The unreliability of travel time is regarded as an important factor in travelers' decision-making concerning their mode choice, route choice, and departure time choice. Travel time unreliability may generate considerable generalized costs for a traveler. The main objective of this thesis is to evaluate the monetary value of travel time reliability in the context of passenger transport. This thesis starts with an investigation to explore the adequacy of existing empirical estimates of the value of reliability by means of a meta-analysis. Some in-depth interviews were then conducted to investigate how respondents perceive and interpret travel time reliability, and to test their understanding of different ways of presenting reliability in the stated preference studies. The empirical part of this thesis concerns the empirical estimates of reliability and schedule delay based on the stated choice experiments, both for road and rail transport. Finally, the thesis demonstrates how to incorporate the benefits of reliability improvement into cost-benefit analysis, which is a useful evaluation guideline for transport investments.

Yin-Yen Tseng received her BSc and MSc degrees in Civil Engineering at the National Taiwan University in Taiwan. In 2002, she enrolled in the MPhil program at the Tinbergen Institute in the Netherlands, and then became a Ph.D. candidate in October 2003 at the Department of Spatial Economics of the Vrije Universiteit Amsterdam, doing research in the fields of Transport Economics.