

Direct Line & Brake Reports on Safe Driving

Speed



Produced by:



Working in partnership with:



direct line

This is a survey report on safe driving, by Brake and Direct Line. Brake publishes regular survey reports on road safety throughout the year. Brake asked 1,107 drivers various questions about speed. The survey was carried out online by Surveygoo in 2018.

At first sight, the social acceptance of fatalities from road collisions remains a mystery.

If 40 people every week died in train crashes there would be an outcry, yet somehow motorised travel manages to exempt itself from normal rules of acceptability. The peculiarities of drivers' attitudes have complex roots, but much of the explanation lies in drivers' seeming inability to accurately assess their own behaviour. Drivers typically self-identify as careful, considerate, and safe. Collisions are 'accidents', regarded as a surprise, an exception that 'won't happen to me'. More careful consideration – the reality that their driving is not as safe as they think – is rare.

Inappropriate speed is key to poor driving. Speed is implicated in all crashes – one cannot have a crash without speed. Higher speeds have two consequences: firstly less time to react to events and hence higher chance of colliding, and secondly higher kinetic energy in the collision itself. But public attitudes and behaviours with respect to speeding continue to defy logic. As this timely report from Brake demonstrates, by and large drivers tend to think their speeds are 'ok'. It has proven very hard to cut through this self-regard and change behaviours through education alone. Reading this report it strikes me that we have an implicit social contract at the moment – an unspoken compromise that casualties are an inevitable consequence of driver freedoms. At a population level the fatalities from road crashes could be described as carnage; at an individual level such events are very rare. It is this that gives the driver a false sense of confidence, reinforced by each passing day when they get home safely – until, tragically, for some, that risk gamble is lost. Brake's analysis of driver attitudes helps us understand in more detail what is happening in the mind of the driver when they make their calculations of appropriate speed. We can use this and other evidence to help with the push for a change to the social acceptance of speeding.

The limited value of education alone is why Brake has supported the use of tougher enforcement and also of better infrastructure to reduce speeds. Police numbers over the past 10 years have been severely reduced: this trend needs to be reversed to avoid the likely onset of increased speeding from drivers increasingly confident they won't get caught. Speed bumps, while unpopular with drivers, also work well in reducing casualties. Likewise, speed cameras have a proven evidence base in reducing collisions. There is recent evidence elsewhere of public approval of speed cameras: is this a small sign of a society beginning to turn away from their addiction to cars – perhaps a more reflective attitude to road use? Let us hope so.

An announcement to make Intelligent Speed Assistance (ISA) a legal requirement for all new cars in the EU from 2022 has coincided with the release of this report. This is timely and welcome, and gives us a glimpse into a more hopeful future. The development of autonomous vehicles continues: shall we reach a point where collisions are eliminated as the (flawed) human driver is removed from the system? The many thousands of families whose loved ones have been victims of car crashes would surely welcome that day. In the meantime I commend the work of Brake, and of this latest report, in helping the fight for reduced casualties on our roads.



Professor Alan Tapp
Professor of Social Marketing
UWE-Bristol



Speed is a major contributing factor to a large number of deaths and serious injuries on our roads and many of these terrible outcomes could have been prevented. While technology, enforcement and road layout can all play their part in reducing the chances of collisions, it is road users' attitudes to speed and its devastating consequences that need to change.

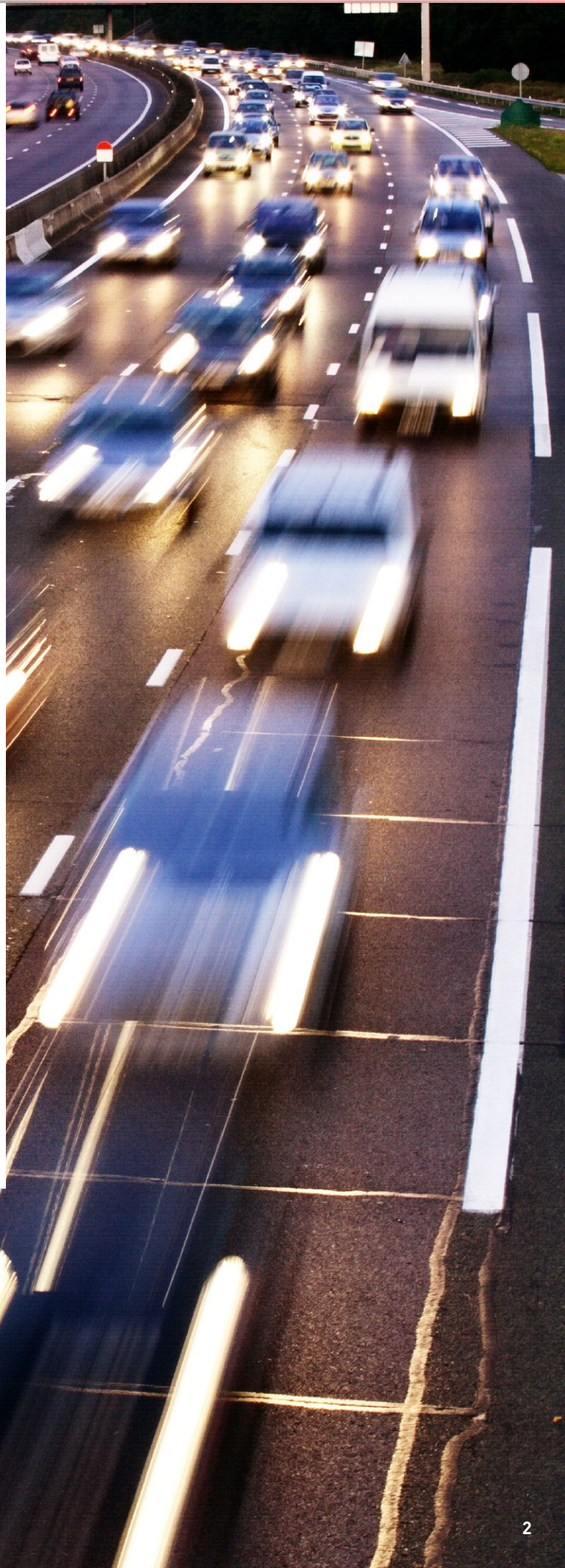
A driver who fails to drive to the conditions of the road and sees a speed limit as a badge of honour to attain, is a very dangerous road user. Modern roads are ever-more demanding and while technology in vehicles has assisted in mitigating deaths and injuries, it cannot be solely relied upon to make our roads death and injury-free zones. Drivers' behaviour and their understanding of the appropriate speed to travel on roads is so important. For example, 20mph zones near schools aren't there to frustrate drivers – they are there to save lives.

As the proliferation of technology in vehicles continues, it will hopefully reduce the number of collisions. While technology such as Intelligent Speed Assistance (ISA) is able to prevent or warn a driver they are about to break the speed limit, it is unable to change a driver's behaviour if they are within the speed limit nor able to adjust their vehicle's speed to the road environment or conditions.

We all lead busy lives, but it doesn't mean we should drive recklessly and put others and ourselves at risk. Planning a journey, allowing plenty of time and driving to the conditions of the road rather than to the speed limit, will make a difference and enable all road users to get to their destination safely.



Steve Barrett
Head of Direct Line Car Insurance



Mary Williams OBE, chief executive, Brake

Speed remains a critical factor in all road crashes. Driving is unpredictable and if something unexpected happens on the road ahead – such as a child stepping out from between parked cars – it is a vehicle's speed that will determine whether they can stop in time and, if they can't stop, how hard they will hit. Yet, as this report has found, many drivers frequently drive at speeds which are not safe for the conditions or road environment. It is critical, therefore, that we understand the nature of drivers' relationship with speed to inform the prevention of crashes caused by this most common of unsafe driver behaviours.

Ultimately, the solution to unsafe driver behaviour, and therefore to speed as a factor in crashes, lies in a 'vision zero' approach to road safety. This approach is internationally recognised and focuses on the design-led solutions that can be implemented to eliminate deaths and serious injuries on roads. For speed, this means designing a system where the speed a vehicle can travel is determined by the infrastructure's ability to tolerate an impact. Vision zero is therefore fundamental to delivering our human right of safe and healthy mobility, and its cause is both urgent and essential. We must redesign our cities, towns and villages, our transport between places, and our vehicles so that driver error no longer leads to death or serious injury.

As we pursue the goal of safe and healthy mobility, there is also a need – and a moral imperative – to do what we can to help drivers be safer on our roads now. For speed, this can be achieved through tighter driver regulation, more robust road policing and penalties, or by encouraging drivers to be as safe as they can.

This report focuses on this issue, the here and now, and seeks to explore the reasons why drivers speed, how and where this takes place, and what are the most effective deterrents. We hope the findings within will help inform both the short-term prevention of speeding and the long-term debate about how we manage our road system, and ensure that we deliver a future where everyone can travel safe from harm.



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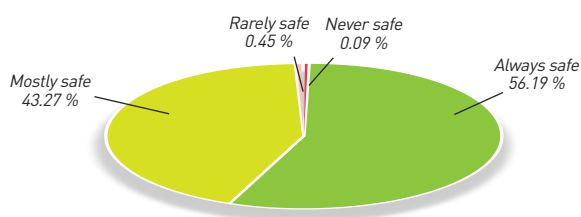


SECTION 1 – SETTING THE SCENE

In question 1 we asked respondents if they consider themselves a safe driver.

Nearly all (99%) drivers said that they were always safe or mostly safe. Drivers' perception of their own safety is an important question in the context of this report on drivers' attitudes, behaviours and knowledge in relation to speed.

Q1. Do you consider yourself a safe driver?



DRIVER ADVICE: SPEED

Speed is a critical factor in all road crashes and small increases in speed lead to significant increases in stopping distance and risk. Slowing down is one of the most important things drivers can do to protect themselves and their fellow road users.¹ This means:

- staying well within speed limits, always – they are limits, not targets;
- slowing down to at least 20mph in towns, cities and villages;
- slowing down on rural roads, particularly where there is poor visibility (e.g. at bends, brows and in bad weather) and avoiding overtaking unless absolutely necessary; and
- keeping at least a two-second gap (four in wet weather) behind the vehicle in front on any road, but especially at higher speeds – it's your braking space in a crisis.

SECTION 2 – SPEED LIMITS AND SPEEDING

In the following set of questions, we asked drivers about their speeding behaviour and their personal views on the acceptability of speeding.

In question 2, we asked drivers to tell us if, in the last 12 months, they had broken the speed limit on: urban roads with 20mph limits; urban roads with 30mph limits; single-carriageway rural roads; and multi-lane roads (motorway or A road).

Speed limits are set for safety reasons. Despite saying they are safe drivers (see question 1), around half of drivers admit to breaking speed limits by at least 5mph on all kinds of roads, with drivers admitting to breaking speed limits most commonly on 30mph urban roads (56% of drivers).

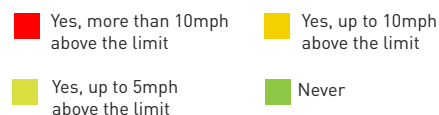
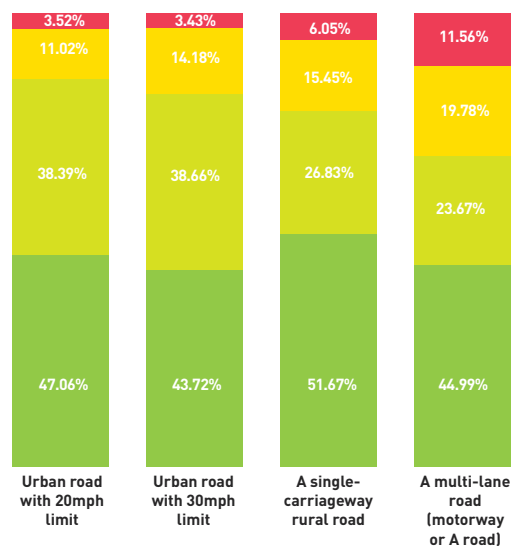
The higher the speed limit, the larger the percentage of drivers who admit to exceeding it by more than 10mph. This is unsurprising, given that police guidelines for enforcement currently recommend a "10% + 2mph" leeway, which allows more speed above the limit at higher speed limits.²

Drivers' admissions of speeding largely support the findings of the Department for Transport (DfT)'s national Vehicle Speed Compliance Statistics³ (see fact box overleaf), which are based on speed data from a sample of 92 of the DfT's Automatic Traffic Counters and demonstrate significant levels of speeding on roads.

What is recorded by the DfT inevitably gives different data to what drivers say in surveys. There were two notable differences in drivers' answers to this survey:

1. Nearly half of drivers told us they broke limits on 'single-carriageway rural roads' (of any speed limit), whereas the DfT found only 9% of drivers break limits on 'single-carriageway 60mph roads'. There is a definition difference here; some rural roads have lower limits, and we did not specify 60mph in our survey.
2. Just over half of drivers told us they broke limits on 20mph roads, whereas the DfT found 86% of drivers exceeded 20mph limits in 'free-flow' conditions. Again, there is a definition difference here. There is also a possibility that some drivers think they are complying with 20mph limits, but in fact are breaking them.

Q2. In the past 12 months have you broken the speed limit?



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SPEED COMPLIANCE

Compliance with speed limits is published every year by the DfT in its annual report on Vehicle Speed Compliance Statistics for Great Britain.⁴ The report provides a clear picture of how many drivers comply with various speed limits through a sample of 92 of the Automatic Traffic Counters operated by the DfT.

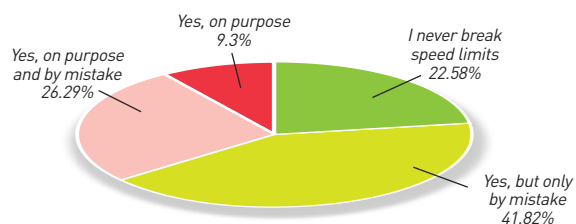
- On 20mph roads (under 'free-flow' conditions – which may not be typical of most 20mph roads), 86% of cars exceed the speed limit.
- On 30mph roads, 52% of cars exceed the speed limit, with 6% exceeding the speed limit by 10mph or more.
- On single-carriageway 60mph roads, 9% of cars exceed the speed limit.
- On motorways, 48% of cars exceed the speed limit, with 12% exceeding the speed limit by more than 10mph.

In question 3, we asked drivers if they ever break a speed limit.

More than three-quarters of drivers (77%) admit breaking speed limits of any level. Two in five drivers (42%) said that they break limits by mistake. More than a third (36%) said they do it on purpose as well as by mistake.

For the significant number of drivers who say they break the speed limit by mistake, the introduction of Intelligent Speed Assistance (ISA) would probably be perceived as advantageous. In its most common form fitted to vehicles, ISA informs drivers, through a vibration of the accelerator, if they are about to break a speed limit and automatically keeps the vehicle below the limit unless overridden by the driver putting their foot down.

Q3. Do you ever break speed limits?



INTELLIGENT SPEED ASSISTANCE

The European Commission describes Intelligent Speed Assistance (ISA) as: "A range of technologies which are designed to aid drivers in observing the appropriate speed for the road environment."⁵ ISA identifies if a vehicle is exceeding a speed limit and can control the vehicle to below a limit either: without the ability for the driver to override it (mandatory ISA); or with the ability to override it (voluntary ISA). Voluntary ISA alerts a driver to the fact they are about to break a limit through a vibration in the accelerator pedal. The driver can override the system by putting their foot down.

ISA is much more effective than Speed Limit Information (SLI) systems that simply warn a driver, either through a visual sign or audio, if they are about to break a limit.

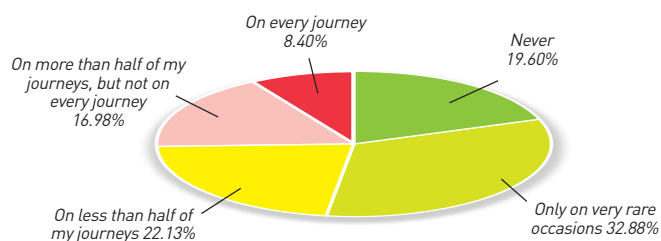
ISA identifies the speed limit on a stretch of road through a digital road map containing information about limits, that is accessed via GPS, or from speed limit signs (known as a 'beacon system').

In question 4, we asked drivers to estimate how often they break a speed limit.

Speeding is not a rare occurrence for a significant number of drivers. A quarter (25%) of drivers estimate that they break the speed limit on more than half their journeys or on every journey.

A third (33%) of drivers say they break a limit 'only on very rare occasions'.

Q4. How often do you estimate you break a speed limit?



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SPEED LIMITS

In the UK, the speed limit framework, including the setting of national limits for different road types, and exceptions that can be applied, is the responsibility of government. National speed limits in the UK were set by the Road Traffic Regulation Act (1984)⁶ and have remained unchanged since. The three national speed limits are:

- the 30mph speed limit on roads with street lighting (sometimes referred to as Restricted Roads);
- the national speed limit of 60mph on single-carriageway roads;
- the national speed limit of 70mph on dual carriageways and motorways.

For Scotland and Wales, the power to set national speed limits is devolved to the respective governments. The Scottish Government has had the power to set national speed limits since 2016, through the Scotland Act, and the Welsh Assembly received the power to do so in 2018. They have not, as yet, made any changes.

Local speed limits can be varied by local traffic authorities where *'local needs and conditions suggest a speed limit which is different from the respective national speed limit'* and in accordance with Department for Transport guidelines.⁷

Many local traffic authorities have moved, or are moving, towards introducing 20mph limits in their urban areas. 20mph is widely acknowledged as the maximum appropriate speed limit for built-up areas. The World Health Organization has emphasised the need for 20mph limits, stating that in areas where *'motorised traffic mixes with pedestrians, cyclists, and moped riders, the speed limit must be under 30km/h (20mph)'* due to the vulnerability of these road users.⁸

In question 5 we asked drivers how much above the speed limit they feel it is acceptable to drive on urban roads, rural roads and motorways.

For every road type, the majority of drivers feel that it is acceptable to drive above the speed limit (67% for urban, 68% for rural, 72% for motorways). Alongside the survey finding in question 1 (i.e. that drivers consider themselves safe), this result suggests that the majority of drivers do not consider speeding indicative of being unsafe.

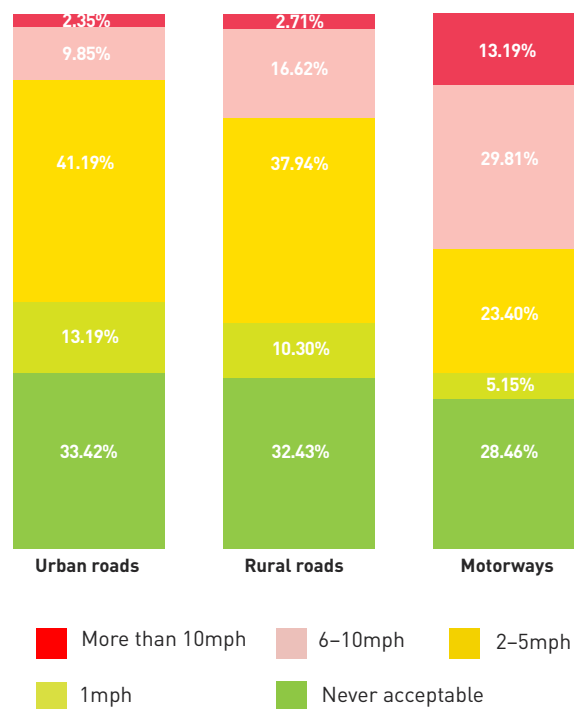
Out of those drivers who think it is acceptable to speed on urban roads, a minority (18%) think it is acceptable to speed more than 5mph over the limit.

Out of those drivers who think it is acceptable to speed on rural roads, a more significant minority (26%) think it is acceptable to speed more than 5mph over the limit.

Out of those drivers who think it is acceptable to speed on motorways, a majority (60%) think it is acceptable to speed more than 5mph over the limit.

These findings demonstrate that as the speed limit of the road increases, drivers tend to find it more acceptable to break speed limits by a greater amount.

Q5. How much above the speed limit is it acceptable to drive?



OWEN'S STORY

Six-year-old Owen Wightman was playing near his home in Kettlethorpe, Wakefield, in June 2011 when he was hit and killed by a speeding driver. The driver was travelling at 57mph in a 30mph zone and Owen was carried 75ft (23m) down the road by the impact.



Owen's mother Joanne says:

"Not a day goes by when I don't think about Owen. He was a much-loved boy whose death devastated our family.

"Sadly, far too many people find it acceptable to break speed limits, despite the devastating consequences this can have. Speed limits are there for a reason – safety – and drivers need to slow down, keeping below the limit. By lowering our speeds, we can save other people from experiencing the loss of a child in a road crash."

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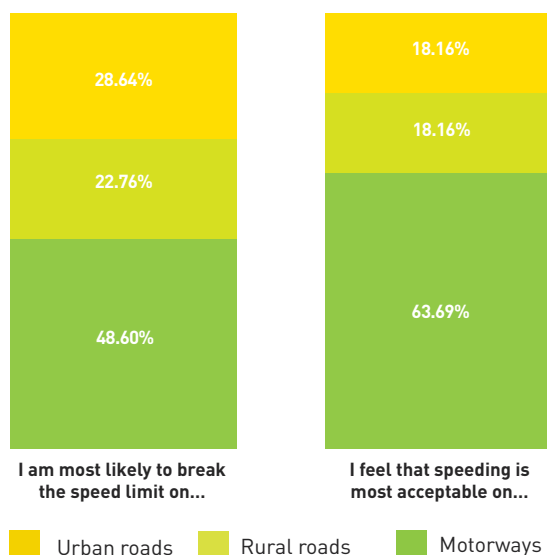
In question 6 we asked drivers which road type they are most likely to break the speed limit on and which road type they feel speeding is 'most acceptable' on.

Nearly half (49%) of drivers state they are most likely to break the speed limit on motorways, with lower, but still significant, numbers saying they are most likely to break the speed limit on urban roads (29%) and rural roads (23%).

The majority of drivers (64%) state that they feel speeding is most acceptable on motorways.

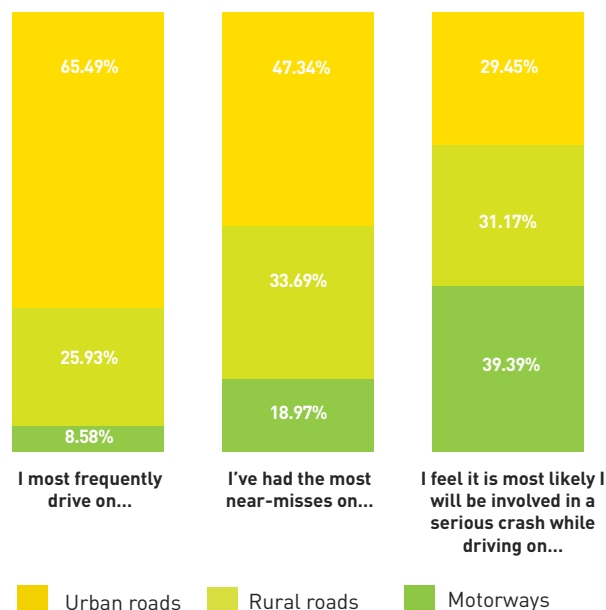
Much lower numbers of drivers say speeding is most acceptable on urban roads (18%) or rural roads (18%).

Q6. On which road type are you most likely to break the speed limit and on which road type do you feel speeding is 'most acceptable' on?



It is hard to know what is going through the minds of the 39% of drivers who say they are most likely to be in a serious crash when driving on a motorway: some may underestimate hazards faced on urban and rural roads; some may overestimate their level of control on urban and rural roads due to these roads' lower speeds; some may spend a lot of time driving on motorways and are aware they have higher exposure to risk, or, conversely, may feel they do not have enough experience to drive safely on motorways. There may be many other reasons.

Q7. Choose one road type, out of urban, rural or motorway, for each of the following statements...



A previous Brake and Direct Line report in 2010⁹ asked drivers a similar question: 'When do you most worry about being killed driving'. Drivers felt most worried on motorways and least worried on urban roads, echoing the sentiment of the findings in this report.

SECTION 3 – SPEED AND SAFETY

In this section we asked drivers several questions about speed and safety on various road types.

In question 7, we asked drivers to choose one road type out of urban, rural or motorway for a selection of different statements.

Two out of three drivers say they most frequently drive on urban roads (65%), with a quarter (26%) stating urban roads and just 9% stating motorways.

Drivers had most frequently experienced near-misses on either urban (47%) or rural roads (34%), with a much smaller number experiencing them most frequently on motorways (19%). This finding is reflective of the fact that fatal and serious injury crashes are much more likely on urban and rural roads compared with motorways (see fact box).

Despite drivers' experience of having most of their near-misses on urban and rural roads, drivers had very mixed views about the type of road where they feel it is 'most likely they would be involved in a serious crash while driving': 29% said urban roads; 31% said rural roads; and 39% said motorways.

Fatal and serious crashes are much more likely on urban and rural roads compared with motorways. In 2017, there were:

- 14,371 fatal and serious injury crashes on urban roads (at a rate of 204 fatal or serious crashes per billion vehicle miles);
- 9,134 fatal and serious injury crashes on rural roads (113 fatal or serious crashes per billion vehicle miles); and
- 702 fatal and serious injury crashes on motorways (23 fatal or serious crashes per billion vehicle miles).^{10,11}



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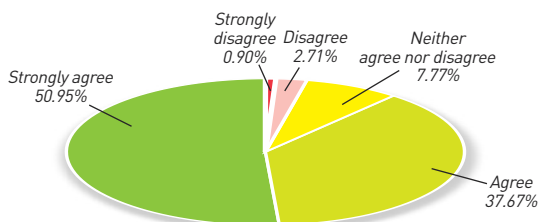
Respondents were asked to rate their agreement with the following statements:

- I generally aim to drive at around the speed limit
- The speed limit is the safest speed to travel
- I take the road conditions into consideration when choosing my speed
- I would feel safe travelling at 60mph on a single-carriageway rural road
- 60mph is a safe speed for a vehicle on a road where there may be cyclists, pedestrians and horse riders
- The default speed limit on single-carriageway rural roads should be reduced from 60mph

Question 8a

The overwhelming majority (89%) of drivers agree or strongly agree that they generally aim to drive 'at around the speed limit'. Only 4% of drivers disagree or strongly disagree with this statement. This may indicate that many drivers perceive the speed limit as a target, rather than maximum speed.

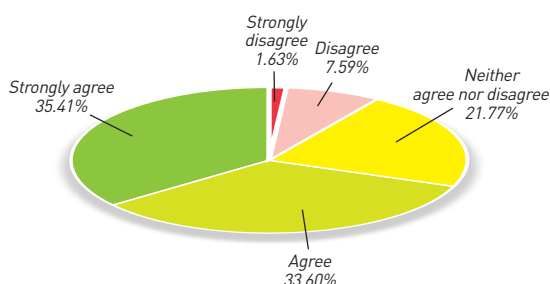
Q8a. I generally aim to drive at around the speed limit



Question 8b

The majority of drivers (69%) either agree or strongly agree that the speed limit is the safest speed to travel. Very few drivers (9%) disagree or strongly disagree with this statement. As in question 8a, this finding may indicate that many drivers perceive the speed limit as a target, rather than maximum, speed and may underestimate the danger of speed.

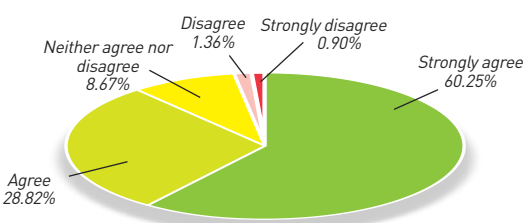
Q8b. The speed limit is the safest speed to travel



Question 8c

The overwhelming majority (89%) of respondents agree or strongly agree that they take road conditions into consideration when choosing their speed, with just 2% disagreeing or strongly disagreeing.

Q8c. I take the road conditions into consideration when choosing my speed



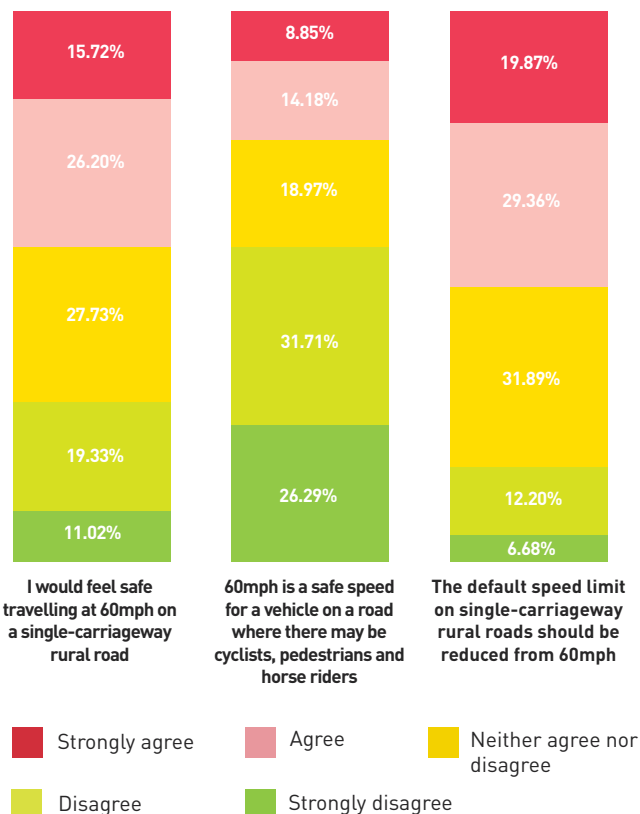
Question 8d

Drivers have mixed views regarding whether they feel 'safe travelling at 60mph on a single-carriageway rural road': 42% agree or strongly agree; 30% disagree or strongly disagree; and 28% neither agree nor disagree.

More than half of drivers disagree that '60mph is a safe speed for a vehicle on a road where there may be cyclists, pedestrians and horse riders', although, worryingly, a quarter do agree or strongly agree: 23% of drivers agree or strongly agree; 58% disagree or strongly disagree; and 19% neither agree nor disagree.

Half of drivers agree that the default speed limit on single-carriageway rural roads 'should be reduced from 60mph': 49% agree or strongly agree; 19% disagree or strongly disagree; and 32% neither agree nor disagree.

Q8d. Rate your agreement your agreement with each of the following statements...



In 2009, Brake surveyed drivers with the question: 'What speed limit should there be on rural roads'.¹² Seven-tenths of respondents agreed that speed limits should be lower than the national default limit of 60mph. Although this question was not worded the same as that detailed in this report, the driver sentiment is similar and shows the historical consensus for reducing the default speed limit from 60mph on rural roads.

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SINGLE-CARRIAGEWAY RURAL ROADS

Single-carriageway rural roads have a national default limit of 60mph. In 2017, there were 581 fatal crashes on 60mph single-carriageway roads, the highest of any road type in Britain (there were 564 fatal crashes on 30mph roads, and 77 on motorways).¹³ Rural roads pose high risks, accounting for 59% of all fatal crashes, with cyclists, motorcyclists and car drivers more than three times more likely to be killed per mile travelled on a rural road than an urban road.^{14,15}

Speed is often a major factor in rural road crashes.¹⁶ A study of single-carriageway rural roads estimated that a 10% increase in average speed results in a 30% increase in fatal and serious crashes.¹⁷ The most common crash types on rural roads are collisions at intersections, head-on collisions and running off the road.¹⁸

Many rural roads are narrow, with blind bends and brows and limited safe places to pass. They often are without pavements or cycle paths; yet are frequently used by some of the most vulnerable road users such as people cycling or walking. They may have poor road surface conditions and limited or no crash protection (such as no crash barriers either at the side or in the middle of the road). Traffic often includes vehicles travelling at a wide variety of speeds, including slow-moving farm vehicles. There may also be animals, spillages or tree branches in the carriageway. At the speed limit of 60mph, a driver's stopping distance is 73 metres, or about the length of three tennis courts. Brake advises drivers to slow down on rural roads to give time to react to inevitable and variable hazards, particularly slowing down before bends and brows, and never overtaking where there is a risk a vehicle could be coming in the opposite direction.

JASON'S STORY

Jason Eaton was just 17 when he died in a car crash on a rural road in October 2010.

Jason was a front seat passenger in his friend's car travelling on the B4036, a single-carriageway 60mph rural road, near West Haddon in Northamptonshire.



The driver failed to slow down when approaching a bend, lost control and careered off the road, crashing at 73mph. Jason was trapped in the car for more than an hour before being freed and rushed to hospital, but sadly he died of his injuries. The crash investigator concluded the cause was driving too fast for the bend and the inexperience of the driver.

Jason's mother Marina says: "Eight years have passed since Jason lost his life, yet it still feels like it happened yesterday. Jason was a wonderful young man, loved by all his family and friends, and was taken from us far too soon. It is so important to raise awareness about the dangers of speed on rural roads, which are often unsuitable for high speeds as they are narrow, with blind bends, no pavements or cycle paths, and unlit at night. Speeding on rural roads is so dangerous – we all just need to slow down. I do not want any other family to suffer the life-changing effect Jason's death has on all of our family every day."

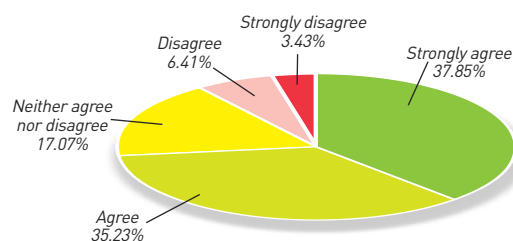
SECTION 4 – SPEED DETERRENTS

In this section we asked drivers about deterrents to speeding.

In question 9, we asked drivers to rate their agreement with the following statement: 'The possibility of receiving a speeding fine/driving ban is an important factor in my choice of driving speed.'

Three-quarters of drivers (73%) agree or strongly agree that the possibility of receiving a speeding fine or a driving ban is an important factor in their choice of driving speed, with just one in ten drivers (10%) disagreeing or strongly disagreeing with this statement.

Q9. The possibility of receiving a speeding fine/driving ban is an important factor in my choice of driving speed



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In question 10, we asked drivers what would deter them from speeding. Respondents were asked to rate the effectiveness of various deterrents.

To analyse the results relating to this question effectively, a weighted average percentage effectiveness was calculated, with each of the effectiveness ratings given a different weighting: extremely effective was given the largest weight and not at all effective was given the lowest weight.

Unsurprisingly, given the known effectiveness of speed enforcement,¹⁹ the presence of a police car or speed cameras was rated the most effective deterrent to speeding. The presence of cyclists and pedestrians was rated the next most effective, followed by traffic-calming measures such as speed humps and electronics in the vehicle that record the driver's speed and can determine insurance premiums. The deterrents rated least effective were clearly posted speed limits and speed awareness signs.

Q10. What would deter you from speeding? Rate the effectiveness of the following deterrents...

Effectiveness of deterrent	Police car	Speed camera	The presence of cyclists and pedestrians	Traffic-calming measures such as speed humps	Electronics in the vehicle that record the driver's speed and can determine insurance premiums	Clearly posted speed limits	Speed awareness signs
Extremely effective	57.18%	53.39%	42.10%	35.05%	34.06%	22.76%	22.67%
Very effective	25.56%	29.45%	36.68%	33.51%	28.36%	29.99%	30.53%
Moderately effective	12.29%	11.47%	15.45%	20.51%	22.04%	31.89%	29.18%
Slightly effective	2.89%	3.34%	3.88%	7.77%	6.05%	11.38%	11.92%
Not at all effective	2.08%	2.35%	1.90%	3.16%	9.49%	3.97%	5.69%
Weighted average effectiveness percentage	28.86%	28.55%	27.55%	25.97%	24.76%	23.74%	23.50%

ENFORCEMENT

For speed limits to be obeyed by drivers, effective enforcement is necessary. There are two traditional ways to enforce speed limits: speed cameras (fixed or operated by police) and traffic calming.

Speed cameras

There are different kinds of cameras:

- fixed cameras, which measure the speed of passing cars and take photographs of those that break the speed limit;
- mobile cameras held by police officers, placed on tripods, or fixed in police cars, which can visit different locations; and
- average speed, or time-over-distance, cameras, which calculate the time it takes a vehicle to travel between cameras and therefore the average speed.

There is overwhelming evidence that speed cameras are effective in reducing speeds and preventing crashes and casualties. A four-year national evaluation of more than 4,000 speed camera sites across the UK found a 70% reduction in speeding at fixed sites, a fall of 6% in average speeds and a 42% reduction in deaths and serious injuries.²⁰ Average speed cameras can help enforce speeds over a longer stretch of road than fixed or mobile cameras and so are particularly beneficial. Technological developments have led to a significant reduction in installation costs, likely resulting in increasing numbers of these devices on the roads in the future.

Traffic calming

Traffic-calming measures are designed to slow down drivers. Physical traffic-calming measures, such as humps and chicanes, are the most effective at reducing speed, compared with measures such as vehicle-activated speed limit signs.²¹

A 2018 study found that, post-implementation of 20mph limits, roads where traffic calming was already in place achieved a higher level of speed compliance than roads with 20mph signage only. However, speeds were already lower on these roads and the post-implementation speed reduction was less than on signed-only roads. This led researchers to conclude that the prior presence of physical traffic-calming measures had already changed driver behaviour, leaving less scope for speed reduction in response to the new lowered limits.²²

Civic leaders are trialling a variety of new measures to deliver effective traffic calming. In London, funding has been provided to develop 'Mini-Hollands' in three outer boroughs.²³ These are designed to encourage active travel, through redesigned junctions, segregated cycle lanes on busy roads and reductions in the amount of traffic using residential streets. Traffic-calming measures on high-speed roads are also developing rapidly, with the increasing roll-out of 'smart motorways', which utilise technology to expand capacity and ease congestion on the Strategic Road Network, without the physical widening of the road infrastructure already in place.²⁴ This is achieved through measures including: the use of the hard shoulder for traffic ('all-lane running'), either permanently or at peak times; changing the speed limit to make traffic flow more smoothly; activating warning signs to alert drivers to traffic jams and hazards ahead; and closing lanes to allow emergency vehicles through.



Direct Line & Brake Reports on Safe Driving: Speed

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