



Evidence to Transport Committee's Inquiry into Road Safety

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Summary

- Current government road safety policies focus too heavily on technology-based enforcement. The resulting reduction in police traffic patrols has led to many dangerous behaviours not being addressed adequately. If casualty figures are to resume a downward trend, a more effective approach to road safety is required.
- A new road safety strategy needs to address the most frequent causes of accidents. In 2017, failure to look properly was a contributory factor in 39 per cent of accidents, while failure to judge another person's path or speed contributed to 20 per cent. By contrast, exceeding a speed limit was a factor in just 5 per cent.
- Failures of observation and judgement are by far the most common contributory factors in accidents. The underlying cause of many of these errors is distraction in one form or another, where a road user is not paying sufficient attention. Tackling this problem will require a sustained educational campaign. This should include advice on avoiding the pitfalls of 'saccadic masking', a phenomenon related to the way the brain processes images from the eyes, which can lead to an object not being seen if a driver moves their head too fast. Up to a quarter of failed-to-look-properly accidents may be attributable to this cause.
- Safety camera partnerships are largely funded from the fees paid by drivers who have been offered a speed awareness course in lieu of a fixed penalty and points. This arrangement is an incentive to target locations where large numbers of drivers exceed unrealistically low speed limits, thus distorting enforcement priorities. It should be banned. Where speed limit enforcement can be justified, it should be funded by government grants, dependent on a camera partnership's success in reducing casualties.
- Enforcement against the reckless and irresponsible minority of drivers will always be required, but this should be undertaken primarily by police traffic patrols, which can deter such behaviour. Adequate funding needs to be provided for this purpose.
- Speed limits only benefit road safety if set at a level most drivers see as reasonable. International experience has found that setting speed limits at the 85th percentile speed (the speed that only 15 per cent of drivers would wish to exceed) leads to the smoothest traffic flow, low speed variance and the lowest accident risk. There is evidence that speed variance, rather than average speed, is most closely associated with accident risk. Government guidance should revert to the 85th percentile as the main criterion for setting local speed limits.
- Transport policies, especially in towns and cities, should be reviewed to recognise the need to provide fairly for all road users. Where road space has been assigned disproportionately to minority user groups such as cyclists, different road users have been alienated from one another. All road users, including cyclists and pedestrians, have a responsibility to ensure that their actions do not put themselves or others at risk. Consequently, cooperation and courtesy between road users should be encouraged in order to improve road safety.

1. Introduction

- 1.1 The Alliance of British Drivers (ABD) campaigns for a better deal for Britain's motorists. It is a voluntary organisation funded by subscriptions and donations from members and supporters. The ABD receives no funds from public bodies or private-sector businesses, so is truly independent. It is a member of the Parliamentary Advisory Council for Transport Safety and the National Council of Voluntary Organisations. It is also a member of Transport Focus's Road User Panel.
- 1.2 The ABD has long been concerned that current road safety policies and interventions do not address the real causes of most road accidents. A radical change of approach is long overdue.
- 1.3 The following sections of this submission address the questions raised in the call for evidence.

2. How effective is the Government's current approach to road safety?

- 2.1 The policies of successive governments in recent decades have become increasingly focussed on a control-and-punish approach to motorised road users, especially since the introduction of technology such as speed, red light and bus lane cameras. This has led to an explosion in the number of drivers prosecuted each year but has not resulted in a commensurate reduction in casualty numbers.
- 2.2 The increase in technological enforcement has gone hand-in-hand with a reduction in police traffic patrols and the deterrent effect they have on less responsible road users. Many hazardous activities, such as drink and drug driving and mobile phone use, cannot be tackled remotely.
- 2.3 It is being increasingly recognised internationally that there is a link between the rate of casualty reduction and the economic cycle¹. Casualty numbers fall faster during recessions and slower during periods of economic growth, as witnessed by the flat-lining in the UK since 2012. If casualties are to be reduced with a growing economy, a more effective approach to road safety is required.

3. Are there any areas where the Government's current approach to road safety could be improved?

- 3.1 For a road safety approach to be effective, it needs to focus on tackling the most frequent causes of accidents. Contributory factors in road accidents are published annually by the Department for Transport². The predominant factor every year is where a driver or rider failed to look properly. In 2017, this was a factor in 39 per cent of recorded accidents. In a further 20 per cent, a driver or rider failed to judge another person's path or speed. By contrast, exceeding a speed limit was a factor in just 5 per cent.

- 3.2 From these figures it is clear that errors of judgement and failures of observation are much more common factors in accident causation than exceeding speed limits. Yet it is the latter on which most enforcement activity is focussed, simply because the technology exists to do so. Priorities for speed limit enforcement are also distorted by the need to generate sufficient funding to maintain and expand camera partnerships. These bodies are largely funded from the fees paid by drivers to attend speed awareness courses. Enforcement activity is thus targeted mainly at locations where large numbers of drivers exceed often unreasonably low speed limits, rather than where actual danger is caused.
- 3.3 While enforcement against the actions of the reckless and irresponsible minority will always be required, the emphasis in future needs to be much more on education and training of the responsible majority. The root cause of many errors of judgement and failures of observation is distraction in one form or another, where a road user is not giving sufficient attention to the task in hand. Tackling this problem may not be easy but will be essential if casualty figures are to resume a downward path.

4. What interventions would be most effective at reducing the number and severity of road traffic accidents?

- 4.1 In recent years, the concept of ‘Vision Zero’ has been adopted in several countries. Its ultimate aim is that no one should be fatally or seriously injured on the roads. In the UK, development of this concept has led to the ‘safe system’ approach to road safety. Some aspects of that approach are of concern to the ABD, especially the call for even lower speed limits and policies that would further exacerbate tensions between different groups of road users. The ABD has produced its alternative approach to Vision Zero³, from which relevant proposals are set out in the following paragraphs.
- 4.2 Firstly, we need to get away from the obsession with speed limits and their enforcement. Speed limits only benefit road safety if set at a level that the majority of drivers accept as reasonable. In practice this means setting them as close as possible to the 85th percentile speed, i.e. the speed that only 15 per cent of drivers would want to exceed anyway. Speed limits set this way lead to the smoothest traffic flow, low speed variance and the lowest accident risk. If set below this level, as is the case with many speed limits in the UK, speed variance increases, leading to more overtaking and driver frustration, with a consequent increase in accident risk. Reverting to the setting of speed limits in accordance with the 85th percentile principle is essential.
- 4.3 The funding of camera partnerships from the fees paid by drivers offered speed awareness course should be outlawed, as it distorts enforcement priorities. The ABD also considers that it may be illegal⁴. Speed limit enforcement should be funded through government grants, such funding to be dependent on a safety partnership’s success in reducing casualties, with fine income reverting to the Treasury.
- 4.4 Adequate funding should be provided for the police to reinstate traffic patrols, in order to deter reckless behaviour by the minority of drivers who, in many cases, are not caught by automated camera enforcement.

- 4.5 Cooperation and courtesy between road users should be encouraged. All road users have a responsibility to ensure that their actions do not put themselves or others at risk. This applies to pedestrians and cyclists as well as drivers of motor vehicles. The transport policies adopted by many local authorities in recent years have, however, alienated different road users from one another. While there may be some merit in encouraging more walking and cycling for short urban trips, it should not be at the expense of the users of motor vehicles, who will often have no realistic alternative. Underused bus and cycle lanes that have taken road space from cars, vans and lorries have exacerbated congestion, resulting in longer journey times and poorer air quality.
- 4.6 There needs to be a review of transport policies, therefore, especially in towns and cities, where road space has been disproportionately reallocated to non-motorised road users for ideological reasons. A more harmonious co-existence between different user groups must be restored.
- 4.7 The ABD has always strongly supported road user education over enforcement, while recognising that there is a minority of people for whom the deterrent of enforcement is required. In this respect the ABD is at odds with the majority of the road safety 'establishment', which generally seems to dismiss driver training as ineffective.
- 4.8 This attitude defies common sense. If driver training were worthless, why bother with a driving test at all? A double decked bus may hold sixty or more unrestrained passengers, whose safety relies entirely on the skill of the highly trained driver. Many insurance companies give discounted premiums to drivers who have completed further training with organisations such as IAM RoadSmart or RoSPA. Would they do so unless they had evidence that such drivers pose a lower risk?
- 4.9 It has already been shown that the most frequent contributory factor to road accidents is failure to look properly. It is likely that part of this problem is due to a phenomenon called 'saccadic masking', which affects the way the brain processes images from the eyes as a driver moves their head from side to side when looking for other road users. If this scanning is not done properly, it is possible that another road user on a potential collision course will not be seen, leading to an accident. It is relatively easy to train people to avoid falling into this trap. The ABD has analysed a study of failed-to-look-properly accidents by Gateshead Council and estimates that up to 25 per cent of them could be prevented if drivers were taught how to look properly⁵.

5. What evidence is there on the effectiveness of these interventions?

- 5.1 Evidence on the effectiveness of setting speed limits in accordance with the 85th percentile principle has been growing since the 1930s in the USA and in the UK since the 1960s. Research in the USA into the relationship between fatality rates, average speed and speed variance on a variety of road types found that there is no statistically discernible relationship between the fatality rate and average speed, but there is a strong relationship with speed variance⁶.
- 5.2 Further research in the USA into the relationship between speed and accident risk shows that drivers are at minimum risk when travelling 5-10mph above the mean speed. The reversed J-shaped curve showing this speed-accident relationship is

known as the Solomon curve after the researcher who first identified it⁷. A different methodology produced a similar curve to Solomon's⁸.

- 5.3 In 1980, the UK's then Department of Transport published evidence on the beneficial impact on accident frequency of raising unrealistically low speed limits⁹.
- 5.4 More recent UK evidence that speed variance is more important than average speed comes from the raising of the speed limit for heavy goods vehicles on single-carriageway roads from 40 to 50mph in 2015. The ABD supported the increase in the 2013 consultation on the issue, while a majority of respondents were opposed. Preliminary findings published in November 2016¹⁰ indicate reductions in HGV collisions of between 10 and 36 percent. The final results of the three-year monitoring study are yet to be published at the time of writing.
- 5.5 Research carried out recently at Penn State University in the USA¹¹ shows that small reductions in speed limits to below the 85th percentile speed (up to 5mph) can produce a reduction in accidents, but reductions of 10mph or more below the 85th percentile lead to increases in accidents.
- 5.6 The benefits of road user training by the likes of IAM RoadSmart¹² and RoSPA¹³ is evidenced by the preferential insurance premiums paid by drivers who have undertaken their courses and tests. The Under 17 Car Club, which allows young people below the driving age to gain experience in driving away from public roads, has surveyed its former members several times. These surveys show that its members have significantly fewer accidents and convictions than the general public¹⁴.
- 5.7 Pilots have for decades been trained in how to avoid the pitfalls of saccadic masking, so there is no question that, in certain circumstances, it can lead to accidents. The ABD has produced a video explaining the problem and how to counter it¹⁵.

6. How can interventions to reduce the number and severity of road traffic accidents best be implemented?

- 6.1 The Department for Transport (DfT) should issue new guidance on the setting of local speed limits, reinstating the 85th percentile as the main criterion. Local highway authorities that wanted to set a particular speed limit lower than this should be required to seek authorisation from the DfT. This would prevent neighbouring authorities imposing different speed limits on similar roads, which causes confusion and brings all speed limits into disrepute.
- 6.2 The government should prohibit the funding of camera enforcement from fines or charges generated by that enforcement, including fees paid to attend driver improvement courses. Enforcement should instead be funded by government grants.
- 6.3 The government should recognise the important role of police traffic patrols in deterring and detecting dangerous driving. It should provide the necessary funding to reinstate such patrols to the level required for effectiveness.

- 6.4 Government guidance to local authorities should be changed to ensure that transport policies recognise the need to provide fairly for all road users. Road space must not be assigned disproportionately to minority user groups such as cyclists.
- 6.5 Much greater emphasis needs to be placed on road user education, starting at an early age in schools and including pre-driver training. Campaigns should be conducted regularly to bring public attention to specific issues, including the dangers of saccadic masking.

7. **References**

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