Fleet safety survey report 2014

Part 2: policies to protect vulnerable road users

Brake provides guidance and resources for employers, fleet managers and road safety professionals to help them prevent road crashes. See www.brakepro.org.

This report contains guidance for employers on protecting vulnerable road users from risks posed by at-work drivers. It incorporates responses to a Brake survey of employers, including many Brake Professional members[1]. 228 organisations responded, operating fleets of various sizes and types, and responsible for thousands of drivers and vehicles around the globe.

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VULNERABLE ROAD USERS

Vulnerable road users account for half (50%) of all road deaths worldwide[2]. They are vulnerable to traffic as they do not have the protective frame of a vehicle to absorb the impact of a collision, so are exposed to the full force. They are at particular risk from: vehicles manoeuvring, particularly at junctions, as they may not be seen in a blind spot; fast vehicles, as higher speeds result in harder impacts; and traffic around homes, schools and shops, which often could be redirected to roads where there are fewer people walking or cycling.

There is evidence that fear of traffic discourages people from walking or cycling. Only 22% of journeys and just 3% of miles travelled in Britain are made on foot, and just 2% of journeys and 1% of miles travelled are made by bike[3]. A Brake survey of UK schoolchildren found three in four (76%) would like to walk and cycle more, but more than half (56%) worry they might be run over when walking or cycling on roads[4]. A separate Brake survey found that one in three non-cyclists would be persuaded to cycle if routes were safer[5].

BLIND SPOTS

THE FACTS

Blind spots are areas around a vehicle that a driver cannot see by looking through the windows or standard mirrors. Blind spots affect vehicles of any type or size, but are bigger on larger vehicles, such as trucks, buses or coaches. They can result in a driver failing to notice hidden road users or hazards while manoeuvring, with potentially fatal consequences.

Every year about 400 people are killed in EU countries when drivers fail to see people or objects in their blind spots while manoeuvring. Most of the victims are pedestrians, cyclists and motorcyclists[6].

75% of cyclist collisions in Britain occur at or near junctions when vehicles are turning[7].

Q1: What technology does your organisation use to minimise blind spots on large commercial vehicles (trucks, buses and coaches)?

Worryingly, the majority of fleets that contain commercial vehicles are not following best practice and using blind spot minimising technology. Eight in 10 (80%) don't use blind spot sensors and seven in 10 (70%) don't use blind spot cameras, both of which can significantly reduce risks for vulnerable road users. Almost two thirds (63%) don't fit under-run guards, which prevent vulnerable road users being dragged under the vehicle, significantly reducing the risk of serious injury or death.

- 76% fit reversing alarms to vehicles
- 37% fit under-run guards to vehicles
- 30% fit blind spot cameras to vehicles
- 20% fit rear, front and side sensors to vehicles
- 21% said none of the above

ADVICE FOR MANAGERS

Brake urges all fleet managers, especially those with large commercial vehicles, to use the latest available technology to minimise blind spots. Some technology is legally required for large vehicles in the EU, such as wide-angle mirrors[8]. Others, including reversing alarms, are not legally required, but it is considered best practice to fit them, although they should not be relied upon in isolation[9].

Some devices are suitable for any vehicle size, such as reversing alarms and proximity sensors. Managers should look for vehicles that have these technologies fitted when purchasing fleet vehicles, and retrofit existing vehicles whenever possible and appropriate.

For further guidance on what blind-spot minimising technology is available, and other measures to protect vulnerable road users from blind spot risk, see Brake publication 'Protecting vulnerable road users from vehicle blind spots', available for free to Brake members. Non-members can order copies from www.brakepro.org/vulnerable-road-users.

Case study SIG Plc

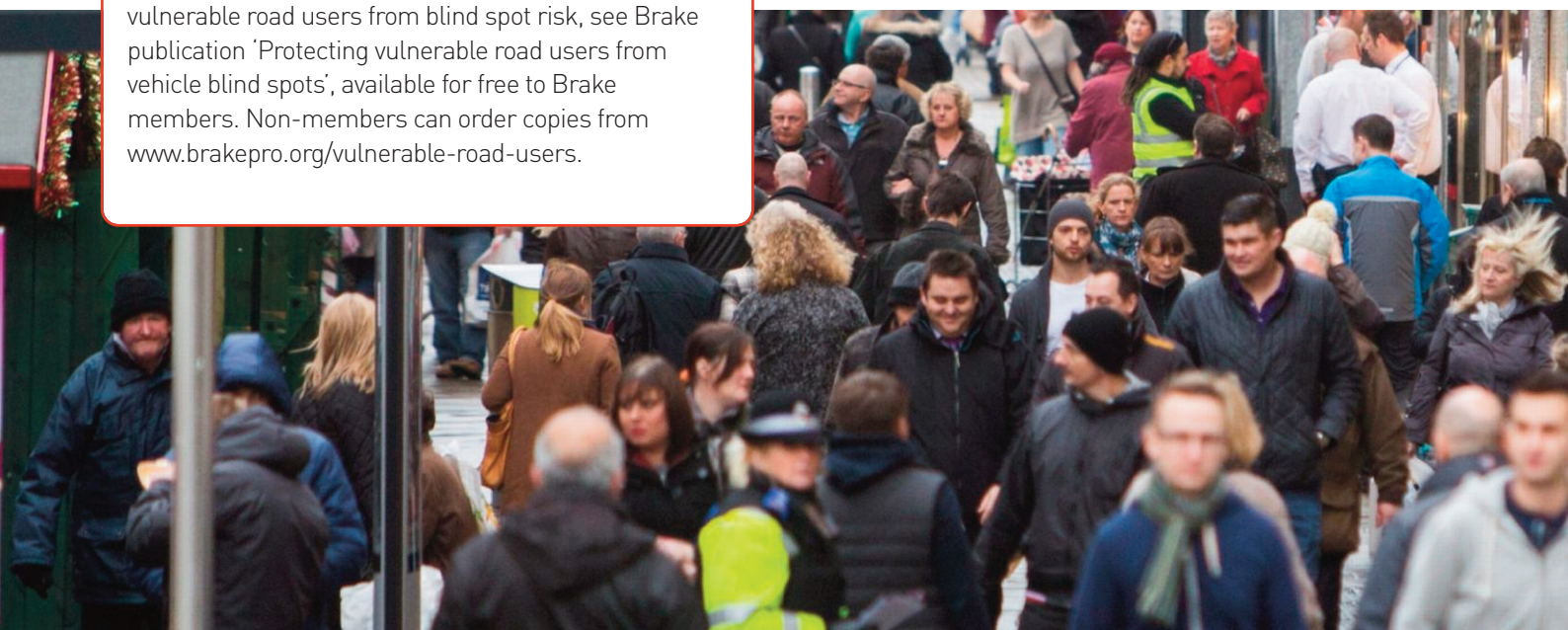
SIG Plc is a Europe-wide supplier and transporter of specialist construction materials. SIG UK has more than 1,000 commercial vehicles and 1,000 company cars, and employs more than 1,100 commercial vehicle drivers.

In 2009, SIG UK introduced a road risk policy that set targets for reducing the frequency and severity of road crashes across the business. Initiatives introduced under the policy include: improving vehicle safety equipment; further developing its driver training and education programmes; improving compliance with vehicle standards and drivers' hours regulations; and engaging drivers through internal safety alerts and a Driver of the Year competition.

To protect vulnerable road users from its large vehicles, SIG began fitting safety devices including side under-run guards and blind spot proximity sensors. As a partner in London construction project Crossrail it was obliged to fit these devices to all vehicles working on Crossrail, but decided to go further and fit them to all new trucks nationwide. As of 2014, about a third of SIG's commercial vehicle fleet has been fitted with these devices. In mid-2014 Sig also began fitting blind spot cameras to its trucks.

SIG is now also introducing a driver education module on urban driving and cyclist and pedestrian safety, as part of its Driver CPC programme.

SIG's incident rate has dropped 24% in the four years since introducing its road risk policy. It has seen a 72% drop in incidents involving cyclists and pedestrians over the same period.



DRIVER SPEED

THE FACTS

Speed is a critical factor in all road crashes and casualties: if something unexpected happens on the road – such as a child stepping out suddenly – it is a driver's speed that will determine whether they can stop in time, and if they can't stop, how hard they will hit[10]. It's a particularly important factor in protecting vulnerable road users.

It has been estimated that for every 1mph reduction in average speeds, crash rates fall by an average of 5%[11], and that a 1km/h reduction in average speed across Europe would save 2,200 lives each year[12]. Research has found that British drivers who speed are nearly twice as likely to have been involved in a road crash[13].

Previous Brake surveys of drivers have found that people who drive for work are more likely to report speeding, and risky speed-related manoeuvres such as overtaking, than drivers who do not drive for work[14].

One measure with great potential for preventing speeding and reducing casualties is intelligent speed adaptation (ISA). ISA uses GPS combined with a digital map of speed limits to keep vehicles to the posted limit on each road, either by advising the driver of the limit through a signal (advisory ISA), or automatically decreasing acceleration if a driver exceeds the limit, with or without the driver being able to override this (voluntary or mandatory ISA). Controlled trials of ISA in the UK have predicted voluntary ISA could reduce road deaths by 21%, and mandatory ISA could reduce deaths by 46%[15]. ISA requires comprehensive speed limit maps to be created. To date this has only happened in a few countries and localities.

Q2: Does your organisation monitor driver speed using GPS or telematics systems?

More than half (55%) of managers surveyed said they monitor driver speed. This leaves a worrying 45% who are failing to take advantage of new technologies and have no way of knowing if their drivers are flouting speed limits.

- 55% said yes
- 45% said no

Q3: How would you describe your level of familiarity with ISA technology?

More than half (54%) are aware of ISA and know at least a little about the benefits, but only 5% have actually tried it, showing the huge scope for promoting ISA's use across the fleet industry (given the availability of speed limit maps, see box below).

- 41% had never heard of it before
- 40% had heard of it and know a little about how it works and the benefits
- 14% had heard of it and know a lot about how it works and the benefits
- 5% had used or tried advisory or mandatory ISA

Q4: Would your organisation be interested in taking up Intelligent Speed Adaptation technology if an accurate digital road map was available?

Almost half (45%) are interested in ISA technology for their fleet. This rises to 51% among fleet managers who had at least heard of the technology before, compared to 38% of those who hadn't heard of it, indicating that greater awareness of the technology could make it more popular.

- 45% said yes
- 55% said no

Case study ISA rolled out on London buses

In July 2014, Transport for London (TfL) announced[16] the launch of a fully up-to-date digital speed limit map for London, UK, to encourage the development of in-vehicle technologies and mobile phone apps to manage speed. TfL and the Mayor of London, Boris Johnson, are also calling for the creation of a national digital speed map, covering the whole of the UK.

Using the new speed map, ISA technology is to be trialled on London buses during 2015. The speed map and ISA trial both form part of TfL's Pedestrian Safety Action Plan, aimed at reducing the number of people killed or seriously injured on London's roads by 40% by 2020, with a particular focus on vulnerable road users.

ADVICE FOR MANAGERS

Monitoring driver speed is essential to ensure drivers are not putting themselves or others at risk by breaking speed limits, or driving too fast for conditions. In-vehicle telematics can be used to monitor speed continuously as well as warning drivers if they commit high-risk manoeuvres. Fleet managers can use telematics data to tackle problem behaviour such as speeding before a collision occurs, by identifying drivers who speed and targeting training and speed awareness coaching as needed. Monitoring speed also provides valuable information on the extent to which speed is contributing to your drivers' collisions or near-misses.

Some telematics systems include advisory ISA where local digital speed maps are available, or by using publicly-available speed limit information (which is often not complete) such as through Google Maps. Fleet managers should speak to their telematics providers about implementing this technology, and consider speed-limiting technology on their fleet vehicles.

Managers should take advantage of local or national digital road maps where they are available (such as in London, UK[17], and in Sweden[18]), and could lobby government for more digital road maps to be created, especially at a national level.

JOURNEY PLANNING AND SUSTAINABLE TRAVEL

THE FACTS

The simplest way to reduce the risk vehicles pose to people is to reduce the number of vehicles. This not only makes roads safer, it also benefits the environment. Transport accounts for a fifth (21%) of UK greenhouse gas emissions, with road transport making up the most significant proportion of this[19].

Encouraging and enabling more people to use active forms of travel such as walking or cycling significantly improves people's health and benefits the economy: poor health due to inactivity is estimated to cost £8.2 billion per year in England[20].

Where driving cannot be avoided, planning journeys to reduce mileage and use the safest routes enables fleets to reduce their risk. Efficient route planning also saves money by reducing wasted mileage and avoiding congested areas such as town centres. This can mean significant savings for fleets as fuel can account for up to 19% of a fleet vehicle's total cost of ownership[21].

Q5: How does your organisation minimise vehicle use among employees who drive for work purposes, but driving is not their main job (e.g. sales staff, consultants or reps who drive to meetings/ appointments/events)?

Encouragingly, 85% of managers take at least some action to minimise at-work vehicle use. However, just two in five (42%) encourage employees to walk, cycle or use public transport when travelling on work time, and only 8% limit fuel reimbursements and total travel time to discourage long-distance driving.

- 62% encourage employees to avoid travelling whenever possible (e.g. through teleconferencing or home working)
- 62% plan meetings and appointments so several are in the same area on the same day, to minimise repeat trips to the same location
- 60% encourage employees to car share if travelling to the same or similar locations
- 42% encourage employees to use public transport or walk or cycle whenever possible
- 8% limit fuel reimbursements and total travel time allowed, to discourage employees from driving long distances
- 15% do none of the above

Q6: What does your organisation consider when planning journeys and routes?

A huge proportion of organisations are not taking basic steps to plan realistic schedules and efficient routes – essential principles in deterring speeding and protecting vulnerable road users. Only just over half (56%) plan realistic schedules to remove the pressure on drivers to speed, and even fewer (46%) tell drivers that they won't be penalised for running over time. Only one in ten (11%) plan routes to avoid areas where there are likely to be lots of people on foot or bike, and a significant one in five (20%) don't take any of these advised actions at all.

- 56% set realistic schedules, allowing for possible delays, to allow drivers to complete journeys on time without being tempted to speed
- 46% communicate to drivers that they will not be penalised for journeys running over time if they are delayed
- 40% use route planning software to plan efficient journeys and minimise overall distance
- 11% plan routes that avoid schools and residential areas as much as possible
- 20% do none of the above

Q7: How does your organisation encourage safe and sustainable commuting for all employees?

More than three quarters (77%) take at least some action to encourage safe and sustainable commuting, with workplace facilities for walkers or cyclists being the most common (59%). However, only one in three (32%) actively promote walking and cycling to staff. A significant minority, however, are active in encouraging and funding safe walking and cycling routes in their area.

- 59% provide workplace facilities for those who walk or cycle (such as bike racks or showers)
- 40% educate all employees (not just those who drive on work time) on safe driving
- 32% promote walking and cycling as travel choices to staff (e.g. through internal communications and promotions)
- 30% get involved in safety initiatives such as Road Safety Week
- 16% engage the local authority to encourage implementation of safe walking and cycling routes in their locality
- 8% invest in safe walking and cycling routes in their locality
- 5% give incentives for employees with company cars who drive less (e.g. bonuses for those with low mileage)
- 23% do none of the above

ADVICE FOR MANAGERS

Much business travel can be avoided altogether through the use of communications technologies such as teleconferencing and webcasts. Where business travel cannot be avoided, managers should instruct employees to choose the most sustainable options possible, usually public transport, or walking and cycling shorter journeys. If these options are not practical, employees should be encouraged to car-share if possible, and/or plan multiple appointments in the same area on the same day.

Employers can incentivise sustainable travel by placing limits on fuel reimbursements or total driving distance allowed – this will ensure sustainable travel is the most affordable option.

Journeys and routes should be planned to avoid town centres, residential areas and schools, as there are likely to be lots of vulnerable road users in these areas. If a driver must go through these areas, they should be instructed to slow down to 20mph (about 32km/h) or below, even where the speed limit is higher.

Routes should be planned to stick to motorways and other major roads wherever possible: this is not only safer for drivers as these roads have a lower crash risk, but will also lessen the risk to people on foot or bike.

Schedules should be planned to allow realistic times to complete journeys and allow for possible delays, so drivers are not tempted to speed. Employers should clearly communicate to drivers that they will never be penalised for journeys running over time if they are delayed, and that driving at safe speeds is more important than meeting journey schedules.

Route planning software can help plan efficient journeys and minimise overall distance, avoiding high-risk or congested roads and increasing fuel efficiency as well as safety.

ROAD SAFETY WEEK

Road Safety Week

Road Safety Week is coordinated annually by Brake in the UK and New Zealand. It involves thousands of people taking action for safer roads, including employers, authorities, emergency services, schools and community groups. It's a great way for employers to show their commitment to road safety and promote a road safety culture internally.

Employers can register to get involved and receive a free email action pack with advice on running awareness-raising activities. UK employers can register at www.roadsafetyweek.org.uk. NZ employers can register at www.brake.org.nz/roadsafetyweek. Employers in other countries can get advice on running their own Road Safety Week at www.roadsafetyweek.org.

DRIVER EDUCATION AND AWARENESS

THE FACTS

It is estimated that up to 95% of crashes are down to driver error[22]. It is therefore vital that drivers understand the importance of safety, and the simple steps they are expected to take to protect themselves and others.

As well as the risks of blind spots and speed already discussed in this report, another key risk for at-work drivers is mobile phone use. Brake studies of UK at-work drivers show they are much more likely to use mobile phones at the wheel than drivers who do not drive for work[23]. Research has found that drivers speaking on phones are four times more likely to be in a crash that causes injury, whether on a hands-free or hand-held phone[24].

Mobile phones are not the only distraction risk drivers may face. Eating and drinking, smoking, and adjusting music players or sat navs can also cause potentially fatal distractions[25]. Distraction is estimated to account for almost one in four (22%) crashes[26].

Q8: What topics does your organisation cover in driver education or awareness sessions, face-to-face or online?

A worrying three in ten (29%) do not provide education or awareness on any of these key topics. The most common topics that are covered are distractions (63%), hazard awareness (58%) and speed awareness (57%).

- 63% provide education on the dangers of mobile phones and other distractions
- 58% provide education on hazard awareness
- 57% provide education on speed awareness
- 46% provide education on looking out for pedestrians and cyclists
- 44% provide education on Safe and Fuel Efficient Driving (SAFED) techniques
- 42% provide education on identifying and checking vehicle blind spots when reversing and manoeuvring
- 29% said none of the above

Q9: What do you instruct drivers to do through your education/awareness sessions or written communications?

The majority don't instruct drivers to take some of the most important steps to protect vulnerable road users: two-thirds (68%) don't tell drivers to slow down to 20mph around schools, homes and shops, and six in 10 (61%) don't instruct drivers to look twice for bikes at junctions.

An encouraging two in three (67%) instruct drivers to never use any kind of mobile phone at the wheel, but only one in four (26%) go so far as to tell drivers to put their phones in the boot or switch them off. Almost one in four (23%) do not tell drivers to take any of the simple, life-saving measures listed.

- 67% instruct drivers to never use a hand-held or hands-free mobile phone when driving
- 49% instruct drivers to keep at least a two-second gap behind the vehicle in front
- 48% instruct drivers to never eat, smoke or adjust sat navs or music players when driving
- 43% instruct drivers to slow right down when passing cyclists and give them plenty of room
- 39% instruct drivers to look twice and check mirrors at junctions for cyclists or motorcyclists
- 32% instruct drivers to slow down to 20mph around homes, schools and town centres

- 31% instruct drivers to slow right down when approaching left-hand bends in case a cyclist or pedestrian is ahead
- 26% instruct drivers to switch off mobile phones or put them in the boot when driving
- 23% said none of the above

ADVICE FOR MANAGERS

Managers should ensure drivers understand their responsibilities in protecting vulnerable road users, and are aware of the simple steps they can take to keep others safe. Giving clear and specific instructions on what drivers are expected to do to meet your safe driving policies, and emphasising the life-saving benefits of these simple precautions, will help persuade drivers of their importance. These instructions should include slowing right down for bends and brows, slowing down to 20mph (30km/h) or below in built up areas, looking twice and longer for bikes at junctions, and putting your phone away.

Regular driver training and awareness sessions should include facts and advice on risks to vulnerable road users, including speed, mobile phones and other distractions, vehicle blind spots, and the need to take great care and look longer for vulnerable road users at junctions and when manoeuvring.

Safe driving policies should be clear on the precautions drivers must take to protect vulnerable road users. Brake urges employers to not only ensure drivers are obeying the law by not using hand-held mobile phones and sticking to speed limits, but to go further and ban hands-free mobile phones, and instruct drivers to slow to 20mph (32km/h) around homes, schools and shops.

The Brake Pledge is a tool to help managers educate drivers, by discussing key road safety risks and getting them to pledge to follow six simple rules to help prevent devastating road crashes. Find out more at www.brakepro.org/pledge.

Make the pledge

Join Brake Professional

Brake, the road safety charity, produces guidance, research and resources for fleet and road safety professionals through its Brake Professional website.
It runs a programme of events sharing best practice and research on a range of road risk topics. Find out more and join at www.brakepro.org/join-brake/fleet-managers.

End notes

1 *'79 respondents (35%) were Brake members, 149 (65%) were non-members. Responses were received from organisations in the UK and Ireland, Europe, and Australasia*

2 *Global status report on road safety, World Health Organisation, 2013*

3 *National Travel Survey 2012, Department for Transport, 2013*

4 *'Kids want to get active: thousands march for safer streets', Brake, 2014*

5 *Speed in built-up areas, Brake and Direct Line, 2013*

6 *Fitting Blind-Spot Mirrors on Existing Trucks: A Consultation Paper, European Commission, 2006*

7 *Reported road casualties Great Britain 2012, Department for Transport, 2014*

8 *Directives 2003/97/EC, 2005/27/EC and 2006/96/EC*

9 *Vehicles at work: Reversing, Health and Safety Authority, 2014*

10 *Understanding inappropriate high speed: a qualitative analysis, Department for Transport, 2008*

11 *Speed, Speed Limits and Accidents, Transport Research Laboratory, 1994*

12 *Tackling the three main killers on the road, European Transport Safety Council, 2010*

13 *The Speeding Driver: Who, How and Why? Scottish Executive, 2003*

14 *At-work drivers, Brake and Direct Line, 2012*

15 *DaCoTa factsheet on vehicle safety, European Commission, 2012*

16 *First ever Pedestrian Safety Action Plan for London', Transport for London, 2014*

17 *'First ever Pedestrian Safety Action Plan for London', Transport for London, 2014*

18 *Setting Appropriate, Safe, and Credible Speed Limits, ETSC fact sheet 7, 2010*

19 *UK Greenhouse Gas Emissions 2012, Department of Energy and Climate Change, 2014*

20 *At least five a week - evidence on the impact of physical activity and its relationship to health: a report from the Chief Medical Officer, Department of Health, 2004*

21 *Total cost of ownership average values, Athlon Car Lease, 2011*

22 *Dimensions of aberrant driver behaviour, Uppsala University, Sweden, 1998*

23 *At-work drivers, Brake and Direct Line, 2012*

24 *Role of mobile phones in motor vehicle crashes resulting in hospital attendance: a case-crossover study, University of Western Australia, 2005*

25 *Eliminating driver distractions, Brake, 2013*

26 *The impact of driver inattention on near-crash/crash risk: an analysis using the 100-car naturalistic driving study data, National Highway Traffic Safety Administration, 2006*