

Cohort II: A Study of Learner and New Drivers

Abstract

A major study of learner and new drivers has been carried out in which 'cohorts' of candidates taking the practical driving test were invited to participate in a postal survey. Those who passed the test were followed up at intervals over the next three years. The results provide a picture of how people learn to drive, their attitudes and experiences in the first years of driving, and changes that have occurred since the first cohort study (Cohort I) in 1988–98. It also explores the impacts of introducing hazard perception testing in 2002.

Main findings

- Virtually all respondents (including those who failed the theory as well the practical test) had taken at least some lessons with an approved driving instructor (ADI). The average amount was 52 hours, but half of the candidates had less than 40 hours of professional instruction. In Cohort I, the average was 31 hours.
- Fifty-five per cent of respondents had practice sessions with friends or relatives, with an average of 24 hours.
- The average learning time to the practical test was 14 months, but 14% of candidates came to the test without any experience of driving in the dark.
- Those who passed the test took an average of 47 hours of professional tuition; any amount of practice with friends and relations was associated with higher pass rates. The total driving experience for passers averaged 67 hours, compared with 49 hours in Cohort I.
- Nearly all those who passed the test felt that their driving skills could be improved in some way.
- In the first six months after the practical test, nearly two in ten respondents (19%) reported having an accident and seven in ten respondents (70%) reported having a near accident. As new drivers gained experience, the number of accidents they reported decreased and the severity of accidents increased.
- The introduction of the hazard perception test was associated with some reduction in subsequent accident liability in the first year of driving, depending on the type of accident. For reported non-low-speed accidents on a public road where the driver accepted some blame, the accident liability of those who had taken the hazard perception test was significantly lower than those who had not.
- The higher the score achieved in the hazard perception test, the lower the accident liability for some types of accidents in the first year of driving.

Background

In 2007, the Department for Transport's review of the Government's road safety strategy, *Tomorrow's Roads – Safer for Everyone. The Second Three Year Review*, discussed the need to reform fundamentally the way people learn to drive. It has long been known that young drivers are over-represented in accidents. Research has shown that much of this problem is associated with inexperience, as both younger and older new drivers have an elevated risk of being involved in an accident in the early stages of their driving careers.

The first large-scale investigation into the new driver problem in this country was the Cohort I study carried out in 1988/89. 'Cohort II', a major six-year study, was commissioned to provide an up-to-date picture of how 'cohorts' of learner drivers in Great Britain learn to drive and of their subsequent experiences as new drivers. The aims of the study were:

- to investigate how people learn to drive, including the number of hours of tuition and practice, and to compare this with outcomes from the theory and practical driving tests;
- to assess the hazard perception component of the theory test which was introduced during the period of study;
- to explore new drivers' experiences and attitudes to driving; and
- to identify their level of accident involvement over time.

Research findings

Learning to drive

- When preparing for the theory test, almost all respondents (99.5%) studied with the help of a book, website or interactive multimedia product, with the Highway Code being a clear first choice. The majority of respondents (90%) also gained at least some driving experience before taking their first theory test.
- Over a fifth of respondents (22%) said that they did not use any materials to prepare for the practical driving test, apart from reference to the Highway Code.
- The average amount of instruction with an ADI for both passers and those who failed was 52 hours, but half the candidates had less than 40 hours of professional instruction. In Cohort I, the average was only 31 hours.

- Just over half of respondents also had practice sessions with friends or relatives, with an average of 24 hours.
- The average learning time was 14 months, but 14% of candidates came to their first test without any experience of driving in the dark.

Passing the test

- The proportion of people passing the practical test decreased with age – younger age groups had higher pass rates. Respondents taking the practical test for the first time were not as successful as those who were attempting their second, third or fourth driving test.
- Those who passed took an average of 47 hours of professional tuition and, for those with the opportunity, 34 hours of practice with friends and relations (Table 1). Any amount of practice with friends and relations was associated with higher pass rates.
- Respondents were more likely to pass the practical test if they reported fewer barriers to learning to drive, such as restrictions on private practice or professional tuition.
- Nearly all those who passed the test felt that their driving skills could be improved in some way, and a third felt a lot of improvement was needed for at least one driving skill.

Table 1: Learning to drive

	All respondents	Respondents who passed the practical test
Mean number of hours with an instructor (ADI)	52	47
Median number of hours with an instructor (ADI)	40	36
Percentage who had practice with friends and relations	55%	59%
Mean hours of practice with friends and relations (including those with no practice)	19	20
Mean hours of practice with friends and relations (including only those who had practice)	34	34
Mean 'active' learning time (months)	14	13

The new driver

- The majority of new drivers drove on most days of the week once they had passed their test, and did so over the three years of the study.

- Over the three years that they were followed-up, the drivers continued to report a need to improve aspects of their driving, particularly driving in snow and fog, parking and judging what other drivers will do.
- In the early stages of their driving careers, males had a higher opinion of, and more confidence in, their driving ability than did females, and younger drivers regarded themselves in a more favourable light than did older drivers. More males reported having an unsafe driving style than females and reported committing more violations when driving, as do younger drivers compared with older ones.
- Drivers began their driving careers with relatively high levels of confidence in their driving ability, but after six months their confidence was lower and did not change to any great extent in the subsequent time periods.

Accident involvement

- As new drivers gained experience, the number of accidents they reported and their corresponding accident rates (per year) decreased. In the first six months of driving, older drivers have a lower accident rate (per year) than younger drivers. In the second and third years, the age effect was relatively small.
- In the first six months after the practical test, nearly two in ten respondents (19%) reported having an accident and seven in ten respondents (70%) reported having a near accident. Most accidents were non-injury, very minor and in towns.
- The severity of the accidents occurring, however, increased over time, corresponding to a reduction in the proportion of accidents taking place in car parks and private drives and an increase in the proportion occurring on public roads – an effect that was especially marked between the first two six-month reporting periods. In the first six months of driving, two-fifths (38%) of the reported accidents were off-road (in car parks or private drives),
- New drivers who were less likely to have been accident-involved were those with the following characteristics: more attentive and careful; more placid and patient; less likely to engage in behavioural violations and aggressive violations; less likely to make behaviour errors and slips; have better skills in observation, perception and anticipation; and more likely to have a conservative attitude to speeding.
- Multivariate analysis techniques were used to model various accident types. The experience of a driver of having a ‘near accident’, the ‘awareness’ scale, which measures the self-reported skills of the driver in observing and anticipating hazardous situations, the frequency with which the drivers reported exceeding the speed limit, and the attitudes to driving violations were all strongly and positively related to the driver’s accident liability.

The impact of hazard perception testing

- Following the introduction of the hazard perception component, more time was spent studying for the theory test, and greater use was made of visual materials. Respondents were more likely to feel ‘ready’, or ‘nearly ready’, for the practical test if their first theory test had included hazard perception, but this did not appear to affect the pass rate.
- After the introduction of hazard perception testing, the theory test tended to be taken earlier in the learning to drive process, though without any decrease in the amount of driving experience gained before the test.
- Respondents with hazard perception experience made fewer awareness and anticipation faults in the practical test, and fewer total driving faults than those without such experience. Those who had taken the hazard perception test were less likely to feel the need to improve the ‘spotting hazards’ skill than those who had not. There is little evidence that hazard perception affected attitudes or self-reported behaviours.
- Multivariate analysis showed that the introduction of the hazard perception test was associated with a reduction in subsequent accident liability for some types of accident in the first year of driving. The size of the effect varies with the type of accident.
- For reported non-low-speed accidents on a public road where the driver accepted some blame, accident liability for the first year of those who had taken the hazard perception test was significantly lower than that of those who had not. There is also a predictive relation between the hazard perception score and levels of reported accidents in the first year, suggesting that there is scope for reducing accidents by improving hazard perception skills.

Changes over time

- In Cohort I, less than half the respondents (43%) were under 20 years of age, and just under two-thirds (65%) were under 25. In Cohort II, these proportions were 54% and 73% respectively. Females accounted for the majority of respondents in both studies, the proportion increased from 55% to 63% from Cohort I to II.
- While virtually all respondents in both studies had some professional driving instruction (98% in Cohort I and 99.4% in Cohort II), there was a marked increase in the mean hours of instruction, from 31 to 52 hours. The proportion of respondents who had driving practice with friends or relations declined from 65% in Cohort I to 55% in Cohort II.
- Those who passed the test in Cohort I had an average of 49 hours of driving experience, while in Cohort II it was 67 hours, with the majority of the increase being accounted for by professional driving instruction.

Conclusions

The Cohort II study provides a wealth of information about how new drivers prepare for driving, and offers valuable insights into the relationships between learning to drive, passing the practical test and subsequent accident liability.

Cohort II also provides the first persuasive evidence of a safety benefit associated with the introduction of hazard perception testing in the driver testing regime. The results suggest that the better people are at identifying hazards in the test, the better they are at avoiding accidents in future.

About the project

Sixteen samples of 8,000 candidates taking their practical driving test in a particular week were selected every three months. These candidates were sent a questionnaire shortly after taking their practical test, which included questions about their preparation for both the theory and practical elements of the driving test, time spent in different types of driving environment and also some basic attitude questions. More than 42,000 people responded to this first questionnaire

The second element of the project was to follow the experiences of new drivers at intervals of 6, 12, 24 and 36 months after passing the test. Questionnaires collected information on driving experience, accidents, offences, attitudes and self-reported behaviours. It was possible to assess the effects of changes of the introduction of the hazard perception component to the theory test in November 2002.

Further information

The full report, **Cohort II: A Study of Learner and New Drivers** by P. Wells, S. Tong, B. Sexton, G. B. Grayson and E. Jones (Transport Research Laboratory), is published by the Department for Transport (ISBN 978 1904763 83 3, price £39.00).

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