Regional Travel Forecasting Model Philadelphia

Image source: unsplash, ActionVance

DVRPC is the regional planning agency for the region of Greater Philadelphia with a population of 5.5 million. The agency maintains a classic macroscopic travel demand model which is used for over 40 years to plan infrastructure, transport services and policies for the entire region. The model covers all modes of transport and treats peak and off-peak periods of the day separately. In 2009, DVRPC decided to start a major project to improve the model. Wolfgang Scherr contributed to this project, first as a consultant for PTV America, then as an employee of DVRPC itself.

Services Provided by Wolfgang Scherr:

- Migration of the existing model to the PTV Visum platform
- Development of network models for road and public transport based on open-source data (Google transit feed and Open Street Map), which was in 2011 a novel concept for governmental planning models
- Collection of data and systematic representation of public transport fares and parking prices across the region
- Coding of model routines and evaluation tools in Python
- Calibration of demand and assignment models
- Application of the new model in pilot projects
- Documentation of the modeling methodology and writing of user instructions

Project Owning Entity

Delaware Valley Regional Planning Commission (DVRPC), Philadelphia

Contractors

Cambridge Systematics, PTV America

Project Duration

2009-2011

Country

United States of America (USA)

Contact

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Publications

2012 Puchalsky, Joshi, Scherr: Development of a Regional Forecasting Model Based on Google Transit Feed

2011 Scherr, Burton, Puchalsky: A Paradigm Shift in Travel Forecasting