

Evaluation of the national campaign for improved driver attention "Takk for oppmerksomheten"

An investigation using four different data in the period 2018-2022


TØI Report 1949/2023 • Authors: Ole Aasvik, Fridulv Sagberg • Oslo 2023 • 241 pages

- We conducted behavioral observations, roadside interviews, and surveys in 2018 and 2022, with the aim of tracking the level of driver inattention among Norwegian drivers before and after the Norwegian Public Roads Administration's campaign "Takk for oppmerksomheten (Thank you for your attention)". This was supplemented with an analysis of fatal accidents in a time series, based on reports from the Norwegian Public Roads Administration's accident analysis groups (UAG), to investigate trends during the campaign period.
- We found a complex set of changes over the project period.
- Self-reported driver inattention has decreased slightly, but behavioral observations and UAG analysis show that the trend is stable or slightly increasing.
- There are changes in the type of activities that drivers engage in, for example, mobile phones are being used less for handheld conversations and more for texting/reading.
- Younger drivers and men report the highest involvement with secondary activities. Other background factors are less important. Models that include behavioral control, norms and attitudes satisfyingly predict level of secondary activity engagement.

Background

Inattentive driving is a major safety problem in Norway and globally. Previous studies show that almost one in three fatal accidents on Norwegian roads have distracted driving as a contributing factor. Therefore, the Norwegian Public Roads Administration wanted to conduct a campaign focused on distracted driving. This report presents a comprehensive evaluation of distracted driving among Norwegian drivers before and after the campaign period. The "Takk for oppmerksomheten (*Thank you for your attention*)" campaign lasted from 2018-2021.

It can be difficult to make accurate estimates of distracted driving among drivers. Previous estimates have varied between 12 and 50%. This is partly due to differences in the definition of distracted driving between different studies, and partly because it is difficult to measure. In many cases, self-reporting may not be entirely accurate because it is based on the



respondent's memory and honesty, while behavioral observation only captures physically visible secondary activities.

Methods

Due to the difficulties of measuring inattention, we wanted to use method triangulation in this project. This involves using different data collection methods to compare the results and make general statements about the development over time. We conducted behavior observations, roadside interviews, and an online survey at the same time of year in a baseline study in 2018 and a follow-up study in 2022. In addition, we calculated a time series of fatal accidents that may have inattention as a contributing factor from UAG reports.

We conducted behavioral observations along a stretch of the E18 with a speed limit of 100 km/h and few other distracting factors. The observation vehicle drove in the right lane, slightly slower than the speed limit, and observed cars passing in the left lane.

The roadside interviews were conducted by three research assistants at the same roadside restaurant near where the behavior observations were carried out in both years. These were short questionnaires that were completed by hand by the research assistants.

The survey was a comprehensive national, web-based, cross-sectional survey. It was sent to a random sample of 25,000 people from the driver's license registry in both the baseline and follow-up surveys. Due to privacy concerns, these were sent by mail in both years. Many of the letters were returned, either to TØI or other places. Nevertheless, we received the expected response rate (2018: 17 %, 2022: 13 %).

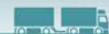
The Norwegian Public Roads Administration's accident analysis group (UAG) prepares detailed analyses of all fatal accidents on Norwegian roads. These analyses are reported in separate documents and entered into a database. The present analysis is based on TØI's own coding of these reports, based on a research-based coding scheme. The time series is based on a previous review conducted by TØI and spans from 2011 to 2020.

Results

The behavioral observation found no significant change in the extent of secondary activity among Norwegian drivers. There were almost as many drivers observed in the baseline (N=1337) as in the follow-up study (N=1285). In both, 14% of drivers were engaged in secondary activity. Not all of these activities are illegal, but handheld mobile phone use was among the most prominent in both data collections. Although most prominent, there is a trend that drivers are less likely to use handheld mobile phones, but more likely to engage in other secondary activities.

The roadside interviews provide a complex picture. Respondents report fewer secondary activities, but they spend approximately the same amount of time engaging in secondary activities. We also find similar substitution effects as in the behavioral observations, where mobile phones are used less for calling, but more for other things like navigation and music. The best estimate for driving time with secondary activity from roadside interviews is approximately 30% in 2018 and 28% in 2022.

The online survey was extensive and covered many different variables, including norms, attitudes, knowledge, and strategies used for avoiding inattention. We find strikingly similar answers for the two data collections. Overall, we find a statistically significant decrease in the average score of self-reported secondary activity. This change is small and equates a 0,1 change on a six-point scale. We either find small improvements or no change in important factors such as attitudes, norms, risk assessment, and perceived behavioral control. We



performed regression analyses to investigate which factors predict level of secondary task engagement among car drivers. These multivariate analyses show that perceived behavioral control, descriptive norms, some types of attitudes, and age (older drivers report less inattention) are particularly associated with secondary activity. Secondary activity, in turn, is associated with whether participants report having been in an accident in the last five years.

The UAG analysis shows a slight increase in the proportion of fatal accidents that may have inattention as a contributing cause (23 % for 2011-2015, 25 % for 2016-2020). This increase may be explained by a decrease in other types of accidents, and the difference changes when we exclude drug-related accidents from the total number of accidents (29 % for 2011-2015, 31 % for 2016-2020).

Conclusion

The main goal of this report has been to investigate whether the campaign “Takk for oppmerksomheten” has changed knowledge, attitudes, and behaviors among car drivers. Overall, these four data collection methods provide a complex picture of inattentive driving among Norwegian drivers during the project period of 2018-2022. Self-reported secondary activities from roadside interviews and surveys suggest a slight decrease in inattention, while behavior observation and UAG analysis show no change or a slight increase. It is always difficult to draw conclusions about the effects of such complex and extensive campaigns as “Takk for oppmerksomheten.” During the project period, many major societal changes have taken place, and we have no control group to which we can compare the changes. At the same time, we have several ways of explaining the changes found. We see, for example, that drivers’ behavioral control, certain types of norms, and attitudes have improved. These are in turn linked to self-reported secondary activity. This suggests that our theoretical approach has been adequate in explaining differences between car drivers in terms of inattention. We find that men and younger drivers report more inattention, and drivers over 70 years report the lowest level of inattention. If we assume that this extensive campaign has helped shape society's perception of distracted driving among drivers in the past four years, we can assume that the campaign has contributed to this improvement.

Future research can build on the findings in this report. Smaller, controlled experiments that focus on the key factors identified here could find good ways to change drivers' engagement with secondary activities. This will again be positive for traffic safety. It is also important to keep an eye on technological developments, which has probably influenced drivers to change their behavior in the past four years and will continue to do so in the future.