

Summary

Traffic safety effects of economical driving in trucking companies

TØI report 1795/2020

Authors: Tor-Olav Navestad og Vibeke Milch

Oslo 2020 118 sider

The present study examines the relationship between economical driving and road safety among trucking companies that have received support from Enova to work with economical driving, and a Reference sample of drivers from assumed average companies. In a previous we study developed an approach that we call the Eco Ladder for energy management to describe the companies' work with economical driving. This indicates three levels for working with economical driving and energy management, with an increased scope of measures at each level. In a previous study, we found that the companies at level 3 in the Eco ladder had the largest reductions in fuel consumption, and here we test whether they also have the highest traffic safety level. We first test the relationship between economical driving and traffic safety at the driver level. We find that drivers with high scores in the fleet management systems have a lower accident risk than drivers with lower scores. We assume that this is because an economical driving style is often the same as a safe driving style, because it is defensive, controlled, calm and anticipatory, and because the fleet management system rewards both traffic-safe and economical driving. We then test the relationship between economical driving and traffic safety at the organizational level. Results indicate a lower accident risk for companies at level 3 in long-distance and regional transport, but not in distribution transport. The relationship between economical driving and traffic safety at the company level is due to the fact that the companies at the top of the Eco ladder have a large proportion of drivers with high scores in the fleet management system. We find a relationship between the focus on economy and safety at both driver and company level (and technology level). We also discuss potential conflicts between economical driving and traffic safety at the driver level, related to free-rolling, use of cruise control, distraction and other road users' possible irritation.