010.

Casualties by road type

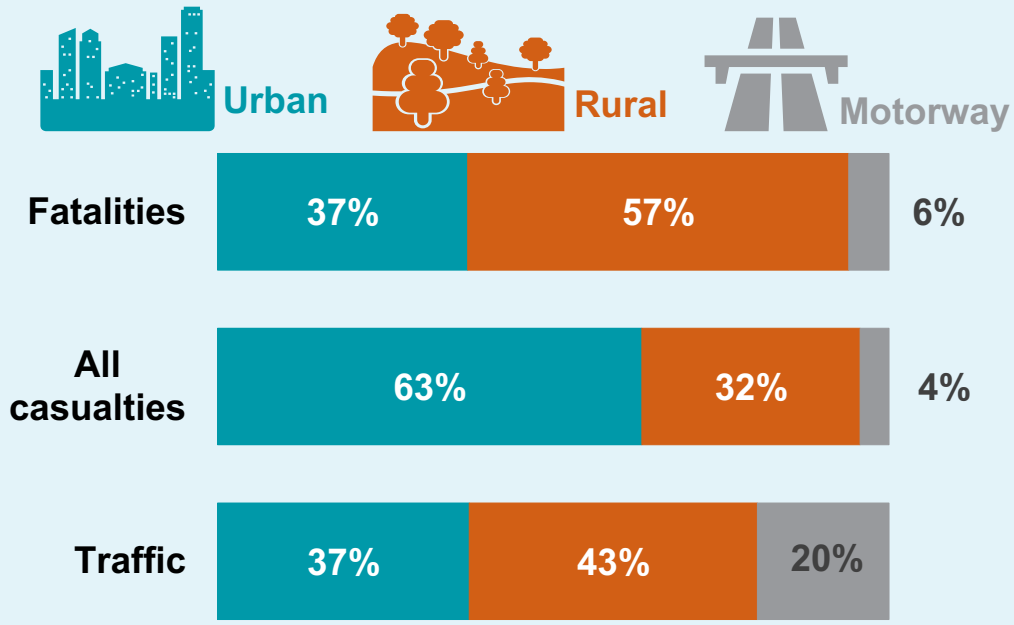
Of the 1,752 road deaths in 2019, the majority (57%) occurred on rural roads (994). A total of 653 deaths occurred on urban roads and 105 on motorways.

	Rural roads		Urban roads		Motorways	
		% change since 2018		% change since 2018		% change since 2018
Fatalities	**994**	↓ 3%	**653**	↑ 1%	**105**	↓ 2%
All casualties	**49,746**	↓ 5%	**96,768**	↓ 4%	**6,603**	↓ 10%
Traffic (billion vehicle miles)	**155**	↑ 2%	**135**	↑ 2%	**70**	↑ 2%

Definitions

Urban / rural roads: Urban roads are those within an area of population of 10,000 or more. Tables produced for years prior to 2017 are based on the 2001 Communities and Local Government definition of Urban Settlements. Tables produced after 2017 are based on the 2011 census data that uses a revised 2001 Communities and Local Government classification. Roads outside these areas will be classified as Rural.

Chart 10: Casualties by severity and road type, GB: 2019



The majority of fatalities (57%) occurred on rural roads, whereas the majority of casualties (63%) occurred on urban roads. Although motorways carry around 20% of traffic, they only account for 6% of fatalities.

There has been an increase in reported road casualties on 20mph roads since 2016, however, these changes may relate to increases in the length of 20mph roads. In recent years local highways authorities have been introducing more 20mph speed limits and zones. The department has published a report into the effectiveness of 20mph road speed limits, available here: https://www.gov.uk/government/publications/20-mph-speed-limits-on-roads

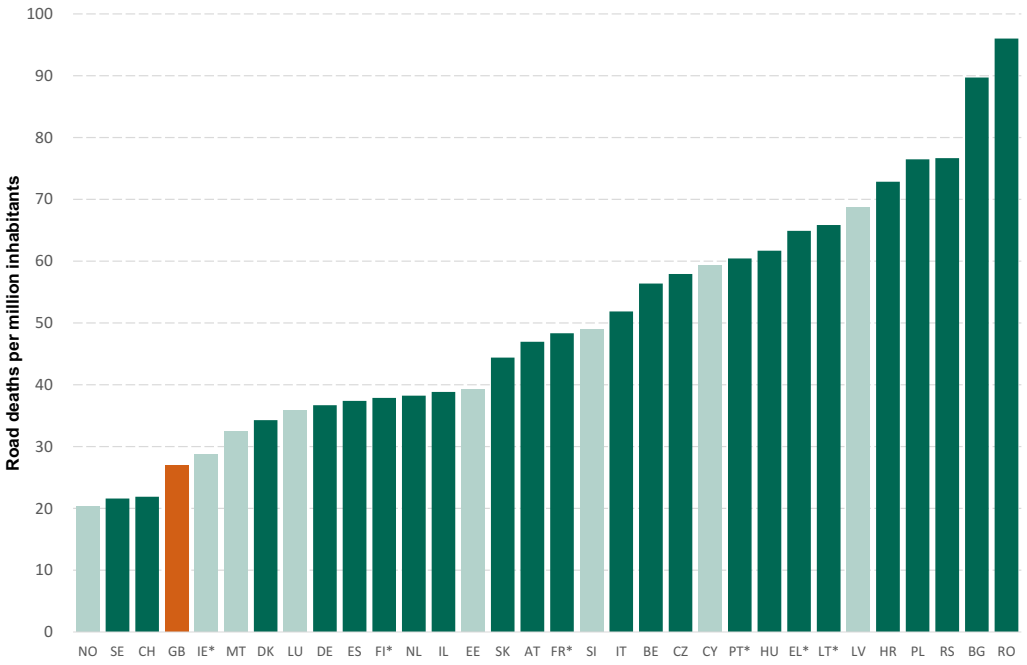
International comparisons

The European Transport Safety Council's Performance Index (PIN) programme enables comparisons of road safety progress between **European countries** to be made. The latest PIN report was published by the European Transport Safety Council in June (see here: https://etsc.eu/14th-annual-road-safety-performance-index-pin-report/).

Overall, the **total number of road deaths** in the 28 members of the European Union during 2019 was 24,506, compared with 25,194 in 2018 (a 3% decrease).

Of the 32 countries covered, 20 saw a decrease in the number of fatalities between 2018 and 2019, 11 saw an increase and one remained the same.

Chart 11: Number of road deaths per million inhabitants in 2019, PIN Programme countries



*Countries with provisional fatality figures.

Countries highlighted in light green bars have fewer than 150 deaths per year and therefore the fatality rate can vary significantly between years.

The international comparisons can be found in the RAS52 table series here https://www.gov.uk/government/statistical-data-sets/ras52-international-comparisons.

Country	Code
Austria	AT
Belgium	BE
Bulgaria	BG
Croatia	HR
Cyprus	CY
The Czech Republic	CZ
Denmark	DK
Estonia	EE
Finland	FI
France	FR
Germany	DE
Greece	EL
Hungary	HU
Ireland	IE

Country	Code
Italy	IT
Latvia	LV
Lithuania	LT
Luxembourg	LU
Malta	MT
The Netherlands	NL
Poland	PL
Portugal	PT
Romania	RO
Slovakia	SK
Slovenia	SI
Spain	ES
Sweden	SE
Great Britain	GB

Country	Code
Israel	IL
Norway	NO
Serbia	RS
Switzerland	CH

Factors that affect road casualty numbers

There is **no single underlying factor that drives road casualties**. Instead, there are a number of influences. These include:

- The distance people travel (which is partly affected by economic externalities).
- The mix of transport modes used.
- Behaviour of drivers, riders and pedestrians.
- The mix of groups of people using the road (e.g. changes in the number of newly qualified or older drivers).
- External effects such as the weather, which can influence behaviour (e.g. encouraging/ discouraging travel, or closing roads) or change in the risk on roads (by making the road surface more slippery).

It is very hard to isolate many of these factors between years. In particular, police-reported road casualty data only gives a limited amount of information about behaviour changes and it is very rare to be able to identify such changes between individual years.

A considerable amount of research has been carried out looking at the relationship between **economic activity** and **road casualties**. The Organisation for Economic Co-operation and Development (OECD) produced a comprehensive report on this topic in 2015[1]. The simplest message from the research is that accidents and casualties increase as economic development increases in a country. The main reason for this increase is that as the economy grows, so do traffic volumes. Greater traffic volumes then result in more incidents. This continues until a critical threshold in economic development is reached. At that point, better training, vehicle standards, enforcement and engineering all start to dominate to counteract the effect from traffic increases. As a result, the number of incidents and resulting casualties start to decrease, even if traffic volumes continue to grow.

In times of economic stagnation or recession three key mechanisms come into play:

- Lower traffic growth rates or even decreases in traffic volumes, as happened in Britain in the 2008-09 recession.
- Disproportionate reductions in the exposure of high-risk groups – for instance, younger drivers.
- Reductions in more risky behaviour – for instance, people might drive more slowly to save fuel, or drink and drive less.

[1] www.itf-oecd.org/why-does-road-safety-improve-when-economic-times-are-hard

Chart 12 shows the rolling five year average for the year on year change in gross domestic product (GDP) for the UK along with traffic volumes and the number of road deaths for Great Britain.

Although **GDP** and **traffic** are not perfectly aligned, since the mid-1970s there is a clear relationship in that they move broadly in the same direction. For example, GDP grew strongly between 1993 and 2007. During this period, traffic also grew each year (albeit, not as strongly). The downturn and recession around 2007 to 2012 resulted in very low levels of GDP growth (with economic contraction for some of the years). Traffic growth halted entirely during this period and actually decreased for most of the period.

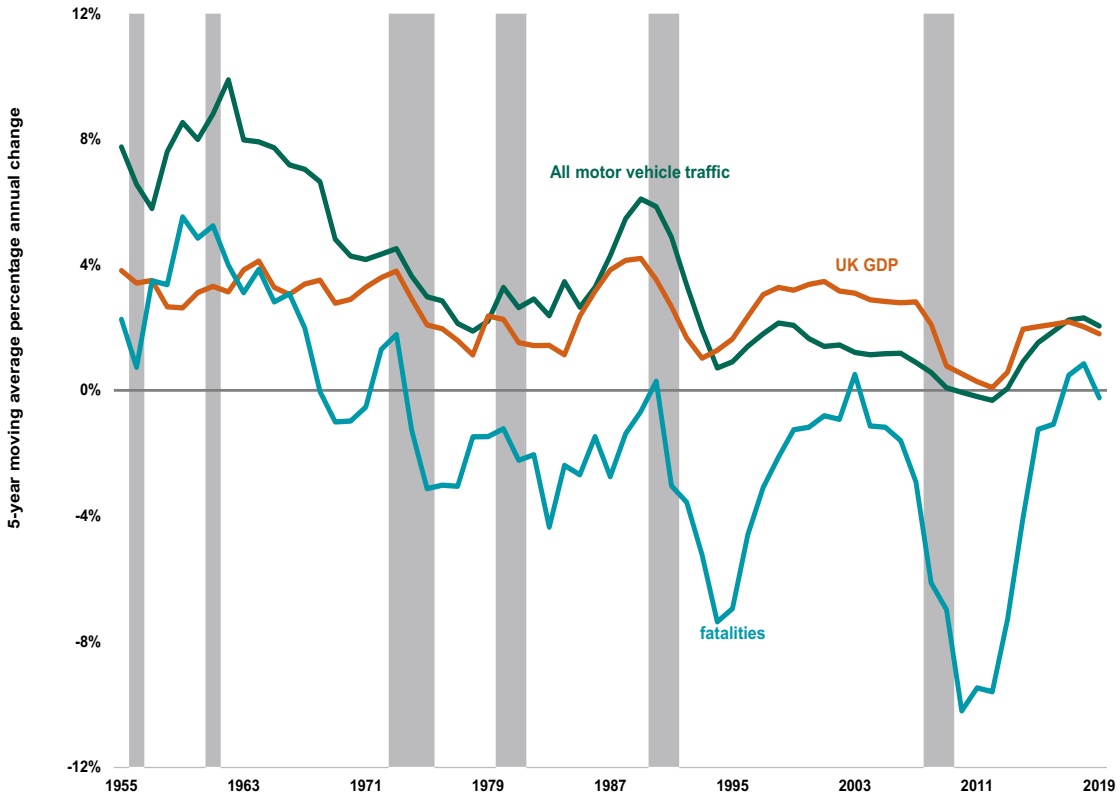
The relationship with **road deaths** is far more complex. In general, road deaths have fallen in most years since the 1970s. However, the periods of greatest decreases have coincided with weaker GDP growth. This is particularly marked in the period 2007 to 2010 when road deaths dropped by between 7 and 17% every year. By 2011, however, road deaths increased, and most subsequent decreases were of a much small magnitude than earlier.

Further Information

ONS GDP data
https://www.ons.gov.uk/economy/grossdomesticproductgdp

Road traffic data
https://www.gov.uk/government/collections/road-traffic-statistics

Chart 12: Five year rolling average of growth in traffic, GDP and road deaths, GB, 1955 - 2019



The chart shows periods of recession shaded grey.

An article which examined a number of factors which influence road casualty numbers was published with the 2015 Reported road casualties in Great Britain (RRCGB) annual report. It covers topics such as:

- **Population changes**, and particularly focussing on how the number of people in younger and older age groups have changed over time. In particular, it highlights that the population of Britain had grown by 15% from 1986 to 2015 whereas fatalities have fallen by 68% in that time.

- The population of **older people (aged 70 and older)** has increased relatively rapidly over recent years. This carries implications for higher levels of casualties in this age group in the future. Further information is in the older car driver factsheet for 2016: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/706517/older-car-drivers-factsheet.pdf.

- The number of people taking **driving tests** has changed over time. After four years of rising numbers of younger people taking the test, there has been a decrease in the last three years. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/812367/drt0203.ods

- **Fuel prices and the economy** impact on traffic volumes and therefore casualties.

Weather also influences the number of road casualties. This has been reported on in an article in the 2014 annual report. A table giving weather-adjusted casualty numbers has been previously published up to 2015 (RAS30080).

Further information

The article **Factors affecting reported road casualties** from the 2015 annual report can be found here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/556406/rrcgb2015-02.pdf

Weather and accidents

An article modelling the impact of weather on road casualty statistics can be found here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/463049/rrcgb2014-03.pdf.

Other topics

Value of the prevention of accidents

An estimate of unreported injuries has been included in the 'value of prevention of accidents', which can be found here: https://www.gov.uk/government/statistical-data-sets/ras60-average-value-of-preventing-road-accidents. We estimate that the **total value of prevention of unreported injury accidents at around £17bn a year**, the value of damage-only accidents at around £4bn a year and the total value of prevention of reported injury accidents at around £12bn a year. This gives a total estimate for **all reported and unreported accidents of around £33bn per year**.

Drink-drive estimates

STATS19 data include information on breath test results at the scene of the road accident. Tables on this data are updated for 2019 in the series RAS51 tables: https://www.gov.uk/government/statistical-data-sets/ras51-reported-drinking-and-driving.

However, most recent estimates of drink-drive accidents and casualties are for 2018 and were published in August 2020: https://www.gov.uk/government/statistics/reported-road-casualties-in-great-britain-final-estimates-involving-illegal-alcohol-levels-2018.

Seatbelt use

Table RAS41001 (https://www.gov.uk/government/statistical-data-sets/ras41-reported-casualties-rates) shows information on the proportion of car occupant fatalities not wearing a seatbelt. This data is provided by most police forces. In the last 6 years, the proportion of car occupants killed who were not wearing a seatbelt has remained consistently above 20%.

Underreporting of casualties and accidents and other sources of information

We consider a range of alternative data sources to assess the accuracy and coherence of our data and road safety statistics. To investigate underreporting of fatal accidents we have considered ONS death registrations data. Comparisons of road accident reports with death registrations show that very few, if any, road accident fatalities are not reported by 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 those recorded in police accident data.

Each of these other sources provide a means to assess the coherence of the police reported data in terms of absolute numbers of casualties and also trends in casualties.

We have considered 5 alternative sources here. Each one is described in more detail below, and how they can be used in conjunction with the STATS19 data.

- The **National Travel Survey** (https://www.gov.uk/government/collections/national-travel-survey-statistics): this includes questions asked since 2007 on whether respondents resident in England (both adults and children) have been involved in road accidents on public roads (including pavements and cycle lanes on public roads) in Great Britain; whether they sustained injuries, what type, and whether the police attended or they reported later. This provides a self-reported estimate, with a range of definitional differences of injuries and questions of recall bias that will mean the results will differ from those obtained through the STATS19 data collection. Given the NTS data in theory captures all road injury accidents people had, this gives a way of estimating the total number of road accidents, including those not recorded through STATS19.

- **Hospital Episodes Statistics** (https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/hospital-episode-statistics): this administrative data comes from hospital systems which records for people who were admitted whether they were recorded as involved in a road traffic accident and provides a diagnosis code that can then be matched to the seriousness of the injury. The Department has carried out analysis to better understand how well this data maps to STATS19 police recorded road casualties that were clinically seriously injured. It determined that the injury-based approach, used in CRASH, has the possibility to produce something more objective and closer to medical definitions than the severity based approach.

- **Compensation recovery unit data** (https://www.gov.uk/government/collections/cru): this administrative data comes from the DWP Compensation recovery unit who work with insurance companies, solicitors and Department for Work and Pensions (DWP) customers, to recover social security benefits paid as a result of an accident, injury or disease, if a compensation

payment has been made (the Compensation Recovery Scheme) and costs incurred by NHS hospitals and Ambulance Trusts for treatment from injuries from road traffic accidents and personal injury claims (Recovery of NHS Charges)

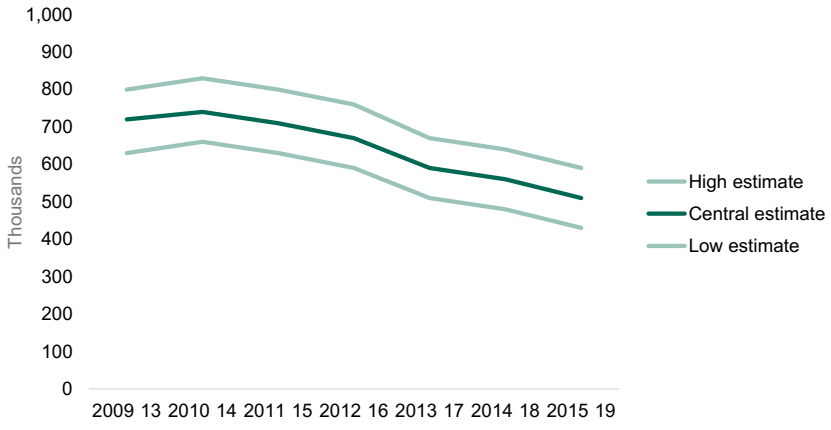
- **Motor Insurance Claims statistic**s (https://www.abi.org.uk/data-and-resources/industry-data/free-industry-data-downloads/): the Association of British Insurers collects data from insurers on the type and number of claims made.
- **Road Traffic statistics** (https://www.gov.uk/government/statistics/road-traffic-estimates-in-great-britain-2019): this is DfT data collected from around 8,000 roadside 12-hour manual counts, continuous data from around 300 automatic traffic counters, and data on road lengths. This provides estimates of vehicle miles travelled.

National Travel Survey

This section provides longer term trends up to 2019, based on self-reported responses to the road accident questions.

The chart below, based on published table RAS54004 (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/665317/ras54004.ods), shows annual estimates of non-fatal road casualties from the NTS, with approximate confidence limits, for 5 year averages from 2009 to 2019. This shows that since 2010-2014, the estimated number of injury accidents has been decreasing. The absolute number of injury collisions estimated from this source was around 510,000 in 2015-2019.

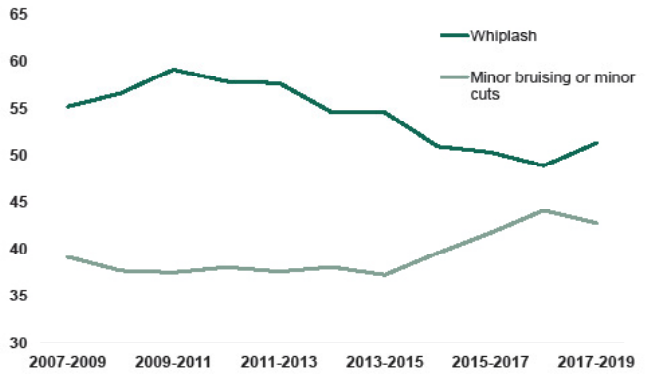
Chart 13: Estimates of the annual non-fatal road casualties using National Travel Survey data: Great Britain (source: ras54 table series)



Of people reporting a personal road accident injury in the three years before their NTS interview, the most common injury reported has been whiplash. For the average of three years of data from 2017 to 2019, 51% of respondents having a road injury accident reported a whiplash injury. Note this relates to injuries received in the most recent road accident the respondent reported in the three years before their interview, and respondents can record more than one injury for this

accident. In 2009-2011, this proportion was 59% and in recent years there has been a decreasing trend in the proportion of respondents reporting whiplash injuries.
However, this is offset by increases in those reporting ‘minor bruising or minor cuts’ which were reported by 43% of all respondents reporting a road accident in the data in 2017-2019.

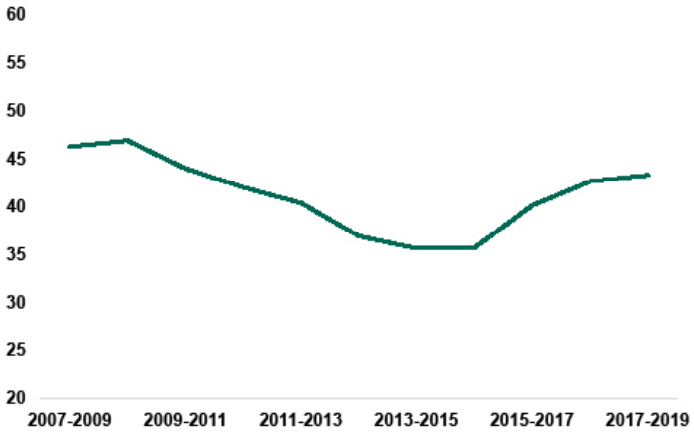
Chart 14: Proportion of respondents reporting whiplash or “minor bruising or minor cuts” in personal injury road accidents: NTS, England, 3-year averages



The proportion of respondents that reported more serious injuries such as fractures, severe shock or internal injuries had been around 36% for three-year periods between 2007 and 2014. However, NTS self-reported serious injuries did increase from 33% to 42% between 2013-2015 and 2017-2019. This may link to the increased proportion who reported attending hospital in recent periods.

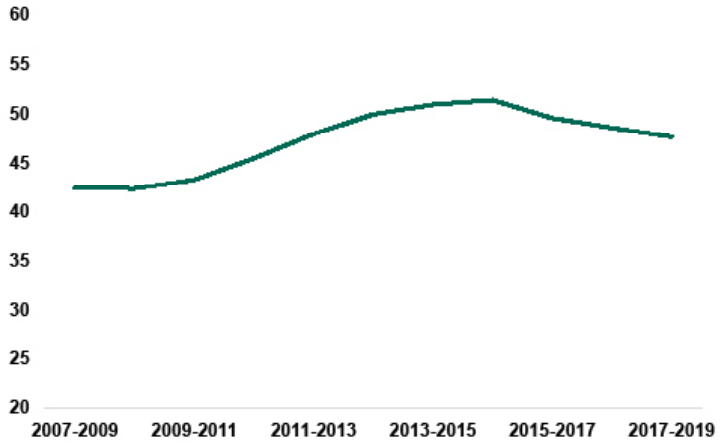
Over time the proportion of road accident injuries where the respondent reported attending hospital (either A&E or as an inpatient) was generally decreasing over time from 47% in 2008-2010 to 36% in 2014-2016. However, it increased to 43% in 2016-2018 and remained at this level in 2017-2019.

Chart 15: Proportion of respondents reporting medical attention in personal injury accidents as A&E or as a hospital inpatient: NTS, England, 3 year averages



Lastly, the respondent indicates whether the police attended at the scene, or whether they later informed the police. The average of data for 2017-2019 shows that 48% of most recently self-reported road accident injuries occurring in the three years before the NTS interview were not reported to the police.

Chart 16: Proportion of respondents not reporting road accident injuries to the police: NTS, England, 3 year averages



What is not clear from this self-reported data is how many of these would not have qualified as injuries had the police attended the scene of the road accident. Overall, the NTS supports the downwards trend in the overall number of injuries in recent years to 2019.

Improving estimates of injury accidents derived from the National Travel Survey

The Department will review how the estimates of unreported road accidents and casualties that are derived from the National Travel Survey in the RAS54 tables series are calculated. These estimates are currently based on results from questions on whether respondents were involved in an injury accident in the last year and last three years. There is evidence that there might be bias in the way respondents answer these questions and particularly conflicting results between the 3-year and the 1-year windows. More work is also needed to understand the gap between what is reported to the police in STATS19 and what is stated to be have been reported to the police in the NTS.

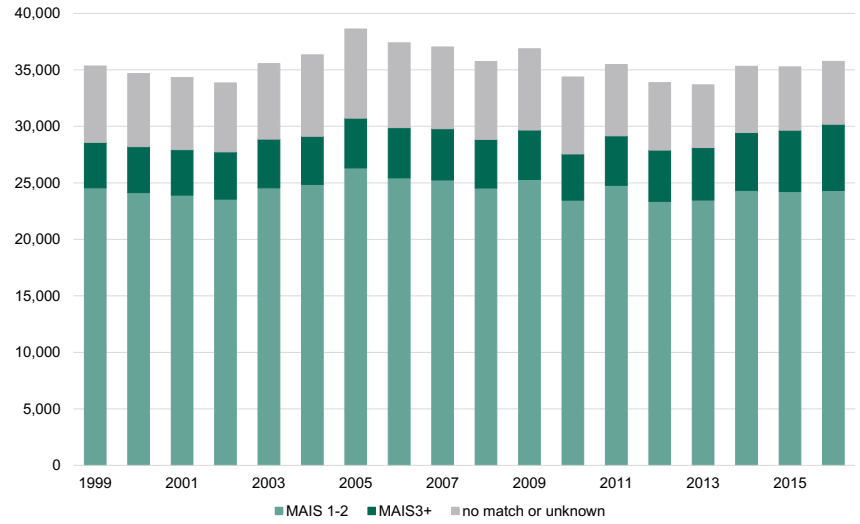
Cognitive testing and panel testing of these questions is currently underway primarily to understand a) how people interpret and answers these questions, and b) whether the ordering of the questions asking about accidents up to 3 years ago and accidents within the last 12 months has an impact on how people respond. The Department aims to suggest a way forward and invite feedback on the RAS54 methodology based on their results in 2020.

Hospital Episodes Statistics

Analysis of the Hospital Episode Statistics from NHS Digital allows us to report on the number of admitted patient care admissions where the admission is recorded as being related to a road traffic accident. This source also records diagnosis codes which we can match to determine whether these admissions have a clinically defined serious injury. This definition is based on the maximum score on the abbreviated injury scale: an injury is considered clinically serious with a score of three or higher (MAIS3+).

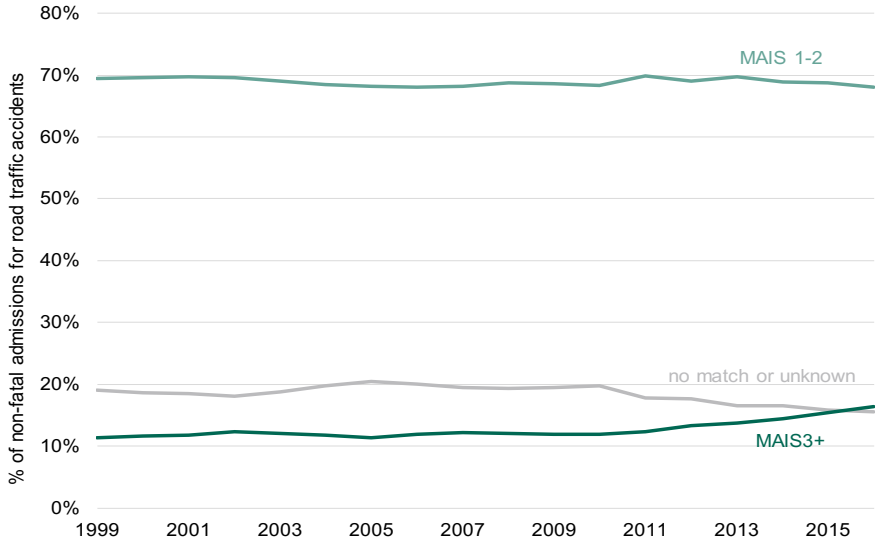
Chart 17 shows the time series of the number of admissions for road traffic accidents broken down by MAIS score. This shows that the total number of admissions for road traffic accidents has fluctuated around 35,000 non-fatal admissions to hospital for road traffic accidents.

Chart 17: Estimated number of admissions for road traffic accidents by MAIS score, England, 1999-2016



Out of all admissions for road traffic accidents, the proportion with a MAIS score of 1 or 2 (less serious injuries) has remained stable over this period at around 70%. The proportion with a MAIS score of 3 or more was stable from 1999 to 2010 at around 11% but from 2011 increased every year to reach 16% in 2016. Conversely, the proportion of admissions with an unknown MAIS score or where the MAIS score could not be matched has decreased in the same period. It is likely that changes in recording have resulted in more records to be matched to MAIS3+, rather than a genuine increase in clinically serious injuries. Further analysis is needed to understand this change.

Chart 18: Proportion of admissions for road traffic accidents by MAIS score, England, 1999-2016



On the most serious end of the scale, trends in MAIS3+ admissions

What is MAIS3+?

The Abbreviated Injury Scale (AIS) severity score is an ordinal scale of 1 to 6 (1 indicating a minor injury and 6 being maximal). Each patient's diagnosis code is matched to an AIS score using a lookup. A casualty that sustains an injury with a score of 3 or higher on the AIS is classified as clinically seriously injured (MAIS3+).

Update to HES analysis

The 2015 annual report included an article discussing the first estimates for the total number of people admitted to hospital in England, Great Britain and the United Kingdom with a clinically defined serious injury following a road traffic accident, with Hospital Episodes Statistics (HES) data for the years 1999 to 2011. This analysis was extended to include data from 2012 to 2016 in the 2017 report.

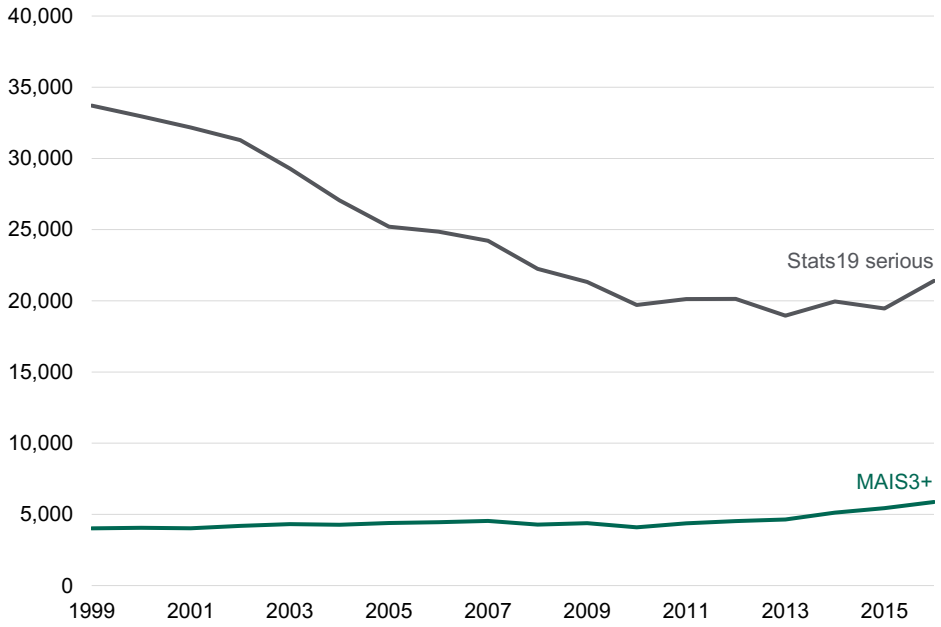
Estimates for England were extrapolated to Great Britain using STATS19 data. Actual MAIS3+ figures for Nothern Ireland were added to calculate the estimate for the United Kingdom.

The MAIS3+ figures for 1999 to 2016 can be found in table RAS55050 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/555730/ras55050.ods.

More detail about the source of the data and the abbreviated injury scale can be found in the original article from the 2015 report at: https://www.gov.uk/government/statistics/reported-road-casualties-great-britain-annual-report-2015

can be compared to STATS19 serious injuries. The stability of MAIS3+ estimates described above does not appear to be consistent with the trend observed in serious injuries as reported by the police over the same period. The number of serious injuries reported to the police has steadily decreased from 1999 to 2010, and has been relatively stable from 2010 to 2016.

Chart 19: Comparison of serious casualties reported by police and estimated number of MAIS3+ casualties, England, 1999-2016



Note that the estimated number of MAIS3+ casualties has always been lower than the number of serious injuries reported in police data. This is likely to be due to MAIS3+ capturing more severe injuries than the definition of serious injury in police reported data. By definition MAIS3+ includes very severe injuries such as traumatic brain injuries whereas the definition of a serious injury in police data can include more moderate injuries such as severe cuts which do not require admission to hospital.

There are a wider set of contextual data to consider here as well:

- Overall Accident and Emergency (https://digital.nhs.uk/data-and-information/publications/statistical/hospital-accident--emergency-activity/2018-19) attendances have been rising steadily over time, and by 4% between 2017/18 and 2018/19. Table 16 in the main tables sheet (from the link above), shows a breakdown of A&E attendances by patient group (one of which is road traffic accident). In 2018/19 NHS Digital have introduced a new reporting system for A&E data which has led to a significant increase in 'not known' group in this table and therefore we cannot make a time series comparison to previous years.

Evaluating the accuracy of severity and injury based approaches with hospital data

As part of a STATS19 review strand (please see the STATS19 review section for further details), the following evaluation was completed in reviewing the severity and injury based approaches to classifying casualty severity by comparing police recorded data with hospital data.

Under a data sharing agreement with NHS Digital, the Department holds hospital episode statistics (HES) on patients admitted to hospital following a road traffic accident in England up to and including 2016. This is to match with STATS19 police recorded road casualties to identify casualties that were clinically seriously injured, the type of injuries they sustained, and how well this maps to the recorded severity in STATS19. 2016 saw the introduction of CRASH in most CRASH forces, as a result for the analysis of HES to STATS19, one year's dataset is used (2016).

Comparison of severity

Table 1: For CRASH and non-CRASH police forces, proportion of MAIS 1-2 and MAIS3+ that were categorised as serious or slightly injured in STATS19, in 2016

	CRASH police forces	Non-CRASH police forces	
Mais 3+ rightly identified as serious casualty (%)	82%	78%	TRUE POSITIVE % = SENSITIVITY
Mais 3+ wrongly identified as slight casualty (%)	18%	22%	
Mais 1-2 rightly identified as slight casualty (%)	42%	46%	TRUE NEGATIVE % = SPECIFICITY
Mais 1-2 wrongly identified as serious casualty (%)	58%	54%	

Source: DfT STATS19 and NHS Digital

There is not a perfect correlation between severity recorded in CRASH and non-CRASH forces, and with the MAIS categories as there is currently no lookup from the European Commission to breakdown the MAIS categories. Therefore, the current comparison of serious casualties with MAIS3+ categories and slight casualties with MAIS1-2 is the best comparison available despite slight differences in the definitions between the two datasets.

Overall, out of the MAIS3+ clinically serious casualties linked with STATS19, 82% were successfully identified as serious in the injury based approach, compared to 78% for the non-injury based approach: the injury based method has a higher sensitivity (proportion of true positives). However, conversely, out of those with MAIS 1-2, 42% were rightly classified as slight in the injury based approach, compared to 46% in the non-injury based approach: the injury based approach has therefore lower specificity (proportion of true negatives). Both approaches perform quite well for identification of serious, but less well for identification of slights. Therefore, while the injury based approach is more likely to result in an accurate classification of serious cases, it is also more likely to wrongly classify a slight injury as serious.

Comparison of injuries

In CRASH forces, comparing the injury used in the police data to the injuries in hospital provides a good way to evaluate whether the list is achieving a correct classification.

Table 2: Injury description comparison in HES compared to injuries used by CRASH police forces, in 2016

		CRASH injuries																		
		Broken neck or back	Internal injuries	Multiple severe injuries	Severe chest injury	Severe head injury, unconscious	Deep cuts / penetrating wound	Fractured pelvis or upper leg	Loss of arm or leg (or part)	Other chest injury, not bruising	Fractured arm, collarbone, hand	Fractured lower leg, ankle, foot	Shallow cuts / bruising	Sprains and strains	Whiplash or neck pain	Other injury	Other head injury	Shock	Grand Total
HES Injuries	Broken neck or back	**116**	18	39	8	7	16	139	3	17	25	17	83	30	52	129	17	7	723
	Internal injuries	42	**59**	**77**	**34**	27	19	44	3	65	56	32	65	14	35	165	17	5	759
	multiple severe injuries	14	1	2	0	1	0	1	0	1	1	1	3	1	3	15	0	0	44
	Severe chest injury	67	33	54	20	6	12	37	0	**116**	56	29	92	24	49	139	14	8	756
	Severe head injury unconscious	37	13	69	6	**127**	32	25	2	11	31	26	79	14	20	130	88	8	718
	Deep cuts / penetrating wound	35	18	51	7	10	**111**	41	**5**	20	91	92	277	31	45	254	56	14	1,158
	Fractured pelvis or upper leg	12	15	32	3	7	2	**145**	4	3	8	52	11	10	7	70	5	3	389
	Loss of arm or leg (or part)	1	0	1	0	0	0	0	**5**	0	2	0	0	0	0	1	0	0	10
	Other chest injury, not bruising	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	Fractured arm, co larbone, hand	27	10	54	2	2	13	16	4	25	**317**	61	96	31	29	179	16	6	888
	Fractured lower leg ankle foot	11	4	24	0	4	14	40	4	10	24	**373**	80	21	20	195	15	3	842
	Sha low cuts / bruising	39	24	37	9	7	43	45	0	49	115	106	**535**	**91**	**122**	**333**	**98**	**25**	1,678
	Sprains and strains	5	3	16	1	2	9	23	2	10	35	32	34	8	9	39	2	1	231
	Whiplash or neck pain	2	0	1	0	0	1	0	0	2	2	0	5	3	13	6	1	0	36
	Other injury	0	0	0	0	0	2	1	2	0	1	0	0	0	0	3	0	0	9
	Grand Total	408	198	457	90	200	274	557	34	329	764	821	1,360	278	404	1,658	330	80	8,242

Source DfT STATS19 and NHS Digi al

Very Serious
Moderately Serious
Less Serious
Sl ght

Text Red text highlights the highest number of records captured in HES, for each CRASH injury
Black boxes indicate the same injury category in both the CRASH and the HES datasets

Where the red values are also in the black boxes most CRASH injuries are captured in the same category in the HES dataset.
Less well captured CRASH injuries are chest injuries, sprains and strains, whiplash and multiple severe injuries.

Mapping the HES injury descriptions to the most similar description from the CRASH injury list allows a comparison of the most common injury in the two datasets from the linked data. Table 2 provides a comparison of the most common injury descriptions from the HES data and the STATS19 (CRASH) data. The red highlighted figures show the most common HES injury for each CRASH injury. Note that this is based on one year of data from CRASH forces only and therefore underlying numbers for some injuries are small, and this is based on an indicative grouping of HES injuries, so caution should be used when interpreting the figures.

Table 2 indicates that some injury types are detected by officers more accurately than others. Injuries such as broken neck or back, deep cuts / penetrating wound, internal injuries, fractures, severe head injury and shallow cuts / bruising are reasonably well identified, whereas others seem more unreliable. Notably, chest injury, sprains and strains, multiple severe injuries, whiplash or neck pain and shock seem to be used poorly by comparison.

There will inevitably be differences in the recording of injuries by police forces at the scene of an accident to the final diagnosis received at the hospital. Police officers make the best possible judgement at the scene of the accident without the aid of medical equipment to diagnose an injury. Casualties may get better or worse from the time they have had a road accident to the time arriving at hospital, as a result, there could be differences in diagnosis. The injury list provides the best possible indication of the injury and level of severity at the scene of the road accident.

Conclusion on the evaluation of linked HES and STATS19 datasets

Further evaluation of the severity and injury based approaches to classifying casualty severity using linked data with hospital records is required, using a longer time series of data.

The injury-based approach has the possibility to compute something more objective and closer to medical definitions than the severity approach. Evaluation of the injury-based approach shows that while the injury based approach is more likely to result in an accurate classification of serious cases, it is also more likely to wrongly classify a slight injury as serious.

Extra detail from injury-based reporting is valuable in matching to hospital data and determining the severity of casualties.

STATS19 review

Road accident data is collected from the police with the STATS19 collection. As with any collection system, it needs to be periodically reviewed to keep up with changes in technology, to make improvements to completeness and accuracy, and to reduce the reporting burden.

STATS19 is currently under review, having previously been reviewed in 2008. This process is overseen by the Standing Committee on Road Accident Statistics (SCRAS) (https://www.gov.uk/government/publications/committees-and-user-groups-on-transport-statistics/the-transport-statistics-user-group).

The review is seeking to:

- Make recommendations for modifications to STATS19 variables with a view to improving the quality/value of the data to users and to reducing reporting burdens on the police.
- Identify areas where the STATS19 specification can be streamlined and modernised in order to reduce burdens, including improving validation at source and therefore overall increase the quality of data collected and speed up the ability to report/ produce findings.
- Consider the scope and opportunities for better use of technology, data sharing and matching to modernise road casualty data. This is both with a view to reducing the amount of data needing to manually rather than automatically input by the police, but also to enrich the data available to generate insight to improve road safety interventions.
- Develop a roadmap for any longer-term data changes needed to improve the evidence base for road safety interventions.

Topics in the review include:

- The completeness and quality of collisions data – including types of vehicles and the quality of location data
- Whether any changes should be made to the recording of casualties
- The Contributory Factors list
- Improvements to methodology, data processing, reporting and dissemination
- Future data strategy for STATS19 by making better use of data linking and other sources to reduce burden and enrich the data

The review will run through 2020, having been delayed due to Covid-19, before making recommendations on modifications to the data collection which we will consult on. For further information please contact: STATS19REVIEW@dft.gov.uk

Compensation Recovery Unit data

The Compensation Recovery Unit (CRU) works with insurance companies, solicitors and Department for Work and Pensions (DWP) customers, to recover:

- amounts of social security benefits paid as a result of an accident, injury or disease, if a compensation payment has been made (the Compensation Recovery Scheme)
- costs incurred by NHS hospitals and Ambulance Trusts for treatment from injuries from road traffic accidents and personal injury claims (Recovery of NHS Charges)

By far the largest number of cases they deal with are motor related. The table below shows a slight increase in cases in 2018/19 compared to 2017/18 but the number of cases is still lower than in previous years. This might suggest either a reduction in injury accidents since 2016/17 and/or a change in the insurance/claims market. All other things being equal, CRU data suggests we would not expect to see much change in injury accidents in 2018/19.

Table 3: Number of cases registered to Compensation Recovery Unit

Year	Motor	Total
2010/11	790,999	987,381
2011/12	828,489	1,041,150
2012/13	818,334	1,048,309
2013/14	772,843	1,016,801
2014/15	761,878	998,359
2015/16	770,791	981,324
2016/17	780,324	978,816
2017/18	650,019	853,615
2018/19	660,608	862,356

Source for CRU data

Transparency data on the performance of the Compensation Recovery Unit is published by DWP at: https://www.gov.uk/government/publications/compensation-recovery-unit-performance-data/compensation-recovery-unit-performance-data

Motor Insurance Claims Statistics

The Association of British Insurers (https://www.abi.org.uk/data-and-resources/industry-data/) collects aggregate data from all its members on the number and type of claims and the cost of motor insurance, and therefore has data on the number of motor insurance claims. The underlying data is not currently freely available and the ABI have not yet reported on the number of personal injury claims in 2019.

Road Traffic Statistics

Road traffic statistics for 2019 show that there was a 2.0% increase in miles travelled on Britain's roads, after remaining similar between 2017 and 2018 with a small increase of 1.2%. Other things being equal, this would suggest we should not expect much change in the number of injury accidents in 2019 compared to 2018. However, there are a wide range of other factors which influence road casualties.

Conclusions on coherence

Police reported road casualty data is only a subset of all road casualties. In terms of the changes in the volume of road accidents in 2019, when considering the sources available, they would suggest little change or a slight fall would be expected compared to 2018 in total injury accidents.

The STATS19 review will aim to improve the estimate of both the overall size of under-reporting and any further steps we can take to improve this, and what further work can be done to provide a better assessment of the coherence in trends from these different sources.

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. Furthermore, police data on road accidents, 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, and remains well regarded in international comparisons.

Changes in reporting systems used by police forces

Background on the change

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), which went live to police officers from November 2016.

In 2019, 10 further police forces adopted CRASH. This includes all the Scottish police forces, Sussex and Lancashire.

The remaining forces use a wide variety of systems to report accidents, in which police officers use their own judgement and guidance to determine directly the severity of a casualty ('slight' or 'serious').

In contrast CRASH and COPA are injury-based severity reporting systems where the officer records the most severe injury for the casualty (Table 4 shows the link between injury and severity as used in the CRASH system). The injuries are then automatically converted to a severity level from 'slight' to 'serious'.

Eliminating the uncertainty in determining severity that arises from the officer having to make their own judgement means that the new severity level data observed from these systems using injury based methods is expected to be 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 4: 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 5: Adoption dates for CRASH or COPA by police force

Police Force	System Used	Adoption Date
Bedfordshire	CRASH	April 2016
Cambridgeshire	CRASH	May 2016
Central	CRASH	July 2019
City of London	CRASH	November 2015
Cumbria	CRASH	January 2016
Devon and Cornwall	CRASH	December 2015
Dumfies and Galloway	CRASH	July 2019
Durham	CRASH	March 2016
Essex	CRASH	November 2015
Fife	CRASH	July 2019
Gloucestershire	CRASH	November 2015
Grampian	CRASH	July 2019
Hertfordshire	CRASH	April 2016
Humberside	CRASH	January 2016
Kent	CRASH	January 2016
Lancashire	CRASH	December 2018
Lothian and Borders	CRASH	July 2019
Metropolitan Police Service	COPA	Live to police officers in November 2015
Norfolk	CRASH	February 2016
Northern	CRASH	July 2019
Northumbria	CRASH	April 2016
South Yorkshire	CRASH	January to February 2013, then January 2016 onwards
Strathclyde	CRASH	July 2019
Staffordshire	CRASH	May 2015
Suffolk	CRASH	February 2016
Surrey	CRASH	November 2012
Sussex	CRASH	April 2019
Tayside	CRASH	June 2019
Warwickshire	CRASH	November 2015
West Mercia	CRASH	December 2015
West Midlands	CRASH	November 2015

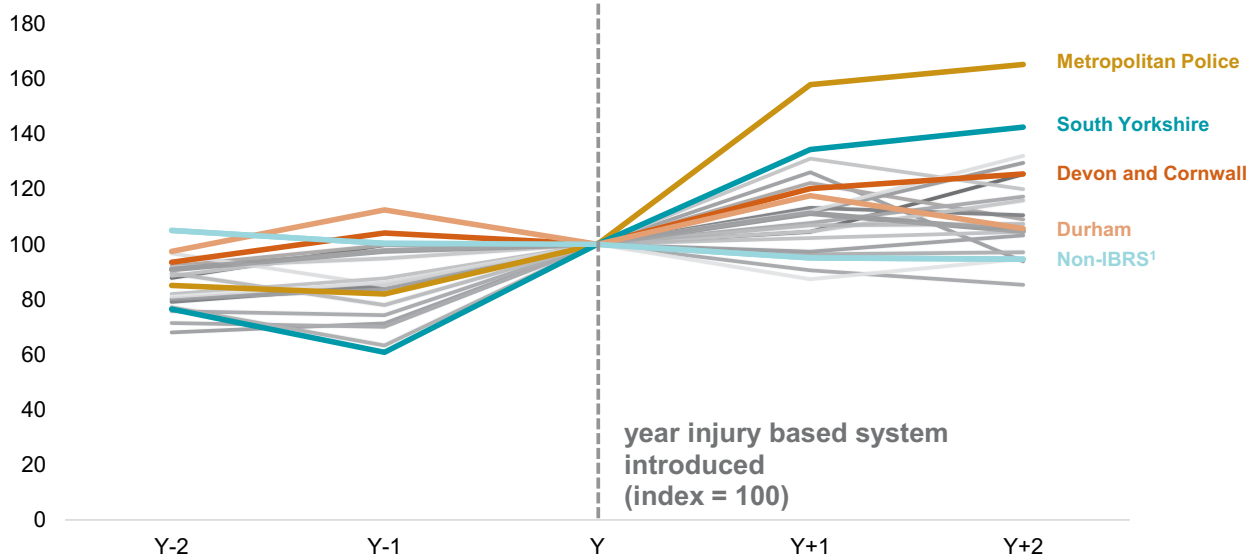
Note that adoption dates are indicative as there can be phased introduction of new systems during transitions

Table 5 shows the police forces which use or have used either CRASH or COPA and the dates from which these systems have been used.

Impact on trends

Following the introduction of CRASH and COPA, the number of casualties recorded as serious has increased in Great Britain. **Chart 20** shows the number of reported serious road casualties by police force over time, from two years before to two years after Injury Based Reporting Systems (IBRS) were introduced (year introduced, index = 100).

Chart 20: Reported serious road casualties by police force, two years before to two years after injury based reporting systems were introduced



[1] Forces not using injury based reporting systems (IBRS). The non IBRS forces have been given an index year of 2016 for comparison as this is when most forces moved over to IBRS.

Chart 20 shows that the size of the increase in serious casualties varies across police forces following the introduction of injury based reporting systems. A comparison line for non-IBRS forces has been included to show how reported serious casualties have changed in these forces. Some forces (such as the Metropolitan Police Service) show a more marked increase in serious casualties than others, while other forces (such as Durham) show a more stable trend in serious casualties over time. Devon and Cornwall and South Yorkshire have also been highlighted in the chart above to illustrate the variety of trends observed.

The differences in the impact of the introduction of injury based reporting systems is likely to depend on the practices within a police force that were in place before these new systems were introduced. For example, Durham have stated that having a relatively low number of casualties each year allows them to extensively validate how the severity of each casualty reflects the injury received, and that their previous system for severity recording was very similar to the CRASH approach. Whereas, larger forces might not be able to carry out extensive severity reviews and there might be more differences in practices between the large numbers of officers recording accidents.

Adjusting time series

The Office for National Statistics (ONS) Methodology Advisory Service have completed analysis to quantify the effect of the introduction of injury reporting systems (CRASH and COPA) on the number of slight and serious injuries reported to the police. The final methodology paper was published alongside 2018 main results in July 2019 (https://www.gov.uk/government/statistics/reported-road-casualties-great-britain-main-results-2018) and is complemented by the Annex published alongside this publication. The final paper addresses feedback received on the interim report published alongside the 2017 annual report in September 2018, and confirms the use of a logistic regression approach to adjust severity figures to account for the effect of injury reporting systems while controlling for other factors which predict severity.

The methodology developed by the ONS has been used to produce adjusted figures which are presented alongside the actual reported figures in the main results publication tables. The adjustments provide the statistically ‘expected’ number of serious and slight injuries (i.e. what might be expected on average) if all forces were using injury based severity reporting approaches.

The adjustments are published for further breakdowns of slight and serious including speed limit, road class, casualty road user type, casualty age, quarter, police force, and local authority. It is expected that these adjustments will need to be provided for each year that there are police forces using a non-injury based reporting system. When other police forces move over to an injury based reporting system, the model will be reviewed and this will be taken into account, which we expect would be for at least the next couple of years.

For more information on the method used to characterise police force trends please see the annex.

The annex also includes information on the final methodology, and guidance around quantifying uncertainty when using record-level data.

Alongside the 2019 annual report, the Department has published the underlying adjusted figures from the regression model available on data.gov.uk at (https://data.gov.uk/dataset/cb7ae6f0-4be6-4935-9277-47e5ce24a11f/road-safety-data), in a look-up alongside our main data extracts, so that users can explore the results of the severity adjustment at casualty level and provide any further feedback. We will update this data when we publish the final 2019 annual report. Caution should be used when interpreting adjustment at a detailed level. It is advised that adjustment figures are used when users are looking at trends over time. For individual records and totals the unadjusted figures can be used.

Your feedback

We welcome your feedback on this approach, specifically how you are using these statistics and whether this meets your needs. Please contact us at roadacc.stats@dft.gov.uk.

Online self-reporting

Online self-reporting is part of a wider project for digital public contact called Single Online Home funded by the Home Office. To allow people involved in road traffic accidents to report the collision to the police online should they choose to do so rather than having to physically report it at a police station.

The principle of online reporting is to make it easier for members of the public to report accidents. It is expected that the introduction of online reporting will lead to an increase in the total number of accidents and casualties reported, as it will be easier for the public to perform this duty with more reporting options available. This is particularly likely to impact numbers for slight injuries, which might not have been reported otherwise. Serious injuries, on the other hand, are expected to be less impacted by this change since the police are more likely to physically attend the scene of serious accidents or for them to already be otherwise reported to the police. No change is expected to be found for fatal accidents as these cases are more likely to be attended at the scene and thoroughly investigated.

In addition to the overall volume, the introduction of online reporting is also likely to impact the nature of the collisions reported, for example by road user type.

The Department is starting work as part of the STATS19 review to assess the scale of the discontinuity caused by the introduction of online reporting so far, and consider how to adjust for this as more forces roll it out. The rest of this section gives a high-level overview of the changes introduced by online reporting.

The forces that introduced online reporting of collisions through the Single Online Home project in 2019 or before are listed below:

Force	Date online reporting introduced in SOH
Metropolitan Police Service	October 2016
Thames Valley	January 2018
Hampshire	January 2018
Derbyshire	August 2018
Merseyside	October 2018
Surrey	December 2018
Essex	September 2019
Kent	September 2019
Cheshire	November 2019
Cleveland	November 2019
Staffordshire	November 2019
Gloucestershire	December 2019
Sussex	December 2019

As Essex, Kent, Cheshire, Cleveland, Staffordshire, Gloucestershire and Sussex have been using online reporting only since September 2019 or later they are excluded from this analysis. For the rest of this section, other forces listed above will be compared to forces that have not introduced online reporting. Durham use a different online reporting system called Sentrysis.

Changes in trends by severity

Following the introduction of online reporting, the Metropolitan Police Service has seen an increase in the total number of casualties of all severities (+7.7% between 2016 and 2017). Derbyshire and Hampshire saw a smaller decrease between 2017 and 2018 in all casualties than forces that did not use online reporting between 2017 and 2018. Merseyside and Surrey who introduced online reporting late in 2018, saw a larger decrease between 2018 and 2019 (8.5% and 6.2% respectively) than forces who have not adopted online reporting.

Number of casualties in reported road accidents, by police force, 2016-2019

	Number of casualties				Percentage change		
Police Force	2016	2017	2018	2019	2016-17	2017-18	2018-19
Force adopting online reporting end 2016							
Metropolitan Police	29,902	32,200	30,318	29,745	7.7%	-5.8%	-1.9%
Forces adopting online reporting in 2018 (up to Sep)							
Derbyshire	2,570	2,126	2,077	2,191	-17.3%	-2.3%	5.5%
Thames Valley	6,580	5,567	5,105	4,592	-15.4%	-8.3%	-10.0%
Hampshire	5,477	5,089	4,931	4,576	-7.1%	-3.1%	-7.2%
Total	14,627	12,782	12,113	11,359	-12.6%	-5.2%	-6.2%
Forces adopting online reporting in 2018 (from Oct)							
Merseyside	3,576	3,006	3,060	2,799	-15.9%	1.8%	-8.5%
Surrey	5,021	4,614	4,172	3,913	-8.1%	-9.6%	-6.2%
Total	8,597	7,620	7,232	6,712	-11.4%	-5.1%	-7.2%
Forces not adopting online reporting[1]	101,974	94,885	88,990	84,440	-7.0%	-6.2%	-5.1%

Source: STATS19

1. Essex, Kent, Cheshire, Cleveland, Staffordshire, Gloucestershire and Sussex are excluded from this table

The Department for Transport is not yet able to reliably differentiate between self-reported casualties over the counter and online in the data. Therefore, the rest of this section is contrasting all self-reported cases (whether over the counter or online) with cases attended by the police at the scene. Note that there is likely to be some switch from over the counter to online reporting: some members of the public who would have gone to a police station to report are likely to do so online

instead. However, overall any large increase in the number of self-reported cases is likely to be attributed to the introduction of online reporting.

Number of casualties in self-reported road accidents, by police force, 2016-2019

	Number of casualties				Percentage change		
Police Force	2016	2017	2018	2019	2016-17	2017-18	2018-19
Force adopting online reporting end 2016							
Metropolitan Police	4,992	6,748	8,256	9,805	35.2%	22.3%	18.8%
Forces adopting online reporting in 2018 (up to Sep)							
Derbyshire	599	554	643	694	-7.5%	16.1%	7.9%
Thames Valley	977	742	1,099	1,289	-24.1%	48.1%	17.3%
Hampshire	785	850	845	822	8.3%	-0.6%	-2.7%
Total	2,361	2,146	2,587	2,805	-9.1%	20.5%	8.4%
Forces adopting online reporting in 2018 (from Oc							
Merseyside	537	535	786	734	-0.4%	46.9%	-6.6%
Surrey	693	572	597	804	-17.5%	4.4%	34.7%
Total	1,230	1,107	1,383	1,538	-10.0%	24.9%	11.2%
Forces not adopting online reporting[1]	21,213	21,393	20,520	22,540	0.8%	-4.1%	9.8%

Source: STATS19

1. Essex, Kent, Cheshire, Cleveland, Staffordshire, Gloucestershire and Sussex are excluded from this table

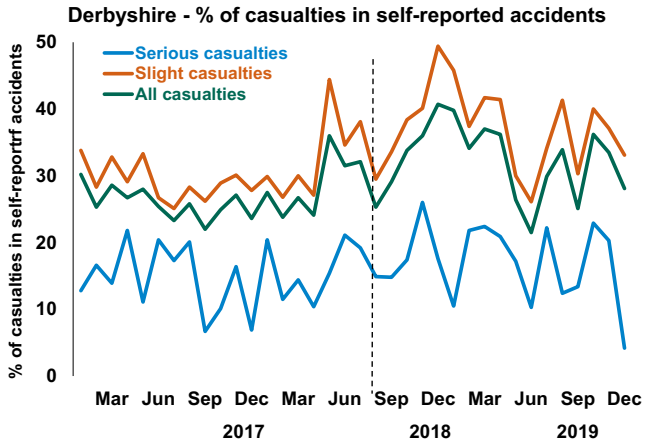
Across forces that have not adopted online reporting, casualties in self-reported accidents fell by 4.1% from 2017 to 2018 and rose by 9.8% between 2018 and 2019.

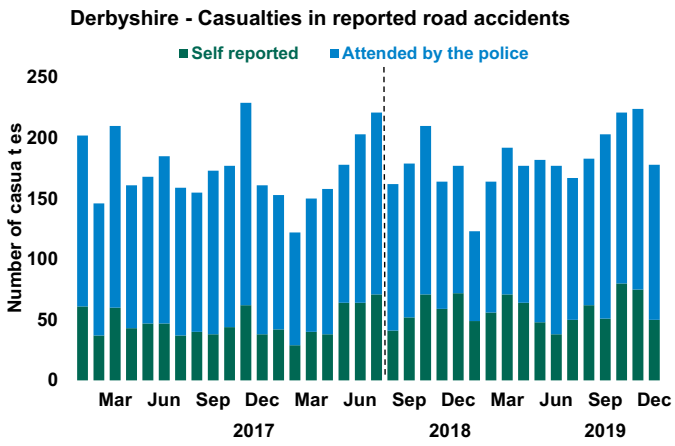
The size of the change for forces adopting online reporting has varied for each force. In the Metropolitan Police Service (MPS), which adopted online reporting at the end of 2016, casualties in self-reported accidents rose by 35% between 2016 and 2017, by 22% from 2017 to 2018 and by 19% from 2018 to 2019.

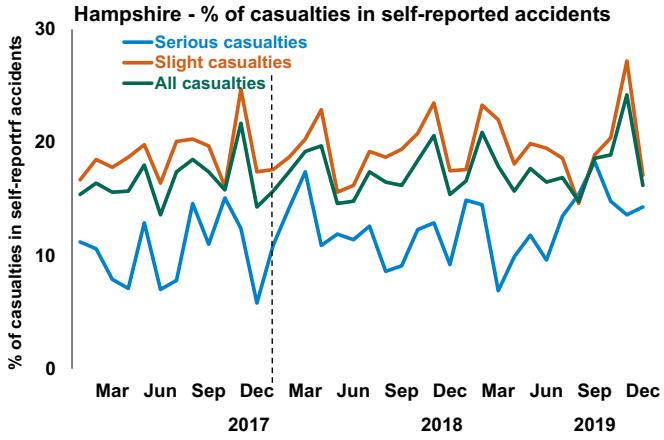
Of the forces that adopted online reporting in 2018 (January to September), Derbyshire and Thames Valley saw large increases in the number of casualties in self-reporting accidents between 2017 and 2018 (16% and 48% respectively). In both forces there was a smaller increase from 2018 to 2019. The increase in Thames Valley was still higher than the increase in forces that have not adopted online reporting, although lower in Derbyshire. Hampshire experienced a reduction in casualties in self-reported accidents since the introduction of online reporting.

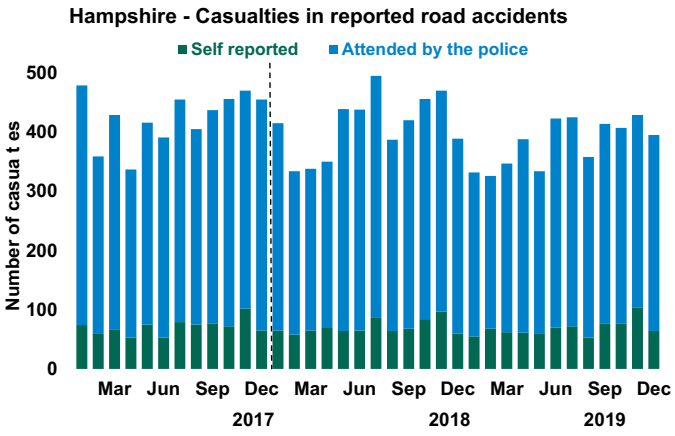
Of the forces that introduced online in 2018 (October to December), Merseyside recorded a reduction in the casualties from 2018 to 2019 of 6.6%. Surrey, on the other hand, had a large increase of 35% from 2018 to 2019. This was the same as the increase in the MPS in their first year of using online reporting.

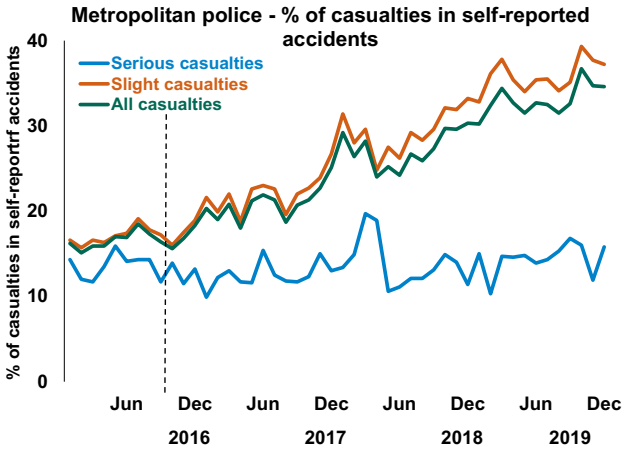
This suggests that online reporting results in more accidents being self-reported than would otherwise have been the case, however there are differences between forces. The below series of charts show the impact of the introduction of online reporting in the proportion and number of self-reported casualties by severity over time. Serious and slight injuries have been adjusted to account for changes in the severity reporting systems. More information on the change and adjustment process is available in the 2018 annual report. The change to online reporting is indicated by the dotted grey line.

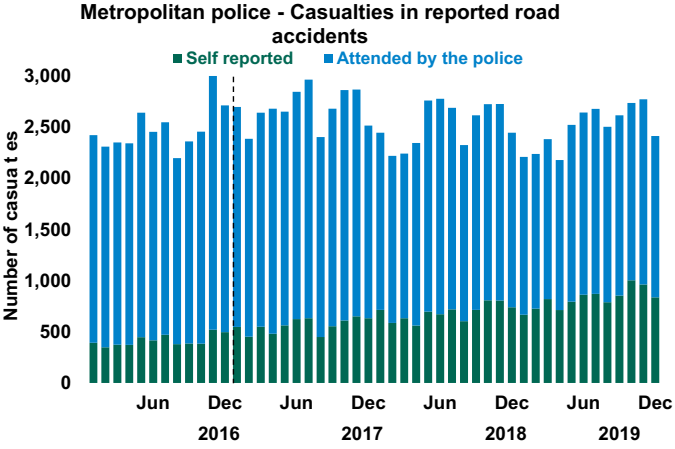

Derbyshire - % of casualties in self-reported accidents
Serious casualties
Slight casualties
All casualties
% of casualties in self-reportrf accidents
0
10
20
30
40
50
Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec
2017
2018
2019

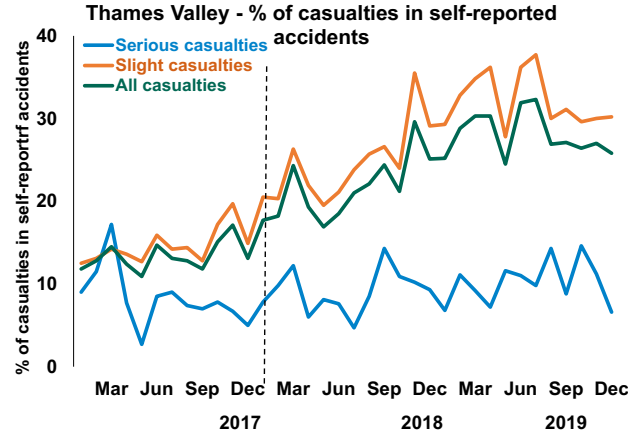

Derbyshire - Casualties in reported road accidents
Self reported
Attended by the police
Number of casua t es
0
50
100
150
200
250
Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec
2017
2018
2019

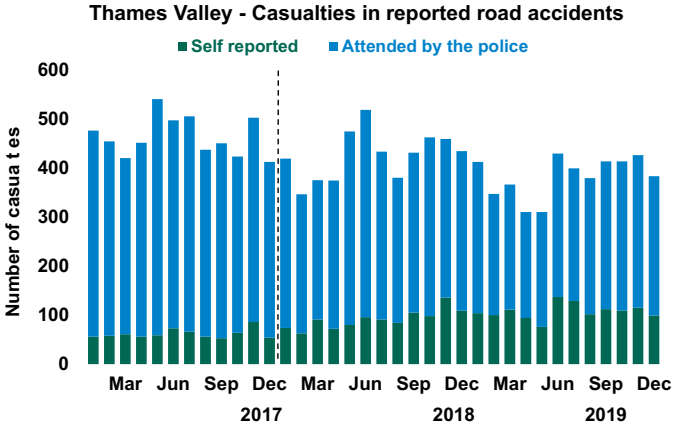

Hampshire - % of casualties in self-reported accidents
Serious casualties
Slight casualties
All casualties
% of casualties in self-reportrf accidents
0
10
20
30
Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec
2017
2018
2019

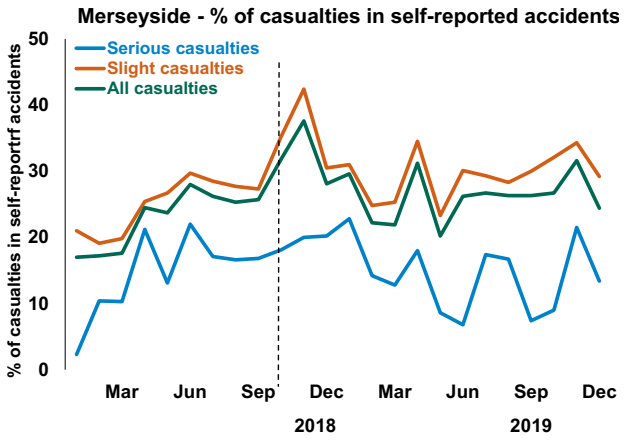

Hampshire - Casualties in reported road accidents
Self reported
Attended by the police
Number of casua t es
0
100
200
300
400
500
Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec
2017
2018
2019

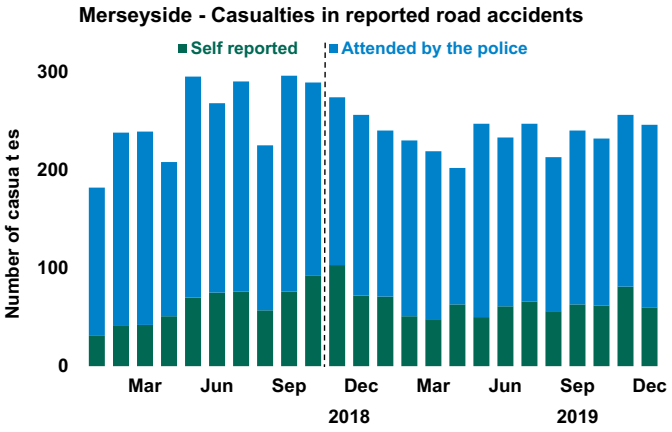

Metropolitan police - % of casualties in self-reported accidents
Serious casualties
Slight casualties
All casualties
% of casualties in self-reportrf accidents
0
10
20
30
40
Jun Dec Jun Dec Jun Dec Jun Dec
2016
2017
2018
2019

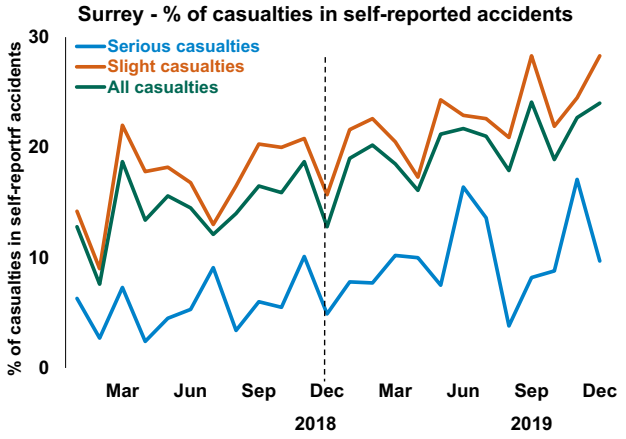

Metropolitan police - Casualties in reported road accidents
Self reported
Attended by the police
Number of casua t es
0
500
1,000
1,500
2,000
2,500
3,000
Jun Dec Jun Dec Jun Dec Jun Dec
2016
2017
2018
2019

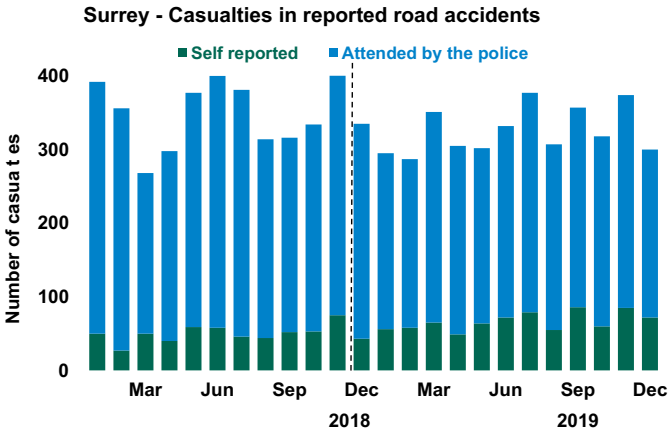

Thames Valley - % of casualties in self-reported accidents
Serious casualties
Slight casualties
All casualties
% of casualties in self-reportrf accidents
0
10
20
30
40
Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec
2017
2018
2019


Thames Valley - Casualties in reported road accidents
Self reported
Attended by the police
Number of casua t es
0
100
200
300
400
500
600
Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec
2017
2018
2019









In the MPS, the number of casualties in self-reported accidents in 2019 was 9,805 up from 8,256 in 2018, up from 6,748 in 2017 and 4,992 in 2016. Prior to the introduction of online reporting, less than 20% of casualties a month were self-reported, this proportion is now over 30% a month and the progressive increase has not yet levelled off.

In the MPS, Thames Valley, Derbyshire and Surrey, there is a clear increase in the proportion of self-reported casualties which is progressive after the date of introduction. The impact of online reporting is visible for their trends in slight casualties. For these forces, fluctuations in serious self-reported casualties do not follow a clear upwards trend after the introduction of online reporting. The pattern over time is similar for these forces despite their different starting points in terms of the proportion of self-reported casualties before the introduction of online reporting (ranging from 10% to 30%).

Hampshire and Merseyside, on the other hand, have not experienced a noticeable increase since introducing online reporting.

Changes in trends by road user type

Since 2016, around 94% of casualties in self-reported road accidents each year are pedestrians, pedal cyclists, motorcyclists or car occupants. Therefore, the following table shows the percentage changes for these casualty types only.

Percentage change in casualties in self-reported road accidents, by police force and road user type, 2016-2017 to 2018-2019

Police Force	Pedestrians	Pedal cyclists	Motorcyclists	Car occupants	Other
Forces adopting online reporting end 2016					
Metropolitan Police from 2016-2017	45.0%	50.2%	40.8%	26.4%	2.7%
Metropolitan Police from 2017-2018	13.6%	9.6%	16.8%	34.2%	26.2%
Metropolitan Police from 2018-2019	3.1%	7.7%	78.3%	19.3%	12.8%
Forces adopting online reporting in 2018 (Jan-Sep)					
Derbyshire from 2017-2018	33.9%	1.7%	27.0%	16.2%	1.8%
Thames Valley from 2017-2018	17.4%	27.7%	59.0%	78.0%	25.0%
Hampshire from 2017-2018	17.2%	3.3%	-9.5%	-11.8%	14.7%
Overall from 2017-2018	21.9%	11.7%	17.3%	27.9%	11.5%
Derbyshire from 2018-2019	6.5%	1.7%	-4.3%	19.5%	-19.3%
Thames Valley from 2018-2019	-9.7%	10.3%	-11.3%	33.1%	10.0%
Hampshire from 2018-2019	-16.4%	-3.9%	16.4%	0.4%	12.8%
Overall from 2018-2019	-7.1%	2.8%	1.1%	21.4%	-1.5%
Forces adopting online reporting in 2018 (Oct-Dec)					
Merseyside from 2018-2019	2.3%	-14.3%	-30.8%	-1.5%	-39.6%
Surrey from 2018-2019	16.0%	19.9%	100.0%	45.6%	12.9%
Overall from 2018-2019	7.4%	0.6%	40.4%	20.1%	-19.0%
Forces not adopting online reporting[1]					
Change from 2016-2017	4.8%	9.4%	-6.7%	-1.9%	-1.7%
Change from 2017-2018	-2.9%	-5.1%	-6.9%	-3.7%	-5.8%
Change from 2018-2019	11.0%	4.5%	8.4%	12.8%	-1.9%

Source: STATS19

1. Essex, Kent, Cheshire, Cleveland, Staffordshire, Gloucestershire and Sussex are excluded from this table

For forces that have not adopted online reporting, the year-on-year percentage changes between 2016 and 2017, 2017 and 2018 and 2018 and 2019 for all these casualty types range between a reduction of 7% and an increase of 13%.

Between 2016 and 2017 in accidents that were self-reported online in the MPS, pedal cyclist casualties increased by 50%, pedestrians by 45%, motorcyclists by 41%, and car occupants by 26%. For the second full year of online reporting in the MPS, car occupant casualties rose by 34% and the increases for the other casualty types were smaller. In the third year car occupants rose by 19%.

For forces that adopted online reporting in 2018 up to the end of September, Derbyshire saw the biggest increase in pedestrians (34%) and motorcyclists (27%), while Thames Valley saw their largest increases in car occupants (78%) and motorcyclists (59%).

For the two forces that adopted online reporting in 2018 after September, Surrey saw increases for all casualty types: motorcyclists (100%), cars (46%), pedal cyclists (20%) and pedestrians (16%), while Merseyside only saw increases for pedestrians (2%).

Some forces that have adopted online self-reporting have recorded increases for each of these four casualty types that are larger than for those forces that have not adopted online self-reporting. However, other forces, such as Merseyside, have seen decreases. These differences may reflect differences in travel behaviours of the population of these police forces and therefore the type of accidents that occur in each of them. For example, the increase in the MPS is particularly large for vulnerable road users (pedestrians, pedal cyclists, motorcyclists).

Conclusion on the impact on trends

In summary, online self-reporting has resulted in more accidents being reported in most of the police forces that have introduced this method of self-reporting to varying degrees, compared to forces that have not. While forces had different starting points in terms of the proportion of accidents that are self-reported, trends over time in most of these forces show a progressive increase in self-reported slight casualties that has not yet levelled off. The size of the effect and the road user groups most impacted differ between forces. It is also likely to reflect the mix of travel patterns and accidents in these police force areas. It also suggests that collisions involving vulnerable road users (pedestrians, pedal cyclists and motorcyclists) are reported more online.

The number and size of the forces that have adopted online reporting means that it may be impacting the national figures slightly. Online reporting tools delivered through the Single Online Home project will be made available to more police forces in the future. The Department anticipates that this will have an even greater impact on the total number of accidents and casualties reported as the system is adopted more widely. Other forces have already planned to adopt online reporting in the near future. It is therefore expected that the discrepancy in data trends caused by the introduction of online reporting will expand in the future.

The Department will explore further how to estimate the impact of the introduction of online reporting as part of the STATS19 review. This will include research to understand differences in practices of back office staff between forces where online reporting is available and review the STATS19 requirements of online reporting from a user perspective.

Impact on quality

The introduction of online reporting has also impacted the quality of data received by the Department. It is believed that the introduction of online reporting has introduced a different interpretation for unknown values (for example, unknown to the public as opposed to unknown by the police) that has not been subsequently populated by the police. As a result, the number of unknown values on some variables like left hand drive vehicle, special conditions at site and carriageway hazards, has increased compared to previous years.

The specific variables affected are the following:

Vehicle level variables

- Skidding / overturning
- Hit object in carriageway
- Vehicle leaving carriageway
- Vehicle location
- First object hit off carriageway
- Junction location of vehicle
- Was vehicle left hand drive?
- First point of impact
- Towing and articulation

Accident level variables

- Weather conditions
- Junction control
- Carriageway type
- Pedestrian crossing
- Special conditions at site
- Carriageway hazards
- Junction type
- Road surface conditions

The vast majority of the unknown values above are observed in the Metropolitan Police Service, however there are indications that some, including weather conditions and carriageway type, are also observed in other online reporting forces.

Comparisons with earlier years for these variables should therefore be made with caution. This is indicated as a footnote in published tables where relevant.

In particular, there has been an issue in the recording of the left hand drive information for vehicles in the Metropolitan Police Service. There has been a large increase in unknowns for this field since 2016, which is linked to the introduction of online reporting, and a large increase in vehicles recorded as left hand drive since 2016, which is believed to be linked to the introduction of COPA. This is indicated in RAS40005, which has been amended to include two tables for 2017 and 2018: one for Great Britain and one for Great Britain excluding the Metropolitan Police Service.

The Department is actively engaged with the project team to improve the capture of the geographic location of the collision and to add additional validation to improve the quality of online self-reported data.

Publication timetable

The timetable of publications in 2020 continues to be a large improvement on 2017 and 2018, where the main results publication did not go ahead, reflecting the efforts of both police forces and the DfT team.

The Department aims to publish mid-year estimates for 2020 in November 2020. Feedback from users and examples of any impact of the reduced frequency from quarterly to in-year estimates are welcome at roadacc.stats@dft.gov.uk.

Next release

Provisional tables and analysis of the first half of 2020 statistics, will be published in the Reported Road Casualties in Great Britain: provisional estimates: year ending June 2020 in November this year.

Data supply from forces

There have been significant challenges in attempting to close the 2019 dataset. The timing of the Coronavirus (COVID-19) pandemic has impacted forces and local authorities and their ability to process STATS19 data and respond to enquiries due to: reprioritisation, staff on furlough and physical difficulties of access to places of work, equipment to work at home and software.

Avon and Somerset police totals are not complete for 2019. One of five local authorities that process data on their behalf were unable to submit all their records for December 2019. North Somerset local authority have reported capability issues whilst working from home during the pandemic that affected their ability to process all their records. This has prevented them from validating and exporting the final outstanding data to the department. We do not expect this to have a significant impact on trends at a national or police force level, only for the specific local authority affected.

DfT aims to have all reportable accidents included within the Reported Road Casualties Great Britain, provisional results publication. For 2019 this was not possible. Data and accidents had to be processed after the release date from forces identified in the “Data supply from forces” section of that release. Minor changes are not incorporated once all data has been received from forces unless they resolve issues identified during national validation.

DfT receives notifications from the police and local authorities regarding coroner court and Procurator Fiscal verdicts that would change road safety statistics. Where possible these verdicts have been used to update casualty records, but it does depend on when DfT receives notification of the verdicts. The Welsh Government notified DfT of three changes and the Scottish government notified DfT of two verdicts that would change the reporting totals for road safety statistics. Notification of these updates was received at an advanced stage of our publication. As such, changes could not be made to the reported statistics without delaying the publication, so they have not been included. The verdicts would have removed four fatalities and changed one serious casualty to a fatality.

Data tables

The annual report also includes detailed tables based on data reported by the police. Areas covered are listed below, with relevant table numbers in brackets:

- Accidents (RAS10)
- Drivers and vehicles involved (RAS20)
- Casualties (RAS30)
- Combined accidents, casualties, vehicles (RAS40)
- Area comparisons (RAS30038-RAS30058, RAS10014-RAS10015, RAS41002-RAS41004)
- International comparisons (RAS52)
- Former Strategic Framework for Road Safety outcome indicators (RAS41)
- Contributory factors (RAS50)
- Reported drink-driving (RAS51)
- Survey data on road accidents (RAS54)
- Hospital admissions as a result of road accidents (RAS55)
- Accident and casualty costs (RAS60)

A full list of tables in the road safety series and an index with 2019 RRCGB web tables can be found at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/648083/reported-road-casualties-gb-index-of-tables.xlsm.

Making our data easier to access

The Department wants to make road safety data easier for users to access and navigate, and has therefore carried out a review of all published road accidents tables. The aim of this review was to enable users to get the tailored information they need while reducing the number of tables published.

The Department is trialling a new road safety data download tool (https://roadtraffic.dft.gov.uk/custom-downloads/road-accidents), for users to create bespoke reports. We will continue to improve this tool continuously to include more data and improve the user experience. If you have any feedback or issues with the tool please contact us at roadacc.stats@dft.gov.uk. Some tables have been dropped as the same information is now available in this tool.

As announced in last year's main results publication, some tables have also been dropped as part of this review because information has been consolidated in tables, information was duplicated across tables, or they were identified as being rarely used. For full details of specific tables dropped, please see the tables index: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/648083/reported-road-casualties-gb-index-of-tables.xlsm.

The objective of removing the number of tables that are made available through the tool, that are rarely used, or are redundant, is to provide a better user experience to users by not having to navigate a very large number of tables. The complexity of

navigating the current set of tables faced by users in finding the information they need is shown by evidence from web analytics that place our table index as one of the top tables downloaded for DfT statistics.

Any feedback is welcome at roadacc.stats@dft.gov.uk.

Background information

Tables providing more details of accidents and casualties are available at: https://www.gov.uk/government/collections/road-accidents-and-safety-statistics.

Provisional in-year reported road casualty statistics are published throughout the year. Provisional estimates for the first half of 2019 were published in November 2019. In-year statistical releases can be found at: https://www.gov.uk/government/collections/road-accidents-and-safety-statistics.

National Statistics are produced to high professional standards as set out in the Code of Practice for 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: www.gov.uk/government/publications/road-accident-and-safety-statistics-pre-release-access-list.

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: https://www.gov.uk/government/collections/road-accidents-and-safety-statistics.

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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