



# **The effects of the National Drivers Improvement Scheme on re-offending rates**

**Prepared for Road Safety Strategy Division, Department for Transport**

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## Executive Summary

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TRL Limited (Transport Research Laboratory) has been commissioned by the Department for Transport (DfT) to examine the effectiveness of two day courses run under the National Driver Improvement Scheme (NDIS), offered by the police as an alternative to Court prosecution for minor traffic offences. The courses offer retraining to drivers: they consist of both driving theory, taught in a classroom situation, and practical driving under the supervision of an Instructor. A course can be offered to any driver with a full licence who satisfies certain conditions and is prepared to pay the course fee. If the course is not completed satisfactorily then the driver will be prosecuted for the original offence.

This research into the effectiveness of the NDIS courses has involved examining the conviction rates for motoring offences committed by:

- a Drivers who are believed to have attended a course (course attenders); and
- b Drivers who had recently been convicted of a careless driving offence (CD offenders).

Drivers who attended courses between July 1998 to June 1999 are compared with drivers who received their first conviction for careless driving in the same period. The latter provides a control which indicates how the course attenders may have behaved subsequently if they had not attended a course. The main objective of this report is to compare convictions over a longer period. In addition, the effectiveness of the courses in the subsequent year (July 1999-June 2000) has been compared with the results from the first year.

Course attenders were identified from the National Driver Improvement database. The NDIS office records details of drivers about whom there have been enquiries by the police concerning possible referral for a course. Due to errors, omissions, and difficulties in reading faxed, hand-written forms, it was not possible to match all of the drivers in the NDIS database with records from the Driver and Vehicle Licensing Agency (DVLA) database. 83 per cent of driver numbers from the original NDIS data produced a reasonable match in the DVLA records.

The preliminary investigation of the NDIS records had identified a number of apparently anomalous cases. A number of matched drivers had been enquired about, had not attended a course, yet there was no record of a conviction for a driving offence around the time of the enquiry. A sample of these cases was followed up by contacting the police force responsible for the enquiry. It proved very difficult to trace the relevant records, and the drivers had actually completed an NDIS course in half of the small number of cases where this was possible. There were 'satisfactory' reasons in most of the remaining cases, e.g. the driver had decided to stop driving and had surrendered their licence.

The two groups of drivers (the course attenders and the CD offenders) were found to have slightly different profiles. Proportionately more course attenders were

female, fewer came from the lower social classifications and fewer had previously been convicted of a motoring offence. Course attenders tended to be older than CD offenders, i.e. drivers in the control group.

The effectiveness of NDIS courses has been examined by comparing course attenders' motoring convictions during the three years after attending a course with the control group's convictions during the three years after the original CD offence. No significant difference could be identified between the proportion of drivers in the two groups who had been convicted of careless driving, although the proportions were low in both groups of driver. The careless driving conviction rate varies with factors such as age and gender, but it was still not possible to detect any significant difference once allowance had been made for this variation.

When convictions for any type of motoring offence during the three year period were examined, there was again no significant difference between the proportion of offenders who were convicted. Course attenders were more likely than the control group to commit speeding offences, but less likely to commit licence and insurance offences.

These analyses focused on the drivers who attended courses between July 1998 and June 1999. Their records have been compared with the records of those who attended courses in the subsequent year, and a high degree of consistency was found. The results for this group of course attenders are also likely to apply to those attending subsequent courses. It does not appear that NDIS courses are effective in reducing subsequent rates of conviction for careless driving but it does appear that course attendance is associated with higher rates of conviction for speeding.

Various factors have been explored which might have influenced subsequent offence rates and confounded the analysis of the effects of course attendance, including age, sex, length of driving experience and prior offence record. However, none could be found that might arguably have raised the rates of the course attenders relative to the rates of the control group. It must be concluded that the results reported above represent reliably the effects of course attendance.

This report has focused on re-offending as an indicator of the effectiveness of NDIS. Research carried out by the University of Leeds, concurrent with this project, is looking at other, qualitative, methods of evaluation.



# 1 Introduction

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TRL Limited (Transport Research Laboratory) has been commissioned by the Department for Transport (DfT) to explore the effectiveness of courses run under the National Driver Improvement Scheme (NDIS) as an alternative to Court prosecution for minor traffic offences.

Following recommendations made in the Road Traffic Law Review (1988), a driver improvement course was set up in 1991 by Devon and Cornwall police, in association with Devon County Council. Since that time the NDIS has been adopted by most of the police forces in England and Wales.

Driver improvement courses offer retraining rather than prosecution to drivers who have committed careless errors. The courses consist of both driving theory, taught in a classroom situation, and practical driving under the supervision of an Instructor. A course can be offered to a driver, who must hold a full current driving licence (or possess a valid certificate of competence to drive), if:

- There is a reasonable chance of a successful prosecution.
- There was no serious injury or fatality at the time of the offence.
- There are no other offences (such as driving without insurance) which must be dealt with by prosecution.
- The driver has not attended a driver improvement course within the last three years.
- The driver is prepared to pay the course fee to the service provider.

This report examines the effects of course attendance. In particular it looks at the conviction rates of drivers after they have attended courses between July 1998 and June 1999, and compares their background and offending with drivers who have been convicted of a first careless driving offence in a two-year period (ie drivers who were not convicted of a careless driving offence in the two years prior to the offence for which they have been charged and convicted). These drivers will be described as CD offenders throughout this report.

In order to understand the general effect that attending an NDIS course may have on subsequent conviction rates, this report analyses details of:

- Careless driving convictions.
- Speeding convictions.
- Licensing and insurance convictions (a substantial proportion of all convictions).
- Miscellaneous motoring convictions, such as drink driving, dangerous driving, and driving while disqualified.

Drivers' future conviction rates are examined over the three years following either course attendance (for course attenders) or conviction for careless driving (for CD offenders). In addition, the conviction rates of those drivers attending a course between July 1998 and June 1999 are compared with rates for those attending courses between July 1999 and June 2000.

Much of the investigation involves survival analysis, a technique concerned with the time interval between two events, a starting event and a terminal event. It was developed to compare the effectiveness of different treatments on the survival of patients with severe illnesses (Hull and Nie, 1979) and the method is particularly useful in showing differences in reoffending between different groups, such as those who have attended an NDIS course and those who have not. A more detailed description of the method is given in Section 6 and Appendix C.

Section 2 of the report describes the sources of the datasets used in the analyses, and how the different databases were combined. Section 3 describes the background of offending groups. Section 4 details motoring conviction rates subsequent to attending a course, or being convicted of careless driving. Section 5 discusses any possible effects of selection bias on the results. Section 6 investigates survival over time and Section 7 compares course attenders identified from two distinct years. The NDIS office records details of drivers about when there have been enquiries by the police concerning possible referred for a course. Appendix A discusses NDIS enquiries which could not be linked to either courses or conviction. Section 8 presents the conclusions of this research.

## 2 Data sources

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Two sources of data were available for use by TRL as part of this research. The first was the National Driver Improvement database, which is run by the Driver and Vehicle Licensing Agency (DVLA) based at Swansea. It records information on who has attended courses and is described in Section 2.1. The NDIS database is held separately from the second source of data, the Driver Licence File, also maintained by the DVLA, which is described in Section 2.2.

All data used in this research are held by TRL for statistical and scientific purposes, and their use has been registered in accordance with the Data Protection Act, 1998.

### 2.1 The National Driver Improvement Scheme (NDIS)

The NDIS database was maintained by Staffordshire police until June 2000. In July 2000 the database was moved to the current office in Swansea. The procedure for recording information is described below.

The NDIS office receives enquiries from police forces and local authorities who run courses. When a driver is in contact with the police because they have committed a minor traffic offence that could lead to a prosecution for careless driving, the officer concerned must decide whether the circumstances satisfy set criteria. He/she will send an enquiry by fax to the NDIS office (form A) which contains the following:

*NDIS client details*

- Driver licence number.
- Surname.

- Forenames.
- Date of birth.
- Postcode.

#### *Police details*

- Force code.
- Force incident reference number.
- Force/station fax number.
- Force contact telephone number.

When the enquiry reaches the NDIS office, the database is searched to ascertain whether the client has attended a course in the last three years. Parts 1 and 2 of a second form (B) are then completed, and faxed to the enquiring police force. Once the officer knows that a course has been completed, or that the driver has decided not to complete a course, part 3 of form B is completed and the form is faxed back to the NDIS office so that the database can include the course details.

Thus, as well as the client and police force information listed above, the NDIS database should also have a record of whether or not the course was completed, and the date that any course was attended.

TRL met with officials of the NDIS database in May 2001. Following discussions, TRL received all information recorded on the database up till the end of June 2001. Two files were received:

- 1 The main NDIS database described above. This contained 50,804 names.
- 2 An archive of 9,148 records of earlier course attenders. This contained very basic information, such as date of course, police force or local authority, and date of birth of the driver. However, it contained no information that could identify an individual driver, such as driver number, and no indication of the gender of the driver.

The information on drivers is archived three years after they attend a course. Hence, at that time the earliest date of a course on the Archive was 4/07/96 and the latest was 27/06/98. Some drivers recorded on the main database had attended courses before 1/07/98 (the earliest date of a course was 10/10/97). These appeared to have had some later enquiry about them, and hence the record was still regarded as live. The latest date of a course recorded on the main database was 26/06/01.

On the main database, 16,809 drivers had no entry for date of course. There are three possible reasons for this:

- 1 They have been enquired about, and not been cleared as being eligible to attend a course because they attended a course following a previous incident.
- 2 They have been enquired about, and cleared, but decided not to attend a course.
- 3 They have been enquired about, and are intending to attend, but have not yet completed the course.

Since the courses are for drivers who have committed careless errors and the intention is that they will either attend a course, or be prosecuted for a careless driving offence, it might be assumed that drivers covered by items 1 or 2 above, would be prosecuted subsequently.

## **2.2 The Driver Licence File**

The Driver Licence File, administered by DVLA, contains information that is related to the administration of the licensing system. The following items are of particular relevance to these analyses:

- The driver's age, sex and postcode.
- Type of licence held by the driver.
- Details of convictions for endorsable driving offences, including offence type, date of offence, date of conviction, period of disqualification (if any).

DVLA removes offence details after 11 years for drink/drive offences and after 4 years for other offences, in accordance with the relevant legislation. This restricts the period of time over which a driver's offence history can be regarded as complete.

For this project, TRL has had access to extracts from the Driver Licence File for all drivers convicted of careless driving (CD) offences between 1996 and 1999. This data originates from an earlier project 'Evaluating the Working of the 1991 Road Traffic Act'.

## **2.3 Matching the NDIS data**

The first step in examining any possible driving offences committed by course attenders (or those about whom an enquiry had been made at the NDIS office) has been to match offenders recorded on the database with data held on the DVLA Driver Licence File. In order to do this either the driver number, or the surname, initial(s), date of birth and gender of the driver are required. The driver number is derived from the latter descriptors, with the addition of two 'tie breaker' letters. These are positioned at the end of the driver number and are used to differentiate between two drivers with the same surname, initials, date of birth, and gender.

The NDIS office receives many enquiries every day, and details are entered on the database. In order for the data recorded to be accurate and complete, the information they receive must be accurate and complete, but there may be difficulties in reading faxed hand-written forms as well as miskeys occurring during data entry. Hence there are likely to be errors and omissions in the database.

The following steps were taken to obtain a file of records from the NDIS database which could be matched with data held on the Driver Licence File:

- 1 Some 44,222 of the NDIS records had an entry in the data field for the driver number. However, 1,481 of these had to be rejected because they were not in the format of a UK driver number (ie they were miskeys or foreign driver numbers). This left 42,741 with a driver key (some of which could still be miskeys if the structure was consistent with that of an actual driver number).
- 2 The remaining 6,582 NDIS records had no driver number recorded in the database. From details of surname, date of birth, and at least one initial it was possible to generate 4,730 pairs of notional driver numbers (since there was no record of the gender of the driver, male and female versions of each driver number were generated).



Hence, there was sufficient information in the NDIS data to attempt a match for 93.4 per cent (42,741 + 4,730) of drivers. The datafile sent to DVLA for matching consisted of two groups:

- Group 1: the 42,741 'known' driver numbers; and
- Group 2: the 4,730 generated 'male' and the 4,730 generated 'female' driver numbers.

The programme used by DVLA for matching did not use the 'tie breaker' letters at the end of the driver number. It produced a file with the latest licensing details, and records of driving offences as well as the postcode of the driver. It also recorded whether the match obtained was:

- a A full match: driver numbers matched fully.
- b A partial match:

Derived if a full driver number (either from the NDIS data or generated by TRL) was not available because, for example, a second initial was missing and there was more than one person of the same name, initial, gender and date of birth recorded in the DVLA data.

Or if the surname was a common one, and there was more than one person of that name, initial(s), gender and date of birth recorded in the DVLA data.

- c No match:

The driver number from the NDIS database (or generated by TRL) could not be matched to the DVLA records.

A further check was made once the matched data had been returned to TRL. For Group 1, the data was accepted if:

- i There was a **full** match of the NDIS driver number: 28,874 drivers.
- ii There was a **partial** match with the NDIS driver number: 10,928 drivers.

Both a 'male' and 'female' driver number had been generated for Group 2, and so there was a further step in the 'matching' process; the data were accepted only if:

- i There was a **full** match with the male driver number, but **no** match with the equivalent female driver number: 1,496 drivers.
- ii There was a **full** match with the female driver number, but **no** match with the equivalent male driver number: 646 drivers.

Hence, 88.5 per cent of the drivers sent to DVLA were matched sufficiently to be worth investigating (82.6 per cent of the original NDIS file). Throughout the analyses, checks have been made on the separate groups to ensure that results are consistent.

Following initial matches of the NDIS data with the DVLA database in July 2001 and January 2002, the final match was carried out in October 2002. Due to possible delays of up to three months between offenders being convicted and the information from the Courts being entered into the DVLA's database, these data are assumed to be complete up to the end of June 2002.

The analysis presented below take account of all available information on motoring convictions, irrespective of when it was received.

### 3 Background of the offending groups

One test of whether attending a Driver Improvement Course affects the subsequent driving behaviour of course participants is to examine any driving convictions after they have attended a course. Further, the offences of a suitable 'control' group of drivers who have not attended courses must also be analysed and their offence rates compared with the rates of the course attenders. The following sections describe the group of offenders on the NDIS database that has been used for the analyses, and the choice of a suitable control group. The assumptions made when carrying out the analyses are discussed, and the results of examining the offending behaviour of the selected groups are reported.

#### 3.1 The NDIS data

Drivers entered on the NDIS database in the 24 months from July 1998 to June 2000 were selected for detailed analysis. This avoided any overlap between data that had been archived and data on the main NDIS database. It ensured that details of offences committed by all selected drivers could be followed for at least two years following their entry on the NDIS database. In addition, information on any previous driving offences committed by the drivers was complete for at least two years prior to their course. No cases were identified of a previous conviction for a careless driving offence within this period.

Two groups of drivers from the NDIS database have been examined:

- Group SA: Drivers who attended a course in these two years, and had not been convicted of a careless driving offence in the previous two years (16,222 drivers).
- Group SB: Drivers for whom there was an enquiry made on the NDIS record (by DVLA staff) in these two years, but no course date was entered (4,408 drivers).

##### 3.1.1 NDIS course attenders (Group SA drivers)

An NDIS course attender who successfully completes a course should not be prosecuted for the offence that led to their course attendance. Therefore, any future convictions recorded after the course date should relate to new offences. 16,222 course attenders were identified, of these 8,114 were identified from year July 1998 to June 1999 and 8,108 from year July 1999 to June 2000.

##### 3.1.2 Unexplained NDIS enquiries (Group SB drivers)

As mentioned previously, no course date was recorded for a number of drivers on the NDIS database, although there had been an enquiry about them. It might be assumed that there should be a record of a conviction for a careless driving offence for these drivers since they do not appear to have completed a course. The data available for Group SB, about whom there had been an enquiry during the reference period, were examined. Sufficient time had passed (at least two years from the receipt of the NDIS database by TRL) for the driver to have either attended a course or be subsequently prosecuted for the offence that generated the enquiry.

This group can be divided into three:

- Drivers who had either attended an earlier course or went on to attend a course after June 2000 - 1,445 drivers.
- Drivers who had at some point been convicted for a motoring offence although this conviction was not necessarily for careless driving - 1,190 drivers.
- Drivers who had no record of a conviction and no indication that they attended a course - 1,773 drivers.

It is apparent that there is a group of drivers who have committed an offence warranting an enquiry by the police, who do not attend a course, and for whom there is no subsequent record of a conviction. It is possible that the matching process carried out with the DVLA data was in error for these drivers. However, only 365 of the 1,773 drivers involved such a 'partial' match (as described in Section 2.3) – and this proportion is marginally less than that for the whole dataset of NDIS drivers.

Even excluding these partial matches, there are 1,408 drivers for whom no record of a prosecution for a motoring offence exists. These drivers may have any one of many valid reasons for not being identified as course attenders or convicted drivers:

- The driver may have been prosecuted and found not guilty.
- They may have been prosecuted for a criminal offence with the motoring offence being held on the file (if the traffic offence was later found to be linked with a more serious criminal offence).
- They may have been offered a place on an NDIS course which they are yet to attend.
- Or an error may have occurred when entering driver information into the NDIS database - such as a full but inaccurate driving licence number.

All Group SB drivers will be excluded from subsequent analyses because of these uncertainties.

Appendix A provides a brief investigation into unexplained NDIS enquiries: specifically, those drivers who had an NDIS enquiry but no record of course attendance between July 1998 and June 1999 (and no other notes of course attendance or conviction). The police forces that were contacted had great difficulty in identifying the relevant records. In half of the small number of cases where the records could be traced, the drivers had actually completed an NDIS course. There were 'satisfactory' reasons in the remaining cases, e.g. the driver stopped driving and surrendered their licence.

### **3.2 Offenders with a careless driving conviction (CD offenders)**

The dataset of careless driving (CD) offenders between 1996 and 1999 described in Section 2.2 was used to select control Group SC. This dataset, initially developed for another project, has been updated. It contains 50,945 drivers who were convicted of a first CD offence between June 1998 and July 2000. Of these drivers, 44,690 offended in the year July 1998 to June 1999 and the control group will be selected from these.

Drivers identified from the second year are often repeat offenders having committed an earlier careless driving offence more than two years previously (ie before July 1997). As this group appears to contain many persistent offenders, they were not included in the control group SC.

### **3.3 Background of the NDIS course attenders (Group SA)**

The average age of course attenders (Group SA) identified in the year commencing July 1998 was 38, with 19 per cent under 22 years old and 37 per cent over 40. Women comprised 28 per cent of Group SA; this level rising from 22 per cent for young drivers (below 22), to 32 per cent for those drivers aged over 40.

The postcode of the driver, as recorded by DVLA, was used to give an indication of the social background of the drivers. The social information for each postcode was supplied by CACI Ltd, and is known as the ACORN directory (CACI, 1993). This directory classifies postcodes into six categories to give an average social classification for the residents of each postcode. The six ACORN categories are:

- A: Thriving.
- B: Expanding.
- C: Rising.
- D: Settling.
- E: Aspiring.
- F: Striving.

Overall, 92 per cent of the sample had a postcode that could be linked to an ACORN category. Descriptions of the six categories and comments on the suitability of these categories in general are given in Appendix B.

38 per cent of course attenders belonged to ACORN categories A and B (thriving and expanding). Only 3 per cent belonged to ACORN category C (rising), 37 per cent to ACORN categories D and E, and 14 per cent to ACORN category F.

31 per cent of the general population is located in ACORN categories A and B, 8 per cent in category C, 38 per cent D and E, and 23 per cent in F. This indicates that there are more drivers from higher social classifications attended courses and fewer from lower social classifications. Perhaps the financial cost associated with course participation may have deterred poorer drivers.

Table 3.1 summarises the offence history of the 8,114 drivers in Group SA over the two years prior to their course attendance, showing the rate of motoring offences per 100 course attenders per year. 1,452 offences were committed in total. The table lists four types of offence together with a column for 'all motoring offences'. The offences which would come under the title 'other' motoring offences include such items as failure to stop after an accident, and driving while disqualified.

The table reveals that Group SA drivers had a substantial number of convictions prior to course attendance - three quarters of these being for speeding. Approximately one twentieth were licence and insurance offences, and the rest classed as 'other' motoring offences.

The lack of any previous careless driving offences in Table 3.1 is consistent with eligibility for course attendance.

**Table 3.1 Previous offence rate in the two years before course attendance**

	All motoring offences	Careless driving	Speeding offences	Licence and insurance	Other motoring offences
Rate	8.9	0.0	6.8	0.5	1.7
Number	1,452	0	1,098	83	271

Rate = number of offences per 100 drivers per year.

### 3.4 Comparison of course attenders with the control group

As explained in Section 3.2, the control group selected to indicate the number of offences that course attenders might have committed in future if they had been prosecuted rather than sent on a course comprises drivers with a first careless driving offence in the year commencing July 1998. They have been identified from a dataset described in Section 2.2 of drivers convicted of a careless driving (CD) offence between 1996 and 1999. Hence 44,690 drivers who had been convicted for their first CD offence between July 1998 and June 1999 were included in Group SC.

The average age of these drivers at the time of their first conviction for careless driving was 35 - significantly younger than that of course attenders (at time of course attendance, 38 years of age). Table 3.2 provides details of the age distribution, and confirms that CD offenders tend to be younger than the course attenders.

**Table 3.2 Age and gender profile of CD offenders and course attenders**

Age range	Age distribution		% of women drivers in the age group	
	Course attenders	CD offenders	Course attenders	CD offenders
<22	19%	22%	22%	13%
22-27	17%	19%	27%	17%
28-33	14%	16%	27%	19%
34-40	12%	14%	29%	22%
>40	37%	30%	32%	22%
	100%	100%	28%	19%

Table 3.2 also includes gender profiles. 19 per cent of Group SC were women, significantly lower than the 28 per cent found for course attenders - implying that women are more likely than men to attend NDIS courses. The proportion of course attenders who were women rose with age, from 22 per cent for the under 22s to 32 per cent for the over 40s: there was a corresponding increase among CD offenders.

The postcodes available in the DVLA data were used to indicate the social classification of the CD offenders. 91 per cent of drivers had postcodes which could be matched with the ACORN file and of these 27 per cent were from ACORN categories A and B (thriving and expanding), 7 per cent from category C (rising), 35 per cent from categories D and E (settling and aspiring) and 22 per cent from category F (striving). This distribution is similar to the ACORN

profile for the general population quoted earlier (and distinct from the ACORN profile of course attenders).

Table 3.3 gives details of the motoring convictions of the course attenders in the two years prior to attending an NDIS course, and of the convictions of the control group in the two years prior to first CD conviction. This table also includes the rate of motoring offence per driver per year during the two years. There are no prior CD offences for Group SC since only drivers convicted of a first CD offence in the year commencing July 1998 were included in the control group.

**Table 3.3 Offences and offence rate in previous two years**

	All motoring offences	Careless driving	Speeding offences	Licence and insurance	Other motoring offences
<i>Group SA</i>					
Rate	8.9	0.0	6.8	0.5	1.7
Number	1,452	0	1,098	83	271
<i>Group SC</i>					
Rate	19.2	0.0	6.9	6.7	5.5
Number	17,137	0	6,201	6,029	4,907

Rate = number of offences per 100 drivers per year, for the two years before course/conviction.

It is clear from Table 3.3 that course attenders have significantly lower rates of previous licence/insurance offences than the control group of CD offenders. The rates of speeding offences for the two groups are very similar. Overall, CD offenders had committed significantly more offences than course attenders, the excess being mainly licence/insurance and 'other' motoring offences.

In summary, course attenders tend to be older, more likely to be female, and from higher ACORN groups than CD offenders; they also have fewer recent convictions.

## 4 Motoring convictions after attending a course

This Section examines offences committed in a two-year period **after** attending a course or receiving a first CD conviction. The analyses presented in Sections 3.3 and 3.4 are repeated, but looking at subsequent convictions.

The first measure explored is the percentage of drivers in each group convicted of at least one careless driving offence subsequent to conviction or course attendance. The second measure is the total number of motoring offences committed by members of each group subsequent to conviction or course attendance. A three-year period has been chosen for this exploration since the record of motoring offences may not be complete after June 2002, so that findings based on later data may understate the true rate of convictions.

Table 4.1 examines the first measure. It shows the total number of drivers with CD convictions in the following three years for course attenders and CD offenders. Little more than one driver per hundred from either group was convicted of a new careless driving offence.

**Table 4.1 Drivers with at least one conviction for a CD offence after course/conviction**

	<i>Number of drivers with at least one CD conviction</i>	<i>Number of drivers</i>	<i>Percentage of drivers with CD reconvictions</i>	<i>Rate of Group SA relative to Group SC</i>
Group SA	120	8,114	1.48%	118%
Group SC	558	44,690	1.25%	–

The figure in the final column compares the future offender rates of the course attenders and the control group. Over the three years, course attenders are 18 per cent more likely to be convicted of a careless driving offence than CD offenders (though this finding is not statistically significant and takes no account of age or gender effects).

In terms of all types of motoring offence Table 4.2 shows the rate of convictions per year over the three years subsequent to conviction/course attendance.

**Table 4.2 Offences in the three years after course/conviction**

	<i>All motoring offences</i>	<i>Careless driving</i>	<i>Speeding offences</i>	<i>Licence and insurance</i>	<i>Other motoring offences</i>
<i>Group SA</i>					
Rate	9.4	0.5	6.1	0.8	2.0
Number	2,279	123	1,481	193	482
<i>Group SC</i>					
Rate	16.6	0.4	4.3	5.6	6.2
Number	22,205	576	5,805	7,533	8,291

*Rate = number of offences per 100 drivers per year.*

The CD offenders have significantly higher conviction rates for ‘all motoring offences’, although much of this is due to their higher conviction rates for licence/insurance and ‘other’ motoring offences. Course attenders were actually convicted of more speeding and careless driving offences in the subsequent three years than the control group of CD offenders (relative to the numbers of drivers in the two groups), although the difference in the latter case is small.

Comparison of Table 4.2 with Table 3.3 shows the overall conviction rate of course attenders rose slightly after attending the NDIS course, whereas the rate for CD offenders fell after their CD conviction. The rate of convictions for speeding offences declined less for course attenders than for CD offenders, while their rate of conviction for licence/insurance offences rose although that of the CD offenders fell.

## 5 Selection bias

The slightly higher rates of subsequent careless driving convictions for course attenders may indicate a measure of bias in the course selection procedure. This could be through selection by the Police when they decide whom to recommend for a course, and self-selection by the driver

who decides whether to attend or be prosecuted. It is possible that candidates who are chosen to attend a course may be more likely to re-offend irrespective of whether they had, or had not, participated in a course.

In this case selection bias would be expected to have greatest impact in areas where relatively many drivers take a course. Alternatively, course attenders could tend to come from areas with relatively high offence rates, which could occur if courses were established first in areas with high offence rates.

### 5.1 Effect of course availability

Two subsets (SC1 and SC2) of Group SC drivers have been used to investigate whether course attenders are naturally more likely to re-offend. Courses in England and Wales were not introduced uniformly, so it has been possible to select two groups of drivers from the group of convicted CD offenders. SC1 is based on areas where a high proportion of drivers attended a course, and SC2 on areas where the proportion was low (between July 1998 and June 1999).

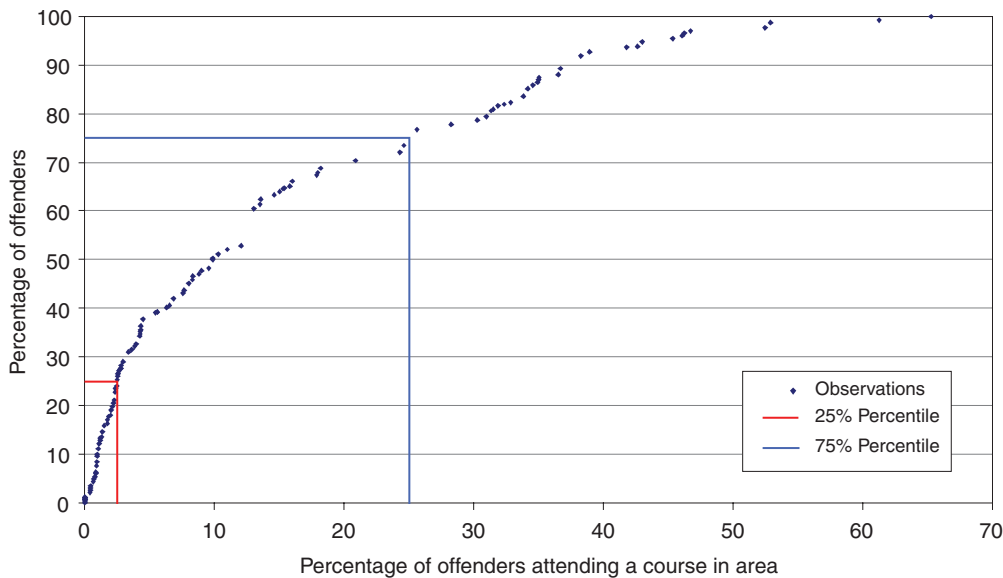
SC1 and SC2 were defined by examining the proportion of ‘CD offenders’ within a postcode area who attended a course. Only the first two digits of each postcode have been used to define a postcode area so as to ensure the samples would be of a reasonable size. Figure 5.1 shows the cumulative proportion of postcodes included as the proportion of course attenders increases. The two sub-groups are drivers in the first (SC1) and fourth (SC2) quartiles of the cumulative distribution of postcodes.

- Group SC1 is a subset of convicted CD offenders who live in areas where course attenders constitute more than 25% of local CD offenders, i.e. areas of relatively good course attendance.
- Group SC2 is a subset of convicted CD offenders who live in areas where course attenders constitute less than 2% of local CD offenders, i.e. areas with poor course attendance.

The average ages of Groups SC1 and SC2 (34.7 and 35.0 years respectively) are similar to that of Group SC as a whole (35.2 years). The proportion of females is significantly lower in Group SC1 than in Group SC (17.0 per cent and 18.9 per cent respectively), but the proportions in Groups SC2 and SC are very similar (18.8 per cent and 18.9 per cent respectively).

The offence history of Groups SC1 and SC2 drivers in the three years subsequent to course attendance/conviction is shown in Table 5.1. The table also includes data for Group SC (the full control group), the central quartile range for Group SC (25%-75%) and Group SA (course attenders). One set of columns shows the number of offences per 100 drivers over three years while the second shows the number of offenders per 100 drivers over three years.

The table reveals that the overall offence rate was higher for Group SC1 (from areas with relatively high course attendance) than for the central group from Group SC, while the overall rate for Group SC2 (from areas with relatively low course attendance) was lower. This suggests that course availability was greater in areas with above-average offence rates during the year studied. Ideally, the control for Group SA would be adjusted to take account of this, but this is not feasible.



**Figure 5.1** Distribution of course attendance rates by postcode

**Table 5.1** Offence rates in the three years after course/conviction

Group	<i>All motoring offences</i>		<i>Careless driving</i>		<i>Speeding offences</i>		<i>Insurance/licence offences</i>	
	<i>I</i>	<i>II</i>	<i>I</i>	<i>II</i>	<i>I</i>	<i>II</i>	<i>I</i>	<i>II</i>
Course Attenders, Group SA	28.1	20.0	1.5	1.5	18.3	15.2	2.4	1.5
CD offenders, Group SC	49.7	22.7	1.3	1.2	13.0	11.4	16.9	7.0
<i>Of whom:</i>								
Those from areas with high levels of course attendance, Group SC1	56.8	25.2	1.4	1.4	13.4	11.7	21.0	8.7
Those from the central two quartiles of Group SC (25%-75%)	49.6	22.4	1.2	1.2	13.1	11.4	16.9	6.8
Those from areas with low levels of course attendance, Group SC2	43.4	21.3	1.4	1.4	12.3	10.8	12.9	5.8

*I* = Number of offences per 100 drivers over three years.

*II* = Number of offenders per 100 drivers over three years.

Further, the table shows greater differences in terms of convictions than of offenders. The explanation may be that Courts often convict drivers with previous careless driving convictions for supplementary offences following a single incident.

Table 5.2 focuses on convictions for careless driving, and compares rates in the three years after attending a course or being convicted of careless driving for the first time.

The rates of future CD convictions are identical for areas of low and high course attendance, which is not consistent with the proposed model of selection bias. It seems unlikely that selection bias has contributed to the slightly higher reconviction rate of course attenders.

## 5.2 The effect of age and gender

It is known that offence rates for male and female drivers differ. Section 3.4 showed that the average age of CD offenders is significantly lower than that of course attenders and this may affect subsequent conviction rates. Table 5.3 presents the offence rates of various age groups.

The table provides no consistent indication as to whether course attenders have more or less careless driving convictions after attending a course than CD offenders after first conviction. Course attenders do have

**Table 5.2** Percentage of offenders with at least one conviction for a careless driving offence within 3 years of course/conviction

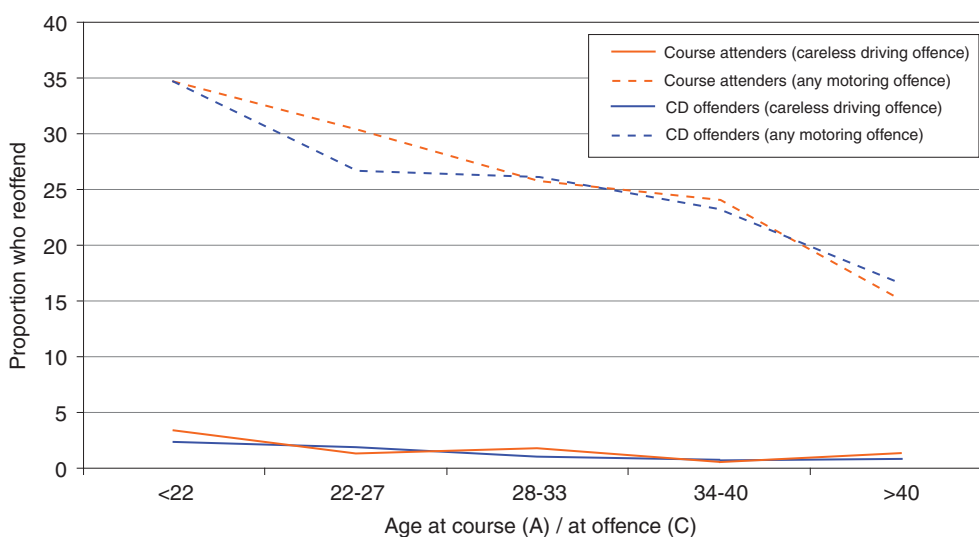
Group	<i>Convicted of careless driving in subsequent 3 year</i>	<i>Rate relative of Group SA to this group</i>
Course attenders, SA	1.48%	
CD offenders, SC	1.25%	118%
<i>of whom:</i>		
Those from areas with high levels of course attendance, SC1	1.37%	108%
Those from the central two quartiles of Group SC	1.17%	126%
Those from areas with low levels of course attendance, SC2	1.35%	109%

more speeding convictions and fewer licence/insurance and 'other' motoring convictions.

For male drivers, where the larger samples provide more precise comparisons, the three-year offender rates are shown in Figure 5.2. The trend towards lower offender rates with increasing age is pronounced. There is no clear

**Table 5.3 Proportion of drivers with convictions in subsequent three years**

	<22		22-27		28-33		34-40		>40	
	SA	SC	SA	SC	SA	SC	SA	SC	SA	SC
<i>Men</i>										
Careless driving	3.4%	2.4%	1.3%	1.9%	1.8%	1.1%	0.6%	0.7%	1.3%	0.9%
Speed offences	23.2%	12.3%	20.5%	14.0%	19.2%	13.2%	20.3%	14.5%	12.9%	10.0%
Lic/ins offences	5.4%	16.6%	2.1%	10.6%	1.8%	7.4%	0.3%	4.9%	0.5%	1.5%
Other offences	12.0%	20.7%	6.0%	16.0%	6.6%	12.6%	4.6%	10.0%	3.0%	5.1%
Any offences	34.6%	34.7%	26.6%	30.4%	26.0%	25.8%	23.4%	24.1%	16.4%	15.3%
Drivers in sample	1,201	8,572	996	6,868	854	5,666	714	4,701	2,075	10,456
<i>Women</i>										
Careless driving	1.2%	0.4%	1.3%	0.4%	0.3%	0.5%	0.7%	0.3%	0.7%	0.3%
Speed offences	9.7%	6.5%	9.8%	8.8%	8.3%	7.8%	8.3%	7.2%	5.8%	5.4%
Lic/ins offences	0.6%	3.3%	1.1%	4.5%	0.3%	2.1%	0.3%	1.5%	0.0%	0.3%
Other offences	0.9%	4.5%	1.1%	5.9%	1.0%	4.4%	2.4%	3.3%	1.3%	1.4%
Any offences	12.2%	11.7%	11.9%	15.4%	9.5%	12.7%	10.7%	11.0%	7.3%	7.0%
Drivers in sample	329	1,314	377	1,453	315	1,287	289	1,352	964	3,021



**Figure 5.2** Proportion of drivers with convictions in subsequent three years, male drivers only

difference between subsequent rates for either careless driving or any motoring offence.

Figure 5.3 shows the subsequent offender rates for licence/insurance offences and speeding offences. This figure emphasises that course attenders are more likely to have subsequent speeding convictions than CD offenders. The difference is greatest amongst the youngest drivers, stable between 22 and 40, and only narrows amongst the over 40s. However, course attenders have fewer licence/insurance convictions - though this difference declines with increasing age.

Although no substantive benefit of attending an NDIS course, in terms of convictions for subsequent careless driving offences, has been identified through the analyses carried out so far, survival analysis will now be undertaken to see if short-term benefits may be identified.

### 5.3 Other factors

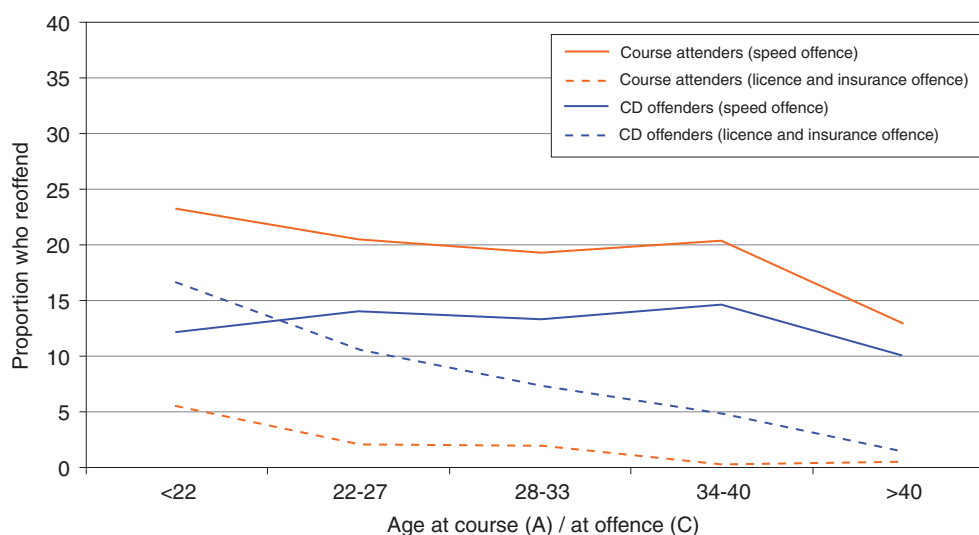
Appendix D explores various factors which might have influenced subsequent offence rates and biased the analysis

of the effects of course attendance. In Section D1 the profiles of drivers convicted of a CD offence subsequent to their original CD conviction or course attendance are examined. The effect of adjusting the group selection criteria is presented in Section D2. Section D3 examines whether living in the area covered by a pilot speed partnership scheme might have increased rates of subsequent speed convictions. Section D4 considers the effect of driving experience on subsequent conviction rates.

No evidence has been found in any of these cases to suggest that external factors might have raised the offence rates of course attenders relative to the rates of the control group.

## 6 Motoring offences over time

Sections 4 and 5 examined the convictions of NDIS course attenders (Group SA: attending a course between July 1998 and June 1999) and a control, Group SC (identified in year



**Figure 5.3** Proportion of drivers with convictions in subsequent three years, male drivers only

July 1998 to June 1999). Table 4.2 showed the percentage of offenders from Groups SA and SC with at least one conviction for careless driving in the subsequent three years. Table 4.2 showed the overall annual offender rates for which offenders were convicted in the subsequent three years.

These measures gave an indication of the offending behaviour taken after a fixed point of time from course attendance, or first CD conviction - hence indicating the longer-term effect of attending a course. This Section will use a technique known as survival analysis to examine behaviour immediately after attending a course, or being convicted of a first CD offence.

As well as examining the offending behaviour of Groups SA and SC directly, the offending behaviour over time for a number of different sub-groups is also compared; for example, those drivers from different ACORN categories and those with different offending backgrounds.

Once again, only drivers identified from the period July 1998 - June 1999 have been included in the analyses.

### 6.1 Survival analysis

Survival analysis is concerned with the time interval between two events, a starting event and a terminal event. Developed to compare the effectiveness of different treatments on the survival of patients with severe illnesses (Hull and Nie, 1979) the method is particularly useful in showing differences in reoffending between different groups, such as those who have attended an NDIS course and those who have not.

It is used in this instance to analyse the time between attending a course (Group SA) or conviction for the initial CD offence (Group SC), and the date of any future first CD offence (if any) occurring after the date of course/first CD conviction. In addition, convictions for a first speeding offence, licence/insurance offence and 'other' motoring offence are all examined.

The term 'survival' is defined in this context as not being reconvicted for a CD offence over a set period; or not being convicted for another offence (speed related,

licence/insurance, or 'other' motoring offence) over the same period. This period will be the three years from the date of attending a course (Group SA) or after the initial CD conviction (Group SC). Consequently, the graphs presented will display the proportion of a particular group of drivers who have not been convicted of a further offence. (See also Appendix C.)

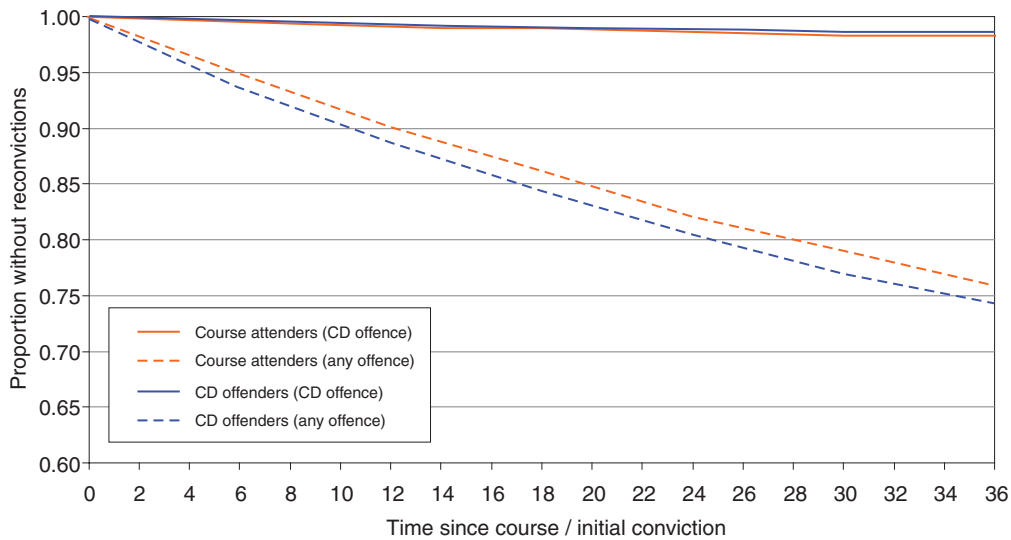
The analysis will only look at the first motoring conviction committed by a driver after attending a course, or after their first CD conviction. They therefore indicate the percentage of drivers with no 'reoffences' at any particular time. An indication of total offending behaviour has been given by Table 4.2.

Figure 6.1 shows the proportion of men without further convictions for a careless driving offence. The time interval is either the time from the course or initial CD conviction to the next CD offence or, if no such offence occurs, until three years following their course date or initial CD conviction.

The rate of offending is very small, with only 1.7% of Group SA and 1.5% of Group SC men having committed a CD offence in the 36 months after attending a course/their first CD offence. The difference is not statistically significant and suggests that course attendance had no effect on convictions for careless driving.

The figure also shows the proportion of men without further convictions for any motoring offence. Here the criterion for 'reoffence' is that the driver has committed at least one of the offences listed in Table 5.3, including CD offences, and takes the date of occurrence of the first motoring offence since date of course/first CD conviction.

The time interval is either the time from the course/first CD conviction to the first of any motoring offences or, if no motoring offences occur, until three years have elapsed. The figure shows that NDIS course attenders reoffended less than non-course attenders (Group SC, CD offenders). By 36 months 24.1% of course attenders had committed a further motoring offence, compared with 25.5% of CD offenders. The difference is not statistically significant.



**Figure 6.1** Percentage of men convicted of a further motoring offence

Figure 6.2 shows similar results for women drivers, although the rate of reoffending and the difference between course attenders and CD offenders are less.

Women drivers are only a relatively small proportion of course attenders (28%) and of CD offenders (19%), so any statistics which are derived for these drivers are less precise than those for men. Table 6.1 shows the reoffending rates of both men and women in Groups SA and SC after a shorter period (12 months) and after a much longer period (36 months).

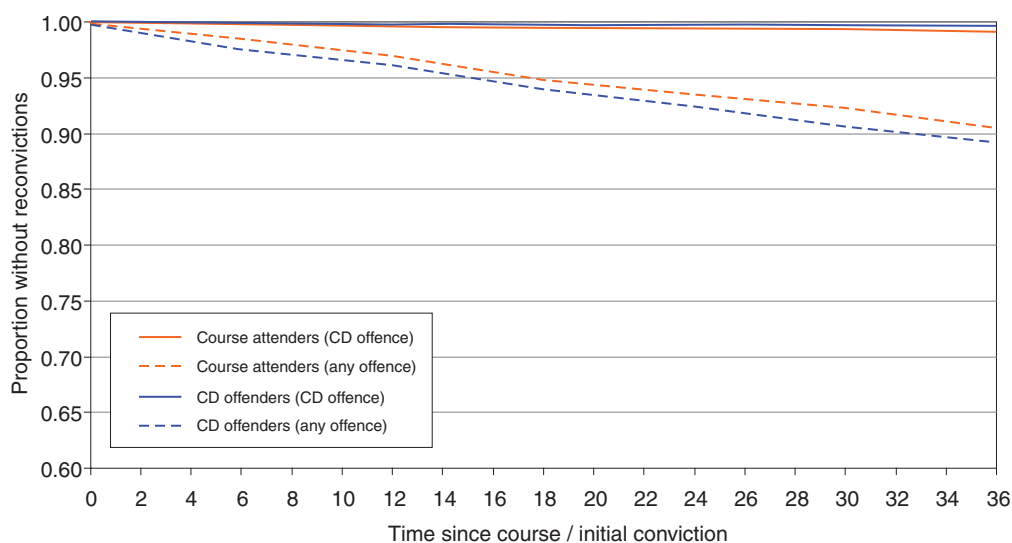
There are significant differences in the reoffending rates given in Table 6.1 and Figure 6.3 for men; course attenders are less likely than CD offenders to have subsequent licence/insurance and ‘other’ motoring convictions, while more likely to have convictions for speeding.

It does not appear that men have benefited from attending a course in terms of future careless driving rates or indeed in terms of any motoring offence. However, significantly

fewer male course attenders were convicted for licence/insurance and ‘other’ motoring offences in comparison to CD offenders, although significantly more course attenders were subsequently convicted for speeding.

Although, among women, course attenders were more likely than CD offenders to be convicted within 36 months of a further careless driving offence, the difference is not significant. When all motoring offences are considered, women course attenders were less likely to be convicted but again the difference is not significant.

Men reoffend at more than twice the level of women drivers; this combined with the smaller numbers of women drivers in the study, means that only one or two cases of women reoffending can make a large difference to the survival curves, and statistics. Therefore, no further investigations of women offenders will be presented.

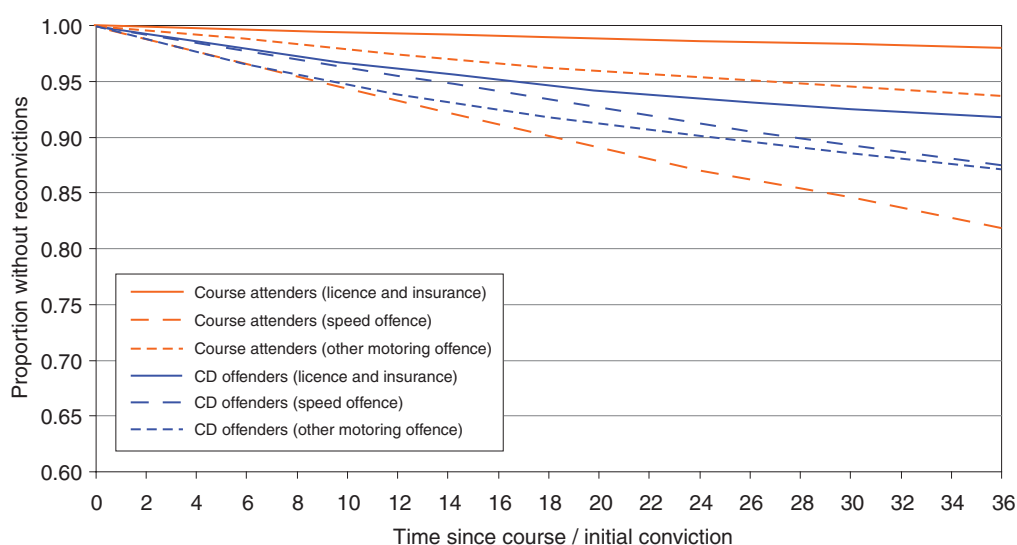


**Figure 6.2** Percentage of women convicted of a further motoring offence



**Table 6.1 Rates of reoffending for careless driving and any motoring offence, men and women**

	Careless driving		Speed offences		Licence/ insurance		Other motoring convictions		Any motoring convictions	
	12 months	36 months	12 months	36 months	12 months	36 months	12 months	36 months	12 months	36 months
<i>Men</i>										
Group SA	0.8%	1.7%	6.8%	18.1%	0.7%	2.0%	2.6%	6.1%	9.9%	24.1%
Group SC	0.7%	1.5%	4.4%	12.4%	3.9%	8.1%	6.2%	12.7%	11.3%	25.5%
Ratio SA:SC [X:1]	1.16	1.19	1.54	1.46	0.17	0.24	0.41	0.48	0.87	0.95
<i>Women</i>										
Group SA	0.4%	0.8%	2.5%	7.7%	0.0%	0.4%	0.2%	1.3%	2.9%	9.5%
Group SC	0.2%	0.4%	2.2%	6.8%	0.9%	1.9%	1.5%	3.4%	3.9%	10.7%
Ratio SA:SC [X:1]	1.98	2.35	1.15	1.13	0.05	0.18	0.15	0.39	0.76	0.89



**Figure 6.3** Future speeding, licence/insurance, and other motoring offenders

## 6.2 Reoffending patterns of male drivers

Differences between course attenders and CD offenders in convictions for further careless driving offences are very small. Consequently, this Section will concentrate on the convictions for any motoring offence.

### 6.2.1 Age

Section 5.3 examined the effects of ageing on reoffending rates for a careless driving offence. This Section examines the reoffending behaviour (in terms of any motoring offence) of two age groups during the first 36 months after course/initial CD conviction. Figure 5.2 showed that offender rates for any motoring offence are less once a driver reaches about the age of 30. Hence, drivers are divided into those under 30, and those of 30 years or older. Figure 6.4 shows reoffending rates over time for men in the two age groups, and Table 6.2 shows reoffending rates at 12 months, 24 months and 36 months after course attendance/initial CD conviction.

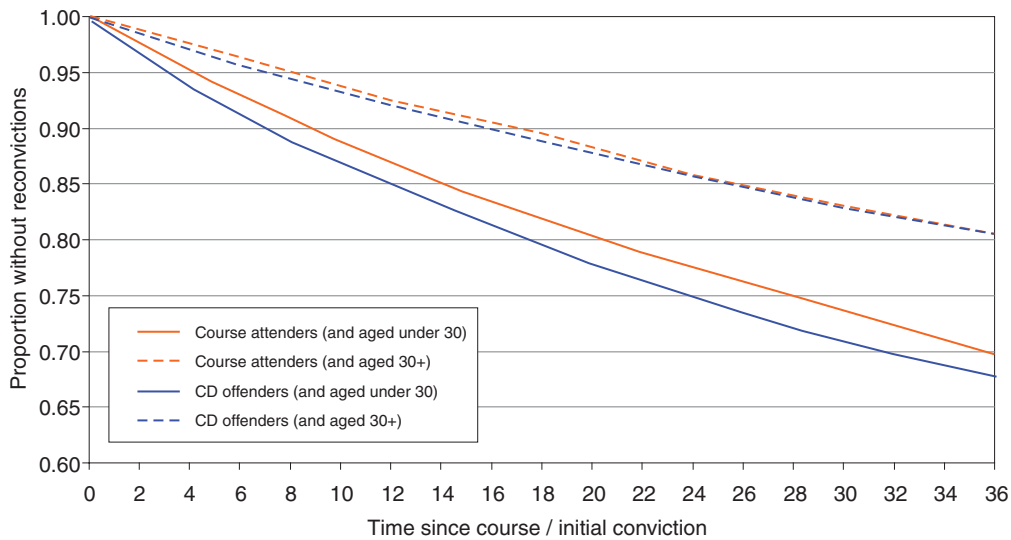
Older drivers reoffend less than younger drivers and the

difference between male course attender and convicted driver offending rates is greater at 12 months than at 36 months. By 36 months any benefits of the course have become focused towards younger men, though even this difference is not significant.

Amongst both age groups there is a statistically significant pattern of course attenders having fewer subsequent licence/insurance and ‘other’ motoring offenders, and more speeding offenders, than CD offenders. This complements the findings reported in Section 5.2.

### 6.2.2 Social classification

Section 3.3 described the use of postcodes to assess social classifications. This section examines reoffending over time for different ACORN categories. Here, to ensure reasonably sized groups ACORN Categories A+B+C are grouped together (2,372 course attenders and 11,627 CD offenders) as are Categories D+E+F (3,122 course attenders and 21,554 CD offenders). The offending rates for these two groups are shown in Figure 6.5.



**Figure 6.4** Reoffending rates for male drivers, by age

**Table 6.2** Comparison of offending rates over time for two age groups

Male drivers Age group	After 12 months		After 24 months		After 36 months	
	Less than 30	30 and over	Less than 30	30 and over	Less than 30	30 and over
Group SA	13.2%	7.5%	22.8%	14.4%	30.3%	19.5%
Group SC	15.0%	7.9%	25.2%	14.4%	32.1%	19.4%
Ratio SA:SC [X:1]	0.88	0.94	0.90	1.00	0.94	1.01

Rates are proportions of drivers subsequently convicted of a motoring offence.

In terms of any future motoring offence course attenders in ACORN groups A+B+C do reoffend less than CD offenders but the difference is not statistically significant. Similarly, course attenders in ACORN groups D+E+F do

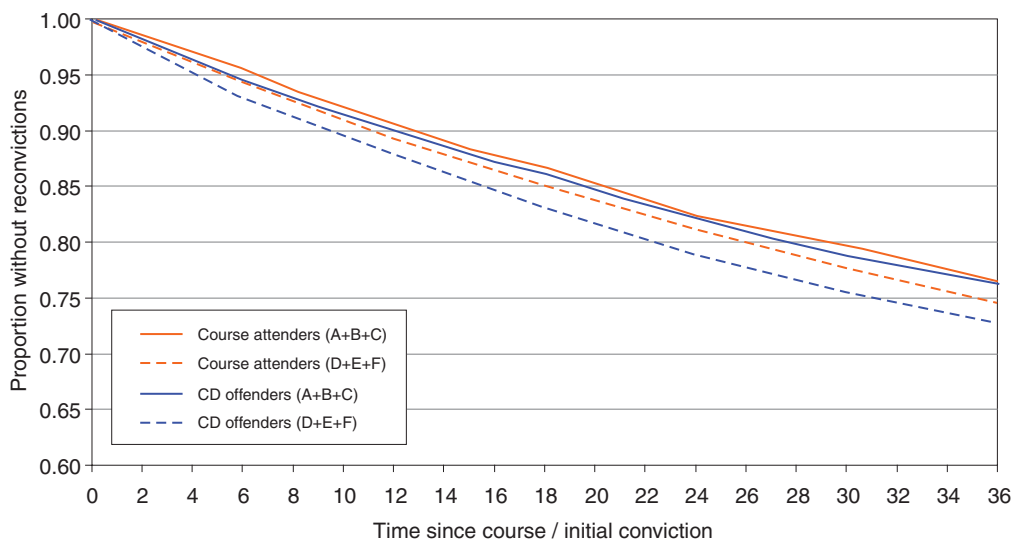
reoffend less, but not significantly so. Table 6.3 provides offender rates at 12, 24 and 36 months.

The same pattern of statistically significant differences appears as was seen earlier. In each of the ACORN groupings, the course attenders had fewer licence/insurance and 'other' motoring offenders and more speeding offenders than CD offenders did.

**Table 6.3** Comparison of offender rates over time for two groups of ACORN categories

Male drivers Social groups	After 12 months		After 24 months		After 36 months	
	A+B+C	D+E+F	A+B+C	D+E+F	A+B+C	D+E+F
Group SA	9.5%	10.6%	17.7%	19.0%	23.8%	25.4%
Group SC	10.0%	12.3%	18.0%	21.1%	23.8%	27.5%
Ratio SA:SC [X:1]	0.96	0.86	0.98	0.90	1.00	0.93

Rates are proportions of drivers subsequently convicted of a motoring offence.



**Figure 6.5** Reoffending rates for male offenders, by ACORN grouping

### 6.2.3 Previous offending history

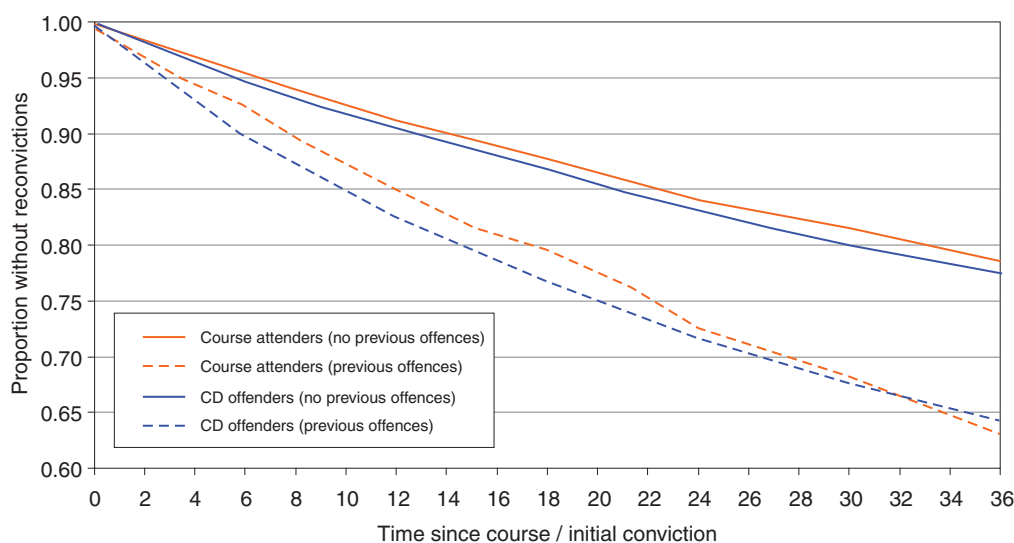
Sections 3.3 and 3.4 discussed the motoring offence history of course attenders and the control group. For the two years before their course the rate of motoring offences per year for course attenders (Group SA) was less than that for CD offenders (Group SC). It could be argued that drivers with no record of offending in the two years before being stopped by the police would be less likely to reoffend than those who had been sentenced to an earlier motoring offence. This Section therefore examines reoffending over time for course attenders and CD offenders who have no previous recorded motoring offences (4,778 course attenders; 27,611 CD offenders), and also for those who have at least one recorded offence (1,062 course attenders; 8,652 CD offenders). Figure 6.6 presents the proportion of course attenders and CD offenders who reoffended, comparing those with and without a previous recorded motoring offence.

Drivers with at least one previous offence were more likely to reoffend than those with no previous recorded offence. Course attenders without previous convictions reoffended less than the equivalent CD offenders, although the difference is not significant. Course attenders with previous convictions initially reoffended less than CD offenders, but the gap

**Table 6.4 Comparison of offender rates over time, any previous convictions**

Male drivers 2 year history	After 1st year		After 2nd year		After 3rd year	
	No previous conviction		No previous conviction		No previous conviction	
	con-	con-	con-	con-	con-	con-
Group SA	8.8%	14.9%	15.9%	27.5%	21.3%	36.8%
Group SC	9.5%	17.3%	16.9%	28.2%	22.4%	35.6%
Ratio SA:SC [X:1]	0.93	0.86	0.94	0.98	0.95	1.03

Rates are proportions of drivers subsequently convicted of a motoring offence.



**Figure 6.6** Reoffending rates for male drivers, by existence of recorded offence

narrowed until slightly more had reoffended after three years. This difference is not significant.

Course attenders were significantly less likely to be convicted for subsequent licence/insurance and 'other' motoring offences, but significantly more were convicted of speeding.

The existence of a previous conviction appears to have a greater effect than attendance of an NDIS course on the likelihood of a course attender being convicted in future.

## 7 Additional course attenders

Previous sections have explored the characteristics of drivers who attended NDIS courses between July 1998 and June 1999. It is possible that they were not typical of other course attenders so this Section will consider those who attended courses between July 1999 and June 2000.

This study had access to two years of NDIS driver records from which offence rates over the subsequent two years can be investigated. Table 7.1 gives the sample sizes: the numbers of drivers attending a course was remarkably

**Table 7.1 Course attender samples**

	Men	Women	All drivers
Year 1 – July 1998 - June 1999	5,840	2,274	8,114
Year 2 – July 1999 - June 2000	5,802	2,306	8,108

stable. Table 7.2 compares the characteristics of course attenders in Year 1 and Year 2; they are similar in respect of the aspects included in the table.

Moreover, there is little difference between the reoffending patterns shown in Table 7.3 for course attenders from Year 1 and Year 2. The survival curves given in Figure 7.1 (for male drivers) are very similar: indeed, there are no statistical differences.

It appears that the reoffence rates of those who attended NDIS courses in the second year are highly consistent with

**Table 7.2 Profile of course attenders Years 1 and 2**

	<i>Identified in Year 1</i>	<i>Identified in Year 2</i>
Average age of drivers	37.7	37.9
Proportion of women	28%	28%
Known ACORN category	92%	93%
ACORN category A	26%	27%
ACORN category B	15%	15%
ACORN category C	3%	3%
ACORN category D	30%	30%
ACORN category E	10%	11%
ACORN category F	15%	15%
Drivers having previous convictions	15%	15%
Drivers having reconvicted in subsequent two years	15%	15%

**Table 7.3 Proportion of course attenders who reoffended within 24 months**

	<i>After 6 months</i>		<i>After 12 months</i>		<i>After 24 months</i>	
	<i>Male drivers</i>	<i>Female drivers</i>	<i>Male drivers</i>	<i>Female drivers</i>	<i>Male drivers</i>	<i>Female drivers</i>
Group SA, Year 1	5.1%	2.2%	9.9%	3.7%	18.0%	7.3%
Group SA, Year 2	5.2%	1.7%	10.1%	3.3%	18.1%	6.7%
Ratio SA1:SA2 [X:1]	1.03	0.74	1.02	0.90	1.01	0.91

the rates of those who attended the first year’s courses. Thus, the results presented in previous sections for drivers in Group SA are likely to be typical of the results for all course attenders.

## 8 Conclusions

This report has presented the results of a study of the effectiveness of courses run under the National Driver Improvement Scheme (NDIS). The study has focussed on drivers who attended courses between July 1998 and June

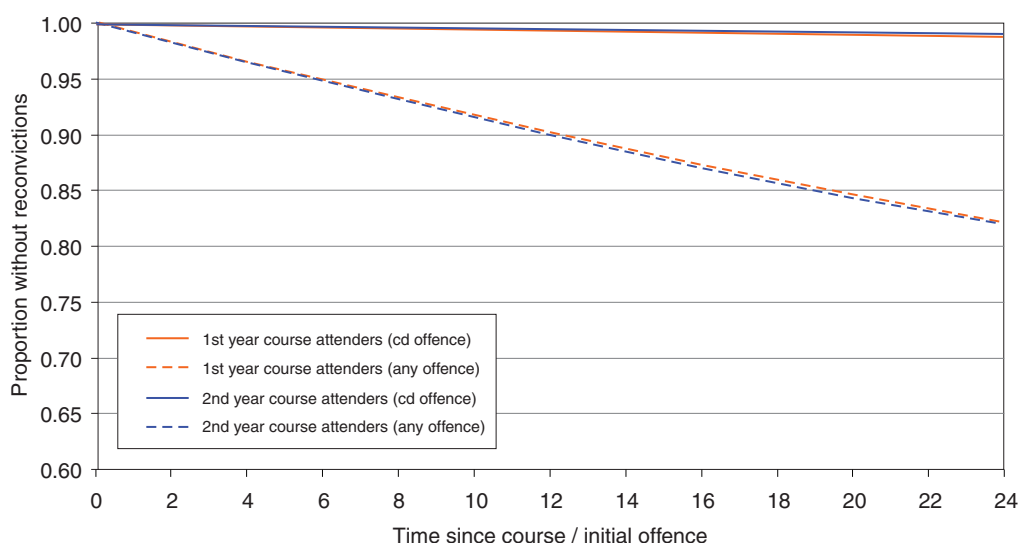
1999, as identified from records held on the NDIS database. The characteristics and offence records of these drivers have been compared with the characteristics and records of a control group of drivers, consisting of those who were convicted of their first careless driving (CD) offence during the same period.

The two groups of drivers had slightly different profiles. Proportionately more course attenders were female, fewer came from the lower social classifications and fewer had previously been convicted of a motoring offence. Moreover, course attenders tended to be older than the drivers from the control group.

NDIS courses are intended to improve driving standards. Their success in achieving this has been examined by comparing course attenders’ motoring convictions during the three years after attending a course with the control group’s convictions during the three years after the original CD offence. No significant difference could be identified between the rate of convictions for careless driving in the two groups, although both offence rates were low. The careless driving conviction rate varies with factors such as age and gender, but it was still not possible to detect any significant difference once allowance had been made for this variation.

When convictions for any type of motoring offence during the three year period were examined, there was again no significant difference between the proportion of offenders who were convicted. Course attenders were more likely than the control group to commit speeding offences, but less likely to commit licence and insurance offences.

These analyses focused on the drivers who attended courses between July 1998 and June 1999. Their records have been compared with the records of those who attended courses in the following year, and a high degree of consistency was found. The results for this group of course attenders are also likely to apply to those attending subsequent courses. It does not appear that attending an NDIS course is effective in reducing subsequent rates of conviction for careless driving but it does appear that course attendance is associated with higher rates of conviction for speeding.



**Figure 7.1** Two year offender rates for male course attenders

Examination of the NDIS records revealed a number of apparently anomalous cases. Enquiries had been made about some drivers who did not appear to have attended a course yet there was no record of a subsequent conviction. Several police forces were contacted in an attempt to investigate these cases. It proved very difficult to trace the relevant records, and the drivers had actually completed an NDIS course in half of the small number of cases where this was possible. There were 'satisfactory' reasons in most of the remaining cases, e.g. the driver had decided to stop driving and had surrendered their licence.

Various factors have been explored which might have influenced subsequent offence rates and confounded the analysis of the effects of course attendance, including age, sex, length of driving experience and prior offence record. However, none could be found that might arguably have raised the rates of the course attenders relative to the rates of the control group. It must be concluded that the results reported above represent reliably the effects of course attendance.

This report has focused on re-offending as an indicator of the effectiveness of NDIS. Research carried out by the University of Leeds, concurrent with this project, is looking at other, qualitative, methods of evaluation.

## **9 Acknowledgements**

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The work described in this report was carried out in the Safety Group of TRL Limited.

## **10 References**

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**CACI Ltd (1993).** *The ACORN User Guide*. London: CACI Information Services.

**Department of Transport and Home Office (1988).** *Road Traffic Law Review Report*. London: The Stationery Office.

## Appendix A: An investigation into unexplained NDIS enquiries

The NDIS database holds records of those drivers who have either received training, or for whom there has been an enquiry made by the police (the police make enquiries when there is serious chance of a conviction). A number of the drivers (described within this report as Group SB) were found to have the following features:

- an enquiry dating to the period;
- no indication that they had attended a course in the period;
- and had no record of either a conviction, or course attendance, around the proceeding and subsequent months and years.

These drivers may have been prosecuted and found not guilty of any offence. They may have been prosecuted for a criminal offence, with the motoring offence being held on their file (if the traffic offence was later found to be linked with a more serious criminal offence).

Alternatively, an error may have occurred in recording driver name, or date of birth.

The 335 drivers identified between July 1998 and June 1999 are now investigated.

### A.1 Police force areas

The NDIS database contains a reference from which the inquiring police force can be identified. Table A1 shows that the drivers were concentrated in a few forces. Since some of these forces are large contributors to the NDIS program, the proportion of missing observations is less pronounced, particularly in the West Midlands.

**Table A1 Drivers enquired about between July 1998 to June 1999 but without any further reference**

<i>Force</i>	<i>Unaccounted for enquiries</i>	<i>Percentage of force enquiries unaccounted for</i>	<i>Percentage of total unaccounted for</i>
Hertfordshire	156	59	47
West Midlands	43	5	13
Thames Valley	25	36	7
Bedfordshire	23	26	7
Gloucestershire	18	5	5
Warwickshire	16	5	5
Lancashire	12	2	4
Others	42	1	13
Total	335	4	100

Three police force areas had over a quarter of enquiries unaccounted for: Hertfordshire, Thames Valley, and Bedfordshire.

### A.2 Direct police contact

Five police forces were contacted and asked to provide information on a sample of drivers who were referred to an NDIS course, but where there was no sign of either course attendance or a motoring conviction. The referral dates were between July 1998 and June 1999. The information

given to the police forces comprised name, date of birth, driver licence number, address and postcode.

Three of the five police forces were unable to provide any information at all. Hertfordshire had recently undergone a reorganisation, and there had been a significant cull of old records. It was believed that anything they were not obliged to keep (such as NDIS data) would have been deleted. Bedfordshire and Thames Valley were also unable to find any relevant records.

The distribution of requested files is given in Table A2. The numbers are lower than given in Table A1 because of the need to know postcodes.

**Table A2 Tracing NDIS enquiries**

<i>Force</i>	<i>Files requested</i>	<i>No trace of files</i>	<i>Files found</i>
Bedfordshire	15	15	0
Hertfordshire	128	128	0
Lancashire	9	5	4
Thames Valley	11	11	0
West Midlands	33	23	10
Total	196	182	14

Of the 14 files found by the police forces, 7 showed that drivers had, in fact, attended and passed the NDIS course. This might imply that the NDIS are not always notified of course completions.

The remaining 7 reasons, given for not attending the NDIS course, are listed in Table A3.

**Table A3 Reasons for not attending course**

<i>Reasons given</i>	<i>Number of cases</i>
Driver stopped driving and surrendered licence	2
Case withdrawn for technical reasons	2
Driver died before completing the NDIS course	2
According to police records driver not referred to NDIS	1

In the two cases where the driving licence was surrendered, both were elderly drivers.

This investigation has highlighted problems in trying to trace reasons for old NDIS enquiries. Many of the police forces do not keep records for longer than three years. As the dates of these cases fell beyond that, the likelihood of retrieving any files was reduced.

Further, the police forces were provided with the address of the driver, but not the location of the incident/accident. Referrals to NDIS are made on the basis of where the accident occurred, and are processed by that local police division. If the offence occurred outside of the address area, it was not possible to trace the file.

### A.3 Conclusion

From the responses TRL received from police forces it appears that some course completion notifications have either not reached, or not been entered in the NDIS database.

## Appendix B: Description of ACORN categories

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CACI has classified each local area in Great Britain using a set of 54 ACORN types. This is based on an extensive cluster analysis of data from the 1991 Census. The actual directory comprises a list of all British postcodes with the appropriate ACORN types for each postcode. As the great majority of DVLA driver records contain the driver's postcode, it is possible to associate each driver with the ACORN type of the area where he or she lives. The 54 ACORN types are grouped into 17 ACORN Groups, which are further grouped into 6 ACORN Categories:

### *Category A: Thriving*

Wealthy achievers, suburban areas  
Affluent greys, rural communities  
Prosperous pensioners, retirement areas

### *Category B: Expanding*

Affluent executives, family areas  
Well-off workers, family areas

### *Category C: Rising*

Affluent urbanites, town and city areas  
Prosperous professional, metropolitan areas  
Better-off executives, inner city areas

### *Category D: Settling*

Comfortable middle agers, mature home owning areas  
Skilled workers, home owning areas

### *Category E: Aspiring*

New home owners, mature communities  
White collar workers, better-off multi-ethnic areas

### *Category F: Striving*

Older people, less prosperous areas  
Council estate residents, better-off homes  
Council estate residents, high unemployment  
Council estate residents, greatest hardship  
People in multi-ethnic, low-income areas

The basic unit of the cluster analysis which generates the ACORN codes covers almost 400 people on average, and clearly some areas of this size will contain individual addresses from two or more Types. The data are widely used by commercial customers, so in practice any errors are likely to be acceptably small.

## Appendix C: Survival analysis

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TRL's database has been used to calculate the number of months since each offenders' 'starting event' (ie the date of sentence for the 'criterion offence' for drink/driving). All of the offenders on the database were sentenced at least 24 months before the analysis was carried out. However, for any longer time period, before calculating the proportion of offenders reoffending during a three month time interval an estimate is made of the total number of offenders at risk during that interval. For example, at the beginning of the time interval 30 to 33 months, the sample at risk contains a number of offenders (N) who have been disqualified for at least 30 months. By the end of the three month interval some offenders (R) have reoffended, but others (X) may have been disqualified for less than 33 months. For simplicity these offenders (X) are assumed, on average, to have been observed for half an observation (X/2). Thus, for any time interval, the number at risk is calculated as (N-X/2), and the probability of a reoffence occurring is  $R/(N-X/2)$ . Similarly, the probability of a reoffence occurring in the next three month interval is calculated. The cumulative probability of reoffending by the end of the second interval is calculated by finding the product of the two probabilities. This explanation is based on the account by Norušis (1990).

The Wilcoxon (Gehan) statistic tests the null hypothesis that the survival distributions are the same for each group. If, when two survival curves are compared, the probability of them being different is  $<0.0001$ , the null hypothesis that the groups do not differ can be rejected with great confidence, ie we are certain that there is a difference between course attenders and control court offenders.

### Reference

Norušis M J (1990). *SPSS Base Systems User's Guide*. Chicago: SPSS Inc.



## Appendix D: Potential confounding factors

Section D1 compares the profiles of drivers convicted of a CD offence subsequent to their original CD conviction or course attendance. The effect of adjusting the group selection criteria is presented in the tables of Section D2. Section D3 examines whether living in the area of a pilot speed partnership scheme might have increased the subsequent speed convictions of course attenders. Section D4 considers the effect of driving experience on subsequent conviction rates.

### D.1 The offender profile

Table 4.1 showed the number of drivers in Groups SA and SC with at least one CD offence in the three years following NDIS course/CD conviction. The following tables provide details of these offenders, and of other drivers (i.e. non-offenders). They show that offenders tend to be younger, are

**Table D1.1 Age, and gender profile of drivers**

	Offenders	Male Female		Non-offenders		
		Male	Female	Male	Female	
Group SA (attenders)	N=120	84%	16%	N=7,994	72%	28%
Group SC (control)	N=558	95%	5%	N=44,132	81%	19%
	Offenders	Mean age	Mean age	Non-offenders	Mean age	Mean age
Group SA (attenders)	N=120	31.3	35.1	N=7,994	37.1	39.3
Group SC (control)	N=558	29.0	35.2	N=44,132	34.7	37.7

**Table D1.2 ACORN profile of drivers**

	Offenders	A+B C+D E+F			Non-offenders			
		A+B	C+D	E+F	A+B	C+D	E+F	
Group SA (attenders)	N=117	32%	29%	39%	N=7,378	42%	33%	25%
Group SC (control)	N=520	25%	29%	46%	N=40,088	29%	33%	38%

Table includes only those drivers with identifiable ACORN codes.

**Table D1.3 Proportion of drivers with at least one conviction for a non-CD offence within three years after course/careless driving conviction**

Group	Offenders		Non-offenders	
	SA	SC	SA	SC
<i>Drivers identified with ...</i>				
Any speeding convictions in previous 2 years	62%	79%	34%	28%
No speeding convictions in previous 2 years	44%	66%	17%	21%
Any motoring convictions in previous 2 years	59%	81%	33%	33%
No motoring convictions in previous 2 years	44%	61%	16%	19%
All drivers	48%	68%	19%	22%

**Table D1.4 Proportion of drivers with at least one conviction for speeding within three years after course/careless driving conviction**

Group	Offenders		Non-offenders	
	SA	SC	SA	SC
Any speeding convictions in previous 2 years	33%	30%	28%	17%
No speeding convictions in previous 2 years	25%	14%	13%	10%
Any motoring convictions in previous 2 years	31%	17%	26%	13%
No motoring convictions in previous 2 years	25%	15%	13%	11%
All drivers	27%	16%	15%	11%

**Table D1.5 Rate of conviction per year for non-CD offences in the three years after course/careless driving conviction**

Group	Offenders		Non-offenders	
	SA	SC	SA	SC
<i>Drivers identified with ...</i>				
At least 1 speeding conviction in previous 2 years	44.4	74.1	16.5	17.3
No speeding conviction in previous 2 years	24.2	80.4	7.5	15.1
At least 1 motoring conviction (any offence) in previous 2 years	37.9	119.2	17.5	31.0
No motoring conviction (any offence) in previous 2 years	24.5	60.7	7.0	11.2
All drivers	27.8	79.7	8.6	15.3

Rate = Number of offences per 100 drivers per year.

**Table D1.6 Rate of conviction for speeding per year in the three years after course/careless driving conviction**

Group	Offenders		Non-offenders	
	SA	SC	SA	SC
<i>Drivers identified with ...</i>				
At least 1 speeding conviction in previous 2 years	14.3	12.9	12.0	6.8
No speeding conviction in previous 2 years	9.4	5.2	5.2	4.0
At least 1 motoring conviction (any offence) in previous 2 years	12.6	7.0	11.2	5.3
No motoring conviction (any offence) in previous 2 years	9.5	5.7	5.1	4.0
All drivers	10.3	6.1	6.0	4.3

Rate = Number of offences per 100 drivers per year.

**Table D1.7 Location of driver postcodes**

Group	Offenders		Non-offenders	
	SA	SC	SA	SC
<i>Region</i>				
East	3%	9%	3%	9%
East Midlands	3%	3%	5%	4%
London	3%	10%	1%	10%
North East	1%	3%	0%	3%
North West	11%	11%	12%	9%
Scotland	2%	7%	0%	6%
South East	5%	7%	8%	10%
South West	9%	4%	13%	5%
Wales	2%	6%	3%	4%
West Midlands	26%	7%	19%	7%
Yorkshire & Humberside	10%	6%	7%	5%
Postcode crosses regional boundaries	9%	4%	6%	4%
Postcode is incomplete	15%	16%	16%	15%
Postcode absent	1%	6%	7%	8%

more often male, from lower ACORN groups, and have more future convictions for offences other than careless driving. They also show that course attenders tend to be older, less often male and from higher ACORN groups – and so would be expected to be less likely to reoffend than drivers from the control group. Hence, demographic details cannot account for the differences found in Table 4.1.

## D.2 The effect of alternative criteria

If different criteria had been used to select the driver groups for this study, would different results have been obtained? The following tables (Tables D2.1 to D2.4) present the results of selecting drivers with different offence histories. The outcomes (*in italics*) are largely insensitive to the choice of period.

**Table D2.1 Drivers with at least one conviction for a CD offence after course/conviction given driver CD history**

	Previous 2 years without CD conviction			Previous 3 years without CD conviction			Previous 4 years without CD conviction		
	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions
Group SA	120	8,114	1.48%	120	8,081	1.48%	120	8,063	1.49%
Group SC	558	44,690	1.25%	550	44,370	1.24%	543	44,143	1.23%

**Table D2.2 Offences rates in the three years after course/conviction given driver CD history**

	Previous 2 years without CD conviction			Previous 3 years without CD conviction			Previous 4 years without CD conviction		
	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions
Group SA	2,279	8,114	9.4	2,266	8,081	9.3	2,260	8,063	9.3
Group SC	22,205	44,690	16.6	21,971	44,370	16.5	21,757	44,143	16.4

Rate = Number of offences per 100 drivers per year.

## D.3 Police force areas

Eight police forces (Strathclyde, Cleveland, Nottinghamshire, Northamptonshire, Lincolnshire, Thames Valley, South Wales, and Essex) participated in a pilot speed partnership scheme, whereby each was paid an administration fee from fixed penalties for speeding offences. This may have led to an increase in speeding convictions in these areas

Since the scheme began in April 2000 and lasted until March 2002, before going national, this could have influenced the findings contained within this report relating to a speeding offence had course attenders been over-represented in the eight police force areas.

Drivers' postcodes have been analysed and Table D3.1 presents the results; the proportion of drivers who lived in pilot speed partnership areas was lower for Group SA than for Group SC.

Table D3.2 identifies three-year future offence rates and shows that the Group SA drivers in each type of location had more subsequent speeding convictions than Group SC drivers. The expectation that drivers living within the speed partnership areas had more speeding convictions than those living outside is confirmed by these results.

## D.4 Driving experience

The length of driving experience may have an effect on NDIS course performance, or the likelihood of committing an offence, so the following tables examine this with respect to Group SA and SC drivers. The first table provides information on the distributions of drivers, subsequent tables provide details of the percentage of drivers who offend within three years of an NDIS course or a careless driving conviction.

**Table D2.3 Drivers with at least one conviction for a CD offence after course/conviction given driver offence history**

	Previous 2 years without CD conviction			Previous 3 years without CD conviction			Previous 4 years without CD conviction		
	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions
Group SA	91	6,912	1.32%	87	6,564	1.33%	85	6,395	1.33%
Group SC	377	35,215	1.07%	326	32,604	1.00%	304	31,034	0.98%

**Table D2.4 Offence rates in the three years after course/conviction given driver offence history**

	Previous 2 years without CD conviction			Previous 3 years without CD conviction			Previous 4 years without CD conviction		
	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions	Drivers with CD convictions	Number of drivers	Percentage of drivers with CD convictions
Group SA	1,600	6,912	7.7	1,472	6,564	7.5	1,410	6,395	7.3
Group SC	12,739	35,215	12.1	11,292	32,604	11.5	10,348	31,034	11.1

Rate = Number of offences per 100 drivers per year.

**Table D3.1 Distribution of driver residence**

	Location of drivers home postcode in regards to the 8 participating police forces								Total number of drivers
	Unknown		Outside		Boundary		Within		
Group SA	1,273	16%	6,165	76%	181	2%	495	6%	8,114
Group SC	6,277	14%	30,695	69%	1,486	3%	6,232	14%	44,690

1 Offences could have occurred elsewhere.

2 Unknown – no postcode or unmatched postcode.

Outside – living outside police partnership area.

Boundary – Living in postal areas which are partially within the police force areas.

Within – living within police partnership areas.

**Table D3.2 Rate of speeding offences over a three-year period since course/conviction**

	Location of drivers home postcode relative to the 8 participating police forces							
	Unknown Sample	Rate	Outside Sample	Rate	Boundary Sample	Rate	Within Sample	Rate
Group SA (attenders)	N=1,273	5.2	N=6,165	6.0	N=181	8.3	N=495	8.3
Group SC (control)	N=6,277	4.2	N=30,695	4.0	N=1,486	5.8	N=6,232	5.6

Rate = Number of offences per 100 drivers per year.

Experience has been quantified in terms of the length of time that a full driving licence had been held, as shown by details supplied by DVLA. There are no details for ‘old style’ licences, i.e. drivers who qualified before the DVLA database was setup in the 1970s; by definition, these are highly experienced drivers. There is also a handful of cases where data inconsistencies mean that the period cannot be calculated (Table D4.1).

Tests of two proportions have been carried out at the 95% significance level. Outcomes where course attenders were significantly less likely to offend in future than drivers from

the control group are reported as ‘better’, and outcomes where attenders were more likely to offend are reported as ‘worse’.

The overall proportions match those shown in Table 6.1.

The pattern of responses is very similar to that already detailed within this report. Overall, male course attenders were more likely to commit careless driving and speed offences, while less likely to commit licence/insurance and other motoring offences; results for specific experience levels are generally consistent with the overall results. The same is broadly true of women, although the smaller numbers mean that fewer of the differences are significant.

**Table D4.1 Distribution of drivers**

	Men				Women			
	Group SA (attenders)		Group SC (control)		Group SA (attenders)		Group SC (control)	
	N=	%	N=	%	N=	%	N=	%
<i>Full licence</i>								
Held for up to 12 months	405	7	2,209	6	126	6	454	5
Held for 13-24 months	391	7	2,430	7	129	6	525	6
Held for 25-46 months	369	6	2,016	6	101	4	409	5
Held for 37-48 months	252	4	1,762	5	68	3	376	4
Held for between 4-12 years	1,437	25	9,862	27	537	24	2,238	27
Held for more than 12 years	1,384	24	8,691	24	543	24	2,036	24
Old style licence	1,391	24	6,112	17	463	20	1,310	16
Other	211	4	3,181	9	307	14	1,079	13
Overall	5,840	100	36,263	100	2,274	100	8,427	100

Category other comprises miscellaneous cases which could not be assigned to any of the prior options.

**Table D4.2 Proportion of drivers convicted of careless driving within 3 years**

	Men					Women				
	Group SA (attenders)		Group SC (control)		Test outcome	Group SA (attenders)		Group SC (control)		Test outcome
	N=	%	N=	%		N=	%	N=	%	
<i>Full licence</i>										
Held for up to 12 months	20	4.9	56	2.5	Worse	1	0.8	0	0.0	-
Held for 13-24 months	10	2.5	53	2.4	-	2	1.6	2	0.4	-
Held for 25-46 months	8	2.0	51	2.3	-	3	2.4	3	0.7	-
Held for 37-48 months	6	1.5	34	1.5	-	0	0.0	3	0.7	-
Held for between 4-12 years	22	1.5	149	1.5	-	6	1.1	12	0.5	-
Held for more than 12 years	21	1.5	95	1.1	-	2	0.4	2	0.1	-
Old style licence	11	0.8	48	0.8	-	2	0.4	5	0.4	-
Other	3	1.4	42	1.3	-	3	1.0	3	0.3	-
Overall	101	1.7	528	1.5	-	19	0.8	30	0.4	Worse

**Table D4.3 Proportion of drivers convicted of license and insurance offences within 3 years**

	Men					Women				
	Group SA (attenders)		Group SC (control)		Test outcome	Group SA (attenders)		Group SC (control)		Test outcome
	N=	%	N=	%		N=	%	N=	%	
<i>Full licence</i>										
Held for up to 12 months	25	6.2	290	13.1	Better	0	0.0	11	2.4	-
Held for 13-24 months	18	4.4	329	14.9	Better	2	1.6	18	4.0	-
Held for 25-46 months	20	4.9	262	11.9	Better	1	0.8	13	2.9	-
Held for 37-48 months	8	2.0	194	8.8	Better	0	0.0	16	3.5	Better
Held for between 4-12 years	21	1.5	864	8.8	Better	2	0.4	64	2.9	Better
Held for more than 12 years	14	1.0	501	5.8	Better	1	0.2	18	0.9	-
Old style licence	4	0.3	51	0.8	Better	0	0.0	2	0.2	-
Other	4	1.9	464	14.6	Better	2	0.7	22	2.0	-
Overall	114	2.0	2,955	8.1	Better	8	0.4	164	1.9	Better

**Table D4.4 Proportion of drivers convicted of a speeding offence within 3 years**

	<i>Men</i>					<i>Women</i>				
	<i>Group SA (attenders)</i>		<i>Group SC (control)</i>		<i>Test outcome</i>	<i>Group SA (attenders)</i>		<i>Group SC (control)</i>		<i>Test outcome</i>
	<i>N=</i>	<i>%</i>	<i>N=</i>	<i>%</i>		<i>N=</i>	<i>%</i>	<i>N=</i>	<i>%</i>	
<i>Full licence</i>										
Held for up to 12 months	77	19.0	293	13.3	Worse	12	9.5	35	7.7	–
Held for 13-24 months	92	22.7	302	13.7	Worse	15	11.9	36	7.9	–
Held for 25-46 months	97	24.0	284	12.9	Worse	16	12.7	27	5.9	Worse
Held for 37-48 months	54	13.3	281	12.7	–	6	4.8	27	5.9	–
Held for between 4-12 yrs	300	20.9	1,416	14.4	Worse	41	7.6	173	7.7	–
Held for more than 12 yrs	255	18.4	1,187	13.7	Worse	47	8.7	138	6.8	–
Old style licence	164	11.8	587	9.6	Worse	19	4.1	89	6.8	Better
Other	20	9.5	145	4.6	Worse	19	6.2	50	4.6	–
Overall	1,059	18.1	4,495	12.4	Worse	175	7.7	575	6.8	–

**Table D4.5 Proportion of drivers convicted of any other future motoring offence within 3 years**

	<i>Men</i>					<i>Women</i>				
	<i>Group SA (attenders)</i>		<i>Group SC (control)</i>		<i>Test outcome</i>	<i>Group SA (attenders)</i>		<i>Group SC (control)</i>		<i>Test outcome</i>
	<i>N=</i>	<i>%</i>	<i>N=</i>	<i>%</i>		<i>N=</i>	<i>%</i>	<i>N=</i>	<i>%</i>	
<i>Full licence</i>										
Held for up to 12 months	55	13.6	389	17.6	Better	2	1.6	16	3.5	–
Held for 13-24 months	39	9.6	430	19.5	Better	2	1.6	20	4.4	–
Held for 25-46 months	50	12.3	387	17.5	Better	1	0.8	25	5.5	Better
Held for 37-48 months	21	5.2	298	13.5	Better	0	0.0	28	6.2	Better
Held for between 4-12 yrs	84	5.8	1,431	14.5	Better	9	1.7	91	4.1	Better
Held for more than 12 yrs	63	4.6	873	10.0	Better	11	2.0	51	2.5	–
Old style licence	32	2.3	250	4.1	Better	2	0.4	19	1.5	–
Other	11	5.2	534	16.8	Better	3	1.0	38	3.5	Better
Overall	355	6.1	4,592	12.7	Better	30	1.3	288	3.4	Better

**Table D4.6 Proportion of drivers convicted of any future motoring offence within 3 years**

	<i>Men</i>					<i>Women</i>				
	<i>Group SA (attenders)</i>		<i>Group SC (control)</i>		<i>Test outcome</i>	<i>Group SA (attenders)</i>		<i>Group SC (control)</i>		<i>Test outcome</i>
	<i>N=</i>	<i>%</i>	<i>N=</i>	<i>%</i>		<i>N=</i>	<i>%</i>	<i>N=</i>	<i>%</i>	
<i>Full licence</i>										
Held for up to 12 months	138	34.1	735	33.3	–	15	11.9	53	11.7	–
Held for 13-24 months	133	32.8	749	33.9	–	19	15.1	58	12.8	–
Held for 25-46 months	135	33.3	674	30.5	–	18	14.3	53	11.7	–
Held for 37-48 months	73	18.0	588	26.6	Better	6	4.8	58	12.8	Better
Held for between 4-12yrs	382	26.6	2,841	28.8	–	55	10.2	283	12.6	–
Held for more than 12yrs	318	23.0	2,096	24.1	–	56	10.3	191	9.4	–
Old style licence	200	14.4	837	13.7	–	22	4.8	108	8.2	Better
Other	31	14.7	728	22.9	Better	25	8.1	97	9.0	–
Overall	1,410	24.1	9,248	25.5	Better	216	9.5	901	10.7	–

## Abstract

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This research, commissioned by the Department for Transport (DfT), examines the effectiveness of two day courses run under the National Driver Improvement Scheme (NDIS) in reducing re-offending. These courses are offered by the police as an alternative to Court prosecution for minor traffic offences. The courses offer retraining to drivers: they consist of both driving theory, taught in a classroom situation, and practical driving under the supervision of an Instructor. The research involved examining the conviction rates for motoring offences committed by drivers believed to have attended a course and drivers who had recently been convicted of a careless driving offence. TRL has already carried out a preliminary investigation of the NDIS courses; the main objective of this report is to compare convictions over a longer period and to explore various factors which might have influenced subsequent offence rates and confounded the analysis of the effects of course attendance, including age, sex, length of driving experience and prior offence record.

## Related publications

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