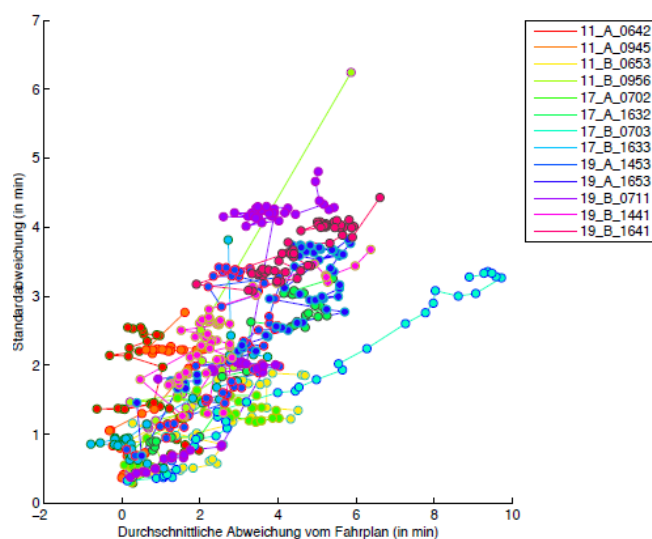


Unreliable travel times in Austria: extent, costs und effects

Period of performance: 2015

So far, in Austria neither the extent of unreliability, nor the related costs and the resulting consequences for the behaviour of travellers have been investigated. The research project RELAUT sheds light on the Austrian situation by using Austrian traffic and punctuality data and by conducting a survey among users of the Austrian transport network. Based on the findings, measures that improve reliability (and hence reduce the corresponding costs) are recommended. In order to analyze travel time reliability in a systematic way, both the P-side (P = price) and the Q-side (Q = quantity) must be known. The P-side indicates the valuation that users of the transport network attach to reliability. The Q-side, in contrast, defines the extent of (un-)reliability. The economic costs related to travel time variability are then defined as $P \cdot Q$. RELAUT is the first project to demonstrate how the P- and the Q-side of reliability can be defined and measured in Austria. For this purpose, a representative survey was conducted among 316 Austrians concerning their perceptions of and reaction to unreliable travel times. To measure the extent of travel time variability (the Q-side), travel time data from ITS Vienna Region as well as public transport data from Linz Linien were used, and the reliability of some selected road segments and bus connections was computed. Using regression analyses, explanatory variables for variations in the reliability over time were determined, such as the time of the day, the day of the week, school holidays, weather conditions, or (in the public transport context) the length of bus lines.



Correlation between mean deviation of time schedule and standard deviation, © WU Vienna, based on Linz Linien (2015)

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