Abstract

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Car, Bus, Bike, Walk… What are the Drivers of Mode Choice Decisions in Kelowna?

Discrete mode choice models are usually established for major urban areas with complex transportation systems and not often used for smaller auto-oriented communities, mainly because of lack of appropriate behavioural data and dominant auto mode choice. Unlike many regions of the same size, the Sustainable Transportation Partnership of the Central Okanagan (STPCO) has a regional demand forecasting model and rich trip diary database. However, the current mode choice model has potential to be improved and further analysis to the data can provide more insights about the reasons behind modal choice decisions in smaller communities. In this study, two discrete mode choice models are developed to understand passengers' preferences and mode choices for work and non-work trips in the City of Kelowna. Data comes from the 2013 Okanagan Travel Survey, the most recent household-based trip diary survey that was conducted in fall 2013 and covered a sample of residents of the Central Okanagan and the City of Vernon. The dataset includes information on the trip (e.g. trip purpose, mode, time, length, etc.) and the trip maker (e.g. age, gender, income, etc.). The developed models provided insights into trip makers' choices and the tradeoffs they make among different attributes when choosing a mode of travel. In light of the developed models, recommendations are made to support effective transportation planning policies and prioritization of transportation investments in the city.