Is the impact of transport modes on health an individual determinant of transport mode choice?

Hélène Bouscasse¹, Sandrine Mathy², Rim Rejeb^{*3}, and Carole Treibich²

¹CESAER – CESAER INRA – France

²Grenoble Applied Economics Lab (GAEL) – Université Grenoble Alpes – France ³Grenoble Applied Economics Lab (GAEL) – University Grenoble-Alpes – France

Résumé

High modal share of the private car has important health consequences through an increase of cardiovascular or pulmonary diseases. This increase in morbidity and mortality is due to two different mechanisms: air pollution, particularly fine particulate matter in urban areas and sedentary lifestyles (lack of physical activity in our mobility behaviour). In this article, we try to evaluate the extent to which information on the impact of mode choice on public or individual health influences our mobility. In other words, does the fact that taking the car increases the risk of developing cardiovascular diseases for the user, through physical activity, and for his co-citizens, through pollution, have an influence on the choice of alternative modes to the car? We address this question collecting original data in the Grenoble metropolitan area (France) and implementing a Stated Preferences survey. Respondents were presented different scenarios varying depending on mode (car, public transport, walking and cycling), travel time, cost and associated cardiovascular risk.

Mots-Clés: Health impact, mode choice, discrete choice model, cardiovascular risk

^{*}Intervenant