

Development Department Research Programme Research Findings No. 119

Tourist Road Accidents in Rural Scotland

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TRL was commissioned by the Scottish Executive to investigate whether visitors to rural tourist areas in Scotland are subject to a higher involvement in road accidents compared with local drivers. Statistical road accident data for Scotland was examined for the years 1999 and 2000, and detailed case studies of accidents in three largely rural tourist areas – Aberdeenshire, Argyll & Bute and Highland – were carried out to set tourist accidents in these areas within the overall Scottish context.

Main Findings

- Tourist activity *does* significantly boost road accident numbers in the rural tourist areas of Scotland and visitor drivers, including foreign drivers, are involved in a measurably greater number of accidents in the case study areas.
- Half of the drivers involved in accidents in Scotland were within 5km of their home address and fewer than 2% were more than 240 km from it. However in the police areas of Grampian, which includes Aberdeenshire and Northern which contains Highland, fewer of the accidents involved drivers who were close to their homes.
- The involvement of tourists compared with locals in road accidents is probably not excessive in relation to their numbers and the increased mileage they probably drive.
- The exposure data for foreign drivers is not adequate to establish whether they are at greater risk of an accident than local drivers.
- The majority of accidents caused by *foreign* drivers arose from the drivers' unfamiliarity with driving on the left hand side of the road.
- The accidents caused by *UK visitor* drivers may reflect their lack of driving and overtaking experience on rural single carriageway roads, since the crashes in which they were judged to be at fault involved losing control, the negotiation of bends and collision with pedestrians or animals.
- *Local drivers* who had caused an accident were most likely to have lost control or to have been driving too fast.

Introduction

Road accident statistics indicate that parts of rural Scotland suffer higher fatal and serious road accident casualty rates (per thousand population) than the Scottish average. It is the perception of some authorities and residents in these areas that a relatively high proportion of these accidents involve tourists (especially foreign drivers) visiting the area, who are unfamiliar with the layout of the roads and the nature of the traffic in that location.

This research was commissioned to determine, at a national level, whether there is a significant road accident problem posed by tourists visiting rural Scotland, and to explore the circumstances in which these accidents occur. The number and type of road accidents involving non-local drivers in three rural case study areas in Scotland was investigated in order to inform the Scottish Road Safety Campaign on the nature and extent of the problem and to recommend how road safety awareness amongst visitor drivers can be raised.

The objectives of the study were:

- To set accidents in tourist areas in the context of general accidents in Scotland as a whole and establish whether there was a particular problem involving tourists in the areas of Aberdeenshire, Argyll and Bute and Highland.
- To determine whether there was a particular problem with foreign drivers or whether accidents are as likely to involve UK visitors to the area.
- To establish whether one type of accident, or pattern of accidents, predominated more than others and on what type of road these tend to occur.
- To ascertain the causes of tourist accidents, and whether these were due to factors such as unfamiliarity with the road layout or type, distraction or failure to understand the signing.
- To provide recommendations on road safety strategies, to address any problems found to exist.

Methodology

The study was separated into a largely qualitative introductory stage and a quantitative casualty analysis stage. The first stage included a qualitative survey to identify whether accidents involving tourists were a cause for concern amongst local officials. Car hire companies were also contacted to ascertain what data on tourist drivers (for both foreign drivers and non-local) they held. In addition local press coverage was reviewed to assess the extent, if any, of over-emphasis on reporting accidents involving visitors, which could have created an unjustified perception that accidents involving foreign drivers and UK visitors were a particular problem in the area. For this research, twenty relevant professionals/officials were interviewed, ten car hire firms approached and 728 newspapers were examined.

The quantitative stage looked at statistical road accident data for all of Scotland. The main statistical data was obtained from the Scottish Executive and contained data from the Police Road Traffic Accident form, STATS19, for the years 1999 and 2000. This was used to set the accidents in the study areas in the general context of accidents in Scotland as a whole. This data was then analysed to determine the types of accidents, types of roads, speed limits etc. that were associated with accidents involving foreign drivers. The results were compared with accidents involving all drivers. Plain language descriptions for Highland were analysed to determine the cause of accidents involving foreign drivers and a sample of accidents involving non-foreign drivers. In addition, drivers who were involved in an accident more than 240km from their home address were investigated in the same manner.

Results

The research found that accidents involving tourist and visitor drivers comprise a small proportion of all accidents in Scotland. In many areas these accidents do not constitute a serious problem. In the three study areas however, selected because they were representative of rural tourist destinations, there were significant peaks in accident numbers coinciding with

peaks in visitor numbers during the third quarter of the year. In those areas tourist and visitor drivers add significantly to the annual accident total. It is therefore not unexpected that the qualitative survey found that officials in Argyll and Bute and Highlands perceived tourist accidents to be a particular problem in their areas.

Fig 1 Total accidents and KSI accidents in Scotland 1999

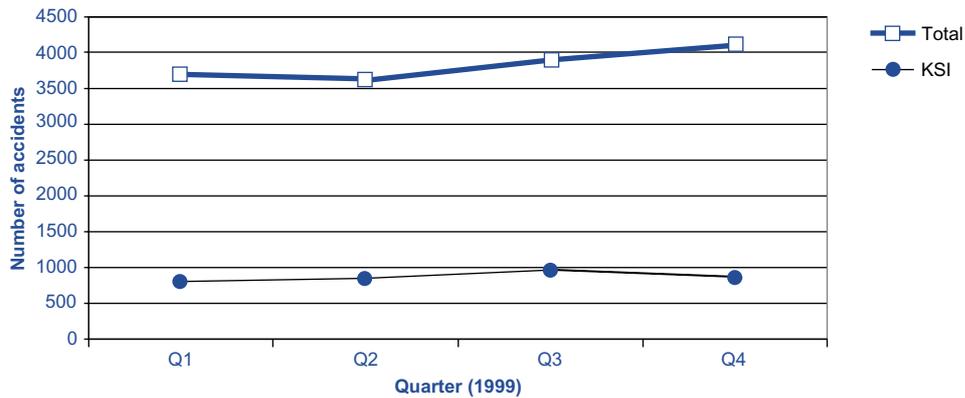


Fig 2 Total accidents and KSI accidents in Northern 1997-99

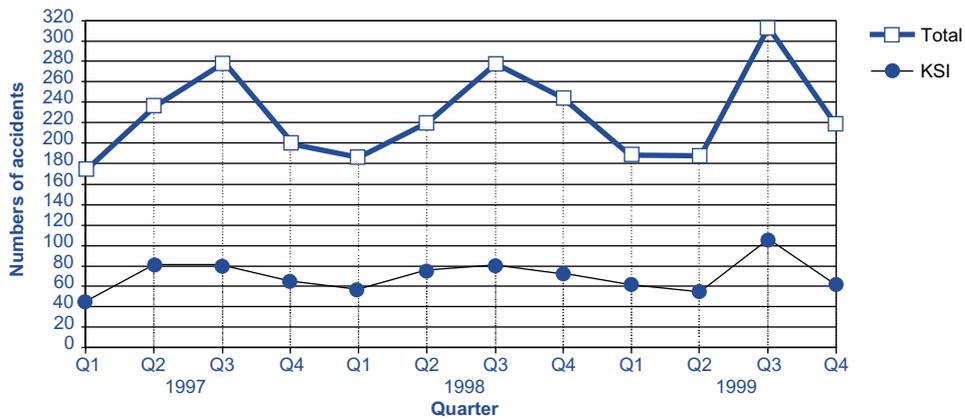


Fig 3 Total accidents and KSI accidents in Argyll & Bute 1997-99

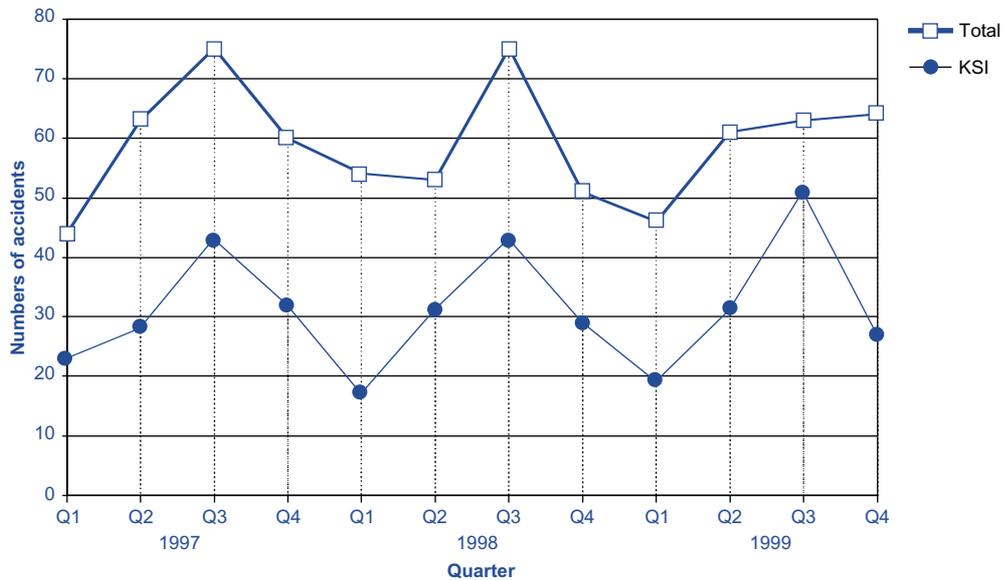
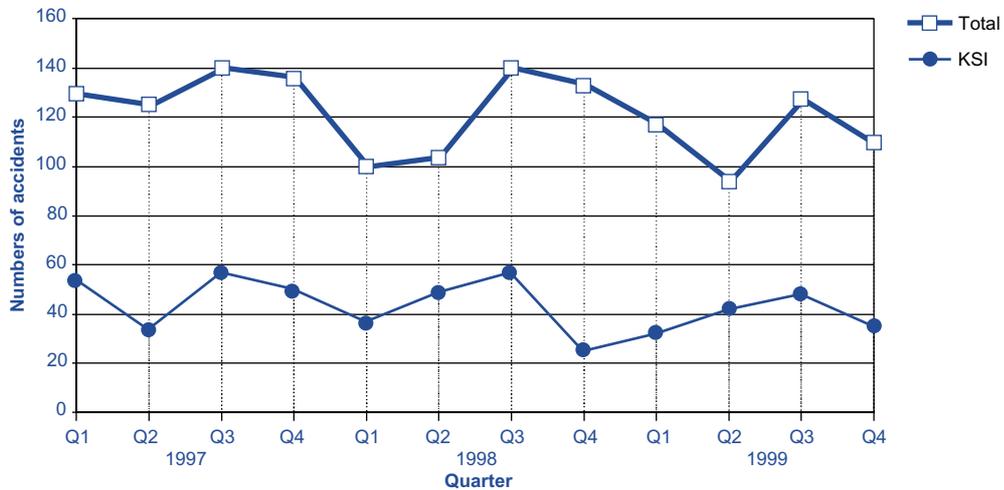


Fig 4 Total accidents and KSI accidents in Aberdeenshire 1997-99



Rural versus Urban

Another element of the project was to compare and contrast the involvement of local, non-local UK drivers and foreign drivers in accidents in rural as opposed to urban Scotland. It is likely that all drivers in and from rural areas will make longer trips on average than those in built-up regions because services and potential destinations are distributed much more widely than in urban areas. National Travel Survey statistics indicate that the average trip length in rural areas is greater than in non-rural areas. Moreover, the

average length of a day trip (which would be more similar to the typical 'tourist' journey) in Great Britain is 18.5 miles. Initial findings from the Scottish Household Survey suggest that the 'rural Scotland' figures are even higher.

The casualties involved in accidents in rural areas of Scotland tend to be more severely injured than those in urban areas. On average, 30% of casualties in rural areas are fatal or serious, whilst this reduces to 19% in urban areas (see Table 1).

Table 1 Casualty severity on Urban and Rural roads (1999-2000, Scotland)

	Severity			Total	Percentage Severity		
	Fatal	Serious	Slight		Fatal	Serious	Slight
Rural	328	2,281	6,324	8,933	4.0	26.1	69.9
Urban	161	2,798	12,611	15,570	1.2	17.5	81.3
Total	489	5,079	18,935	24,503	2.2	20.7	77.1

All data used whether postcodes accurate or not

There were differences between the rural and urban areas in the proportions of accidents involving non-local drivers. In urban areas 91% of accidents involved local drivers only and only 2% were non-local drivers. In rural areas, 17% of accidents involved only non-local drivers and a further 12% involved one or more non-locals.

Table 2 shows how the proportion of local and non-local drivers involved in accidents varied in the main study areas in comparison to average figures for Scotland as a whole. Clearly, there were much higher proportions of accidents involving only non-local

drivers and both local and non-local drivers, in the study areas in comparison with figures for Scotland as a whole. Correspondingly, a smaller percentage of all accidents involved only local drivers in the local authorities that constituted the study areas.

Exposure data are limited but it appears that overall, the increase in accidents in the third quarter does not outgrow the seasonal increase in vehicle mileage. Thus there is no clear evidence that in general visitors are more or less likely to be involved in an accident than local drivers, or that foreign drivers are more at risk than UK drivers.

Table 2 Distribution of UK driver involvement in accidents, 1999 and 2000 by Study Area

	1999			2000		
	Percentage			Percentage		
Local Authority	Locals only	Mix local and non locals	Non locals only	Locals only	Mix local and non locals	Non locals only
Aberdeenshire	71	12	17	72	6	22
Argyll & Bute	62	17	21	65	14	21
Highland	62	14	24	59	11	29
Total Scotland	87	8	5	87	6	7

Press reports of road accidents did not over emphasise accidents involving or caused by visitor drivers. Indeed, if anything, they tended to give more detail to local drivers involved in accidents.

The new post code data field in the STATS19 records was used to identify foreign drivers, local drivers and non-local UK drivers. Accident cause varied with the origin of the at-fault driver. Accidents caused by local drivers mostly involved loss of control, negotiating a bend, and going too fast. Accidents caused by foreign drivers involved driving on the wrong side, turning and crossing the centre line. The principal causes of accidents due to UK visitor drivers were loss of control and overtaking. It seems clear from these data that foreign drivers are confused by having to drive on the left. The UK visitors perhaps lack skills in overtaking.

Analysis was carried out on Northern Constabulary's foreign driver code (this information was collected as a matter of course by Northern prior to postcode information being introduced as a statutory part of STATS 19 data) as this data was considered more accurate than the newly included postcode field which identifies non-UK residents. This data was analysed for 1999 and 2000 and results show that the largest contingents of foreign drivers in the Northern (i.e. Highland) area were from Germany (23%) and America (18%). Similar numbers (around 10%) of Italian, Dutch and French drivers were involved in accidents.

Improvements to Data Sources

The analysis depended on the accuracy and completeness of the STATS19 postcode records. The completion of the driver postcode field in STATS19 by police forces improved by about 20% in 2000 compared with 1999. However it would be beneficial

for future studies if the SE continues to encourage Police Forces to use the STATS19 postcode fields correctly. Further studies using postcode information could help Local Roads Authorities to identify locations and routes where accidents of drivers resident outside the UK or UK visitor, cluster.

It was evident from the study that there is a lack of good quality data and indeed in some cases no information at all, describing tourist driver activity. Roadside origin and destination surveys could provide useful information to help determine the relative traffic exposure in tourist areas of local drivers, UK visitor drivers and foreign drivers.

Conclusions and Recommendations

The research has demonstrated that as accident numbers in rural tourist areas of Scotland are increased by tourist activity, it would be beneficial if the local authorities and police road safety units in tourist areas continue to promote road safety campaigns for UK tourists and foreign drivers.

Analysis of the Highland region data showed that the most likely nationality of foreign drivers to be involved in an accident was German or American. Information on the problems of driving on the left and turning for foreign drivers in Scotland is currently being provided by the SRSC. German language leaflets should be more widely available and also leaflets should be made more available for American tourists. Perhaps the points of entry to Scotland for foreign drivers should be looked at more closely. Greater emphasis could be given to distributing leaflets at Scottish airports and the Rosyth ferry terminal due to open

next year. Leaflets could also be targeted at tourist offices located at gateways to Scotland such as Gretna and Berwick, and key strategic motorway services on the M6, M74 and A1 as well as on main routes through Scotland.

The data revealed that foreign drivers appear to have difficulty remembering which side of the carriageway to drive on. This may occur when no other traffic is around or when they come to the end of a single track road and rejoin a two lane single carriageway, or at view points and resting places. At present the roads authorities and the Scottish Executive provide many road side and on-road signs to remind drivers to drive on the left at the end of single track roads and at any other points where foreign driver accidents cluster. However, the current provision could perhaps be extended.

The SE could consider and develop means to publicise the causes of UK visitor accidents in Scottish tourist areas to visitors from the UK as this

may help to raise their awareness of the problems of driving on unfamiliar roads.

The completion of the driver postcode field in STATS 19 by police forces improved by about 20% in 2000 compared with the previous year; however it would be beneficial for future studies if the SE would continue to encourage police forces to use the postcode fields correctly, and further studies using postcode information could include identification of foreign driver or UK visitor accident clusters or routes by local roads authorities.

Analysis of the new STATS19 field for driver postcode revealed that local drivers, even in the tourist areas of rural Scotland, cause the majority of accidents. It is therefore crucial that Scottish road safety units continue their efforts to discourage Scottish drivers from driving recklessly and too fast. This could be done by education at the pre-driver stage, by training at the learner driver stage and by publicity and enforcement for all drivers.

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SCOTTISH EXECUTIVE

