Long-distance travel in Germany

Modular analysis and methodological comparison of available data

ISCTSC 2017
Workshop B8

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Importance of long-distance trips

**Transport volume**

- Trips: 99

<table>
<thead>
<tr>
<th>Trips</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 100 km</td>
<td>99</td>
</tr>
<tr>
<td>≥ 100 km</td>
<td>1</td>
</tr>
</tbody>
</table>

**Transport performance**

- Trips: 67

<table>
<thead>
<tr>
<th>Trips</th>
<th>[billion pkm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 100 km</td>
<td>33</td>
</tr>
<tr>
<td>≥ 100 km</td>
<td>67</td>
</tr>
</tbody>
</table>

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

TRAVEL SEGMENTS

- short holiday trips (O++)
- multi-day business trips (O++)
- long holiday trips (O+++)

Event tourism
- family outings
- visiting relatives
- visit to the doctor

Grocery shopping
- sports club
- educational commuting
- work commuting

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

- Personal day trips
- Long-distance everyday personal trips
- Long-distance commuting

With overnight stay

- Short holiday trips (2-4 days)
- Holiday trips (5+ days)
- Other personal overnight trips
- Overnight business trips

Source: FRICK & GRIMM (2014:11), modified
Data sources in Germany

National Household Travel Surveys ▶ focus on everyday mobility

(1) MiD – Mobility in Germany
   – 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 information for journeys 2-4 days:
  - destination (no distance!), type of activities
- retrospective reporting period 1 year
## Coverage of segmentation by existing data sources

<table>
<thead>
<tr>
<th>MiD travel module</th>
<th>MiD</th>
<th>MOP</th>
<th>RA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holiday trips (5+ days)</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Short holiday trips (2-4 days)</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Other personal overnight trips</td>
<td>X</td>
<td></td>
<td>(X + business trips)</td>
</tr>
<tr>
<td>Personal day trips</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Long-distance everyday personal trips</td>
<td>(X)</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Long-distance commuting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-distance everyday business trips</td>
<td>X (module reg. prof. trips)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Business day trips</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Overnight business trips</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: own table
### Number of overnight trips per person

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

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!

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