Abstract

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Dissecting the Role of Transit Service Attributes in Attracting Commuters: Lessons from a Comprehensive RP-SP Study on Commuting Mode Switching Behaviour in Toronto.

This paper presents an investigation on the influence of transit service attributes on mode switching towards local transit for home-based commuting trips. The investigation involves the design, implementation, and analysis of a COnmuting Survey for MOde Shift (COSMOS). COSMOS exploits Revealed Preference (RP) mode choice information to build the Stated Preference (SP) mode switching experiments. The collected dataset is used for estimating econometric choice models of mode switching towards transit. Separate models are estimated for car drivers and shared ride users. The empirical models show that travel cost and in-vehicle travel time are of lower importance compared to other transit Level of Service (LOS) attributes such as crowding level and number of transfers. It is also evident that commuters prefer rail-based transit modes (e.g. subway, and LRT) to other transit options (e.g. BRT). The developed models can enrich the transit service planning toolbox for delivering more efficient and attractive services that maximize transit ridership along with other objectives.