

Summary:

Graduated licensing in Norway: Estimated effect on crash involvement

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Estimates show possible crash reduction as a result of allowing solo driving from 17 or 17 ½ years of age (compared to the current 18-year age limit) under restrictions like night driving curfew, ban on taking young passengers, and ban on using a telephone while driving. A prerequisite for crash reduction is a high level of compliance with restrictions, and that those who start solo car driving at 17 or 17 ½ years quit moped and MC riding. An additional requirement of at least 100 hours of accompanied driving before solo driving will add considerably to the favourable effect. Some of the assumptions are uncertain, and a trial period of graduated licensing, with subsequent evaluation, will provide a basis for better estimates.

The crash involvement effect of a graduated licensing system involving solo driving with restrictions from 17 or 17 ½ to 18 years was estimated for a period from the start of graduated licensing until two years after obtaining a full license. The reasoning behind graduated licensing is to provide driving experience under low-risk conditions in order to reduce the risk during subsequent driving with a full license. The estimations were based on crash involvement statistics for novice drivers as well as young moped and MC riders. Assumed restrictions include:

- a) night driving curfew between 11 pm and 6 am,
- b) no driving with young passengers, and
- c) no telephoning while driving.

In addition, before getting the graduated license, learner drivers are supposed to complete the driver training that is now mandatory for getting a full license at 18 years, and to pass the theoretical and practical licensing test. Furthermore, a requirement of 100 hours of accompanied driving before starting solo driving is assumed.

Estimates are made for two alternative compliance scenarios. The first one assumes 100 percent compliance with restrictions; in other words, the theoretically lowest possible crash involvement. In the second scenario, 75 percent compliance is assumed, which is considered a more realistic alternative. Combining the two compliance scenarios with the two starting age limits (17 and 17 ½ years) yields four alternatives.

For all four scenarios the expected reduction in number of crashes per driver during the first two years with a full license is less than the increase in crashes during the graduated licensing period. However, due to an expected reduction in moped and MC riding, it is estimated that the total effect would be a decrease in injury crashes. The estimated total effect for the four scenarios varies between 0.10 and 0.28 crashes per 100 drivers (from start of graduated licensing until two years after obtaining the full license).

The requirement of an additional 100 hours of accompanied driving is expected to add substantially to the favourable effect. The isolated effect of this additional training requirement is estimated to be about 0.16 crashes per 100 drivers; in other words, in the same order of magnitude as the effect of graduated licensing alone.

The results should be interpreted with caution, since many of the assumptions are uncertain. It is recommended to carry out a graduated licensing trial in order to assess its effects on the various components and preconditions of crash involvement. This will allow more exact estimates to be made in the future.