PROJECT

Value of travel time savings for passenger traffic: Perception and Distance dependency (SVI2005/007)

Zeitwerte im Personenverkehr: Wahrnehmungs- und Distanzabhängigkeit

Funding: National (Switzerland)
Duration: Aug 2006 - Mar 2011
Status: Complete with results

Background & policy context:

Recently, a number of studies has been conducted in Switzerland with the aim to evaluate the impacts of changes in travelling times. Despite similar methodical approaches, the resulting values of time differ significantly. Regarding this fact, questions arise concerning the interdependencies between values of time and other influence factors. Especially because the differences lead to inconsistencies in practical applications.

Objectives:

The project aims to derive a universal value of time based upon the existing data sets. The data sets originate from the following studies: Verification of forecasting methods of passenger transport (ICN-study), Time cost estimates for passenger services, Creation of a public transport traffic model for the Canton of Zurich, Inclusion of travel costs in the modeling of mobility behavior (research program Mobility Pricing).

By the means of a significant larger sample and a more detailed examination of the impacts of trip distances the reliability of the values of time are increased. In addition to the calculation of average values of time, it is aimed to estimate values of time for specific trip distance classes as well as a factor that describes the interdependency between value of time and the trip distance.

Methodology:

In the first step, a detailed analysis of the reviewed studies is carried out. The importance and credibility of individual data records should be checked for convergence and consistency.

At this point, the project should focus on two basic points:

- What are the average values of all the databases available?
- How can differences and dependence between the fair value and the travel distance be determined?

In the next step, all attempts are controlled and enhanced data sets are assembled and analyzed in accordance with the individual segments for the estimation of the model.

Parent Programmes:
ARAMIS - ARAMIS information system

Institute type: Public institution
Institute name: Swiss Government: State Secretariat for Education and Research
Funding type: Public (national/regional/local)

Partners:

Switzerland:
Research organisation: Swiss Federal Roads Office
Road Networks division
Secretariat for road Research
Key Results:

The key results allow to apply specific values of time with respect to the average trip distance in the transport segment under study. The derived values of time are validated and compared against other results in Switzerland and abroad.

Due to the good quality and structure of available data sets a new survey about passenger’s transport behaviour is not necessary. Instead, new model estimations were conducted on the base of previous studies and the survey data raised in the course of these studies. The new model estimations include route choice and mode choice models.

Finally, the study deliver universal and representative values of time, that are based upon a significant larger sample than those of previous studies. The values of time are differentiated according to trip purposes and transport mode and are calculated against trip distances and socio-demographic characteristics. Simultaneously the interdependency between the values of time and the trip distance is analysed.

STRIA Roadmaps: Network and traffic management systems, Smart mobility and services
Transport mode: Road transport
Transport sectors: Passenger transport, Freight transport
Transport policies: Decarbonisation, Societal/Economic issues
Geo-spatial type: Network corridors