



Research Postgraduate Student Oral Presentation

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Date : 15 July 2020, Wednesday
Time : 8:30 a.m.
Venue : The presentation will be conducted via Zoom.
<https://hkbu.zoom.us/j/91642692972>



The Links among the Built Environment, Travel Attitudes, and Travel Behavior: A Household-Based Perspective

Abstract

A clear understanding on the impact of the built environment on travel behavior is crucial for land use and transport planning. However, previous land use-transport studies are largely constrained to a single individual in the household and a single long-term choice (i.e. residential location). The individual was commonly used as the unit of analysis, while both long-term location/mobility choices (residential location, work location and car ownership) and daily travel behaviors could be household level decisions. Besides, previous land use-transport research usually assumed the residential location as a decision that independent with the work location, while these two location choices may be associated with each other. Ignoring intra-household interactions in travel decisions and the interdependencies between different long-term choices would lead to an incomplete understanding on the land use-transport relationship.

This thesis fills these research gaps by providing a new household perspective to rethink and reexamine the relationships among the built environment, travel attitudes, and travel behavior. It extends the “individual-based” analytical framework of land use-transport research to a broader “household-based” one. Specifically, this proposed analytical framework takes the household as the basic unit of analysis, and considers interactions among different household members as well as different long-term choices. This research challenges the underlying assumptions of existing land use-transport research, and has the potential to guide the research design and model specification of future travel behavior studies.

Three empirical studies were conducted to examine the proposed household-based research framework. Data was derived from a household activity-travel diary survey in 2016 in Beijing, China. The results of empirical studies confirm the significance and necessity of investigating the impact of the built environment on travel behavior from a household-based perspective. Findings in this dissertation contribute to a better understanding on the process and mechanism of household members’ long-term and short-term travel choices, and further both the direct and indirect impacts of the built environment on travel behavior.