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16. Abstract

An online survey of driver opinion was conducted to determine how receptive drivers would be to in-vehicle technologies that reduce carbon emissions. In particular, the survey was designed to help understand whether drivers considered such technology attractive and, if so, what level of cost would be acceptable to adopt this technology. Cost was evaluated in three dimensions: initial monetary cost, reduction in fuel economy, and reduction in available cargo space. The analysis was based on 536 useable surveys.

Among the surveyed drivers, acceptability of carbon-capture technology depended on driver belief that human activity is associated with global warming. Drivers that reported agreement with such statements were found to be more accepting of in-vehicle carbon capture technology: they were generally willing to pay more for this technology or to trade storage space and fuel economy for such technology.

Overall, respondents appeared to be willing to pay about $100 for a 20% reduction in carbon dioxide emissions and $250 for an 80% reduction; they also appeared to accept about a 5% reduction in fuel economy for a 20% reduction in carbon dioxide emissions, and a 10% reduction in fuel economy for a 80% reduction; and finally, they appeared willing to accept about a 10% loss in trunk space for a 20% reduction in emissions, and a 16% loss in trunk space for an 80% reduction in emissions.

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