E-DRIVER UK ANALYSIS REPORT 2018

Erasmus+ Strategic Partnership Programme Project N0: 2017-1-NL01-KA204-035240

Contents

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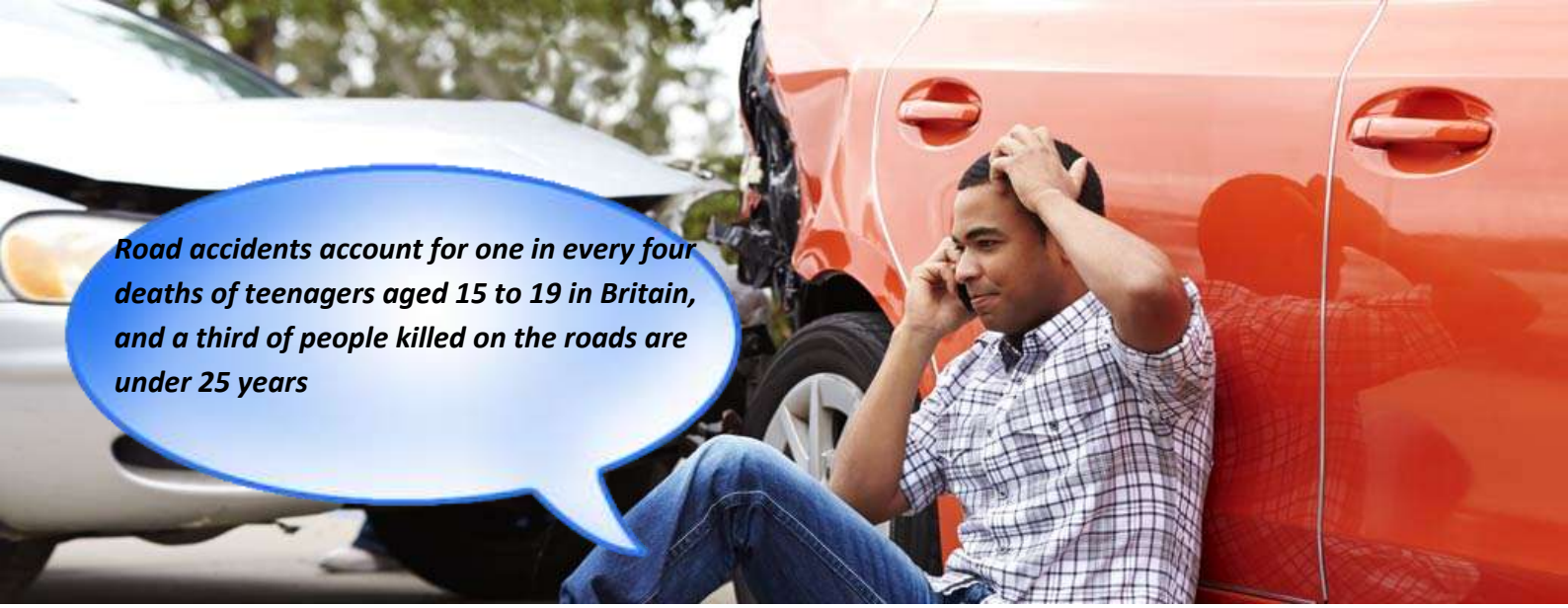
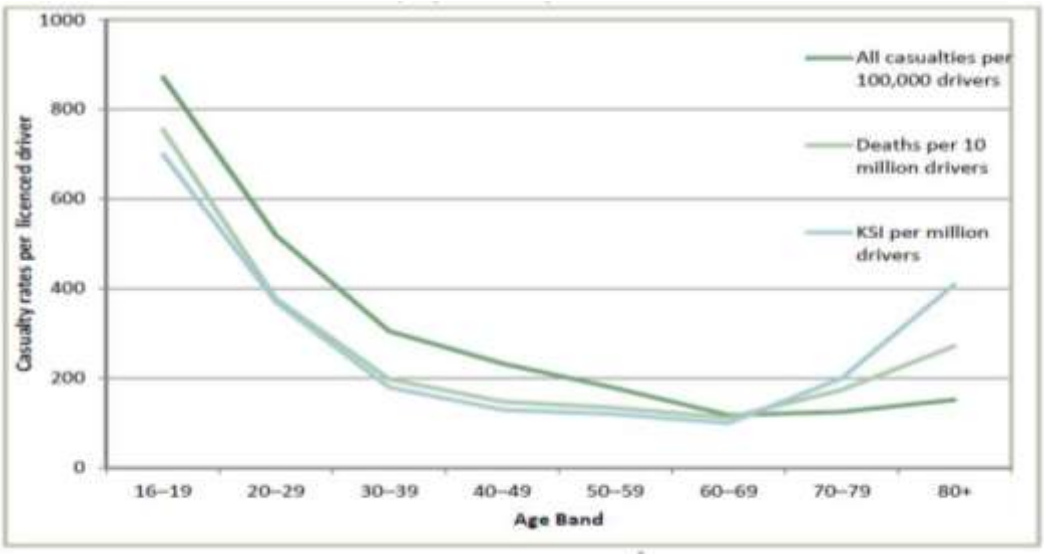


1 INTRODUCTION

1.1 The ability to drive is an aspiration of most young people. It is a skill that not only enhances our social lives but also impacts on our employability either as a direct route into jobs e.g. distribution and logistics or by opening up opportunities to a wider job market through accessibility. To be able to drive legally and safely makes you more employable.

1.2 However young adults today are driving in a more complex traffic environment than ever before. Young Europeans are more likely than their older counterparts to die as a result of transport accidents, particularly young men aged 20–24 tend to be more affected by transport accidents. Traffic crashes are the single greatest killer of 15-24 year-olds in OECD countries. Within European countries, for those aged less than 15 years old, the majority of fatalities are pedestrians, however among 15-24 year olds the majority of road fatalities are car occupants (59%) or motorcyclists (19%). Young drivers typically represent between 18% and 30% of all killed drivers, although people in the same age group only represent between



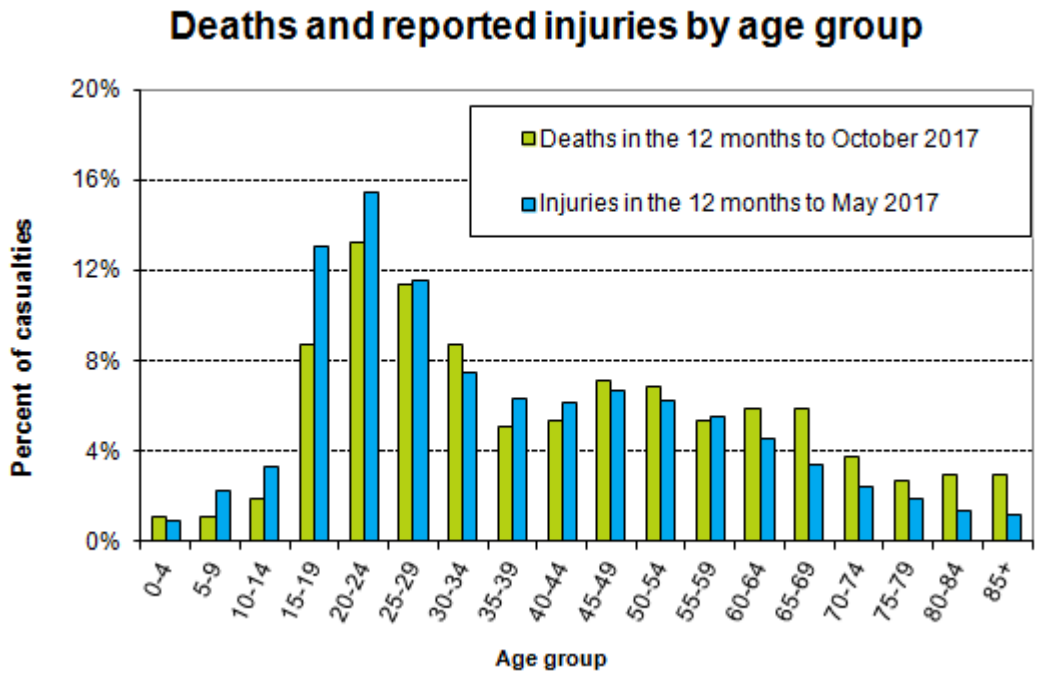
9% and 13% of the total populations in their countries.

Figure 1: Casualty rates in the UK for car drivers by age (2009)[1]

[1] Institute of Advance Motorists 2011

1.3 Drivers under 25 years of age are involved in a disproportionately large number of road collisions when compared with the proportion of drivers who are over 25. The riskiest time for all new drivers is the first year after passing the driving test. The number of young drivers involved in collisions falls with each year of age as they gain in both maturity and experience.[2]

1.4 The chart below looks at deaths and reported injuries by age groups and shows 15-24 age group are the most vulnerable group.



1.5 In 2013 – the latest year for which figures are available – 234 teenage car passengers were killed or seriously injured in Britain when young driver (17-19) they were travelling with was involved in a crash. It was also the first time that calculated accident figures for teenage car passengers were collated. If slight injuries were included in official figures the figure rose to 2,144, or around 41 each week (Guardian Newspaper 14th May 2015). Previous research showed that while 17 to 19-year-old drivers made up only 1.5% of licence holders, they were involved in 12% of deaths or serious injury accidents. Furthermore, one in five newly qualified young drivers will have an accident within six months of passing their test, figures show.

1.6 Looking further back, in the UK in 2004, during their first six months of solo driving, newly licensed drivers are about eight times more likely to be involved in fatal collisions than more experienced drivers.[3] Even after more than six months licensed to drive alone, teens are two

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Mitchell, C. G. B, *IAM motoring facts 2011: Younger and older road users*, (Institute of Advanced Motorists Ltd, London, 2011), p.3

[2] Hopkin, J, *Young drivers – where and when are they unsafe: analysis of road accidents in Great Britain 2000-2006*, (IAM Motoring Trust, London, 2008), p.1

[3] Insurance Institute for Highway Safety. (2004). *Fatality facts 2004: Older people*. Available at http://www.iihs.org/research/fatality_facts/olderpeople.html

to three times more likely to be in a fatal collision than the most experienced drivers.[4] In Great Britain, in 2009, 26% of all collisions involved at least one young car driver aged 17-24.[5] Young drivers accounted for 12% of all driving license holders that year, therefore, young drivers appear to be over represented in car collision statistics. The aim of this report is to identify initiatives that may increase their safety by examining factors involved in young driver collisions, young driver characteristics and the evidence regarding whether initiatives increase young driver safety on the roads.

1.7 Due to the above, research has also indicated that young male and inexperienced drivers tend to fall into the category of high risk threshold drivers. These drivers tend to have a particular set of attitudes that are associated with their lifestyles and driving culture. Dealing with this problem is a fundamental aspect of the E-DRIVERS project- to improve traffic safety and reduce crashes and resulting deaths and injuries as young driver crashes impose a huge economic and social cost on societies. E-DRIVERS aims to address the high levels of young driver risk by taking into account some of the highly complex root causes of the problem which include inexperience, age, gender , physiological and emotional development, personality, social norms and individuals' socio-economic circumstances.

2 ABOUT E-DRIVER

2.1 The E-DRIVER project is a Strategic Partnership collaborative project between the Netherlands, Italy, Turkey, Romania and the UK. The project is partly funded by Erasmus+ Strategic Partnership Programme of the European Commission to develop an education and training programme that aims to alter fundamentally the attitudes that exacerbate risky driving behaviours in young adults.

2.2 The project focus on self-awareness, understanding the circumstances that lead to safer driving and address risky behaviours and social norms, particularly among pre-drivers and non-licensed illegal drivers through needs analysis, peer to peer learning, a learner education and training programme using e-learning and new technologies (e-platform and i-phone application) and provide training for interventionists such as teachers, trainers, youth workers, probation officers and people who are not road safety experts but have direct access to the target group.

3 METNODOLOGY

3.1 In February-March 2018 research was carried out on young drivers in the UK for the E-DRIVERS project. The research used a combination of qualitative and quantitative methods to explore, collate and analyse the findings. The qualitative research was concerned with human behaviour, and why people act the way they do. The methods used for the

[4] Preventing Teen Motor Crashes: Contributions from the Behavioural and Social Sciences: Workshop Report (2007) http://www.nap.edu/catalog/11814.html

[5] Reported Road Accidents Involving Young Car Drivers: Great Britain 2009. Department for Transport

qualitative research included: one-to-one interviews and focus groups with a mixture of young drivers – novice, experience and trainees.

3.2 The applied methods allow the researchers to explore the topic in-depth within groups of one or two people at a time, with individuals and within larger groups. Qualitative Data were also collected from interactions with so called “gatekeepers” (i.e., those in charge of their welfare) using semi-structured questionnaires. In part young people themselves were trained to carry out the research as this method ultimately recognised the researcher as a key part of the situation, rather than an outside observer. The Literature Review at the start of the process alongside the collection of existing practice that targets young drivers aims to improve road safety and reduce the incident of accidents/fatalities.

4 ABOUT THIS REPORT

4.1 Through contacts and links with local, regional and national road safety organisations in the UK the research identify examples of education & training practice, campaigns, and initiatives in the UK that aims to tackle the problem of risky driving in young people. A literature review of practices in the UK was also conducted. Surveys, interviews, questionnaires, focus groups were used to gather information of young people’s attitudes, reasons for behaviour and also from the professionals working with the young people themselves.

4.2 This report therefore highlights some existing good practice, raises awareness of the current state of play and identifies gaps in current practice. Emerging from the report is a Needs Analysis which is based on the education and training needs of the target group (young risky drivers).The report includes the results of interviews with individuals and focus groups regarding driving behaviour and attitudes. It includes results of meetings with gatekeepers on attitudes of young risky drivers and meetings with experts on driver training and driver psychology. The report concludes results and makes recommendations. The needs analysis will form the basis for the outputs of work packages 4 of the project "Changing Behaviours" and 5 "E-learning" which will develop the learner training module and learning resources.

4.3 Following the introduction **Section 1** of this report looks in-depth at UK government policy on driver training and who is responsible for the training. **Section 2** looks at specific examples of driver training, driver education, campaigns and/or initiatives for young people or pre-drivers that are currently available. Here we describe how the training is carried out, where it takes place, the target group and what is involved. **Section 3** identifies the most common cause of traffic accident in the UK as well as analyses and discusses the issues and challenges for the country.

4.4 **Under Section 4** we look in detail at the UK highway (national road network) transportation. All data related to this statistical release can be found in tables in the road length statistics series: https://www.gov.uk/government/collections/road-network-size-and-condition Details of ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found in the pre-release access list: https://www.gov.uk/government/publications/road-network-size-and-condition-statistics-

pre-releaseaccess-list DfT road traffic statistics included in this report are also published separately: https://www.gov.uk/government/collections/road-traffic-statistics

4.1 **Section 4** looks at academic studies on road traffic accidents and their causes published in the past 3-years whilst the final section, **Section 5** reports on the findings of the qualitative research with beneficiaries from respondent's questionnaires results, focus group, one-to-one interviews on attitudes, reasons for behaviour and also from the professionals working with the young people themselves. We begin with a description of UK government policy about driver training and who is responsible for that training.

5 UK GOVERNMENT POLICY

5.1 In 2000, the UK Prime Minister launched the Road Safety Strategy "Tomorrow's Roads - Safer for Everyone", which set out the Government's framework for improving road safety, integral to which was the achievement of casualty reduction targets of 40 per cent of those killed and seriously injured (50 per cent for children) by 2010. In 2004 the Government published the first three year review of the Strategy, which evaluated the effectiveness of the Strategy and the likelihood of delivering the 2010 targets. The Road Safety Act 2006 gives effect to several elements of the Government's wider road safety strategy to reduce casualties and it supports the push towards achieving the casualty reduction targets.

5.2 The Road Safety Act 2006 also contains several other measures intended to contribute to the overall programme of improving safety on our roads. These include powers to pay road safety grants to local authorities so that innovative road safety projects can continue to be developed; a regulation-making power to enable the Secretary of State to make provision for surplus income from safety camera enforcement to be used by public authorities for road safety purposes; and measures to improve the regulation of the transport of radioactive material.

5.3 The Act has a number of measures aimed at reducing levels of uninsured driving. These include the creation of a new offence of being the registered keeper of a vehicle the use of which is not insured; powers for the Secretary of State to issue fixed penalty notices, and in appropriate cases powers to seize and dispose of uninsured vehicles.

5.4 A number of provisions in the Act contribute to enforcement of road traffic laws through changes to the driver and vehicle licensing systems. These include a power to disclose to foreign authorities driver and vehicle data to combat driving licence and vehicle crime, the mandatory recording of various particulars (mileage, date of birth) on the vehicle register to help prevent "clocking" fraud and the extension of the current registration scheme for number plate suppliers from England and Wales to the rest of the United Kingdom.

5.6 To help prevent fatigue related accidents, the Act allows for a pilot of motorway rest areas similar to French "aires".

5.7 The current stance of the current UK government on younger drivers in the U.K. is more or less the same as the last; the Coalition led by David Cameron. In the last Parliament a green paper looking at a range of options for improving the safety of newly-qualified drivers but never came to fruition. Among the proposals considered were:

- a minimum learning period before candidates are permitted to sit their test
- enabling learner drivers to take lessons on motorways, and perhaps during adverse weather conditions or during darkness to encourage greater practice prior to taking a test
- increasing the existing probationary period from 2 to 3 years for a new driver's licence to be revoked if they receive 6 or more penalty points
- making the driving test more rigorous to better prepare learners to drive unsupervised
- incentives for young drivers to take up additional training after passing their test.

5.8 In addition to the measures outlined above, the government is also considering improving the training of driving instructors through the Official Register of Driver Training (ORDIT). Information would also be made available to parents and young drivers on what to look for when choosing an instructor, as we well as evidence on the most risky behaviours and how to avoid them.

5.9 The number of driving tests taken has fallen in recent years. Younger drivers are finding it harder to drive due to massive increase in their insurance premiums. These increases are fuelled by the fact that novice drivers are looked upon as a risky cover. Unfortunately the figures from DfT and DVLA on convictions for motoring offences bear out the fact that younger drivers are far more likely to be involved in a road traffic accident than older ones and newer drivers more so than more experienced ones.

5.10 The green paper of 2013 mentioned 2011's figures:

- Young and novice drivers are overrepresented in road collisions.
- 22% of fatalities on GB's roads involved a driver between 17 and 24.
- In 65% of these collisions the fatal injuries were sustained by passengers or road users other than the driver.

These figures have got worse.

5.11 The latest figures show 2,088 young drivers and passengers aged between 17 and 24 were killed and seriously injured in just one year. Drivers aged between 17 and 19 make up just 1.5% of those holding a UK licence, but are involved in 9% of fatal crashes.

5.12 Because of these shocking figures, Brake (The road safety charity)was keen to find out what the public thinks about the idea of extending the time it takes young people to learn to drive, and of putting some restrictions in place when people first pass their test. The idea of a graduated driving licencing system, which is now in place in a number of countries around the world, is to make sure young people are as skilled and as safe as possible when they go out on the roads unsupervised.

5.13 When asked what restrictions should be in place for the first year after someone is given a driving licence, two thirds (66%) of people questioned said they support the use of a “P” plate to show a driver is on probation. A similar number back a zero-tolerance drink-drive limit for novice drivers. Half of those questioned said they think there should be a restriction on car engine sizes for new drivers, and more than a third of people think that a newly qualified driver should lose their licence if they break any traffic laws during their first year on the road.

5.14 Almost eight in 10 people (79%) said they think there should be a minimum time frame for learning to drive, and almost two thirds (62%) think that should be at least six months. Three quarters of people (75%) said they think there should be a requirement for a minimum number of taught hours before learner drivers are allowed to take their practical test. Half of those questioned (50%) said they think people should have at least 35 hours of driving lessons before taking their on-the-road test. Groups involved and with whom the Government consults on Policy include the aforementioned Brake, The Automobile Association and the RAC. The RAC Foundation using the MAST online tool has done innovative work involving the specific problems involved with younger drivers.

6 WHO IS RESPONSIBLE FOR DRIVERS TRAINING

6.1 The Driver and Vehicle Standards Agency (DVSA) are responsible for drivers training as follows:

- Carrying out theory tests and driving tests for people who want to drive cars, motorcycles, lorries, buses and coaches, and specialist vehicles
- Approving people to be driving instructors and motorcycle trainers, and making sure they provide good-quality training
- Approving people to be MOT testers, approving the centres they work in, and testing lorries, buses and coaches ourselves
- Carrying out roadside checks on commercial drivers to make sure they follow safety rules and keep their vehicles safe to drive
- Monitoring recalls of vehicles, parts and accessories to make sure that manufacturers fix problems quickly
- Approving training courses for qualified drivers, such as Driver Certificate of Professional Competence courses for lorry, bus and coach drivers, and drink-drive rehabilitation courses
- Supporting the Traffic Commissioners for Great Britain and the Northern Ireland transport regulator to license and monitor companies who operate lorries, buses and coaches, and to register local bus services.

6.2 The above actions are legislated through the 2006 Road Safety Act which enables a "one-size-fits-all" scheme for regulating car driving instructors to be replaced with a new power to introduce schemes targeted to meet the needs of individual sectors e.g. lorries, buses, off-road and fleet driving. It contains mechanisms to make sure the public has access to

information about the performance of individual instructors, their qualifications and services and introduces more flexible powers to extend the user-pays principle to all forms of testing and assessment. Under the Act maximum penalties for various road traffic offences increases and provides for the graduation of fixed penalties for offences and in circumstances specified by order, which match the punishment to the severity of the offence. Provision is made to prevent drivers who do not have a satisfactory address from escaping punishment in Great Britain, by requiring them to pay an on-the-spot deposit where an offence is committed. To improve enforcement of road traffic legislation, the Act extends the use of retraining courses to offenders convicted of speeding and careless driving, and confers new enforcement powers on vehicle examiners.

6.3 Under Section 20 of the 2006 Act a new offence of causing death by careless or inconsiderate driving was created and section 21 creates an offence of causing death by driving when unlicensed, disqualified or uninsured. The new offences complement the existing offences of causing death by dangerous driving (section 1, Road Traffic Act 1988) and causing death by careless driving when under the influence of drink or drugs (section 3A, Road Traffic Act 1988).

6.4 With steadily growing populations, nationally, locally and globally, existing transport networks are coping with greater volumes of traffic than their designers envisaged. Governments and organisations are having to evolve and adapt to meet current and future needs and demand. In the UK the Government sets out national standard for the sets of skills, knowledge and understanding needed to deliver a programme of driver training. It covers training for drivers of all types of cars, light vans, motorcycles and mopeds for use on the road. It covers training for licence acquisition and post-test driving programmes. The standard assumes that any person wishing to teach somebody to drive or ride has:

1. A current driving/riding licence

2. Mastered all the competences set out in roles 1 to 4 of the 'National standard for driving cars and light vans (category B)' or the 'National standard for riding mopeds and motorcycles (category A)'

3. Demonstrated competence in role 5 of the 'National standard for driving cars and light vans (category B)' or the 'National standard for riding mopeds and motorcycles (category A)'

6.5 Research for this report clearly shows that new drivers in the UK are most at risk on the roads in the first year or so after passing their test. We have found that newly qualified young drivers often need more training on speed control, risks on rural roads or driving at night. Young drivers account for around 20% of road deaths, even though they comprise only 7% of full licence holders[6] and drive less mileage than other drivers.[7]

[6] Table DRL0101, Provisional and Full driving licences held, by age and by gender, Great Britain: as at 15 February 2014, DVLA, 2014

6.6 The effectiveness of driver training on road safety is a controversial issue. Early research has demonstrated improvements in accident risk (Anderson, Ford and Peck, 1980) but many more studies report no significant difference in crash risk post-training (Kaestner, 1968; Nichols, 1970; and Struckman-Johnson, 1989; Manders and Rennie, 1984; Lund and Williams, 1985). Whilst there may be some evidence for an initial improvement, road safety effects are not always long-lived (Stock, Weaver, Ray, Brink and Sadoff, 1983). Even specific skills training such as skid control and braking techniques have failed to find measurable improvements in slippery road accident rates (Lynam and Twisk, 1995; Gregersen, 1991; Katila, Keskinen, Hatakka and Laapotti, 2003). When considering the road safety benefits for accident-involved drivers, still no significant reduction on crash involvement post training has been found for at risk groups (Brown, Groeger and Biehl, 1987; Stuckman Johnson, Lund, Williams and Osborne, 1989).

6.7 Several studies have suggested that higher order skills such as hazard perception contribute more to reducing crash risk than advanced driving skills and knowledge per se (Lyman, 1995; McKenna and Crick, 1992) and greater emphasis on hazard awareness may improve the effect of training on road safety (Gregersen, 1995). Other studies suggest that accident reductions are possible provided a package of safety measures is in place (Gray 1990; Gregersen, Brehmer and Moren, 1996).

6.8 Whilst one of the goals of driver training is to improve road safety, reduction in accident rates may not be a reliable indicator of driver training effectiveness. Firstly, there are well-established problems in the reliability of accident records that lead to difficulties in using accident rates as a criterion measure (Wahlberg, 2003). Secondly, an accident may be the result of several events that might be due to factors not considered during the driver-training course under study. Thirdly, accident frequency is an unreliable criterion given the fact that accidents are comparatively rare events when considering the prevalence of everyday risk taking. Perhaps a more fruitful avenue would be to consider whether post-test professional driver training leads to reduced risk taking behaviour which may ultimately improve road safety whilst not necessarily influencing individual accident risk.

6.9 Police driver training provides a good model for studying the effects of professional driver training especially given that it often forms the basis of many post-test driver training courses in the UK. Police driver training follows core course texts including ‘Road-craft: The Police Drivers Handbook’ involving 3-5 weeks of classroom-based and in-vehicle instruction and leads to a written theory test and driving test. Police drivers are trained either to a standard or advanced level with both courses based on The System of Car Control outlined in Road-craft. 'The System' emphasises observation and focuses on road cues to potential hazards. Observation is seen as particularly critical for the development of high speed driving skills. There is also an element of off-road training dealing with skid recovery, under-steer, over-steer and general manoeuvring.

6.10 The advanced course is longer and designed to equip police drivers with the skills required to drive in pursuit situations in far higher powered cars, or to drive in firearms based situations.

[7] “Table NTS605 Average distance travelled by age, gender and mode: England, 2013” Department for Transport, 2014

Overtaking is also a primary focus, using the increased observational skills already established. Trainees are trained to overtake by observing the road ahead for layout, road signs, hazards and any obstruction to their view and then identify a safe gap before initiating an overtake. Trainees then observe speed and the position of vehicles behind them, and move up close to the vehicle ahead, pull out to facilitate good observation and accelerate past the vehicle if there are no hazards. During training general driving skills such as positional techniques are also introduced, in particular straddling the centre white line when there is no opposing traffic in order to minimise effects of kerbside pot-holes at speed and to allow better positioning and observation on entry to a bend. Given these specific driver training instructions, it is expected that police drivers in comparison to non-police trained drivers will exhibit different simulated driving performance during overtaking, in lane positioning choice and at particular hazards.

6.11 In 2013, 131 young drivers (aged 17 – 24 years) were killed and 1,159 were seriously injured. Young drivers pose a serious risk to other road users, as well as to themselves. Of the 337 people killed in crashes involving young car drivers in 2013, 131 were young drivers, 59 were their passengers and 147 were other road users. [8] Despite many changes over the last few decades have sought to reduce young driver risk, including the Theory and Hazard Perception Tests, extending the Practical Driving Test, a new learning to drive syllabus, New Drivers Act and Pass Plus. However, young drivers continue to face and create a high and disproportionate risk; one in five crash within their first six months of driving.[9] They have a higher crash risk than other drivers, their crashes are more likely to be severe, [10] and they make more, and more expensive, insurance claims. [11]

6.12 In 2015, the UK Government Green Paper on Young Drivers concluded that a more radical approach was needed. No single measure will be effective on its own; a comprehensive package of complementary measures was needed. However, the Government Green Paper9 was proposed to explore options for improving the safety of newly-qualified drivers. The Green Paper was expected in 2013, but was not published because the Government was "wrestling with how to make things safer, while not unduly restricting the freedom of young people."[12] In February 2015 The Royal Society for the Prevention of Accidents agree that there is a difficult balance to achieve, and that driving is an important part of education and employment for many people. However, they also argue that although the issues are not insurmountable, there was a need to consider the freedom of all road users to travel as safely as possible.

[8] Reported Road Casualties Great Britain 2013 (Table RAS40006), Department for Transport, 2014

[9] Wells P, Tong S, Sexton B & Grayson G B (2008) Cohort II: A Study of Learner and New Drivers. Volume 1: Main Report, Road Safety Research Report No. 81. London: Department for Transport (DfT)

[10] Sexton B & Grayson G (2010). The Accident History and Behaviours of New Drivers Who Pass their First Practical Driving Test. TRL Published Report (PPR427), Crowthorne: Transport Research Laboratory.
Sexton B & Grayson G (2010). Further Analyses of Accident Data from the Cohort II Study: When do drivers have their first accident and does it have an impact on subsequent driving? TRL Published Report (PPR426), Crowthorne: Transport Research Laboratory

[11] "Improving the Safety of Young Drivers, Association of British Insurers, 2012 and Motor Insurance for Young Drivers: FAQs, Association of British Insurers, 2012

[12] Hansard 18 Dec 2013: Column 629W

6.13 Driving is a common human activity like other complex tasks, must be learned.13 Novice drivers, regardless of age, tend to make many errors 14 and crash at high rates.15 Fortunately, nearly all drivers eventually learn to drive in a reasonably safe and responsible manner. However, novices have extremely high crash rates relative to older, more experienced drivers and most countries worldwide including Europe and the UK may require some form of extended training course for young people similar to that currently used by UK Police forces directly after issuing a legal license to young drive as this type of advance training may prove an effective crash prevention measure.

6.14 In the U.S., Canada, Australia, New Zealand, and other countries, formal training is supplemented by phasing novice teen drivers' exposure to increasingly demanding environments. The use of Graduated driver licensing (GDL) policies require progression through an extended learner license stage, typically requiring a specified number of adult-supervised practice driving hours, and transitions to independent driving with certain limits on the riskiest driving environments (e.g., late night driving, driving with teenage passengers).Where evaluated, the adoption of reasonably strict GDL policies has been shown to reduce crash rates.

6.15 Today's licensing system in Great Britain allows for independent car driving from the age of 17. There have been a number of changes made to the driving test since its introduction in 1935, including a theory and hazard perception test, a set of in-vehicle questions and an independent driving section. On average, learners take 52 hours of professional lessons before taking the practical test, and the average learning time is 14 months. The current pass rate is 47%. The collision record of new drivers indicates that the test is not working as effectively as it should, especially given that those who find it easiest to pass – young men – are more likely to have a collision.

7 SPECIFIC INITIATIVES FOR YOUNG AND PRE-DRIVERS

7.1 Today there are 2.9 million full licence holders aged between 17 and 24. In this age group, 59% held a licence in 1995, but this had declined to 46% by 2010. This is a much lower rate of licence holding in comparison to those aged 25 years old and over. There is also a gender difference. Between 1995 and 2010, licence holding by young men reduced from 67% to 47%. Over the same period licence holding by women decreased from 51% to 45%.

7.2 The reason for these changes is likely to be related to a combination of: greater access to higher education; changes in employment patterns; increased costs relative to earnings (housing and motoring in particular); the rise of virtual mobility (use of technology to substitute for travel); and the shifting pattern of traditional life stages (e.g. leaving home, buying a house, childbirth).

[13] Simons-Morton, B.; Ehsani, J.P. Learning to drive safely: Reasonable expectations and future directions for the learner period. Safety **2016**, 2, 20. [CrossRef] [PubMed]

[14] Curry, A.E.; Hafetz, L.; Kallan, M.J.;Winston, F.K.; Durbin, D.R. Prevalence of teen driver errors leading to serious motor vehicle crashes. Accid. Anal. Prev. **2011**, 43, 1285–1290. [CrossRef] [PubMed]

[15] Twisk, D.A.; Stacey, C. Trends in young driver risk and countermeasures in European countries. J. Saf. Res. **2007**, 38, 245–257. [CrossRef] [PubMed]

7.3 One in five young drivers will have an accident within the first six months of passing their driving test, and a disproportionate number of young people are killed and seriously injured on Britain's roads. Road deaths account for 0.5% of all deaths in Great Britain, but 25% of deaths amongst 15 to 19 year olds. Those aged 15 to 24 are four times more likely to die from a road accident than from drug, alcohol or other substance poisoning combined. Young drivers (24 years and under) make up 25% of all those drivers killed or seriously injured on the road network, but account for only 8% of licence holders. Also they drive, on average, less than half as far as those aged 25 and over. Young drivers therefore are at significantly greater risk for every mile travelled by car.

7.4 Accident figures show that it is of the utmost importance to convince youngsters to drive safely, not to intentionally violate traffic rules, and to reduce exposure. Instruments to achieve this are:

- Advanced training: to improve driver quality
- Protective measures: to reduced exposure to high risk conditions

7.5 Nevertheless, it must not be ignored that drivers' safety-related attitudes are formed well before the age at which one legally begins driving. Therefore, measures should also focus on children at a much younger age than 16-18.[16]

7.6 This section provide examples about driver training, education, campaigns and/or initiatives available for young drivers or pre-drivers that is available in the UK and describes how these training initiatives are carried out, the target group and what the training involves. It also looks at some new holistic thinking and approaches (see table below). However, there are many examples of specific pre-driver education interventions. However, they vary widely:

- Target different age groups from the age of 11 upwards, others targeting the age group just under licensing age and some targeting young people who are old enough to obtain a provisional licence, but who have not yet done so.

- Delivered in different ways, teacher-led, road safety officer-led, theatre in education, multi-media presentations. Some are one-off events, while others comprise a series of lessons.

- Some include differing content, with some focusing on the legal aspects of driving, such as insurance, the moral responsibility to drive safely and the potential consequences of poor driving. Some programmes focus on particular topics, such as drink driving.

- Some include actual practical driving in a car off road; others do not.

7.7 Concern has been expressed that some pre-driver education programmes may actually increase young drivers‟ risk by enabling them to pass the driving test (when they are old enough) with fewer professional lessons or less private practice. They may even encourage young people to drive before they are legally able to do so. Conversely, it is argued that such programmes improve the knowledge and attitudes of young people before they become drivers, and mean that less time has to be devoted to the mechanics of car control and more time on the more important aspects of driving, such as hazard perception, when they become learner drivers.

[16] European Commission, Mobility and Transport, Road Safety

7.8 In common with much road safety ETP[17], suggests there is relatively little evaluation of the effectiveness of pre-driver education interventions. Most of the evaluations that have been conducted conclude there is little evidence that they are effective. This is partly because it is unrealistic to expect a short term, small scale, possibly one-off, intervention, that is often delivered years before the participants are likely to be driving, to change their driving behaviour. There are far too many other factors that affect the participants‟ crash risk to be able to separately identify the effects of the pre-driver intervention.

7.9 However, there is some evidence that pre-driver education can improve some aspects of young peoples' attitudes to driving. However, these improvements are probably short lived and liable to be swamped by other influences, such as peer pressure. Refresher interventions that seek to reinforce the original road safety education messages may help to sustain the attitude improvements.

7.10 Department for Transport (DfT) literature review of pre-driver education, a separate DfT review of how children and young people's attitudes to driving develop as they grow older and RoSPA's[18] all provide useful guidance for the design, content and delivery of pre-driver interventions. Based on these guides, RoSPA believes that their principles will improve the likelihood of pre-driver education being effective.

7.11 Younger drivers tend to be most at risk when driving at night, especially over the weekend. Both urban and rural roads pose particular challenges to this group, as does driving with passengers and driving whilst impaired (by alcohol, drugs or other distractions). Young people between the ages of 17 and 24 are undergoing significant biological change, which has psychological and behavioural implications. Younger people have certain personality differences to their older counterparts, which makes them more susceptible to being involved in a collision. They are more prone to sensation seeking, impulsivity and aggression. They are also more likely to be influenced by external influences such as their peer group. Young people are also more likely to be affected by alcohol, drug, fatigue and distraction-based impairments. This helps explain why the risk of crash involvement for a newly qualified 17 year old is almost twice as high as for a newly qualified 60 year old.

7.12 Experience quickly reduces crash risk for all age groups. Once a new driver has gained 1,000 miles of on-road experience their skills and safety are thought to be equivalent to drivers with three or more years' experience. Therefore the average 17.5 year old with 6 months' driving experience will be safer than a 60 year old who has just passed their driving test.

7.13 Gender is also important, with male drivers having more road crashes than female drivers at the 6-, 12-, 24- and 36month points after passing the driving test.

7.14 Education interventions, although popular, have not generally been found to be effective at improving road safety. Attitudes to a range of public health issues are formed at a very young age. By the time a child reaches the age of 14 it is much more difficult to influence attitudes and behaviours. It starts to become more difficult after age 11. School-based education programmes have looked to address young people's attitudes and behaviours on road safety, with little demonstrable effect.

8 Pre-driver and post-test training

[17] The Royal Society for the Prevention of Accidents Pre-Driver Education and Training Policy 2012
[18] "10 Principles for Effective Safety Education"

8.1 Pre-driver education programmes are often short-term, small-scale and one-off, taking place as many as six years before real-world driving, making it difficult to establish how they influence future driving behaviour. Rather than improving young driver skills, there is the possibility that the programmes preferentially involve highly motivated young people with responsible, better-off parents, who have a lower risk. Training for pre-drivers that primarily focuses on the technical aspects of driving can actually encourage speedier test passing and hence increase exposure to risk. Peer-to-peer discussion groups using active participation, personal experience and reflective thinking show some early promise for influencing attitudes and behaviours of young people.

8.2 Pre-driver education is best targeted at specific behaviours, contexts and individuals. The limited number of evaluations completed on post-test training courses has come to similar conclusions. An evaluation of the most well-known example in Great Britain – Pass Plus – found that drivers who completed the course had a marginally lower, and not statistically significant, crash rate. There are also many campaigns and training initiatives. The majority are locally delivered but others are national projects/campaigns/initiatives. Below are a list of a section of some of the initiatives in the table provided.

List of Drivers Training

Driver training, education campaign or initiative for young people	Where training takes place	Target Group	What's involve
FIRSTCAR YOUNG DRIVER ROAD SAFETY AWARDS	Royal Automobile Club, Pall Mall, London	Organisations delivering the training	DISPLAYS BEST SKILLS Best Education and Training Initiative of the Year 2018 Best New Scheme of the Year 2018 Best Partnership Scheme of the Year 2018 Best Private Sector Initiative of the Year 2018 Best Young Driver Media Campaign of the Year 2018
RAC FOUNDATION: Behaviour Change Techniques	RAC Foundation	Young people	Practical examples of how the six most successful BCTs could be used in road safety.
RAC FOUNDATION:		Peer-to-peer discussion groups	Pre-driver education targeted at specific behaviours, contexts and individuals
Pass Plus: Government https://www.gov.uk/pass-plus	Practical training course that takes at least 6 hours and is for drivers to improve their skills and drive more safely. Nationally	Young drivers	Pass Plus registered approved driving instructor (ADI) to teach DVSA Pass Plus team passplus@dvsa.gov.uk
RoSPA Advance Drivers and Riders	The RoSPA advanced driving test takes place in participants own vehicle, which	Anyone who holds a full driving licence can become an	Advanced Driving Test is unique as it is graded Bronze, Silver or Gold

	must be fully insured and legally roadworthy.Nationally	advanced driver.	
National Driver Offender Re-training Scheme (NDORS)	Chelmsford Springfield Parish Centre	Eligible offenders	Safer Essex Roads Partnership
National Speed Awareness Course (NSAC)	NSAC 20 Courses are held at: Several centres	New young driver social media campaign	Safer Essex Roads Partnership
National Driver Alertness Course (NDAC)	Different locations across the country	Eligible offenders	Safer Essex Roads Partnership
National Speed Awareness 20 Course (NSAC 20)	"	Eligible offenders	Safer Essex Roads Partnership
National Motorway Speed Awareness Course (NMSAC)	"	Eligible offenders	Safer Essex Roads Partnership
What's Driving Us (WDU)	"	Eligible offenders	Safer Essex Roads Partnership
Driving for Change (D4C)	"	Eligible offenders	Safer Essex Roads Partnership
Rider Intervention and Developing Experience (RIDE)	"	Eligible offenders	Safer Essex Roads Partnership
Your Belt/Your Life	On-Line	Everyone	Safer Essex Roads Partnership
Gone in Seconds	MIB (Motor Insurers' Bureau)	Anyone	Safer Roads Partnership, Warwickshire Police and West Mercia Police
Learn2Live Road Safety Intervention	South West	Anyone	Learn2Live Partnership (South West Peninsula)
Look Out For Each Other (LOFEO)	Gateshead	Young drivers media campaign	Gateshead Council
New Driver NI Safe Motoring	Nationally	16-24 years	New Driver Safety Ambassadors Limited Community Interest Company
The Arrive Alive project	Jersey	Young people	
L for Later and Too Young to die	National	Young drivers 17-19	Brake Road Safety Charity
The fatal four	National	Everyone	Department for Transport
Stop, Think, Live. Save Lives	Cumbria	Young Drivers	Cumbria Police
drink drive awareness campaign	Nationally	All	THINK

8.3 As mentioned above young drivers in Great Britain and across the UK are significantly over-represented in road trauma. Current efforts to address this focus largely on educational initiatives to support the driver licensing system. The licensing process in Great Britain requires knowledge, perception and skill tests to be passed before independent driving is permitted; there are no restrictions that impose any kind of limits on drivers after they have passed these tests. While efforts have been made to improve the safety outcomes of supplementary (pre- and post-test) initiatives, this has proved to be of little or no effect. Advances in research into the underlying causes of novice-driver crash risk provide insights into why such efforts are failing to demonstrate the intended benefits.

8.4 Local and international research has confirmed that the greatest contributor to the inflated crash risk of young drivers is in fact their novice status – their lack of driving experience. Novice drivers of all ages are shown to face this inflated risk when they first start driving independently (unsupervised). However, young age is also a contributor, with the youngest novices having further inflated risk. While adolescent development influences that heighten sensation-seeking, and the increased importance of peers at that stage of life, have both long been recognised, the latest research also highlights how brain and hormone changes have an effect in other ways that have particular implications for driving. This includes biological and neurological developmental changes that lead adolescents to be highly susceptible to distractions and also to fatigue, during daytime hours as well as after dark. This has shifted the focus from addressing 'the problem young driver' to 'the young driver problem'.

8.5 Despite these advances, the content of many young driver education initiatives continue to focus on knowledge of and attitudes towards traditional risk-taking behaviours, which contribute to only a small fraction of the over-representation. Training efforts focus on vehicle-handling skills for the practical driving test, which has some bearing on how the new driver can drive, but not necessarily on how they choose to drive.

8.6 Current approaches therefore place a strong focus on the young driver as the problem. Alternative conceptualisations of road safety in international settings have broadened this perspective in recent times, shifting the focus – or blame – for road crashes beyond the individual. This includes recognition of the role of a wider, shared community 'traffic safety culture' that interacts with an individual's decision-making and behaviour. Wider still is the 'safe system' concept, which recognises that, to be safe, individual road users need to operate within a system that also comprises safe roads and roadsides, safe speeds, safe vehicles and safe road safety policies and management.

8.7 Most recently, these 'system' (singular) conceptualisations have been pushed further by applying even broader 'systems' (plural) thinking to the road safety domain. Looked at from a 'systems-based' approach, crashes can be viewed as the outcome of interactions between multiple components in a complex sociotechnical system comprised of multiple levels of key actors, with relative roles and responsibilities – an approach long applied in other transport fields, such as aviation and rail. From this perspective, an initial mapping (scoping of those involved in the system) of the 'young driver road safety system' in Great Britain was undertaken and is presented in this report. To take account of broader influences on road safety (such as access to alcohol and employment), higher levels of the system need to be included: government bodies and other organisations beyond those with a transport-related focus; intermediary actors are also involved, and include non-driving-related educational bodies, employers and religious institutions – to provide just a few examples.

9 Other initiatives

9.1 The AA Charitable Trust for Road Safety and the Environment help new and young drivers be safer by providing further training for them once they have passed their test. The AA Charitable Trust has pledged to fund 1,000 FREE AA Driving School's Drive Smart courses for 'at risk' drivers. These are drivers who have passed their test within the last 12 months and who may already have points on their licence or been involved in an accident. The course teaches drivers safer techniques as well as tips on how to drive in a more eco-friendly or economical manner. Funded by the FIA and its 'Action for Road Safety' initiative for a road safety grant (provided by the FIA Foundation) this will partially fund these free courses.

9.1.1 Graduated Driver Licensing (GDL)

9.1.2 The over-representation of young novice drivers in road collisions is a public health risk in Great Britain (GB), and worldwide. The key contributory factors to this problem are known and are cross-cultural; they are youth and inexperience. This report reviewed and synthesised evidence of effectiveness for three approaches to tackling young and novice driver safety, for consideration in GB:

1. Pre-driver education and training for those under 17 years old;
2. Graduated Driver Licensing (GDL);
3. The Road Traffic (New Drivers) Act (1995).

9.1.3 While provision of pre-driver education and training is widespread, evidence of effectiveness is absent. Conversely, evidence of the effectiveness of GDL from countries where it has been implemented is strong and consistent. The New Drivers Act appears to have had a beneficial effect on offending patterns in GB and may have had a safety benefit through deterrence from driving. Based on the evidence, it is recommended that licensing in GB be based on a full GDL system. Analysis of STATS19 data and evidence of effectiveness in other countries suggests that a GDL system in GB could save 4,471 casualties and £224 million annually based on 17-19 year old drivers only.

10 REASONS FOR TRAFFIC ACCIDENTS IN UK

10.1 Using a scoring system of 1-10 (1 being the least and 10 being the most common cause of traffic accident) score the reasons in the table below.

Reason	E-DRIVER		UK aged 17-24		UK aged 25>	
Failed to look properly/paying attention	4	23%	7206	23%	33,472	24%
Loss of control	3	17%	4519	15%	8445	6%
Failure to judge other person's path or speed	3	18%	4180	13%	17,615	13%
Careless, reckless or in a hurry	2	12%	3915	13%	10,449	7%
Learner or inexperienced driver/rider	3	18%	2923	9%	688	6%
Slippery road due to weather			2724	9%	819	0%
Poor turn or manoeuvre			2671	9%	10,405	7%
Travelling too fast for the condition			2665	9%	4427	3%
Exceeding the speed limit	2	12%	1764	6%	2647	2%
Sudden breaking			1655	5%	5443	4%

11 The scale and importance of the issue in the UK

11.1 In the UK there were 1,792 people killed in road accidents reported to the police in 2016. This is an increase of 4 per cent compared to the 1,730 deaths reported in 2015. There were 44 per cent fewer fatalities in 2016 than a decade earlier in 2006. Although the fatalities rates are going down accident rates are increasing. This suggests that emergency services are responding more quickly. In addition the standards of care accident victims are receiving have improved greatly and care manufacturing safety standards have also improved considerably. However the problem is very important for the UK large numbers of people particularly young people, die or injured on the road each year (see table above).

Year	Killed	Serious injury	Slight injury	Total injury
2016	1,792	24,101	155,491	179,592
2015	1,732	22,137	162,340	186,209
2014	1,775	22,807	169,895	194,477
2013	1,713	21,657	160,300	181,957
2012	1,754	23,039	170,930	193,969
2011	1,901	23,122	178,927	203,950
2010	1,857	20,803	185,995	206,798

Source: STATS 19 defined at Office for National Statistics

11.2 Although the problem is getting slightly better there were 24,101 people seriously injured in reported road traffic accidents in 2016 and there were a 4% rise in deaths since 2011.[19] This figure is not comparable to 2015 due to severity reporting changes. There were a total of 181,384 casualties of all severities in 2016. This is around 3 per cent lower than in 2015 and is the lowest level on record.

11.3 A total of 136,621 personal-injury road traffic accidents were reported to the police in 2016. Of these accidents, 1,695 resulted in at least one fatality.[20] Latest figures show that in the year ending September 2017, there were 1720 reported road fatalities. This is a 4 per cent decrease from 1,800 in the previous year. There were 27,010 killed or seriously injured

[19] Highways Magazine. 28 September 2017

[20] Reported Road Casualties in Great Britain: 2016 Annual Report

casualties in reported road traffic accidents for the year ending September 2017. This figure is not comparable to the year ending September 2016 due to severity reporting changes. The total number of casualties for the year ending September 2017 was 174,510, a 5 per cent decrease from 182,747 in the previous year.[21]

11.4 The trend in the number of fatalities has been broadly flat since 2010. Previously, and particularly between 2006 – 2010, the general trend was for fatalities to fall. Since that point though, most of the year-on-year changes are either explained by one-off causes or natural variation. The evidence points towards Britain being in a period when the fatality numbers are fairly stable and most of the changes relate to random variation.

12 Casualties by road user type

12.1 It is also important to look at casualties on the road by types. Historically, and still currently, car occupants account for the greatest number of casualties each year (60 per cent of total casualties in 2016). This is because cars make up 78 per cent of all traffic driven in Great Britain. However, casualty numbers by road user group are not proportionate to the total distance that the user group travels. The vulnerable user groups (usually defined as pedestrians, pedal cyclists and motorcyclists) have much higher casualty rates per mile in comparison to other road user groups.

12.2 In 2016, car occupants accounted for 46 per cent of road deaths, pedestrians 25 per cent, pedal cyclists 6 per cent and motorcyclists 18 per cent. The number of car occupant fatalities increased to 816, up 8 per cent compared with 754 in 2015; the number of pedestrian deaths increased to 448, up 10 per cent from 408 in 2015; the number of pedal cyclists killed increased to 102, up 2 per cent from 100 in 2014. The number of motorcycle users killed decreased by 13 per cent from 365 in 2015 to 319 in 2016[22]. Link here for the report: Reported Road Casualties in Great Britain: 2016 Annual Report

13 Progress of reducing deaths and injury on UK roads

13.1 The progress of reducing deaths and injury on roads varied across the UK over the past 5 years. While the general trend has been downwards, this has masked big national and regional variations. A report published by the RAC Foundation and PACTS shows that compared with the 2005-9 average (the Government's baseline for monitoring progress) by 2014 there had been the following reductions in the number of people killed or seriously injured:[23]

- London - 40 per cent
- Northern Ireland - 34 per cent
- Scotland - 31 per cent
- UK AVERAGE -19 per cent
- England -17 per cent

[21] Reported Road Casualties in Great Britain: Quarterly Provisional Estimates year ending September 2017

[22] Reported Road Casualties in Great Britain: 2016 Annual Report

[23] Road Safety Since 2010 – Final Report

- England (excluding London) -14 per cent
- Wales -6 per cent

14 UK's road safety figures compare to the rest of Europe

14.1 The European Transport Safety Council's Performance Index (PIN) programme enables comparisons of road safety progress between European countries to be made. The latest PIN report published by the European Transport Safety Council [24] shows the UK in fourth position in 2016 with 29 deaths per million inhabitants. This figure was bettered by only Norway, Switzerland and Sweden and these 3 countries, together with the UK, were the only ones having a level of road mortality lower than 30 deaths per million inhabitants.

14.2 Although motorways carry around 21 per cent of traffic, they only account for 5 per cent of fatalities, 3 per cent of serious injuries and 5 per cent of slight injuries. The number of fatalities on motorways fell from 108 deaths in 2015 to 93 in 2016.[25]

14.3 The region in the UK with the highest proportion of young drivers casualties A18) Between 2013 and 2016, the region with the largest proportion of casualties resulting from collisions involving 17-19 car drivers were Cumbria and Grampian (11.4 per cent each) followed by Dyfed-Powys (10.9 per cent), Central Scotland and Durham (10.7 per cent each). The region with the smallest proportion was London (2.8 per cent).[26]

14.2 Academic studies published in the past 3 years

14.2.1 There were very few academic studies published in the UK in the past 3-years aimed raising awareness, improving behaviour and preventing death on the road.

14.2.2 A UK survey of driving behaviour, fatigue, risk taking and road traffic accidents

14.2.3 By Andrew P Smith in 2016 aimed to examine associations between poor driving behaviour (DB), driving when fatigued (DF), risk taking (RT) and road traffic accidents (RTAs). The study involved a cross-sectional online survey of clients of an insurance company. The survey measured DB (speeding, distraction, lapses of attention and aggression), RT and frequency of driving when fatigued (DF, driving late at night, prolonged driving, driving after a demanding working day and driving with a cold). Demographic, lifestyle, job characteristics and psychosocial factors were also measured and used as covariates. 3000 clients of an insurance company agreed to participate in the study, and 2856 completed the survey (68% woman, 32% man; mean age: 34 years, range 18–74 years).

14.2.4 Results: Factor analyses showed that DB, RT and fatigue loaded on independent factors. Logistic regressions showed that poor DB, frequently DF and taking risks predicted medical and non-medical RTAs. These effects were additive and those who reported poor DB, driving when fatigue and taking risks were twice as likely to have an RTA. These effects remained significant when demographic, lifestyle, medical, driving, work and psychosocial factors were covered.

[24] https://etsc.eu/projects/pin/
[25] https://etsc.eu/projects/pin/
[26] RAC Foundation using the MAST Online tool developed by Road Safety Analysis

14.2.5 The conclusions showed that poor DB, DF and RT predict RTAs. There are now short measuring instruments that can assess these, and driver education programmes must increase awareness of these risk factors. See: http://creativecommons.org/licenses/by/4.0/

http://dx.doi.org/10.1136/bmjopen-2016-011461

14.2.6 In 2002 the UK Department for Transport (DfT) commissioned the project Children's Road Traffic Safety: An International Survey of Policy and Practice (Christie et al. 2004) to complement the report from the OECD's Child Traffic Safety Expert Group Road Safety Research Report No. 50 Children's Traffic Safety: International Lessons for the UK. Published 2014 (N. Christie, University of Surrey, S. Cairns and H. Ward, University College London, E. Towner, University of Newcastle-upon-Tyne). International Lessons for the UK attempts to identify good practice and innovation from other countries that could improve the traffic safety of children in the UK. The key findings suggest that the UK has adopted good practice in a number of areas but that current practice needs strengthening.

14.2.7 A more widespread approach to modifying the environment is required in the UK to improve the safety of children as pedestrians or bicyclists, and barriers to implementation need to be overcome. Clearer guidelines are needed for implementing low speed limits near schools and in identifying these areas as enforcement zones. In the UK there is a steep social gradient in child pedestrian fatalities and at present there is no routine monitoring of the socio-economic status of all road traffic casualties. This data is needed to assess whether inequality targets are being met. In terms of national profile, the UK does not compare favourably with most other Organisation for Economic Co-operation and Development (OECD) countries in terms of income distribution, relative child poverty and the number of children living in one parent families in which the burden of poverty is high.

14.2.8 Tackling the causes and effects of these inequalities on safety must continue to be a priority. A greater understanding is needed of how some countries achieve high levels of safety behaviour (such as wearing seat belts or bicycle helmets) compared to others so that these strategies could be used in the UK. More research is required to understand why safety behaviour is not as good among older children compared to younger children. More consideration should be given to the introduction of legislation on driver responsibility for pedestrian accidents.

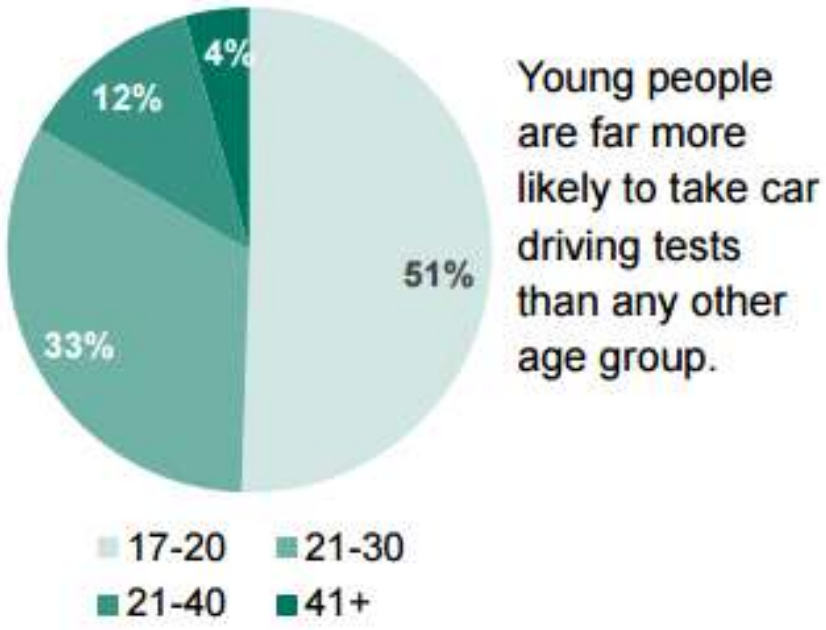
14.2.9 Traffic Accidents and the London Congestion Charge, (Colin P. Green, John. S. Heywood and Maria Navarro 2014/15), The Department of Economics Lancaster University Management School Lancaster. In a rare effort to internalise congestion costs, London instituted charges for traveling by car to the central city during peak hours. Although the theoretical influence on the number and severity of traffic accidents is ambiguous, the report shows that the policy generated a substantial reduction in both accidents and fatalities in the charged area and hours. At the same time, the spatial, temporal and vehicle specific nature of the charge may cause unintended substitutions as traffic and accidents shift to other proximate areas, times and to uncharged vehicles. The research demonstrate that, to the contrary, the congestion charge reduced accidents and fatalities in adjacent areas, times and for uncharged vehicles. These results are consistent with the government's objective to use the congestion charge to more broadly promote public transport and change driving habits.

14.2.10 Other academic research published in the past 3-years are as follows:

- Quera Salva MA, Barbot F, Hartley S, et al. Sleep disorders, sleepiness, and near-miss accidents among long-distance highway drivers in the summertime. Sleep Med 2014;15:23–6
- Philip P, Chaufton C, Orriols L, et al. Complaints of poor sleep and risk of traffic accidents: a population-based case-control study. PLoS One 2014;9:e114102.
- Anund A, Ihlström J, Fors C, et al. Factors associated with self-reported driver sleepiness and incidents in city bus drivers. Ind Health 2016;54:337–46

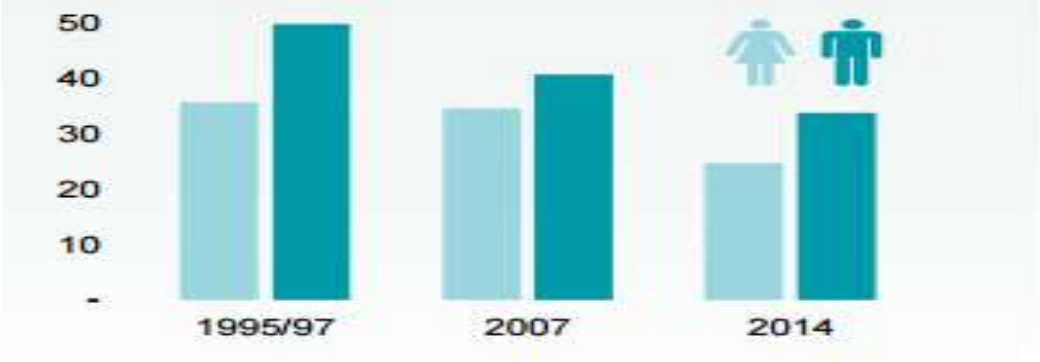
14.3 Number of young drivers trainee in the past 3 years

Practical car test candidates GB 2015/16

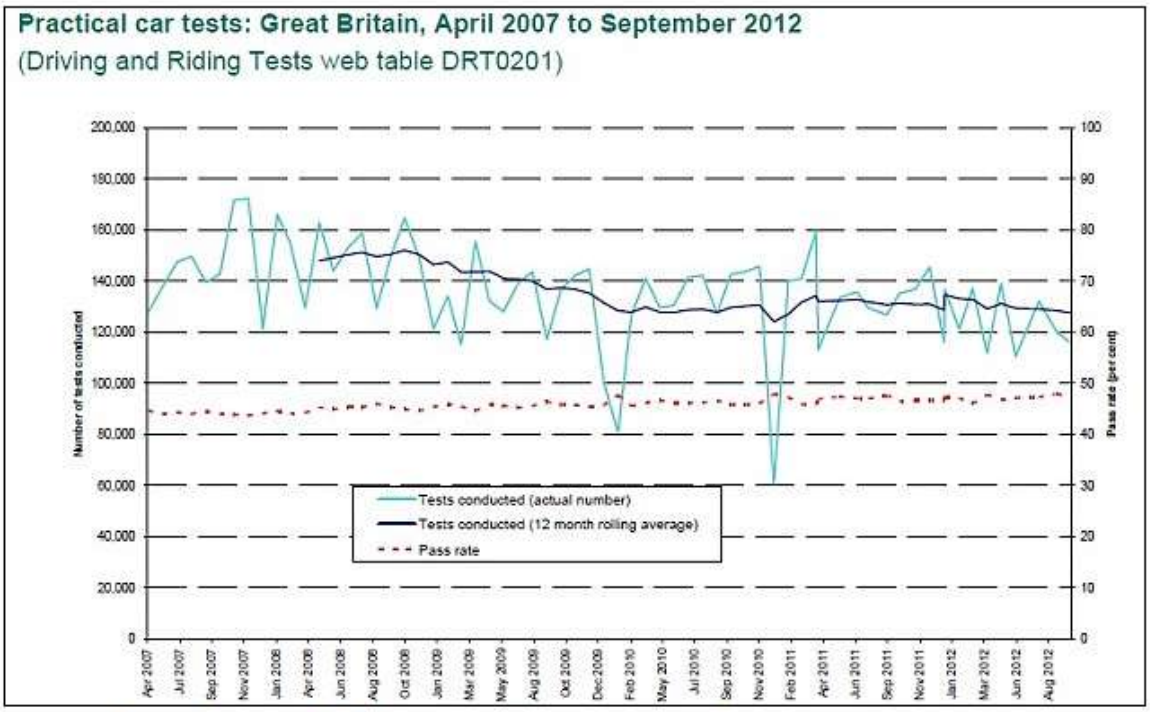


14.3.1 Data from the National Travel Survey show a downward trend in the proportion of young adults (aged 17-20) holding full licences since around 2007.

Driving license holding in age group 17-20 by gender, England (%)[27]



[27] Figures for 1995 onwards are based on weighted data, the National Travel Survey (table NTS0202)



The overall number of people taking their driving test has fallen since 2007 (Source: Department for Transport)

14.3.2 The number of young people learning to drive has dropped by almost a fifth since the beginning of the financial crisis (2008), official figures reveal. It is thought the soaring costs of driving, such as insurance and petrol, combined with squeezed incomes for young people could be transforming a generation's attitudes to cars. Learning to drive was seen as a rite of passage, with teenagers starting to work towards their licence straight after their 17th birthday. In addition the overall number of people taking their test is also falling, down by 5.3 per cent year-on-year in between July and September 2012 to 421,374. Recent figures put the cost of getting a teenage learner driver on the road at a colossal £5,000.

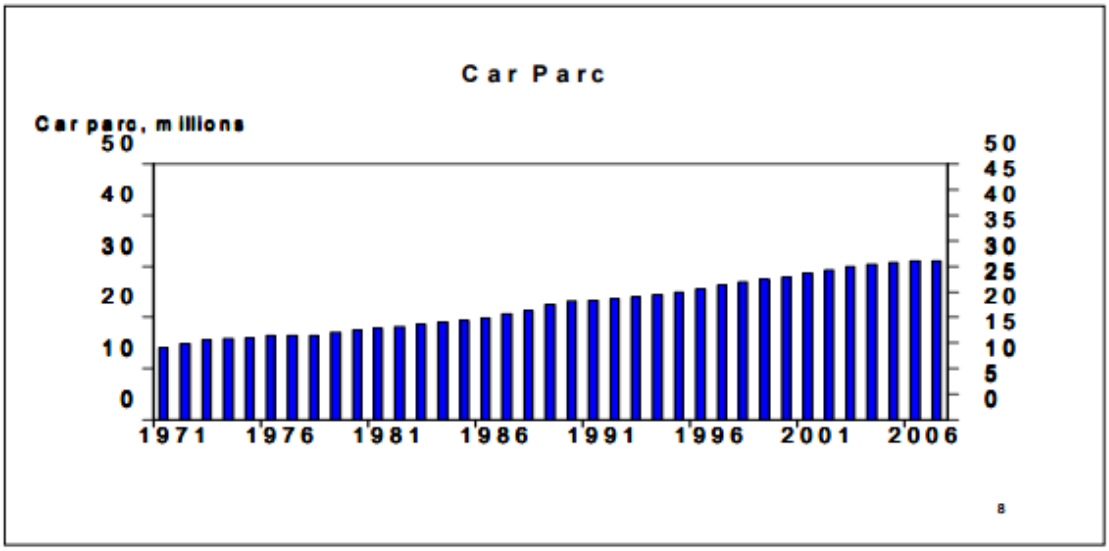
14.3.3 Driving lessons alone can now set teenagers or their parents back £1,500, while a new driver's car is around £1,200 on average, according to figures from Asda Money. Meanwhile car insurance costs for drivers aged between 17 and 22 have soared by more than 80 per cent since 2010, according to the AA. The average cost is more than £1,600 more than three times more than for someone aged 50-59.

14.4 Percentage of car owners in the UK

14.4.1 There has been a steady increase in the number of cars in the UK over the past thirty years driven by increases in the population and more so by the number of households as well increased economic prosperity. Growth has also occurred due to the increase in the number of people with driving licences; there is now nearly one car for everyone with a driving licence. Projections using different assumptions suggest a further growth of 30% by 2020.

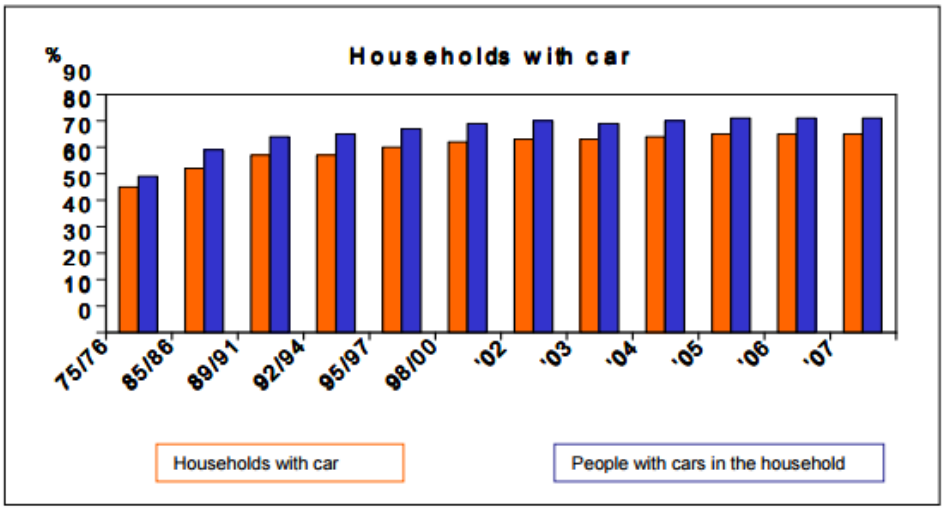
14.4.2 The car parc[28] has risen from 19 million in 1971 to over 31 million in 2007, an average growth rate of 3% per annum (see table below). The increase in individual years has reflected economic conditions; during the 1973 -1978 period after the first oil shock and during the early 1990s recession, growth was less than ½% per annum. Growth has also slowed in the past three years.

Car Parc (UK)



Source: SMMT

Household car ownership (Great Britain)

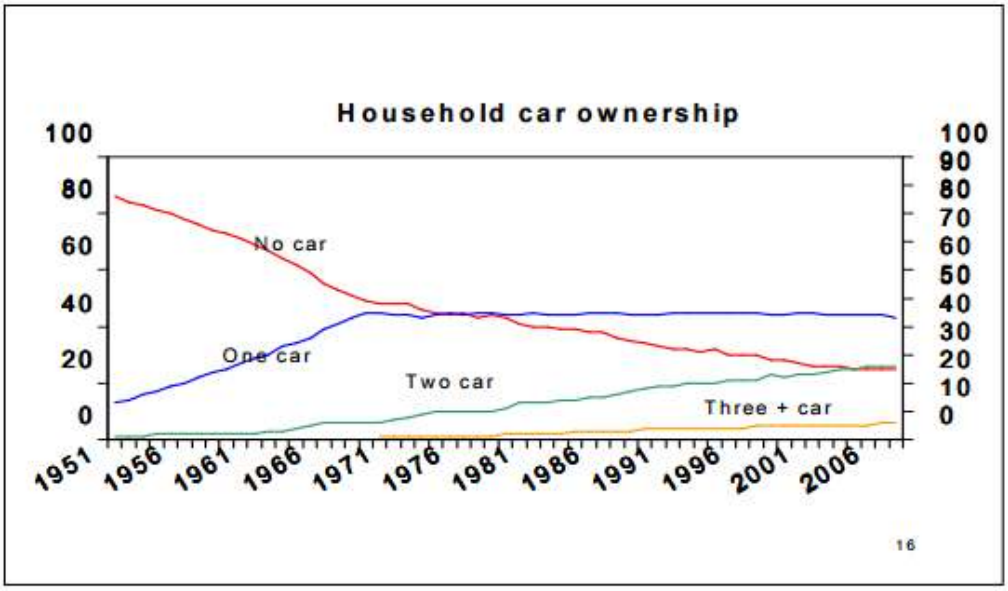


Source: National Travel Survey (2007)

[28] The car parc is the number of cars available in the UK; it includes cars which are licensed and those which are temporarily off the road which nowadays have to be registered under the SORN regulations (Statutory Off Road Notification).

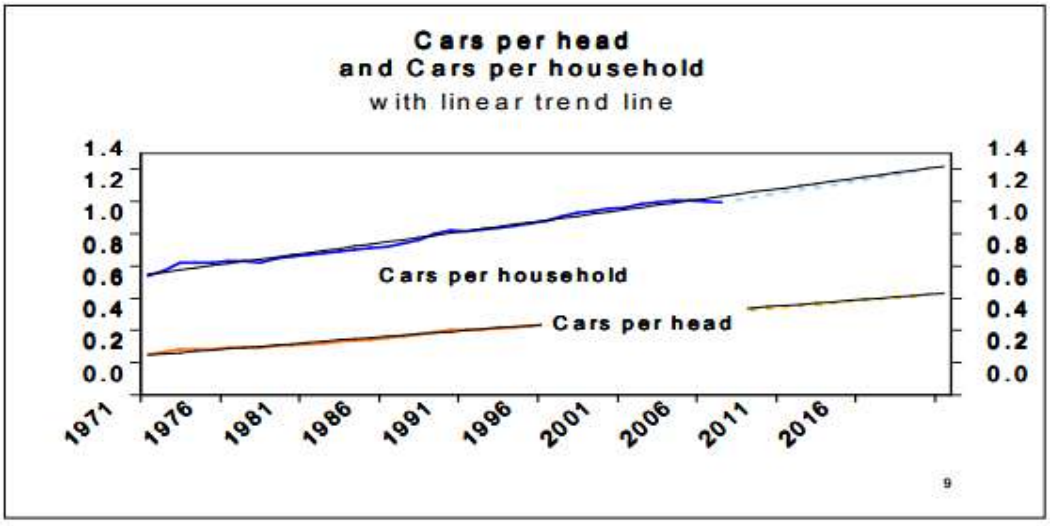
14.4.3 Car ownership is closely related to the number of households and the number of people in the household. Over 77% of households in Great Britain have a car and because car-owning households tend to have more than one person (most noncar owning households are single person households) the number of people with access to a car in the house is 81% of the total population. Growth in car ownership has largely been through the increase in the number of households with two or more cars as the proportion of one car households has remained remarkably constant at 44% since the mid 1960's (See: table below).

House care ownership



Source: Transport Statistics Great Britain

Car per head and car per household



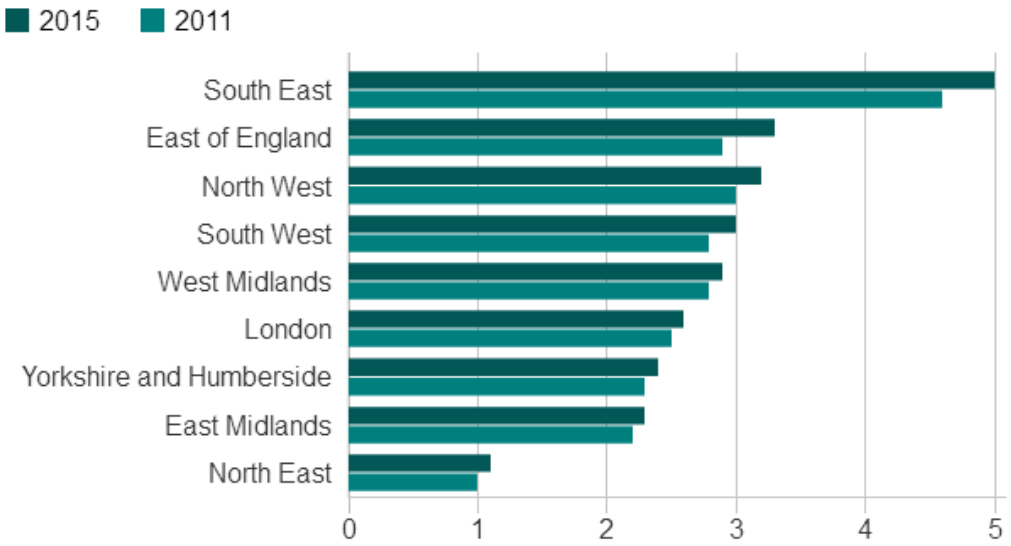
Source: Calculated from car parc and population/household estimates. Population and household projections are from the relevant government departments.

14.5 Quantitative data of car ownership in numbers and percentage

14.5.1 There are 25.8 million cars on English roads. Latest figures for the UK show there were 25.8 million licensed cars in the third quarter of 2015 compared with 25.2 million in the same period of 2014. Since 2011, the number has increased by about 1.6 million in England, 142,000 in Scotland and 69,000 in Wales.

14.5.2 The largest rise has been in south-east England, with 373,200 more cars over five years. The Society of Motor Manufacturers and Traders said there had been 2.63 million new cars made during 2015, a 6.3% rise on the year before. Production also hit a **seven-year high**.

Numbers of cars (millions) per region



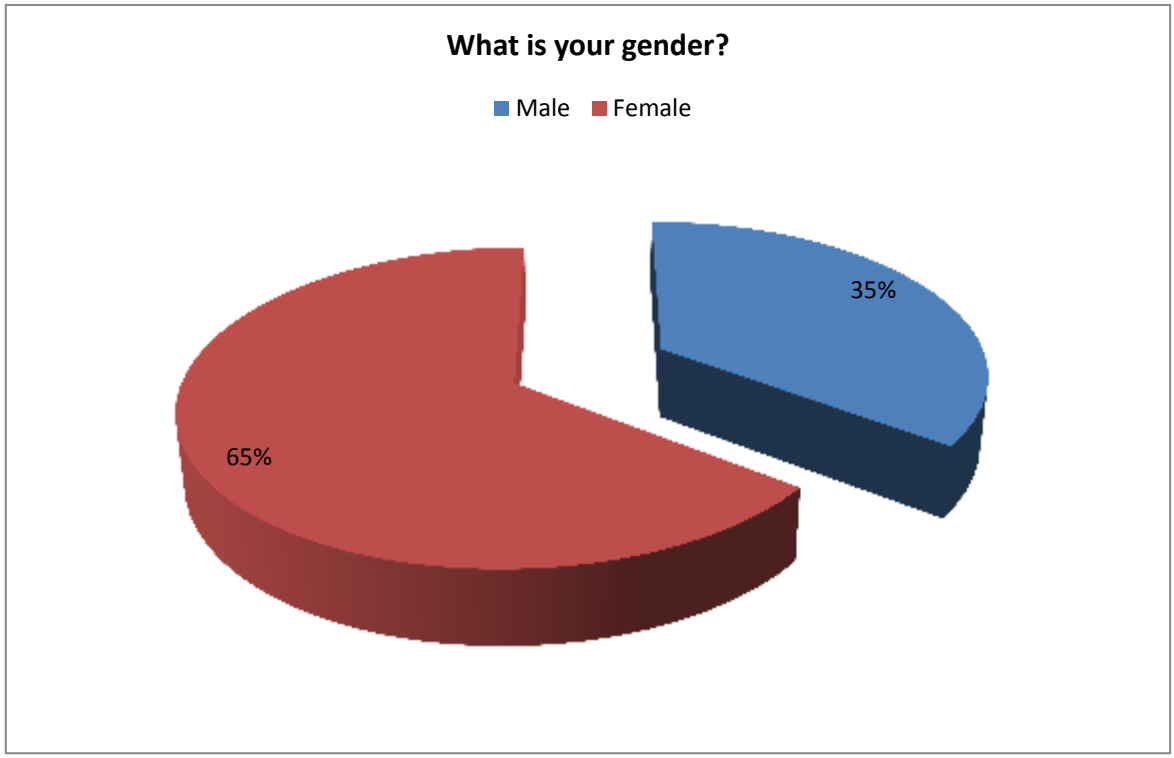
Source: Department for Transport

15 RESEULS OF THE QUALITATIVE RESEARCH

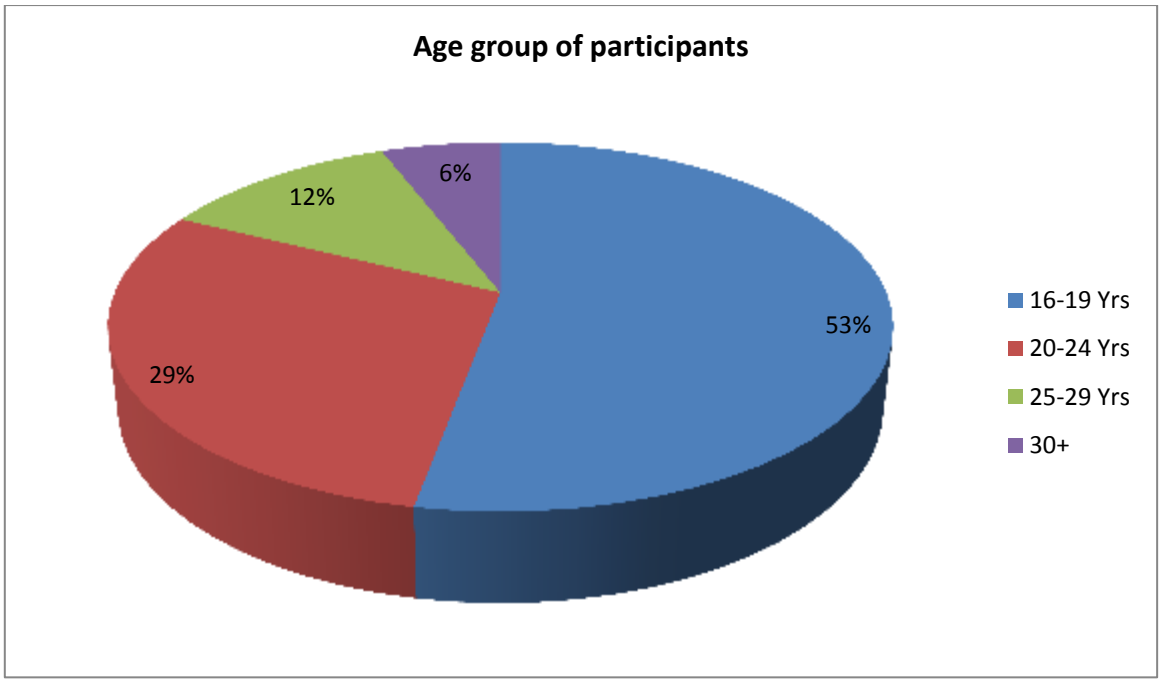
15.1 Between 17th February and 30th March 2018 seventeen young people participated in research carried in the UK for the E-DRIVERS project. The research used a combination of qualitative and quantitative methods.

15.2 Below are the results from the qualitative research with young respondents. The qualitative research included one-to-one interviews with individual young people and also focus groups with a mixture of young drivers – novice, experience and trainees.

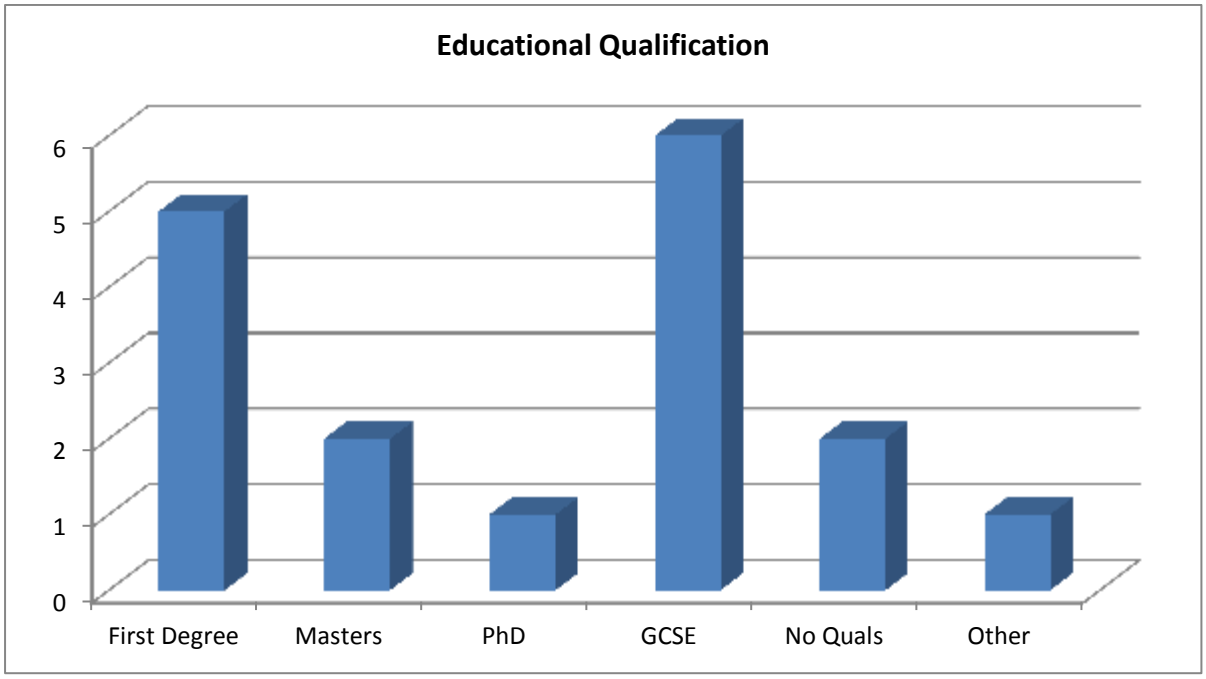
15.3 65% (n11) of those responding were female and 35% were male.



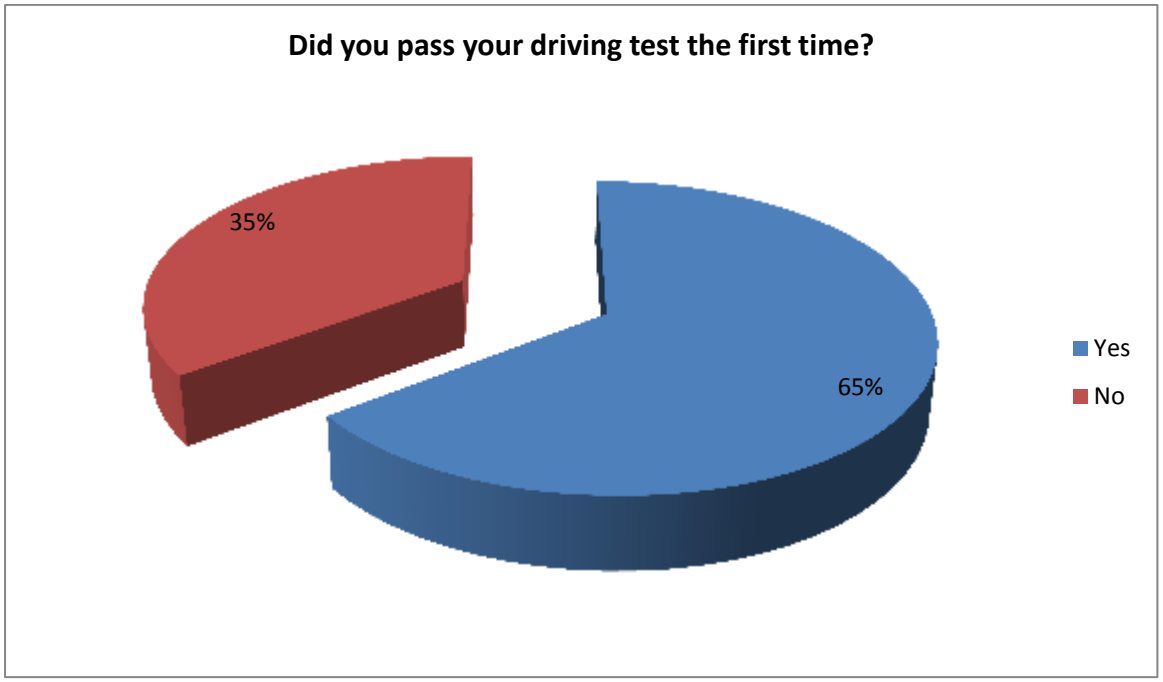
15.4 The majority were 16-19 year olds (53%). 29% were between the age of 20-24, 12% 25-29 with 6% over the age of 30.



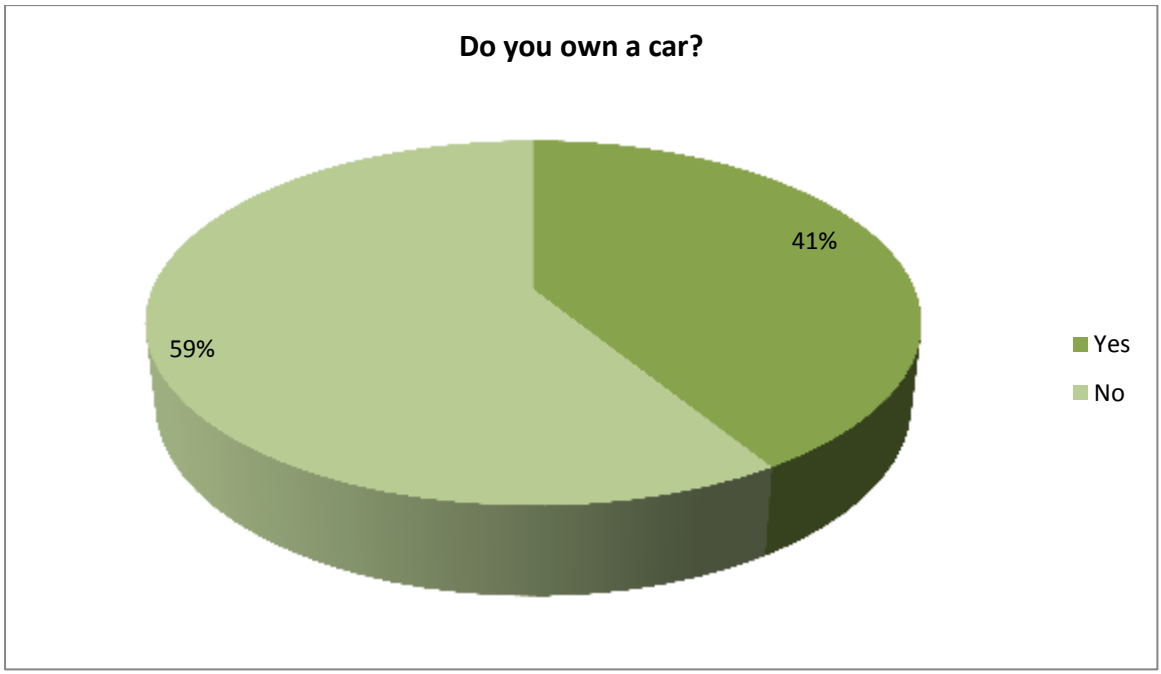
15.5 The majority of respondents were of a good education level.



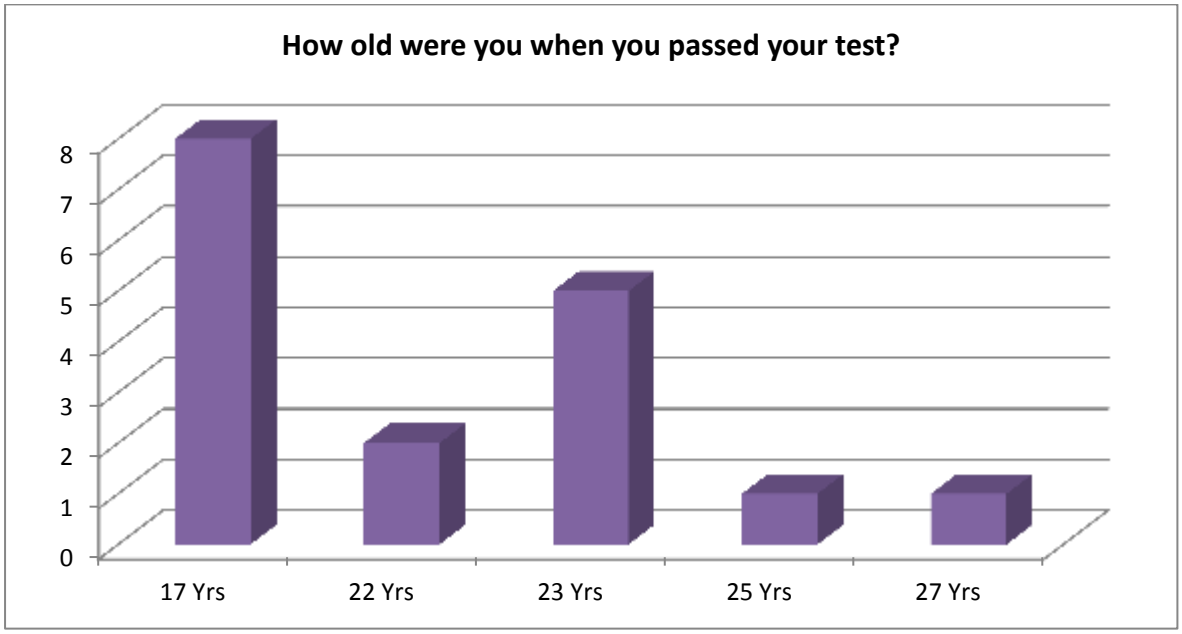
15.6 65% passed their driving test on the first occasion.



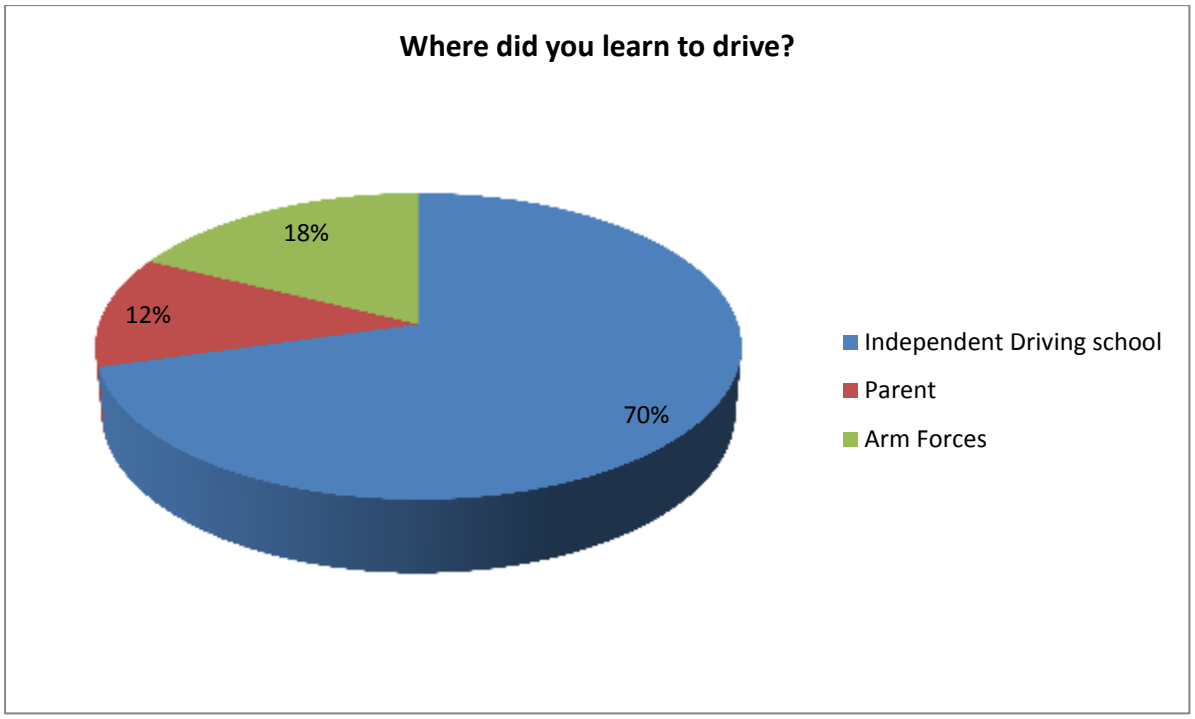
15.7 In 2016, 3.3 million vehicles were registered for the first time in Great Britain, the highest annual total ever recorded. 41% of the sample own their own car.



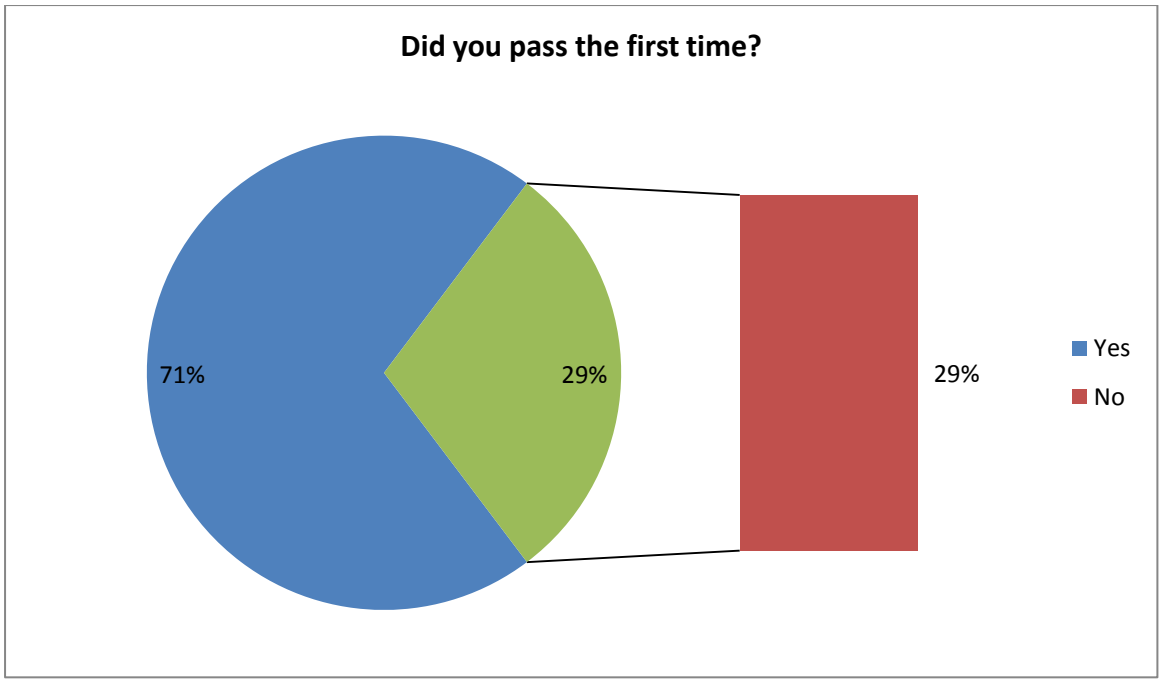
15.8 The majority of respondents were aged 17 years when they passed their driving test. All others were in the twenties.



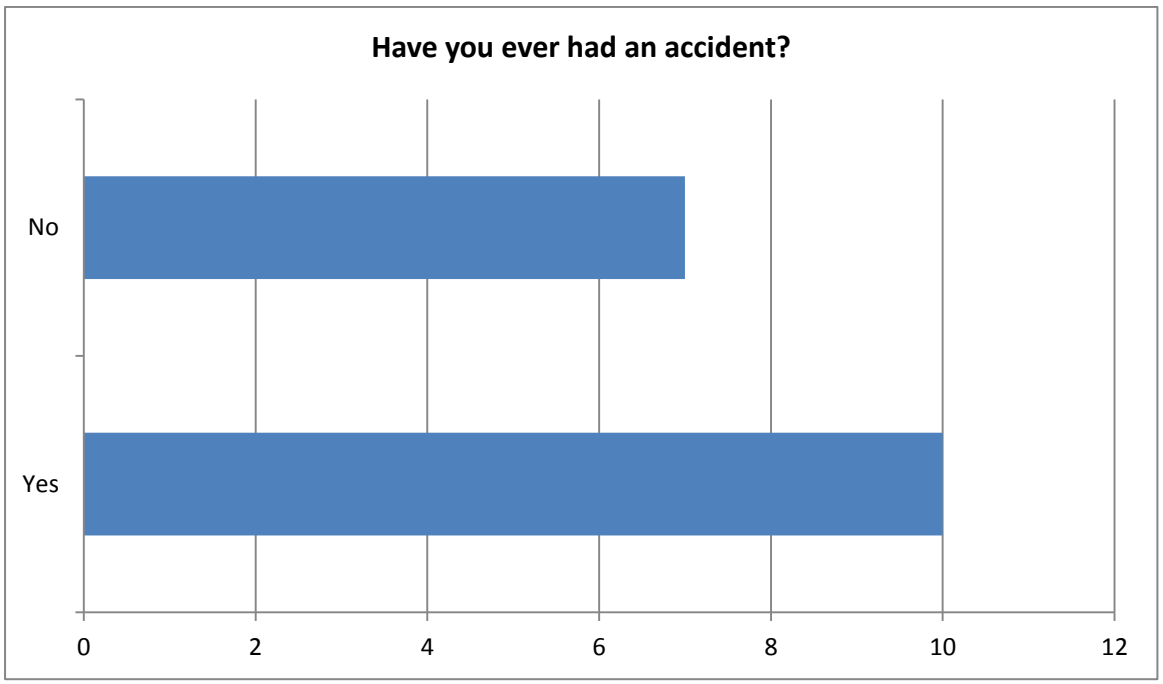
15.9 70% of respondents learned to drive with an independent driving school and a much smaller per cent was taught by their parent or whilst they were in the arm forces.



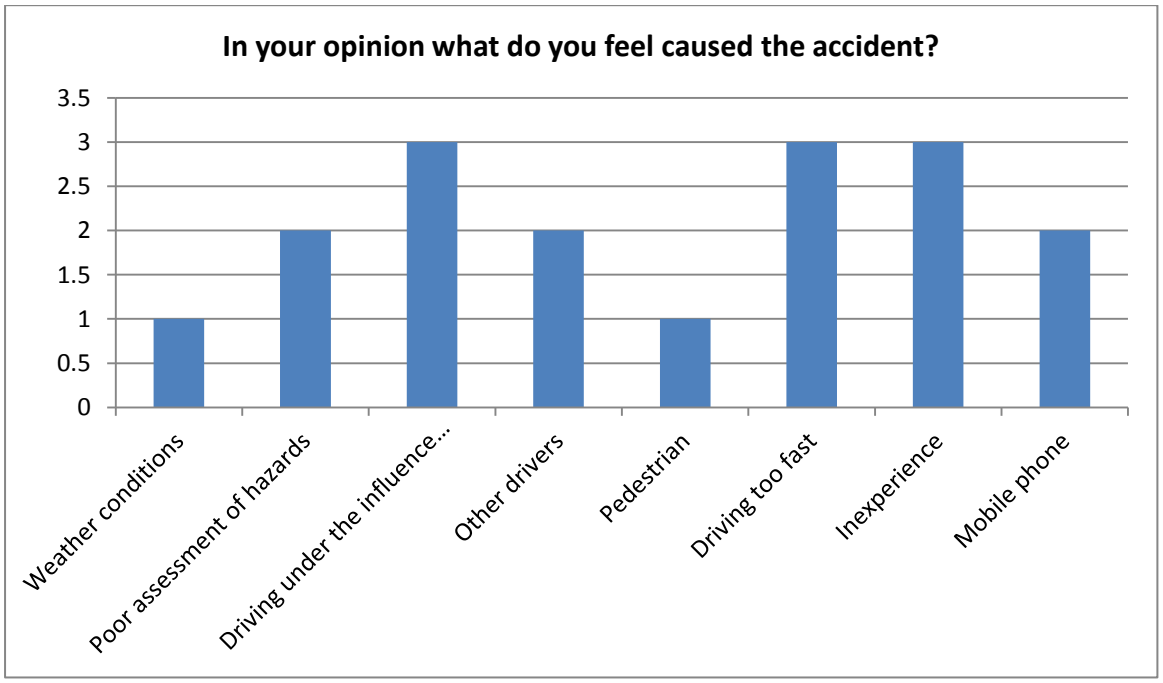
15.10 An alarming 71% passed their test on the first occasion with 29% having to take theirs again.



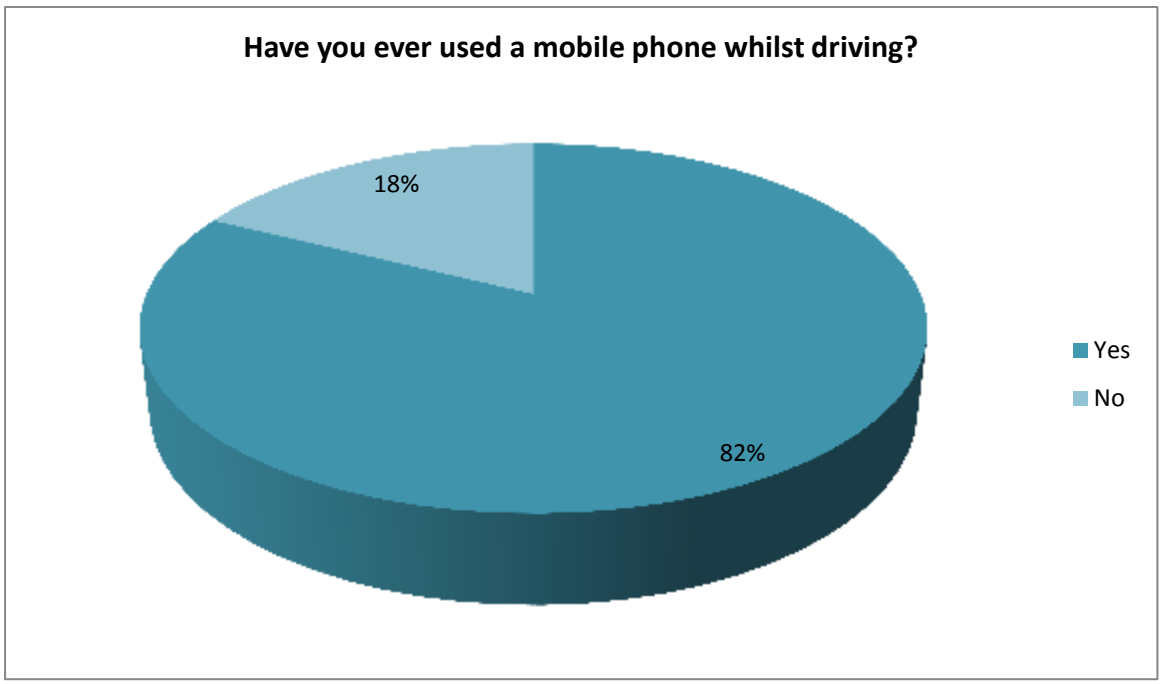
15.11 59% of respondents said they had been involved in an accident and 41% said no.



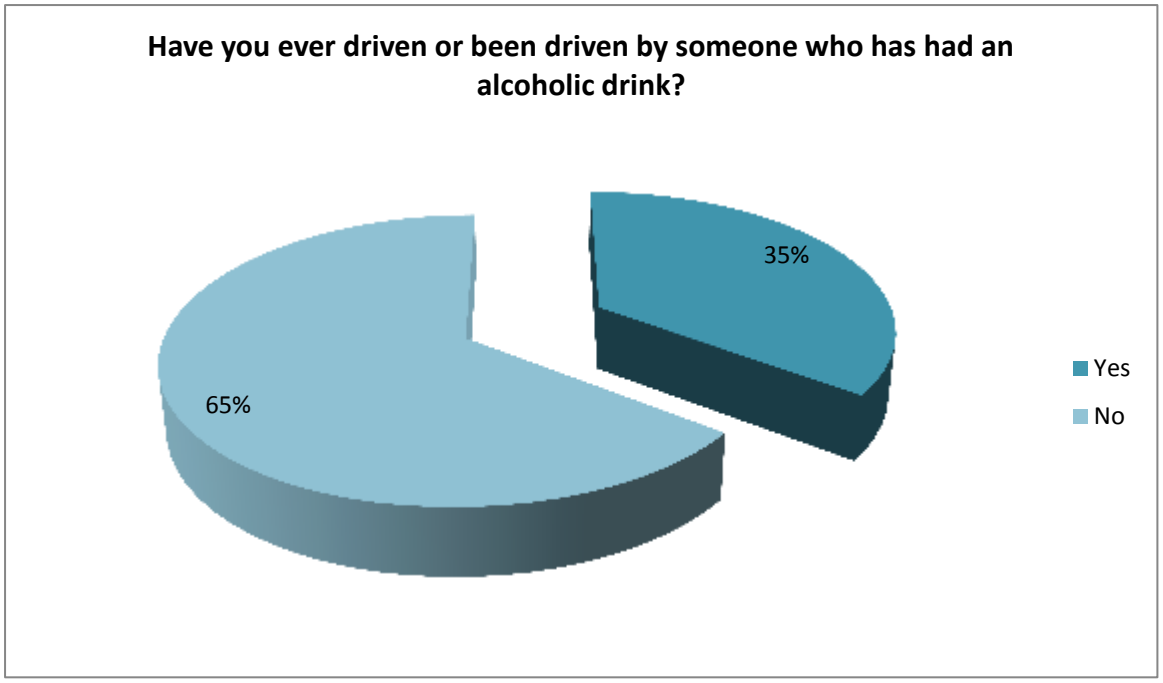
15.12 Of the 59% who were involved in accidents the majority were either driving too fast, inexperienced or driving under the influence of alcohol or drugs.



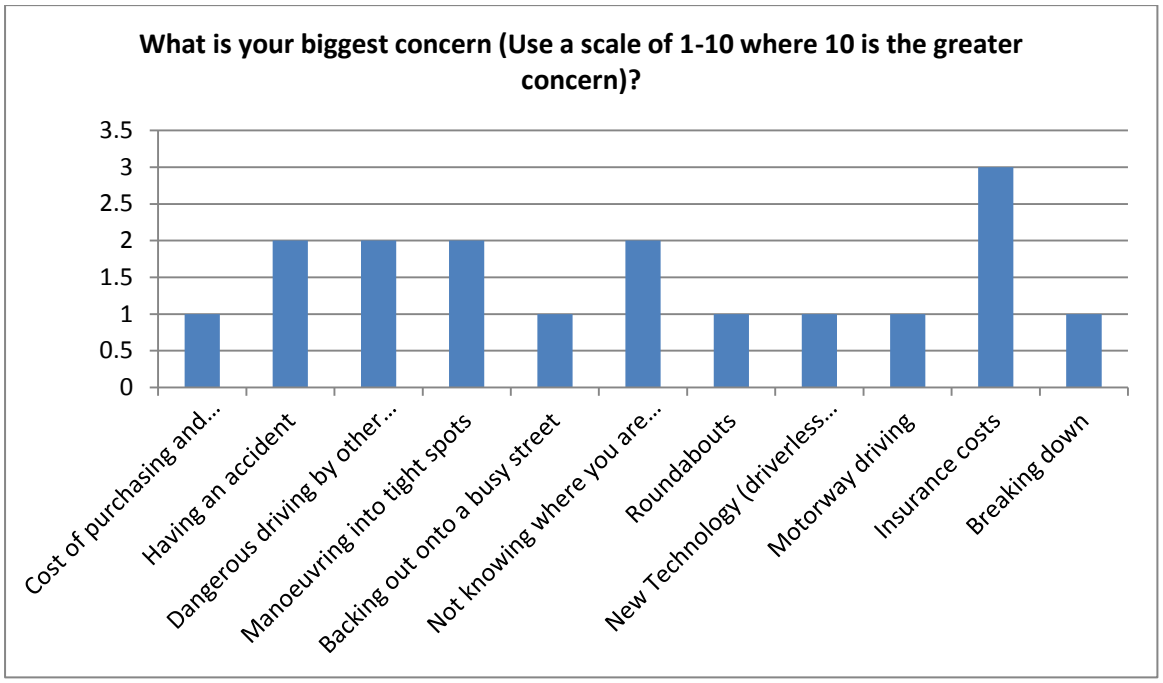
15.13 The use of mobile phones whilst driving was done by 82% of the sample.



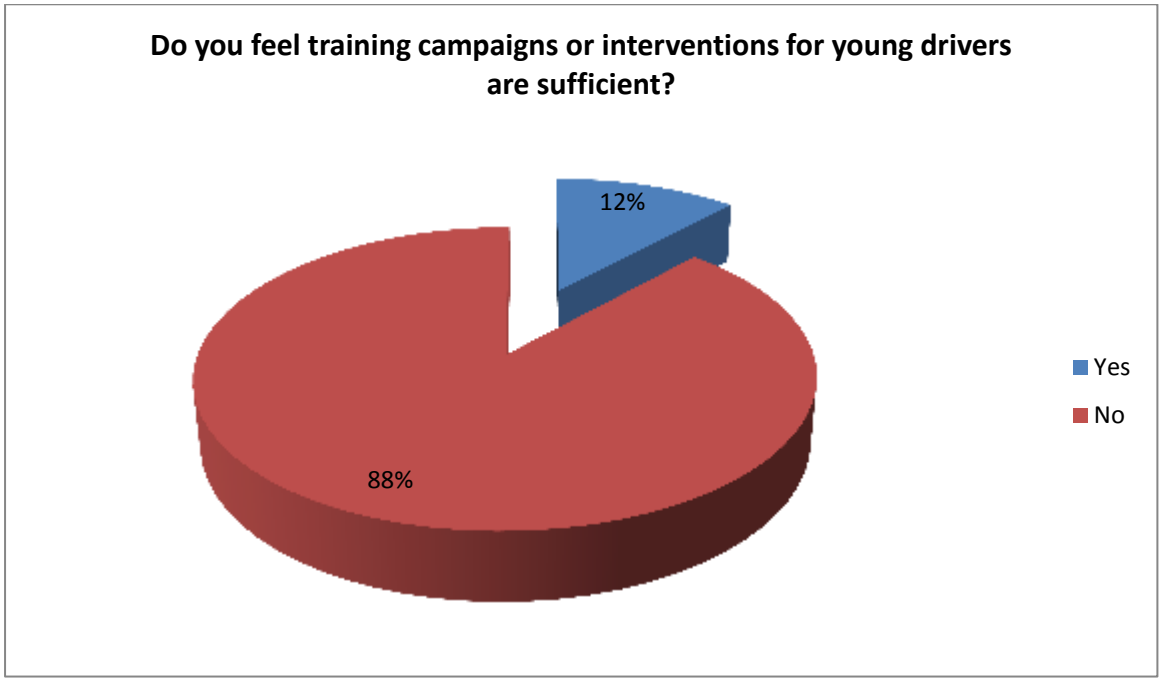
15.14 Although the majority of participants (65%) has never drink and drive a sizeable percentage (35%) said they had driven a car or was driven by someone who had been drinking.



15.15 When participants asked about their biggest driving concerns said insurance costs, followed by having an accident, dangerous driving by others and not knowing where they were going.

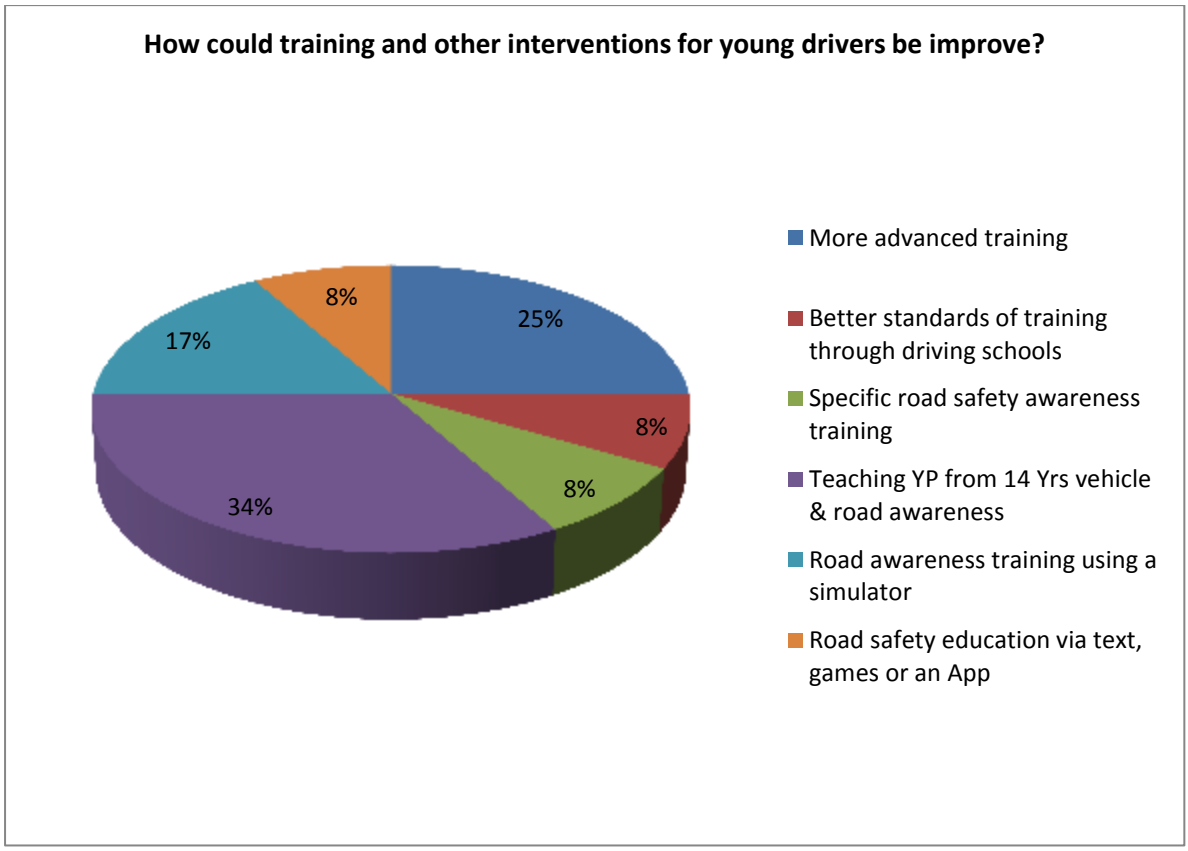


15.16 88% of the sample did not feel drivers training, campaigns or interventions for young drivers were sufficient.



15.17 When ask their opinion on what other interventions may help 25% said more advanced training was needed, 34% said teaching young people from the age of 14 years vehicle and

road awareness and 17% said providing road safety education via text, games and mobile Apps.



15.18 During the one-to-one interviews with young people said they were in agreement with some of the measures the RAC Foundation believes could help reduce the risk exposure that young drivers face, by introducing the following proposals on learning to drive:

- Encourage or mandate an increased amount of on-road supervised experience whilst learning to drive;
- Encourage or mandate learner drivers to practice in a variety of situations that they will experience on the road (such as driving in the dark, on motorways and in different weather conditions);
- Accelerate the introduction of the new practical driving test, which the Driver and Vehicle Licensing Agency has been trialling, which is widely recognised as providing a more realistic assessment of real-world independent driving; and
- Ensure, as part of the learning to drive process that, road safety education teaches young drivers how to develop self-regulatory plans to reduce driving risk

15.19 The majority of participants in the focus groups believe very strongly that it was not enough to just teach the physical skills and capabilities needed for driving practice in a variety of situations were also needed.