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Desventajas Sociales y de Transporte en el Reino Unido: Un Enfoque Basado en Viajes (Social Disadvantage and Transport in the UK: A Trip-Based Approach)

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## ABSTRACT

An overview of the literatures suggests that, concerning the links between transport poverty and social disadvantage, there is a knowledge gap between social research and mainstream transport studies. In a certain manner, this occurs because traditionally the transport discipline has been focused on the operation and management of transport systems rather than in the needs and concerns of the people who travel on them. The purpose of this thesis is to go some way towards addressing this shortfall by modelling the travel behaviour of socially disadvantaged British population using the National Travel Survey.

Trip-based indicators such as trip frequency, distance, and duration have been developed using Multiple Linear Regressions. Analysis had been made regarding the National Trip End Model (from now on NTEM) in order to determine the importance of adding socioeconomic attributes that take into account social disadvantages. Results indicate the inclusion of variables such as income, owning a driver's licence and the presence of children within the household lead to much more theoretically consistent results and higher accuracy in terms of model fit. Important differences in travel behaviour are identified by including dummy variables related to vulnerable segments (e.g. single parents, people with mobility difficulties, nonwhites). Disaggregation by trip purpose and travel mode was also studied so that contextual features and modal effects could be analysed. This approach indicated that socioeconomic variables do not perform as well as expected when analysing non-mandatory trips, implying that these are represented by other factors (e.g. contextual, psychological, etc.). It also identifies that income has a particularly significant effect trip frequency and travelled distance of purposes such as visiting friends and relatives (VFR) and leisure. Both findings might have implications in maintaining family bonds, generating social capital and personal well-being. As for vulnerable segments, people with mobility difficulties and single parents have more localised activity patterns while ethnic minorities tend to travel further, especially for VFR purposes. In the case of travel modes, car use proved to be highly restricted by income while spatial interactions (e.g. congestion effects) were more worthy when comparing trip distance and duration. Finally, extensions of the MLR such as non-linear analysis and interaction effects proved to improve model fit, as well as the understanding of the effects of belonging to vulnerable segments. Regional segmentations indicated that income effects are stronger in the Merseyside Region.

As a concluding remark, it is clear that there are important effects on travel behaviour due to variables such as income, the presence of children, and belonging to vulnerable segments. However, there are still other indicators such as mode choice and time use that will help us to further analyse travel-activity behaviour of the social and transport disadvantaged. The development of further indicators of social exclusion is necessary to achieve a better understanding of its dynamics and outcomes.