

The characteristics and attitudes of adult non-wearers of rear restraints

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Executive Summary

Passengers travelling in the rear of cars are less likely to wear seat belts than passengers in the front seat or drivers. The Transport Research Laboratory (TRL) bi-annual Seat Belt Survey in April 1996 found that only 43 per cent of adults travelling as rear seat passengers were wearing belts compared with 93 per cent of adult passengers in the front and 91 per cent of drivers.

TRL has investigated the reasons why adults do not wear rear seat belts. Six group discussions were held with adults who had been observed travelling as rear seat passengers and not wearing belts. The information from the group discussions was used to design a self completion questionnaire to explore attitudes towards wearing rear seat belts. The questionnaire was issued at 50 sites around the country to a total of 1,057 adults who had been observed travelling unrestrained in the back of cars: 355 completed questionnaires have been returned and analysed.

Results

The discussion groups had suggested that not wearing a rear seat belt was mostly habitual and unconscious, with no active decision being made each time a person travels as a rear seat passenger. The questionnaire responses supported this conclusion but also identified differences in underlying beliefs:

- 15 per cent claimed that they always wear a rear seat belt, even though they had been observed to be unrestrained in the rear.
- 30 per cent reported that they usually wear rear seat belts, but sometimes forget.
- 43 per cent said that whether or not they wear a rear seat belt depends on the driver or the type of journey.
- 12 per cent reported that they would never wear a rear seat belt.

For those who varied their behaviour the type of road (motorway, A road, residential) had the greatest influence on reported wearing behaviour; the length of the journey and the weather conditions also had statistically significant effects.

Those who would never wear a rear seat belt said that this was either because they did not want to or because they found the belts uncomfortable. However, most of this group also mentioned that rear seat belts were easy to forget.

Beliefs about the behaviour of others may have a subtle but strong influence on rear seat belt wearing:

• Most of the questionnaire respondents who said that they did not often wear rear restraints believed that other people also did not often wear them.

The questionnaire respondents were well aware that unrestrained passengers, whether in the front or the back, were likely to be injured in a collision. However, the possible effects on other passengers were not as well known:

- 26 per cent of respondents were not aware that in a crash an unrestrained rear seat passenger could injure the driver or a front seat passenger,
- 54 per cent were not aware of the danger to other rear seat passengers.

The majority of the respondents in both the group discussions and the questionnaire survey felt that publicity to educate the public about the risks and dangers of not wearing seat belts, to others as well as themselves, was likely to dispel current misconceptions.

Regulations and current levels of seat belt law enforcement had little effect on seat belt wearing:

- Nearly all respondents were aware that drivers and front seat passengers were required, by law, to wear seat belts.
- Three quarters knew that adults travelling in the rear have to wear seat belts, if fitted.
- Most respondents thought that not wearing a rear seat belt was not a particularly serious or dangerous offence and that people were rarely stopped by the police for it.

However, in the April 96 TRL Seat Belt Survey a higher percentage of women (47 per cent) than men (37 per cent) were observed wearing rear restraints and among the questionnaire respondents women were more likely than men to consider the seat belt laws an important reason for wearing a rear seat belt.

1 Introduction

In 1995 3,346 rear seat occupants were killed or seriously injured and 26,957 slightly injured in road accidents recorded by the police. Restraints are a proven way of reducing the severity of injury (Evans, 1991). The wearing of front seat restraints has been compulsory since 1983 and the wearing of rear restraints (where fitted) since 1989 for children and since July 1991 for adults (over 14 years old).

TRL has estimated, based on the 1995 figures for adult wearing rates and numbers of adult casualties, that full compliance with the law on the wearing of rear restraints for adults could save approximately 100 fatalities, 1,100, serious casualties and 3,700 slight casualties¹. This would result in casualty cost savings in the region of £210 million, based on the 1995 valuations of road accident casualties.

There is very little published research specifically on attitudes towards rear restraints. Makinen et al (1991) have reported on the use of seat belts, including rear seat belts, while Christian and Bullimore (1989) have looked at the reduction in injury severity in rear seat passengers using restraints. To supplement this information, TRL has undertaken research to provide a profile of non-wearers of rear restraints and to investigate their attitudes towards rear seat belts. The study was also intended to identify factors which may influence seat belt wearing behaviour. The

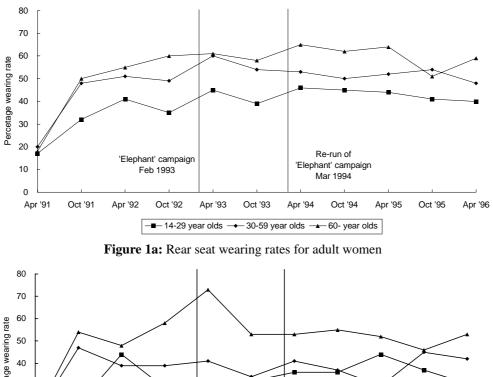
¹ For all age groups it is estimated that 120 fatal and 1.400 serious road casualties would be saved with full compliance.

research has included the re-analysis of existing data on seat belt wearing from the TRL Seat Belt Survey, a contract with BJM Research and Consultancy Ltd. for a qualitative study, and a quantitative survey into the attitudes of non-wearers towards rear restraints.

1.1 National wearing rates for adult rear seat passengers

TRL monitors the wearing rates for seat belts in a bi-annual observation survey first begun in 1988. The wearing rates for drivers and front seat passengers in April 1996 were 91 per cent and 93 per cent respectively. The wearing rates for rear seat passengers are significantly lower at 65 per cent. This wearing rates includes rear passengers who are children, where the wearing rates tend to be fairly high (79 per cent). The wearing rate for adult rear passengers (over 14 years old) in April 1996 was 43 per cent.

Figure 1 shows how the adult wearing rates for rear seat belts have varied since April 1991. The Government has run two television campaigns in the period (February 1993 and March 1994), both of which used the same television advertisement, the Elephant campaign. These were aimed at increasing the rear seat belt wearing rates of adults. The advertisement showed that, after a collision, an unrestrained rear seat passenger would be thrown forward and hit the front seats with a force equivalent to the weight of an elephant. The campaigns were intended to raise awareness that unrestrained rear seat passengers could



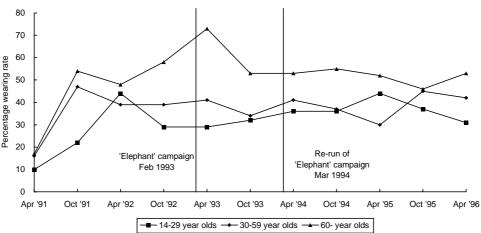


Figure 1b: Rear seat wearing rates for adult men

injure, not only themselves, but also the front seat passengers when involved in a road accident, regardless of whether the front seat passenger was wearing a seat belt.

2 Methodology

This section details the methodology of the TRL bi-annual Seat Belt Survey, along with that of the qualitative and quantitative studies commissioned for this project.

2.1 TRL Seat Belt Survey

The main objective of this ongoing observation survey is to measure the extent to which car occupants use seat belts and other restraints. Data have to be collected for each car, including the age, sex and restraint usage of each passenger, along with the registration letter of the vehicle.

TRL observers are placed at survey sites which have been selected to be as nationally representative as possible in terms of road type. The majority of survey sites are at signal controlled junctions to ensure that a car can be observed for sufficient time to allow accurate information to be gathered. Observations are carried out in eight half-hour sessions spread throughout the day from 8:30 to 17:30.

Survey sites are centred in two areas of the country, but the data collected are weighted to produce a national figure for seat belt wearing rates. Information on national wearing rates is produced in leaflet form each year (TRL, 1996).

The basic methodology of the survey has not changed greatly since its introduction in October 1988. However, the technical details of the survey have evolved over the years, most notably when the data collection was computerised. Further detail on the survey methodology can be found in Broughton (1990).

2.2 Group discussions — qualitative survey

This research took the form of semi-structured discussions among groups of 4 to 9 adult rear seat passengers who had been observed not wearing seat belts. BJM were responsible for running the group discussions, under contract to TRL.

The purpose of the survey was to identify issues considered important in explaining the behaviour and attitudes of adult non-wearers of rear seat belts. It was not intended to be fully representative, but was preliminary to the quantitative survey.

Six group discussions were held with all the participants being of the same sex and roughly the same age to allow differences between age groups and sexes to become clear. Three groups were held in Nottingham and three in Berkshire, structured as follows:

| Men | 17-24 years old 19-34 years old 27-50 years old | Berkshire Nottingham Berkshire |
|-------|---|---------------------------------------|
| Women | 18-34 years old 19-30 years old 38-65 years old | Nottingham Berkshire Nottingham |

Selecting participants for the discussion groups was not necessarily intended to be representative, so only two areas were used. Participants were recruited by TRL observers who were stationed at the entrance of busy car parks. The TRL staff were able to observe whether adult rear passengers were wearing seat belts in cars fitted with them, regardless of the age of the vehicle, and approached those who were unrestrained. The non-wearers were asked to take part in an evening discussion group, to be held in local hotels. 37 non-wearers actually took part in the discussion groups.

Re-analysis of data from the TRL Seat Belt Survey showed that only 1-in-8 cars carried rear passengers. The April 1996 TRL Seat Belt Survey showed that 57 per cent of such adult passengers were non-wearers of rear seat belts. Thus, the observers could only expect to identify unrestrained rear passengers in about one vehicle in fourteen. Some difficulty in identifying sufficient numbers of non-wearers of over 60 was experienced.

The discussions roughly followed the sequence of topics set out in the Discussion Guide in Appendix A. The discussions were recorded and a selection of direct quotes from the respondents is included in the report.

2.3 Self completion questionnaires — quantitative survey

The objective of the quantitative study was to obtain nationally representative information about the attitudes towards rear restraints of adults in the rear of cars who had been observed to be unrestrained.

The self completion questionnaire was designed using information gained from the earlier group discussions. The questionnaire included sections covering frequency of travel and normal wearing practice; reasons for wearing and not wearing seat belts; perceived consequences of not wearing a seat belt; knowledge of the law, comparison of not wearing a seat belt with other offences; factors which could influence changes in wearing behaviour; sex and age, along with family, employment and driver details.

A survey design of eight cells was proposed - sex by four age groups (14-20, 21-30, 31-60, over 60). The aim of the survey was to have a minimum of 30 respondents in each cell - a total sample of approximately 240. The difficulty in recruiting respondents over 60 for the group discussions meant that a shortfall for this age group was likely. To reduce this risk, a larger sample than 240 was attempted.

Unrestrained rear seat passengers were approached in the manner used for the group discussions and described in section 2.2. When the TRL staff approached the observed non-wearer, they handed over a letter explaining the purpose of the research, together with a self completion questionnaire and a reply-paid envelope to return the completed questionnaire to TRL.

The questionnaire was piloted in January 1996. A copy of the questionnaire used in the final survey is shown in Appendix B.

Since the survey was intended to be broadly nationally representative, 28 observers spread throughout England

and Wales were used. To achieve a broadly representative sample a variety of car park types were selected. The types of car parks used included those in town centres, retail parks, pub/restaurants, leisure centres, entertainment complexes, tourist attractions, work-places, garden centres and sporting events.

Surveying was carried out throughout the week and in periods of up to three hours between 8am and 9pm when the selected car parks were busy. However, almost half the respondents were approached on weekends (44 per cent for men and 51 per cent for women) because more cars had rear passengers at these times.

Two months were allowed for the main survey, with 1188 questionnaires handed to observed non-wearers of rear seat belts. Table 1 provides information on the numbers of non-wearers of rear seat belts approached, by sex and approximate age. Such information was not available for 131 non-wearers approached, so the table provides information on 1057 adult non-wearers.

Not all those approached actually accepted a questionnaire - 26 per cent of men (134) and 16 per cent of women (128) refused. 372 questionnaires were accepted by men and 685 by women. The likelihood of a nonwearer refusing to accept a questionnaire increased with age. The number of men over twenty who were observed as unrestrained rear passengers was considerably lower than that for women.

355 completed questionnaires were returned to TRL. Table 1 shows the number of non-wearers of rear seat belts approached who accepted a questionnaire and who returned questionnaires, as well as those who refused to accept a questionnaire. The response rate relates to all nonwearers approached, regardless of whether they accepted a questionnaire.

Table 1 Number of non-wearers approached, sample size and response rate

| | | Age gro | oup (years) | | |
|------------------------|---------|---------|-------------|------|-------|
| | 14 - 20 | 21 - 30 | 31 - 60 | 61+ | Total |
| Number of males | | | | | |
| Refused questionnaire | 22 | 41 | 41 | 30 | 134 |
| Accepted questionnaire | 109 | 123 | 102 | 38 | 372 |
| Questionnaire returned | 33 | 36 | 53 | 26 | 148 |
| Response rate (%) | 25.2 | 22.0 | 37.1 | 38.2 | 29.2 |
| Number of females | | | | | |
| Refused questionnaire | 18 | 28 | 55 | 27 | 128 |
| Accepted questionnaire | 142 | 206 | 251 | 86 | 685 |
| Questionnaire returned | 40 | 56 | 81 | 30 | 207 |
| Response rate (%) | 25.0 | 23.9 | 26.5 | 26.5 | 25.5 |

Note: the ages of non-wearers of rear seat belts approached by the observers were estimated in the great majority of cases.

Respondents were invited to add their own comments to certain questions and a half-page was provided at the end of the questionnaire for any general comments relating to seat belts or seat belt wearing. Some of the comments are reproduced in this report. Appendix D contains further comments from respondents.

3 Profiles of non-wearers

Data from the TRL Seat Belt Survey and a study of relevant literature suggests the following profile of a nonwearer of seat belts. However, it should be remembered that individual non-wearers will only show some of these characteristics. As Fockler and Cooper (1988) pointed out, there is no stable group of individuals who consistently do not wear seat belts, because the decision whether to wear a seat belt may depend on individual travelling situations.

| Age: | typically 30-59 years old (for cars fitted with seat belts) |
|----------------------------|---|
| Gender: | male |
| Time of Day: | daylight hours |
| Number of rear passengers: | one / three or more rear |
| | passengers |
| Type of journey: | local / urban |
| Length of journey: | short |
| Weather conditions: | fine and clear |

This section explores the factors that seem to affect the decision not to wear a seat belt and develops attitudinal profiles.

In the questionnaire survey, the respondents were asked how often, in general, they would wear a seat belt when travelling in different seating positions in a car (Question 2). The results are shown in Table 2. It can be seen that 43 per cent replied that they would 'Often' or 'Always' wear a seat belt when travelling in the back, even though the whole sample had been observed not wearing a rear seat belt.

Table 2Percentage distribution of how often a
respondent claimed to wear a seat belt

| N | lever | Rarely | Some -times | Often | Always |
|------------------------------|-------|--------|----------------|-------|--------|
| Front seat passenger (n=341) | 2.5 | 2.5 | 5 | 10 | 80 |
| Back seat passenger (n=335) | 13 | 20 | 24 | 25 | 18 |
| Driver (n=231) | 2 | 3 | 4 | 7 | 84 |

Grouping the respondents who answered 'Often' or 'Always' to these questions can provide an approximate wearing rate for seat belts which may be compared with the TRL Seat Belt Survey. Drivers have a wearing rate of 91 per cent for each survey; front seat passengers have a wearing rate of 90 per cent for the questionnaire sample and 93 per cent for the TRL survey data; and rear seat passengers have a wearing rate of 43 per cent for each data source (April 1996 TRL Seat Belt Survey, TRL leaflet LF2074).

3.1 Car occupancy

The number of rear seat passengers in a car is a factor which affects the wearing rate. Broughton (1990) found that, in October 1989, the child wearing rates fell from 72 per cent when there was only one rear seat passenger to 22 per cent when four or more were carried.

Table 3 considers data relating to cars with at least one rear seat passenger. The data were analysed for this study

Table 3 Percentage distribution of rear passengers and
rear seat belt wearing rates for adults,
April 1995 TRL Seat Belt Survey

| For one with at logat one | Number of passengers in the rear: | | | |
|--|-----------------------------------|----|----|--------------|
| For cars with at least one rear passenger | 1 | 2 | 3 | 4 or more |
| Distribution of occupancy (%) (n=3172) | 58 | 33 | 8 | 1 |
| Adult rear seat belt wearing rate (%) (n=1247) | 58 | 68 | 40 | 25 |

in the Summer of 1995 and were taken from the April 1995 TRL Seat Belt Survey. It presents the percentage distribution of rear seat passengers of all ages, along with the *adult* wearing rates. Passengers of all ages are included because, if occupancy affects the likelihood of an adult wearing a seat belt, then the age of the other passengers is of less importance than their number.

The unexpected conclusion from this table is that the adult wearing rate is *higher* in cars with two passengers than in cars with one passenger. This number then falls as occupancy increases.

This suggests that non-wearers may be influenced to change their behaviour by other passengers in the vehicle. Rear seat passengers who just forget to put their seat belts on may be reminded if another rear seat passenger puts theirs on or says something about it. This is particularly likely if the other passenger is a child, with parents feeling that they should set an example or doing so because asked to by a child.

3.2 Type of journey

The group discussions suggested that seat belt wearing behaviour is influenced by different circumstances such as road type and journey length. Most respondents felt that there was no need to wear a seat belt on short journeys, but would for longer journeys, especially if they involved travelling on a motorway. Higher speeds on a journey suggested a greater risk of an accident with more serious consequences.

"It's too much of a hassle, isn't it, especially if you're doing a short journey."

[Male, 17-24 years old, Berkshire]

The questionnaire survey explored the circumstances of seat belt wearing by asking the respondents about their habits on three types of road, during daylight and darkness, for two trip lengths and also for different weather conditions (Questions 3 to 6). The responses are shown in Table C1, Appendix C: all the factors seemed to influence wearing rates. The differences between motorways, A roads and residential areas were highly significant (p < 0.001). The wearing rates are highest on motorways and lowest in residential areas. The effects of trip length

and weather conditions were also significant (p < 0.01) but the difference in wearing rates between daylight and darkness was not significant.

The effect of trip length and the effect of road type are not independent because the two factors are correlated:

- journeys in a residential area are likely to be under five miles, and
- journeys on a motorway are likely to be over five miles.

The strength of the different associations between road type and trip length can be ranked using the Spearman Correlation Coefficient.

| Interacting variables | Spearman coefficient |
|--------------------------------------|----------------------|
| A road x journey over five miles | 0.891 |
| Residential road x journey under f | ive miles 0.889 |
| Residential road x journey over five | ve miles 0.856 |
| Motorway x journey over five mile | es 0.837 |

All the coefficients are significant because there is an additional confounding factor in the data: if they responded consistently, all the subjects who said in answer to Question 2b either that they never wore a seat belt or that they always wore a seat belt should give exactly the same response as before to the questions about road type and trip length. The 'motorway x journey over five miles' association is ranked lowest because the cross-tabulation (Table C2, Appendix C) shows that 30 per cent of the respondents said they were more likely to wear a rear restraint on a motorway than on a journey over five miles, while only 3 per cent said they were less likely to wear a rear seat belt on a motorway. This skewness suggests that for journeys on motorways the road type has a stronger influence on rear seat belt wearing than the length of the journey.

3.3 Type of wearer

The car occupant population does not divide absolutely into 'wearers' and 'non-wearers' of seat belts or other restraints: a person's seat belt wearing behaviour may alter with differing circumstances. Some of the subjects observed as non-wearers may have lapsed on this one occasion or perhaps taken off their seat belt on the approach to the car park.

Respondents to the questionnaire survey were provided with a list of statements relating to their use of seat belts always wear, sometimes forget, depends on driver, depends on journey, never wear - and asked to chose all those which they considered applicable to themselves (Question 7). Table C3 in Appendix C shows the proportion of respondents selecting each statement. About three quarters of the respondents selected only one statement. Of the remaining quarter, 9 per cent selected the combination that whether they wear their seat belt depends on both who the driver is and the type of journey.

Only 18 per cent of respondents stated that they would always put their seat belt on without thinking, while 13 per cent said that they would never wear a seat belt in the back of a car. These are more or less the same respondents who chose these options when asked about normal seat belt wearing practice in the back of a car (Question 2).

Normally wearing a seat belt, but sometimes forgetting, was the most frequently chosen statement, with between a quarter and a half of the respondents selecting it. More women than men (5 per cent of women and 2 per cent of men) said that they would not wear a seat belt when travelling in the back with young children. This supports the findings from the discussion groups where some of the mothers said seat belts were too restricting when having to deal with a baby or small child as a fellow passenger.

The responses differed according to the purpose of the journey (Question 9). People who were travelling to work or as part of their job were more likely to reply that whether they wear a seat belt depended on the driver or the journey. Respondents who were on journeys for shopping or leisure purposes were more likely to claim either that they always wear a seat belt, or that they usually wear one, but sometimes forget.

People in the group discussions said that if asked to wear a seat belt, they might comply. Compliance often depended on who was making the request and for what reason. This is dealt with further in section 3.4. In general, women seemed to be more compliant than men.

The questionnaire survey asked how the subjects would respond if the driver asked them to wear the rear seat belts. The respondents were allowed to chose more than one of the statements provided as Question 8, although less than ten per cent did so. Three quarters of the respondents said that if they were asked to wear a seat belt by the driver, then they would do so, with only three per cent stating that they would refuse. About a sixth of respondents said that wearing a seat belt when asked to do so would depend on who the driver is, with a similar proportion stating that they would comply if asked for safety reasons.

3.4 Relationship with other passengers

The relationship of the respondent with the driver or other passengers could, in some cases, influence seat belt wearing. Young people, in the group discussions, said they were more likely to wear a rear seat belt if travelling with their parents than with a group of friends. Also, requests and reminders about wearing rear seat belts were felt more likely to come from family than from their peers, and more likely to have the required effect.

"If I'm sitting behind my Mum he (my Dad) says, 'Do you realise if we had a crash, you would probably kill her? And I would never forgive you', and stuff like that."

[Female, 19-30 years old, Berkshire]

The behaviour of other passengers was also a factor that influenced their decisions. A number of the younger respondents said that if they were driving, they would not remind passengers to wear seat belts as this could be seen as "None of my friends wear seat belts in the back of the car." [Female, 19-30 years old, Berkshire]

admitting that they are an incompetent or unreliable driver.

Some discussion group participants who were parents felt that they should wear a seat belt in the presence of young children, in order to set an example. Others reported that although they would not chose to wear a seat belt, they would do so if asked to by their children.

"I mean like my daughter's all belted up, and I think if she eventually said to me 'People are getting killed; wear a seat belt Daddy, otherwise you won't be there', I think emotional blackmail and bonding there would have the desired effect."

[Male, 27-50 years old, Berkshire]

The group members guessed, rather than knew, the age at which a child is considered to be an adult by the seat belt laws (14 years old), but many felt that children should be allowed to make their own decision about wearing a seat belt at this stage.

"If I have got children in the back, I make them belt up, but if they are over a certain age, it's their responsibility to belt up themselves."

[Female, 19-30 years old, Berkshire]

3.5 Non-wearer types

A Central Office of Information study (1993) suggests that men are more likely to travel unrestrained. This corresponds with the April 1996 seat belt wearing rates for adult rear passengers of 47 per cent for women, but only 37 per cent for men, obtained from the TRL Seat Belt Survey, which also shows that wearing rates increase with age. The questionnaire survey found that, among the list of reasons for wearing a seat belt (Question 16), the statement "...because it is the law" was more likely to be rated important by women (47 per cent) than men (31 per cent). The difference in ratings was statistically significant (p<0.01) and suggests that women have a stronger negative attitude towards breaking the law than men, which perhaps explains why women rear seat passengers are more likely to be observed wearing a seat belt.

Conclusions drawn from the discussion groups suggested that it was possible to separate the sample into four distinct attitudinal / behavioural segments. These groups are discussed below and shown in Table 4.

The discussion groups suggested that women were more likely to be 'occasional lapsers' than men, particularly if they travel frequently with babies or young children. This group were generally in favour of seat belts, but would make exceptions for certain circumstances, such as breast feeding.

The majority of respondents fitted into the 'resistant' category, although there was a slight bias towards young people. The reasons for not wearing a seat belt counted as

Table 4 Profiles of non-wearers from the discussion groups

| Non-wearer groups | Description |
|--------------------|---|
| The Forgetful | This group needs regular reminders to establish the habit of wearing seat belts in the back, especially as they tend to travel in rear seats only rarely. |
| Occasional Lapsers | This groups needs to be shown why even momentary unbuckling is unsafe. |
| The Resistant | This group needs a better appreciation of why seat belts matter from a safety point of view to counterbalance their objections. |
| The Defiant | This group needs to understand that the safety of others is threatened by their non-wearing behaviour, not just their own. |

strongly in their minds as those for wearing a seat belt.

The discussants who fitted into the 'defiant' category were more likely to be young people of both sexes. They tended to see the issue as being one of personal choice and individual freedom, with the belief that only their own safety was at risk underpinning their general attitude.

In the questionnaire survey, question 7 asked respondents to select all statements in a given list that applied to them and their seat belt wearing habits in the back of a car. The responses to this question were presented in section 3.3. Further work presented here, groups the responses to question 7 to provide four categories of wearer - those who always wear; those who usually wear but occasionally forget; those who said that whether they wear a rear seat belt depended on the type of journey or the driver; and those who never wear. Each group's understanding of what rear seat belts do and respect for the law were examined.

This approach found that 12 per cent of respondents who never wear a rear seat belt in any circumstances seemed to match the 'defiant' category observed in the group discussions. Approximately 45 per cent of the questionnaire respondents reported that either they 'always wear' or 'usually wear but occasionally forget' and seem to match the 'forgetful' category. The remaining 43 per cent said that whether they wore a seat belt would depend on the driver or the type of journey.

The descriptions of the groups, as defined by the quantitative study diverge from the descriptions obtained by the group discussions shown in Table 4. The data from the quantitative survey suggest the groups shown in Table 5. The majority of respondents in each of the non-wearer groups were aware that wearing rear seat restraints would protect them from injury in an accident. A smaller number were also aware that by wearing a rear seat belt they could reduce the risk of injuring other passengers in an accident. This is contrary to the group discussion conclusions and casts some doubt on the possibility of increasing the wearing rates by promoting safety alone.

Table 5 Profiles of non-wearers from the questionnaire survey

| Non-wearer group (n=318) | Description |
|--|---|
| Claims always wears 15 per cent | Almost 100 per cent of these were aware of the benefits of wearing rear seat belts if involved in an accident. |
| Sometimes forgets 30 per cent | Of these, 61 per cent claim that rear seat belts are easy to forget. Almost 100 per cent were aware that rear seat belts can prevent or reduce the severity of injury to themselves and other passengers if involved in an accident. |
| Wearing depends on driver or journey 43 per cent | 93 per cent of these were aware that rear seat belts can prevent or reduce the severity of injuries in accidents. 82 per cent were aware of the danger to other passengers of travelling unrestrained. 71 per cent said that seat belts are easy to forget and 64 per cent that they are uncomfortable. 45 per cent of this group said they don't wear rear seat belts because they don't want to. |
| Never wears 12 per cent | 80 per cent of these were aware of the potential of rear seat belts to reduce the severity of an injury. 50 per cent consider the law to be unimportant. 74 per cent said they don't wear rear seat belts because they don't want to; on another question, 72 per cent said they don't wear because they consider seat belts uncomfortable and on a third question, 70 per cent don't wear because they forget. |

4 Attitudes towards seat belts

The group discussions revealed a complex set of attitudes and beliefs among non-wearers of rear seat belts. It was found that much non-wearing behaviour was habitual and unconscious, with no active decision being made each time a person travelled in the back of a car.

Some discussants considered travelling in the front of a car to be totally different to travelling in the rear. In the front they felt more exposed, but more aware of what was happening on the road and thus able to see an accident coming and prepare for it. In the back, passengers felt more isolated and cut-off from what was happening outside the car. This led to two opposing reactions -

"I do not like wearing a seat belt, so I prefer to sit in the back."

[Female, 78 years old, questionnaire survey]

anxiety and a greater likelihood of wearing a seat belt; or a sense of security and *'blissful ignorance'* could make them ignore the possible dangers of an accident and thus, not wear their seat belt.

This section explores why seat belts are or are not worn, including consideration of the possible consequences of not wearing a seat belt in an accident.

4.1 Reasons for not wearing seat belts

4.1.1 Perceived wearing rates of adults in the rear

The questionnaire survey asked respondents how often they thought most adult rear passengers would wear a seat belt (Question 14). The replies to this question were compared with those for how often the respondent themselves wear a seat belt in the rear (Question 2). Table 6 shows the relation between the two answers. The correlation between the respondents' perceptions of their own wearing frequency and their perception of others' wearing behaviour is statistically significant, which indicates a very strong interaction between the variables.

Table 6 Relationship between own wearing behaviour and that perceived for others

| | How often do you think adult rear seat passengers wear seat belts? (Q14) | | | | | | |
|---|--|---------------|----------------|----------|--------|--|--|
| (<i>n</i> =333) | Never Rarely Sometimes Often Always | | | | | | |
| How often do you we a seat belt as a rear passenger? (Q2) | | t of total re | esponding to b | oth ques | tions) | | |
| Never | 0.3 | 5.3 | 5.9 | 1.8 | - | | |
| Rarely | - | 6.2 | 10.6 | 2.9 | - | | |
| Sometimes | - | 2.9 | 15.6 | 5.3 | 0.3 | | |
| Often | - | 2.9 | 11.2 | 10.9 | 0.6 | | |
| Always | - | 1.5 | 5.3 | 8.2 | 2.4 | | |

Allowing beliefs about the behaviour of others to affect one's own behaviour is a central element of a number of behavioural theories. These suggest that modifying the individual's behaviour requires the significant alteration of the individual's beliefs about the behaviour of others. In the context of non-wearers of rear restraints, it is probably significant that the questionnaire respondents who did not often wear seat belts believed that other people did not often wear them.

4.1.2 Forgetfulness and comfort

Two of the most important reasons identified by this project for not wearing rear seat belts are that they are easy to forget and that they are uncomfortable.

Respondents to the questionnaire survey were presented with a list of suggested reasons for not wearing a rear seat belt (Question 15) that had been identified in the qualitative study and asked to rank each statement from 'important' to 'not important' (1 to 4). Table 7 shows the median scores for each statement, ranked in order of importance.

Table 7 Reasons for not wearing a rear seat belt

| Reasons for not wearing a rear seat belt | Measure of importa (1 = important to 4 = 1) | , |
|---|--|-----|
| They are easy to forget (n=313 |) | 2.1 |
| They are uncomfortable $(n=312)$ | | 2.6 |
| I do not want to wear them $(n=289)$ | | 3.1 |
| They are unnecessary for short trips (n=289) | | 3.1 |
| They are dangerous (n=281) | | 3.5 |
| They are likely to mess up my clothes (n=290) | | 3.5 |

A few sex differences were apparent in the ranking of these statements. Men were more likely to think that seat belts were unnecessary for short journeys and to not want to wear seat belts.

Two issues raised by respondents who said they sometimes forget to wear a rear seat belt were that they travelled as a rear seat passenger so infrequently that it didn't occur to them; and that the cars in which they usually travelled were too old to have rear seat belts fitted.

When considering only respondents who reported that they 'never wear' seat belts, most stated that they do not wear them because 'they do not want to' (74 per cent), 'they are uncomfortable' (72 per cent) and 'they are easy to forget' (70 per cent).

A number of issues concerning the comfort of seat belts were raised in the qualitative study.

"I don't wear a seat belt in the back of a car because I just don't feel the need to really. And sometimes I don't wear them in the front either. I just don't feel comfortable in a seat belt."

[Male, 19-34 years old, Nottingham]

The discussion group participants considered comfort to be an important factor in not wearing a seat belt for two reasons. Firstly, seat belts caused actual physical discomfort. Some people reported that they cut into their necks or that the angle of the belt across the chest was uncomfortable for ladies with fuller figures. Secondly, that seat belts restricted freedom of movement. This was reported to be particularly irritating on longer journeys. The discussion groups also felt that they were more isolated in the back of a car, as they couldn't lean forwards to listen to and take part in conversations going on in the front.

Some discussion group respondents, mainly female, complained that the seat belt would crease their clothes when going somewhere special and used this as a reason for not wearing a seat belt. However, there was no evidence in the questionnaire data to suggest that this was affecting women's decisions more than men's: 20 per cent of women and 17 per cent of men said that seat belts creasing clothes was 'Important' as a reason for not wearing a rear seat belt, 61 per cent of women and 62 per cent of men said this reason was 'Not important'.

4.1.3 Lap belts

Some participants in the discussion groups said that they would wear normal three-point seat belts under certain circumstances, but would never wear a lap belt because they thought them dangerous:

"I think they're actually worse. A normal belt is sort of holding your body back and a lap belt just flicks you forward, and obviously as you go forward it just splits your guts."

[Female, 18-34 years old, Nottingham]

Since concerns over the safety of lap belts were raised in the group discussions, the questionnaire contained a question asking respondents to rate the effectiveness of a normal 3-point seat belt, a lap belt and an air bag in reducing or preventing injury (Question 22). The 3-point seat belt and air bag were generally considered to be very effective, with median effectiveness scores of 1.5 and 1.4, on a four point scale (1 being 'very effective', 2 'effective', 3 'not very effective' and 4 'has no effect at all'), respectively. The lap belt, with a median score of 2.6, was considered 'not very effective' or worse by just over half the respondents.

4.2 Reasons for wearing seat belts

Participants in the group discussions generally believed that wearing seat belts was safer than not wearing them, particularly in the front of the car. However, although they felt that seat belts would make travel in the rear of a car safer, they could not give a reasoned explanation as to why this was.

The questionnaire survey provided respondents with a list of reasons for wearing seat belts (Question 16) and asked them to rate the level of importance on a four point scale (1 being 'important' to 4 being 'not important').

The statements provided included suggestions that wearing seat belts could prevent or reduce the seriousness of injury in an accident; prevent injury to front seat passengers from rear passengers; prevent a rear passenger from being thrown out of the vehicle and the fact that they are required by law.

The median score for each statement was between 1.2 and 1.8, so all were considered to be fairly important. The reason for wearing a seat belt considered least important was 'because it is the law'.

4.3 Consequences of not wearing seat belts

Respondents accepted that there was always a possibility of their being involved in a road accident at some time in their lives.

"You take a risk every time you go out on the road in your car."

[Female, 19-30 years old, Berkshire]

However, the group discussions seemed to suggest that the possible consequences of not wearing a seat belt if involved in an accident were not well understood.

"You're not going to go far in the back of a car; there's a chair in front of you and a chair behind you."

[Male, 17-24 years old, Berkshire]

But in the questionnaire survey the majority of respondents showed awareness of the risk of not wearing rear seat belts. The discussion groups seemed to believe that any risk of travelling unrestrained is attached only to themselves. They felt that, as adults, they ought to be legally responsible for their own behaviour and able to decide for themselves whether or not to wear a seat belt.

"You should only wear a seat belt if you want to, it's your choice."

[Male, 17-24 years old, Berkshire]

"I don't like being dictated to. It's not that I'm a communist or an anarchist in any way, I just don't believe in having my own choice, freedom of choice, taken away."

[Male, 27-50 years old, Berkshire]

To some extent this finding was contradicted by the questionnaire survey respondents, 51 per cent of whom claimed it was at least partly, if not solely, the driver's responsibility to ensure that passengers wore restraints (Question 25). This is incorrect, any passenger over 14 years old is responsible for wearing their own seat belt.

The questionnaire survey presented respondents with a list of possible consequences and asked them to rate the likelihood of this event occurring in an accident (Question 23). The median scores for each consequence are shown in Table 8, where 1 is 'extremely likely' and 5 is 'extremely unlikely'.

Table 8 Respondents' views on likelihood of various consequences in an accident

Measure of likelihood of occurrence (Median) (1 = extremely likely to 5 = extremely unlikely)(n=348)Front seat passenger Rear seat passenger 1.2 2.4 Hit the windscreen Be thrown from the vehicle 1.9 2.6 Injure a front seat passenger or driver n/a 1.9 Injure other rear seat passengers n/a 2.6 Hurt their head 1.3 1.8 Hurt their chest 1.5 1.8 2.1 Hurt their hip / abdomen 1.9 Hurt their legs 1.8 2.0

The likelihood of a front seat passenger receiving injuries to the head, chest, abdomen or legs if not wearing a seat belt in an accident were generally well recognised. For a front passenger, hitting the windscreen or incurring head or chest injuries were thought extremely likely.

Respondents also believed that an unrestrained rear passenger in an accident was likely to receive head, chest, abdomen or leg injuries, but this belief was not as strong as for front passengers. Importantly, a sizeable proportion thought it likely that rear passengers could cause injury to front passengers if unrestrained, but injuring other back seat passengers was thought to be neither likely nor unlikely.

5 The law and seat belts

This section covers two areas involving the law. Firstly, in both the group discussions and the questionnaire survey the extent of the subjects' knowledge of the laws relating to seat belts was investigated. Secondly, respondents were asked to compare the offence of not wearing a rear seat belt with other traffic offences.

5.1 Knowledge of seat belt laws

Most participants in the group discussions were aware that it is a requirement of law that adult rear seat passengers should wear seat belts, if they are fitted. However, the majority were not clear on the details of the law, such as who is responsible for ensuring an adult rear passenger wears a seat belt and what penalty was applicable if stopped by the police.

The questionnaire survey asked respondents to indicate whether or not wearing a seat belt was law for a list of adult and child passengers in various seating positions within a car (Question 17). In general, there was a good knowledge of the law relating to drivers and front seat passengers (virtually 100 per cent and 90 per cent respectively, selected the correct answer).

However, this level of knowledge was not demonstrated when respondents were asked to consider the law concerning rear passengers or pregnant women. Three quarters of the respondents answered that an adult rear passenger was required to wear a seat belt.

Similarly, three quarters of respondents answered correctly that a pregnant woman in the front of a car should wear a seat belt, but only 61 per cent correctly thought a seat belt should be worn in the back. This agreed with the conclusions from the group discussions.

"I thought that you could not wear it if you were pregnant and you were uncomfortable or worried about it."

[Female, 18-34 years old, Nottingham]

Respondents were also asked who they thought was responsible for ensuring that an adult rear passenger wore a seat belt (Question 25), and what the penalty was if a car was stopped with an unrestrained adult in the rear (Question 18). Table 9 shows the proportion of respondents who answered these questions correctly.

Table 9 Proportion of respondents answering that the passenger is responsible

| | Male (%) | Female (%) | Total (%) |
|--|----------|------------|-----------|
| Question 25 (n=137, 195, 332) Adult passenger's responsibility to wear a seat belt | 45 | 52 | 49 |
| Question 18 (n=142, 205, 346) Penalty for an adult passenger not wearing is a fine for that passenge | | 28 | 28 |

34 per cent of respondents incorrectly believed that the responsibility for an adult in the rear wearing a seat belt lay with the driver and 17 per cent believed that both were responsible. 41 per cent thought that any penalty or fine imposed would be imposed on the driver and 30 per cent believed that both would be liable.

Of those who reported that they 'never wear' a rear seat belt and those who reported that they would 'always wear' a rear seat belt a similar percentage reported that it was the sole responsibility of the passenger to ensure a rear seat belt is worn - 40 per cent and 34 per cent respectively.

Unexpectedly, it is the respondents who 'occasionally forget' to wear a seat belt or whose seat belt wearing behaviour 'depends on the driver or type of journey', who most frequently accept that wearing a seat belt is the passenger's responsibility - 46 per cent and 56 per cent respectively.

5.2 Comparison with other offences

Group discussion participants were asked to compare not wearing a seat belt with offences of their choice. The offences chosen were then listed for the questionnaire survey, but with more detail. For example, drink driving became 'driving when just over the breath alcohol limit' and speeding became 'driving at 35mph in a 30mph limit'.

"Drink driving and speed, yes, they kill other people. Not wearing a seat belt, it's not going to harm anyone else if you don't wear your seat belt, it's going to harm you."

[Male, 17-24 years old, Berkshire]

Respondents to the questionnaire were asked to compare the offence of not wearing a rear seat belt with other traffic offences and consider how *serious* and how *dangerous* they thought the offences were (Questions 19 and 20). They were also asked how often people would be stopped for them by the police (Question 21). Table 10 shows the median scores for each offence, (on a scale of 1 to 4) with 1 indicating very serious, very dangerous and very often stopped for each offence.

"Coppers won't spend time to pull people over to tell them off (about not wearing seat belts)"

[Male, 19-34 years old, Nottingham]

There was a strong correlation between how *serious* respondents thought an offence was and how *dangerous* it was thought to be. The offences considered both most serious and most dangerous were driving through a red traffic light and driving when just over the breath alcohol limit. The only noticeable deviation from the general pattern of median scores was that the females, in particular mothers, thought driving at 35mph in a 30mph area was slightly more dangerous.

Most respondents believed that people are rarely stopped for seat belt offences or driving at 35mph in a

Table 10 Comparison of median scores of various offences

| How SERI these (1 = very s) 4 = not at al (n=348) | offences? serious to | How DANGEROUS are these offences? (1 = very dangerous to 4 = not at all dangerous) | How OFTEN are people stopped for the offences? (1 = very often to 4 = very rarely) |
|---|-------------------------|---|--|
| Driving at 35mph in a 30mph limit | 2.7 | 2.6 | 2.9 |
| Driving when just over the breath alcohol limit | 1.4 | 1.5 | 1.9 |
| Not wearing a seat belt as a front seat passenger | 2.0 | 1.8 | 2.6 |
| Driving through a red traffic light | 1.4 | 1.4 | 2.0 |
| Not wearing a seat belt as a passenger in the back of a car | 2.8 | 2.5 | 3.3 |

30mph area. Not wearing a seat belt when travelling in the back was judged to be much less serious than not wearing one in the front.

The group discussions suggested that this apparent absence of enforcement led non-wearers to think that the police were not really serious about the law, so it did not matter whether or not they wore a seat belt.

6 Ways to influence changes in seat belt wearing behaviour

The group discussions produced a number of options that might change seat belt wearing behaviour. The questionnaire respondents were asked to rank them as to how likely they felt they were to achieve changes (Question 24). The median scores are shown in Table 11, where 1 is 'extremely likely' to influence a change and 5 is 'extremely unlikely'.

Table 11 The likelihood of various measures to change wearing behaviour

| | Measure of likelihood (Median scores) (1 = extremely likely to 5 = extremely unlikely) |
|---|---|
| Personal experience of an accident | |
| (n=330) | 1.3 |
| Greater fines for not wearing a seat belt | |
| (n=326) | 1.7 |
| Increased likelihood of being stopped by the poli | ce |
| (n=334) | 1.8 |
| Public education campaign, using television adve | ertising |
| (n=332) | 2.0 |
| Public education campaign, with leaflets posted t | o homes |
| (n=324) | 2.7 |

Personal experience of an accident was seen as the most likely factor in persuading non-wearers to alter their wearing behaviour. Increased fines and police enforcement were also seen as important factors.

Over half the respondents thought that a public education campaign, using television advertising, would be 'likely' or 'very likely' to increase seat belt wearing. Just under half thought that posters or leaflets might be effective. This is in line with opinions expressed in previous surveys; the public perceives television as a more salient advertising medium than any other (Christie and Coffey, 1992).

The group discussion participants were invited to recall

any past advertising campaigns about wearing seat belts. There was a strong level of recall of the 'Clunk click' campaigns of the early 1980's, although the idea of Sir Jimmy Saville making a comeback to remind people about wearing seat belts was generally dismissed. At least one respondent in each group recalled having seen television advertising for rear seat belts which featured an elephant. When one person had mentioned this campaign, some others, but not all, had some recollection of it. This campaign, which ran twice for a few weeks, did not seem as memorable as the 'Clunk Click' campaign, which had run over a period of years. No comparison of the two campaigns has been made because of the long time period between them and the different amount of coverage each received.

The feeling about possible future publicity campaigns was that they should show, clearly, the safety consequences of rear seat passengers being unrestrained in an accident. This would help people to understand the real nature of the dangers risked by unrestrained rear passengers, both for themselves and other passengers in the car. Participants in the group discussions felt that advertising should be clear and explicit.

"If you're going to impose any kind of laws and that, it's nice to see what kind of research has been done and then form your own opinion from the research."

[Male, 27-50 years old, Berkshire]

"It all boils down to adverts, showing what it can really do, to not just the back seat passenger but the front seat driver as well."

[Female, 19-30 years old, Berkshire]

"Maybe if they had an advert on the telly where it showed you, somebody in the back seat - I know it sounds sick - having the accident or something, then maybe people will [wear a rear seat belt]."

[Female, 19-30 years old, Berkshire]

7 Conclusion

The TRL bi-annual surveys of seat belt wearing rates point to a fairly stable wearing rate for rear seat passengers. In the survey in April 1996, 43 per cent of adult passengers in the rear were wearing seat belts. Women are more likely to wear restraints than men (in April 1996, among rear seat passengers, 47 per cent of women and 37 per cent of men were observed wearing seat belts).

The TRL research, reported here, finds that non-wearers characterise themselves into four groups:

- 15 per cent claimed they always wear rear restraints
- 30 per cent claimed they usually wear but sometimes forget
- 43 per cent said it depends upon the driver or the journey
- 12 per cent claimed they would never wear rear restraints.

All the groups seemed aware of the benefits of wearing seat belts, both for protecting themselves and protecting other passengers. They were most likely to use the rear restraints for journeys on motorways. Journeys in adverse weather conditions, journeys on A roads and journeys of over five miles reported raised levels of seat belt wearing. Only about 40 per cent 'Often' or 'Always' wore rear restraints on short journeys.

Most of the respondents were aware that the law required them to wear rear restraints, if fitted, but for the majority (65 per cent) this was a fairly unimportant factor they did not rate the offence as serious. Very few respondents had apprehensions about being caught and punished for not wearing a restraint in the rear.

Forgetfulness was the commonest reason for not wearing seat belts in the rear of the vehicle. Vehicle manufacturers may be able to help with this problem by making the rear seat belts more noticeable and by fitting notices on the backs of the front seats to remind rear passengers of the need to wear the belts provided.

Not often wearing a rear seat belt seemed to be associated with the belief that others also did not often wear them. This may be a reason for noncompliance with the rear seat belt laws. If wearing rates were to increase and surpass 50 per cent, publicity could use increasing wearing rates to show that wearing rear restraints was now the norm for adults, which should put pressure on nonwearers to conform. If rear seat belt wearing is to become the norm, people must be encouraged to wear them on short, as well as long, trips. Any publicity should attempt to increase the current wearing rates on short journeys since the majority of journeys by car are under five miles.

The participants in the discussion groups felt that future publicity to educate the public about the risks and dangers of not wearing rear seat belts was needed to dispel current misconceptions. Some participants in the groups commented that they had decided to change their wearing behaviour after the study as it had made them aware of the consequences of not wearing a seat belt. "After listening tonight, I know that I shall always wear a seat belt in the back, and I shall ask people, when I am driving, to wear one."

[Female, 38-65 years old, Nottingham]

TRL has estimated that, for adults, annual casualty cost savings of up to £210 million (at 1995 prices) would be achieved if all adult rear seat passengers used the restraints fitted.

8 Acknowledgements

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Appendix A: Guide for discussion groups

1 Introductions.

Personal introductions - job, family, household, etc.

- 2 Current driver / motorist status.
 - driving licence holder / not
 - annual mileage driven / travelled
 - type of journeys undertaken
 - what passengers (for drivers)
 - how often do they travel as a rear seat passenger.
- 3 General attitudes towards wearing.
 - rear restraints
 - front seat restraints.
- 4 Usual (claimed) behaviour with wearing restraints (front and rear).

Reasons for wearing / not wearing (including perhaps role play, using chairs in the room, to explore feelings of comfort, restriction, effort, etc.).

Direct comparison between attitudes / beliefs about rear front seat restraints e.g. Where is it safer.

Occasions when you would be more likely / less likely to wear rear seat belt.

- length of journey
- type of journey
- other persons in the car
- relationship with driver and other persons in the car
- personal condition (pregnant, disability).

Occasions when <u>other people</u> should wear rear seat belts? Why? What benefits?

- who is the decision-maker?
- what influence do they have on the process?
- how do people react to being told to wear seat belts by different figures

(parent, best mate, boyfriend / girlfriend, other mates, Jimmy Saville, etc.).

5 Knowledge of the seat belt law, and legal responsibility for compliance.

(driver / passenger)

Knowledge of penalties.

- 6 Beliefs about accident risks from not wearing restraints.
 - seriousness: injury type / severity
 - likelihood: expected causes, etc.
- 7. Hierarchy of influences.
 - peer group
 - family
 - media (TV, advertising, etc.)
 - type of journey
 - the law (seat belt law, legal responsibility for
 - compliance, knowledge of penalties)
 - driver insulted if someone else putting a seat belt on in their car.
- 8 Attitudes towards other motoring safety measures/ precautions. (drink/driver, speeding, direction signalling, jumping red traffic lights, etc.).
- 9 Attitudes / behaviour regarding child restraints.
 - front / rear
 - type of restraint.
- 10 Summary of response.



TRANSPORT RESEARCH LABORATORY

Ref No:

SEAT BELT SURVEY

Please answer the questions in the sections of this questionnaire by either ticking the appropriate box(es) or writing in the required details. Any information that you give will of course be treated in the strictest confidence.

SECTION 1: NORMAL PRACTICE

| Q1. On average, how many times a we | 1. On average, how many times a week do you travel as a BACK SEAT PASSENGER? | | | | |
|---|--|------------|----------------|------------|-----------------|
| Less than once a week | | | | | |
| 1 to 5 times a week | | | | | |
| 6 to 10 times a week | | | | | |
| Over 10 times a week | | | | | |
| | | | | | |
| Q2. In general, when you travel in a ca | r, how often d | o you wear | a seat belt wh | ien you ar | e: |
| | Never | Rarely | Sometimes | Often | Always |
| the front-seat passenger | | | | | |
| a rear-seat passenger | | | | | |
| the driver (if applicable) | | | | | |
| | | | | | |
| Q3. When you travel as a passenger in journey is: | the BACK of | a car, how | often do you v | vear a sea | t belt when the |
| | Never | Rarely | Sometimes | Often | Always |
| in a residential area | | | | | |
| on an "A" road | | | | | |
| on a motorway | | | | | |
| | | | | | |
| Q4. When you travel as a passenger in journey is: | the BACK of | a car, how | often do you v | vear a sea | t belt when the |
| | Never | Rarely | Sometimes | Often | Always |
| during daylight | | | | | |
| during darkness | | | | | |

| Q5. | When you travel as a passenger journey is: | in the BACK of | a car, how | often do you v | vear a seat | t belt when the | |
|-----|---|-----------------------|----------------|------------------|-------------|-----------------|--|
| | | Never | Rarely | Sometimes | Often | Always | |
| | a trip of less than five miles | | | | | | |
| | a trip of 5 miles or more | | | | | | |
| Q6. | When you travel as a passenger journey is: | in the <i>BACK</i> of | a car, how | often do you v | vear a seat | t belt when the | |
| | | Never | Rarely | Sometimes | Often | Always | |
| | during a rainstorm | | | | | | |
| | during fog | | | | | | |
| | during fine weather | | | | | | |
| Q7. | When you make a journey in the to you? (You may tick more than o | | which of th | ne following sta | atements a | apply | |
| | I always put on my seat belt without thinking | | | | | | |
| | I normally wear my seat belt, but oc | | | | | | |
| | Whether or not I wear a seat belt de | - | | | | | |
| | Whether or not I wear a seat belt de | pends on the typ | e of journey | it is | | | |
| | I never wear a seat belt | | | | | | |
| | I do not wear a seat belt when I am tr | avelling with your | ng children ir | the back of the | car | | |
| | Other, please specify | | | | | | |
| | | | | | | | |
| Q8. | If, when travelling as a <i>BACK SE</i> which of the following statemen | | | • | at you wea | ar a seat belt, | |
| | I would always do so | | | | | | |
| | I would do so depending on who the | | | | | | |
| | I would do so if I was asked for safety | reasons | | | | | |
| | I would never do so | | | | | | |
| | | | | | | | |
| | | | | | | | |

| SEC | TION 2: PARTICULARS OF JOURI | NEY WHEN SAMPLED |
|------|---|--|
| - | The following questions refer to | the day when you were handed this questionnaire. |
| Q9. | What was the purpose of this jour | ney? |
| | Fravelling to or from work | |
| | Fravelling as part of your work | |
| | Shopping or leisure trip | |
| | Other, please specify | |
| | | |
| | | |
| | | |
| | | |
| Q10. | How long had your journey been u (Answer in minutes) | up to when you were handed this questionnaire? |
| | (| |
| | | minutes |
| 011 | Who was the driver? Your | |
| wii. | Father | |
| | Mother | |
| | | |
| | Brother/Sister | |
| | Husband/Wife/Partner | |
| | Son/daughter | |
| | Friend | |
| | Colleague | |
| | Other, please specify | |
| | | |
| | | |
| Q12. | In which position were you sitting | ? |
| E | Behind the driver | |
| I | n the middle of the back seat | |
| E | Behind the front passenger seat | |
| Q13. | How many people were sitting in t | he back seat of the car? |
| | | |
| 2 | 2 | |
| 3 | | |
| | 4 or more | |

| 5. Please indicate how important each of t NOT WEARING a seat belt in the back o They are dangerous They are uncomfortable They are unnecessary for short trips They are likely to mess up my clothes They are easy to forget I do not want to wear them | | tements are to | U o you as reaso 3 U U U | Dons for Not importa |
|--|---|----------------|---|----------------------------|
| NOT WEARING a seat belt in the back o They are dangerous They are uncomfortable They are unnecessary for short trips They are likely to mess up my clothes They are easy to forget | f the car. Important 1 □ □ □ | | 3 | Not importa 4 □ □ |
| They are uncomfortable They are unnecessary for short trips They are likely to mess up my clothes They are easy to forget | | | | 4 |
| They are uncomfortable They are unnecessary for short trips They are likely to mess up my clothes They are easy to forget | | | | |
| They are uncomfortable They are unnecessary for short trips They are likely to mess up my clothes They are easy to forget | | | | |
| They are unnecessary for short trips They are likely to mess up my clothes They are easy to forget | | | _ | _ |
| They are likely to mess up my clothes They are easy to forget | | _ | | |
| They are easy to forget | | | | |
| | | | | |
| I do not want to wear them | | | | |
| | | | | |
| FOR WEARING a seat belt in the back o | f the car. | | | |
| | Important | _ | | Not importa |
| | 1 | 2 | 3 | 4 |
| They prevent initial on encident | | | | |
| They prevent injury in an accident | | | | |
| They make any injury in | _ | _ | _ | _ |
| They make any injury in an accident less serious | | | | |
| They make any injury in | | | | |
| They make any injury in an accident less serious They prevent back seat passengers | _ | _ | | _ |

| SECTION 4: THE REGULATIONS CONCERNING SEA | T BELT USE | | | |
|---|---|------------------------|-----------------------|----------------------|
| Q17. Of the following, who do you think are required | BY LAW to v | vear a seat b | elt. | |
| (Please tick either the Yes or No box) | | | | |
| | Yes | | No | |
| The driver | | | | |
| Adult front seat passenger | | | | |
| Child (under 14) front seat passenger | | | | |
| Adult back seat passenger | | | | |
| Child (under 14) passenger in the back seat | | | | |
| Pregnant woman in front seat | | | | |
| Pregnant woman in back seat | | | | |
| Q18. If an adult passenger is not wearing a seat belt, was stopped by the police? (You may tick more the | | | enalty would | be if the car |
| A fine for the driver | | | | |
| A fine for the passenger | | | | |
| Penalty points on the licence for the driver | | | | |
| Prison sentence for the driver | | | | |
| Prison sentence for the passenger | | | | |
| SECTION 5: OPINIONS Q19. How <i>SERIOUS</i> do you think the following driving | g offences ar Very serious | r e? Serious | Not very serious | Not at all serious |
| Driving at 35 mph in a 30 mph limit | | | | |
| Driving when just over the breath alcohol limit | | | | |
| Not wearing a seat belt as a front seat passenger | | | | |
| Driving through a red traffic light | | | | |
| Not wearing a seat belt as a passenger in the back of a car | | | | |
| Q20. How <i>DANGEROUS</i> do you think each of the follo | owing driving | g offences a | ·e? | |
| | Very dangerous | Dangerous | Not very dangerous | Not at all dangerous |
| Driving at 35 mph in a 30 mph limit | | | | |
| Driving when just over the breath alcohol limit | | | | |
| Not wearing a seat belt as a front seat passenger | | | | |
| Driving through a red traffic light | | | | |
| Not wearing a seat belt as a passenger in the back of a car | | | | |
| | _ | _ | _ | - |

| Q21. How <i>OFTEN</i> do you think people are fined or punished for the following driving offences? | | | | | |
|---|---------------------|---------------------------------|--------------------------------|--------------------------------------|-----------------------|
| | | Very often | Often | Rarely | Very rarely |
| Driving at 35 mph in a 30 mph limit | | | | | |
| Driving when just over the breath alcoho | ol limit | | | | |
| Not wearing a seat belt as a front seat p | bassenger | | | | |
| Driving through a red traffic light | | | | | |
| Not wearing a seat belt as a passenger in the back of a car | | | | | |
| Q22. In the event of an accident, how effe preventing or reducing injury? | ective do you | ı think the f | ollowing type: | s of restrai | nt would be in |
| | | Very effective | Effective | Not very effective | Has no effect at all |
| Normal 3-point seat belt | | | | | |
| Simple lap belt (Often found in the | | _ | _ | _ | _ |
| middle of back seats) | | | | | |
| Air bag | | | | | |
| Q23. In the event of an accident, how like <i>WEARING</i> a seat belt will: | Extremely | ink it is that Likely | Neither likely | in the <i>FRO</i> Unlikely | Extremely |
| | likely | | nor unlikely | | Unlikely |
| Hit the windscreen | | | | | |
| Be thrown from the vehicle | | | | | |
| Hurt their head | | | | | |
| Hurt their chest | | | | | |
| Hurt their hip/abdomen | | | | | |
| Hurt their legs | | | | | |
| and for a passenger in the BACK wi | no is <i>NOT W</i> | <i>EARING</i> a s | eat belt? | | |
| | Extremely likely | Likely | Neither likely nor unlikely | Unlikely | Extremely Unlikely |
| Hit the windscreen | | | | | |
| Be thrown from the vehicle | | | | | |
| Injure a front seat passenger or driver | | | | | |
| Injure other rear seat passengers | | | | | |
| Hurt their head | | | | | |
| Hurt their chest | | | | | |
| Hurt their hip/abdomen | | | | | |
| Hurt their legs | | | | | |
| | | | | | |

| Q24. How likely are the following to persuade you to always wear a seat belt in the BACK of a car fitted with seat belts? (Tick any that apply) | | | | | |
|---|---------------------|-------------|--------------------------------|----------------------|-----------|
| | Extremely likely | Likely | Neither likely nor unlikely | Unlikely unlikely | Extremely |
| Public education campaign, with leaflets posted to homes | | | | | |
| Public education campaign, using television advertising | | | | | |
| Increased likelihood of being stopped by the police | | | | | |
| Greater fines for not wearing a seat belt | | | | | |
| Personal experience of an accident | | | | | |
| Q25. Do you think it is the responsibility passengers wear seat belts in the b | | or of the | bassenger, to e | nsure that | adult |
| Driver | | | | | |
| Passenger in the back seat | | | | | |
| Q27. Are you | | y | ears | | |
| Male | | | | | |
| Female | | | | | |
| Q28. Do you have any children | | | | | |
| No | | | | | |
| Yes - under the age of 5 | | | | | |
| Yes - between the ages of 5 and 14 | | | | | |
| Yes - 14 years old and over | | | | | |
| Q29. Which most closely describes your | work situation | n? (Tick o | one box) | | |
| Senior managerial, administrative or pro | ofessional | | | | |
| Junior managerial, administrative or pro | ofessional, supe | ervisory, a | ind clerical | | |
| Skilled manual worker | | | | | |
| Semi-skilled or unskilled manual worker | | | | | |
| Student, looking after home/family, une | mployed | | | | |
| Retired | | | | | |
| Other, please specify | | | | | |
| | | ••••• | | | |

| Q30. Do you hold a full drivir | ng licence? | | |
|--------------------------------|----------------------|------------------------|-------------------------|
| No | | | |
| Yes | | For how many years? | |
| | | | |
| | | | |
| | | | |
| Do you have any com | ments that you would | like to make about se | at belts in the back of |
| cars? If so, please wri | te below: | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
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| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Please check that | you have answered | all the questions as | fully as possible |
| | | | |
| Please return y | our completed que | stionnaire in the enve | elope provided |
| | | | |
| | No stamp | is needed | |
| | | | |
| - | THANK YOU VERY M | UCH FOR YOUR HELP | |
| | | | |
| | | | |
| | | | |
| | | | |

Table C1 Percentage distribution of seat belt wearing for rear seat passengers

Table C2 Relationship between rear seat belt wearing
on journeys over five miles and journeys on
a motorway

| | Never | Rarely | Some -time | Often A | Always |
|-------------------------------|-------|--------|---------------|---------|--------|
| Road Type (Question 3) | | | | | |
| Residential area (n=343) | 20 | 20 | 20 | 22 | 18 |
| On an 'A' road (n=337) | 15 | 17 | 16 | 21 | 31 |
| On a motorway (n=341) | 12 | 12 | 12 | 16 | 48 |
| Lighting Conditions (Question | on 4) | | | | |
| Daylight (n=341) | 14 | 18 | 21 | 26 | 21 |
| Darkness (n=342) | 15 | 15 | 21 | 23 | 26 |
| Trip Length (Question 5) | | | | | |
| Less than 5 miles (n=341) | 19 | 20 | 23 | 19 | 19 |
| More than 5 miles (n=341) | 12 | 16 | 21 | 20 | 31 |
| Weather Conditions (Question | on 6) | | | | |
| In a rainstorm (n=340) | 13 | 16 | 20 | 20 | 31 |
| In fog (n=339) | 11 | 15 | 22 | 18 | 34 |
| In fine weather (n=340) | 17 | 19 | 22 | 21 | 21 |

| | | | you wear a re arney of over | | |
|--|-------|--------------|--------------------------------|----------|----------|
| (<i>n</i> =337) | Never | Rarely | Sometimes | Often | Always |
| How often do you we a rear seat belt when travelling on a motorway? | | e of total 1 | responding to | both que | estions) |
| Never | 11.9 | 0.3 | - | - | - |
| Rarely | 0.3 | 10.1 | 0.9 | 0.6 | - |
| Sometimes | 0.6 | 3.0 | 8.3 | - | 0.3 |
| Often | - | 1.2 | 6.2 | 7.7 | 0.6 |
| Always | 0.3 | 0.9 | 5.9 | 11.3 | 29.7 |

Table C3 Proportion of respondents selecting each statement for Question 7

| | Male (% of all in age group) | | | | Female (% of all in age group) | | | | Total |
|---|------------------------------|---------------|---------------|-------------|--------------------------------|---------------|---------------|-------------|--------------|
| | 14-20 n=32 | 21-30 n=33 | 31-60 n=53 | 61+ n=24 | 14-20 n=38 | 21-30 n=56 | 31-60 n=81 | 61+ n=29 | (%) n=346 |
| Always wear seat belt without thinking | 9 | 11 | 13 | 31 | 20 | 7 | 25 | 33 | 18 |
| Normally wear, but occasionally forget | 48 | 33 | 28 | 31 | 25 | 36 | 46 | 37 | 36 |
| Depends on who the driver is | 33 | 31 | 23 | 12 | 38 | 29 | 20 | 13 | 25 |
| Depends on the type of journey | 21 | 28 | 21 | 27 | 28 | 30 | 27 | 23 | 26 |
| I never wear a seat belt | 21 | 8 | 17 | 8 | 15 | 16 | 7 | 10 | 13 |
| Do not wear when travelling with children in the back | - | - | 6 | - | - | 9 | 4 | 7 | 4 |

Note: the figures in the above table will not add up to 100 per cent, as respondents were allowed to select more than one statement.

Appendix D: Respondents' comments, questionnaire survey

28 per cent of respondents added comments at the end of the questionnaire. The comments appear to fall into five categories as shown in Table D1. Some additional comments are reproduced below.

- The comments echo a number of findings from the qualitative study:
- The belief that, as adults, people should be allowed to make their own decision on seat belt wearing, rather than being told what to do.
- The limited understanding of some respondents of the true safety reasons behind the seat belt laws, particularly for rear seat belts.
- Concerns about the safety of lap belts.
- The restriction of seat belts, in general, if it is necessary to make a quick exit from a car.

Some respondents, mainly younger men, felt that wearing a seat belt in the back would make them look silly or saw it as a way of showing off and breaking the law with little chance of being caught.

"I don't wear a seat belt in the back of a car because it would make me look like a little kid."

[Male, 22]

"I suppose that by not wearing a seat belt in the back I'm showing off to other people"

[Male, 17]

As was seen in the qualitative study, a number of respondents felt that since they were adults they should be allowed to make their own decision as to whether or not to wear a seat belt. It is possible that this group of nonwearers can be converted to wearing seat belts if the consequences on other passengers in the car as a result of their non-wearing can be highlighted.

| <i>"I feel it should be up to me whether seat belt."</i> | or not I wear a |
|--|-----------------|
| | [Female, 23] |
| "I don't think they do any good." | [Male, 15] |

Some respondents appear to have little understanding of the laws relating to seat belt wearing and the current state of availability of rear seat belts in cars (all cars since E registration have been required to have rear seat belts fitted, by law).

"Why is there a fine for non-users of seat belts in the back of cars, when people can travel in cars without seat belts and not be fined?"

[Female, 22]

"They should be an essential feature for every new car manufactured in this country."

[Female, 61]

Table D1 Comments about seat belts in the back of car

| Category | Comment Numb | per of comments | |
|---|---|-----------------|--|
| Reasons for not wearing | Should be personal choice | 7 | |
| | Easy to forget | 5 | |
| | Can't free from fixings / boot | 3 | |
| | Usually travel in cars not fitted with rear seat belts | 3 | |
| | Don't want to offend the driver | 2 | |
| Relating to use of rear seat belts | Find seat belts very uncomfortable | 11 | |
| | Find seat belt very restricting | 2 | |
| Suggestions for increasing rear seat belt wearing | All seat belts should be three-point belts | 12 | |
| | TV / media / education campaign necessary | 7 | |
| | Police should enforce law more, with stronger penalties | 5 | |
| | All cars should be fitted with rear seat belts, regardless of | age 5 | |
| | Alarms / reminders to put seat belt on | 3 | |
| | Special provision if pregnant | 1 | |
| Preconceptions | Lap belts are dangerous and can cause injury | 11 | |
| | Can't get out quickly in an accident if wearing a seat belt | 5 | |
| | Unaware of consequences of not wearing a seat belt in the | rear 3 | |
| | Feel safer in the back, so don't need to wear a seat belt | 3 | |
| General | This questionnaire has made me change my seat belt wear | ing habits 2 | |
| | Still new law - needs time to become habit | 2 | |

Abstract

This project investigated the relatively low wearing rates of rear seat belts by adult car passengers. In order to do this TRL commissioned BJM Research and Consultancy Ltd. to carry out a qualitative study of the attitudes towards rear restraints of adults who had been observed not wearing rear seat belts. The results of this study were then used by TRL to design a larger-scale questionnaire survey.

This report presents the methods used for data collection, the key attitudes and behaviours that may affect the wearing of rear seat belts, profiles of adults who have access to rear seat belts but do not wear them and a number of factors which may influence a change in rear seat belt wearing behaviour.

The main reasons for not wearing a rear seat belt were that respondents found them uncomfortable and easy to forget. Factors which may influence rear seat belt wearing among adults include types of road travelled, length of journey, weather, car occupancy and relationship with the driver and other passengers, and misperceptions of the general level of rear restraint use.

Related publications

RR289 Restraint use by car occupants, 1982-1989 by J Broughton. 1990 (price code B, £15)

RR239 The long term effect of seat belt legislation on road user injury patterns by R J Tunbridge. 1990 (price code B, £15)

RR9 Road casualties in Great Britain during the first year with seat-belt legislation by PP Scott and PA Willis. 1985 (price code AA, £10)

Free statistical leaflets:

LF2074 Restraint use by car occupants, 1994-96 (free leaflet) LF2071 Restraint use by car occupants, 1993-95 (free leaflet) LF2068 Restraint use by car occupants, 1992-94 (free leaflet) LF2063 Restraint use by car occupants, 1991-93 (free leaflet) LF2056 Compulsory wearing of seat belts by rear seat passengers in cars, 1991 (free leaflet)

LF2076 Restraint use by car occupants, 1995-97 (free leaflet)

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