Long-distance travel in Germany

Modular analysis and methodological comparison of available data

ISCTSC 2017

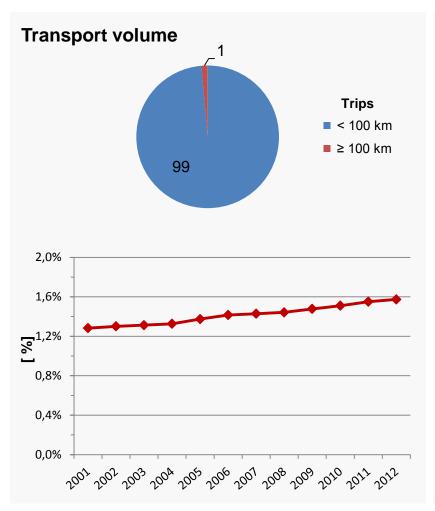
Workshop B8

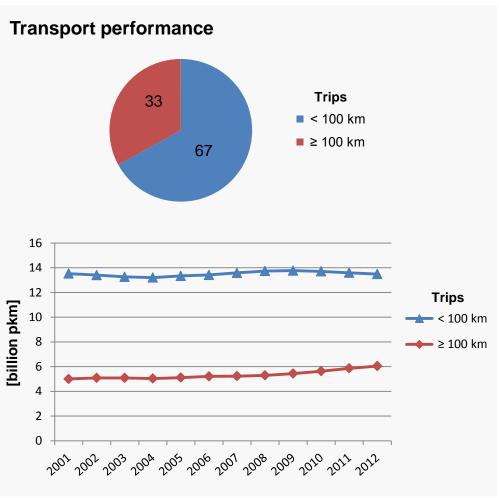
Dr. Claudia Nobis Angelika Schulz





Importance of long-distance trips







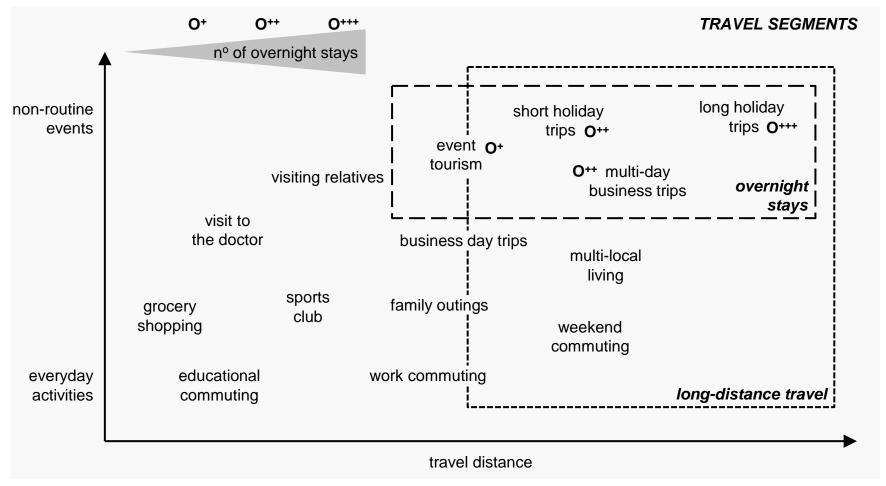
Source: MiD 2008, MOP 1999-2014

Outline

- Problems and challenges of data collection focusing on long-distance travel
- Segmentation approach of long-distance travel
- Limitations to quantify the entire segment of long-distance travel
- Suggestions for future data collection



Differentiation of long-distance trips according to distance and regularity





Source: own illustration (KUHNIMHOF, SCHULZ)

Challenges of collecting long-distance travel data

- particular **focus** of national travel surveys **on domestic trips** only
- most travelling part of the target population is hard-to-reach
 - highly active persons = likely to be absent during survey period
- need to **retrospective data collection** of non-routine trips results in **adverse recall effects**
 - depending on length of retrospective period and actual time of data collection (= interview)
 - infrequent long-distance trips are likely to be underreported



Segmentation of long-distance trips according to trip purpose and overnight stay

Without overnight stay With overnight stay Personal day trips Short holiday Holiday trips Personal mobility trips (2-4 days) (5+ days) outside ones' usual Personal environment **Tourism** Business mobility outside ones' usual environment Long-distance everyday personal trips Personal mobility and business mobility Everyday mobility within ones' usual environment Long-distance Other personal overnight trips commuting Long-distance everyday business trips Overnight business trips Business day trips



Source: FRICK & GRIMM (2014:11), modified

Data sources in Germany

National Household Travel Surveys ▶ focus on everyday mobility

- (1) MiD Mobility in Germany
 - cross-sectional survey conducted irregularly (2002, 2008, 2016/17)
 - net sample 2008: 25,922 households, 60,713 persons (2016/17: ~30,000 households)
 - reporting period: 1 day plus survey module on long-distance travel
 (= up to 3 journeys with overnight stays during the last 3 months; purpose, transport mode and distance)
- (2) MOP German Mobility Panel
 - longitudinal survey conducted annually since 1994
 - net sample 2015: 1,781 households with 2,687 persons
 - rotating panel: households remain 3 years in the sample
 - reporting period: 7 days, no particular survey module for long-distance travel



Data sources in Germany

Touristic travel survey ▶ focus on holiday journeys with overnight stays

- (3) RA travel analysis
 - cross-sectional survey, but conducted annually since 1970
 - annual sample of more than 7,500 persons (face-to-face interviews)
 - travel behavior related to holiday journeys including motivations and interests
 - details only for journeys 5+ days:
 number, destination (but no distance!), duration, main mode, travel companions,
 expenditures etc.
 - only aggregated infomation for journeys 2-4 days:
 destination (no distance!), type of activities
 - retrospective reporting period 1 year



Coverage of segmentation by existing data sources

	MiD travel module	MiD	МОР	RA
Holiday trips (5+ days)	X			X
Short holiday trips (2-4 days)	X			X
Other personal overnight trips	Х			(X + business trips)
Personal day trips		\rightarrow x	> x	
Long-distance everyday personal trips				
Long-distance commuting	(X)	(X)	(X)	
Long-distance everyday business trips		X (module reg. prof. trips)	\	
Business day trips		X	J	
Overnight business trips	X			



Source: own table

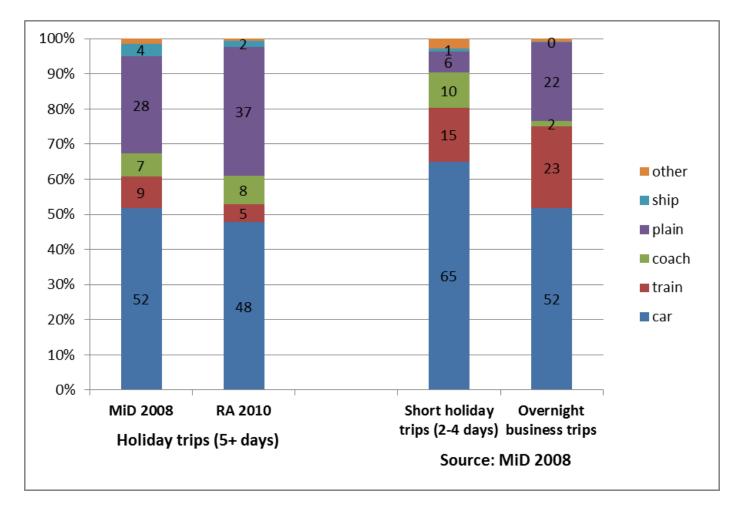
Number of overnight trips per person

	MiD 2008 travel module	RA 2010
Holiday trips (5+ days)	1,6	1,00
Short holiday trips (2-4 days)	1,7	0,7
Other personal overnight trips	0,7	2,1 Includes business trips!
Personal day trips		
Long-distance everyday personal trips		
Long-distance commuting	0,09 Only overnight trips!	
Long-distance everyday business trips		
Business day trips		
Overnight business trips	1,6	



Source: own table

Modal split depending on travel purpose





Source: calculation based on MiD 2008, RA 2010

Possible approach to analyze long-distance travel

Advantage of segmentation concept

- variety of long-distance travel is taken into account
- Concept allows to analyze interactions between travel segments if information of segments is given on individual level

Problem

- There is no king's road to implement the segmentation approach into a feasible survey design
- Travel demand differs between segments and persons => effects survey design

Possible solution

- Focusing only on parts of segments
- Different types of question => general question versus trip reporting
- Use of screening questions to adjust reporting period



Possibilities to enhance NHTS

- Module of long-distance travel: Setting up standards to easily compare survey results between country
- Travel diary: additional questions for long distance trips

Other suggestions

- Setting up standards analog to tourism
- More interaction between transport survey and surveys on tourism



Thank you for your attention!

German Aerospace Center (DLR)

Institute of Transport Research | Rutherfordstraße 2 | 12489 Berlin | Germany

Dr. Claudia Nobis

Angelika Schulz

claudia.nobis@dlr.de

angelika.schulz@dlr.de

www.DLR.de/vf

