Motorists' Preferences for Different Levels of Vehicle Automation

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This report builds on a recent series of reports addressing public opinion, human factors, and safety-related issues with self-driving vehicles (Schoettle and Sivak, 2014, 2015; Sivak and Schoettle, 2015a, 2015b). A survey was developed for this study to examine motorists’ preferences among levels of vehicle automation, including preferences for interacting with and overall concern about riding in self-driving vehicles. The survey yielded completed responses from 505 licensed drivers in the U.S.

The main findings are as follows:

• The most frequent preference for vehicle automation was for no self-driving capability, followed by partially self-driving vehicles, with completely self-driving vehicles being the least preferred choice.
• Concern for riding in self-driving vehicles was higher for completely self-driving vehicles than for partially self-driving vehicles.
• Respondents overwhelmingly want to be able to manually control completely self-driving vehicles when desired.
• Preferences were generally divided between touchscreens or voice commands to input route or destination information for completely self-driving vehicles.
• Most respondents prefer to be notified of the need to take control of a partially self-driving vehicle with a combination of sound, vibration, and visual warnings.

The levels of concern for riding in completely self-driving vehicles found in this study are similar to those found in our previous survey that was administered in June 2014. Currently, as in the previous study, concern about riding in completely self-driving vehicles remains high.