Estimation of crowding. discomfort in public transport: Results from Santiago de Chile

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Abstract
The relationship between train occupancy, comfort and perceived security is analysed, using data from a survey and stated choice (SC) study of users of Santiago's Metro (subway) system. Mode choice models where crowding is one of the main explanatory variables are estimated and crowding multipliers to measure its relevance on travel time disutility for sitting and standing are computed. An international comparison with previous studies from London, Paris, Singapore and Sweden is presented. The type of estimated models include Multinomial Logit, Mixed Logit, and Latent Class models. Results show that there is significant heterogeneity in crowding perception across the population. Users classes with low and high crowding multipliers are identified, in which gender, age and income play a role. In the SC survey, occupancy levels were shown with three alternative forms of representation (text, 2D diagram or photo), however we did not find relevant influences of the different forms of representation on crowding perception. (c) 2017 Elsevier Ltd. All rights reserved.

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