



Vehicle safety technology

Driver assistance systems are known to prevent road crashes and save lives, and are now widely available in most new vehicles. But how much do drivers know about the safety features in their cars? And what more can be done to encourage their use?

Find out more in our latest report.



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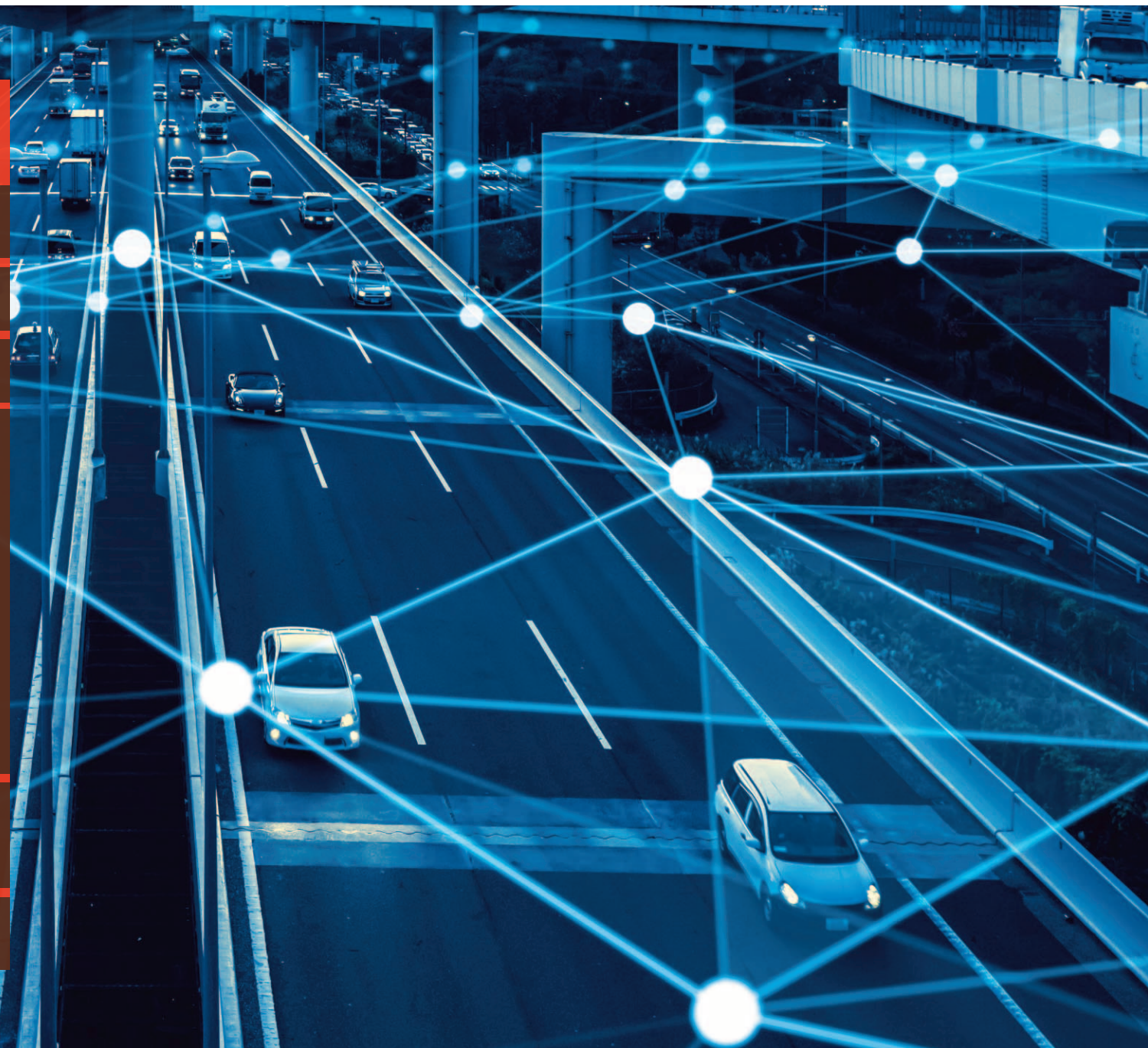
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As someone who has dedicated their career to developing and delivering technology and policy solutions to improve safety across all modes of transport, I see the report's findings as encouraging evidence that we can reduce road trauma further, while also highlighting what we need to do collectively to achieve this.

This report reveals drivers' strong commitment to safety, with a majority valuing safety ratings in their vehicle purchase choices and two-thirds willing to pay extra for protective features. This points to a huge potential for reducing road trauma and indicates that road users are willing to play their part in achieving this. However, intent alone is not enough to deliver the safety outcomes we all seek.

Although there is considerable support for mandated features such as advanced emergency braking and intelligent speed assistance, and new features including drowsiness and attention monitoring, a sizable gap persists between availability and adoption. Driver assistance systems have the demonstrated potential to save thousands of lives and prevent significantly more injuries. Nevertheless, this potential is compromised, with the findings of this research calling out three major things that need to be done.

- Make these technologies available to all drivers.
- Ensure they are designed well so as not to annoy drivers.
- Ensure drivers understand how to use these safety systems.

Seeing Machines is proud to support Brake's campaign for all new vehicles to have life-saving technology fitted as standard. Our mission has always been to ensure that technology supports people, with the end goal of zero transport fatalities. This can only be achieved when supported by smart regulation, education and good design.

We must learn from global best practice, like the new Vehicle General Safety Regulation in the European Union. We have a clear benchmark to drive real change: we need national legislation that mandates proven safety technologies – just as we did with seat belts years ago.

If we are serious about reducing road deaths and severe injuries, all elements of the road safety system need to play their part. All road users deserve to benefit from the latest vehicle safety technologies that are well designed and well understood. We must stop treating safety technology as optional. The time for voluntary uptake is over; the time is now for legislative leadership. Only then can we create safer, more equitable transport for everyone.



Dr Mike Lenné,
Chief Safety Officer,
Seeing Machines

In July 2022, the Vehicle General Safety Regulation was introduced in the European Union (EU).¹ Under this regulation, a number of important vehicle safety features became mandatory for all new vehicles in the EU, including:

- Advanced emergency braking – a system that will automatically brake in an emergency (e.g. if a pedestrian steps out in front of the car or a vehicle in front stops suddenly).
- Intelligent speed assistance – technology that ‘reads’ road signs and alerts a driver if they are exceeding the speed limit and/or reduces vehicle speed to keep within the speed limit.
- Attention warning in case of driver drowsiness – a system that detects early signs of fatigue and provides timely warnings to help drivers take corrective action.

These safety features can play a significant role in improving road safety, helping to prevent crashes and therefore protect drivers and their passengers, as well as other road users such as pedestrians

and cyclists. In addition to these driver assistance features, the Vehicle General Safety Regulation also includes key measures that enhance vehicle crash performance and will significantly improve the protection of women and the elderly in the event of a collision – providing fairer and more equitable transport.

It has been estimated that adopting the Vehicle General Safety Regulation in Britain could prevent more than 1,700 deaths and 15,000 serious injuries over the next 16 years, saving up to £7 billion in health costs if the full package of measures were to be fully implemented.² The regulations are already being rolled out in Northern Ireland.

In March 2025, Brake carried out research to discover what drivers think about these vehicle safety features. We wanted to understand how much drivers know about the technology in their cars and find out how important safety is to them.

Our research found that 87% of drivers say safety rating is important when choosing a new vehicle and 66% of drivers are willing to pay more for features that would protect themselves and their passengers. Two-thirds of drivers also said that intelligent speed assistance, advanced emergency braking and driver-drowsiness detection systems should be mandatory for all new vehicles in the UK.

However, we also found that many drivers are unaware of the safety features in their car, and more than a fifth (22%) said they wouldn't feel confident using them. Furthermore, numerous drivers don't understand how to use these features or choose to turn them off, with 35% of respondents having switched off at least one safety feature.

This aligns with previous research³ that many drivers choose to turn off life-saving features, so we sought to find out why this happens and what might persuade them to leave them switched on in future.

Finally, we explored how drivers find out about the safety features in their car. While most drivers find out by reading their car handbook, there is a clear appetite for others to help them. The general consensus is that vehicle manufacturers and drivers themselves should take greatest responsibility for finding out about safety features in their vehicles, but 79% of respondents also think driving instructors should be required to teach learner drivers about car safety features.

Brake also sought the opinions of professionals with a shared interest in improving road safety through a stakeholder survey and subsequent roundtable meeting held in London in April 2025. Their views are represented within the quotes included throughout this report.

¹ European Commission (2022) New rules to improve road safety and enable fully driverless vehicles in the EU. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32019R2144>

² PACTS (2022) Vaccine for vehicles. www.pacts.org.uk/wp-content/uploads/Vaccine-for-Vehicles.-Final-1.pdf

³ Brake (2024) Vehicle safety systems and the future of driving. www.brake.org.uk/get-involved/take-action/mybrake/knowledge-centre/reports/vehicle-safety-systems-and-the-future-of-driving

The research in this report centred on the following safety features, all of which are mandatory for new cars in the EU.

- **Intelligent speed assistance** – technology to alert a driver if they are exceeding the speed limit and/or automatically reduce vehicle speed to keep within the speed limit.
- **Reversing detection camera or sensors** – a camera attached to the back of the car to provide greater visibility when reversing or a sensor attached to the bumper that measures the distance to an obstacle and alerts the driver when an object is too close.
- **Attention warning in case of driver drowsiness** – to monitor head and eye movements for signs of drowsiness.
- **Emergency stop signal** – to alert the driver behind by making brake lights blink if a driver brakes sharply.
- **Lane-keeping assistance** – to alert a driver if their car strays too close to lane markers and either turn the steering vehicle or brake on one side to keep in lane.
- **Advanced emergency braking** – a system that will automatically brake in an emergency (e.g. if a pedestrian steps out in front of the car or a vehicle in front stops suddenly).
- **Event data recorders** – 'black box' that records data about driving behaviour, and records data if there's a collision.

For a full breakdown of results from the public opinion survey, go to www.brake.org.uk/vehicle-safety-technology-report.

Naming standards

This report uses the same terminology as the Vehicle General Safety Regulation, but there is no standardisation across the industry.

Many different names are used by vehicle manufacturers, making it very difficult for consumers to understand which features are in their car, and compare the safety benefits.

For example, intelligent speed assistance is also known as Speed Limit Pilot (Mercedes), Traffic Sign Recognition with Speed Limiter (Renault) and Automatic Speed Limiter (Volvo).

Advanced emergency braking is also known as Pre Sense City (Audi), Smart City Brake Support (Mazda) and Forward Collision Avoidance Assist (Kia).

Lane-keeping assistance is also known as automated lane keeping systems (ALKS), and so on.

Brake and other organisations are calling for vehicle manufacturers to use standardised terminology and dashboard warnings to prevent confusion.

Our research found...



87%

of drivers say safety rating is important when choosing a new vehicle



68%

of drivers think advanced emergency braking should be mandatory for all new vehicles in the UK



66%

of drivers are willing to pay more for safety features that protect people inside the car



35%

of drivers have switched off at least one safety feature in their car



18%

of drivers are uncertain what safety features their car has



44%

of drivers think safety features should be embedded in the vehicle with no option for drivers to turn them off



22%

of drivers wouldn't feel confident using the safety features in their car



79%

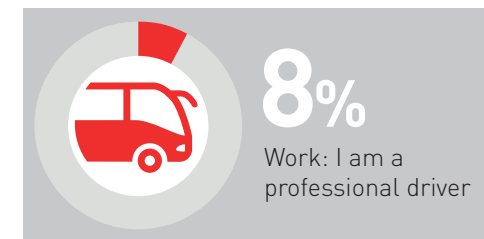
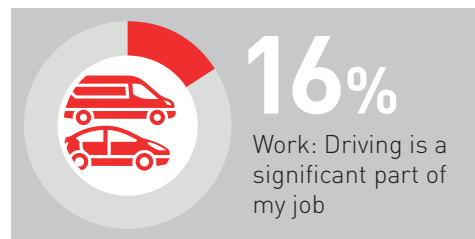
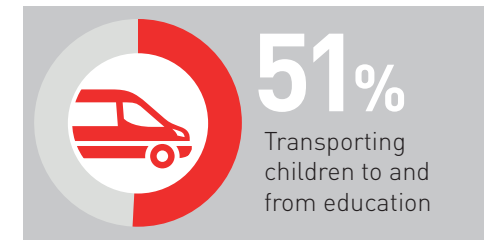
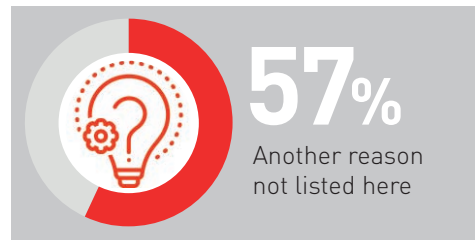
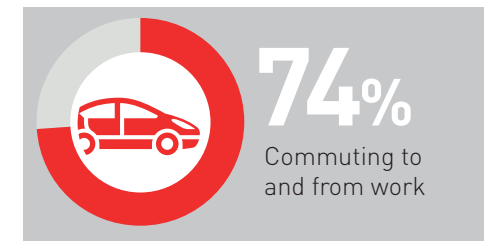
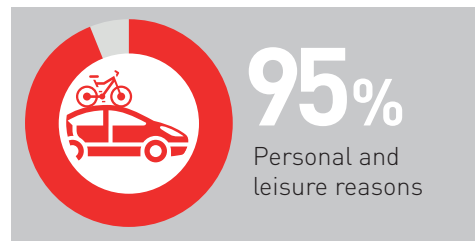
of drivers think driving instructors should be required to teach learner drivers about the safety features in cars

Driver journeys

Personal and leisure reasons are by far the most popular reasons for driving, with 95% of drivers saying this is one of the main reasons they drive.

Commuting to and from work was next most popular, cited by 74% of drivers, while just over half (51%) drive to transport children to and from education. Driving for work is much less common, with just 16% of drivers telling us that driving is a significant part of their job, and 8% saying they are a professional driver.

Which of the following activities account for most of your typical driving?



Choosing a new vehicle

What do drivers prioritise when choosing a new vehicle?

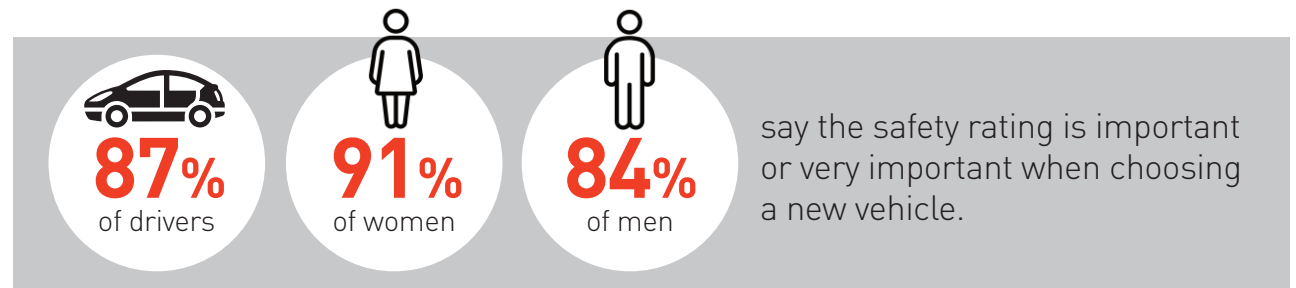
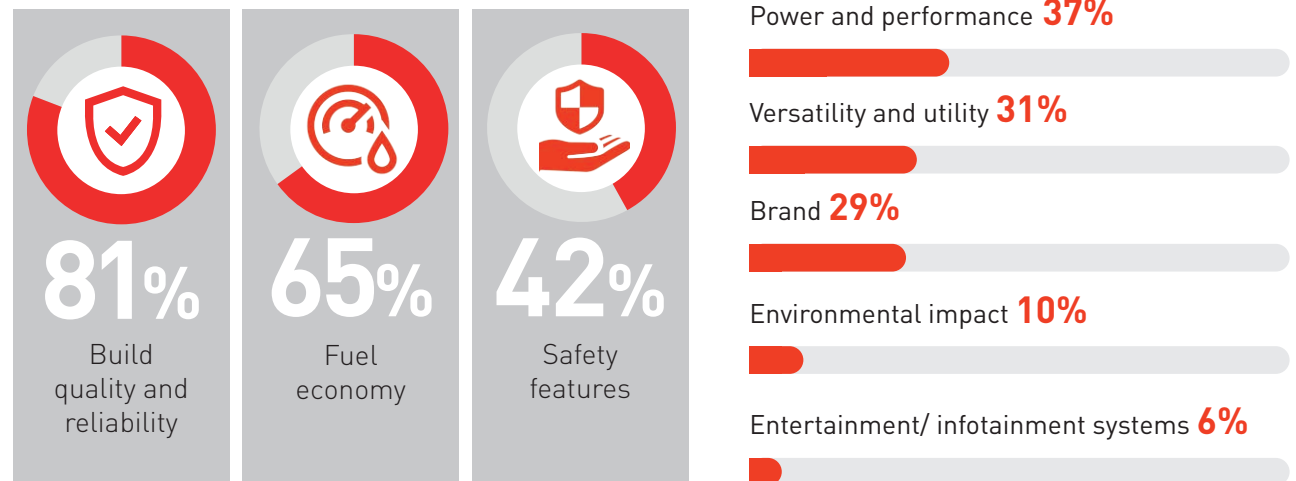
How important is the safety rating?

87% of drivers say the safety rating is important when choosing a new vehicle

Build quality and reliability is the most important factor for drivers when choosing a new vehicle, followed by fuel economy. Less than half of drivers (42%) told us that safety features were one of their top three factors when choosing a new vehicle, and only 11% of drivers said safety features were their number one priority.

Despite this, it's clear that the safety rating of a new vehicle is still significant, with 87% of drivers saying this is important or very important to them when choosing a new vehicle. Looking at the results by gender, 91% of women said the safety rating was important or very important to them, compared with 84% of men.

Which of the following do you consider most important when choosing a new vehicle, aside from its cost? (select your top three factors)



Safety features in vehicles

With advanced safety features already available in a large number of vehicles sold in the UK, how much do drivers know about the safety features in their cars?

18% of drivers are uncertain what safety features their car has

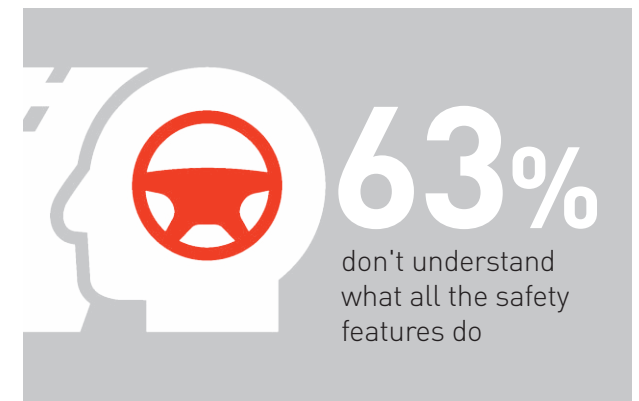
Although most drivers (82%) told us they know all or some of the safety features in their car, less than a third (31%) are confident they know all of them, while almost a fifth (18%) told us they are not sure or don't know what safety features their car has.

There is also a significant lack of understanding and confidence in using safety features, with nearly two-thirds of drivers (63%) telling us they don't understand what all of the safety features in their car do, and 22% saying they wouldn't feel confident using most of them.

Reversing detection is the most common safety feature, with 63% of drivers advising us their car has either a rear camera or sensors to help them reverse. More than a third of drivers have lane-keeping assistance (36%) or intelligent speed assistance (35%), and 31% of drivers have advanced emergency braking in their car.

Household income is a great divider, with those in lower income brackets significantly less likely to have safety features in their cars than those with a higher household income.

“These features have all been assessed as offering a positive benefit-to-cost ratio in terms of the safety impact they are expected to have.”

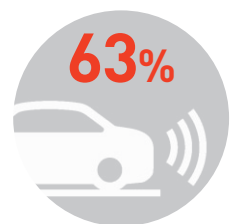


Safety features in vehicles

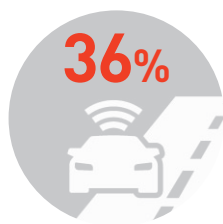
Vehicle safety technology



Which safety feature does your car have?



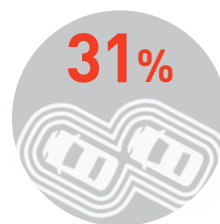
Reversing detection
with rear camera
or sensors



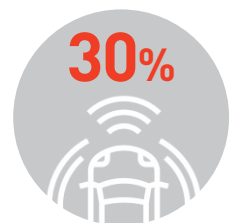
Lane-keeping
assistance



Intelligent speed
assistance



Advanced
emergency
braking



Emergency
stop signal



Attention warning
in case of driver
drowsiness



Event data
recorders
(‘black box’)



None of these

Safety features by household income

	All incomes	Below £10k	Above £100k
Lane-keeping assistance	35%	20%	48%
Intelligent speed assistance	31%	25%	55%
Advanced emergency braking	30%	15%	46%
None of the safety features listed.	19%	40%	6%

The table above just shows the difference in safety features between the lowest (below £10k per annum) and highest (above £100k per annum) income brackets, to highlight how people with a lower household income are less likely to have safety features in their cars, compared with those with higher household income.

For a full breakdown of results by household income, go to

www.brake.org.uk/vehicle-safety-technology-report

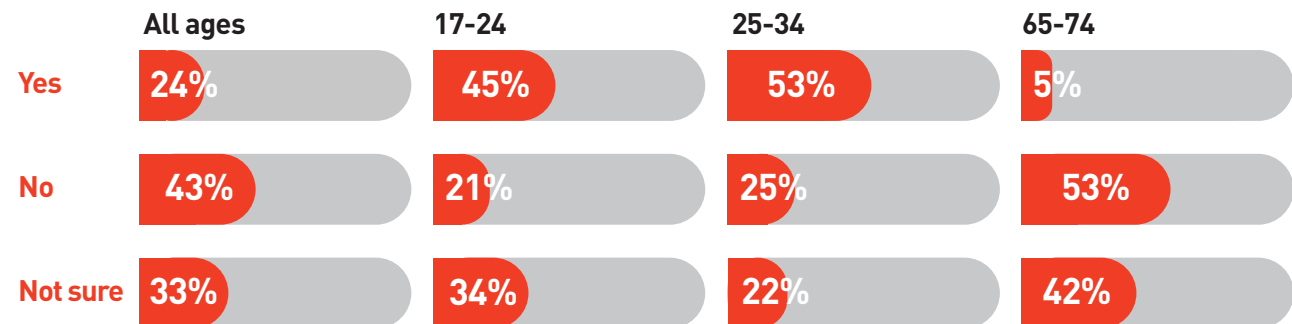
“ We know that speed is a major factor in most collisions. Helping drivers keep to speed limits will make our roads safer. Implementing compulsory data recorders will help to highlight those drivers that break laws, deter others from doing so and protect those that stay within the law but are nevertheless involved in collisions. ”

What does the insurance industry require?

There is currently no legal requirement for advanced driving assistance (ADAS) features to be switched on while driving, and no specific insurance requirements or exemptions surrounding the use of safety features. However, the UK industry does require the safe repair of ADAS-equipped vehicles, including realigning, repair or calibration of any parts likely to affect ADAS sensors.

Telematics-based ('black box') insurance policies remain a popular choice and can reduce the cost of insurance premiums, especially for newly qualified young drivers. A quarter of drivers (24%) told us their insurance policy requires them to keep safety features in their car switched on, with results varying significantly by age.

Does your insurance policy require you to keep any safety features in your car switched on?



For a full breakdown of results, go to www.brake.org.uk/vehicle-safety-technology-report

Are drivers using the safety features in their cars?

Why do drivers switch off the safety features in their cars, and what would encourage them to leave them on?

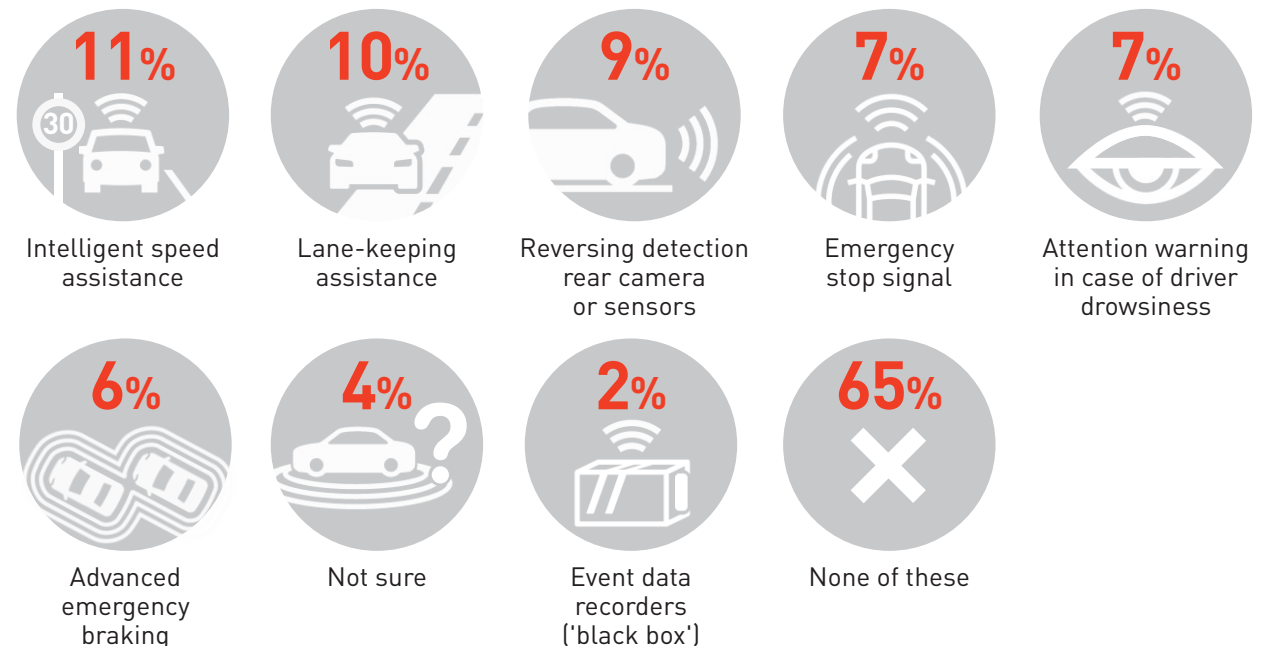
Many drivers find safety features annoying, and 35% have switched one off.

More than a third of drivers (35%) have switched off at least one safety feature in their car. Primary reasons for doing so include finding it annoying, not thinking it will make them safer or not understanding what it does.*

It's clear that drivers are not fully convinced that they should use the safety features in their car, even though they prioritise safety for themselves and their passengers. Three-quarters of drivers (75%) would be encouraged to keep safety features switched on if they knew it would make them safer on the road, while 60% would be encouraged by protecting their passengers in a crash.

“We must ensure driver acceptance through the use of better, more [accurate] technology. Testing has shown that some systems are better than others at being accepted by drivers. Drivers accept warnings when they are plausible. Systems that rarely intervene are accepted. Intelligent speed assistance warns all the time so drivers switch it off.”

Which safety features have you switched off?



Why did you switch it off?

It's annoying!

I don't think it will make me safer

I don't understand what it does

*Although 8% of drivers told us they had switched off the emergency stop signal in their cars, and 2% said they had turned off event data recorders, it is not possible for either of these features to be switched off.

Why did you switch off safety features?



44% of drivers who turned off intelligent speed assistance said they found it annoying.

31% said they didn't think it would make them safer.



60% of drivers who turned off lane-keeping assistance said they found it annoying



36% of drivers who turned off advanced emergency braking said they found it annoying.

33% said they didn't think it would make them safer.



42% of drivers who turned off reversing detection rear camera or sensors said they don't think it will make them safer.

29% said they found it annoying and **20%** don't understand what it does.



36% of drivers who turned off attention warning in case of driver drowsiness said they don't think it will make them safer.

32% said they found it annoying and **28%** don't understand what it does.

What would most encourage you to keep safety features in your car switched on?

75% Knowing I'm safer on the road

60% Protecting my passengers in a crash

41% Lower insurance premiums

23% Less severe penalties if I am involved in a crash

*Results show drivers who ranked each option first or second.

Future choices

What safety features do drivers want in their next car and are they willing to pay for them?

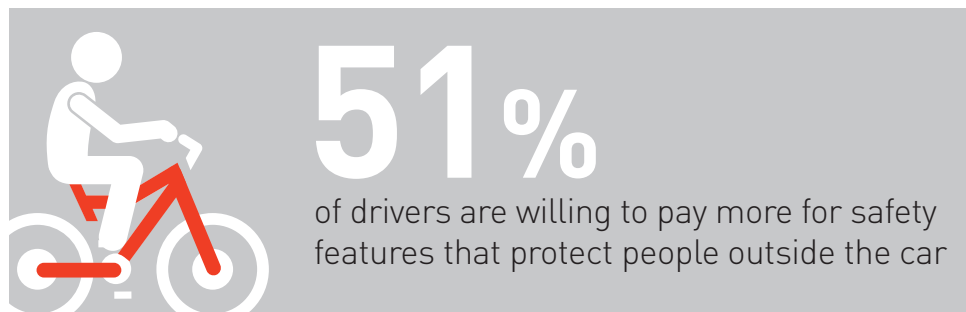
95% of drivers want safety features on their next car and 66% are willing to pay more for them

Almost all drivers (95%) want at least one safety feature in their next car, with the choice of features varying across different age groups – for example, while 57% of drivers overall would like advanced emergency braking on their next car, just 38% of young drivers aged 17-24 want this, compared with more than 65% of drivers aged over 55.

Again, we see that drivers prioritise their own safety as well as that of their passengers and other road users. Two-thirds of drivers (66%) are willing to pay more for a car with safety features that protect people inside the car, and more than half (51%) would pay more for safety features to protect people outside the car, such as pedestrians and cyclists.

Young drivers seem to be the most willing to pay more for protective safety features, with a much higher percentage of 17-24-year-olds willing to pay more for a car with safety features to protect people inside (89%) and outside (75%) the car.

“I do believe this is a thing that improves with time and well-designed products. As early adopters use the technology, if it is well designed, people will start to comprehend its benefits rather than react negatively to its limitations.”



Five safety features drivers want on their next car (by age)

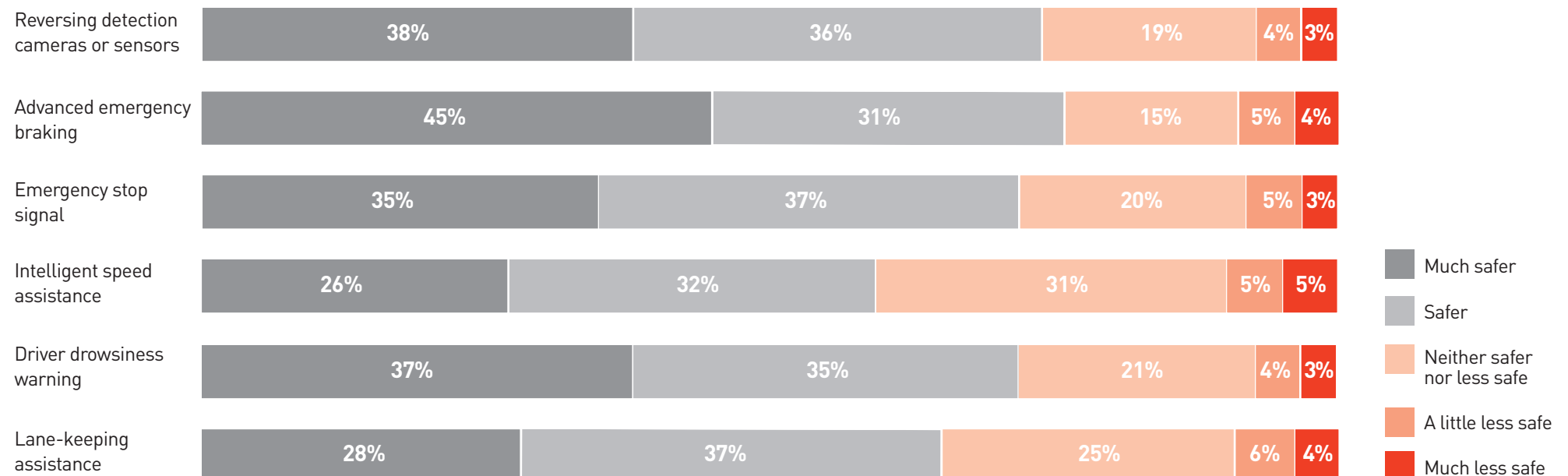
	All ages	17-24	35-44	65-74
Reversing detection cameras or sensors	72%	52%	63%	87%
Advanced emergency braking	57%	38%	51%	69%
Emergency stop signal	56%	47%	59%	61%
Intelligent speed assistance	52%	43%	52%	57%
Driver drowsiness warning	50%	48%	55%	53%

What makes drivers feel safer?

It's encouraging to see that, overall, drivers would feel safer with advanced safety features in their cars, with more than three-quarters (76%) saying they would feel safer or much safer with advanced emergency braking. Again, we see the benefits of lane-keeping assistance and intelligent speed assistance seem to be less well understood, with only 65% and 58% of drivers, respectively, saying they would feel safer or much safer with these technologies.

“[We need to] appeal to the hearts and minds of the vast majority of law-abiding, sensible drivers that these changes will help to avoid danger on the road and protect their families and friends from the law-breakers.”

If you had these safety features in your car, how would it make you feel?



Finding out more

How do drivers learn about the safety features in cars, and who do they think should take responsibility for this?

79% of drivers think driving instructors should be required to teach learner drivers about the safety features in cars

More than half of drivers (52%) found out about the safety features in their car, by reading their vehicle handbook, while 48% were told about safety features when they bought their car.

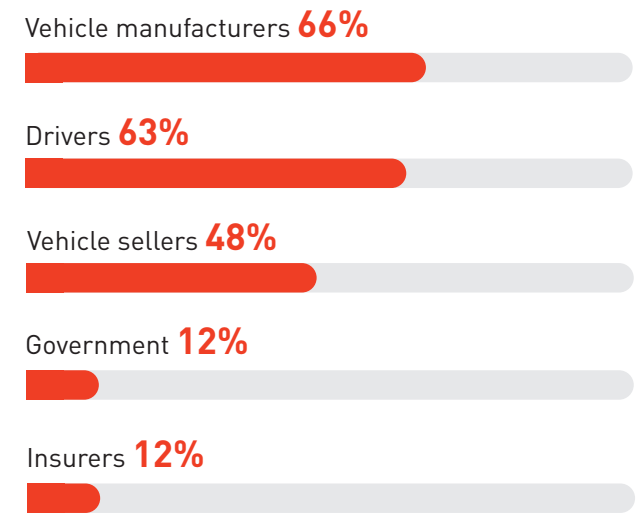
When asked who should take most responsibility for ensuring drivers understand the safety features in cars, the general consensus seems to be that vehicle manufacturers and drivers themselves should take greatest responsibility, although vehicle sellers are also recognised as playing an important role here.

Less than a fifth (18%) of drivers learned about safety features from a driving instructor, although, unsurprisingly, results were much higher for younger drivers aged 17-24 (43%) and 25-34 (34%). There is clear support for driving instructors to do more though - 79% of drivers think they should be required to teach learner drivers about the safety features in cars.

How did you find out about the safety features in your car?



Who should take most responsibility for ensuring drivers understand the safety features in cars?*



*Ranked as the first or second option

“New safety systems are not well understood or appreciated [by many drivers]. Limited training and support is offered at showrooms or via official advice from government, manufacturers or insurers.”



Not sure

79%

of drivers think driving instructors should be required to teach learner drivers about the safety features in cars



Changing the law

Do drivers think safety features should be mandatory for all new vehicles in the UK?

68% of drivers think advanced emergency braking should be mandatory for all new vehicles in the UK

Overall, drivers are supportive of legislation requiring all new vehicles sold in the UK to be equipped with key safety technologies. Around two-thirds of drivers support mandatory intelligent speed assistance, reversing detection systems, driver drowsiness detection, emergency stop signals and advanced emergency braking.

It's clear from responses to earlier questions that drivers prioritise safety, and improving this was by far the most popular reason given for making these features mandatory for all new vehicles in the UK, as noted by two-thirds (66%) of drivers.

However, drivers still want to retain some choice over which safety features to use in their own vehicle, and more than half (56%) said drivers should be able to select which safety features to use. Younger drivers and those who drive for work were even more likely to favour this option.

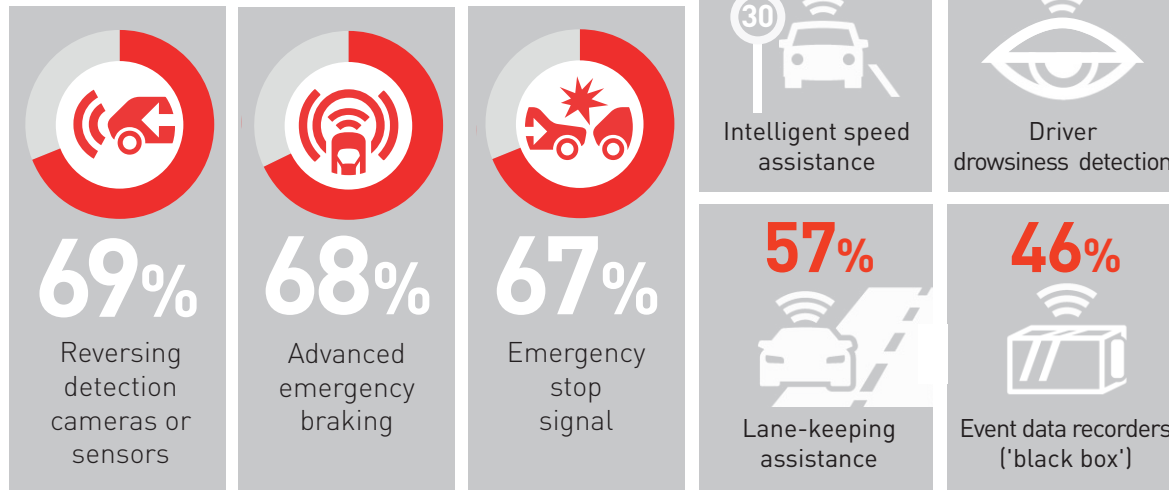
“Vehicle safety systems, if available, should be mandated to help save lives when bringing proven benefits to safety. It should be noted that as well as safety benefits, these technologies also introduce behavioural change, with positive benefits to traffic management also.”

“My priority is for the UK to fully adopt the General Safety Regulation (now applied to all vehicles sold in the EU Single Market). This package has been shown to be cost effective and will make a substantial contribution to reducing deaths and serious injuries on UK roads.”

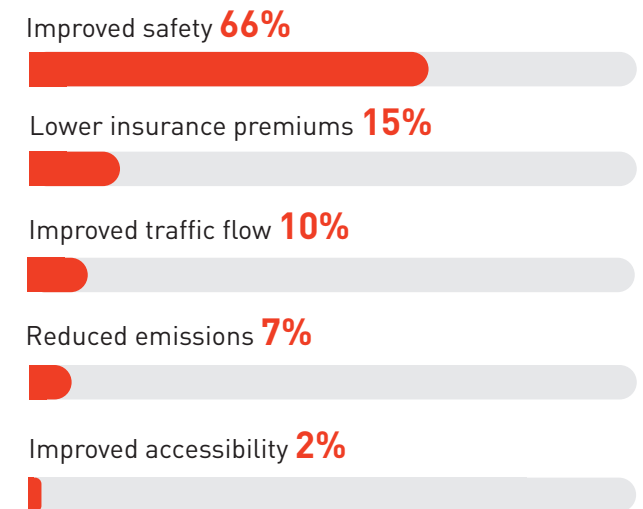
“One of the big problems with the adoption of safety features, especially those that may interfere with driving, is that their use is not compulsory. Many people are aware they do not have the most safe driving practices and do not want a system telling them what to do.”

“It is likely to take a long time, as it did in the introduction of safety belts. I believe publicity campaigns are helpful. They may not change individuals' behaviour much but they might make legislation that can change individual behaviour more acceptable.”

Which safety features do you think should be mandatory for all new vehicles in the UK?

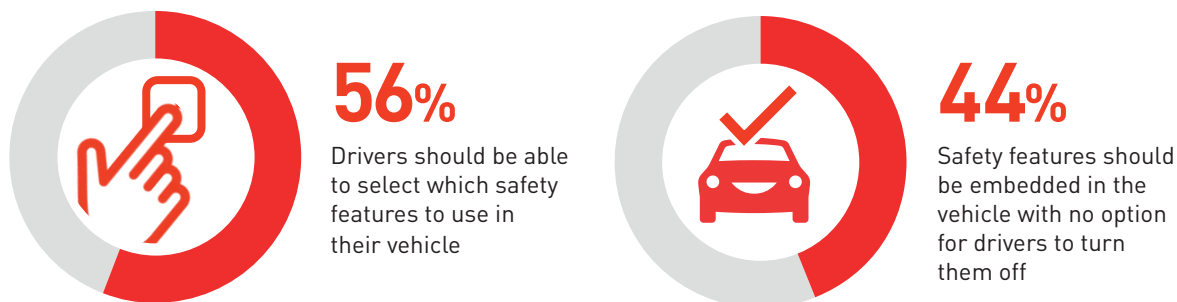


What would most encourage you to support these safety features being mandatory for all new vehicles in the UK?*



*Ranked first by drivers.

Which of the following statements do you most agree with?



Conclusions and recommendations



This report demonstrates clearly that people want themselves, their families and the people they share the roads with to be safe. It also reveals a widespread lack of understanding about the life-saving features that are available on many vehicles on our roads.

A clear majority (87%) of drivers say the safety rating is important or very important to them when choosing a new vehicle. In addition, 66% of drivers are willing to pay more for safety features that protect people inside the car, while 51% are willing to pay to protect people outside the car. Although drivers tell us they value safety, 18% are unsure what safety features their car has, and 22% wouldn't feel confident when using these features.

It's not surprising that new safety systems are not well understood or appreciated by drivers. Different manufacturers use many different names for safety features, making it difficult for consumers to understand what features are in their car, and compare the safety benefits. There is limited training and support offered to those working

in car showrooms, and no official advice from government, manufacturers or insurers either. Our research backs this up: only 48% of drivers were told about safety features when they bought their car.

Despite the lack of knowledge, there is clear public support for a change in the law: more than two-thirds of drivers think advanced emergency braking (68%) and intelligent speed assistance (67%) should be mandatory for all new vehicles in the UK. Improving safety was by far the most popular reason for making these features mandatory for all new vehicles in the UK, as noted by 66% of drivers.

In July 2024, as a new Labour government came into power, Brake called on the Transport Secretary to publish the long-awaited Road Safety Strategy, with a commitment to improve road safety, prioritise vehicle safety, and prevent a great number of families and communities from needless suffering.

In September 2025, as this report goes to press, we are still waiting for the new Road Safety Strategy to be published, so we reiterate our call on government to listen to the evidence, and commit to adopting the latest Vehicle General Safety Regulation updates, thereby making life-saving vehicle technology such as intelligent

speed assistance, advanced emergency braking and driver drowsiness detection mandatory for all new vehicles.

We also call on driving instructors, employers, insurers, vehicle manufacturers and sellers to do everything they can within their sphere of influence to promote the life-saving benefits of these vital safety features, and help every driver understand how the latest vehicle technology can make our journeys safer, by preventing crashes, and reducing the likelihood of death and serious injury if a crash does occur.

We make the following recommendations:

Legislation

- We renew our call on government to adopt the latest Vehicle General Safety Regulation (GSR2) updates to the existing GB Type Approval Scheme, with minimum performance criteria for Advanced Driver Assistance Systems (ADAS) in line with GSR2.^{4,5}
- We also call for regulation to standardise the terminology used to describe vehicle safety features, to prevent confusion and enable consumers to understand and compare safety benefits.

⁴ <https://www.fleetnews.co.uk/news/new-eu-vehicle-safety-regulation-and-what-it-means-for-uk-drivers>
⁵ <https://www.pacts.org.uk/wp-content/uploads/Vaccine-for-Vehicles.-Final-1.pdf>

We make the following recommendations (contd.):

Education

- We call on those with the power to influence others, including driving instructors, employers, insurers, vehicle manufacturers and sellers, to do all they can to educate drivers (including learner drivers and anyone who drive for work) about the safety benefits of vehicle safety technology, to promote acceptance and use.
- We also call on insurers to increase uptake of features such as intelligent speed awareness through insurance policies that stipulate that these safety features should not be switched off.

Enforcement

- We recommend that information about whether vehicle safety technology has been enabled or deactivated should be gathered as part of the forensic collision investigation following any fatal or serious injury crash, and this evidence should be submitted as part of the police report.
- We also believe there should be tougher sentences for any driver who causes a death or serious injury in a crash that could have been prevented if they hadn't chosen to switch off vehicle safety features.

Information

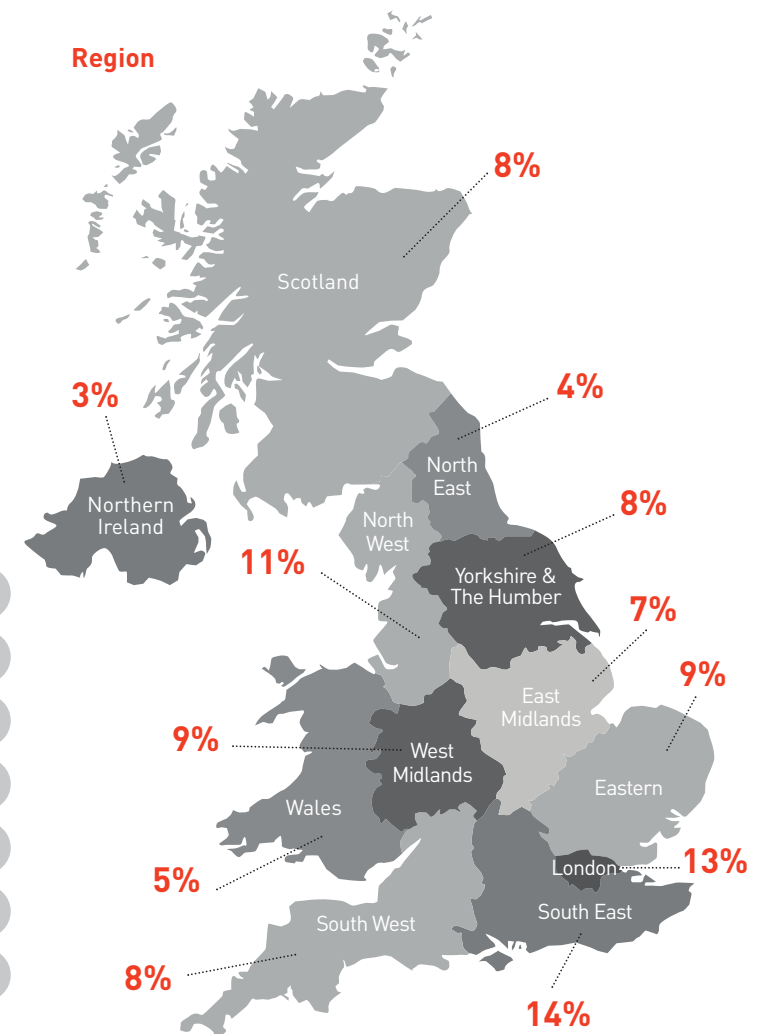
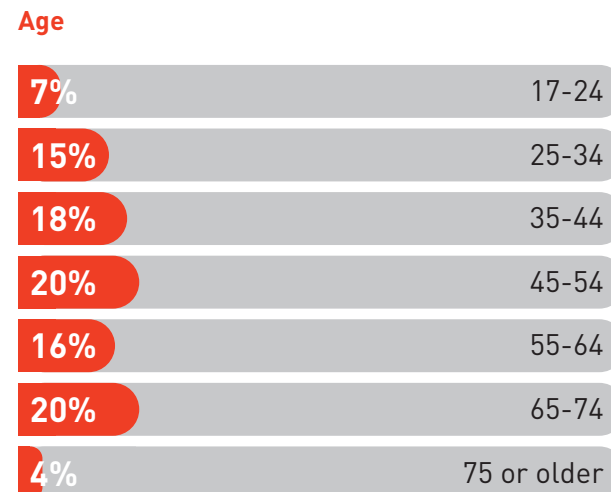
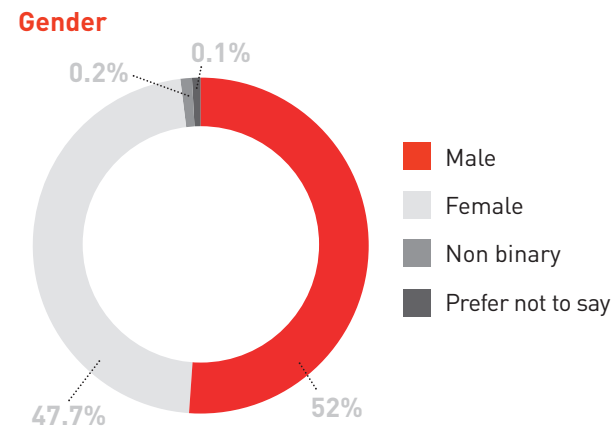
- We call on organisations that collect data from connected vehicles and infrastructure to work together to better understand this data, and how it can be used to improve road safety.

Brake sought the opinion of more than 2000 car drivers about vehicle safety technology that can help prevent crashes.

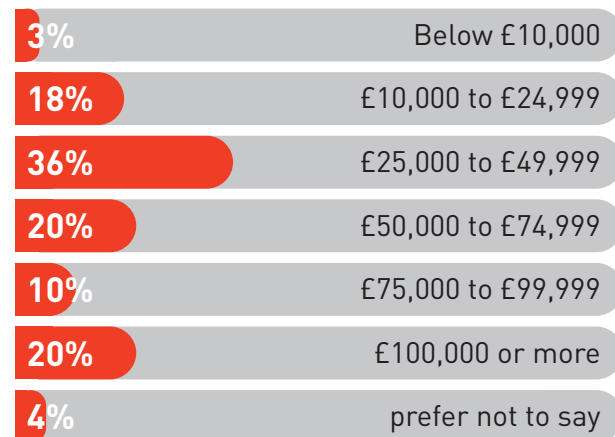
The research was carried out by independent market research company SurveyGoo, which conducted an online survey among 2,016 respondents across the UK. The sample of adults was randomly selected from a survey panel and weighted to be representative of the UK population for age, gender and region. The margin of error, which measures sampling variability at the country level, was +/- 2.2% at 95% confidence limit. Discrepancies in or between totals are due to rounding. The research was conducted in March 2025.

Respondents were required to drive a car for personal or work use. Respondents who do not drive a car were not eligible to take part in the survey.

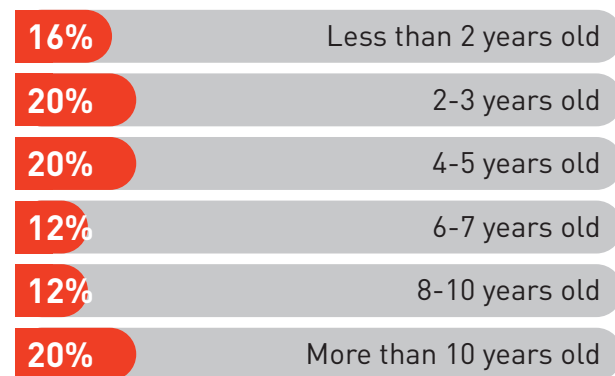
Survey respondents



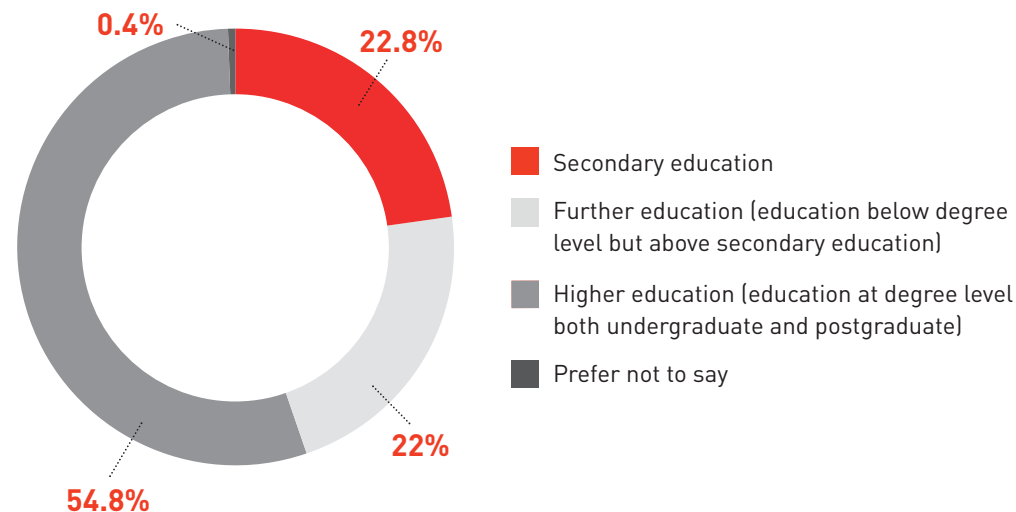
Household income



Age of car



Education level





www.brake.org.uk

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