

## Accompanied driving

### Summary

Accompanied driving means that a novice driver is only allowed to drive when he is accompanied by an experienced driver. This measure has already been introduced in several countries. The most widely used variant allows youths to take driving lessons and get a driving license from the age of 16, but only allows accompanied driving until the age of 18. Research has shown that these young drivers are less often involved in crashes once they participate in traffic independently. However, accompanied driving's effectiveness depends on the number of hours or kilometres that are driven accompanied, and on the quality of the supervisor. The Dutch Minister of Transport has announced he intends to also make accompanied driving possible in the Netherlands.

### Background

Accompanied driving means that a novice driver is only allowed to drive a car when he is accompanied by an experienced driver. There are many different variants of accompanied driving. Within Europe two main variants can be distinguished: accompanied driving as a continuation to having passed the driving test (an 'experience module'), and accompanied driving *without* having passed the driving test.

Late 2008, the Dutch Minister of Transport announced in a letter addressed to Parliament that he wishes to also make accompanied driving possible in the Netherlands. According to his proposal youth can obtain their driving licence from their 17th birthday by taking a standard driving exam. Then, until the 18th birthday, follows a period during which driving is only allowed when accompanied by an experienced driver. This driver must meet certain requirements, for example regarding the years of driving experience and his driving behaviour.

From the age of 18 it will remain possible to pass the driving test and to drive independently immediately after.

### What is the value of accompanied driving?

Novice drivers are often involved in crashes because of their limited driving experience. In about 20% of all serious crashes in the Netherlands young, novice drivers are involved, even though they are only 8% of the driving licence holders. In addition, their involvement in serious crashes per kilometre travelled is much higher than that of experienced drivers. Accompanied driving gives novice drivers a wider driving experience before they become independent road users. The expected result is that they will be involved in fewer crashes. Lack of experience, though, is not the only cause of their high crash rate. The fact sheet [Young novice drivers](#) gives a detailed survey of these causes.

### Is accompanied driving widely used?

The measure is used in a large number of countries. In Australia, the United States and in New Zealand it is often part of a 'graduated driving licence' (see also the fact sheet [Graduated driving licence](#)). In Europe accompanied driving usually is a training option beside the traditional driver training from the age of 18. *Table 1* gives an overview of the European countries that have made accompanied driving possible.

### How effective is the measure?

#### *How to assess?*

Three features of assessment studies are essential for the quality of the studies, and consequently also for the value of the results:

1. the existence of a pre-test;
2. comparison with a reference group;
3. effect of self-selection.

Country	% of novice drivers that engage in accompanied driving	Average number of hours or kilometres of accompanied driving per person
Spain	Less than 1	
Estonia	5	
Luxemburg	10	
Austria	15	3000 km
Germany	20	
Finland	20	1000 km
France	30	3000 km
Northern-Ireland	34	10 hrs
Belgium	55	
Great Britain	60	15 hrs
Latvia	80	
Norway	82	2000 km
Sweden	90	80 hrs (= 4000 km)

Table 1. *Popularity of accompanied driving and the average amount of accompanied driving in kilometres or hours in European countries in 2006 (Source CIECA, 2006, in Twisk & Stacey 2007). An empty cell means that no information is available.*

*Self-selection* is a phenomenon that occurs when one can choose oneself whether or not to participate in a programme. A programme can for example be particularly attractive for 'prudent people'. If a difference is found between those participating in a programme and a *reference group*, it may not have so much to do with the effectiveness of the programme, but rather with the characteristics of the participating group.

A pre-test is necessary to gain insight in this. Unfortunately, for accompanied driving it is impossible to do a pre-test and a post-test on crash involvement with the same subjects; after all, they are beginners without any previous history as a driver. Therefore, this type of study compares the crash involvement of the group that participated in accompanied driving with that of novice drivers in the period before the measure was introduced. This is done during the first years after having passed the driving test. Collecting background data on the subjects is another way to check on self-selection. If the data shows that the group differs strongly from the entire group, it is clear that the results cannot be generalized across all young drivers.

In addition to the existence of a reference and a pre-test, the validity of the assessment results also depends on the proportion of novice drivers that chooses accompanied driving. When the proportion of participants grows, for instance to 90%, the interference of self-selection decreases. The results are then valid for 90% of the novice drivers, which gives more certainty about the total effectiveness of the measure. A more detailed description of the assessment of this type of measure is given in the fact sheet [Contents and assessment of traffic education programmes](#).

#### *Positive results*

In Sweden, in 1993, the minimum age for accompanied driving was lowered from 17.5 to 16 years old. The age for independent traffic participation remained 18. This caused an increase in the number of hours of accompanied driving from an average of 47.9 hours to an average of 117.6 hours per person. 45-50% of the youths made use of the possibility to start with accompanied driving at a younger age than 17.5 years old. It was investigated whether this increase in hours of practice resulted in fewer crashes once independent driving was allowed at the age of 18. Because many novice drivers choose this variant, the results apply to a relatively large group of novice drivers. The study showed that over a two-year period the crash rate of the accompanied driving group decreased with 40% (Gregersen et al., 2000). The effect of self-selection can be important here, because the young novice drivers were mostly from a higher socio-economic class. The decrease in crash rate was still high after correction: 35%. This is a very substantial effect, much larger than the effects of, for example, changes in the driver education or the introduction of a demerit point system. It is especially remarkable that this sizeable effect was found in Sweden, as Sweden already is one of the countries with the safest road

traffic. Logically, it is more difficult to achieve further safety gains in a country that is quite safe because many measures have already been taken.

In 1999, Austria introduced the possibility to obtain a full driving license at the age of 17 on the condition that a training was followed consisting of 26 theory lessons and twelve practical lessons, and at least 3,000 kilometres were travelled in the form of accompanied driving. Assessment showed that the programme was especially effective during the first 2,500 kilometres. Although these results are promising, it cannot be excluded that self-selection has played a (large) role, because the conclusion was based on only a small part (8%) of the novice drivers. In addition it also needs to be taken into account that by lowering the age for independent driving to 17, the novice driver is exposed to traffic's dangers earlier. This will probably increase the crash involvement, rather than reduce it (Twisk & Stacey, 2007). This will be discussed in further detail later in this fact sheet.

Indications for the effectiveness of accompanied driving can also be found in the effects of the American systems for a 'graduated driver license', which accompanied driving forms part of (see also the fact sheet [The graduated driver licence](#)). Studies assessing these systems show a positive effect on crash involvement (Shope et al., 2007). This effect is assumed to partly be due to accompanied driving. However, the precise extent cannot be determined because accompanied driving's effect cannot be separated from the other parts of the graduated license.

Also in England the results indicate a positive effect of accompanied driving. Young men who spent more time on accompanied driving are less involved in crashes than young men who used accompanied driving for a brief period. This difference was not found for young women (Maycock & Forsyth, 1997).

#### *Negative results*

The experiences in Norway and France are less positive than those in Sweden. Just like Sweden, Norway lowered the minimum age to start a driver training from 17 to 16, under the condition of accompanied driving until the age of 18. This extended period of accompanied driving appeared to have hardly any effect, because it did not lead to more accompanied driving in practise (Sagberg, 2000). However, those who had had a long period of accompanied driving appeared to have a lower crash rate. This conclusion must be drawn carefully as self-selection may be involved: careful novice drivers may drive more kilometres accompanied.

Although initially, based on assessment studies, the conclusion was drawn that accompanied driving in France had a positive road safety effect, the most recent research reports negative effects (Page et al., 2004). In France 16 year-olds first receive a 20 hour professional driver training, followed by at least 3,000 kilometres of accompanied driving until they are 18 years old. Page et al. (2004) used insurance data about injury crashes in which drivers were involved who had chosen accompanied driving at the age of 16, and compared those with data about crashes of novice drivers who had received the traditional training from the age of 18. Against all expectations, the group that had participated in accompanied driving was involved in crashes more frequently than the group that had received the traditional driver training. The authors give a number of possible explanations: the driven routes may have contained insufficient training moments, the novice driver may have been too dependent on the supervisor, there may have been too few hours of accompanied driving. An important factor may have been the supervisors' bad driving habits.

#### *What determines the effectiveness?*

The assessment studies show that the effects of accompanied driving very much depend on:

- the number of hours of accompanied driving;
- the variation in the routes and circumstances;
- the supervisor's skills.

In addition, the effectiveness of course also depends on the number of novices that choose accompanied driving.

#### **What is the minimum of accompanied driving hours required?**

As research has shown that the effectiveness of the measure very much depends on the number of accompanied driving hours, the question remains which number of hours is the minimum required. Based on a comparison of Norwegian and Swedish data, Sagberg (2000) concludes the minimum number of accompanied driving kilometres required lies between 5000 and 7000 kilometres. In

Australia, several states aim at novice drivers doing a minimum of 120 hours of accompanied driving (Vicroads, 2005; Western Australia, 2005).

It remains to be seen if this type of guideline will actually be followed, even when it is incorporated in legislation. It is, after all, difficult to check. For this reason the state Oregon in the US requires the supervisors to state the number of accompanied driving hours in an official document. It has not been investigated if these hours are indeed driven.

A second barrier for sufficient hours is the availability of a supervisor. Not all novice drivers can fall back on parents with sufficient possibilities. This can be a cause of social inequality and, in extreme cases, of social exclusion. To prevent this, the state Victoria (Australia) is experimenting with volunteers as supervisors.

### **How (un)safe is the accompanied driving period?**

The conditions during accompanied driving differ from those during the driving lesson: the supervisor is not a professionally trained instructor, and the car is not equipped with double controls. Is this still safe? Official figures about the dangers in the period of accompanied driving are only available in Sweden (Gregersen et al., 2000). These figures show that an average number of 116 hours is driven accompanied, and that the crash rate is 33 times lower than after passing the driving exam without accompanied driving (Gregersen & Nyberg, 2002). Annually, Sweden counts three road deaths in crashes during accompanied driving on a population of nine million. An important difference between the Netherlands and Sweden is that the Dutch novice drivers first receive a full basic driver training before they start accompanied driving. In Sweden no basic driver training is required.

An English study shows that accompanied driving is twenty times safer than independent driving in the first period after having passed the driving exam (Forsyth et al., 1995).

### **Which is the supervisor's role?**

The supervisor does *not* give instructions. The supervisor's role is to advise, to supervise the way the driving task is carried out, and to judge when traffic's complexity surpasses the driver's skills. In practise supervising does not appear to be a light task (Simons-Morton & Ouimet, 2006). Therefore, many countries support the supervisors with courses and manuals. In England, manuals like 'Driving Standards Agency's Official Guide to Accompanying L-drivers' have been written to ensure accompanied driving being in line with the professional instruction. The *Helping L Drivers* website ([www.helpingldrivers.com](http://www.helpingldrivers.com)) supplies the supervisors with free information.

The accompanied driving programme makes the parents (partly) responsible for their children's safety as drivers, as they were when the children were cyclists and moped riders. Some researchers believe that this is precisely the reason why accompanied driving – and also the graduated driver license, of which accompanied driving forms a part - do have wide support in the United States.

However, not every parent will be a good supervisor. It must be prevented that bad practises are passed on. A Canadian study, for example, showed that the parents of youngsters who were involved in severe crashes, had a bad safety record themselves (Mayhew et al., 2006). Therefore it is appropriate that most countries require the supervisors to meet certain standards. They, for instance, must be of **unimpeachable** conduct, and they are not allowed to be under the influence of psycho-toxic substances.

### **What is the expected safety effect for the Netherlands?**

The above illustrates that the effectiveness is dependent on a large number of factors of which the exact effects for the Netherlands are still unknown. In addition to the previously mentioned kilometres driven, the supervisor's skills, the variation in routes, and the number of youths who choose accompanied driving, two other factors and their effects are important in the Netherlands: the effect of age reduction and the effect of a shift in transport modes.

#### *Effect of age reduction*

To make accompanied driving possible, many countries have chosen to lower the age at which the driver training can be started. In this construction the age for independent driving remains unaltered. This construction is also chosen in the present Dutch proposal. The effect on road safety remains to be seen as crash studies also show that the crash rate is inversely proportional to the age of the driver. In theory, accompanied driving can result in a younger age for solo driving: as soon as the driver reaches the age of 18, he can start driving unaccompanied.

At present only Swedish data is available which shows that the positive effect of having gained more experience outweighs possible negative age effects. A large negative effect is to be expected if the

age for *independent driving* were to be lowered. Many studies show that such a change would most probably result in an increase in the number of road casualties (OECD, 2006).

#### *Effect of a shift in transport modes*

The lowering of the age at which it is *allowed to begin a driver training*, for example at 16 or 17, can have an added positive effect when it also makes the moped a less attractive transport mode for this age group. After all, a distance travelled by moped has a much higher risk for this age group than the same distance travelled by bicycle or passenger car.

#### **What other measures need to be taken?**

Accompanied driving ensures that novice drivers are more experienced once they participate in traffic independently. However, it will remain necessary to limit their exposure to the most dangerous traffic situation during their first period of independent driving. This can be achieved by applying restrictive measures like a ban on the use of alcohol, on carrying passengers, and on driving in weekend nights. With increasing experience, the bans can be lifted one by one. This way the driver license becomes a graduated license which gradually gives the driver access to more complex and more dangerous traffic situations. See the fact sheet [The graduated driver licence](#) for further information.

#### **Conclusion**

In addition to a professional driver training novice drivers can use accompanied driving to safely increase their driving experience. The effect on future crash involvement very much depends on the number of kilometres that is driven accompanied and on the quality of the supervision. Accompanied driving has shown to be an effective measure for reducing the crash rate of novice drivers.

#### **Publications and sources**

Forsyth, E., Maycock, G. & Sexton, B. (1995). [Cohort study of learner and novice drivers: Part 3, accidents, offences and driving experience in the first three years of driving](#). TRL Research Report 111. Transport Research Laboratory, Crowthorne.

Gregersen, N.P., Berg, H-Y., Dahlstedt, S., Engström, I., Nolén, S., Nyberg, A., Nygaard, B. & Rimmö, P.A. (2000). [Sixteen years age limit for learner drivers in Sweden - an evaluation of safety effects](#). In: Accident Analysis and Prevention, vol. 32, nr. 1, p. 25-35.

Gregersen, N.P. & Nyberg, A. (2002). [Lay instruction during driver training: A study on how it is carried out and its impact on road safety](#) (in het Zweeds met een samenvatting in het Engels). VTI rapport 481. Swedish National Road and Transport Research Institute, Linköping.

Maycock, G. & Forsyth, E. (1997). [Cohort study of learner and novice drivers. Part 4: novice driver accidents in relation to methods of learning to drive, performance in the driving test and self assessed driving ability and behaviour](#). TRL Report 275. Transport Research Laboratory TRL, Crowthorne.

Mayhew, D.R., Simpson, H.R., Singhal, D. & Desmond, K. (2006). [Reducing the crash risk for young drivers](#). American Automobile Association AAA, Foundation for Traffic Safety, Washington D.C.

OECD (2006). [Young drivers: the road to safety](#). Joint OECD/ECMT Transport Research Centre, Paris.

Page, Y., Ouimet, M.C. & Cuny, S. (2004). [An evaluation of the effectiveness of the supervised driver-training system in France](#). In: Proceedings of the 48th Annual Conference of the Association for the Advancement of Automotive Medicine AAAM, 13-15 September 2004, Key Biscayne, Florida. p. 131-145.

Sagberg, F. (2000). [Evaluation of a 16 year age limit for practicing with a private car; Accident risk after driver's test](#). (in het Noors met een samenvatting in het Engels). TØI report No 498. Institute of Transport Economics TØI, Oslo.

Shope, J.T. (2007). [Graduated licensing: Review of evaluation results since 2002](#). In: Journal of Safety Research, vol. 38, nr. 2, p. 165-175.

Simons-Morton, B. & Ouimet, M.C. (2006). [Parent involvement in novice teen driving: a review of the literature](#). In: Injury Prevention, vol. 12, Supplement 1, p. 130-137.

Twisk, D.A.M. & Stacey, C. (2007). [Trends in young driver risk and countermeasures in European countries](#). In: Journal of Safety Research, vol. 38, nr. 2, p. 245-257.

VicRoads (2005). *Young driver safety and graduated licensing discussion paper. Have your say!* VicRoads Melbourne, Victoria, Australia.

Wesemann, P. (red.) (2007). [De verkeersveiligheid in 2020; Verkenning van ontwikkelingen in mobiliteit, ongevallen en beleid](#). R-2006-27. Stichting Wetenschappelijk Onderzoek Verkeersveiligheid SWOV, Leidschendam.

Western Australia (2005). *Helping keep our kids safe on Western Australia's roads; Novice driver review public discussion paper*. State Government of Western Australia, Perth.