

Traffic Safety Education and Information Campaign Activities in the UK

Daryl Hibberd
University of Leeds, United Kingdom

1 Introduction

1.1 Population statistics

The population of the UK has grown over the past half a century and was recorded as 63,705,030 in 2013 (Figure 1)¹⁻³.

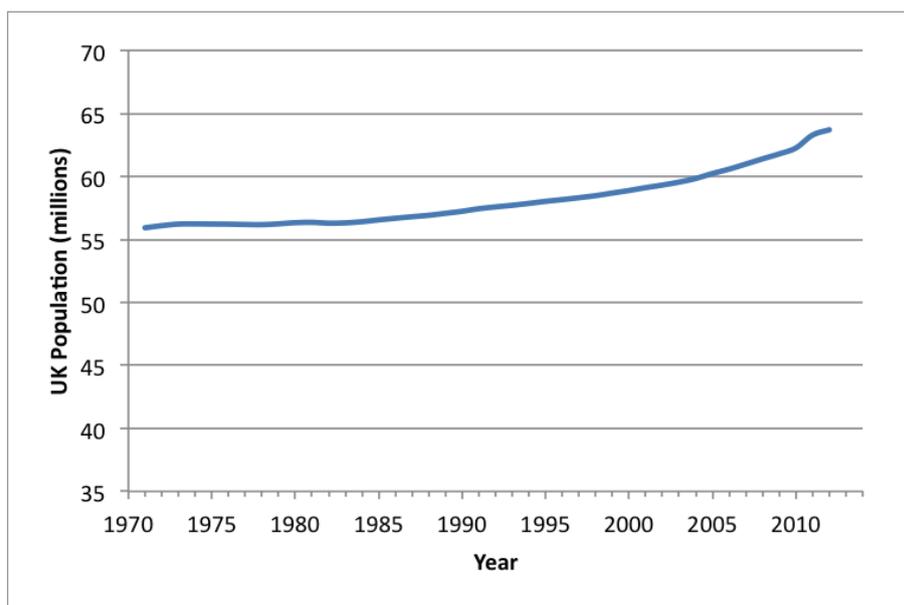


Figure 1. UK population growth (1971-2012)

1.2 Vehicle population statistics

Alongside this growth in population number, there has been a rapid increase in the volume of vehicles on the road network, with an 11.3% rise in road traffic in the past 10 years (Figure 2)⁴. This includes a growth of the passenger car fleet by 2.94 million vehicles (an 11.4% increase), a rise of 154,800 motorcycles (14.5% increase) and an extra 738,300 light goods vehicles (29.0% increase). In the same period, the numbers of heavy goods vehicles, and buses and coaches decreased slightly by 5.1% and 3.9% respectively⁴.

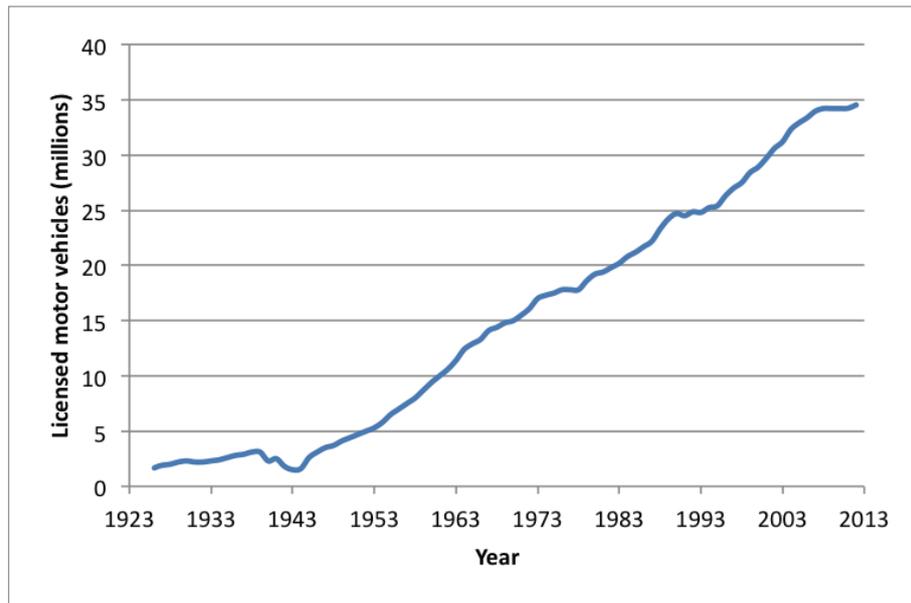


Figure 2. Licensed motor vehicles in the UK (1926-2012)

1.3 Accident statistics

The number of deaths on UK roads fell by 49.7% in the decade leading up to the year 2012 (Figure 3), and the fatality rate in the population in 2012 (28 deaths per million) was lower than a number of other countries in the same year (Japan, 41; Germany, 44; USA, 107; Finland, 47)⁵⁻⁷. The number of serious injuries on UK roads in 2012 (23,039) also fell substantially (17%) compared to the 2005-2009 average. However, in 2012, there were still 1802 fatalities on UK roads. When considered alongside the total number of injuries on UK roads in 2012 – 196,000 reported injuries in 146,000 incidents (Figure 3) – there are still substantial improvements to be made in road safety, especially considering the likelihood that numerous low severity injuries remain unreported.

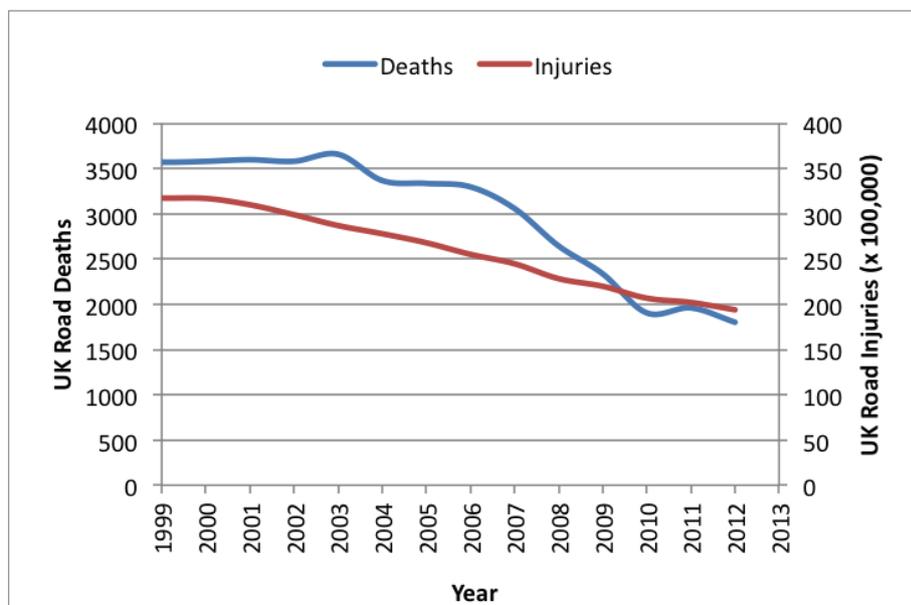


Figure 3. Deaths and injuries on UK roads (1999-2012)

The following chapter describes a range of traffic safety education and information campaigns that are targeted at lowering the fatality and injury rates on UK roads.

2 General road safety

2.1 Road safety policy

The Department for Transport is a government department whose goal is to “work with (our) agencies and partners to support the transport network that helps the UK’s businesses and gets people and goods travelling around the country”. The department has a series of diverse responsibilities, with those relating to road transport including:

- the provision of policy, guidance and funding to local authorities to help run and maintain road networks, improve passenger and freight travel, and develop new transport schemes;
- investment in, and maintenance and operation of approximately 4,300 miles of the motorway and trunk road network through the Highways Agency;
- improving English bus services;
- reducing congestion and pollution through the promotion of eco-friendly modes of transport;
- encouraging the uptake of new transport technologies; and,
- maintaining high standards of safety in road transport, with a focus on continued improvement.

The UK Government strategy for road safety is outlined in the ‘Strategic Framework for Road Safety,’ published in 2011 (and updated in 2013)⁸. In this, the need to continue the improvements made in road safety in the previous decade is identified. The strategy follows on from the Department for Transport target of a 40% reduction in road casualties between 2000-2010, as described in the previous road safety strategy – ‘Tomorrow’s Roads, Safer For Everyone’. This goal was successfully achieved⁹, however the current strategy document highlights the high annual economic welfare cost that still remains (£16 billion), and notes that casualties are an avoidable not inevitable consequence of road travel. Furthermore, particular road users groups are identified and targeted for future action, which did not see show such a significant positive change in casualty numbers in the previous decade, such as cyclists and young pedestrians in deprived areas. The UK government vision is for a further 37% reduction in road deaths by 2020, with a less conservative estimate hoping for a decrease of up to 57%. A 70% decrease in the number of killed or seriously injured (KSI) accidents is also considered to be possible. Unlike the previous road safety strategy, these figures do not represent a specific target, instead they act as an indication of what can be achieved with a dedicated and unified approach to road safety by the government, local authorities, service providers and local communities.

The UK government approach to road safety for the period 2011-2020 focuses on a number of key themes, including:

- allowing road users to easily perform the correct behaviours, by designing to suit human behaviour;
- better education and training for children, learner drivers and inexperienced drivers;
- remedial education for individuals who make errors or for low level offences, as an alternative to financial or legal penalties;
- tougher enforcement for those road users who deliberately disobey the laws of the road;
- extending enforcement beyond excessive speed to include all dangerous and careless driving offences;
- acting based on cost-benefit analyses;
- moving decisions to a local community level, including providing the means to allow citizens to make decisions on road safety; and,
- supporting and building capability by working with the road safety community on better tools to support road safety professionals.

The road safety strategy also provides more specific plans of action for each of these themes, for example:

Empowering local citizens and local service providers – Improving road safety together

- decentralizing funding and removing targets and performance frameworks to allow more flexibility and innovation when implementing road safety initiatives; and
- supporting the provision of information on road safety at a local level.

Education – Developing skills and attitudes

- development of a new vocational qualification to be administered to all newly-qualified drivers;
- development of more targeted and effective marketing based on behavioural science, to convince the novice driver of the importance of prioritizing safety throughout their driving career;
- continued improvement of learner driver and rider training, in terms of both course content and driving instructor ability; and
- increasing the availability of educational and remedial courses that can act as a more effective intervention than a fixed penalty notice.

Targeted enforcement and sanctions

- introducing a fixed penalty offence for careless driving to improve the ability of the police to deal with problems efficiently;
- adjust the size of fixed penalty notices for traffic offences, including uninsured driving to fit with other fixed penalty notices; and,
- improving drink and drug driving enforcement, including removing the opportunity for secondary blood or urine tests for drink drivers who fail a roadside breath test by a given percentage, and increasing the availability of roadside drink and drug-driving testing apparatus.

The THINK! Campaign is a coordinated series of road safety campaigns run by the UK Department for Transport, covering diverse road safety topics such as: cycling, drink and drug driving, fatigue, mobile phone use, motorcycling, speed, seatbelt use, young road users, and animals on the roadway. The campaign uses various methods to disseminate messages including media advertisements (television and radio), educational materials for school children (including lesson plans that are targeted towards a specific age group), educational websites (including statistics, case studies, advice and information on the the social, financial, criminal and employment consequences of failures to adhere to the campaign guidance). The overall goal of this road safety campaign is to draw attention to the key themes of the aforementioned road safety strategy and to encourage safer behaviour and thus reduce the number of people killed and injured on UK roads. This objective supports the vision for improving UK road safety, which was documented in both Department for Transport publications – ‘Strategic Framework for Road Safety’ and ‘A Safer Way’⁹. Furthermore, this campaign builds on the successful casualty reduction achieved in response to – ‘Tomorrow’s Roads, Safer For Everyone’¹⁰. This chapter will reference a number of branches of the THINK! Campaign¹¹.

2.2 The law

An Act of Parliament is a law that is created after a bill is approved by the UK Parliament House of Commons and the House of Lords, and agreed by the monarch. The practical implementation of a law is performed by a government department such as the Department for Transport. The Road Traffic Act (1988) therefore has a basis in law, and provides guidance to all road users on a range of road safety topics including driving offences,

drink and drug driving, protective measures (e.g. helmets and seatbelts), safe stopping, excessive speed, traffic signs, pedestrian safety. While the Road Traffic Act is accessible to all road users, its format means that it is rarely delivered to its audience in this form. However, the information is regularly disseminated via education and awareness campaigns, as is described in more detail below.

2.3 Organisations

RoadSafe¹² is a road safety partnership (41 partners currently) launched in 2001, which brings together a collection of government representatives, road safety professionals and members of leading transport companies who develop campaigns in line with their aim of reducing road deaths. The organisation itself is a partner of the Department for Transport and looks to achieve its targets through coordinated efforts of industry, traffic engineers, public health authorities, police and road safety professionals. A series of campaigns are accessible online that promote the safe design and use of vehicles and roads by sharing knowledge, promoting good practice and encouraging innovation. There are six central themes for the campaigns: young drivers, driving for work, safer vehicles, safer roads, speed management and alcohol and drugs. The RoadSafe website frequently uses research to support its guidance messages, through leading or contributing to four vast online resources for public access e.g.

- Road Safety Observatory – access to independent road safety research for both members of the public and road safety professionals;
- Global Transport Knowledge Partnership (gTKP)
- Road Safety Toolkit – research-led information on road accident causes and advice to aid in their prevention; and,
- Road Safety Knowledge Centre – a forum in which casualty reduction professionals share their experience and expertise.

This organisation is also responsible for organising a series of road safety events on an array of topics including conferences on driving while impaired, fleet driver training, motorcycling, cycling to work schemes, young drivers, and child transport safety.

Additional organisations are discussed later in this chapter (e.g. Road Safety GB, which is directly partnered with the Department for Transport and the THINK! Campaign).

3 Young road user safety

In 2012, young people (aged 0-17 years) accounted for approximately 13% of all casualties on UK roads, and therefore represent a substantial target group for schemes trying to improve road safety. In fact, in recent years, the number of child deaths on UK roads has shown a slight increase (55 in 2010, 60 in 2011, and 61 in 2012)⁵⁻⁷.

THINK! Education is a Department for Transport campaign that provides resources for teachers, parents and pupils to educate young children (from under 5 years to 16 years) about road safety. The campaign is centred around an educational website including information and advice (such as school lesson plans and opportunities for practical implementation of these lessons) on key safety-critical scenarios. The guidance is categorised by the age group that it is most relevant to, or at the developmental stage where it is most important to learn about the topic. For example, 7-11 year old children are taught about issues such as roadside clothing (“Dress bright and be seen”), cycling safety, the use of car seats and seatbelts, and crossing the road safely (‘The Green Cross Code’). A related website entitled ‘Tales of the Road’¹³ has also been organised by the Department

for Transport, and is specifically targeted at teaching young children (6-11 years old) about the importance of good road safety, through demonstration of both good and bad behaviours. The material is delivered by animated online characters in the form of educational videos, quizzes and games, fact sheets, and certificates to reward learning. There is some overlap with this method of delivery of the Highway Code to young road users and the information provide via the THINK! Education websites, however, the delivery is more engaging for the target audience in this case. The access to the THINK! Education campaigns is highly irregular and depends on the commitment of the child's school or parents to furthering the road safety education of the child. It is encouraging that the resources are structured depending on the age-group and type of users, however there is there is substantial room for improving the structure and frequency with which this information is delivered.

Road Safety GB is a national road safety organisation, which works in partnership with the Department for Transport THINK! Campaign to develop a range of educational initiatives to encourage national debate on road safety. The organisation performs many roles including:

- contributing to consultation on road safety policy and national safety targets;
- identifying and publicising road safety issues and threats;
- encouraging cooperation and the adoption of common road safety policies amongst its member authorities, towards the goal of casualty reduction;
- providing members with information on road safety issues, through media engagement;
- providing a forum for knowledge exchange and promotion of best practise;
- encouraging companies to address accident reduction through work-based policies and initiatives for employees; and,
- contributing to road accident research.

The most likely cause of death in young people in the UK is injury resulting from road use. This is an illustration of a worldwide problem, and the reduction of road-related fatalities has been recognised by the United Nations (UN) and the World Health Organisation (WHO), as both a priority and an achievable target. The importance of this target was emphasised in the theme of the Second UN Global Road Safety Week ('pedestrian safety') and was further supported by an online photography competition ('FootPrints') - an awareness campaign launched by Road Safety GB¹⁴. The campaign highlights to young people (11-16 years old) the dangers of being a pedestrian. A competition was conducted whereby the target group for the campaign were invited to submit a photograph to 'help us remind other young people of the dangers they face – and persuade them to take more care while walking near roads'.

Road Safety Wales is an organisation that coordinates the activity of all partners attempting to reduce the road casualty rate in Wales. A seven day campaign organised by the North Wales Police used a portable driving simulator as an interactive, educational tool to show students the dangers of distractions whilst driving (e.g. peer pressure, mobile devices, in-vehicle entertainment, external distractions), the effects of drugs and alcohol, the risks of driving without a seatbelt or with excessive speed, and the dangers of careless and anti-social driving behaviour¹⁵. Road safety officers presented to the students on these key themes in addition to individuals driving the simulator.

4 Pedestrian safety

Between 2011 and 2012, the number of pedestrians killed and injured on UK roads dropped by 7% and 4% respectively. However, there were still 420 deaths and 25,218 total pedestrian casualties on UK roads in the year⁵⁻⁷. Young people under 17 years old accounted for approximately one third of the total number of casualties, thus identifying this age group as one who would benefit from road safety training and guidance. Contributory factors reported for these statistics are pedestrian distraction and the tendency of pedestrians to take the most convenient and direct route to their destination, perhaps irrespective of safety concerns.

The Kerbcraft Programme¹⁶ is a pedestrian safety programme designed to teach young (5 to 7 year old) children how to select safe places to cross the road, and how to cross safely near junctions and parked cars. The course is delivered over 18 months and involves practical training in the road environment to consolidate the learning of theories and good practice in the classroom. The National Pilot Network of Child Pedestrian Training Schemes involved the implementation and evaluation of the Kerbcraft Programme by 64 local authorities in the UK (via 115 individual 3-year schemes) between 2002 to 2007 with the intention of contributing towards the Government's Road Safety Strategy, 'Tomorrow's Roads: Safer for Everyone'. The provision of the scheme was biased towards children in deprived areas or those with higher road casualty rates, with the evaluation focusing on whether implementation of the Kerbcraft Programme more widely in the UK was likely to be feasible and beneficial. The analysis of scheme success showed a positive impact of the Kerbcraft Programme on young pedestrians' behaviour¹⁶. Young pedestrians who had experienced the training showed both immediate and long-lasting improvements in their awareness of dangers when crossing the road (e.g. stopping at the road edge, detecting movement in parked vehicles). The scheme was also proven to be cost-effective due to its use of volunteers for the majority of its delivery – the maximum cost of the scheme was less than £100 per child. Overall, the scheme received favourable feedback from the local authorities involved, with 90% continuing or planning to provide further young pedestrian training within nine months after the scheme was completed. However, funding constraints had impeded the delivery of the full Kerbcraft Programme in the majority of cases.

Safe Streets for London is a document produced by Transport for London (a local government body responsible for delivering the transport strategy and systems in London) as part of the Road Safety Action Plan for London 2020¹⁷. The report outlines plans for continuing the improvements in road user safety achieved in London, reducing the personal and financial cost of accidents on the capital's roads, and future adaptation to the changing travel patterns that result from development and encouragement to adopt more environmentally-friendly modes of transport. The action plan is supported by a series of Transport for London (TfL) awareness campaigns including one launched in 2013 entitled "Stop, Think, Live". This campaign is targeted at pedestrians and aims to educate people so as to reduce pedestrian casualties on the roads. It focuses on the dangers of crossing busy roads and uses powerfully graphic images of pedestrians who have been involved in a collision with traffic. There are concurrent campaigns attempting to reduce motorcyclist speed, improve motorcyclist behaviour at junctions, and encourage elderly pedestrians to use designated pedestrian crossings, all of which contribute to the TfL goal of reducing deaths and serious injuries on the roads of London by 40% by 2020.

5 Cyclist safety

In recent years in the UK, the injury and fatality rates for most modes of transport have fallen steadily. Pedal cyclists are the single road user group whose casualty rate has continued to rise. For example, between 2011 to 2012, there was a 10% increase in the number of cyclists killed on UK roads, compared to a 7% drop in pedestrian deaths and a 9% drop in motorcyclist and car occupant deaths⁷ (Figure 4). In the same time period, the number of reported cyclists who were seriously injured increased by 4%, despite the total number of cyclists increasing by only 1.2%. A particularly concerning statistic is the 117% rise in young child cyclist (0-15 years old) fatalities during this time.

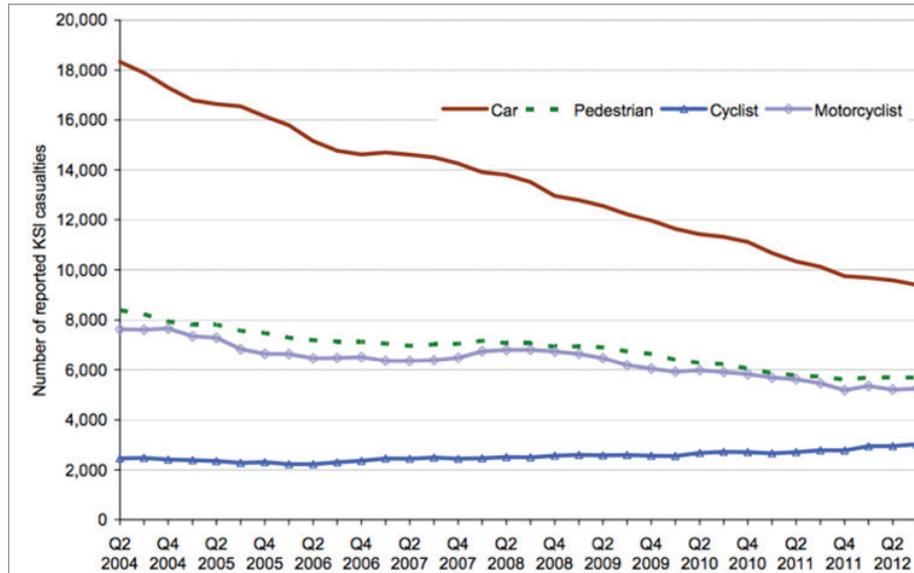


Figure 4. Number of cyclist KSI casualties on UK roads (2004-2012)

The reason for this worrying increase has been explained in terms of the overall rise in the number of cyclists on UK roads, in addition to the absence of appropriate safety infrastructure, especially at intersections (i.e. a lack of separation between cyclists and other transport modes). For example, Figure 5 shows a common scenario in which cyclists are forced to share the roadway with large high-sided vehicles with considerable driver blind spots. The inappropriate behaviour of cyclists and the inconsiderate behaviour of motorists are other common factors thought to be involved in a large proportion of incidents involving a cyclist.



Figure 5. Shared bus and cycle lane

Bikeability is a cycling proficiency scheme administered by the Department for Transport, whose objective is to provide young cyclists with the necessary skills and confidence to ride on the roads¹⁸. The scheme is divided into three levels addressing vehicle control, road knowledge and traffic handling, and journey planning. The scheme is designed to be completed by cyclists who know how to ride a bike, and while not being compulsory, schools are encouraged to provide access to the scheme for all of their pupils. The motivation for the participant is that they have the chance to earn badges and certificates as they progress. The Department of Transport aims to reach more than 1.5 million children with this training by March 2015.

The Department for Transport THINK! Campaign includes a poster-based awareness campaign designed to reduce the incidence of cyclist casualties when riding in busy, urban areas. The campaign was implemented for four weeks in 2013, in five major UK cities that were identified for their high rate of accidents involving cyclists. The campaign website also provides links to resources providing additional safety tips for cyclists and guidance on route planning and how to improve their visibility through the use of lights and high-visibility clothing. An additional awareness campaign highlights the need for drivers and cyclists to be considerate of each other on the roads ('Let's Look Out For Each Other'). The statistics show that 92% of incidents involving a cyclist also involve another vehicle, hence the focus on the relationship between cyclists and other road users. The campaign in conjunction with Transport for London advises drivers to look out for cyclists when turning or alighting their vehicle, and advises cyclists to ride centrally on narrow roads and to pass stationary cars while allowing room for car occupants to open their doors¹⁹.

6 Motorcyclist safety

Motorcyclists are approximately 35 times more likely to be killed in an accident than car occupants, per mile travelled. A worrying statistic shows that 30 motorcyclists are injured or killed on UK roads each day at junctions, with 328 reported fatalities in 2012²⁰. The number of motorcycles on UK roads rose steadily from 1996-2006 (Figure 6). Following a concerning rise in the number of motorcyclist fatalities on UK roads between 1996-2003, peaking at 693 deaths per year (Figure 7)⁵, an investigation was conducted into the increasing number of accidents involving motorcyclists over 30 years old²¹.

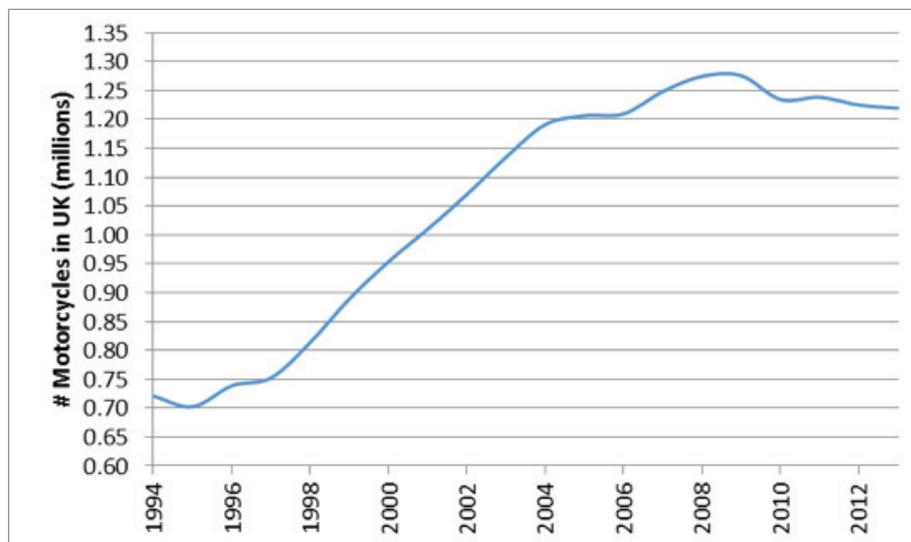


Figure 6. Number of motorcycles on UK roads

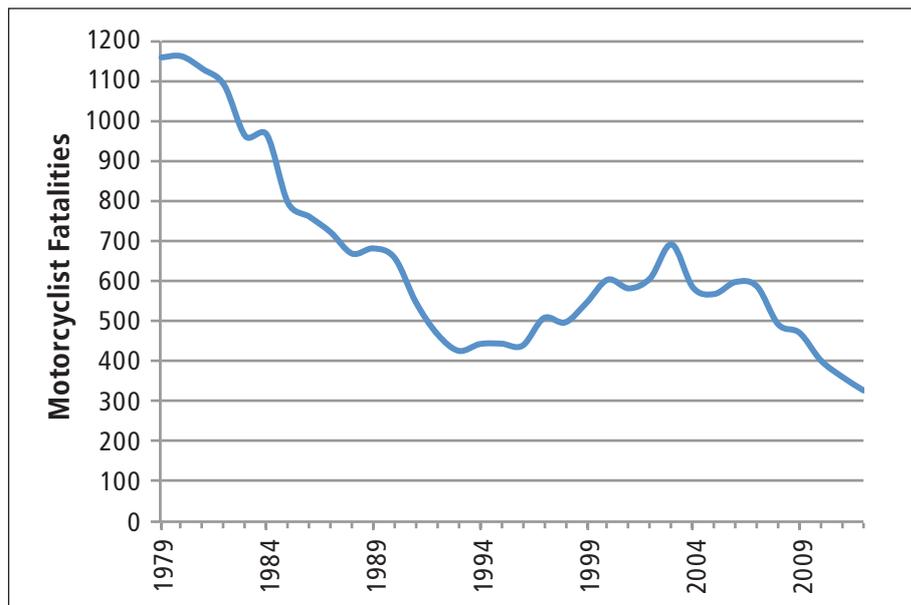


Figure 7. UK motorcyclist fatalities (1979-2012)

It was found that novice or returning motorcyclists (i.e. those motorcyclists using this mode of transport after a prolonged break during adulthood, e.g. hobby riders) were a particular problem, especially when combined with the risk-taking behaviours often associated with motorcyclists who tend to use their vehicle for leisure. The recommendations of the report included campaigns to discourage inappropriate speed and to reduce the appeal of dangerous and risky behaviours. The Rider Intervention and Developing Experience (RIDE) course is an intervention scheme similar to those provided by the Association of Chief Police Officers (ACPO) for offending car drivers²². This course is an educational alternative to prosecution for those motorcyclists whose dangerous riding has been detected by the police. The course is focused on discouraging the use of motorcycles for thrill or sensation-seeking, and thus aims to tackle anti-social or careless driving behaviours. The Department for Transport also offers a rider enhancement scheme, whereby riders are provided with a skills assessment and training before being certified as competence for riding on UK roads.

The report listed above²¹ also identified the need for drivers of other vehicles to be made aware of the presence of motorcyclists and the potentially fatal consequences of a collision between a motorcycle and a larger vehicle. The Department for Transport campaign ('Think Bike, Think Biker') encourages drivers to be more vigilant about the possibility of motorcyclists, focusing on the need to check their surroundings (including blind spots) more frequently and carefully, especially at junctions, during lane changes and while parking. The campaign has an emotive tone, with drivers asked to consider their actions upon the rider of the motorcycle, rather than simply the vehicle itself. This campaign is particularly prominent during the summer months when the number of motorcyclists on the roads increases.

The THINK! campaign also has a parallel strand which focuses on the motorcyclist group²⁰. Again, educational videos, advice and statistics are provided to educate the motorcyclist on how to ride in a safe manner, with particular focus on the need to wear the appropriate safety clothing (e.g. a helmet and high-visibility clothing) and the importance of expecting the unexpected including unpredictable driver behaviour or road conditions ('Look, react, stay in control')

7 Newly-qualified drivers

The over-representation of young, novice drivers in road accidents is a frequently cited problem that imposes a huge human and financial cost on the road transport system. A number of factors contribute to the higher accident rate in novice drivers, notably a lack of experience of challenging traffic situations, a higher incidence of driving whilst impaired (i.e. through alcohol, drugs, fatigue or distraction), and neuropsychological immaturity in younger drivers. An assessment of the effectiveness of various countermeasures suggested three methods for ameliorating the issue: education and training, Graduated Driver Licensing (GDL), and the Road Traffic (New Drivers) Act (1995)²³.

An example of an educational approach to improving novice driver accident rates is the Pass Plus scheme²⁴; an optional programme of driving lessons that is available to all qualified drivers, targeted specifically at those drivers who have recently passed their test. The course involves six hours of learning, in which drivers are given practical and theoretical training to develop their skills relating to urban and rural driving, driving in difficult weather conditions, night-time driving and driving on motorways and dual-carriageways. The intention of the organising body (the Driving Standards Agency, DSA) is to educate drivers further about challenging driving situations, thus achieving improvements in driver safety through enhanced knowledge, alertness and anticipation of traffic situations. The course can cost between £100-160, which can be a barrier to participation immediately after the completion of driver licensing. As a result, in addition to improving their driving ability and therefore their safety, drivers can be offered incentives to take part. In certain regions, local councils offer incentives for taking part in the course, while car insurance providers take a favourable view of participation when setting insurance premiums, with cost savings of up to £400 reported. The successful completion of the course requires drivers to reach a pre-defined standard. A survey of previous participants found that nine out of ten drivers rated the course positively and would recommend it, with eight out of ten drivers experiencing an improvement in their safety, confidence and driving ability.

Graduated Driver Licensing Schemes have been implemented and shown to be effective in a number of countries (e.g. Australia). However, attempts to implement such a scheme in the UK have proven unsuccessful, in spite of the specific reference to such a post-test vocational qualification in the 'Strategic Framework for Road Safety' document. In this, the need for an accredited scheme, developed with the assistance of driver trainers, insurers and young drivers was identified as a means to provide drivers with the 'necessary attitudes and experience to be safe and responsible road users', such as promoting a safety-focussed driving style, learning to anticipate driving events, being considerate of other road users, and driving in a variety of different contexts (e.g. variable road types and conditions). This shares a lot of similarity to the content of the optional Pass Plus course, but in this case, the lessons would be mandatory.

The Graduated Driving Licence Scheme Bill (HC Bill 22) proposed an amendment to the Road Traffic Act 1988. It was suggested that newly-qualified drivers should be placed on a one-year probation period after passing the driving test, in which time they must not carry more than one passenger, nor exceed a blood alcohol level greater than 5 milligrams per 100 millilitres of breath, nor accumulate more than six penalty points on their licence. A failure to follow these restrictions would result in withdrawal of their licence and the need to pass the driving test again. The bill also proposed mandatory training courses in relation to motorway driving and night driving (similar to those optional Pass Plus courses). It has been reported that this strategic targeting of risk factors that are common to novice driver accidents has the potential to produce savings in terms of road accidents (up to 230 fewer fatalities and 4,471 fewer road casualties amongst 17-19

year olds each year) and costs (up to a £224 million saving). However, there is currently no planned second reading of this bill in the UK Parliament, House of Commons. This is perhaps a concern, given that 20% of killed and serious injury accidents on UK roads in 2012 involved a young driver, with 17-19 year olds having the highest death rate of any driver age group despite driving only 3-5% of all car miles. This over-representation in the casualty statistics requires further attention from both a research and policy perspective.

8 Driver improvement schemes

8.1 All drivers

The Royal Society for the Prevention of Accidents (ROSPA) is a road safety charity that provides a suite of driver training courses, from beginner to advanced level, with the focus on reducing accident rates, saving money and improving driver performance. The themes of the courses include driver development, familiarisation with UK roads, vehicle familiarisation, post-accident training, eco-driving, speed awareness, fleet driver training, young driver training, and road safety engineering.

Road Safety Wales also promotes a driver improvement workshop that is specifically targeted towards the older driver (over 60 years old)²⁵. Drivers are provided with information that can help them improve both their driving ability and confidence, and they are then provided with a complementary assessment of their driving by a qualified instructor.

8.2 Fleet drivers

Driver improvement schemes fall into three broad categories: initial training (e.g. Pass Plus), ongoing training, and remedial training. In the UK, commercial and passenger service vehicle drivers are required to hold a Driver Certificate of Professional Competence (CPC) to be able to perform their job. In response to a European Union Directive, the Driving Standards Agency has introduced a requirement for drivers who carry passengers or have high mileage to complete periodic training (35 hours every five years) to enhance and refresh their initial training. The drivers are provided with an online resource to monitor their progress. Since its inception in September 2008, drivers have completed the following amounts of additional training (Table 1):

Table 1. Driver uptake of periodic CPC training (Sept 2008 - July 2012):

| # Hours | 0-7 | 7-14 | 14-21 | 21-28 | 28-35 | 35+ |
|-----------|---------|---------|---------|--------|--------|-------|
| # Drivers | 129,149 | 142,606 | 141,207 | 64,468 | 57,062 | 8,806 |

8.3 Offending drivers

A penalty points framework exists, whereby drivers accumulate 'points' on their license when they are observed to drive badly by police officers or their driving behaviour leads to prosecution. The points can be gained for a wide variety of offences, with some of the most common listed below:

- Dangerous driving (3-11 pts)
- Disobeying a pedestrian crossing (3 pts)
- Exceeding the speed limit (3-6 pts)

- Driving whilst disqualified (6 pts)
- Driving without due care and attention or without reasonable consideration for other road users (3-9 pts)
- Driving with an alcohol level above the limit (3-11 points)
- Using a vehicle with defective tyres, brakes or steering (3 pts)

The points are valid for a period between 4 to 11 years depending on the offence. If a driver accumulates 12 or more points in a three year period then they can be disqualified from driving. This threshold is stricter for young drivers, so as to enforce the need for safe driver behaviour from the outset of their driving career. In this case, an individual can be disqualified from driving if they accumulate 6 or more points in their first two years. They are also required to re-take the practical and theory tests before resuming driving.

There are alternative remedial measures in place, in addition to the use of the penalty points framework. The National Driver Improvement Scheme was introduced in the 1990s to provide habitual driving offenders with an opportunity to learn how to improve their performance, rather than being punished²². In instances where drivers were found to have violated Section 3 of the Road Traffic Act (1988) ('Driving without due care and attention or reasonable consideration to other road users'), the offending individual could avoid receiving penalty points on their license by attending an educational course. It is commonly reported that drivers select this option to avoid the need to go to court (16 out of 36 participants in one scheme). There is also the impression that the scheme can improve driving skills (6 out of 36 participants), while some believed that they had no option but to take part (7 out of 36 participants). Initial assessments revealed that while there was some evidence that drivers' impression of their own driving performance improved – with fewer self-reported accidents and violations – the evidence was less convincing about an actual and sustained change to their driving performance²⁶⁻²⁷. Indeed, a critique of the scheme assessment could be that there is little formal assessment of changes in driver behaviour that result from the scheme, and that subjective feedback is relied upon. Furthermore, many drivers report that they would like the courses to include more practical lessons, despite positive feedback on the course utility and enjoyment. In almost all cases, drivers felt that the course had provided the education that it promised. In addition, there is some tentative evidence that re-offending rates are low after completion of a relevant educational course.

Subsequently, the National Speed Awareness Scheme has been born out of the National Driver Improvement Scheme. A 2010 study found that of the two million motoring offences on UK roads in 2006, 15.5% of these were speed offences²⁸. These speeding offences resulted in the issuing of a fine in 91% of cases. It was argued that potentially longer term benefits could be achieved by offering offending drivers a comprehensive educational programme instead of a simple financial punishment. The Association of Chief Police Officers National Driver Offender Retraining Scheme (ACPO NDORS) is an educational alternative to prosecution in which drivers who have committed a speeding offence can choose to take part in a speed awareness course (unless the offence occurred in a 20 miles per hour speed limit zone), at their own expense. The course started in 2006 and is organised by the National Association of Driver Intervention Providers (NADIP), with local policing authorities appointing local road safety departments or private companies to administer the courses. The aim of the course is to educate drivers about the dangers of excessive or inappropriate speed, increase their confidence and moral responsibility to adhere to speed limits, and decrease their sense of immunity from punishment for over-speeding. It is hoped that this will reduce the likelihood of re-offending and creating positive effects on their driving safety and the driving environment. The individual history of the driver does not feature in the decision about whether a driver can take part; however,

the course cannot be used as an alternative to prosecution on multiple occasions within a three year period. The content of the course varies between local authorities, but it focuses primarily on developing speed awareness through the delivery of a theory-based modular course which is accessible to all drivers (some courses also include a practical driving component). ACPO has reported positive feedback from drivers attending this course. There are similar courses available which aim to improve driver alertness. There are also organisations that provide these courses for drivers who have not committed a driving offence and voluntarily choose to improve their driving education.

9 Speed

Excessive speed is a contributory factor in a large proportion of fatal accidents, with 3,267 fatalities or serious injuries resulting from speed-related incidents in 2011. The THINK! Campaign uses its consistent format of educational messages, advice, and legal consequences of speeding offences to inform drivers of the dangers of disobeying the speed limit²⁹. There are distinct branches of the campaign targeting different types of driving behaviours, such as speeding in rural areas (i.e. do not assume low traffic means it is safe to break the speed limit), urban areas, and where young pedestrians are likely to enter the roadway ('It's 30 (mph) for a reason'). The message is also delivered through emotive videos in which a driver who has killed someone whilst speeding is shown having difficulty dealing with the consequences of their actions throughout their life.

A novel approach to the communication of speed limits has been used in some 20 mph zones, with children's drawings added to the signage to enhance the impact of the message. A range of colourful cartoons have been used to advise drivers to 'Take Care' and 'Slow Down', simultaneously alerting drivers to the action required and the road user group that their actions will be likely to impact upon.

Additional detail about remedial education measures for drivers who commit speeding offences is discussed in the section 'Driver improvement schemes'.

10 Mobile phone use

There can be up to a four-fold increase in the likelihood of being involved in a collision while driving and using a mobile phone³⁰. There is substantial evidence showing a decline in a driver's ability to detect events in their surroundings and a slowing of their reaction time³¹⁻³². The Department for Transport THINK! Campaign includes a website and educational campaign aimed at informing drivers about the dangers of using a mobile phone when driving³³. Drivers are presented with facts about the risks of using a phone, with the difficulty in detecting impairments in the driver's own performance being highlighted. This is emphasised by the use of a 'multi-tasking challenge' whereby drivers are presented with a road safety video task whilst listening to a mobile phone conversation. The intention is to test the limits of drivers' multi-tasking ability, so as to highlight the risks of engaging with a mobile phone conversation whilst driving. The law on mobile phone use – it is illegal to use a hand-held mobile phone when driving, which is punishable by a fine and driving licence points – is stated clearly as well as giving advice on how to safely use a mobile phone inside a vehicle (e.g. park safely before use). The focal point of the campaign is a series of emotive video adverts in which a driver crashes whilst on the phone to a family member or friend. These dramatizations are effective in placing some of

the responsibility for preventing a driver from using their phone on the individual that is calling the driver.

Road Safety Week is coordinated by Brake, a road safety charity, and is the biggest road safety event in the UK³⁴. The seven day event involves schools, organisations and community groups and is supported by commercial sponsors, with substantial national media coverage. The focus is on the provision of local informational campaigns to raise awareness about how road safety can be improved, and how tragedies on the road can be avoided. The event is viewed as an opportunity for road safety professionals to boost awareness and increase engagement in their work, with a website provided with full information on the event, road safety facts and event packs, and fund-raising ideas. Each year the charity selects a theme for the week (e.g. 2012: 'Slower speeds = happy people' and 2011: '2 Young 2 Die'). In 2013, the theme was 'Tune in to road safety and turn off your phone', whereby drivers were encouraged not to use their phone in the car, even when interacting with it in a hands-free manner. Local authorities also staged re-enactments of the consequences of a road accident for members of the public, for example the emergency services using cutting equipment to free a driver from a vehicle wreckage. The topic of Road Safety Week often has the potential to polarise opinion amongst policy-makers, research professionals and members of the public and thus stimulates discussion, debate and awareness of the topic. The objective of Road Safety Week is to trigger road users to consider their own actions in relation to the central theme. The charity also organises educational events and provides support for victims of road accidents and their families. Road Safety Week also aims to generate interest in the charity to encourage volunteers to take part in these roles and further disseminate the road safety message.

There is a large amount of UK road safety education surrounding other forms of in-vehicle distraction, such as the wider functions available on modern smartphones e.g. internet browsing, social media etc. The campaigns attempt to target all users of these technologies rather than vehicle drivers only. This attempts to reduce the distraction amongst pedestrians, cyclists and vehicle drivers, such that the overall effect is to improve the awareness amongst all road users of the dangers of removing their focus from the road environment. A longitudinal assessment is required to calculate the magnitude of the impact of smartphones and associated technologies on road safety. As it stands, the UK road accident database only allows for the recording of generic distraction data with little detail on the source and duration. Furthermore, this information is heavily under-reported, and thus it is difficult to assess the role that distraction plays in many road safety-related events.

11 Drink driving

The legal alcohol limit for drivers in the UK is 35 micrograms per 100 millilitres of breath or 80 milligrams per 100 millilitres of blood. This is higher than many other European countries. Although the number of alcohol-related injuries on UK roads has decreased in the past 30 years, with fatalities showing a six-fold reduction (Figure 8), there were still 9920 drink-driving relating casualties (230 fatalities) in 2011³⁶. In fact, this figure even increased to 280 fatalities in 2012 (a 17% increase), with drink driving fatalities accounting for 16% of all road deaths in the statistics for that year. It has also been reported that 55,300 people were convicted of a drink-driving offence in England and Wales in 2012. Evidently, there is still improvement to be made in reducing the number of people who drive a vehicle when intoxicated.

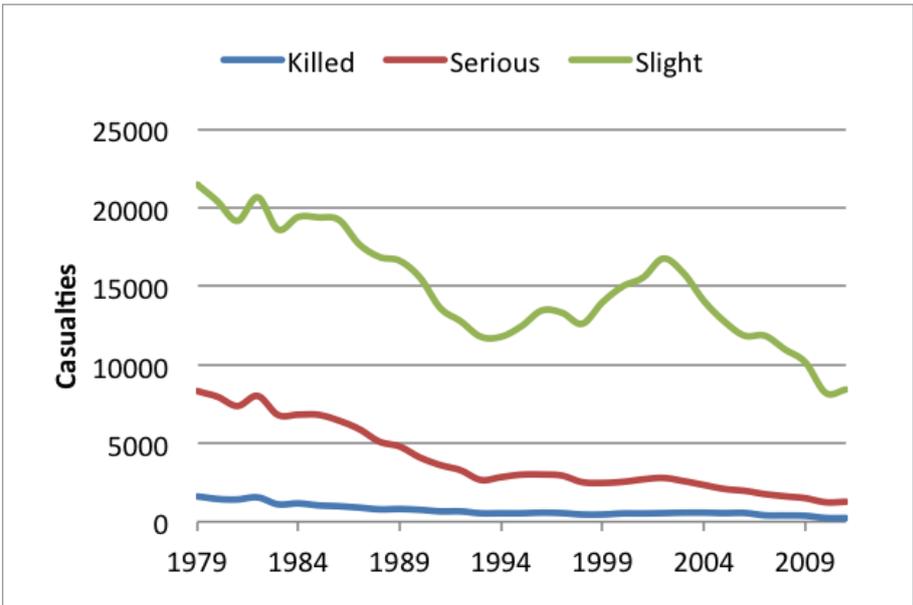


Figure 8. Casualties from accidents involving illegal blood alcohol levels

This issue is typically addressed through both enforcement and educational campaigns. An example of the former is the Summer Drink and Drug Drive Enforcement Campaign, an awareness campaign organised by the Association of Chief Police Officers. This bi-annual event uses on-road policing to find and punish those individuals (especially younger drivers) who choose to drink at a daytime event before driving their vehicle. The aim is to identify individuals who require both warning about the dangers and repercussions of drink-driving and punishment for breaking the law. There is evidence that campaigns such as this are having a positive impact – there was a 0.7% decrease in the number of drivers failing roadside breath tests and a reduction in the number of drivers failing the Field Impairment Test for drug use in 2013 relative to 2012. However, these improvements fall below the targets for the campaign.

There are a number of educational campaigns regarding the dangers of drink-driving, with one prominent organisation being the independent UK charity – Drinkaware. This organisation promotes responsible drinking and ways to challenge the prevailing drinking culture, to minimise alcohol misuse and related harm. A series of media publications and an educational website encourage drivers to be more aware of their alcohol consumption and its impacts on their driving performance by raising awareness of the alcohol content of drinks and the potentially life-altering consequences of an alcohol-related road accident. The work of this charity receives greater attention around the times of year where drivers are more likely to consider drink-driving e.g. national holidays.

There is also a branch of the THINK! Campaign that announces the dangers of drink-driving, including a strong focus on the legal reasons not to drink and drive, and the financial and criminal outcomes for those who do. The website and related radio advertisements use case studies of offending individuals to present their story about the costs of drink-driving³⁷. Two recent campaigns have highlighted the dangers of driving the morning after drinking heavily and the importance of planning how to get home after drinking i.e. using a ‘designated driver’.

12 Drug driving

The issue of drug driving has received increased attention in recent years and now benefits from a similar awareness campaign to drink driving. The Department for Transport THINK! Campaign advises drivers of the impairment that drugs can cause to their driving, in addition to information about police abilities to detect the offence and the likely punishments³⁸. The campaign centres on the use of the driver's eyes to detect the use of drugs ('Your eyes will give you away').

13 Fatigue

The Department for Transport launched the THINK! Driver Tiredness campaign as part of a wider series targeted at individuals who drive for work³⁹. A large proportion of the campaign focuses on radio advertising, so as to reach the target audience whilst they are driving, and possibly experiencing fatigue. The campaign alerts drivers to the dangers of driving when tired ('Tiredness Kills'), how to notice the onset of tiredness, and the importance of taking a break from driving every two hours. The campaign is supported via material displayed in motorway service stations and through advice delivered on variable message signs on the motorway network.

14 Seatbelt use

In 1983, compulsory seatbelt use for drivers was introduced as a law in the UK. The rate of use of seatbelts in the front seats of vehicles immediately increased after the introduction of the law, and has remained in excess of 90% since that time. The law was revised to include all adults in the rear seats in 1991, again leading to an immediate improvement in observed seat belt use in the rear of the vehicle from 10% to 40%. A more recent estimate shows that approximately 79% of rear seat passengers wear a seatbelt. The THINK! Campaign continues to reinforce the importance of wearing a seatbelt in the vehicle through online information and videos conveying the dangers of not wearing a seatbelt⁴⁰. Young drivers feature prominently in the video campaigns because 17-34 year old drivers and passengers have been identified as those with the lowest rate of seatbelt use. The website also includes a crash simulator, whereby drivers can visualise the graphic consequences of an accident that occurs if the vehicle occupants are not wearing seatbelts.

There is also remedial education (Your Belt – Your Life) available for those individuals who have been caught driving a vehicle without a seatbelt, or with unrestrained passengers. The intervention is delivered online or by workbook in England, Wales and Scotland, and via a classroom-based course in Northern Ireland.

Child passenger safety requires additional publicity due to the legal requirement for children to use a child seat – a specially designed addition to a typical car seat that is suitable for the child's weight and size, and thus provides a properly-fitted restraint⁴¹. This minimises the risk of the child being ejected from their seat if the vehicle were to be involved in a collision. The financial punishment for a driver who fails to provide a child with a suitable child seat is the same as that for an adult failing to use a seatbelt restraint (£500). The Department for Transport and the Royal Society for the Prevention of Accidents (ROSPA) provide an educational website to communicate to parents the need for a child seat, how to select and fit an appropriate seat, and how to identify a seat which adheres to the legal safety standards. RoadSafe provides similar guidance for educators and club leaders via their 'Fit and sit right' webinars.

15 Vehicle maintenance

Regular and effective vehicle maintenance can help to reduce the likelihood of vehicle accidents or the damaging effects when an incident occurs. The UK Government provides advice on vehicle maintenance via a website, which focuses on the legal requirements for a well-maintained vehicle (e.g. well-inflated tyres with sufficient tread depth, clean and unobstructed lights, indicators, number plates and windows, accurately adjusted lights, and safe storage of luggage). There are various awareness campaigns which are run to draw attention to specific parts of this guidance. For example, TyreSafe (a non-profit organisation) organise an annual campaign ('Tyre Safety Month') to improve road safety by encouraging drivers to pay more attention to the care of the tyres on their vehicle. The campaign incorporates local garages, tyre dealers and many other organisations, and uses free promotional materials including posters, leaflets, and web banners to highlight driver responsibilities for tyre maintenance and the potential legal and financial repercussions of failure to adhere to this advice.

References

1. Office for National Statistics. Mid-2012 Population Estimates: United Kingdom; estimated resident population by single year of age and sex. Fareham: Office for National Statistics (Population Estimates Unit); 8 August 2013. Report No. 1.
2. Office for National Statistics. Mid-2011 Population Estimates: United Kingdom; estimated resident population by single year of age and sex; based on the results of the 2011 census. Fareham: Office for National Statistics (Population Estimates Unit); 8 August 2013. Report No. 1.
3. Office for National Statistics. Mid-1971 to Mid-2010 Population Estimates: United Kingdom; estimated resident population for constituent countries and regions in England. Fareham: Office for National Statistics (Population Estimates Unit); 21 December 2011. Report No. 1.
4. Department for Transport. Licensed vehicles by body type, Great Britain, annually: 1994 to 2012. London: Department for Transport; 11 April 2013. Report No: VEH0102. [Online] Available from: <http://www.dft.gov.uk/statistics/series/vehicle-licensing/>. [Accessed 10 January 2014].
5. Department for Transport. Reported accidents and casualties, population, vehicle population, index of vehicle mileage, by road user type and severity, Great Britain, 1926-2012. London: Department for Transport; 26 September 2013. Report No: RAS40001. [Online] Available from: <https://www.gov.uk/government/publications/reported-road-casualties-great-britain-annual-report-2012>. [Accessed 10 January 2014].
6. Department for Transport. International comparisons of road deaths: number and rates for different road users: by selected countries: 1999-2012. London: Department for Transport; December 2013. Report: RAS52002. [Online] Available from: <https://www.gov.uk/government/organisations/department-for-transport/series/road-accidents-and-safety-statistics>. [Accessed 15 January 2014].
7. Department for Transport. Reported casualties by road user type, age and severity, Great Britain, 2012. London: Department for Transport; 27 June 2013. Report: RAS30002. [Online] Available from: <https://www.gov.uk/government/publications/reported-road-casualties-great-britain-main-results-2012>. [Accessed January 2014].
8. Department for Transport. Strategic Framework for Road Safety. London: Department for Transport; May 2011. [Online] Available from: <http://www.roadsafetyobservatory.com/Pdf/STRATEGIC%20FRAMEWORK.pdf>. [Accessed February 2014].
9. Department for Transport. A Safer Way: Consultation on Making Britain's Roads the Safest in the World. London: Department for Transport; April 2009.
10. Besley E. Beyond 2010: Looking Back and Moving Forward. London: Parliamentary Advisory Council for Transport Safety (PACTS); 2010.
11. Department for Transport. THINK! Road Safety. [Online] Available from: <http://think.direct.gov.uk/index.html>. [Accessed January-February 2014].
12. RoadSafe. A partnership in road safety. [Online] Available from: <http://www.roadsafe.com/>. [Accessed January-February 2014].

13. Department for Transport. Tales of the Road. [Online] Available from: <http://talesoftheroad.direct.gov.uk/>. [Accessed January-February 2014].
14. Road Safety GB. FootPrints. [Online] Available from: <http://roadsafetygb.org.uk/footprints/index.html>. [Accessed January 2014].
15. Road Safety Wales. Educating young drivers about road safety. [Online] Available from: <http://www.road-safetywales.org.uk/> [Accessed 24 February 2014].
16. Whelan K, Towner E, Errington G and Powell J. Evaluation of the National Network of Child Pedestrian Training Pilot Projects. London: Department for Transport; 25 March 2008. Road Safety Research Report No. 82.
17. Transport for London (TfL). Safe Streets for London: The Road Safety Action Plan for London 2020 – Working together, towards roads free from death and serious injury. London: Transport for London; June 2013. [Online] Available from: <http://www.tfl.gov.uk/assets/downloads/corporate/safe-streets-for-london.pdf>. [Accessed January 2014].
18. Department for Transport. Bikeability. [Online] Available from: <http://bikeability.dft.gov.uk/>. [Accessed January 2014].
19. Department for Transport. THINK! Cycling [Online] <http://think.direct.gov.uk/cycling.html>. [Accessed January 2014].
20. Department for Transport. THINK! Motorcycles [Online] <http://think.direct.gov.uk/motorcycles.html>. [Accessed January 2014].
21. Jamson S, Chorlton K and Conner M. The Older Motorcyclist. London: Department for Transport; January 2005. Road Safety Research Report No. 55.
22. Aspinall I. National Driver Offender Retraining Scheme (NDORS): Guidance on Eligibility Criteria for NDORS Courses. : Association of Chief Police Officers (ACPO); July 2012 [Online] Available from: <http://www.acpo.police.uk/documents/uniformed/2012/201207UONDORSvAPP.pdf>. [Accessed December 2013].
23. Kinnear N, Lloyd L, Helman S, Husband P, Scoons J, Jones S, Stradling S, McKenna F, and Broughton J. Novice drivers: Evidence Review and Evaluation. London: Transport Research Laboratory; 9 October 2013. Report No. TRL PPR673.
24. The Government Digital Service. Pass Plus. [Online] Available from: <https://www.gov.uk/pass-plus> [Accessed 15 January 2014].
25. Road Safety Wales. Free driving workshop for over 60s. [Online] Available from: <http://www.road-safety-wales.org.uk/> [Accessed 24 February 2014].
26. Conner M and Lai F. Evaluation of the effectiveness of the National Driver Improvement Scheme. London: Department for Transport; November 2005. Road Safety Research Report No. 64.
27. Burgess CNW and Webley P. Evaluating the effectiveness of the United Kingdom's National Driver Improvement Scheme. G.B. Grayson (Ed.), Behavioural research in road safety IX. Crowthorne: Transport Research Laboratory; 1999, pp. 39–54.
28. Stephenson C, Wicks J, Elliott M, and Thomson J. Monitoring Speed Awareness Courses: Baseline Data Collection. London: Department for Transport; 2 September 2010. Road Safety Research Report No.115
29. Department for Transport. THINK! Speed [Online] Available from: <http://think.direct.gov.uk/speed.html>. [Accessed January 2014].
30. Redelmeier DA and Tibshirani RJ. Association between cellular telephone calls and motor vehicle collisions. *New England Journal of Medicine* (1997), 336(7), 453-458.
31. Ishigami Y and Klein RM. Is a hands-free phone safer than a handheld phone? *Journal of Safety Research* (2009), 40(2), 157-164.
32. Alm H and Nilsson L. The effects of a mobile telephone task on driver behaviour in a car following situation. *Accident Analysis & Prevention* (1995), 27(5), 707-715.
33. Department for Transport. THINK! Mobile Phones. [Online] Available from: <http://think.direct.gov.uk/mobile-phones.html>. [Accessed January 2014].
34. Brake. Road Safety Week. [Online] Available from: <http://www.brake.org.uk/campaigns-events/take-action/road-safety-week>. [Accessed December 2013].

35. The Government Digital Service. The drink drive limit. [Online] Available from: <https://www.gov.uk/drink-drive-limit>. [Accessed December 2013].
36. Department for Transport. Reported Road Casualties in Great Britain: Estimates for accidents involving illegal alcohol levels: 2012 (provisional) and 2011 (final). London: Department for Transport; 1 August 2013. Report No: RAS51001.
37. Department for Transport. THINK! Drink Driving. [Online] Available from: <http://think.direct.gov.uk/drink-driving.html>. [Accessed January-February 2014].
38. Department for Transport. THINK! Drug Driving. [Online] Available from: <http://drugdrive.direct.gov.uk/>. [Accessed January-February 2014].
39. Department for Transport. THINK! Fatigue. [Online] Available from: <http://think.direct.gov.uk/fatigue.html>. [Accessed January 2014].
40. Department for Transport. THINK! Seatbelts. [Online] Available from: <http://think.direct.gov.uk/seatbelts.html>. [Accessed January 2014].
41. The Government Digital Service. Child car seats – The law. [Online] Available from: <https://www.gov.uk/child-car-seats-the-rules>. [Accessed February 2014].

References



Daryl Hibberd

Research Fellow, Institute for Transport Studies, University of Leeds

Dr Hibberd is a graduate of the University of Cambridge, where he studied Biological Natural Sciences (2004-2007), specialising in experimental psychology. He received his PhD, entitled 'Driver distraction: managing the timing of in-vehicle tasks to improve driver safety', from the University of Leeds in 2012. He now works as a Research Fellow at the Institute for Transport Studies at the University of Leeds, having broadened his focus beyond vehicle driver psychology, the central theme of his PhD thesis. His current research focuses on improving the safety of road users, involving work on topics such as driver distraction, pedestrian safety and accessibility, road signage assessment and design, eco-driving (the ecoDriver project), and naturalistic driving data collection and analysis (the UDRIVE project). This work has involved national and international collaboration with policymakers (Highways Agency, European Commission), research institutions, and industrial partners. Daryl has published his work in the fields of traffic safety and human factors, and has presented at a number of international conferences. He is currently supervising students in the areas of eco-driving and vehicle safety, and is a reviewer for a number of international academic journals.