Passengers' valuations of accessibility of public transport

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Abstract
The benefits arising from measures to improve accessibility of passengers with special needs are not necessarily limited to such passenger groups. Low-floor buses which allow for wheelchair access, for example, enable faster and easier boarding and alighting for all passengers. A number of other measures that are primarily designed for passengers with special needs provide benefits and ease of use for all passengers in a similar fashion.

Although few efforts have been made to quantify such benefits, it is obvious that they are important components of any cost benefit analysis (CBA). By enabling the inclusions of such measures into a CBA framework, it is possible to prioritise, rank and compare them with other investments in the transport sector.

We have designed a study with two main foci. Firstly, we document the impact of public transport measures for universal design on all passengers as well as on passengers with special needs. Included here are the appreciation of such measures, and their effects on patronage. The evidence is based on focus groups and on-board interviews with passengers in three different Norwegian cities where public transport services have been upgraded considerably towards accessibility for all.

Secondly, we quantify and monetise passenger benefits accruing from such measures. These valuations are representative for all passengers, and not only those with special needs. As such, the valuations are readily applicable for CBAs. A full scale stated preference survey among passengers in the same three cities is planned, providing a good spread of the data as well as a sufficient number of observations to allow for generalisation. Special care is made to present attributes and their levels in a way that enable respondents to make trade-offs as realistically as possible. As a final exercise we obtain respondents' willingness to pay for the “package” of full accessibility for all, from door to door, and compare this with the sum of values for individual measures.

Our study provides - for the first time in Norway and probably also internationally - a robust set of valuation of measures for improved accessibility for all in public transport.

We have identified several crucially important factors for a well-functioning stated preference design, including the importance of presentation of attributes and their levels.

Finally, we describe how the new valuations can, with relative ease, be incorporated into a CBA setting. The inclusion of such measures into the CBA framework enables planners to quantify the impact and to prioritise them - in other words putting universal access higher up on the agenda.