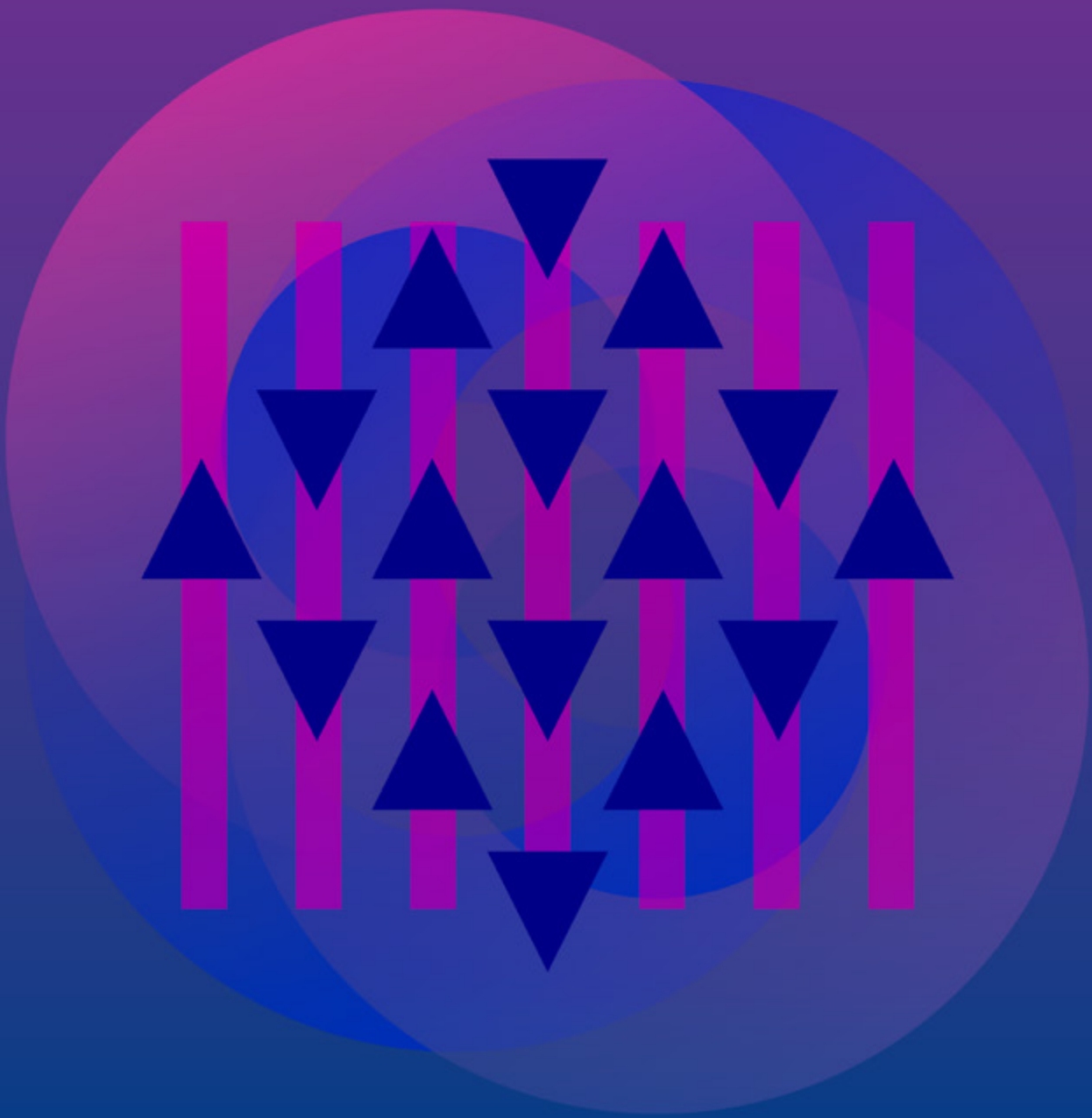
International Transport Forum

irtad Road Safety Data

Road Safety Country Profile

United Kingdom 2023



Overview

The United Kingdom recorded 1 766 road deaths, a decrease of 3.7% compared to the average for 2017-19. A historically low figure of 1 516 road deaths was observed in 2020, when Covid-19 related lockdown measures were the strongest. In 2022, there was a relatively strong decrease in cyclist fatalities despite the increased popularity of cycling. The new Road Safety Strategic Framework (RSSF) is under development.

Quick facts: United Kingdom (all data from 2022, unless otherwise stated)

Population	67 million				
GDP per capita	USD 45 850				
Road network	424 480 km (2020)				
Total number of motor vehicles	40.7 million				
Speed limits	Urban roads	Rural roads	Motorways		
	48 km/h (30 mph) 20 mph in Wales	96, 113 km/h (60, 70 mph)	113 km/h (70 mph)		
Limits on blood alcohol content	0.8 grams/litre (g/l) (Great Britain)				
Road fatalities	1 766				
	Pedestrians	Cyclists	Car occupants	Motorised two-wheelers	Other and unknown
	23%	5%	46%	20%	5%
Road fatalities per 100 000 population	2.6				
Road fatalities per 10 000 vehicles	0.4				
Cost of road crashes	1.4% of GDP				

Short-term trends

Mobility and road safety in the United Kingdom were significantly impacted by the Covid-19 pandemic that hit the world in 2020. Figure 1 illustrates the number of road deaths in 2020, 2021 and 2022 compared to the linear trend before the pandemic. It shows that road death figures for 2020 and 2021 were very much below the trend.

Due to the impact of the Covid-19 pandemic on mobility and road crashes, the data for 2020 and 2021 represent a poor reference point for benchmarking. Therefore, for short-term trends, this report compares data for 2022 and 2021 with the average for 2017-19.

The United Kingdom recorded 1 766 road deaths in 2022, a decrease of 3.7% compared to the average 2017-19 (Table 1).

Overall, motor traffic volumes increased in 2022 compared to the previous year but have not yet returned to pre-pandemic levels, with a 2022 figure of 3.4% below the 2017-19 average (based on figures for Great Britain). This largely reflects the trend in car use, with car traffic accounting for 75% of the total. Traffic of light and heavy duty vehicles in 2022 exceeded pre-pandemic levels.

Table 1. Road fatalities in the United Kingdom, 2017-2022

	2017	2018	2019	Average 2017-19	2020	2021	2022	2022 compared with average 2017-19
January	142	144	175	154	159	93	166	8.0%
February	135	122	145	134	130	66	124	-7.5%
March	124	125	139	129	105	87	146	12.9%
April	128	127	155	137	81	121	141	3.2%
May	145	165	129	146	94	124	133	-9.1%
June	148	133	119	133	109	126	143	7.2%
July	142	161	172	158	149	181	164	3.6%
August	175	160	153	163	162	165	173	6.4%
September	169	157	160	162	144	155	134	-17.3%
October	203	195	145	181	129	182	144	-20.4%
November	185	173	148	169	120	154	147	-12.8%
December	160	177	168	168	134	154	151	-10.3%
Total	1 856	1 839	1 808	1 834.3	1 516	1 608	1 766	-3.7%

The reduction in road deaths benefited mostly non-motorised road users (-16.7% for pedestrians and -9.5% for cyclists). The number of road deaths increased for motorcyclists (+1.8%) and car occupants (+1.8%) (Figure 2).

In 2022, the United Kingdom had a road mortality rate of 2.6 road deaths per 100 000 inhabitants (Figure 3). The fatality risk was 0.4 road deaths per 10 000 registered motor vehicles (Figure 4).

In 2022, car occupants represented 46% of all road deaths, followed by pedestrians (23%), users of motorised two-wheelers (20%) and cyclists (5%).

Figure 1. Road fatalities in the United Kingdom in 2020, 2021 and 2022 compared to the linear trend since 2012

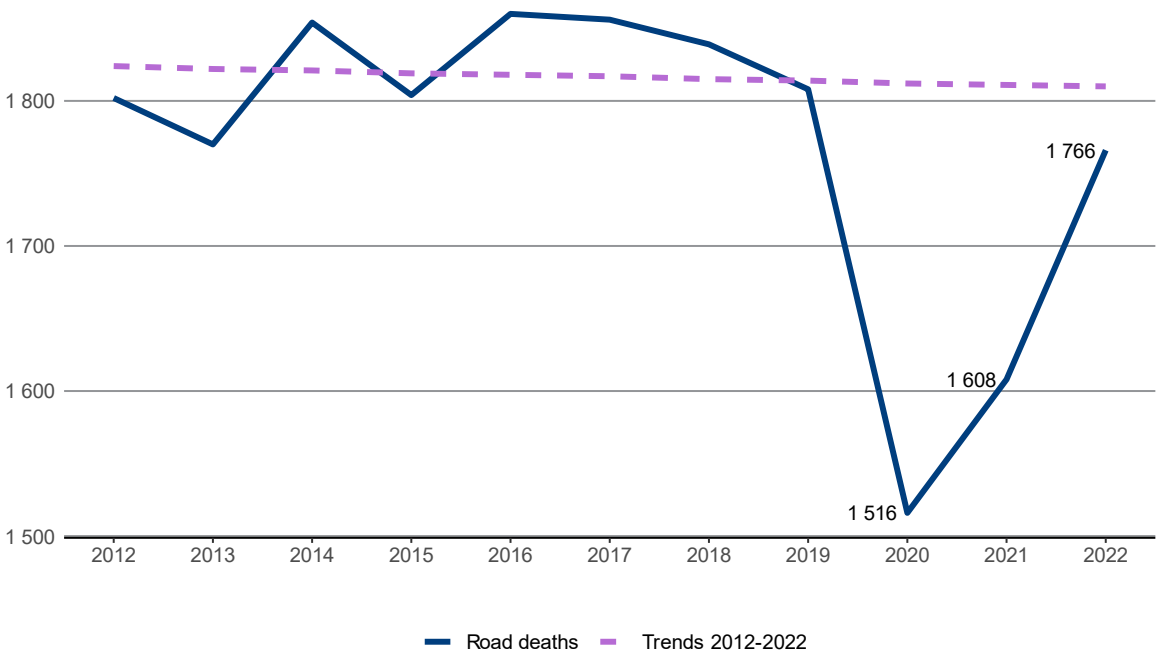


Figure 2. Evolution of road fatalities in the United Kingdom by user category and age group, 2022 compared to the average 2017-19

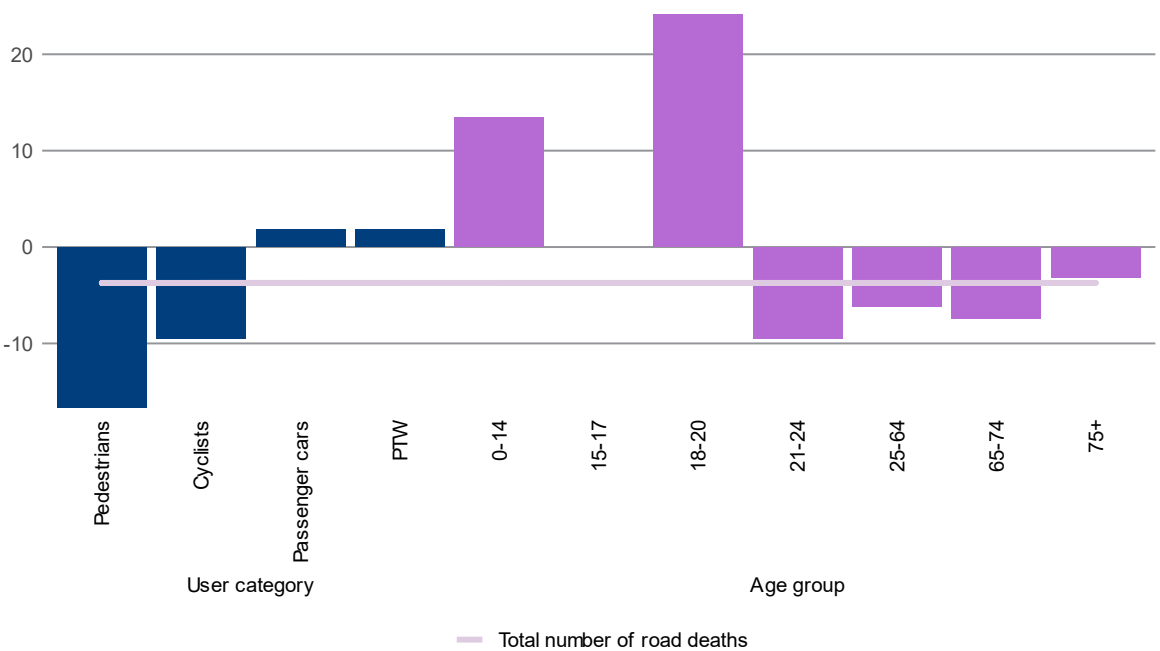


Figure 3. Road fatalities per 100 000 inhabitants in the United Kingdom compared to other IRTAD countries, 2022

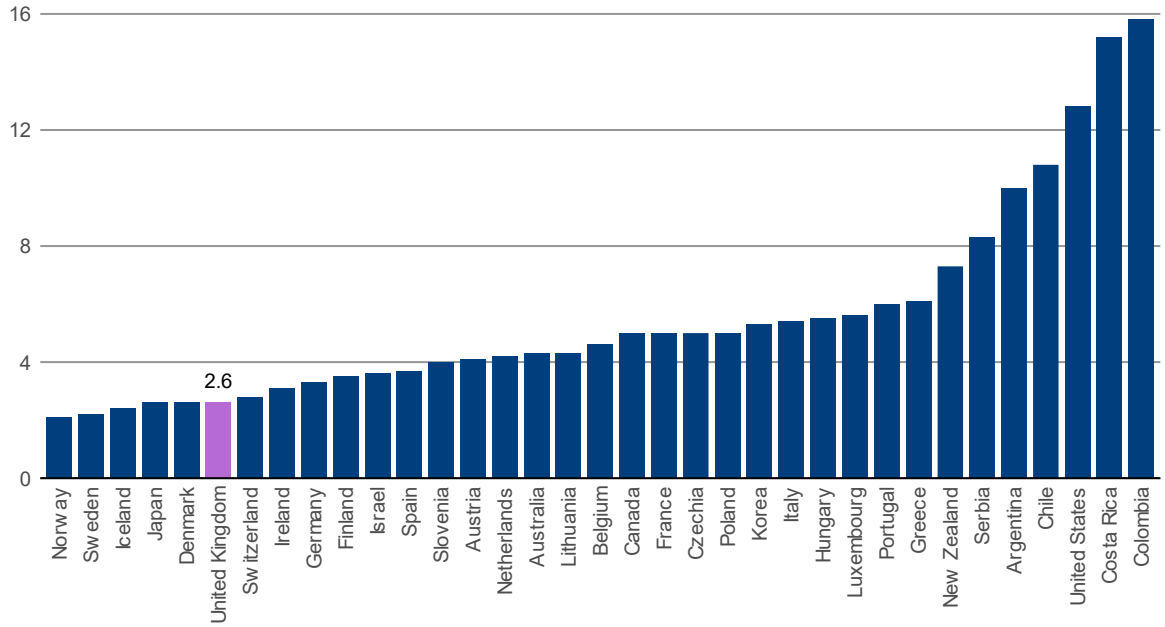
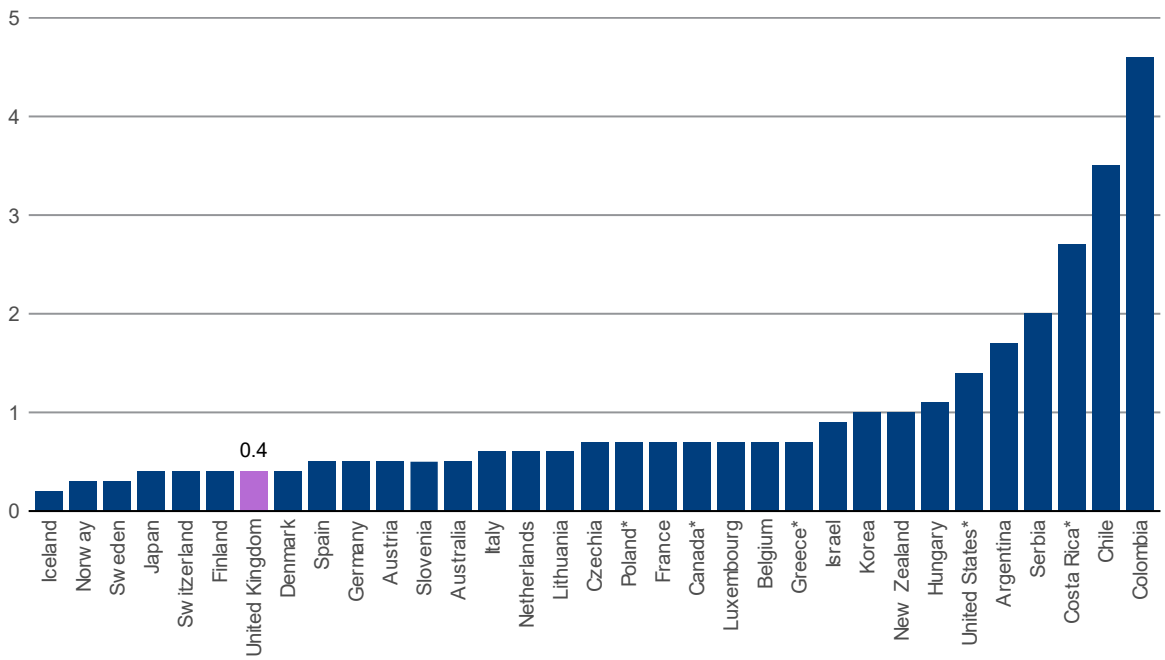


Figure 4. Road fatalities per 10 000 registered vehicles in the United Kingdom compared to other IRTAD countries, 2022



Note: in Belgium, Denmark, Germany and Hungary, registered vehicles do not include mopeds. * 2021 data.

Figure 5. Road fatalities per billion vehicle-kilometres in Great Britain compared to other IRTAD countries, 2021

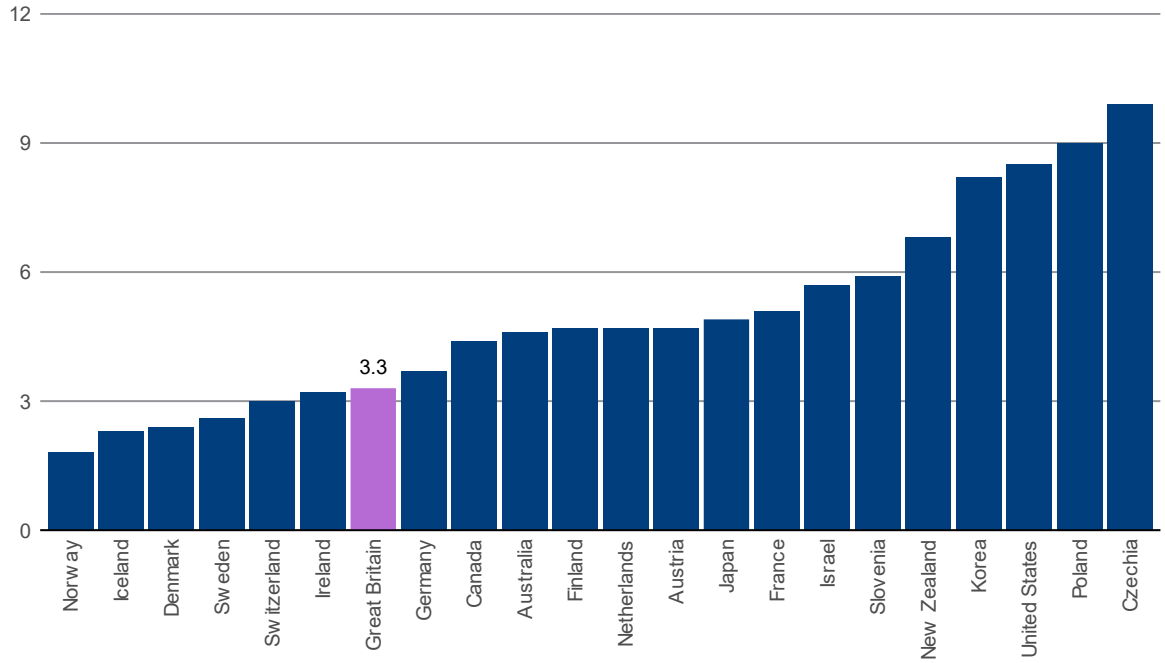
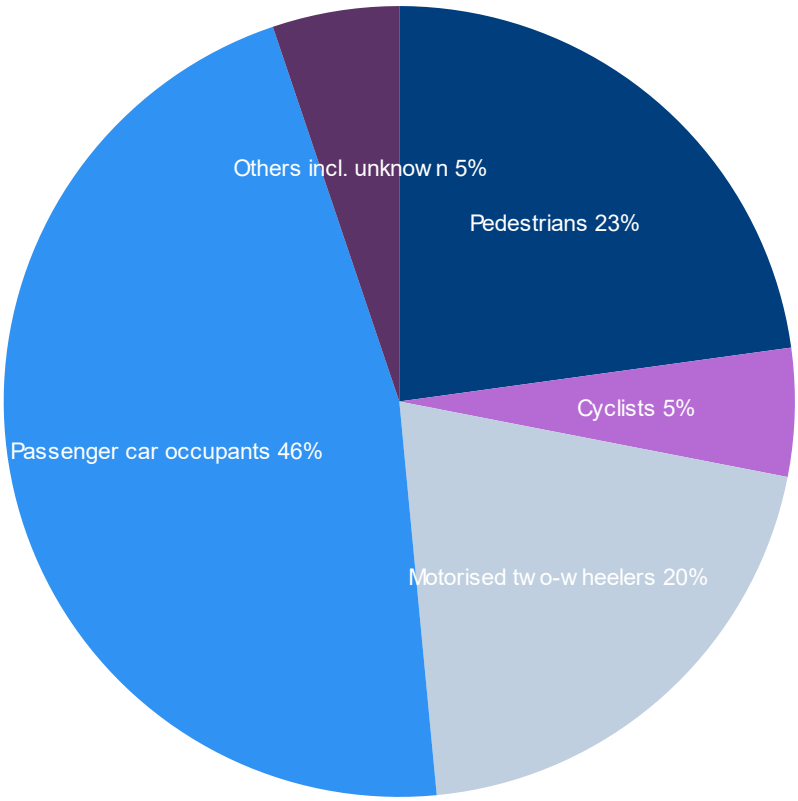


Figure 6. Road fatalities in the United Kingdom by user category, 2022



Road safety data 2012-22

Between 2012 and 2022, the number of road deaths decreased by a modest 2%. During the same period, the number of registered motor vehicles increased by 14.4% (see Figure 7 and Table 2).

A decrease in road deaths was recorded for all categories of road users, except for users of motorised two-wheelers (8.1%). The strongest decrease was recorded for cyclists (-23.3%), mainly occurring during 2022. The number of road deaths decreased by 2% for car occupants and by 6.5% for pedestrians (Figure 8 and Table 2).

The number of road deaths decreased for people under 24, while they increased for the older population (Figure 8 and Table 2).

Table 2. Crash, casualty and traffic data in the United Kingdom, 2012-22

	2012	2020	2021	2022	Evolution 2012-22
Reported safety data					
Fatalities	1 802	1 516	1 608	1 766	-2.0%
Injury crashes	151 346	95 422	105 791	111 120	-26.6%
Deaths per 100 000 population	2.8	2.3	2.4	2.6	-6.8%
Deaths per 10 000 registered vehicles	0.5	0.4	0.4	0.4	-14.3%
Fatalities by road user					
Pedestrians	429	352	369	401	-6.5%
Cyclists	120	145	111	92	-23.3%
Motorised two-wheelers	332	294	324	359	8.1%
Passenger car occupants	831	651	706	814	-2.0%
Other road users	90	72	90	91	1.1%
Fatalities by age group					
0-14 years	56	37	32	45	-19.6%
15-17 years	66	40	34	43	-34.8%
18-20 years	161	80	132	132	-18.0%
21-24 years	183	117	114	136	-25.7%
25-64 years	914	877	929	929	1.6%
65-74 years	144	157	141	180	25.0%
≥ 75 years	278	208	226	301	8.3%
Traffic data					
Registered vehicles (thousands)	35 582	39 801	40 275	40 698	14.4%
Registered vehicles per 1 000 population	558.5	593.3	600.9	607.7	8.8%

Figure 7. Evolution of road fatalities, motorisation and GDP in the United Kingdom, 2012-22

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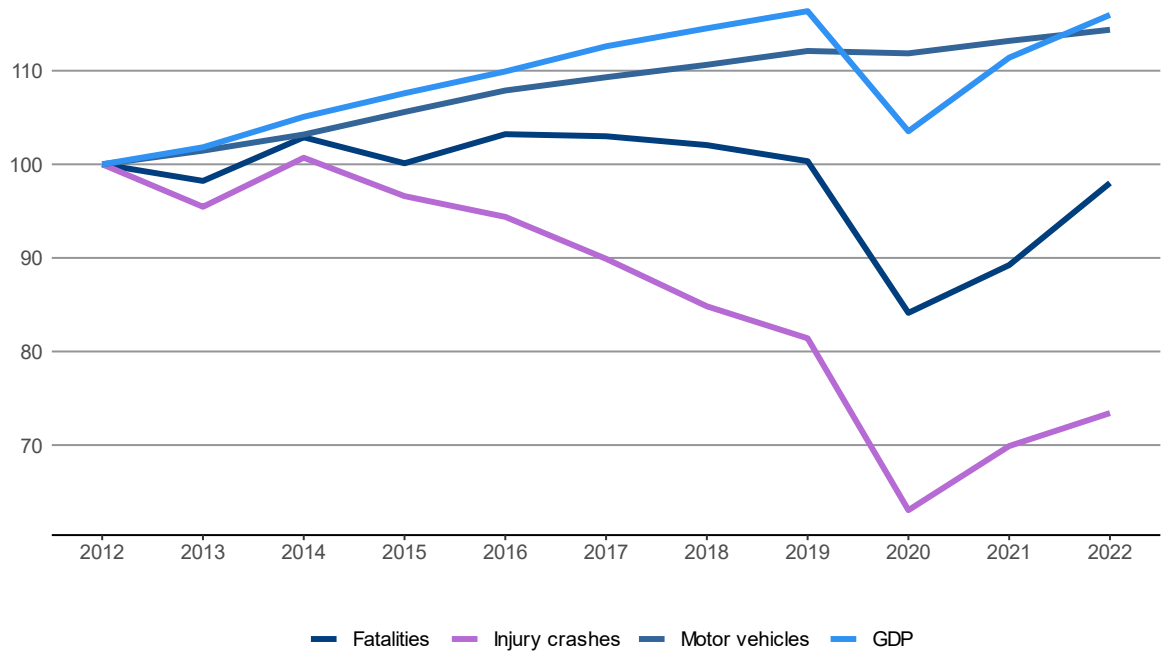
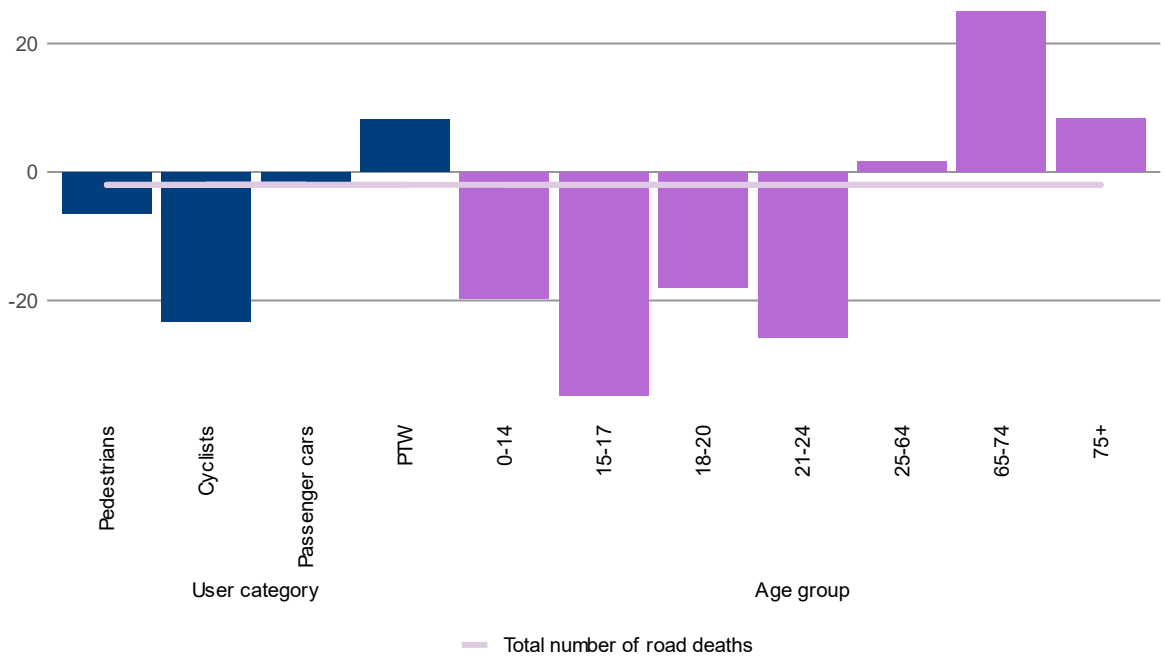


Figure 8. Evolution of road fatalities in the United Kingdom by user category and age group, 2012-2022



Safety performance indicators

Speed

Exceeding the speed limit is one of the main contributory factors to road crashes. In Great Britain, 20% of all reported road fatalities in 2022 involved excessive speed as a contributory factor. Exceeding the speed limit was reported as a contributory factor in 7% of all crashes in Great Britain in 2022.

Table 3 summarises the main speed limits for passenger cars in the United Kingdom.

Table 3. Passenger car speed limits by road type in the United Kingdom, 2023

	General speed limit
Urban roads	30 mph (20 in Wales)
Rural roads	60, 70 mph
Motorways	70mph

Drink driving

Driving under the influence of alcohol is another cause of road crashes in the United Kingdom. In 2021, between 240 and 280 people were killed in road crashes in Great Britain, where at least one driver was over the BAC limit, with a central estimate of 260 deaths.

In a survey on drink driving in England and Wales undertaken in 2019-20, around 5% of drivers said they had driven at least once or twice within the previous 12 months when they thought they were over the legal alcohol limit. This proportion is similar to 2018-19 but lower than 2009/10 to 2017/18.

In England, Wales and Northern Ireland, the maximum authorised BAC is 0.8 g/l. In Scotland, the maximum limit was reduced to 0.5 g/l in December 2014.

For statistical purposes, a drink-driving crash is defined as an incident on a public road in which someone is killed or injured and where at least one of the motor vehicle drivers or riders involved meets one of the following criteria:

- They refuse to give a breath test specimen when requested by police (other than when incapable of doing so for medical reasons).
- They fail a roadside breath test by registering over 35 micrograms of alcohol per 100 millilitres of breath in England and Wales or 22 micrograms of alcohol per 100 millilitres of breath in Scotland.
- They die and are subsequently found to have more than the authorised BAC.

Drugs and driving

The United Kingdom has recently published a report on Drugs in reported road fatalities in Great Britain. As data on driver drug testing are not yet available within road casualty statistics, the report is largely based on data obtained from toxicology information provided by coroners. This report shows that in 2021, drugs were detected in 20% of all deceased drivers. This compares to 11% in 2014. The five most frequently detected were cocaine, benzoylecgonine (a cocaine metabolite), cannabis, morphine and ketamine. The latter two drugs can be given as part of medical treatment (as well as potentially being abused)[1].

Use of mobile phones while driving

A problem for traffic safety in the United Kingdom is distraction, for instance, through the use of mobile phones while driving or crossing a street. An observational survey held in 2021 in Great Britain showed the proportion of drivers using hand-held mobile phones while driving was 1% overall: 0.8% for car drivers, 2.1% for van drivers and 2.2% for truck drivers. In 2022, "driver using a mobile phone" was assigned as a contributory factor in 1% of fatal collisions in Great Britain.

In the United Kingdom, driving while using a hand-held device is not allowed, although hands-free devices are tolerated.

Fatigue

In 2022, "fatigue" was assigned as a contributory factor in 4% of fatal collisions in Great Britain.

Seat belt and helmet use

Seat belt wearing has been compulsory in the United Kingdom since 1983 in front seats and since 1991 in rear seats. Seat belt wearing regulations for children in rear seats were put into force in 1989. Depending on age, children must be restrained by a suitable combination of car seats and belts.

The latest road casualty statistics for 2022 show that 21% of car occupant fatalities in reported road collisions were not wearing a seatbelt. This indicates that car occupants who do not wear a seatbelt are disproportionately likely to be killed in road collisions.

For motorcyclists, helmet wearing is the most effective passive safety habit. In the United Kingdom, helmets have been compulsory on motorcycles since 1973 and on mopeds (up to 50 cc, maximum speed 45 km/h) since 1977.

A helmet is not compulsory on bicycles.

[1] Department for Transport (2023), Drugs in reported road fatalities in Great Britain, data to 2021: summary, https://www.gov.uk/government/statistics/developing-drug-driving-statistics/drugs-in-reported-road-fatalities-in-great-britain-data-to-2021-summary#individual-drugs-detected-in-deceased-drivers

Table 4. Seat belt and helmet wearing rates in Great Britain

Percentages

		2017	2021
Front seats			
	Driver	96.5	94.8
	Passenger	93.1	94.6
Rear seats			
	General	90.7	91.5

Cost of road crashes

In 2022, the estimated total value of unreported crashes was around GBP 25 billion a year, higher than the value of reported injury crashes. This raises the total estimate for all reported and unreported crashes to around GBP 43 billion a year (1.4% of GDP).

Table 5. Cost of road crashes in the United Kingdom, 2022

	Unit Cost (GBP)	Total cost (GBP)
Fatalities	2.52 million	4.0 billion
Seriously injured	0.29 million	6.8 billion
Slight injuries	0.03 million	2.4 billion
Property damage costs of non-injury crashes	0.002 million	4.4 billion
Non-fatal crashes not reported to the police		25.6 billion
Total	..	43.2 billion
Total as % of GDP	..	1.4 %

Road safety management and strategy

Evolution of road safety

Road fatalities reached a peak in 1941 at just over 9 000 in Great Britain. Since then, fatalities have decreased by more than 80%. In addition to the longer-term trends in improved vehicle safety, road engineering, trauma care and education, various factors may have contributed to significant reductions in fatalities.

The recession and economic downturn led to falling traffic levels, and the continued reduction in average speeds has also played a significant part in reduced deaths. Similarly, large fatality reductions were seen during the recession in the early 1990s. However, traffic levels have risen again in recent years, surpassing pre-recession levels. This may be why casualty levels have plateaued at best, except in 2020.

Governance of road safety

Responsibility for the organisation of road safety in the United Kingdom lies with the Department for Transport (DfT). It sets the overall road safety strategy for Great Britain. This includes decisions about road safety targets and legislating on crucial safety issues. Transport Scotland has certain powers concerning road safety in Scotland. For example, it can vary the drink-driving limit. The Welsh Assembly has set a Welsh road safety target. Local highway authorities are responsible for safety on their roads and can use engineering measures and local education campaigns to improve safety. Road safety in Northern Ireland is the responsibility of the Department for Infrastructure in Northern Ireland.

Research and resources

Websites

UK Department for Transport – Road Safety policy: https://www.gov.uk/transport/roadsafety-driving-rules-and-penalties

UK Department for Transport – Road Safety Statistics: https://www.gov.uk/government/collections/road-accidents-and-safety-statistics

UK Road Safety Observatory: key facts and summaries of research on road safety topics: http://www.roadsafetyobservatory.com/

Definition, methodology, data collection

Term	Definition
Road death	A human casualty where injuries result in death within 30 days of a road crash. Confirmed suicides are excluded.
Person injured	A person that, as a consequence of a road crash, is detained in hospital as an in-patient or any of the following injuries whether or not they are detained in hospital: fractures, concussions, internal injuries, being crushed, burns (excluding friction burns), severe cuts, severe general shock requiring medical treatment and injuries causing death 30 or more days after the crash. Casualties are recorded as seriously or slightly injured by police based on information available within a short time of the crash. This generally will not reflect the medical examination results but may be influenced according to whether the casualty is hospitalised.

There are three primary sources of safety information in the United Kingdom:

- the national road accident reporting system, STATS19, which is based on police reports
- information from coroners in England and Wales and fiscal procurators in Scotland on the levels of alcohol in the blood of people killed in road traffic crashes
- hospital episode statistics (HES).

Most of the data in this report, also included in the IRTAD database, comes from STATS19. While the police report all fatal crashes, data from hospitals, surveys, and compensation claims indicate that many non-fatal casualties are unknown to the police. According to the best current estimate, primarily from the 2017 National Travel Survey data, the total number of road casualties in Great Britain each year, including those not reported to the police, is within the range of 590 000 to 760 000, with a central estimate of 670 000.

Linking HES data from hospitals and police data for England gives a better understanding of injury severity and outcomes. Around 40% of the police-reported seriously injured casualties in England alone match the hospital records. As part of this linkage, the DfT has been working with the Maximum Abbreviated Injury Scale (MAIS) to rate the severity of injury crashes.

In 2015/16, some police forces changed their reporting system for severe injuries. The recording of serious injuries is likely more accurate for police forces using the new reporting systems. This significantly impacted the number of serious injuries reported in 2016 and 2017, which cannot be directly compared to previous years.

About the IRTAD Database

The IRTAD Database includes road safety data, aggregated by country and year from 1970 onwards. It provides an empirical basis for international comparisons and more effective road safety policies.

The IRTAD Group validates data for quality before inclusion in the database. At present, the database includes validated data from 35 countries: Argentina, Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czechia, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Lithuania, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the United States.

The data is provided in a common format based on definitions developed and agreed by the IRTAD Group. Selected data is available for free; full online access requires IRTAD membership.

Access the IRTAD Database via the OECD statistics portal:

https://stats.oecd.org/Index.aspx?DataSetCode=IRTAD_CASUAL_BY_AGE

About the International Transport Forum

The International Transport Forum (ITF) is an intergovernmental organisation with 66 member countries that organises global dialogue for better transport. It acts as a think tank for transport policy and hosts the Annual Summit of transport ministers. The ITF is the only global body that covers all transport modes. The ITF is administratively integrated with the OECD, yet politically autonomous.

www.itf-oecd.org

About the IRTAD Group

The International Traffic Safety Data and Analysis (IRTAD) Group is the ITF's permanent working group for road safety. It brings together road safety experts from national road administrations, road safety research institutes, international organisations, automobile associations, insurance companies, car manufacturers, etc. With 80 members and observers from more than 40 countries, the IRTAD Group is a central force in promoting international co-operation on road-crash data and its analysis.

www.itf-oecd.org/irtad

Disclaimer

Data in this country profile have been provided by countries to the database of the International Traffic Safety Data and Analysis (IRTAD) Group. Where data has not been independently validated by IRTAD, this is indicated.

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https://www.itf-oecd.org/road-safety-annual-report-2023

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