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Perceptions, Preferences, and Behavior regarding Energy and Environmental Costs: The Case of Montreal Transport Users

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Providing travel-related fuel and environmental information to transport users is becoming increasingly relevant. However, the impact of providing such information on users' travel behavior is yet to be determined. This research examined the perceptions and preferences related to the fuel consumption costs, greenhouse gas (GHG) social costs, and health-related air pollution costs, and the influence such information could have on travel behavior. Examining the case of Montreal transport users, the authors conducted a survey in which the respondents were asked general and stated preference questions. The respondents were found unaware of the energy and environmental footprints of their travel. Approximately 85% of the respondents were not able to estimate GHG social costs and health-related air pollution costs across different modes. The respondents generally overestimated these costs and they interestingly reported higher environmental costs for public transport (metro) compared to cars. They also preferred to receive such information in monetary units, and they were more comfortable in receiving the information through mobile applications over other tools/means. The research also found that fuel and environmental information influence respondents' travel decisions especially their route choices. Finally, the respondents would be willing to pay an average of CAD7/month in exchange for obtaining the information.