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Perceptions and preferences about energy and environmental costs: The case of Montreal transport users

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Providing travel-related energy 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 examines the perceptions and preferences of the fuel consumption costs, GHG social costs and health-related air pollution costs and the influence such information have on travel behavior. Examining the case of transport users of Montreal, Canada with a pilot survey, we found that the respondents are generally unaware of the energy and environmental footprints of their travel. Approximately, 70% of the respondents are not able to estimate GHG social costs and health-related air pollution costs across different modes. The respondents who could provide their perceived costs generally overestimate these costs and interestingly perceive higher environmental costs for public transport (metro) compared to cars. They also prefer to receive such information in monetary units rather than in their own units (e.g., grams of emissions) and they are more comfortable in receiving the information through mobile applications over other tools/means (GPS devices, radio and so on). The research also finds that energy and environmental information can influence respondents' travel decisions especially their route choices. Finally, the respondents are willing to pay an average of \$6/month in exchange for obtaining the information.

Biography

Omid M Rouhani is an Assistant Professor at McGill University, Department of Civil Engineering and Applied Mechanics. Prior to this, he was a Post-doctoral Researcher at Cornell University. He finished his PhD studies in Civil and Environmental Engineering Department at the University of California, Davis. His expertise is in the areas of transportation systems analysis, transportation economics and modeling and energy policy. He has been involved in a range of local, national and international research projects related to these topics. His research has been published in several academic journals including Sustainability, Renewable and Sustainable Energy Reviews, Journal of Transport Geography, Environmental Modeling and Software, Energies, Transportation Research Part B, Part A and Part D and The European Journal of Operational Research among others.

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