National Statistics

Reported road casualties in Great Britain: pedal cycle

Sept 2021

Data on reported road accidents from 2015 to 2020 is used widely in this publication in order to allow sufficiently robust analysis by age, sex and other variables.

This factsheet gives an overview and key statistics on pedal cyclists involved in road collisions in Great Britain as reported by or to the police. This factsheet examines the main trends in collisions involving pedal cyclists and the casualties involved.

Pedal cyclists are one of the vulnerable user groups. They are not protected by a vehicle body in the same way car users are, and tend to be harder for drivers to see on the road. They are, therefore, particularly susceptible to injuries.

Data in this factsheet is from 2004 onwards. 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 [redacted].

It should be noted that it has been long known that a considerable percentage of non-fatal casualties are not reported to the police. Non-fatal casualties for pedal cyclists are amongst the most likely to be under-reported in road casualty data since cyclists have no obligation to inform the police of collisions. This should be borne in mind when analysing and interpreting the data.

Key findings

Between 2004 and 2020:

- fatalities increased from 134 to 141 (5%)
- serious injuries (adjusted) rose by 26%
- pedal cycle traffic grew by 96%

Averaged over the period 2015 to 2020:

- an average of 2 pedal cyclists died and 83 were seriously injured (adjusted) per week in reported road casualties
- a majority of pedal cycle fatalities (59%) do not occur at or within 20m of a junction compared to 32% of all seriously injured (adjusted) casualties
- almost half (46%) of pedal cycle fatalities in 2 vehicle accidents involved a car
- 56% of pedal cycle fatalities occurred on rural roads compared to 29% of traffic
- 83% of pedal cycle killed or seriously injured (KSI) casualties were male

The most common contributory factor allocated to pedal cyclists in fatal or serious accidents (FSA) with another vehicle was 'Driver or rider failed to look properly'. It was also the most common factor allocated to the other vehicles involved

Pedal cycle traffic and reported casualties

In 2020, 141 pedal cyclists were killed in Great Britain, whilst 4,215 were reported to be seriously injured (adjusted) and 11,938 slightly injured (adjusted).

Table 1 and chart 1 show that pedal cycle traffic has risen between 2004 and 2020 faster than serious injuries whilst fatalities and slight injuries have fallen.

The overall number of pedal cyclist casualties fell each year from 2014 to 2020.

During 2020, pedal cyclist fatalities rose by 41% while pedal cyclist traffic rose by 46%.

Chart 1: Index of pedal cycle traffic and reported pedal cyclist casualties by severity, GB: 2004-2020 (Index 2004=100)

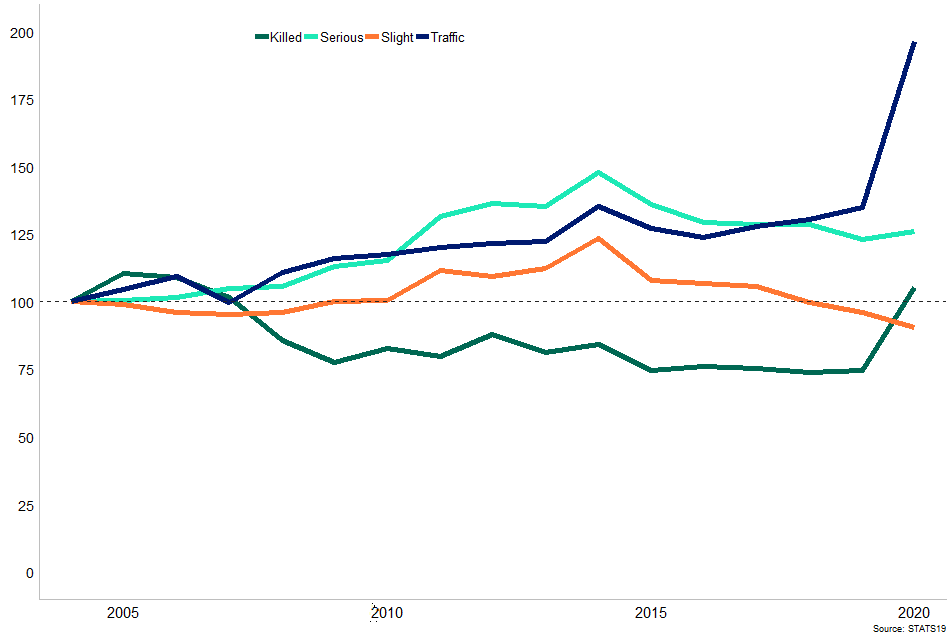


Table 1: Number of reported pedal cycle casualties by severity and traffic (pedal cycle billion vehicle miles), GB: 2004 to 2020

Year	Killed	Serious	Slight	All	Traffic
2004	134	3,348	13,166	16,648	2.56
2005	148	3,361	13,052	16,561	2.68
2006	146	3,405	12,645	16,196	2.80
2007	136	3,507	12,552	16,195	2.55
2008	115	3,539	12,643	16,297	2.84
2009	104	3,784	13,176	17,064	2.97
2010	111	3,854	13,220	17,185	3.01
2011	107	4,410	14,698	19,215	3.07
2012	118	4,560	14,413	19,091	3.11
2013	109	4,530	14,799	19,438	3.13
2014	113	4,947	16,227	21,287	3.46
2015	100	4,551	14,193	18,844	3.25
2016	102	4,326	14,049	18,477	3.17
2017	101	4,311	13,909	18,321	3.27
2018	99	4,301	13,150	17,550	3.34
2019	100	4,121	12,663	16,884	3.45
2020	141	4,215	11,938	16,294	5.03

Source: DfT STATS19 and National Road Traffic Census

How far do pedal cyclists travel?

There are 2 sources of cycling distances travelled published by the department:

- the National Travel Survey (NTS) which provides the [redacted] by person per year for English residents. This is used to derive casualty rates per mile travelled for pedestrians.
- the National Road Traffic Census estimates based on annual traffic count data which produces total [redacted] by type of road. This is used to derive casualty rates per mile travelled for vehicle occupants.

Casualty rates per mile travelled

The pedal cycle casualty rate has fallen for all severities in 2020 compared to 2004.

The overall casualty rate fell by 50%. The fatality rate fell by 46% compared to 36% for serious injuries and 54% for slight injuries.

Chart 2: Index of casualty rates of pedal cycle casualties by severity, GB: 2004 to 2020 (Index 2004=100)

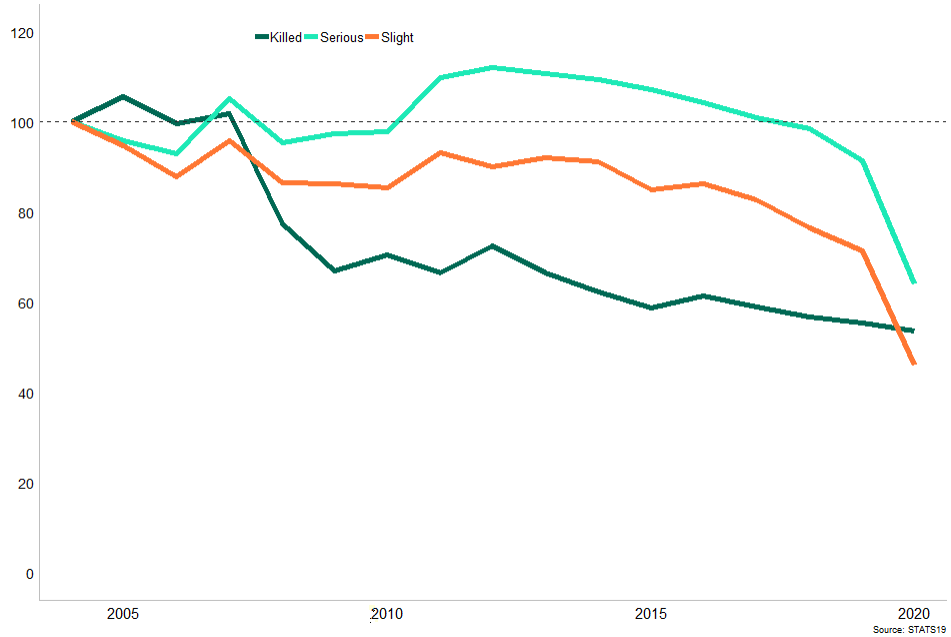


Table 2: Casualty rates of pedal cycle casualties by severity per billion vehicle miles travelled, GB: 2004 to 2020

Year	Killed	Serious	Slight	All
2004	52	1,308	5,143	6,503
2005	55	1,254	4,870	6,179
2006	52	1,216	4,516	5,784

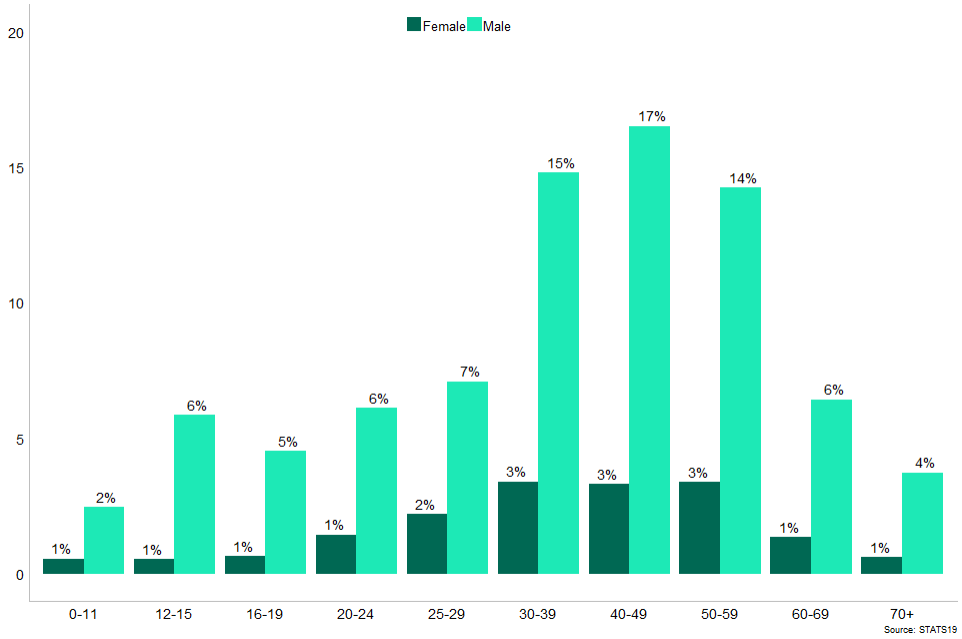
2007	53	1,375	4,922	6,351
2008	40	1,246	4,452	5,738
2009	35	1,274	4,436	5,745
2010	37	1,280	4,392	5,709
2011	35	1,436	4,788	6,259
2012	38	1,466	4,634	6,139
2013	35	1,447	4,728	6,210
2014	33	1,430	4,690	6,152
2015	31	1,400	4,367	5,798
2016	32	1,365	4,432	5,829
2017	31	1,318	4,254	5,603
2018	30	1,288	3,937	5,254
2019	29	1,194	3,670	4,894
2020	28	838	2,373	3,239

Sex and age comparisons

Between 2015 and 2020, 83% of pedal cycle casualties were male and 17% female.

There are 5 times more male than female pedal cycle casualties overall. This compares to 11 times more for 12 to 15 year olds and 3 times more for 25-29 year olds.

Chart 3: Percentage of pedal cycle KSI casualties, by sex and age, GB: 2015-2020



Which other vehicles are involved in collisions with pedal cyclists?

Between 2015 and 2020, most pedal cycle fatalities occurred in 2-vehicle accidents involving a car (298).

However, the highest proportion of casualties that are fatal occur in 2-vehicle accidents involving an HGV (6.1%). However, the second highest proportion (2.0%) occurred in accidents when no other vehicle was involved.

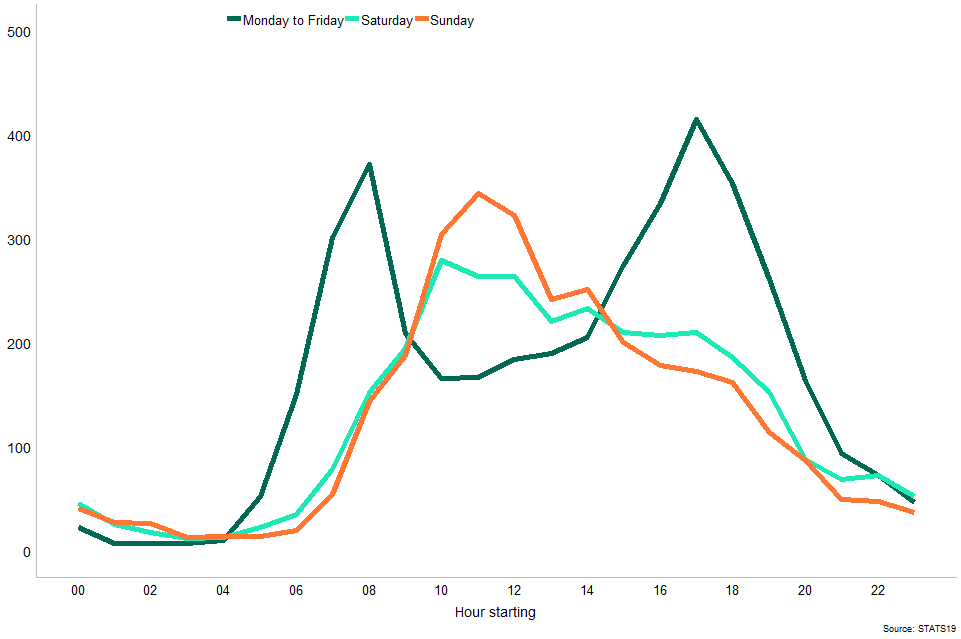
Table 3: pedal cycle casualties in reported road accidents by severity showing other vehicles involved GB: 2015-2020

Other vehicles	Fatalities	Serious injuries	Slight injuries	All casualties	% Fatalities
No other vehicles involved	98	2,028	2,759	4,885	2.0%
1 pedal cycle	5	337	573	915	0.5%
1 motorcycle	6	406	1,341	1,753	0.3%
1 car	298	18,836	64,166	83,300	0.4%
1 bus or coach	15	358	1,092	1,465	1.0%
1 light goods vehicle	47	1,842	5,554	7,443	0.6%
1 heavy goods vehicle	92	487	923	1,502	6.1%
1 other vehicle	21	433	1,118	1,572	1.3%
2 or more other vehicles involved	61	1,098	2,376	3,535	1.7%
Total	643	25,825	79,902	106,370	0.6%

Time of day of collisions

The weekday peak time for pedal cyclist KSIs is from 7am to 10am and from 4pm to 7pm. By contrast, the pattern differs markedly for Saturday and Sunday for both trips and KSIs. During the weekend there is a single peak around mid-morning (10 am to 12 noon) which gradually tails off during the afternoon and evening

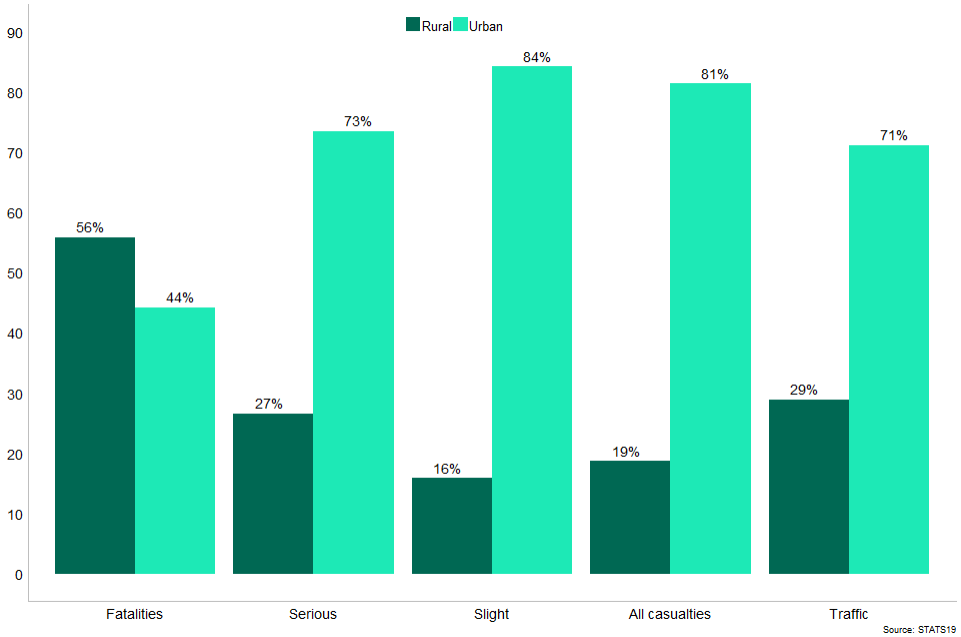
Chart 4: Reported pedal cyclist KSIs by hour of day and day of week, GB: 2015 to 2020



What type of road?

Chart 5 shows that Between 2015 and 2020, 56% of pedal cycle fatalities occurred on rural roads compared to 29% in traffic. The proportion of non-fatal casualties on rural roads, however, were lower than the proportion of traffic.

Chart 5: Percentage of pedal cycle casualties, by Urban or rural classification and severity and traffic, GB: 2015 to 2020



Urban roads are those within an area of population of 10,000 or more. The definition is based on the 2001 Communities and Local Government definition of Urban Settlements. Roads outside these areas will be classified as Rural. More information is available in the [redacted].

Vehicle movement on the road

A majority of pedal cycle fatalities (59%) do not occur at or within 20m of a junction compared to 32% of serious injuries (adjusted). However, 25% of fatalities occur at a junction compared to 41% of serious injuries (adjusted). Pedal cycle fatalities at roundabouts represent 5% of all fatalities in contrast to 13% of serious injuries (adjusted).

Table 4: Percentage of pedal cycle KSI casualties by severity and junction detail where the collision occurred, GB: 2015 to 2020

Junction	Fatalities	Serious	Slight	All Casualties
Crossroads	9.5%	9.7%	10.5%	10.3%
T, Y or staggered junction	21.6%	36.4%	38.8%	38.1%
Junction - more than 4 arms (not roundabout)	1.1%	1.1%	1.1%	1.1%
Other junction	2.3%	3.4%	3.7%	3.7%
Roundabout	4.5%	11.1%	12.1%	11.8%
Mini-roundabout	0.3%	1.9%	2.3%	2.2%
Slip road	0.9%	0.6%	0.6%	0.6%
Private drive or entrance	1.1%	3.4%	3.8%	3.7%
Not at junction or within 20 metres	58.6%	32.1%	26.0%	27.7%
Unknown	0.0%	0.4%	0.9%	0.8%

Contributory factors in collisions

Contributory factors provide an insight into how and why collisions occur. The factors are largely subjective as they reflect the opinion of the reporting police officer. They are assigned quickly at the occurrence of the collision and often without extensive investigations and so should be interpreted with caution. They are likely to be affected in part by preconceptions police officers have of certain vehicle groups. A maximum of six factors can be recorded for each collision.

Table 5 shows the ten most common contributory factors that have been allocated to pedal cyclists that have been involved in fatal or serious accidents (FSA) accidents (between 2015 and 2020) and contrasts this with the number allocated to non-pedal cyclists in these collisions.

The 3 most common contributory factor assigned to both pedal cyclists and other vehicle types was ‘failed to look properly’ followed by a failure ‘to judge other person’s path or speed’ and ‘Driver or rider careless, reckless or in a hurry’.

The fourth most common factor allocated to pedal cyclists was ‘cyclist entering the road from pavement’. For other vehicles in collision with them the fourth most common was ‘poor turn or manoeuvre’ .

Table 5: Contributory factors allocated to vehicles involved in fatal or serious collisions with pedal cycle, GB: 2015-2020

Contributory Factor	pedal cyclists	non-pedal cyclists	Any vehicle involved
Driver or rider failed to look properly	3,782	7,565	11,348
Driver or rider failed to judge other person`s path or speed	1,644	2,527	4,171
Driver or rider careless, reckless or in a hurry	1,253	1,983	3,236
Cyclist entering road from pavement	1,092	63	1,156
Poor turn or manoeuvre	798	1,760	2,558
Rider wearing dark clothing	588	39	627
Loss of control	586	146	732
Travelling too fast for conditions	389	198	587
Not displaying lights at night or in poor visibility	367	18	385
Driver or rider impaired by alcohol	313	167	479

Further information

Further information on road collisions and casualties can be found in [redacted]

Published tables on casualties in reported road accidents are [redacted]

Non-fatal casualties since 2016 have been affected by a large number of police forces changing their reporting systems which has had a large impact on the classification of injuries recorded. Further details are in the [redacted].

Road accidents and safety statistics guidance including accompanying notes and definitions are [redacted]

Personal travel statistics within Great Britain covering English residents is available from [redacted].

[redacted] provide estimates of the vehicle miles travelled each year in Great Britain by vehicle type, road category and region.

Instructions for printing and saving

Depending on which browser you use and the type of device you use (such as a mobile or laptop) these instructions may vary.

You will find your print and save options in your browser's menu. You may also have other options available on your device. Tablets and mobile device instructions will be specific to the make and model of the device.

How to search

Select Ctrl and F on a Windows laptop or Command and F on a Mac

This will open a search box in the top right-hand corner of the page. Type the word you are looking for in the search bar and press enter.

Your browser will highlight the word, usually in yellow, wherever it appears on the page. Press enter to move to the next place it appears.