National Transportation Surveys Activities in Germany

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P12-6949
Germany 1976 to 2008: less by foot, more by car

trips, modal split in percent, individuals aged 10 or older (source: DIW – Transport in figures, own calculations, until 1990 West Germany only)
Development of absolute number of trips per day: slight increase in public transport – roughly constant in MIT

extrapolation transport volume, Mio. trips per day including commercial traffic

<table>
<thead>
<tr>
<th>Year</th>
<th>Extrapolation Transport Volume, Mio.</th>
<th>Main Means of Transport on Diary Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>272 M</td>
<td>public transport</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MIT driver</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MIT passenger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>bicycle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>by foot</td>
</tr>
<tr>
<td>2008</td>
<td>281 M</td>
<td>public transport</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MIT driver</td>
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<td>by foot</td>
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</tbody>
</table>
## Mobility in Germany: links to other surveys

<table>
<thead>
<tr>
<th>Survey Type</th>
<th>Description</th>
<th>Duration</th>
<th>Locations</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>German Mobility Panel</strong></td>
<td>- trips &gt; 100 km &lt;br&gt; - last 3 resp. 12 months</td>
<td></td>
<td></td>
<td><a href="http://mobilitaetspanel.itv.uni-karlsruhe.de/en/index.html">http://mobilitaetspanel.itv.uni-karlsruhe.de/en/index.html</a></td>
</tr>
<tr>
<td><strong>SrV Household Mobility Surveys for Cities</strong></td>
<td>- diary day concept (Tuesday – Thursday) &lt;br&gt; - single cities</td>
<td></td>
<td></td>
<td><a href="http://tu-dresden.de/die_tu_dresden/fakultaeten/vkw/ivs/srv">http://tu-dresden.de/die_tu_dresden/fakultaeten/vkw/ivs/srv</a></td>
</tr>
<tr>
<td><strong>Mobility in Germany 2002/2008/?</strong></td>
<td>- diary day concept (all weekdays) &lt;br&gt; - long trips (at least one overnight stay) last 3 months &lt;br&gt; - module travel on the job &lt;br&gt; - vehicle characteristics</td>
<td></td>
<td></td>
<td><a href="http://www.mobilitaet-in-deutschland.de">http://www.mobilitaet-in-deutschland.de</a></td>
</tr>
<tr>
<td><strong>Business Travel Survey (KID) 2002/2010</strong></td>
<td>- diary day concept &lt;br&gt; - vehicle characteristics &lt;br&gt; - vehicle usage</td>
<td></td>
<td></td>
<td><a href="http://www.kid2010.de">http://www.kid2010.de</a></td>
</tr>
</tbody>
</table>
The MiD survey design has many particular characteristics, which have also been maintained in 2008:

- recording of complete households including children aged 0 or older
- diary day survey spread over an entire calendar year
- reliable data collection method for recording trips by combining mail and telephone survey methodology
- extremely large sample of 25,000 households – including regional add-ons of even almost 50,000 participating households
- extrapolation of transport and volume and capacity differentiated by means of transport, purposes of trips and population groups
- illustration of many results in time series
Questionnaire 2002 and 2008: households - individuals - cars - trips - traveling

**households**
- household size
- vehicle stock
- telephone mainlines
- phone number
- income
- availability cell phone, computer, internet
- residential area
- age, sex and occupation of household members

**cars**
- model
- year of manufacture
- capacity
- mode of driving
- annual mileage
- speedometer
- vehicle keeper
- age and date of purchase
- parking space at home
- main driver

**individuals**
- socio-demographics
- occupation
- driving licenses
- duration of residence
- availability of local public transport
- mobility handicaps
- regular local public transport ticket
- use of bicycle helmet
- bicycle availability
- use of means of transport in general (local public transport, bicycle, car, long-distance rail, airplane)
- accessibility of regular destinations
- availability cell phone, internet, navigation device

**overnight stays**
- number for the last three trips during the last quarter:
  - means of transport
  - distance
  - companion
  - purpose
  - duration

**diary day**
- purpose
- means of transport
- distance
- time of departure/arrival
- precise destination address
- location of destinations
- number of companions and household members
- additional module commercial traffic
- use of household vehicle

merged: type of residential quarter at address level (since 2002)
Sample: one of the largest surveys next to the Microcensus

absolute, basic sample only without regional add-ons

- registry offices’ sample with respective possibilities to announce the survey to the selected households
- stratification by Federal States and type of area
- additional regional add-ons (approx. another 25,000 households)
- control and weighting by different characteristics at household as well as individual level

households: 25,922
individuals: 60,713
trips: 193,290

cars: 34,601
traveling: 36,182

municipalities MiD sample 2008 (including add-ons)
Motivation to participate in the survey: intensive efforts to optimize response rates

The survey was conducted by means of mixed mode in order to obtain high response rates. Additionally, various accompanying measures were also developed to optimize participation shares:

- dispatch of a cover letter
- own project logo
- own brochure with project information
- detailed project pages in the internet
- provision of an online questionnaire for the household interview
- free telephone hotline for enquiries
- reminder by phone prior to diary date
- following-up by phone for “soft” refusals
- non-response survey with 1,000 households
Survey steps and case numbers: response synopsis

Sample

- Phone number not traceable
  - Postal: n=52,748
  - CATI: n=71,414
- Gross sample adjusted n=124,162
- Phone number traceable
  - Postal: n=52,748
  - CATI: n=71,414
- Dispatch of survey information (including online access code)
- No response
- Refusal CATI

Response households

- Postal: n=2,990
- Online: n=3,143
- CATI: n=34,196

Response individuals

- Individuals/trips CATI: 60,713 individuals
- Reminder by phone
- Dispatch trip diary
- Transition CATI
- Sample: non-response survey face-to-face

Net sample

- 25,922 households – 20.9 percent

“Soft” refusals:
- Always second contact

Sample:
- Non-response survey
Response situation 2008: harder framework conditions compared to previous years

The survey shows plausible results, though the response rates are lower than in 2002. This should foremost be seen in the light of households being increasingly strained due to other advertising/sales calls and various even public debates targeting data protection. In summary, this results in the following observations:

- a little lower participation of households contacted by phone
- significantly lower participation of households contacted by letter
- worse quality of data for households not responding until the first reminder
- higher number of households stating at first phone contact not having received the posted survey information or not having read it yet
- significantly higher number of households refusing as a matter of principle and also unwilling to listen to the survey introduction on the phone
- good results at low absolute level for the newly introduced possibility to complete the household questionnaire online
- despite those observations low selectivity effects (!) only
Prospects project design and data collection in MiD: adequate care and future further development required

- harder framework conditions require
  - careful design of contacting documents (cover letter, envelopes, texts)
  - particularly with regard to a potential bias at educational level caused by too elaborate documents!
  - differentiated non-response analysis
  - further development of survey design
    - keeping and further developing mixed mode
    - additional face-to-face survey at household stage?
    - additional online survey at trip stage?
    - bearing in mind not only the researchers’ but also the respondents’ perspective: answering questions ought to be fun!

- yet, a lot of uncertainties on the financing side – at regional and federal level
And researchers‘ paradise?
our vision

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<tr>
<th>Sample:</th>
<th>controllable and suitable for selectivity analyses and non-response surveys</th>
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<tbody>
<tr>
<td>Methodology:</td>
<td>mixed mode at each step – to obtain better coverage, stepwise at household, individual and trip level and repeated large ad hoc studies as starting points for (smaller) panels</td>
</tr>
<tr>
<td>Questionnaire:</td>
<td>demanding, but oriented towards target persons as well</td>
</tr>
<tr>
<td>Contents:</td>
<td>both, general usage patterns and statistical level for trips (every day and long-distance) innovative operationalizations for better modeling</td>
</tr>
<tr>
<td>Trip reporting:</td>
<td>with new approaches (e.g. activity concept) and as far as possible in personal modes</td>
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</tbody>
</table>

And last not least: a better survey culture with long-term budgets ...
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