UNITED STATES

In total, 36 096 people lost their lives on American roads in 2019, a 2.0% decrease compared to 2018. In February 2018, the Department of Transportation (DOT) announced its Strategic Plan for 2018-2022. The plan reiterated the tenet of safety as DOT’s top strategic and organisational goal. The US DOT and its administrative bodies have emphasised the adoption of data-driven systemic safety management approaches.

Trends

The United States registered an overall decrease in the number of road deaths in 2019. According to the latest available data, 36 096 people lost their lives in traffic crashes in the United States in 2019. This represents a 2.0% reduction on 2018. A similar reduction was found the previous year, with 36 835 road deaths reported in 2018, a 1.7% decrease on 2017.

Overall, between 2000 and 2019, the number of annual road fatalities fell by 14%. However, it is important to note two contrasting tendencies within that period. First, fatalities recorded between 2000 and 2010 plummeted by 21% due to two large declines in 2008 (9.3%) and 2009 (9.5%) during the global economic crisis. This was offset by a 9.4% rise in annual road fatalities between 2010 and 2019.

In 2019, 11.0 traffic deaths per 100 000 inhabitants were recorded, compared to 14.9 in 2000 – a drop of 26%. By way of comparison, the average in the European Union was 5.1 deaths per 100 000 inhabitants in 2019.

Measured as traffic deaths per billion vehicle-kilometres (vkm) driven, the fatality risk of the United States showed a longer-term downward trend. In 2019, this metric stood at 6.9, 27% lower than in 2000.

The United States recorded 1.2 road fatalities per 10 000 registered motor vehicles in 2019 – the latest year for which data are available. This represents a decrease of 36% compared to the year 2000, when the rate of deaths to 10 000 registered vehicles stood at 1.9.

<table>
<thead>
<tr>
<th>Country Profile</th>
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<tbody>
<tr>
<td><strong>Population</strong></td>
</tr>
<tr>
<td><strong>GDP per capita</strong></td>
</tr>
<tr>
<td><strong>Cost of road crashes</strong></td>
</tr>
<tr>
<td><strong>Road network</strong></td>
</tr>
<tr>
<td><strong>Registered motor vehicles</strong></td>
</tr>
<tr>
<td><strong>Volume of traffic</strong></td>
</tr>
<tr>
<td><strong>Speed limits</strong></td>
</tr>
<tr>
<td><strong>Limits on Blood Alcohol Content</strong></td>
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</tbody>
</table>
Overall, on a per capita basis, the United States’ safety performance may appear less effective than many European countries. However, comparing road fatality rates per capita for the United States as a whole to individual IRTAD countries is misleading due to geography and other factors. The number of kilometres or miles travelled is often used to compare safety performance and may better reflect exposure to risk. The National Highway Traffic Safety Administration (NHTSA) conducted a study that compared 2013 safety data from 44 US states with that from 43 high-income countries. For comparability and reliability of rates, the study analysed only states or countries with populations of one million or more. When these states and countries were grouped by population density, urbanisation and climate, road fatalities per 100 million vehicle miles travelled (VMT) in the United States were similar to the compared countries of Western, Northern and Southern Europe, as well as Australia, New Zealand and Canada (Kahane, 2016).

This notable improvement in road safety and its subsequent decline in the years following 2008 can be explained in part by a decrease in traffic volumes during the global economic crisis and other factors during these years (ITF/OECD, 2015).

Figure 1. Road safety, vehicle stock, traffic and GDP trends

Index 2000 = 100

Data for fatalities by road user groups show that passenger car occupants continue to be the group most affected by road crashes. In 2019, passenger car occupants accounted for the largest share of road deaths, with 34% of the total. The “others” category includes SUV, van, pickup truck and large truck occupants, which accounted for 30% of road deaths. These were followed by pedestrians (18%), motorcyclists (14%) and cyclists (2%). This distribution is consistent with previous years.

Moped riders had the highest year-on-year road fatalities growth among all road user groups, seeing 22% more road fatalities in 2019. Passenger car occupants experienced a substantial decrease, by 5.0% compared to 2018, followed by cyclists and pedestrians with a decrease of 2.9% and 1.9% in the number of road fatalities in 2019.
All road user groups have seen a substantial increase in road fatalities in the period 2000-19 with the exception of passenger car occupants. Moped riders are the most affected group, with a 170% increase in annual fatalities over this period (29 fatalities in 2000 compared to 79 fatalities in 2019). Similarly, motorcyclists saw 72% more fatalities while pedestrians and cyclists saw 33% and 22% more fatalities, respectively. In contrast, fatalities of passenger car occupants dropped by 33% between 2000 and 2019.

Since 2010, the United States has recorded a sharp increase in the number of road deaths among vulnerable road users. Between 2010 and 2019, the number of pedestrians killed increased by 44.5%, the number of cyclists by 36% and the number of motorcyclists by 12% (see Figure 6).

**Figure 2. Road fatalities by road user group in percentage of total, 2019**

![Diagram showing percentages of road fatalities by user group.]

Note: the “others including unknown” category includes SUV, van, pickup truck and large truck occupants.

**Road deaths by age group** developed favourably in 2019, with road deaths in most age categories decreasing on the year prior. The number of road deaths decreased by 9.3% among 15- to 17-year-olds, by 8.5% among 21- to 24-year olds and by 6.4% among 18- to 20-year-olds in 2019. Other age groups showed smaller decreases of 3% or less. However, people aged between 0-14, 65-74 and 75 years and older were exceptions to this decreasing trend.

Looking at the longer-term trend, since 2000, youths have benefitted significantly more from road safety developments than the older road users have. The strongest reduction in fatalities occurred among people under 21 years old. Annual road deaths for this age group nearly halved over the period. This reduction is attributable in part to graduated driver licensing (GDL) programmes (Foss, 2014) and changing economic and social factors affecting this population. Fatalities among people aged 25-64 remained static, dropping 2.1% over the course of two decades, whereas deaths among 65- to 74-year-olds increased by 30%. Those aged 75 years and older saw road fatalities drop by 8.8% over this time.
Despite recent improvements, young people continue to be most at risk in traffic, with 18- to 20-year-olds and 21- to 24-year-olds carrying mortality rates of 15.2 and 17.0, respectively, per 100,000 inhabitants of the same age group.

**Figure 3. Road fatality rates by age group, 2010-19**
Deaths per 100,000 population in a given age group

**Figure 4. Road fatality rate by age and road user group, 2019**
Fatalities per 100,000 population

Note: the "other" category includes occupants of SUVs, trucks, coaches, agricultural vehicles and unknown vehicles.

Analysis of fatalities by road type shows that in 2019 most fatalities occurred on urban roads. In 2019, 47% of deaths occurred on urban roads, 39% on rural roads and 13% on highways/motorways. Historically, rural roads were the deadliest on the American road
network. However, since 2015, urban roads have claimed more lives every year than other road types.

This development can be largely explained by the faster increases in urban VMT (15%) than in rural VMT (0.5%) since 2010. Further, it reflects the expansion of urban area boundaries as defined by the US Census, as well as shifting population trends. Since 2000, fatalities in urban areas increased by 26%. On the contrary, rural roads and motorways claimed 33% and 18% fewer annual road fatalities, respectively.

More recently, between 2010 and 2019, the United States recorded a sharp increase (+35%) in the number of road deaths on urban roads.

Figure 5. Road fatalities by road type

![Figure 5](image1.png)

Figure 6. Evolution of road deaths by user category, age group and road type, 2010-2019

![Figure 6](image2.png)
Economic costs of road crashes

According to a study published in 2015 by NHTSA (Blincoe et al., 2015), the economic costs of traffic crashes totalled USD 242 billion in 2010, equal to 1.6% of the GDP of the United States. This represents the value of lifetime economic costs for 32,999 fatalities, 3.9 million non-fatal injuries and 24 million damaged vehicles. This figure includes both police-reported and unreported crashes. When quality of life valuations are considered, the total value of societal harm from motor vehicle crashes in 2010 was USD 836 billion, nearly 6% of the GDP.

Cost components include productivity losses, property damage, medical costs, rehabilitation costs, congestion costs, legal and court costs, emergency services such as medical, police and fire services, insurance administration costs and costs to employers.

<table>
<thead>
<tr>
<th>Type of crash</th>
<th>Economic cost (USD)</th>
<th>Comprehensive cost (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>242.0 billion</td>
<td>835.8 billion</td>
</tr>
<tr>
<td>Alcohol impaired</td>
<td>44.0 billion</td>
<td>201.1 billion</td>
</tr>
<tr>
<td>Speeding</td>
<td>52.0 billion</td>
<td>203.2 billion</td>
</tr>
<tr>
<td>Motorcycle crashes</td>
<td>12.9 billion</td>
<td>65.7 billion</td>
</tr>
<tr>
<td>Helmet non-use</td>
<td>1.2 billion</td>
<td>7.6 billion</td>
</tr>
<tr>
<td>Seat-belt non-use</td>
<td>10.4 billion</td>
<td>68.6 billion</td>
</tr>
<tr>
<td>Pedestrian crashes</td>
<td>11.5 billion</td>
<td>65.0 billion</td>
</tr>
<tr>
<td>Cyclist crashes</td>
<td>4.4 billion</td>
<td>21.7 billion</td>
</tr>
</tbody>
</table>

Source: Blincoe et al. (2015).

Behaviour

The behaviour of road users is an important determinant of a country's road safety performance. Speed, and especially inappropriate and excessive speed, remains one of the main factors in road crashes. In 2019, 9,478 people were killed in speed-related crashes, accounting for more than a quarter (26%) of all traffic fatalities. Speeding-related deaths declined by 1% compared to 2018.

NHTSA is dedicated to eliminating risky behaviours. It works with the Federal Motor Carrier Safety Administration (FMCSA) and the Federal Highway Administration (FHWA) to provide tools, guidance and resources for state and local governments to use in designing and applying a balanced and effective speed management programme.

States and local jurisdictions set the speed limits in the United States. The table below summarises speed limit ranges in the United States.
### Table 2. Passenger car speed limits by road type, 2020

<table>
<thead>
<tr>
<th>Road Type</th>
<th>General speed limit</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban roads</td>
<td>25-35 mph</td>
<td>Speed limits depend on the use of the road and the size of the road, as well as state and local discretion</td>
</tr>
<tr>
<td>Rural roads</td>
<td>25-55 mph</td>
<td></td>
</tr>
<tr>
<td>Motorways</td>
<td>55-80 mph</td>
<td></td>
</tr>
</tbody>
</table>

**Driving under the influence of alcohol** is another major factor in road crashes in the United States, as in most IRTAD countries. Fatalities in alcohol-impaired-driving crashes decreased by 5.3% (568 fewer fatalities) from 2018 to 2019. Alcohol impaired-driving fatalities in the past ten years have remained almost constant from 10 136 in 2010 to 10 142 in 2019, representing around 30% of all road deaths.

An alcohol-impaired-driving fatality is defined as a fatality in a crash involving a driver or motorcycle rider (operator) with a blood alcohol concentration (BAC) of 0.8 g/l or greater. The 21- to 24-year-old age group had the highest percentage (27%) of drivers with BACs of 0.8 g/l or higher in fatal crashes compared to other age groups in 2019.

In 49 states, Washington, D.C. and Puerto Rico it is a criminal offence to drive with a 0.8 g/l or higher blood alcohol content (BAC). Utah’s law lowering the illegal BAC to 0.5 g/l became effective at the end of 2018. All 50 states have enacted zero tolerance laws that make it illegal for drivers under the age of 21 to have any detectable alcohol in their bodies.

Men are more likely to be the drunk driver in a fatal crash than women. In 2019, 21% of men were drunk in these crashes, compared to 14% for women.

**Driving impaired** by any substance – alcohol or drugs, whether legal or illegal – is against the law in all 50 states and Washington, D.C. In addition, individual states may have different laws prohibiting specific quantities of certain drugs in the driver’s system. Given the differences in state laws and procedures for drug testing, there is inconsistent collection and reporting of drug data. NHTSA’s data on drugs and crashes, derived from state data, should be considered with care. Of the 50 930 drivers involved in fatal crashes in 2019, 36% were tested for drugs. Of those, 46% were reported as having drugs in their system at the time of the fatal crash. NHTSA is making the drug-impaired-driving problem a top priority.

**Distraction** occurs when the driver’s attention is diverted from the task of driving. Discussions about distracted driving often focus on cell phone use and texting. However, distracted driving includes other activities such as eating, talking to other passengers or adjusting the radio or climate controls.

In 2019, 3 142 people were killed in motor vehicle crashes involving distracted drivers. This represents a 10% increase compared to 2018. NHTSA notes that distraction may be significantly under-reported as a contributing crash factor; it is challenging for on-scene law enforcement officers to verify whether or not the driver was distracted at the time of the crash. Twenty-seven states, Washington, D.C., Puerto Rico, Guam and the US Virgin Islands prohibit all drivers from using hand-held cell phones while driving. All are primary
enforcement laws—an officer may cite a driver for using a hand-held cell phone without any other traffic offence having taken place.

No state bans all cell phone use for all drivers. However, 37 states and Washington, D.C. ban all cell phone use by novice drivers, and 23 states and Washington, D.C. prohibit cell phone use for school bus drivers. Currently, 48 states, Washington, D.C., Puerto Rico, Guam, and the US Virgin Islands ban text messaging for all drivers. All but three have primary enforcement. Of the two states without an all-driver texting ban, one prohibits text messaging by novice drivers.

**Fatalities involving a drowsy driver** amounted to 1.9% of total fatalities in 2019, i.e. 697 road deaths. This proportion is an 11% decrease from the 785 fatalities in 2018.

For NHTSA, drowsy driving crashes are those in which the driver was reported, on official crash documents, as drowsy, sleepy, asleep or fatigued. NHTSA recognises the difficulty in collecting data regarding fatigue in crashes and offers these figures as the only known crash data regarding fatigue.

**Seat belt laws** are divided into two categories: primary and secondary. Primary seat belt laws allow law enforcement officers to ticket a driver or passenger for not wearing a seat belt without any other traffic offence having taken place. Secondary seat belt laws state that law enforcement officers may issue a ticket for not wearing a seat belt only when there is another citable traffic infraction. As of April 2021, the status of state seat belt laws was as follows:

- 35 states, Washington, D.C., American Samoa, Guam, the Northern Mariana Islands, Puerto Rico and the US Virgin Islands have primary seat belt laws for front-seat occupants.

- 15 states have secondary laws for adult front seat occupants. In many of these states, the law is primary for younger drivers and/or passengers.

- New Hampshire has no primary nor secondary seat belt laws for adults. However, the state does have a primary child passenger safety law that covers all drivers and passengers under 18.

- Rear seats: 39 states, Washington, D.C., Guam and the Northern Mariana Islands have laws requiring belt use for all rear-seat passengers. In 20 of these states, Washington, D.C. and the two territories, the law is primary.

- Ten states do not have laws enforcing rear seat belt use.

Child passenger restraint laws vary based on age, weight and height. All 50 states, Washington, D.C. and Puerto Rico require booster seats or other appropriate devices for children who have outgrown their child safety seats but are still too small to use an adult seat belt safely.
In 2019, seat belt use was 90.7%, above the 2018 level (89.6%). Seat belt use has shown an increasing trend since 2000, accompanied by a steady decline in the percentage of unrestrained passenger vehicle occupants killed during the daytime. Seat belt use continued to be higher in the states with primary laws where vehicle occupants can be pulled over solely for not using seat belts (Li et al., 2018).

Booster seat use among 4- to 7-year-old children was 40.1% in 2017.

### Table 3. Seat belt wearing rates

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2010</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front seats</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General (driver and passenger)</td>
<td>71</td>
<td>85</td>
<td>90.7</td>
</tr>
<tr>
<td>Driver</td>
<td>72</td>
<td>86</td>
<td>90.9</td>
</tr>
<tr>
<td>Passenger</td>
<td>68</td>
<td>83</td>
<td>89.8</td>
</tr>
<tr>
<td>Rear seats</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>..</td>
<td>74</td>
<td>77.5</td>
</tr>
</tbody>
</table>

In 2019, 47% of passenger vehicle occupants killed in traffic crashes were unrestrained. The highest percentage of these deaths occurred in the 21 to 24 and 25 to 34 age groups, where 58% of the passenger vehicle occupant fatalities were not using restraints. In 2017, seat belts saved an estimated 14,955 lives of passenger vehicle occupants aged five and older.

For motorcyclists, **helmet wearing** is the most effective passive safety habit. In the United States, currently, 19 states require helmets for all motorcyclists. Most other states require helmets for certain riders, and a few have no helmet law.

In 2019, the average wearing rate of a DOT-compliant motorcycle helmet meeting DOT safety standard FMVSS218 was 70.8%. The use of non-compliant helmets was 12.6% (an increase when compared to 2018) and 16.6% had no helmets. Among states with universal helmet laws, 89.2% were wearing DOT-compliant helmets with an additional 9.7% wearing non-DOT-compliant helmets. In states without universal helmet laws, 56.5% were wearing DOT-compliant helmets; an additional 14.8% were wearing non-compliant helmets.

As of April 2021, 21 states, Washington, D.C., the Northern Mariana Islands, Puerto Rico and the US Virgin Islands have a universal helmet law requiring helmets for all riders. Twenty-eight states require only a subset of riders or motorcycle passengers to use helmets (such as those under age 17, 18, or 21). New Hampshire is the only state that does not have a motorcycle helmet law (see [https://www.ghsa.org/state-laws/issues/Motorcyclists](https://www.ghsa.org/state-laws/issues/Motorcyclists)).

Overall helmet usage rates in the United States are much lower than in most other OECD countries.
In the United States, there is no national compulsory helmet law for cyclists. However, some local jurisdictions may have laws requiring children to wear helmets while cycling.

**Road safety management and strategies**

There are several factors of influence on the US road safety performance, as captured by the above indicators. In the first decade of the 21st century, the United States averaged more than 40,000 deaths and more than 2.5 million injuries on the roads each year. Road crashes are generally the leading cause of death for Americans aged three to 34. In 2008, for the first time, the number of fatalities fell below 40,000. Safety programmes, such as those that have resulted in increased belt use and reduced impaired driving, have substantially lowered the number of traffic fatalities over the years. Vehicle improvements, including technologies such as airbags and electronic stability control, have also contributed greatly to reduce traffic deaths. However, with the large increase in fatalities in 2015-16, the decade-long downward trend of almost 25% was reduced by almost one-third.

The United States’ federal approach divides the powers of government between the national (federal) government and state and local levels. As such, each level of government has sovereignty in some areas and shares power in others. At the national level, Congress passes legislation and assigns funding to provide the structure for the Department of Transportation (DOT) to carry out its safety mission. However, most traffic safety laws and policies are enacted and applied at the state level. For example, each of the 50 states, Washington, D.C. and Puerto Rico have the authority to set their own speed limits, distracted driving rules and seat belt use laws.

Congress can influence states by providing incentive grants if they enact certain laws that have proven effective or penalties if they do not. It can also use performance results as eligibility criteria for grants in some cases. The DOT implements grant programmes and provides guidance to states on how to develop effective strategies to address their particular traffic safety challenges. Within DOT, the NHTSA has the lead role in reducing traffic crashes and fatalities.

In 2010, reducing road fatalities became one of DOT’s high-priority performance goals. Today, the NHTSA works with the Federal Highway Administration (FHWA) and the Federal Motor Carrier Safety Administration (FMCSA) to address multiple dimensions of road safety.

The DOT has performance targets in place through 2020 for the overall fatality rate expressed in fatalities per 100 million VMT. In 2019, the United States recorded a rate of 1.11 fatalities per 100 million VMT. The DOT’s preliminary estimates for the first nine months of 2020 show a rate of 1.35. For 2020, DOT’s overall motor vehicle crash fatality rate target is 1.01 fatalities per 100 million VMT.
NHTSA’s strategic plan runs from 2016-20 and centres its mission on the strategic goals of Safety, Proactive Vehicle Safety, Automated Vehicles, Human Choices and Organizational Excellence.

In February 2018, US DOT announced its Strategic Plan for fiscal years 2018-22 (the United States government’s fiscal year runs from 1 October to 30 September). The plan reiterated the tenet of safety as DOT’s top strategic and organisational goal. DOT plans to mitigate risks and encourage infrastructure and behaviour change by using a data-driven systemic safety approach to identify risks, enhance standards and programmes and evaluate effectiveness.

FHWA announced its own plan in July 2018 to align its mission with US DOT. Echoing the message of its parent body, the FHWA FY 2019-22 Strategic Plan’s first strategic objective commits the organisation to save lives by expanding the use of data-driven, systemic safety management approaches and by increasing the adoption of proven safety solutions by all road owners.

**Figure 7. Trends in road fatalities towards national target**

![Figure 7: Trends in road fatalities towards national target](image)

**Measures**

Several measures to improve road safety management have recently been put into place.

**Road safety management:** The United States promotes a data-driven approach to saving lives on all public roads. This approach supports the development of State Strategic Highway Safety Plans and a performance-based approach to safety for the expenditure of Highway Safety Improvement Program funds and all other Federal and State highway funds. Highway agencies are using cutting-edge methods and tools to analyse crash and road data to determine the expected safety performance of roadway projects more reliably. This type of analysis enables agencies to predict the safety implications of their decisions with confidence. Safety professionals can now quantify the safety impacts when making
investment decisions, just as they do with environmental, traffic and other traditional
impacts. The analyses result in more scientifically sound, data-driven approaches to
committing resources. Through the Every Day Counts (EDC) programme, the Federal
Highway Administration identifies and promotes the use of underutilised innovations to
enhance road safety. Currently, the agency focuses on innovations to address pedestrian
and roadway departure safety.

**Speed management:** In the United States, crashes are categorised as speeding-related
if any driver in the crash was charged with a speeding-related offence or if a police officer
indicated that racing, driving too fast for conditions, or exceeding the posted speed limit
was a contributing factor in the crash. The FHWA has developed resources to help state
and local agencies in the United States address speeding fatalities, including:

- **USLIMITS2,** a web-based tool designed to help practitioners set reasonable, safe and
  consistent speed limits for specific road segments.

- the Traffic Calming ePrimer and the Speed Management ePrimer for Rural Transition
  Zones and Town Centers, informational guides developed in collaboration with the
  Institute of Transportation Engineers (ITE). Both cover how traffic calming and speed
  management can increase the quality of life in urban, suburban and rural areas by
  reducing automobile speeds and traffic volumes on neighbourhood streets and in town
centres.

- the development of the Jurisdiction-wide Speed Management Action Plan, which helps
  state and local agencies to develop and implement speed management strategies and
  countermeasures to improve safety. The Office of Safety is also working directly with
  several agencies to develop action plans.

**Road users:** NHTSA Research and Program Development provides national leadership and
technical assistance to states and other stakeholders in the identification, research,
planning, development, demonstration, implementation, evaluation and dissemination of
highway safety programmes. These programmes are designed to change road users’
behaviour to prevent crash-related injuries and fatalities. Projects advance the safety of
drivers, passengers, pedestrians, bicyclists, motorcyclists and first responders.

**Infrastructure:** BUILD Discretionary Grants are discretionary grants that provide
USD 900 million in funding to infrastructure projects, giving special consideration to those
that improve access to reliable, safe and affordable transportation for communities in rural
areas. This includes projects that improve infrastructure condition, address public health
and safety, promote regional connectivity, facilitate economic growth or competitiveness,
deploy broadband as part of an eligible transportation project, or promote energy
independence.

**Post-crash response:** NHTSA hosts the National 911 Program Office. In 2019, the NHTSA
and the US Department of Commerce collaborated on a grant programme to support
911 systems, enabling the migration of legacy systems to an Internet Protocol-based
emergency network known as Next Generation 911 (NG911). In August 2019, the US
departments of Transportation and Commerce announced more than USD 109 million in grants to 34 states and two tribal nations. Because most 911 systems were originally built over 50 years ago using analogue technologies, public safety answering points (PSAPs) across the country need to be upgraded to a digital and IP-based 911 system. While the technology to implement these enhanced 911 systems is available, the transition to NG911 will involve much more than just new computer hardware and software. Implementing NG911 in states and counties nationwide will require the co-ordination of a variety of emergency communication, public safety, legislative and governing entities.

**Definition, methodology, data collection**

- **Road fatality:** a fatality that occurs within 30 days of a crash involving a motor vehicle travelling on a traffic way customarily open to the public.

- **Serious injuries:** incapacitating injuries, defined as severe lacerations, broken or distorted extremities, crush injuries, internal skull/chest/abdominal injuries, significant burns, unconsciousness and paralysis.

For general crash-related injury figures, NHTSA does not differentiate between seriously and slightly injured people. A crash is considered an injury crash if there were no fatalities, but someone involved in the crash – occupant or non-occupant – was reported as injured.

State police collect data on motor vehicle traffic crashes on specific roadways in each of the 50 states, Washington, D.C. and Puerto Rico. Each state also has local police jurisdictions within counties, cities and towns that collect data on motor vehicle traffic crashes on the roadways not covered by the state police.

The Fatality Analysis Reporting System (FARS) is a nationwide census providing NHTSA, Congress and the American public with annual data on fatal injuries suffered in motor vehicle traffic crashes. Eight data sources, starting with police crash reports, are used.

The Crash Report Sampling System is a nationally representative sample of all severities of crashes. It is conducted annually to provide data on property damage and injury crashes involving all types of vehicles. The only source of data is police crash reports.

The Crash Investigation Sampling System is a nationally representative sample of serious passenger vehicle crashes involving an in-depth, on-scene investigation by trained crash technicians.

**Resources**

**Recent research**


**Websites**


US Department of Transportation: [https://www.transportation.gov/](https://www.transportation.gov/)

Federal Highway Administration: [https://www.fhwa.dot.gov/](https://www.fhwa.dot.gov/)


National Transportation Library: [https://rosap.ntl.bts.gov/](https://rosap.ntl.bts.gov/)

**References**


### Road safety and traffic data

<table>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatalities</td>
<td>44 599</td>
<td>41 945</td>
<td>32 999</td>
<td>37 473</td>
<td>36 835</td>
<td>36 096</td>
<td>-2.0%</td>
<td>9.4%</td>
<td>-13.9%</td>
<td>-19.1%</td>
</tr>
<tr>
<td>Injury crashes</td>
<td>2 161 757</td>
<td>2 107 431</td>
<td>1 572 400</td>
<td>1 923 086</td>
<td>1 927 626</td>
<td>1 949 588</td>
<td>1.1%</td>
<td>24.0%</td>
<td>-7.5%</td>
<td>-9.8%</td>
</tr>
<tr>
<td>Deaths per 100,000 population</td>
<td>17.9</td>
<td>14.9</td>
<td>10.7</td>
<td>11.5</td>
<td>11.3</td>
<td>11.0</td>
<td>-2.5%</td>
<td>3.1%</td>
<td>-26.0%</td>
<td>-38.5%</td>
</tr>
<tr>
<td>Deaths per 10,000 registered vehicles</td>
<td>2.4</td>
<td>1.9</td>
<td>1.3</td>
<td>1.3</td>
<td>1.2</td>
<td>1.2</td>
<td>-2.7%</td>
<td>-5.9%</td>
<td>-37.6%</td>
<td>-50.2%</td>
</tr>
<tr>
<td>Deaths per billion vehicle kilometres</td>
<td>12.9</td>
<td>9.5</td>
<td>6.9</td>
<td>7.3</td>
<td>7.1</td>
<td>6.9</td>
<td>-2.7%</td>
<td>-0.5%</td>
<td>-27.5%</td>
<td>-46.8%</td>
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<tbody>
<tr>
<td>Pedestrians</td>
<td>6 482</td>
<td>4 763</td>
<td>4 429</td>
<td>6 233</td>
<td>6 524</td>
<td>6 401</td>
<td>-1.9%</td>
<td>44.5%</td>
<td>34.4%</td>
<td>-1.2%</td>
</tr>
<tr>
<td>Cyclists</td>
<td>859</td>
<td>693</td>
<td>623</td>
<td>806</td>
<td>871</td>
<td>846</td>
<td>-2.9%</td>
<td>35.8%</td>
<td>22.1%</td>
<td>-1.5%</td>
</tr>
<tr>
<td>Moped riders</td>
<td>49</td>
<td>29</td>
<td>113</td>
<td>99</td>
<td>65</td>
<td>79</td>
<td>21.5%</td>
<td>-30.1%</td>
<td>172.4%</td>
<td>61.2%</td>
</tr>
<tr>
<td>Motorcyclists</td>
<td>3 195</td>
<td>2 868</td>
<td>4 405</td>
<td>5 127</td>
<td>4 973</td>
<td>4 935</td>
<td>-0.8%</td>
<td>12.0%</td>
<td>72.1%</td>
<td>54.5%</td>
</tr>
<tr>
<td>Passenger car occupants</td>
<td>24 092</td>
<td>20 699</td>
<td>12 491</td>
<td>13 477</td>
<td>12 888</td>
<td>12 239</td>
<td>-5.0%</td>
<td>-2.0%</td>
<td>-40.9%</td>
<td>-49.2%</td>
</tr>
<tr>
<td>Other road users</td>
<td>9 922</td>
<td>12 893</td>
<td>10 938</td>
<td>11 731</td>
<td>11 514</td>
<td>11 596</td>
<td>0.7%</td>
<td>6.0%</td>
<td>-10.1%</td>
<td>16.9%</td>
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<tbody>
<tr>
<td>0-14 years</td>
<td>2 878</td>
<td>2 363</td>
<td>1 211</td>
<td>1 158</td>
<td>1 049</td>
<td>1 053</td>
<td>0.4%</td>
<td>-13.0%</td>
<td>-55.4%</td>
<td>-63.4%</td>
</tr>
<tr>
<td>15-17 years</td>
<td>2 744</td>
<td>2 467</td>
<td>1 216</td>
<td>1 063</td>
<td>969</td>
<td>879</td>
<td>-9.3%</td>
<td>-27.7%</td>
<td>-64.4%</td>
<td>-68.0%</td>
</tr>
<tr>
<td>18-20 years</td>
<td>4 564</td>
<td>3 967</td>
<td>2 449</td>
<td>2 255</td>
<td>2 094</td>
<td>1 959</td>
<td>-6.4%</td>
<td>-20.0%</td>
<td>-50.6%</td>
<td>-57.1%</td>
</tr>
<tr>
<td>21-24 years</td>
<td>5 049</td>
<td>4 061</td>
<td>3 340</td>
<td>3 345</td>
<td>3 229</td>
<td>2 956</td>
<td>-8.5%</td>
<td>-11.5%</td>
<td>-27.2%</td>
<td>-41.5%</td>
</tr>
<tr>
<td>25-64 years</td>
<td>22 812</td>
<td>22 267</td>
<td>19 213</td>
<td>22 674</td>
<td>22 445</td>
<td>21 970</td>
<td>-2.1%</td>
<td>14.3%</td>
<td>-1.3%</td>
<td>-3.7%</td>
</tr>
<tr>
<td>65-74 years</td>
<td>...</td>
<td>2 809</td>
<td>2 396</td>
<td>3 295</td>
<td>3 545</td>
<td>3 658</td>
<td>3.2%</td>
<td>52.7%</td>
<td>30.2%</td>
<td>...</td>
</tr>
<tr>
<td>≥ 75 years</td>
<td>...</td>
<td>3 682</td>
<td>3 128</td>
<td>3 560</td>
<td>3 427</td>
<td>3 556</td>
<td>3.8%</td>
<td>13.7%</td>
<td>8.6%</td>
<td>...</td>
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<tbody>
<tr>
<td>Urban roads</td>
<td>16 539</td>
<td>13 436</td>
<td>12 535</td>
<td>17 196</td>
<td>17 506</td>
<td>16 898</td>
<td>-3.5%</td>
<td>34.8%</td>
<td>25.8%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Rural roads</td>
<td>23 012</td>
<td>20 730</td>
<td>15 976</td>
<td>14 973</td>
<td>14 025</td>
<td>13 940</td>
<td>-0.6%</td>
<td>-12.7%</td>
<td>-32.8%</td>
<td>-39.4%</td>
</tr>
<tr>
<td>Motorway</td>
<td>4 993</td>
<td>5 673</td>
<td>4 237</td>
<td>4 753</td>
<td>4 774</td>
<td>4 644</td>
<td>-2.7%</td>
<td>9.6%</td>
<td>-18.1%</td>
<td>-7.0%</td>
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<tbody>
<tr>
<td>Registered vehicles (thousands)</td>
<td>184 275</td>
<td>217 028</td>
<td>257 312</td>
<td>290 336</td>
<td>297 036</td>
<td>299 267</td>
<td>0.8%</td>
<td>16.3%</td>
<td>37.9%</td>
<td>62.4%</td>
</tr>
<tr>
<td>Vehicle kilometres (millions)</td>
<td>3 451 016</td>
<td>4 420 747</td>
<td>4 775 352</td>
<td>5 166 393</td>
<td>5 214 801</td>
<td>5 249 313</td>
<td>0.7%</td>
<td>9.9%</td>
<td>18.7%</td>
<td>52.1%</td>
</tr>
<tr>
<td>Registered vehicles per 1,000 population</td>
<td>738.7</td>
<td>769.2</td>
<td>831.9</td>
<td>893.4</td>
<td>909.2</td>
<td>911.7</td>
<td>0.3%</td>
<td>9.6%</td>
<td>18.5%</td>
<td>23.4%</td>
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