

Summary

Evaluation of training for moped and light motorcycle riders

Final report

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The Norwegian training curriculum for moped and light motorcycle riders was changed in 2017, the main new element being a mandatory four-lesson traffic safety course. This report presents an evaluation of the changes. Analyses of register data show that most riders get their licence as soon as they reach the minimum age of 16 years. However, duration of the training period has increased after the change. Surveys before and after the change show a small increase in voluntary training lessons in addition to the increase in mandatory training. The surveys showed mainly positive attitudes regarding various road safety issues and a low prevalence of risk-taking behaviour in traffic, except for speeding and moped tuning for increased engine power. However, the share of moped riders that own or ride a tuned moped has decreased after the change, although still one out of five riders own a tuned moped. There are no indications of decreased crash involvement after implementation of the new safety course. Evaluation results may be influenced by changes in the rider population, since there has been a large decrease in the total number of mopeds and light motorcycles during the last couple of years, as well as a decrease in the share of young people acquiring a moped or light motorcycle licence.

The background for this study is a change implemented from January 1st, 2017, in the training curriculum for moped and light motorcycle riders (licence categories AM146 and A1), including among other elements a mandatory four-lesson course on safe driving in traffic. This report presents results of a before-after evaluation study of the changes in training.

The study consists of three parts. The first part includes web-based surveys administered to riders who got their licence before and after implementation of the new curriculum, respectively. Samples for the surveys were drawn from the licence register of the Norwegian Public Roads Administration (NPRA), among persons who acquired a category AM146 or A1 licence either in 2016 (pre-intervention sample) or 2018 (post-intervention sample). Riders received an invitation letter by post, with a link to the survey website. In the pre-intervention study 803 moped riders and 1133 light motorcycle riders completed the survey; this corresponds to 27% and 36%, respectively, of those who received the invitation letter. In the post-intervention study 957 moped riders and 1063 light motorcycle riders completed the survey, yielding response rates of 25% and 28% respectively.

The second part is an analysis of the NPRA register of approval of each mandatory part of driver and rider training. The purpose was to determine training duration and the age at which riders completed the various steps of training.

The third part is analyses of crash involvement, based on personal injury crash statistics from Statistics Norway, the property damage crash register TRAST from the association of Norwegian insurance companies, and self-reported crashes from the surveys.

Almost all moped and light motorcycle riders are younger than 18 years when they get licensed. Those vehicles therefore seem to be primarily alternative means of transport for people too young for car driving. We do not however know from this study the share of riders who continue using moped and light motorcycle also after the age of 18, or to what

extent they switch to cars or larger motorcycles (category A2 or A). The mean age when passing the licensing test is slightly higher among light motorcycle than among moped riders. Age at completion of mandatory training is about 16 years for light motorcycle and about 15 ½ years for moped riders. The difference may be related to the possibility in some parts of the country, to take moped training as a part of the lower secondary school curriculum, whereas there is no such possibility for light motorcycle. There is a large majority of males among light motorcycle riders, whereas the gender distribution is more equal among moped riders. There is no notable difference between the pre- and post-intervention samples regarding age at which they complete the mandatory training. However, there is an increase in the total duration of training.

The average number of non-mandatory riding lessons was higher in the post-intervention sample. The share of moped riders taking more than four voluntary lessons increased from 4% to 7%, and the share of light motorcycle drivers taking more than seven voluntary lessons increased from 12% to 17 %. A larger number of non-mandatory training lessons among light motorcycle than among moped riders indicates that both novice riders and traffic school instructors consider riding a light motorcycle a more challenging or complex task than riding a moped.

The survey responses show mainly positive attitudes to road safety, and there are generally small differences between the pre- and post-intervention samples. There are however more drivers after the intervention who agree in the statement that they obey speed limits to a higher extent than their friends do. Further, there is a substantial decrease in the share of riders who report owning or riding a vehicle where the engine is tuned to enable driving above the legal maximum speed of 45 km/h. Despite the improvement, moped tuning is still widespread, and as many as one out of five moped riders own a tuned moped, and almost half of the riders have used a tuned moped at least once.

On the other hand, there is a slight increase in share of riders reporting some other risk-related behaviours, such as “taking risks in traffic”, or “riding on the rear wheel”. The pre-to-post differences are however small and may be a result of random variation.

The crash risk for both moped and light motorcycle, in terms of personal injury crashes per number of registered vehicles, decreased steadily in the period 2004-2010 (Figure S-1). After 2010, there has been a more moderate decrease for mopeds and practically no change for light motorcycles. The higher risk for light motorcycles is explained by a much higher average annual driving distance. Taking this into consideration, the risk of personal injury crashes differs very little between the two vehicle categories.

The crash data cannot be used to conclude regarding effects of the new curriculum, both because two years is too short a time period for assessing post-intervention risk, and because drivers getting their licence after following the new curriculum make up only a small share of all riders included in the statistics for the post-intervention period.

However, for *self-reported crashes* post-intervention data include only drivers getting their licence under the new curriculum, and comparisons with the pre-intervention sample is possible. Looking at number of crashes per licence per year, we find an increase of 4.9% for moped and 4.3% for light motorcycle. For light motorcycle the increase may be partly explained by increased exposure after the change, since the share reporting daily motorcycle use has increased from 56% to 63%. For moped there is no similar increase in frequency of use, and consequently there must be other explanations of the increased crash involvement.

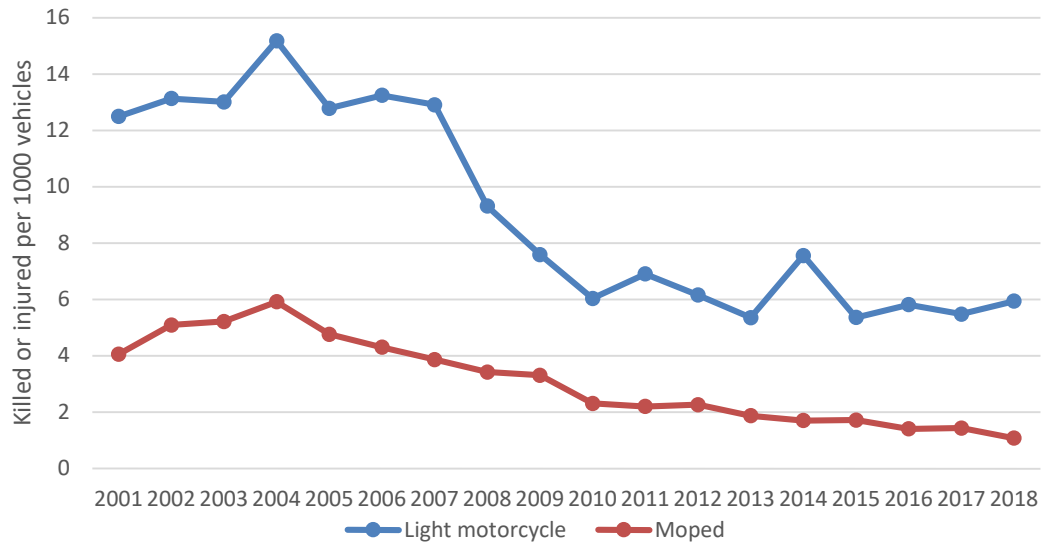


Figure S-1. Killed or injured riders and passengers on moped and light motorcycle 2001-2018, by year and vehicle category. Killed or injured per 1000 vehicles.

During the last few years, there have been considerable changes in both the total number of mopeds and light motorcycles, and in the share of young people who acquire a licence for those vehicle categories. Therefore, it is conceivable that there have been changes in the composition of the rider population, which have influenced both behaviour, attitudes, and crash risk. This should be taken into consideration when interpreting the results of both the surveys and accident analyses.

Concerning mopeds, the number of vehicles owned by 16- and 17-year olds has decreased steadily from 2005 on, with a particularly large decrease the latest two years (2017 and 2018). During those two years there was also a marked decrease in the number of licences issued to 16- and 17-year olds. This means that considerably fewer young people have been riding mopeds the first two years after the change in training, compared to the last two years before the change.

For light motorcycles the development has been slightly different. For these vehicles as well, the total number has decreased markedly. On the other hand, there has been a slight increase in the number of issued licences.

Apparently, the motives for taking a moped or light motorcycle licence have changed somewhat. For one thing, there is a decrease in the share of riders ticking off “fun to ride” as a reason for getting a licence, particularly among moped riders, where there is a decrease from 50% to 40%. This may signify an increased tendency to consider the vehicles more as means for transport rather than for fun and pleasure.