Analysis of differences in price, time and distinct measures of accessibility for České dráhy

Abstract

The main aim of this thesis is to resolve the issue of accessibility in the passenger rail network of České dráhy in the Czech Republic. Secondary objectives are the analysis of distance, time availability, and price of passenger rail service.

The main sources are the Railway Timetable 2009 and the geographic database ArcČR 500. Basic tool for the processing is geographic information system (GIS) with extension Network Analyst.

The main aim of the thesis is to provide a database with the values of distance, time availability and price. Secondary aims are to produce partial maps which present various types of accessibility. Part of the results are also the methodology for establishing different kinds of accessibility, the evaluation of methods used, and quality assessment models used in relation to the database and partial results of comparison with the literature.

Keywords: transport accessibility, rail transport, network analysis, accessibility, availability of models, Network Analyst