

Synthesis Title: Driving for Work

Category: Drivers

Other Relevant Topics:

- Training (Drivers)
- Young Drivers (Drivers)
- Distraction (Drivers)
- Drink Driving (Drivers)
- Drug Driving (Drivers)
- Fatigue (Drivers)
- Fitness to Drive (Drivers)
- Buses, Coaches and Minibuses (Drivers)
- Lorries (Drivers)

Key facts

- An estimated one third of road traffic collisions in Britain involve someone at work, excluding commuting journeys. The human and financial costs to families, businesses and the wider community are enormous.
- For the majority of people, the most dangerous thing they do while at work is drive on the public highway (Helman et al., 2014).
- The annual risk of dying in a road collision while driving for business reasons is greater than the risk of dying as a result of all other workplace accidents.
- In 2016, almost 6,000 people were killed or seriously injured in road traffic collisions involving someone driving for work (Department for Transport (DfT), 2017).
- Although vehicles over 7.5 tonnes operate in a strongly regulated environment, there remains a relatively high collision rate in this category (DfT, 2015).
- In 2016, 61 people were killed in known fatigue-related incidents and around 8% of fatigue-related collisions involve someone driving a vehicle over 7.5 tonnes (DFT, 2017). Due to difficulties identifying fatigue as a contributory factor, the number of people involved in fatigue related road traffic collisions is likely to be higher.
- Over 50% of business drivers regularly use a phone when driving and 88% said they felt a conflict between driving for work and answering work calls (Hilsop, 2012).

Summary

- It is well established that driving for work is a common activity and is one of the most dangerous things an employee can do at work (Helman et al., 2014).
- Driving for work is not only dangerous for the driver but also other road users. Police collision data from 2016 shows that 5,936 people were killed or seriously injured in a road traffic collision involving someone driving for work (DfT, 2017).
- People driving for work (company cars, vans, LGVs, and HGVs) tend to have a higher blameworthiness in collisions than other parties involved. Speeding, observational failures, and fatigued have been identified as key collision contributory factors for this group of drivers (DfT, 2005).
- The risks of driving for work go beyond the risks associated with increased exposure. TRL found that when drivers' mileages were controlled for, people who drive for work have around 50% more collisions than those who do not (Lynn & Lockwood, 1998). Three key risk factors associated with all types of work-related driving have been identified as fatigue, time pressure and distraction (Broughton, Baughan, Pearce, & Buckle, 2003).
- Employers have a legal duty to have a Driving for Work policy for their employees and there is a strong business case for managing employees who drive for work. Businesses which do so tend to see a substantial reduction in risk and hence save on cost (Lancaster & Ward, 2002). However, in general work-related road safety management appears to lag behind general health and safety management (Helman, Buttress, & Hutchins, 2012; Helman et al., 2014).
- There is currently no national standard for work-related road safety management but many government and private organisation offer best practice guidance and advice such as Preventing Road Accidents and Injuries for the Safety of Employees (PRAISE), Driving for Better Business, and Health and Safety Executive (HSE).
- Interventions exist that aim to improve work-related road safety and include areas such as training, group discussions, publicity campaigns, and vehicle data recorders. However, a review conducted by Transport Research Laboratory (TRL) for Institution of Occupational Safety and Health (IOSH) found that there is little scientific evidence to support these interventions (Grayson & Helman, 2011).

Methodology

For the purposes of this synthesis those who drive for work are defined as employees who are expected to drive whilst at work and are either provided with a company vehicle (included those hired for work purposes) or are compensated for driving their own vehicle.

A description of the methodological approach to all of the research reviews on the Road Safety Observatory is available at <http://www.roadsafetyobservatory.com/Introduction/Methods>.

This synthesis was compiled during February to March 2013, and was later updated in April 2016. In December 2017, statistics from Reported Road Casualties Great Britain were updated to [Reported Road Casualties Great Britain 2016](#).

The steps taken to produce this review are outlined below:

Identification of relevant research

Searches were carried out on pre-defined research (and data) repositories. Search terms used to identify relevant papers included but were not limited to:

Driving for Work, At-work road safety, work-related road safety, Managing Occupational Road Risk, company car drivers

Initial review of research

This primarily involved sorting the research items based on key criteria, to ensure the most relevant and effective items went forward for inclusion in this review.

Key criteria included:

- **Relevance:** whether the research makes a valuable contribution to this synthesis, for example robust findings from a hospital-based study.
- **Provenance:** whether the research is relevant to drivers, road safety policies or road safety professionals in the UK. If the research did not originate in the UK the author and expert reviewer have applied a sense check to ensure that findings are potentially relevant and transferable to the UK.
- **Age:** Priority is given to the most up to date titles in the event of over-lap or contradiction, although older research papers are included because much of the fundamental research took place as seat belts were being developed and used.
- **Effectiveness:** whether the research shows the effectiveness of a particular road safety initiative or intervention.

Thirty pieces of research, statistical reports or policy documents associated with work-related road safety have been included in this review.

Key statistics

- Many people drive as part of their work, either full or part time. Although there is no official estimate of the numbers, results from the National Travel Survey (DfT, 2015) show that in 2014 on average 6% of drivers' trips by car or van are for business purposes. It was also found that around 22% of all self-reported vehicle miles travelled annually on Britain's roads are for work purposes (excluding commuting).
- There are an estimated 4.7 million company vehicles on the road in the UK, in addition to this around 2.1 million privately owned cars used for business purposes (Motorists' Forum, 2005).
- Lancaster and Ward (2002) conducted a survey of over 1,000 organisations of different sizes and from different sectors. They found that for one third of organisations, 10-50% of employees drove for work. In 13% of the organisation, over half of the employees drove for work. Travel by peripatetic, professional, and sales staff was the most common types of business driver and deliveries/ collection was the second most common reason for travel.
- The journey purpose data collected for vehicles at the scene of reported collisions in the UK by police officers from 2014 shows that over 42,000 drivers/riders who were involved in road collisions where someone was injured were driving for work purposes, over 15,000 of whom were personally injured. This accounted to 16% of the total road collisions. Nearly 28,000 other driver/riders were involved in road collisions when commuting to or from work, around 17,000 of whom were injured (DfT, 2015b).
- In 2012 HSE estimated from the Labour Force Survey that there were 70-100,000 non-fatal work-related road traffic collision injuries a year, with around 30-40,000 of these causing more than 3 days absence (HSE, <http://www.hse.gov.uk/statistics/pdf/feasibility.pdf>).
- In 2014 a total of 547 people were killed over 5,000 seriously injured in collisions involving someone driving for work. The human and financial costs to families, businesses and the wider community are enormous (DfT, 2015b).
- When mileage is controlled for, people who drive for business have around 50% more collisions than those people who do not (Lynn & Lockwood, 1998). However, it should be noted that this research took place over 15 years ago since the mid 1990's organisations have started to focus more on occupational road risk management (Helman et al., 2014).
- Road traffic collisions are not reportable under the Reporting of Injuries Diseases and Dangerous Occurrences Regulations (RIDDOR) only injuries that occur on work premises are included in their statistics. RIDDOR reported that in 2013/14, around one eighth of fatal work accidents involved a moving vehicle (HSE, 2014).

- In 2014, 14,043 casualties involved vans and light commercial vehicles and 6,873 involved heavy goods vehicles. (DfT, 2015b). Police data on accidents involving this type of vehicle recorded the driver as driving for work purposes in around 60% of collisions (Helman et al., 2014).
- Van drivers (although not necessarily driving for work purposes) are more likely than other vehicle types to be involved in an RTC on motorways or dual carriageways and less likely to be involved in a RTC on urban roads. They are also less likely to be involved in a collision at a junction, except for slip roads. As well as this, vans are nearly 1.5 times more likely than other vehicles to be in a collision when reversing (Road Safety Analysis, 2014).
- Van drivers show higher levels of close following, fatigue impairment and observational and manoeuvre errors as contributory factors for collisions but also show lower levels of speeding and drink/drug impairment (Road Safety Analysis, 2014).
- In 2000, the HSE estimated the costs to employers arising from "at-work" road traffic collisions to be in the region of £2.7 billion per annum (HSE, 2001). The cost for business is likely to have reduced since 2001 due to the general reduction in traffic collisions and casualties.
- Car drivers with more than 80% of their annual mileage on work-related journeys had about 50% more injury collisions than other car drivers who were otherwise similar in terms of age, sex and mileage. Drivers whose work-related journeys accounted for 80% or less of their total mileage had, on average, about 13% more collisions than otherwise similar drivers doing no work-related mileage. Drivers whose work-related journeys accounted for more than 80% of their total mileage differed from other drivers in their responses to a number of behavioural questions (Broughton et al., 2003). However, since 2003 the number of drivers who spend over 80% of their millage driving for work purposes has greatly reduced (Helman et al., 2014).
- Drivers with high proportions of work-related mileage have up to 53% more injury collisions per mile travelled than otherwise similar drivers who do no work-related mileage (Lynn & Lockwood, 1998). However, it should be noted that this research is over 15 years and there has been changes in vehicle safety and road risk management.

Research findings

Summaries of key findings are given below. Further details of the studies reviewed, including methodology and findings, and links to the reports are given in the References section.

International Comparisons

- Globally where data on the extent of the occupational road collisions is available, it is estimated to account for a significant proportion of both road and workplace fatalities and injuries. This suggests that more attention should be given to the issue by both transport and occupational safety and health-based agencies (Murray, 2007).
- In the EU, over 50% of registered cars are company registered. The highest percentage was seen in Germany at 60% and the lowest in Greece at 24%. EU survey results suggest that between 40-60% of fatal work accidents are road collisions (including road collisions whilst commuting) (DaCoTA, 2013).
- Much research on the topic for driving for work originates from Australia. Due to the differences in driving environments, culture, and regulations these works may not be relevant to Great Britain.
- The authors of the DaCoTA report suggest that Sweden and Australia are the leaders in work-related road safety.

The nature of collisions and contributory causes

- Three main risk factors have been identified for contributing to work-related driving collisions; fatigue, time pressure and in-car distractions such as mobile phones (TRL, 2003). A DfT study (O'Dolan & Stradling, 2006) found business drivers reported extra motives when driving for work such as time pressure and stress that they did not feel when driving for private reasons. Time pressure has also been observed to affect driving speeds (Cœgnet, Miller, Anceaux & Naveteur, 2013) which is a well-established collision risk factor.
- The drivers of company cars, vans/pickups and HGVs appear to have a high 'blameworthiness' ratio in their accident involvement. Collisions involving company car drivers often show excess speed as a causal factor, whereas van drivers tend to show more observational failures, and LGV drivers show more fatigue and vehicle defects as factors (Clarke, Ward, Bartle & Truman, 2009).
- The drivers of buses and coaches, taxis/minicabs, and emergency vehicles show a low 'blameworthiness' ratio in their accident involvement. Their problems seem to be primarily with the other drivers/parties with whom they share the road. While they made a variety of mistakes or errors, they were more likely to become the victim of another party's mistake or error (Clarke et al., 2009).
- About 300 people are killed each year as a result of drivers falling asleep at the wheel. About 4 in 10 tiredness-related collisions involve someone driving a commercial vehicle (Driving for Better Business).
- From police collected collision data, 2% of collisions in 2014 had 'fatigue' recorded as a contributory factor (DfT, 2015b). It is challenging for the police to determine if fatigue was a contributory factor so this figure is likely to be an underestimation.
- An analysis of UK road casualty data concluded that 17% of road collisions occurring on major trunk roads which resulted in injury or death were sleep-related (Fourie, Holmes, Bourgeois-Bougrine, Hilditch & Jackson, 2010).
- In particular, fatigue-related collisions among commercial vehicle drivers may be more prevalent because of the extended amount of time they spend on the road, the long hours that are worked and shifts that start at various times of the day and night. The need to manage the fatigue risk posed by commercial drivers is pressing because collisions which involve large goods vehicles (LGVs) are much more likely to cause injury and death than those involving most other types of vehicles (Fourie et. al, 2010).

- A small scale survey found that over 50% of business drivers use their mobile phone a lot of the time when driving with over 80% saying they use a mobile when driving at least some of the time. 88% feel a conflict between driving and making business calls at least some of the time. Of those that reported using their phone when driving, 11% do not have a hands free device (Hislop, 2012).
- It is estimated that mobile phone use is a significant factor in collisions involving those who drive for work. Research conducted by TRL has shown that phone conversations while driving impair performance and that driving performance under the influence of alcohol was significantly worse than normal driving; yet better than driving while using a phone (Burns, Parkes, Burton, Smith & Burch, 2002).
- Clarke, Ward et al (2005) DfT Road Safety Research Report No. 58 found that:
 - Eighty-eight percent of work-related collisions involved vehicles owned by a business.
 - Company car drivers showed excessive speed as a collision causation factor, while van and large goods vehicle collisions were linked to poor observational skills.
 - Drivers of company cars, vans and lorries involved in work-related road collisions appeared to have a high 'blameworthiness'.
 - Work-related collisions show the same characteristics as a general sample of all collisions. In other words, we find that work-related collisions are not fundamentally different in their causal structure to any other road collisions, except in certain defined conditions; an example would be the risks engaged in of necessity by emergency drivers.
 - Some work-related drivers, principally those driving company cars, vans or LGVs, appear to be more to blame in their collisions: these are drivers who have high mileage and are exposed to a variety of internal and external stressors. Their errors and violations did not appear markedly different from those of the general driving population; this may be due to increased exposure.
 - Those driving buses, taxis and emergency vehicles, suffer more collisions primarily caused by other road users. Their problem was therefore predominantly one of exposure to dangerous environments. This is especially true in the case of taxi and minicab drivers, whose work puts them on the road at the same time as young, reckless and intoxicated drivers, intoxicated pedestrians, and even customers that sometimes assault them.

(DfT, 2005)

Effects on businesses

- Work-related road safety affects anyone who is travelling as part of their work. This does not just affect people who are professional drivers, it affects anyone whose work takes them to different locations and therefore requires them to travel. Indeed, while professional drivers usually receive extensive training and are generally well-managed, it is the wide range of other drivers who are most at risk (Motorists Forum Report, 2005).
- Costs associated with work-related road collisions are often underestimated by employers. The overall costs are much more extensive than the vehicle and limited costs that are covered by insurance. A number of insurance companies have estimated that the full cost to you the employer might be from £8 to £36 for every pound paid on an insurance claim.
- Some items cannot be covered by insurance and the following is a list of items also effect businesses:
 - Loss of company reputation and contracts
 - Fines and costs of prosecution
 - Damage to products/ plant/ building and equipment
 - Staff down time for medical appointments/attendance at court etc.
 - Replacement staff costs and sick pay
 - Loss of production or production delays
 - Increased insurance premiums and excess
 - Excess on a claim
 - Offenders own legal fees
 - Claims from third parties
 - Accident investigation and paperwork
 - Repairs to damaged equipment
 - Alternative transport for repair duration
 - Inconvenience
 - Re-delivery
 - Management and administrative time.
 - The consequences of collisions to the self-employed and small businesses are likely to be proportionately greater than for larger businesses with more resource.

(Driving for Better Business)

Employers Duty of Care

- Employers have clear duties under the Health and Safety at Work (etc) Act 1974 and the Management of Health and Safety at Work Regulations 1999 to manage work-related health and safety risks, which will include their occupational road risks.
- Management and employees can be prosecuted for road traffic collisions involving work-related journeys, even when drivers are using their own vehicle.
- Some employers believe, incorrectly, that provided they comply with certain road traffic law requirements, e.g. company vehicles have a valid MOT certificate, and that drivers hold a valid licence, this is enough to ensure the safety of their employees, and others, when they are on the road. However, health and safety law applies to on-the-road work activities as to all work activities, and the risks should be effectively managed within a health and safety management system (HSE, Managing Work-related Road Safety 2014).
- There is no national standard for the management of road safety at work; however, there is much guidance available from government agencies and private organisations. Much of this guidance offers practical measures to reduce risks, as well as guidance on risk management processes modelled on the health and safety approach.
- ISO 39001:2012 is an international standard which specifies requirements for a road traffic safety (RTS) management system to enable an organisation that interacts with the road traffic system to reduce death and serious injuries related to road traffic collisions which it can influence.
- The requirements in ISO 39001:2012 include: development and implementation of an appropriate RTS policy; development of RTS objectives and action plans, which take into account legal and other requirements to which the organization subscribes; and information about elements and criteria related to RTS that the organisation identifies as those which it can control and those which it can influence.

How Effective?

Benefits of Good Management

- The benefits of managing work-related road safety can be considerable, no matter what the size of the organisation.
- The Motorists' Forum initiated a study in response to a request from the Secretary of State for Transport due to the area of work-related road safety often overlooked in workplace health and safety processes and public road safety initiatives. Indeed surveys suggest that in 2005 some 79% of companies had not even recognised this as a risk area. Yet it is an area where some organisations have achieved remarkable reductions in collisions through relatively simple measures. It also called for a systematic programme of outreach designed to coordinate a network of employer champions drawn from public, private and voluntary sectors who will work through employer networks and associations to deliver awareness (Driving for Better Business).
- Driving for Better Business champion companies show that benefits of managing a driving for work policy include:
 - Reduced accident losses
 - More effective vehicle use
 - Less down-time
 - Improved safety culture
 - Improved public image
 - Higher staff morale
 - Lower insurance premiums
 - Lower transport costs
 - Defence against criminal prosecutions and civil litigation
 - Improved business performance
- PRAISE¹ also identified the following benefits:
 - Reduced risk of work-related ill health and stress
 - Less need for investigation and paper work
 - Fewer missed orders and business opportunities
 - Less change of employees being banned from driving
 - Reduce staff turnover
- A survey study found that 64% of businesses had a driving policy of some kind and one third of those found that it had benefited safety (the other companies reported no effect and several reported negative effects) (Lancaster & Ward, 2002).

¹ PRAISE is a project that was set up by the European Transport Safety Council to address the safety aspects of driving for at and for work. As well as this, its aim is to advance and promote best practice and help employers secure high road safety standards for their employees.

Management best practice

- Guidance from HSE, Driving for Better Business, and PRAISE show that managing a Driving for Work policy is only effective when integrated into arrangements for managing health and safety at work. Businesses should identify their health and safety systems and consider whether they adequately cover this area of work. The main areas which need to be addressed are policy, responsibility, organisation, systems and monitoring.
- It is notable that in companies and industries where safety has become a key business priority, the management of those who drive for work is often at an advanced level and a balance has been struck between performance and safety. In such cases mechanisms for organisational learning, such as confidential incident reporting systems, have begun to be taken up in a variety of industries such as CIRAS (the rail industry confidential reporting system) (DfT, 2004).
- An analysis of 80 company vehicle accident forms identified claims management as a current strength whereas accident investigation and risk analysis was weaker. This research also found poor quality of report of vehicle collisions and a lack of process standardisation and formal auditing (DfT, 2003).
- In the construction industry, collisions with cyclists were identified as a specific challenge to work-related road risk. Work by TRL (Delmonte et. al., 2013) has resulted in a best practice recognition scheme: Construction Logistics and Cyclist Safety (CLOCS). CLOCS aims to improve work related road safety management by embedding road safety culture across the construction industry.
- The CLOCS research found that driver blind spots could be larger on construction vehicles and general haulage, road safety in the construction industry is not considered in the same way as on-site safety, and there were no common standards for the construction industry to work to manage work related road safety (Delmonte et. al., 2013).
- In 2011, Institution of Occupational Safety and Health (IOSH) commissioned TRL to conduct a review and stakeholder report into the efficacy of existing work-related road safety interventions. This research suggests that work-related road safety interventions should focus on issues such as making sure people don't drive when tired, when under pressure to reach their destination quickly, or when using devices such as mobile phones (Grayson & Helman, 2011).

- Driver training alone has been shown to have little effect (Grayson & Helman, 2011). However by altering organisational and work structures that shape these drivers' attitudes and behaviour, incidents can be reduced (Peck, 2011). Other effective intervention methods identified in the IOSH review were group discussions, incentives, and in vehicle data recorders. This work did not find any evidence to suggest that publicity and educational campaigns improve work-related road safety.
- As work-related road collisions are a substantial cause of preventable death and injury there is consensus that people should be protected from the hazards. IOSH believes that:
 - Employers should ensure they produce and effectively communicate a policy for the management of work-related road safety with their staff.
 - Road safety policies should cover suitable and properly maintained vehicles; driver suitability, fitness and training; and realistic timescales for journeys, to prevent stress or pressure to take risks.
 - Journeys should be properly planned to avoid undue fatigue and plans reassessed if weather conditions deteriorate.
 - Employers need to control the risks from 'driver distraction' and include this in their policy e.g. prohibit activities like phone-use and eating while driving.
 - Managers should consider alternatives to driving, for example train travel or video- and tele-conferencing.
 - Employees should also be encouraged to inform employers of any serious near-misses on the road, so that lessons can be shared.
- Although IOSH found that many businesses see immediate and lasting effect from sound management interventions, there was a need for more robust and scientific evaluation studies in this field to determine the exact effect of any specific intervention.
- Telematics has been found to show beneficial results in terms of increasing safety for young drivers who drive for work. A report by TRL also concluded that telematics offers better prospects for work-related driving safety than more behavioural or managerial approaches (Helman et al., 2014).

- General advice from organisations and businesses which promote good management of those who drive for work recommends four key areas need to be addressed by employers:
 - **Vehicles**

An employer of someone who drives a vehicle for work, including private vehicles owned by the employee, has a responsibility to ensure that the vehicle fits the purpose for which it is used. It is important that the vehicle is safe and in fit condition and that there is required safety equipment properly fitted and maintained. These basic requirements, along with others below, have been found by employers to help reduce the risk to employees who are driving as part of their job.
 - **Journeys**

Journey planning and scheduling is essential in ensuring the safety of employees who drive for work. Investing time in ensuring that journey planning is implemented as a component of DfW policy, will ensure that where possible, routes are planned thoroughly, schedules are realistic, and sufficient time is allocated to complete journeys safely.
 - **Drivers**

An employer needs to be satisfied that drivers are competent and capable of doing their work in a way that is safe for them. Employers need to be satisfied that employees are properly trained.
 - **Management**

The Health and Safety Act 1974 requires employers to ensure, so far as reasonably practicable, the health and safety of all employees while at work, including whilst on the public road network. They also have a responsibility to ensure that others are not put at risk by driving for work activities. They need to carry out assessments of the risks to the health and safety of their employees, while they are at work, and to other people who may be affected by their work activities.

The management of occupational road risk is not as 'mainstream' as the management of general health and safety despite driving for work being a high risk activity. There is also a lack of quality evaluation of work-related road safety interventions (Helman et al., 2014).

Government leadership, business partnerships, good data, and the management of key risk through the supply chain are seen to be enablers of good work-related road risk management. Key barriers of occupational road risk management experienced by businesses are difficulties monitoring risks, weak political leadership, and the current regulation and enforcement practices (Helman, et al., 2014).

A wide range of advice is available from Royal Society for the Prevention of Accidents (RoSPA), local road safety teams and many commercial organisations. It can also be accessed through the Driving for Better Business web site: www.drivingforbetterbusiness.com.

References

Title:	Safety culture and work-related road accidents
Published:	In Behavioural Research in Road Safety 2004: Fourteenth Seminar
Author:	BOMEL Limited
Link:	http://webarchive.nationalarchives.gov.uk/20100209093826/http://www.dft.gov.uk/pgr/roadsafety/research/behavioural/fourteenthseminar/viouralresearchinroadsaf4685.pdf
Free/priced:	Free
Objectives:	To identify the areas where improvements would be most effective in the management of work-related driving risk.
Methodology:	<p>The research involved three main phases:</p> <ol style="list-style-type: none"> 1. measurement of organisational safety culture; 2. measurement of driver attitudes; and 3. collection of company and accident data. <p>Organisational safety culture was measured using the HSE's Health and Safety Climate Tool (HSCST), chosen after considerable review of the available measurement tools.</p> <p>To gain a greater understanding of the additional influences on company drivers once they leave the confines of the organisation and its inherent safety culture, drivers were also interviewed.</p> <p>The interviews were semi-structured in nature and addressed the contribution of individual factors (e.g. age, driving experience), attitudes to company driving rules and procedures, attitudes to specific driving violations, pressure and fatigue, and organisational driving safety management, including individual accident involvement, training, incident reporting and feedback.</p> <p>The companies were also asked to provide available accident and company data.</p> <p>To ensure the survey approach covered all factors deemed critical to Occupational Road Risk (ORR), both the HSCST and interview questions were mapped to the influence network model of ORR.</p>
Key Findings:	<p>DfT, companies and other stakeholders should consider aspects of safety culture when addressing work-related road safety issues, in particular, training, safety culture and work-related road collisions, procedures, planning, incident management/feedback, management/supervision and safety communications.</p> <p>Companies should be aware that by improving safety culture they can improve the safety attitudes of drivers remote from the fixed workplace and that this in turn is likely to influence road accident involvement.</p>

	<p>Companies should consider improving incident reporting and feedback as a way to learn from driving incidents and these systems should be tailored specifically for use with road incidents.</p> <p>Companies should acknowledge that car driving carries risks as well as driving larger vehicles and that it may be of benefit to apply some LGV safety systems to the management of car driving safety.</p> <p>There should be emphasis on persuading smaller companies of the significance of ORR and the benefits to be gained from addressing the issues while at the same time appreciating that large companies may share some of the weaknesses shown by smaller firms.</p> <p>Although a range of factors may need to be assessed depending on individual companies, for LGV drivers, fatigue, planning and management/supervision should warrant consideration as should fatigue, pressure, training, incident management and communications for car drivers.</p> <p>In terms of assessing ORR, companies should look at how component parts of culture (e.g. training, procedures, planning, incident management) apply to driving safety. They should assess their own areas of weakness and strength and develop improvement measures as appropriate. Drivers should be consulted on problem areas and solutions to ensure that risk management is likely to be effective.</p> <p>In terms of how to improve safety culture and deciding which approaches to risk control might be suitable, the case studies, the influence network paths of influence and the risk control measures/approaches suggested by drivers outlined in the full summary report (Department for Transport, 2004) should be used as guidance. Based on the study findings an ORR 'toolkit' was also designed to help organisations assess and manage the risks for those who drive as part of their work (Department for Transport, 2004).</p>
Keywords:	Occupational road risk, safety culture, incident reporting.
Comments:	Comprehensive recommendations.
Format:	pdf

Title:	Work-related road accidents
Published:	TRL Report 582, 2003
Author:	Broughton, J, Baughan, C, Pearce, L, Smith, L, Buckle, G
Link:	https://trl.co.uk/reports/TRL582
Free/priced:	Free
Objectives:	To show that car drivers with more than 80% of their annual mileage on work-related journeys had about 50% more injury collisions than other car drivers who were otherwise similar in terms of age, sex and mileage.
Methodology:	<p>Questionnaires were sent to a sample of drivers of vehicles up to three years old identified from police reports of collisions that involved personal injury. It was also sent to a general sample of drivers of vehicles up to three years old. This included drivers of company-registered vehicles and drivers of privately registered vehicles (both of which may or may not do work-related mileage). This methodology allowed, for the first time, the excess risk of injury collisions arising from work-related driving to be estimated.</p> <p>Previous studies have only been able to estimate the excess liability or work-related drivers to 'all collisions' - which are dominated by damage-only collisions.</p>
Key Findings:	<p>Car drivers with more than 80% of their annual mileage on work-related journeys had about 50% more injury collisions than other car drivers who were otherwise similar in terms of age, sex and mileage.</p> <p>Drivers whose work-related journeys accounted for 80% or less of their total mileage had, on average, about 13% more collisions than otherwise similar drivers doing no work-related mileage.</p> <p>Drivers whose work-related journeys accounted for more than 80% of their total mileage differed from other drivers in their responses to a number of behavioural questions.</p> <p>In particular they were more likely to drive when fatigued, under time pressure, and when conducting distracting in-car activities like mobile phone conversations. While such differences will increase the risk of work-related driving and thus help to explain its excess accident liability, in fact the survey was not able to demonstrate this directly.</p>
Keywords:	Company car drivers, liability, fatigue, mobile phones.
Comments:	Not able to demonstrate directly if fatigue, mobile phone usage etc. causes more injury collisions, or whether it is just because the work driver spends more time in their vehicle and therefore the probability of them having an accident is greater.
Format:	pdf

Title:	How dangerous is driving with a mobile phone? Benchmarking the impairment to alcohol
Published:	TRL Report 547, 2002
Author:	Burns, PC, Parkes, A, Burton, S, Smith, RK, Burch, D
Link:	https://trl.co.uk/reports/TRL547
Free/priced:	Free
Objectives:	This study was designed to quantify the impairment from hands-free and hand-held phone conversations in relation to the decline in driving performance caused by alcohol impairment.
Methodology:	<p>The TRL Driving Simulator was used to provide a realistic driving task in a safe and controlled environment. Twenty healthy experienced drivers were tested in a balanced order on two separate occasions. The drivers were aged 21 to 45 years (mean = 32, SD = 7.8) and were split evenly by gender. Before starting the test drive, participants consumed a drink, which either contained alcohol or a similar looking and tasting placebo drink. The quantity of alcohol was determined from the participant's age and body mass using the adjusted Widmark Formula (the UK legal alcohol limit 80mg / 100ml).</p> <p>The test drive had four conditions: (1) motorway with moderate traffic, (2) car following, (3) curving road, and (4) dual carriageway with traffic lights. During each condition the drivers answered a standard set of questions and conversed with the experimenter over a mobile phone. The independent variables in this repeated measures study were normal driving, alcohol impaired driving, and driving while talking on hands-free or hand-held phone.</p>
Key Findings:	<p>A clear trend for significantly poorer driving performance (speed control and response time) when using a hand-held phone in comparison to the other conditions.</p> <p>The best performance was for normal driving without phone conversations. Hands-free was better than hand-held.</p> <p>Driving performance under the influence of alcohol was significantly worse than normal driving, yet better than driving while using a phone.</p> <p>Drivers also reported that it was easier to drive drunk than to drive while using a phone.</p> <p>The study showed that driving behaviour is impaired more during a phone conversation than by having a blood alcohol level at the UK legal limit (80mg / 100ml).</p>
Keywords:	Hand-held, drink-drive, alcohol limit.
Comments:	Comprehensive study, definitive results with sound methodology.
Format:	pdf

Title:	Work-related Road Traffic Collisions in the UK
Published:	Accident Analysis and Prevention issue 41, 2009, pages 345-351
Author:	David Clarke, Patrick Ward, Craig Bartle, and Wendy Truman
Link:	http://www.sciencedirect.com/science/article/pii/S0001457509000025
Free/priced:	Priced
Objectives:	Investigate the circumstances around road collisions involving people driving as part of their job.
Methodology:	<p>The police collect data about road traffic collisions. This data includes descriptions of the collisions, maps, photographs, statements. Using this data, over 2,000 personal injury collisions from the year 1996 to 2004 that involved someone driving for work were analysed.</p> <p>The blame worthiness of the people involved in all cases were assessed by coders. They could be coded as 'to blame', 'at least partly to blame', or 'not to blame'.</p> <p>A list of 64 items were used to describe and categorise the collisions. These items were called 'background factors'.</p>
Key findings:	<p>In general, work-related drivers were seen to be more at blame for the collisions than the other involved parties. When these results were broken down into vehicle type, it could be seen that company cars, vans/pickups, and LGVs (large goods vehicles) had higher blameworthiness ratios and emergency vehicles, buses, and taxis had lower blameworthiness ratios (so they were involved in collisions were other vehicles had the primary blame).</p> <p>Company car drivers had more collisions on slippery roads, while under the influence of alcohol, or while speeding than other vehicles driving for work.</p> <p>For LGV drivers had a higher proportion of collisions with the following background factors; close following, fatigue/illness, and handling or load related problems.</p> <p>Bus drivers showed a higher proportion of close following and signaling failure related collisions.</p> <p>Taxi drivers showed a higher proportion of deliberate recklessness and failure to currently judge spacing related collisions.</p> <p>The background factors associated with emergency vehicles were time pressure and observational failures.</p>
Key words:	Driving, work, blameworthiness,
Comments:	This method relies on police interpretation of the collision which may be inaccurate.
Format:	pdf

Title:	An in-depth study of work-related road traffic accidents
Published:	Department for Transport (DfT), Road Safety Research Report No. 58, August 2005
Author:	David D. Clarke, Pat Ward, Craig Bartle and Wendy Truman
Link:	http://webarchive.nationalarchives.gov.uk/20110509101621/http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme5/anindepthstudyofworkrelated.pdf
Free/priced:	Free
Objectives:	To show that road traffic collisions whilst at work are the single largest cause of occupational fatality in the United Kingdom.
Methodology:	<p>The method largely relies on the human interpretation of road accident case reports. Furthermore, the construction of interpretations, typologies and models has not been driven by theory in the main but has been generated primarily from the data themselves, although theoretical models are acknowledged.</p> <p>The most attention is given to the full sequential nature of the accident story in each individual case, which is where the technique of qualitative human judgement methodology proves more useful than more traditional statistical methods applied to aggregated data. It also includes a heterogeneous sample of police road accident files involving drivers and others using the roads in connection with their work.</p>
Key Findings:	<p>There were six main classes of accident-involved vehicle. These were company cars, vans/pickups, lorries – large goods vehicles (LGVs), buses – passenger carrying vehicles (PCVs), taxis/minicabs and emergency vehicles.</p> <p>Sub-groups in the remaining 12% of the sample included people driving miscellaneous vehicle types and those working in, on, or near the road.</p> <p>The drivers of company cars, vans/pickups and lorries (LGVs) all appeared to have a high ‘blameworthiness’ ratio in their accident involvement.</p> <p>Company car drivers showed excess speed as a causal factor, whereas van drivers showed more observational failures, and LGV drivers showed more fatigue and vehicle defects as factors.</p> <p>The drivers of buses (PCVs), taxis/minicabs and emergency vehicles showed a low ‘blameworthiness’ ratio in their accident involvement.</p> <p>Their problems seemed to be primarily with the other drivers/parties with whom they share the road. While they made a variety of mistakes or errors, they were more likely to become the victim of another party’s mistake or error.</p> <p>Workers on, in, or near the road seemed to come to grief through the behaviour of drivers who sometimes seemed to be aggressively asserting their right of way over pedestrians with little regard to their safety.</p>

Keywords:	Company car drivers, vans, pickups, busses, taxis, PCV, LGV, blameworthiness
Comments:	Crash report data is not comprehensive but qualitative human judgement methodology proved more useful than more traditional statistical methods.
Format:	pdf

Title:	A multiple case study of work-related road traffic collisions
Published:	In Behavioural Research in Road Safety 2005: Fifteenth Seminar, Department for Transport, 2005
Author:	David D Clarke, Pat Ward, Wendy Truman and Craig Bartle
Link:	http://webarchive.nationalarchives.gov.uk/20100202152427/http://www.dft.gov.uk/pgr/roadsafety/research/behavioural/fifteenthseninar/fifteenthseninarpdf.pdf
Free/priced:	Free
Objectives:	To analyse police reports of work-related road collisions.
Methodology:	<p>The method relied on the human interpretation of the full sequential nature of the accident story in each individual case, which is where the technique of qualitative human judgement methodology proves more useful than more traditional statistical methods applied to aggregated data. Full details of our method can be found in previous reports and papers.</p> <p>The data were entered into a FileMaker Pro database customised to handle the information and search parameters required for this project.</p> <p>Data are entered describing the relatively objective facts of each case: time of day, speed limit, class of road etc.</p> <p>A 'prose account' is also entered for each case giving a step-by-step description of the accident. These accounts give a detailed summary of the available facts, including information from witnesses that appears to be sufficiently reliable.</p> <p>A minimum set of possible explanations for each accident is recorded from a standard checklist adapted and developed from a previous study.</p> <p>The ultimate aim of the database was to build a library of analysed cases stored as a series of case studies.</p> <p>The next step was to consider simple behavioural countermeasures which could have made a substantial difference to the outcome of each accident in turn, either by preventing it or reducing its severity. A list of 23 possible behavioural strategies for avoiding typical collisions was drawn up using established texts such as Roadcraft and The Highway Code.</p>
Key Findings:	A total of 2,111 work-related road collision files were examined.

	<p>There were 1,009 (48%) of the most detailed 'A' grade type.</p> <p>There were 103 fatal collisions (4.9%) and a further 249 (11.8%) involving serious injuries to a driver/worker. There were 15 types of vehicle (including 'miscellaneous or other') entered into the database. Six classifications of vehicle were found to be the most commonly involved in work-related road traffic collisions. These were: company cars; vans/pickups, lorries (heavy goods vehicles (HGVs)/LGVs of all weights); buses (public commercial vehicles (PCVs)); taxis (including Hackney carriages and minicabs); and emergency vehicles (EVs).</p> <p>These top six vehicle categories covered over 88% of the sample as a whole. In other words, we find that work-related collisions are not fundamentally different in their causal structure to any other road collisions, except in certain tightly defined conditions - an example would be the risks engaged in of necessity by emergency drivers.</p> <p>Some work-related drivers, principally those driving company cars, vans/pickups or LGVs, appeared to be more to blame in their collisions: these are drivers who drive above average mileages and are exposed to a variety of internal and external stressors and motivations that may explain this finding. Their errors and violations did not appear markedly different from those of the general driving population; they may merely have had more opportunities for committing them. NB: The solution here may involve driver training, but consideration must also be given to altering organisational and work structures that may be shaping these drivers' attitudes and behaviour.</p> <p>Perhaps more surprisingly other work-related drivers, principally those driving buses, taxis and emergency vehicles, suffered more collisions caused primarily by other road users. Their problem was therefore predominantly one of exposure to dangerous environments. This was very marked, for example, in the case of taxi and minicab drivers, whose work puts them on the road at the same time as young, reckless and intoxicated drivers, intoxicated pedestrians, and even customers that sometimes assault them. NB: Defensive driving techniques may be a partial solution with this kind of driver, but they can only go so far in accident prevention terms if the behaviour of other road users is not also addressed.</p>
Keywords:	WRRS, vehicle type, attitudes, classification
Comments:	Results are based on human interpretation and not statistical methods.

Title:	How do time pressured drivers estimate speed and time
Published:	Accident Analysis and Prevention, issue 55, 2013, pages 211-2018
Author:	Stéphanie Cœgnet, Holly Miller, Françoise Anceaux, and Janick Naveteur
Link:	http://www.sciencedirect.com/science/article/pii/S0001457513000961
Free/priced:	Priced
Objectives:	The objective of this work was to understand the influence of time pressure on people's perceptions of speed and duration of driving episodes in a laboratory setting.
Methodology:	<p>20 adults of whom had held a driving licence for at least three years. The participants watched videos of driving from the driver's perspective under a number of different scenarios. The time pressure scenario involved the participant watching the video after being asked to imagine being the driver and that they were running late on an important journey. The non-time pressured journey involved the participant being told they were driving home where he/she had nothing particular to do after a nice walk.</p> <p>Participants estimated how fast they would have driven under the difference circumstances, how fast another car was traveling in the footage, and how long it took for 60 seconds to pass.</p>
Key findings:	<p>Time pressure significantly increased the participants' levels of arousal, reduced positive valence, and reduced the feeling of control.</p> <p>In all conditions the estimated own driving speed was greater than the estimated speed of another car in the video. This difference significantly increased in the time pressure scenario suggesting drivers travel at high speeds when under time pressure.</p>
Key words:	Time pressure, driving, speed.
Comments:	This is a laboratory study and hence may not be generalizable to real life driving conditions. Also, the time pressure was not specific to work.
Format:	pdf

Title:	Work-related road safety
Published:	Deliverable 4.8v of the EC Fp7 project DaCoTA 2013
Author:	DaCoTA
Link:	http://www.dacota-project.eu/Deliverables/Webtexts/Work-related%20road%20safety.pdf
Free/priced:	Free
Objectives:	The DaCoTA aimed to look at data from all over the EU to produce leading edge research that could be used to benefit and aid decisions within the international road safety community.
Methodology:	The team gathered and analysis and collated a range of road safety data and previous research from 30 EU countries as well as providing an overview of employer policies and management processes. The report also outlines EU policy and regulations as well as reviewing current campaigns and best practice guidance. The analysis covered injuries, contributory factors, vehicle types, economics, and the effects on business image.
Key findings:	<p>40-60% of all work-related fatalities are from road collisions.</p> <p>Professional driving is one of the highest risk occupations.</p> <p>Professional drivers also impose a large amount of risk on other road users.</p> <p>The costs of work-related road collisions are high for employees and general society.</p> <p>Limitations in the data such as in the collection of journey purpose data is a key barrier to effective road safety activity.</p> <p>Other barriers include lack of senior management commitment, poor integration between fleet safety and general health and safety, reliance on claims led procedures, inadequate collision investigation, lack of proactive responses to injury prevention, and inflexible attitudes to change.</p> <p>Management framework are fragmented or insufficiently focused on social goals to reduce road injuries and collisions.</p> <p>Both public and private sectors are becoming more focused on work-related road safety.</p>
Key words:	EU, Europe, Road, Safety, Injury, Collisions, Accidents, Management, Policy, Cost, Business
Comments:	The research is a comprehensive overview of the current statistics and activity in work-related road safety over many of the EU countries. However, it lacks a clear methodological statement meaning that the origin of some data is unclear.
Format:	pdf

Title:	Construction logistics and cyclist safety Technical report
Published:	January 2013, TRL PPR639
Author:	Delmonte, Manning, Helman, Basacik, Scoons, Chappell, Stanard, Jones, & Knight.
Link:	https://trl.co.uk/reports/PPR639
Free/priced:	Free
Objectives:	<p>To understand the risk represented by construction vehicles to cyclists compared to general haulage vehicles and what limitations are there in the data available.</p> <p>Another aim was to understand the features of the contractual arrangements, working practices, driver behaviours, and vehicle design that may contribute to the over-involvement of construction vehicles in cyclist collisions.</p> <p>The research also aimed to look at measures that could help reduce the number of fatal cyclist collisions.</p>
Methodology:	<p>Collision and exposure data were analysed to identify the collision risk with cyclists relating to construction vehicles. A literature review was completed looking at literature on HGCs and construction vehicles collisions with cyclists and literature on work being done in the UK to reduce the risk of such collisions. Safety issues that relate to vehicle routes and delivery restrictions were reviewed.</p> <p>Two vehicles, one construction the other general haulage, were scanned using lasers for comparison to investigate the direct and indirect visibility of the vehicle drivers.</p> <p>Three driver, two from construction the other general haulage, gave information on errors that drivers could make around cyclists to inform an analysis task.</p> <p>Twenty seven people from three London based construction sites and 7 people involved in general haulage were interviewed. The aim of the interviews was to understand how people and organisations perceived the issues around vulnerable road user safety. The interviews also investigated contractual practices and other business elements.</p>
Key Findings:	<p>Road risk is perceived as less important than general health and safety.</p> <p>The collision data makes it difficult to identify the industry sector of the vehicles involved in collisions, however, construction vehicles appear to be over-represented in collisions with cyclist.</p>
Key words:	TRL, Transport Research Laboratory, TfL, Transport for London, safety, bicycle, cyclist, construction, logistics, HGV, Heavy goods vehicle, lorry, collision, risk, fatality, accident
Format:	pdf

Title:	Company vehicle incident reporting and recording (CoVIR)
Published:	Department for Transport, Road Safety Research Report No. 31 April 2003
Author:	Department for Transport
Link:	http://webarchive.nationalarchives.gov.uk/20100202151803/http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme5/companyvehicleincidentreport4781
Free/priced:	Free
Objectives:	To produce a comprehensive review of company vehicle incident reporting and recording (CoVIR) systems currently employed by a range of organisations. To develop best practice recommendations for a company vehicle accident recording system that could be used throughout the UK.
Methodology:	The methodology adopted to meet these objectives included a literature review, analysis of 80 existing company vehicle accident report forms, and interviews with over 50 managers from a range of organisations, who were also requested to complete a questionnaire.
Key Findings:	Results showed: <ul style="list-style-type: none"> • The scope of current systems includes pre-accident information, at-scene information, post-accident procedures and accident analysis. • Current systems are strong on claims management, but weaker on accident investigation and analysis for risk management purposes. • Other problems included poor quality reporting, a lack of standard codes and key performance indicators (KPIs) for classifying and analysing collisions involving company vehicles, and the lack of any formalised system of auditing company performance. • For the situation to be improved, change management and implementation were identified as key barriers to overcome.
Keywords:	Investigation, risk management, company vehicle.
Comments:	Defined results and improvements needed identified.
Format:	pdf

Title:	Safety Culture and Work-Related Road Accidents:
Published:	DfT Road Safety Research Report No. 51, Department for Transport, 2004
Author:	Department for Transport
Link:	http://webarchive.nationalarchives.gov.uk/20090210013357/http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme2/safetycultureandworkrelated.pdf
Free/priced:	Free
Objectives:	<p>Approaches to studying safety culture are outlined, together with representative findings from the emerging body of empirical research work on the relationship between safety culture and accident outcomes. These include:</p> <ul style="list-style-type: none"> • The importance of management commitment to safety • Individual attitudes towards violations of rules and procedures • The importance of occupational sub-cultures, and the effects of (and barriers to) attempts at organisational learning from incidents and collisions. <p>Although safety culture has not yet been extensively studied in the context of driver behaviour, possible avenues for future research are discussed in relation to fleet safety and the possible transferability of methods and findings from the high hazard context.</p>
Methodology:	<p>Befitting its location both in the real world and in multi-faceted problems (at the intersection of people, technology, institutions and society), the study of organisational failures and safety of necessity requires a genuinely inter-disciplinary approach, spanning at the same time the practical and the academic domains. Few researchers or research teams hold the motivation or capabilities needed to achieve such a synthesis. For example, the most robust psychological attempts to ‘measure’ safety culture tend to focus upon individual attitudes and behaviour, while engineering approaches look more at the development of formal reliability and systems modelling with only limited attention to some of the complexities of the human issues involved.</p> <p>Neither of these two approaches, while highly valuable in and of themselves fully address the anthropological origins of the culture concept, its symbolic aspects, or the wider ergonomic, sociological, or political issues that bear upon the generation of collisions in organisations. On the other hand opening the Pandora’s boxes of organisational sociology and anthropology – theoretically enlightening though this can at times be – raises the thorny issue of whether culture can be ‘measured’ at all using quantitative psychometric methodologies such as questionnaires or surveys.</p>
Key Findings:	The study of safety cultures and climates presents a relatively new and expanding area of research activity.

	<p>Although safety culture has not yet been extensively studied in the context of driver behaviour, possible avenues for future research are suggested in relation to fleet safety and the transferability of methods and findings from the high hazard context.</p> <p>However, some lessons are suggested by our review of existing research on safety culture. Inevitably these issues interact with one another, but a first concerns the unit of analysis adopted. Driver behaviour research and intervention tends, for obvious reasons, to focus either upon the individual driver or engineered solutions that change the driver's environment.</p> <p>In considering fleet safety the organisation should be considered as much a part of the 'environment' as is the physical layout of roads. Accordingly, attention should focus not only upon the individual driver, but also the attitudes of company management and line supervisors (who will influence driver behaviour through their own commitment to safety).</p> <p>A hypothesis here would be that changes in fleet safety attitudes are already underway in companies and industries where safety has become a key business priority, or will be easy to instigate in such companies. Likewise, the issue of occupational sub-cultures highlights the potential for training to cover some of the softer issues, such as attitudes towards violations and the balance to be struck between performance and safety.</p> <p>Finally, mechanisms for organisational learning, such as confidential incident reporting systems, have begun to be taken up in a variety of industries. While such systems are unlikely to be appropriate to every fleet driver context, and are certainly very difficult to instigate with larger organisations they might bring considerable benefits as well as helping to underline the wider commitment to safety both across industries and within organisations that is a part of an effective safety culture.</p>
Keywords:	Driver behaviour, measurements, safety culture, organisations, attitudes.
Comments:	Measuring safety-culture is a difficult concept and is a relatively new area of research. The question was raised if it can be measured at all using quantitative psychometric methodologies.
Format:	pdf

Title:	National Travel Survey Statistics Table NTS0409: Average number of trips by purpose and main mode
Published:	Department for Transport, 2015
Author:	DfT
Link:	https://www.gov.uk/government/statistical-data-sets/nts04-purpose-of-trips
Free/priced:	Free
Objectives:	Investigate the number of trips by the journey purpose and the mode of transportation.
Methodology:	The data is drawn from the National Travel Survey, a household survey designed to provide the government with an annual source of personal travel data for England. In 2014 approximately 7,000 household and 16,000 people took part in the survey.
Key findings:	3% of all journeys (for all transport types, including walking, cycling, and railway) and 6% of those by car or van were for business purposes.
Key words:	National, travel, survey, transportation, government.
Comments:	As with all surveys, the data collected is self-reported. This means the data will potentially include biases.
Format:	Excel file

Title:	Reported Road Casualties Great Britain: 2014
Published:	Department for Transport, September 2015b
Author:	DfT
Link:	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/467465/rrcgb-2014.pdf
Free/priced:	Free
Objectives:	To present detailed statistics about the circumstances of personal injury road collisions.
Methodology:	Most of the statistics are based on data from the Stats19 database. Other data from coroners, hospitals, and traffic data are also used.
Key findings:	In 2014, 43,946 vehicles involved in personal injury collisions had a driver/rider that was driving/riding for work purposes. There were 27,775 drivers or drivers involved in personal injury collisions that were commuting at the time of the accident. 15,744 drivers/riders were injured when traveling for work, 71 of which were killed and 1,301 seriously injured. Overall, there were 49,984 casualties involved in road collisions where someone was driving or riding for work, 5,715 were killed or seriously injured.
Key words:	Government, road, statistics, police, accidents, casualties, injury.
Comments:	Journey purpose is not always reliably recorded by the police, a larger proportion are left unknown. It is likely that the statistics are underestimations of the number of collisions and casualties involving someone traveling for work.
Format:	pdf

Title:	Preventing Road Accidents and Injuries for the Safety of Employees
Published:	European Transport Safety Council
Author:	European Transport Safety Council
Link:	http://etsc.eu/projects/praise/
Free/priced:	Free
Objectives:	<p>Advance the need for work-related road safety management provide the information businesses need to have good work-related road safety management</p> <p>Raise the standard of work-related road safety in EU states promote the message the work-related road safety should also include travel to and from work</p>
Methodology:	Provide publications and events on work-related road safety management best practice.
Key words:	Safety, employees, driving, work, accidents, injury, management.
Format:	Website

Title:	Work-related road safety – A systematic review of the literature on the effectiveness of interventions TRL
Published:	Institute of Occupational Safety and Health (IOSH) 2011
Author:	G Grayson and S Helman
Link:	http://www.iosh.co.uk/roadsafety
Free/priced:	Free
Objectives:	<p>Work-related road safety interventions should focus on issues such as making sure people don't drive when tired, when under pressure to reach their destination quickly, or when using devices such as mobile phones.</p> <ul style="list-style-type: none"> • Is there enough evidence from high quality evaluations to support a definitive statement about the overall effectiveness of work-related road safety interventions? • If not, what levels of effectiveness are suggested by studies using weaker evaluations? • In either case, what can be said about the effectiveness of different types of intervention?
Methodology:	<p>The project consisted of two key stages:</p> <ul style="list-style-type: none"> • A systematic review of existing literature about approaches to managing and reducing work-related road risk • A consultation with a range of stakeholders at the beginning and end of the project. <p>The team at TRL examined the evidence from evaluations of interventions designed to reduce collisions or to change behaviours and attitudes that are known to be related to collision risk in work-related driving.</p>

	<p>The team mainly searched a database system containing some 260,000 items on transport-related research. The researchers selected 63 studies to review, including six earlier literature reviews, which had been conducted between 1999 and 2011.</p> <p>The researchers next assessed the quality of the studies to ensure that only scientifically sound studies were included – this was to make sure that their conclusions were based only on reliable evidence.</p> <p>Early in the project, the researchers found that most of the evidence in the literature could not be relied on to be robust. So they decided to expand the scope of the review to cover how the work-related road safety field has developed over time, including what is known about risk factors. In addition, they discussed the limitations of the current literature and how these might be overcome in the future.</p> <p>Consultation with stakeholders For the consultation, the researchers identified a list of 30 stakeholders and academics from a number of professions, including:</p> <ul style="list-style-type: none"> • Consultants working in the field of work-related road safety • Company fleet representatives • Insurance industry representatives • Government and policy representatives • Fleet organisation representatives. <p>Half of the stakeholders were directly involved with work-related road safety and feedback was received from 17 of the stakeholders who were approached.</p> <p>At the start of the project, the team invited a small group of the selected stakeholders to give their views on the proposed definition of work-related road safety, promising interventions and the level of evidence needed to demonstrate whether or not an intervention was effective.</p> <p>At the end of the project, stakeholders responded to a summary of the literature review. Academics and consultants were asked for general feedback, while other stakeholder groups were also asked to comment on any issues they thought had been missed in the review, and how the messages could be communicated to a wider audience.</p>
Key Findings:	All respondents in the initial consultation gave multiple examples of the types of intervention they felt had potential, with several of them specifying ‘systems-based’ or ‘multifaceted’ approaches as the most effective.

	Most of the Respondents said that a decrease in collisions or accident severity was a key outcome measure, and many also suggested that evidence of behavioural change would be useful. There was general agreement among stakeholders that the evidence base was weak.
Keywords:	Review, intervention, multifaceted, stakeholders
Comments:	A review of existing literature and stakeholder consultations provided some ideas.
Format:	pdf

Title:	Fatigue Risk Management Systems
Published:	Department for Transport, Road Safety Research Report No. 110, 2010
Author:	Carina Fourie, Alexandra Holmes, Samira Bourgeois-Bougrine, Cassie Hilditch and Paul Jackson
Link:	http://webarchive.nationalarchives.gov.uk/20121105134522/http://www.dft.gov.uk/publications/rsrr-theme3-literature-review/
Free/priced:	Free
Objectives:	<p>To improve our understanding of the evolution of FRMS as an approach to managing fatigue.</p> <p>To learn from the experiences of regulatory authorities and companies in countries that have implemented FRMS.</p> <p>To provide the Department for Transport with recommendations on how FRMS could be adopted in the UK.</p>
Methodology:	The first part of the project, reported in this publication, constitutes a review of the academic papers and other relevant literature available on FRMS, including industry reports and regulatory guidance. Part two of the project, reported separately, involves interviewing regulators, operators and researchers with experience of FRMS in order to learn firsthand about the advantages and disadvantages of FRMS.
Key Findings:	<p>This review has explored the literature available on FRMS including academic, regulatory and industry publications.</p> <p>It has established a need for better protection from fatigue risk, defined what constitutes an FRMS.</p> <p>It assessed how trials of FRMS have fared in practice, identified the potential advantages and disadvantages of FRMS.</p> <p>It demonstrated what a regulator needs to consider when contemplating the introduction of FRMS to industry.</p>
Keywords:	Fatigue risk, trials, regulator.
Comments:	Recommendations based on an analysis of existing reports.
Format:	pdf

Title:	A gap analysis of work-related road safety in the UK: Working towards a national standard
Published:	TRL and ACPO, TRL PPR 626, 2012
Author:	S Helman, S Buttress and R Hutchins
Link:	https://trl.co.uk/reports/PPR626
Free/priced:	Free
Objectives:	In the absence of a national standard for the management of work-related road risk, this project has two objectives: <ul style="list-style-type: none"> • What should a standard look like? • What role should the Police play in its development and use?
Methodology:	Interviews were held with 30 stakeholders (including 10 fleet managers) to explore these questions. Existing templates for the management of work-related road risk were also reviewed.
Key Findings:	<p>Work-related road safety is perceived as in need of improvement. There is appetite for the consistency that a national standard could bring.</p> <p>According to official road safety statistics, many hundreds of fatalities and many thousands of serious injuries result each year in Great Britain from road collisions in which someone is driving for work.</p> <p>Work-related road safety is perceived as in need of improvement.</p> <p>There is appetite for the consistency that a national standard could bring.</p> <p>Key components for the standard are suggested, including the importance of having guidance on practical measures to reduce risks, as well as guidance on risk management processes modelled on the health and safety approach.</p> <p>Two possible mechanisms by which a national standard might be developed are suggested:</p> <ul style="list-style-type: none"> • Either a standalone standard should be developed, or a practical guidance document should be developed to support the forthcoming ISO 39001. • A key role for the Police in supporting work-related road safety in the future will be in enabling information about driving offences committed while driving for work being made available to employers. In addition, the Police have the credibility and respect to engage in wide dissemination relating to the standard, and to work-related road safety in general.
Keywords:	National standard, police, guidance.
Comments:	Concludes the need for a guidance document and police support.
Format:	pdf

Title:	Strategic review of the management of occupational road risk
Published:	The Royal Society for the Prevention of Accidents (RoSPA), 2014
Author:	S Helman, N Christie, H Ward, G Grayson, E Delmonte, R Hutchins.
Link:	https://www.rosipa.com/rospaweb/docs/Advice-Services/Road-Safety/morr-strategic-review.pdf
Free/priced:	Free
Objectives:	To record the progress of occupational road risk management since 1990 and create a basis for making future recommendations and developing actions to help to sustain progress in this area.
Methodology:	A review of work-related road safety was conducted in 2011. This was updated to include key landmarks in work-related road safety since 2011. Data on work-related road collisions and fleets were also examined to provide contextual detail when looking at changes in management. Interviews with various strategic stakeholders were also conducted to provide detail on people's opinions and perceptions of current practices and their awareness of guidance. A stakeholder event also took place to share early findings and further recommendations were provided.
Key findings:	<p>Efforts have clearly been made in the last 15 years to make occupational road risk management an integral part of business practice. However, it remains to lag behind general health and safety management. As well as this, there is a limited amount of evaluation of current practices.</p> <p>The data showed room for improvement in terms of how work-related road risk data is collected and that within Stats19 there are inaccuracies in the recording of journey purposes.</p> <p>The interviews identified good data, government leadership, and partnership with business and management of risk throughout the supply chain as things that would enable better management of work-related road risk.</p> <p>The interviews also found that in smaller businesses, awareness of some guidance resources is low.</p>
Key words:	Management, road, risk, work, business, occupational, review, stakeholders, collisions, injury, accidents.
Comments:	
Format:	pdf

Title:	Hanging on the Telephone: Mobile Phone Use Patterns Among UK-Based Business Travelers on Work-Related Journeys
Published:	Transport Research Part F15, 2012, pages 101-110
Author:	Donald Hilsop
Link:	http://www.sciencedirect.com/science/article/pii/S1369847811001082
Free/priced:	Priced
Objectives:	Understand mobile phone use patterns of business travellers while driving.
Methodology:	<p>A small sample of 149 UK drivers were surveyed at a service station as well as 15 follow up interviews. Drivers were asked about demographics, work-related driving patterns, technology use patterns (such as laptop and computer usage), and mobile phone use while driving.</p> <p>The follow up interviews were semi-structures and were based on the same topics as the survey. The purpose of the interviews was to provide more contextual detail.</p>
Key findings:	<p>Around 80% of the survey respondents were male 50% of the respondents were categorised as 'serial users' of mobile phone devices when driving</p> <ul style="list-style-type: none"> • Male drivers were more likely than females to be serial users 80% of the sample felt some level o conflict between driving and answering work calls • Of the people who said they use their mobile at least some of the time when driving, 11% said they did not have use of hands free technology.
Key words :	Mobile phone, driving, business, work.
Comments:	
Format:	pdf

Title:	Driving at Work. Managing Work-Related Road Safety
Published:	HSE, 2003
Author:	HSE
Link:	http://www.hse.gov.uk/pubns/indg382.pdf
Free/priced:	Free
Objectives:	<p>This guide:</p> <ul style="list-style-type: none"> • Suggests ways to manage the risk to drivers' health and safety. • Provides practical advice on managing work-related road safety
Methodology:	<p>Provides detailed information on the following:</p> <ul style="list-style-type: none"> • Employers' legal responsibilities. • The benefits of managing work-related road safety. • How to manage work-related road safety. • Assessing risks on the road. • Evaluating the risks. • References and further Information
Key Findings:	No findings as such, just detailed, recommended conclusions and advice.
Keywords:	WWRS, legal responsibilities, risk assessment.
Comments:	This leaflet provides an in depth source of information for employers and how they manage WWRS.
Format:	pdf

Title:	Vehicle Injuries in Great Britain, 2014
Published:	Health and Safety Executive, October 2014
Author:	HSE
Link:	http://www.hse.gov.uk/statistics/causinj/moving-vehicles.pdf
Free/priced:	Free
Objectives:	To provide an overview of the injuries sustained by employees in work- related incidents that were reported to RIDDOR enforcing authorities in the financial year 2013/14. This report specifically looks at injuries sustained due to moving vehicles.
Methodology:	All injury incidents of a certain level the occurred at work must be reported by the organization to RIDDOR. Injuries incurred off site (or on the public highway) caused by moving vehicles are not reportable to RIDDOR. This analysis only includes data on injuries that occurred on work premises.
Key findings:	<p>16 people were fatally injured by a moving vehicle at work, 12.5% of all work fatalities.</p> <p>In the previous 10 year, there were around twice as many fatal injuries caused by moving vehicles.</p> <p>Non-fatal injuries caused by moving vehicles accounted for 2% of all non-fatal injuries to employees. This is similar to the results of the last 10 years.</p> <p>The riskiest industry in terms of moving vehicle injuries was water supply, sewerage, and waste management (where risk was measured using injury rate per 100,000 employees).</p>
Key words:	Vehicle, injury, moving, fatal, employee, workplace.
Comments:	It is a legal requirement to report such injuries to the RIDDOR authorities. However, this data gives no insight into injuries incurred due to moving vehicles outside of work premises.
Format:	pdf

Title:	Assessment of the feasibility of producing statistics on all work-related fatalities and injuries
Published:	HSE, unknown date
Author:	HSE
Link:	http://www.hse.gov.uk/statistics/pdf/feasibility.pdf
Free/priced:	Free
Objectives:	To investigate the feasibility of producing statistics on the total number of work-related injuries and fatalities and to also include injuries and fatalities not reportable under RIDDOR.
Methodology:	Investigation into the data available on road traffic collisions, accidents at sea, accidents in the air and injuries to cabin and flight crew, and injuries to armed forces personal. This included analysis of STATS19 data and labour force survey data,
Key Findings:	<p>Journey purpose data is underreported in the STATS19 database and the published statistics do not split out events which were work related from other collisions.</p> <p>The labour force survey offers potential source of data for non-fatal work-related road traffic injuries.</p> <p>Various statistics on injuries and accidents are published by the Marine Accident Investigation Branch (MAIB).</p> <p>Changes in legislation could lead to some overlap in events reportable under RIDDOR and those reported by the (MAIB).</p> <p>Air Accident Investigation Branch publishes statistics on incidents which could be collated into an annual statistics report. However, this would curtail staff costs and the result may not be comparable to RIDORR statistics.</p> <p>Data on cabin crew health and safety is currently not published.</p> <p>Injury and fatality statistics of MOD personnel are published.</p>
Keywords:	Statistics, Feasibility, injury, fatality, collision, work-related, Air, Sea, Armed forces.
Comments:	This is a concise summary of the injury and fatality data available with comments on limitations and opportunities.
Format:	pdf

Title:	Management of Work-related Road Safety
Published:	Scottish Executive, Central Research Unit, Development Department Research Programme Research Findings No.144, 2002
Author:	Rebecca J Lancaster and Rachel L Ward
Link: Free/priced:	http://www.scotland.gov.uk/Publications/2002/09/15363/10746 Free
Objectives:	The study had three main aims: <ul style="list-style-type: none"> • Establish the contribution of individual factors to driving behaviour and the implications for managing work-related road safety. • Establish the extent to which road safety is considered a health and safety issue in Scottish workplaces • Identify and document good practice case studies of occupational road safety policy and procedures.
Methodology:	These were achieved by: <ul style="list-style-type: none"> • Conducting a review of the international literature on individual differences and driver behaviour. • Conducting a telephone survey of a sample of Scottish workplaces (1006 organisations of varying sizes and sectors). • Identifying and visiting a number of organisations with effective occupational road safety policies and procedures.
Key Findings:	Results showed: <ul style="list-style-type: none"> • Forty-four percent of organisations indicated that less than 10% of their workforce were expected to drive as part of their job. • A third indicated between 10% and 50% had driving responsibilities • 13 % stated at least half of their workforce drove as part of their job. • 9% of organisations reported that none of their employees drove as part of their job. • Travel by peripatetic/professional/sales staff was the most typical driving activity. • The second most popular was the delivery and collection of goods; cars were the most common type of vehicle used, followed by light goods and then large goods vehicles. • Of the work-related road collisions that had occurred during the past 3 years the majority of organisations had experienced a maximum of 10 collisions – however, 3% claimed to have had 50 or more collisions.

	<ul style="list-style-type: none"> • The majority of collisions occurred during travel by peripatetic staff and delivery/collection of goods, and the most common vehicle involved in collisions was cars, followed by light goods vehicles. • Approximately two-thirds (64%) of organisations claimed to have a policy relating to safe driving procedures. • Only 2% of the sample had considered it, but not actually implemented one – the most common reason was out of concern for their staff, followed by adhering to H&S regulations, and then reducing costs. • The most common procedure adopted was driver training, followed by a written policy statement and then driver assessments. • The most common benefit was meeting a moral duty to employees and public, followed by reducing insurance premiums and improving overall performance. • A third of organisations indicated that accident prevention policies produced effective results (largely measured via the number of reports, claims, and collisions occurring) and only 5% of those implementing such a policy reported that the procedures had not worked well. • The main disadvantage was seen by a minority to be that such policies were time consuming
Keywords:	Policies, WWRS, good practice
Comments:	A thorough study with sound results.
Format:	pdf

Title:	The accidental liability of company car drivers
Published:	TRL, TRL Report 317, 1998
Author:	Lynn, P, Lockwood, CR
Link:	https://trl.co.uk/reports/TRL219
Free/priced:	Free
Objectives:	To show that company car drivers are at higher risk than ordinary drivers.
Methodology:	A postal survey of company car drivers was carried out to compare the accident liability of these drivers with data from an earlier survey of 'ordinary' drivers; 4479 usable questionnaires were returned.
Key Findings:	<p>On average, company drivers cover more than twice as many miles as ordinary drivers, and their overall reported accident frequency was 0.19 collisions per driver per year.</p> <p>A multivariate model was used to relate collisions to mileage and other variables such as age and experience of the driver. Accident frequency increase with mileage, but not in direct proportion to mileage and falls with age and experience.</p> <p>The comparison with the earlier survey showed that company car drivers have about 50% more collisions than ordinary drivers after allowing for their higher mileages.</p> <p>When the company car driver data was examined on its own, those who drove more than one car during their work had significantly fewer collisions.</p> <p>In addition there was a strong indication that those drivers who had been offered a reward for not having an accident, also had fewer collisions.</p> <p>11% of the company car drivers had taken car driver training since passing the L-test; the difference between the accident liability of drivers that had received training and those that had not (-8%) was not statistically significant.</p>
Keywords:	Company car drivers, mileage, reward, training.
Comments:	Comparative survey with sound methodology.
Format:	pdf

Title:	Promoting Global Initiatives for Occupational Road Safety: Review of Occupational Road Safety Worldwide
Published:	Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health (NIOSH), April 2007
Author:	Murray, W
Link:	http://eprints.qut.edu.au/7143/1/7143a.pdf
Free/priced:	Free
Objectives:	Occupational road safety has grown in importance in recent years as the extent of the problem has emerged, and increasing numbers of researchers, practitioners and government agencies have become interested in it. This project aimed to: <ol style="list-style-type: none"> 1. Contribute to its research program on occupational road safety. 2. Facilitate the enhancement of global workplace safety and health.
Methodology:	In meeting these aims a literature review was undertaken. Contact was then made with a range of participants from 15 countries around the world, all of whom completed a questionnaire and provided a range of other information. Two main gaps emerged in the participants group: mainland European and less developed countries. Both should be encouraged to take part in any future follow-on projects.
Key Findings:	<p>Where data on the extent of the occupational road collisions is available, it accounts for a significant proportion of both road and workplace fatalities and injuries. This suggests that more attention should be given to the issue by both transport and occupational safety and health-based agencies.</p> <p>Good quality 'purpose of journey' information should urgently be included in the road safety data collection processes in many participant countries to allow at-work collisions in smaller vehicles such as cars and vans to be identified, as well as those in larger vehicles. Based on recent experiences in the UK, this requires a detailed briefing and training program for the police officers who collect the data at the front line.</p> <p>Occupational safety and health (OSH) data and responsibility encompass on-road driving incidents in some countries, but not in others. There is a strong argument for OSH agencies to undertake more data capture, leadership and enforcement on occupational road safety, which appears to be one of the major at-work risks in many jurisdictions.</p> <p>Other data sets, including workers' compensation, insurance, coronial records and hospital admissions also hint at the scale of the problem, but there was no obvious sharing of data standards between participant countries.</p>

	<p>Currently, only limited data linkages exist, for example, between road safety statistics and hospital admissions, or between health and safety or insurance data. Better linkages via common coding and interagency collaboration would enable a more complete picture to be obtained.</p> <p>Governments themselves are one of the largest purchasers of vehicles in many regions around the world, and should be seen to lead by example in the effective and safe management of their own vehicles and drivers. Publishing highly detailed case-study based program evaluations should be a key element of this process. At present there are many public and private sector programs, but few have been effectively evaluated and documented in detail.</p> <p>An important next step should be to organise an international conference on occupational road safety that brings together researchers, policy makers, key government agencies, industry practitioners and other stakeholders to agree on definitions, share best practice and guide future actions including leadership on a larger collaborative project to be led by a well-resourced research group to explore and compare the available data and processes around the world.</p> <p>Overall, the extent on the occupational road safety problem identified suggests that focusing some time and investment of the recommendations in the report would be a very good use of road safety, OSH and business improvement research and project management resources.</p>
Keywords:	Global divide, case-studies, government, responsibility
Comments:	Definitive recommendations for improving a global standard.
Format:	pdf

Title:	Factors influencing the behaviour of people who drive at work
Published:	Behavioural Research in Road Safety 2006: Sixteenth Seminar, Department for Transport, 2006
Author:	C. O'Dolan and S. Stradling
Link:	http://webarchive.nationalarchives.gov.uk/20100209093836/http://www.dft.gov.uk/pgr/roadsafety/research/behavioural/sixteenthseminar/pdf
Free/priced:	Free
Objectives:	<p>Employers frequently fail to show a duty of care concerning their employees' business-related driving, or are uncertain about what systems they can reasonably be expected to put into place to comply with their duty of care requirements. This paper reports data collected from occupational drivers in the Strathclyde area, with the aim of gaining insight into these extra motives.</p> <p>A greater understanding of the beliefs and behaviours of drivers who are at risk of being involved in a third of road traffic collisions should serve to inform more effective road safety policies. With the possible advent of a graduated penalty system, attitudes to the current points and fine system will be of interest in those who drive for work as the security of their livelihood is most likely to be impacted by such changes.</p>
Methodology:	<p>Companies and organisations within Strathclyde were approached to take part in a survey in which their employees who drove either frequently or infrequently as part of work were asked to complete a questionnaire.</p> <p>The questionnaire comprised a number of straight answer, free text and multiple choice (rating) questions. The respondents were not required to put their name to their answers.</p> <p>Driving for work is compared to driving outside work in terms of collisions, convictions and driving behaviour. In addition, qualitative sections of the questionnaire cover drivers' attitudes to the increasing use of safety cameras in their 'place of work' – the road –and to the current enforcement system and how this, in turn, influences their speed choices.</p>
Key Findings:	<p>People who drive as part of work are more at risk of being involved in a road traffic accident than those who do not, and this is partly due to extra motives, such as time pressure, stress and thinking about work.</p> <p>Such motives are less pronounced in these individuals when driving in their own time.</p> <p>Many respondents view the complex physical and mental task of driving as a time when they can think without distractions.</p>

	<p>It is likely that this escape from a stressful office environment impacts on their driving.</p> <p>Studies show that work-related stress is related to involvement in collisions for all drivers</p> <p>Those that are on the road during working hours are therefore not only affected by the stress of driving itself but by the work they leave behind and/or take with them.</p> <p>This paper concludes that a greater understanding of the behaviour and attitude of drivers who are at risk of being involved in a third of road traffic collisions should serve to inform more effective road safety policies.</p>
Keywords:	Corporate responsibility, distractions, speed cameras, fatigue
Comments:	Future preventative measures dependent on greater understanding of drivers' behaviour and attitude.
Format:	pdf

Title:	Work-related Road Safety Task Group: preventing at-work road traffic incidents Report to Government and the Health and Safety Commission
Published:	Health and Safety Executive (HSE), 2001
Author:	Richard Dykes
Link:	http://www.hse.gov.uk/roadsafety/experience/traffic1.pdf
Free/priced:	Free
Objectives:	To show that existing health and safety law should be applied to on-the-road work activities and that employers should manage road risk in the same way as they manage other occupational health and safety risks.
Methodology:	<p>A task group established a number of smaller sub-groups to look at intelligence gathering on at-work road safety, arrangements for engaging others in this work and to examine the roles and responsibilities of enforcement bodies and how they might work more closely together. It also commissioned, through HSE, research into the quantification of at-work road traffic incidents and a study into liaison arrangements between road safety and health and safety enforcers.</p> <p>An important aspect of the work was to seek to engage as wide a range of people as possible to help us with deliberations.</p> <p>It also sought views on whether action should be taken to reduce the number of at-work road traffic incidents; whether health and safety management systems, if applied to on-the-road risk, would have an impact; issues surrounding driver competence; how to effect change; and on reporting systems and enforcement issues.</p>

Key Findings:

There should be a more rigorous application of existing health and safety at work law to on-the-road work activities, including occupational driving.

Based on their risk assessment, employers should include measures to manage at-work road safety within their existing health and safety management systems, consulting employees and their representatives as necessary. Employees should co-operate with their employer to enable them to comply with their statutory duties; and they should take reasonable care of their own health and safety and that of others affected by their actions.

Based on their risk assessment, employers should ensure that their employees are competent to drive, or work on or by roads, safely. A specific driving test for occupational drivers, beyond what is already required by law, is not recommended.

HSE should lead a public information campaign, in collaboration with DTLR and others, to alert employers that their occupational health and safety risk management systems should cover at-work road safety.

HSE, in consultation with stakeholders and as soon as possible, should develop generic guidance for employers and others on how to manage at-work road safety.

HSE should review the impact of its guidance in Spring 2004, to determine whether to recommend the production of an HSC Approved Code of Practice on the issue.

The police report form (STATS 19) should be amended at its next quinquennial review (2002) to include questions about journey purpose.

At the next review of the RIDDOR regulations, HSC/E should consider how at-work road traffic incidents involving fatalities, major and over 3-day injuries should be reported to the enforcing authorities.

The various health and safety and road safety enforcing authorities, led by HSE, should develop ways of working to investigate at-work road traffic incidents and take appropriate enforcement action; and to adopt a coordinated approach to preventive activity.

DTLR and HSE should develop a programme of research to learn more about at-work road safety issues for example on causation, the practicability and effectiveness of management interventions, human factors, costs of at-work road traffic incidents, roadside working, international and intermodal comparisons.

An appropriate standing body should be charged with taking forward the recommendations in this report and monitoring their implementation, preparing a first update on progress to Ministers and HSC in Spring 2004.

Keywords:	Employers, risk –assessment, RIDDOR, Health and Safety, HSE
Comments:	Recommendations were based on the opinions of practitioners and business managers.
Format:	pdf

Title:	Driving for Better Business
Published:	RoadSafe
Link:	http://www.drivingforbetterbusiness.com/
Free/priced:	Free
Objectives:	<p>Driving for Better Business is a safety campaign initiated by the secretary of state. It aims to employers aware of work place health and safety legislation specific to work-related travel and emphasise the need for general health and safety and work-related road risk to be applied in the same manor.</p> <p>It also aims to provide a systematic outreach programme to coordinate a group of employer champions from multiple sectors to increase awareness.</p>
Methodology:	<p>This campaign uses advocates to promote the benefits to business of effective work-related road safety management.</p> <p>The campaign website also gives case studies of good implementation of work-related road safety management and guidance on best practice.</p>
Key words:	Driving, Business, Work, Road, Safety, Management.
Comments:	
Format:	Website

Title:	Van Crashes in Great Britain: How Van Drivers Compare to All Motorists
Published :	AXA business insurance, 2014
Author:	Road Safety Analysis
Link:	http://www.axa.co.uk/uploadedFiles/Pages(1)/Insurance/Business/AXA_Van_Crash_Report.PDF
Free/priced:	Free
Objectives:	AXA Business Insurance commissioned Road Safety Analysis to analyse the circumstances of collisions involving van drivers.
Methodology:	The majority of the research was based on the Stats19 database which holds data on all reported personal injury road collisions. The analysis looked at injuries in Britain between 2008 and 2012 involving a van and compared the circumstances to those of other vehicles.
Key findings:	<p>Van driver were more likely than other motorists to be involved in collisions on motorways or dual carriage ways and less likely on urban roads.</p> <p>Van drivers are less likely to be involved in collision at junctions (not including slip roads).</p> <p>Van drivers are over represented in collisions in London, the north east, and the west midlands.</p> <p>Vans are more likely than other vehicle to be involved in collisions on weekdays. They are also more likely to collide when reversing.</p> <p>The analysis of the contributory factors to road collisions involving vans found that close following, fatigue, and observational and manoeuvre errors were more prevent in van drivers.</p> <p>Speeding and drink or drug driving were less likely to be contributory factors associated with van drivers involved in road collisions.</p>
Key words:	Van, crash, collision, circumstances.
Comments:	This data and the conclusions drawn from it include people who are driving a van for leisure or commuting purposes. No analysis on journey purpose was included in the report so it is not possible to determine the magnitude of this effect.
Format:	pdf

Title:	Improving Work Related Road Safety
Published:	The Motorists' Forum, 2005
Author:	The Motorists' Forum
Link:	http://www.drivingforbetterbusiness.com/pool/motorists-forum-report.pdf
Free/priced:	Free
Objectives:	To provide advice to the Secretary of State for Transport for advice on how employers could be encouraged to give a higher priority to road safety for those who drive cars or vans as part of their work.
Methodology:	N/A
Key Findings:	<p>On-the-road work activity is the aspect of work-related safety which receives least attention by employers with recent research showing that 79% of respondents had yet to compile a vehicle fleet risk management strategy.</p> <p>This is an area where some employers have already achieved remarkable reductions in collisions through the introduction of relatively simple measures.</p> <p>This is an area where some employers have already achieved reduction measures.</p> <p>There is a strong business case for employers to improve safety in this area.</p> <p>There is advice on good practice which will help employers achieve major improvements.</p> <p>The main areas for development include awareness and management focus.</p> <p>The study therefore recommends a number of measures to address this aspect:</p> <ul style="list-style-type: none"> • Making it clear to employers that workplace health and safety legislation applies equally to work-related travel and should be applied in the same way as in the workplace. • Support for an organisation undertaking a systematic programme of outreach designed to coordinate a network of employer champions drawn from public, private, and voluntary sectors who will work through employer networks and associations to deliver awareness. • Using government funded advertising and major events as platforms to extend awareness. • A government review of its existing guidance in this area to assess its effectiveness and market penetration.

	<ul style="list-style-type: none"> • The conclusion from the above is that by introducing simple measures companies could make cost savings of the order of hundreds of pounds per vehicle per annum, get better motivated staff and avoid the risks of prosecution or death of key staff. In essence all organisations need to do is: <ul style="list-style-type: none"> • Identify the risks associated with the typical journeys performed by staff. • Disseminate and promote a policy to staff that addresses these risks. • Give staff relevant training to make them aware of risks and give them the skills to manage them. • Monitor collisions and near misses, and use this information to improve training. • Consult and involve staff in this process.
Keywords:	Business champions, outreach programmes, business peers.
Comments:	<p>Many people from across the range of work sectors, and large and small organisations are willing to talk to business peers about their success in raising road safety standards, and the financial and other benefits to be gained. The forum recommended that there is a systematic programme of outreach; that the Government should be prepared to support the organisation required for this, with funding potentially up to £500,000 per annum, for a concentrated programme over 3 years; and that this is taken forward through an open competition.</p> <p>This has been manifested in the Driving for Better Business programme.</p>
Format:	pdf