

Project Information Form

Project Title	Onboard Feedback to Promote Eco-Driving: Average Impact and Important Features
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Brief Description of Research Project	<p>Driver behavior has an immense impact on vehicle fuel economy and emissions, yet it has historically been treated as random error in models of fuel economy and neglected in energy and environmental policy-making regarding fuel efficiency. Recently, concern about fossil fuel depletion and climate change, as well as the critical role of driver behavior in achieving the fuel economy benefits of new hybrid and electric vehicles, has created interest in eco-driving. Eco-driving refers to suites of behavior a driver can engage in to improve fuel economy.</p> <p>The most common strategy used to promote eco-driving is feedback that conveys information about fuel efficiency to the driver. Feedback is typically visual and provided on-board the vehicle via digital screens (dash or instrument cluster displays, after-market devices, or web apps on personal smartphones or tablets). No policies exist requiring manufacturers to provide eco-driving feedback, yet feedback systems of increasing variety are appearing in vehicles, likely due to advances in telematics and decreasing costs of new technologies. The rapidly increasing prevalence and complexity of in-vehicle information systems, along with concern for driver distraction, suggest standardization of eco-driving feedback may be warranted in the near future. Thus, there is a need to understand what types of eco-driving feedback are effective.</p> <p>This white paper presents a statistical meta-analysis of eco-driving feedback studies in order to determine a pooled estimate of the impact on fuel economy and explore how characteristics of feedback interventions influence their impact. It provides the most accurate estimate to-date of the average impact of in-vehicle feedback on fuel economy and summarizes the current state of knowledge regarding</p>



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	characteristics of eco-driving feedback interventions that determine effectiveness.
Describe Implementation of Research Outcomes (or why not implemented) (Attach Any Photos)	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none">• Reports• Project website	https://ncst.ucdavis.edu/white-paper/onboard-feedback-promote-eco-driving/ https://escholarship.org/uc/item/99m5j3q7