



Choice of season cards in public transport: a study of a Stated Preference experiment

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Abstract

This paper studies a Stated Preference (SP) experiment on the choice of type of (Rail) season card, conducted among current Dutch Railways season cardholders. They were asked to choose from the following three alternatives: (1) an unrestricted season card, (2) a cheaper season card with peak travel and travel frequency restrictions, and (3) not buying a season card. Multinomial logit (MNL), nested logit and mixed logit models are used to analyse their choices. It is found that MNL underestimates the price sensitivities (as measured by the price elasticities) of the respondents and overestimates their Willingness-to-Pay (WTP) for reductions in the restrictions. The mixed logit estimation shows that there are (unobserved) differences in the marginal utilities of the price of the card (response heterogeneity), and the utility of owning a season card (preference heterogeneity). In the Netherlands a large share of commuters and business travellers receive travel cost compensation from their employer. However, empirical studies often do not control for the effect of travel cost compensation. We find, as expected, that travel cost compensation has a large impact on the price sensitivities and choices of the respondents.

Keywords: SP experiment; Rail season card; Travel cost compensation; Public transport demand.

1. Introduction

Season cards are often used in public transport systems as one of the ticket types. Of the total passenger kilometres of the Dutch Railways (NS) in 2005, about 32% was by season cardholders. Furthermore, season cardholders are most likely relatively frequent train users, as this group predominantly consists of commuters (Steer Davies Gleave, 2006a). Hence, this group of travellers is very important in public transport. With a season card a person can travel free of extra charge by public transport and for this the person pays a certain amount per period.

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