

KONTIV 2001Planning for the National Travel Survey in Germany

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- History and context of the NTS in Germany
- Approach for the study
- Design of the pilot study
- Pilot results and recommendations for the main survey
- Options and questions to be discussed

Basic design elements of KONTIV-surveys in West-Germany



	1976	1982	1989	
Survey-mode	SAQ mail		SAQ Interviewer	
Target population	Households speaking German			
Persons eligible	From 10 years		From 6 years	
Diary days	2 or 3	1	1	
Net sample size persons	41 000	39 000	42 000	
Response rates	72 %	66 %	64 %	



KONTIV 2001 - Survey Context



- No institutional continuity for NTS in Germany
- Long time interval since last survey
- No NTS for East-Germany
- Methodological developments in survey design
- Little scientific knowledge-sharing for methodology

KONTIV 2001: Approach



PILOT STUDY

- nation-wide random sample of population registers by types of region (BBR),
 32 municipalities
- Development of the survey instruments
- Decisions concerning core components and options
- experimental design (2,400 households)
- including a combination of different survey methods (mail only and a mixed mode by phone/mail)
- Comparison of different versions
- Selectivity analyses
- Determination of the method concerning the main study

MAIN SURVEY (autumn 2001 to summer 2003)

- Size of random sample net 25,000 households based on population registers
- States or regions add-on by app. another 24,000 households
- Collection of information of the whole household
- Survey guided by fixed diary-dates and lasting 12 months
- Non-Response-Study



Improvements



Sample



Households



Mobility



- Reliable information on response
- Analysis of selectivity
- Extended non-responsestudy
- Field information
- CATI mode

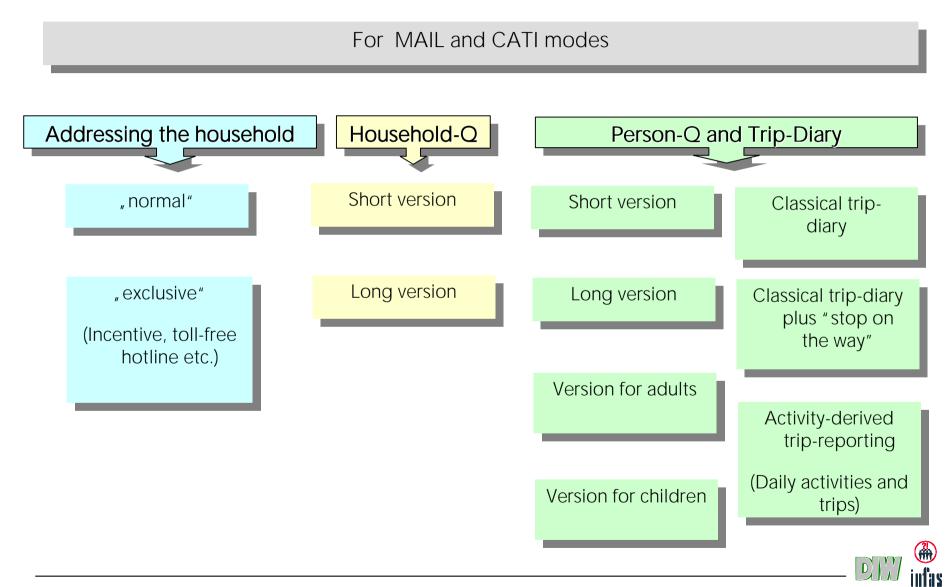
- Foreigners
- Children
- Vehicle data
- Handicaps
- Income

- Professional mobility
- Long distance trips
- Vehicle mileage
- Full household context
- Mode details
- Trip definition
- Reasons zero trips



Elements of Variation in the Instruments





Survey Contents



General

<u>Households</u>

- Household size
- Vehicle ownership
- Telephone
- Telephone number
- Second domicile
- Non-participation of household members
- Income
- Cellular, Computer, Internet
- Living area
- Dwelling type

<u>Persons</u>

- Socio-demographics
- School/Occupation
- Drivers license
- Long distance trips last quarter
- Duration of residence
- Accessibility transit
- Handicaps
- Car availability
- Transit / rail subscription
- Bike availability
- Mode usage habits
- Accessibility normal destinations
- Last three long distance trips
- Internet usage
- Zero trips
- Normal day
- Car availability
- Weather

<u>Vehicles</u>

- Vehicle data
- Annual mileage
- Parking at home

<u>Trips</u>

Diary day

red - KONTIV-Expansions

blue - Long version

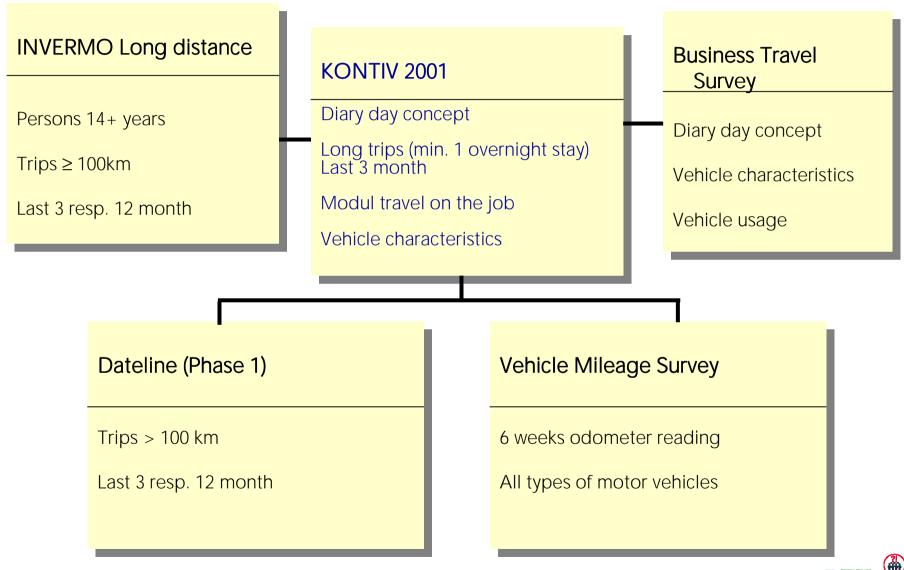
- Odometer reading
- Purpose / destination
- Modes
- Distance
- Duration
- Address
- Number persons
- Business trips
- Vehicle identifi.





Linkages to other current Surveys





Experimental Design



Variationen je Erhebungsmethode			,	Erhebungsmethoden		N etto g e sam t
Variation 1: unterschiedliche Operationalisierung	V ariation 2: Interview länge	Variation 3: Art der Kontakt- aufnahme	Variation 3a: Incentives	Variante <u>A</u> : ·schriftlich	Variante <u>B</u> : • CATI • schriftlich bei nicht gefund. Telefon- nummer	
W egekonzept I (KONTIV klassisch)				N etto	N etto	
W egekonzept I	Grundfragebogen	Club	mit	80	109	189
W egekonzept I	Grundfragebogen	Standard	o h n e	85	102	187
W egekonzept I	erweiterter Fragebogen	Club	mit	80	113	193
W egekonzept I	erweiterter Fragebogen	Standard	ohne	113	126	139
in sg e sam t			•	358	450	708
W egekonzept II (mit Unterbrechungen)						
W egekonzept II	Grundfragebogen	Club	mit	96	133	229
W egekonzept II	G rund fragebogen	Standard	ohne	79	93	172
W egekonzept II	erweiterter Fragebogen	Club	mit	90	105	195
W egekonzept II	erweiterter Fragebogen	Standard	ohne	99	131	230
in sg e sam t				364	462	826
A ktivitätskonzept (N euentw icklung)						
A ktivitätskonzept	G rundfragebogen	Club	mit	93	79	172
Aktivitätskonzept	G rund fragebogen	Standard	ohne	75	101	176
A ktivitätskonzept	erweiterter Fragebogen	Club	mit	106	135	241
A ktivitätskonzept	erweiterter Fragebogen	Standard	ohne	109	146	255
in sg e sam t				383	461	844
insgesamt (netto Haushalte)				1.105	1.373	2.478 *

^{*} davon 2.236 mit Haushaltsbogen und mindestens einem Personenbogen



Survey Mode Mail: Implementation and Response



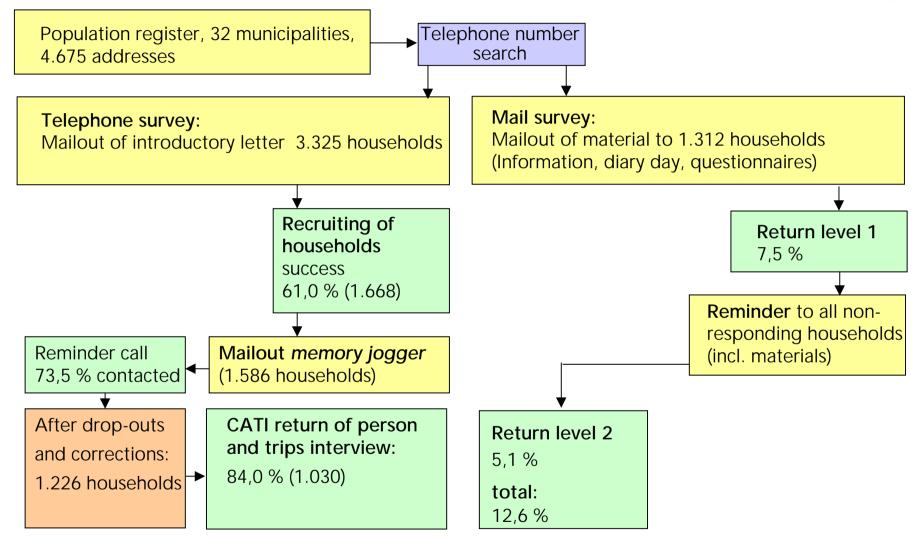
Population register sample 32 municipalities, Mailout of material to all households 4.435 addresses (Information, diary day, questionnaires) Return level 1 Telephone number search for non 11,2 % responding households (ca. 55 % positive) telephone reminder Reminder to all nonresponding households (incl. materials) Return level 2 ca. 13,7 % Completed and usable interview 24,9 % (1.105 households)





Survey Mode Mixed CATI and Mail: Implementation and Response



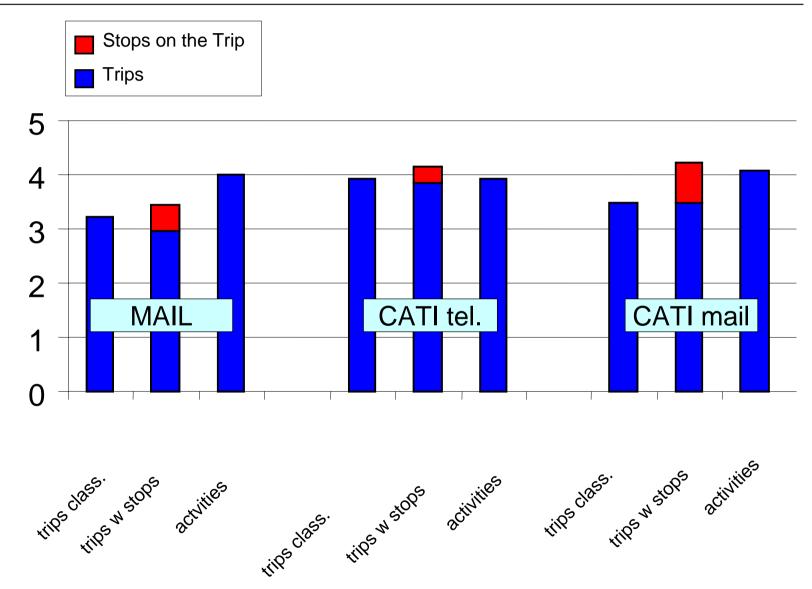


Response rates are all net response rates



Trips and Stops on the Trip by mobile Persons







Review of Trip Reporting Concepts: Number of Trips and Instrument Design



- The average number of trips reported was 3,67 by mobile person.
- This number was higher in the telephone survey (3,91), and lower in the mail survey (3,42).
- The additional question for stops on the way results in about 0,5 trips more per person.
- The concept focussing on the activities results (before checkings and corrections) in four trips per day.
- In the mail mode the activity concept needs additional editing and screening. On the other hand, with the complete daily schedule this concept has a high potential.
- Overall, the resulting mobility indicators compare well to those of other studies with a trend to be somewhat above earlier national KONTIV results.
- Also travel mode shares etc. are similar to other sources.
- Thus we have valid results of mobility indicators in the pilot study.







Number of cars in the household

	CATI	Mail
0 car	13,5%	11,5%
1 car	52,5%	51,1%
2 cars	28,3%	28,7%
3 cars+	5,7%	4,1%
no answer		4,4%

Example: knowledge of technical characteristics vehicle 1 (w/o "n.a." and "don't know" *)

	CATI	Mail
HP	85,3%	94,8%
kW	95,8%	90,4%
Engine volume ccm	95,6%	91,0%
yearmake	96,4%	98,0%
od ometer reading	88,3%	96,5%
annual mile a g e	88,8%	96,5%

* "weiß nicht" nur bei CATI



Review Pilot Study Results



Strength of the tested new approaches

- Improved quality and consistency of the data
- Detailed report of daily mobility via the question "Stop on the way"
- Full household context including kids possible with related instruments
- Report of travelling on the job feasible with integrated component
- Feasibility by given complexity of the survey design for the respondents
- Generates data of higher scope and detail

Elements to be improved

- Mail mode to be improved by streamlining materials and enhancing transparency for the respondents
- Integrated non-response survey highly recommended
- Comparative advantage of the activity concept can not be used due to little experiences and data cleaning effort



Recommendations for the Main Survey



Survey Mode

Mix CATI / Mail

Sample

- Improved search of telephone numbers
- Cover letter and information materials
- Addressing of households
- Survey name
- Reduce material for mail survey
- Incentives for households after being recruited?

Questionnaire

- Reporting of trips according to the activity-concept with memory jogger (CATI)
- Concept for "Stop on the way" needs to be improved for comparability

Re-contacting and Non-Response-Study

- Before-reminder CATI necessary?
- Second reminder for mail survey
- Repeated contacts for non-respondents
- Non-Response-Study



KONTIV 2001 Survey Process



