

## **Workshop B5 - Dealing with immobility and survey non-response**

Workshop chair:

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This workshop will focus on the two separate but often related issues of immobility and non-response in travel surveys. It will involve developing best practice standards for dealing with non-response biases in the analysis of travel survey data, for item non-response as well as for unit non-response. A particular case of unit non-response is soft refusal (i.e. people declaring that they stayed at home in order to escape from a long description of their trips), which causes an over-estimation of immobility, leading to major biases in the estimation of totals for the whole population (e.g. number of trips, car traffic, GHG emissions, etc.). Thus, different features of survey design will be considered, for instance how to improve survey design in order to capture under-represented population groups, such as slum dwellers, young people and other survey shy populations.

Papers for oral presentation

- Raymond Hoogendoorn, Eline Scheepers and Sascha Hoogendoorn - Lanser.  
Correcting for the nonresponse bias through hot deck imputation and modeling of nonresponse behavior for mobility panels
- Mathijs de Haas, Krisje Wijgergangs, Eline Scheepers and Sascha Hoogendoorn-Lanser.  
Identifying different types of observed immobility within longitudinal travel surveys
- Gregory D Erhardt and Louis Rizzo.  
Evaluating the Biases and Sample Size Implications of Multi-Day GPS-Enabled Household Travel Surveys
- Bruna Pizzol, Bianca Bianchi Alves, Mariana Abrantes Giannotti, Orlando Strambi, Renato Arbex and Luiz Raphael Bruni.  
Travel survey tools and methods: challenges on surveys at slums
- Raymond Gerte, Annesha Enam, Jingyue Zhang and Karthik Konduri.  
A Comprehensive Evaluation of Commonly Applied Imputation Methods for Item Nonresponse Using Simulated Missing Data
- Mark Bradley, Greg Spitz, Elizabeth Greene, Matthew Coogan and Nancy McGuckin.  
The Millennial Dilemma: Changes in Travel Behavior or Changes in Survey Behavior?

Papers for poster presentation related to workshop

- Raymond Hoogendoorn, Eline Scheepers and Sascha Hoogendoorn-Lanser.  
Heterogeneous Travel Mode Choice Modeling from Panel Data: The Inclusion of Nonresponse Bias