

## Preferred citation style

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# Data needs for the analysis of social network geographies and transport

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IVT

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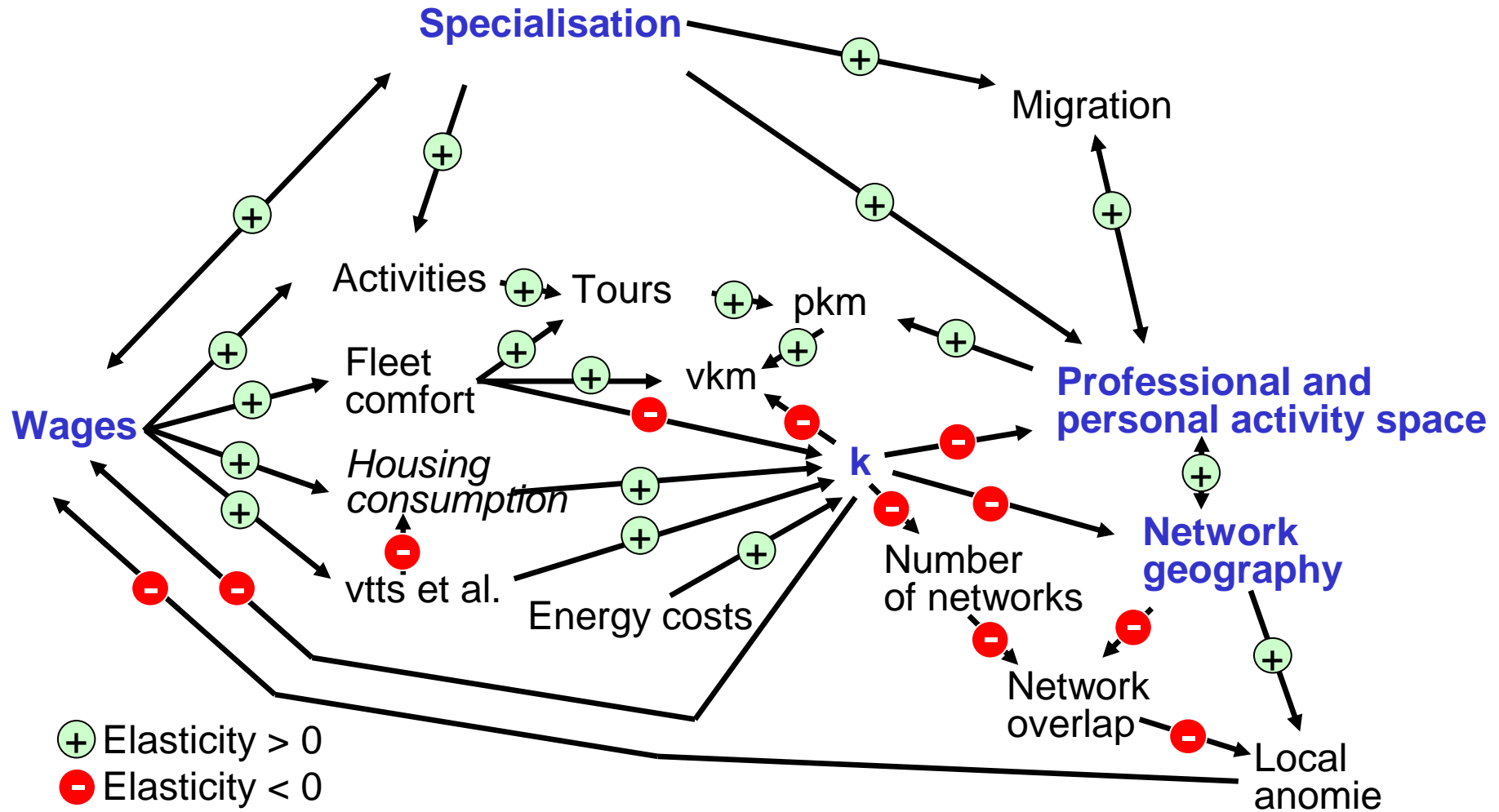
July 2005

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# Size of an individual's activity spaces: A hypothesis



## Objects of interest (cross section)

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- Name, type and membership of the networks (groups)
- Name and type of the contacts (strength of the link)
  
- Home location of the contacts
- Places, dates and duration of meetings with the networks (or subsets)
  - Role, cost and cost allocation of the meeting
  - Cost, cost allocation and duration of associated trip
  
- Channel, dates, size of other interactions with the contacts
  - Cost of interaction and its allocation
  - Location of the persons during the interaction

## Objects of interest (panel/retrospective)

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- Mobility biography:
  - Home locations
  - Work/school locations
  - Mobility tools (car, season tickets, cycles, licences)
  - Income
  - Household structure
- All of the cross-sectional items across time

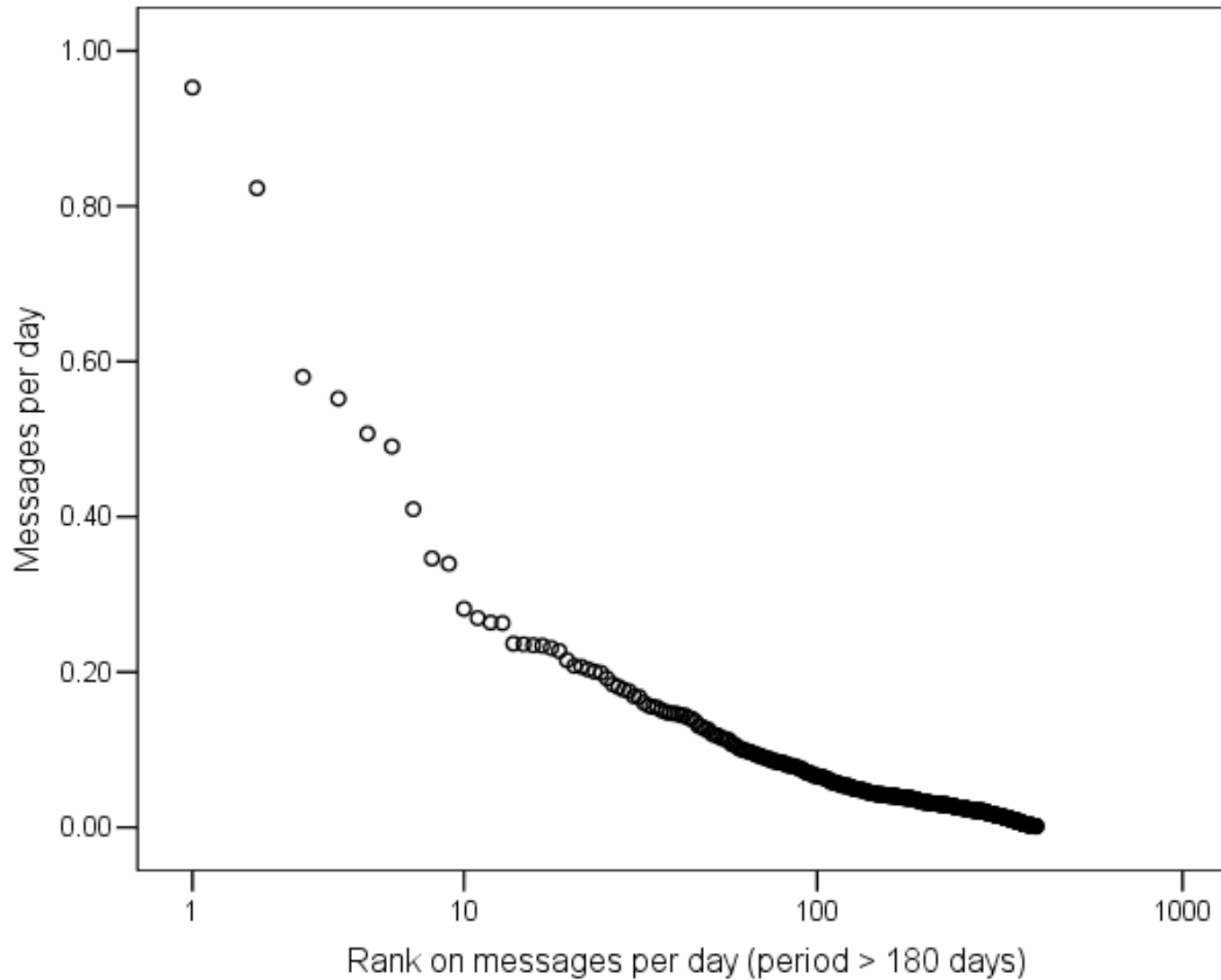
## Sources:

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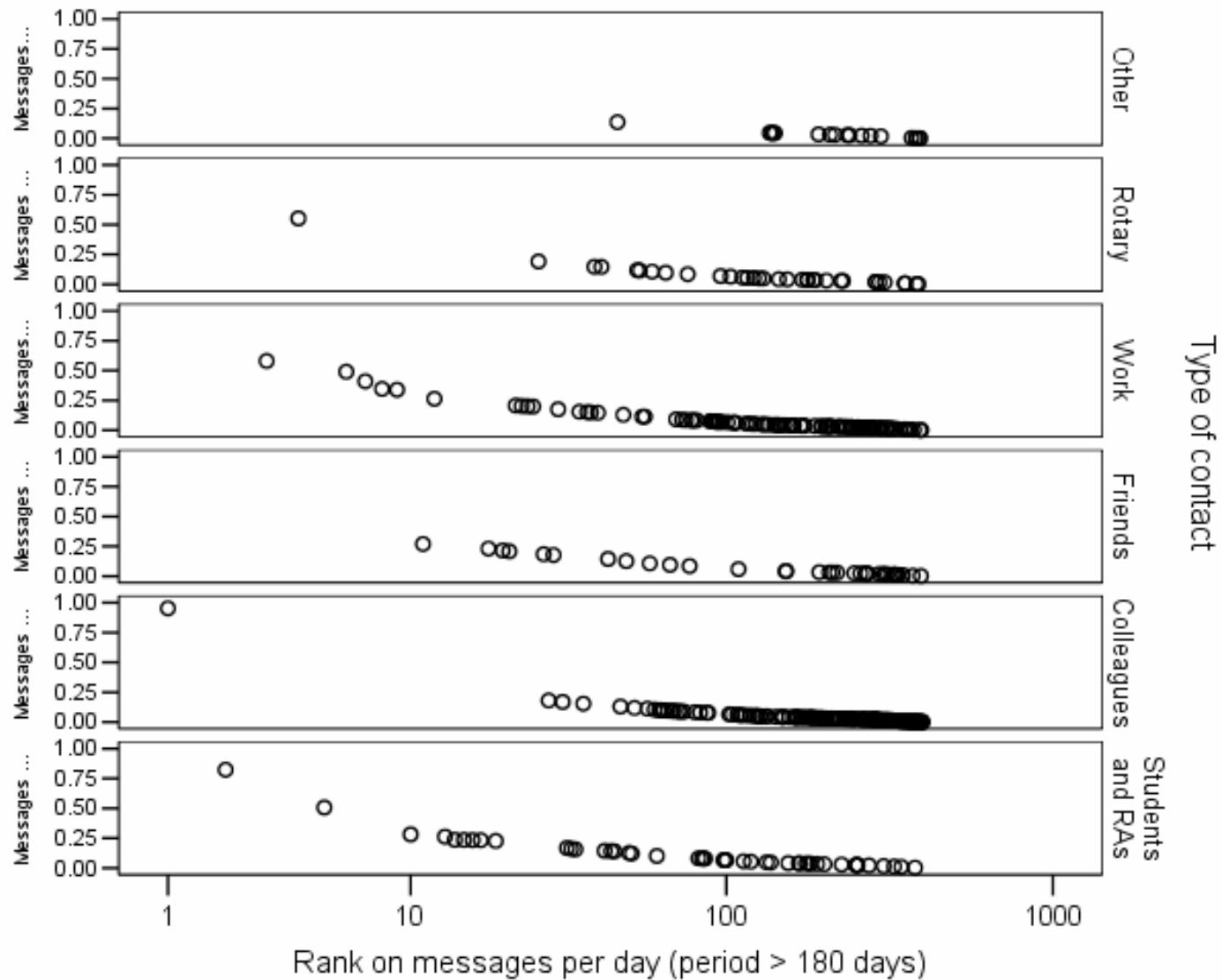
- Memory:
  - Interviews
  - Paper/web-based self-administered questionnaires
- Records:
  - Diaries and agendas
  - Personal phone books/email lists
  - Email and letters (collections)
  - Phone bills / Income tax returns / credit card bills
  - Photo albums / personal web pages
  - Minutes and yearbooks
  - Databases, such as [www.google.scholar.com](http://www.google.scholar.com)
- [Observation]

## Example: Contact frequency – emails to kwa (Outlook)

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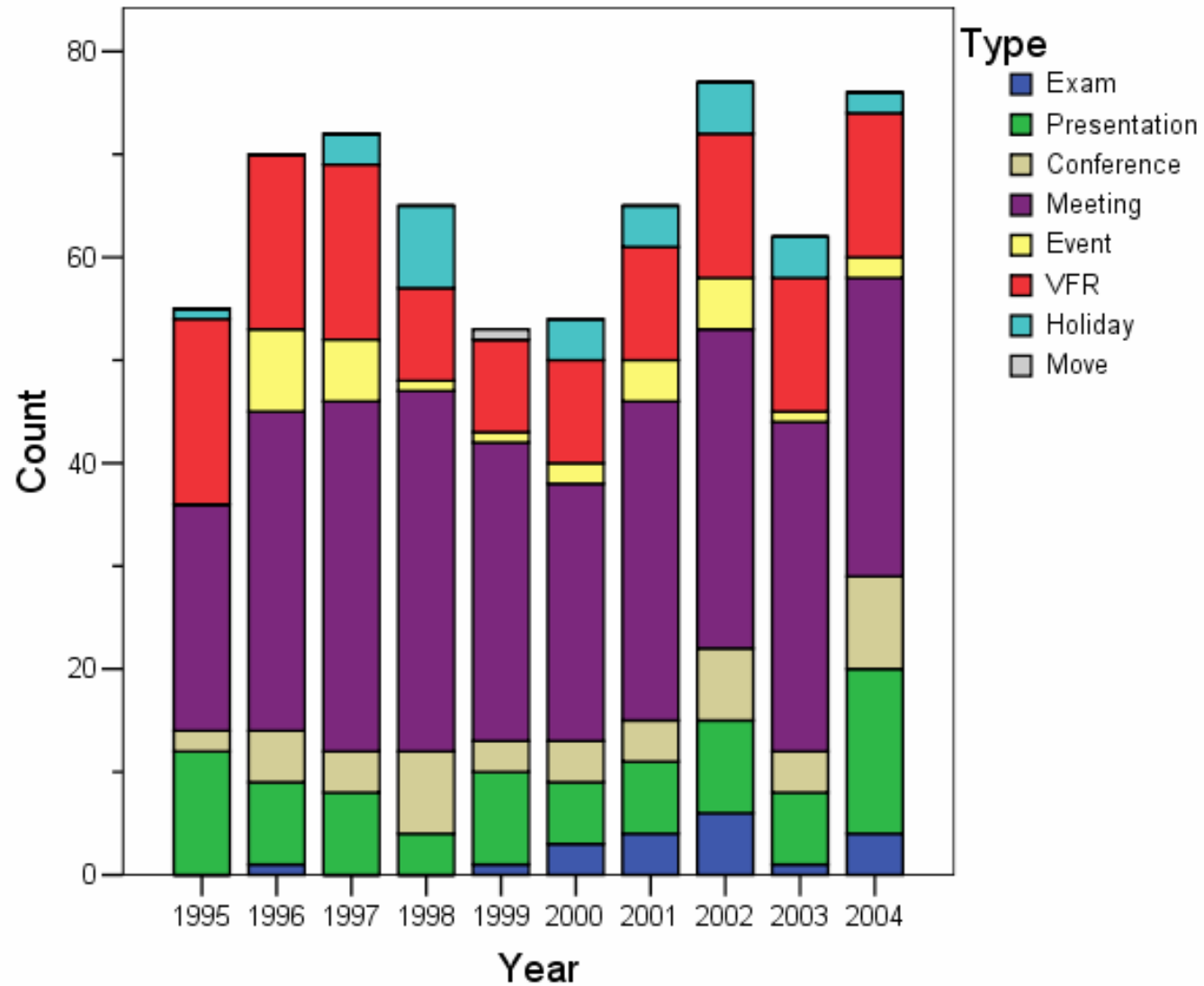
# Example: Contact frequency – emails to kwa





## Example: long-distance travel (kwa) (agenda/tax returns)

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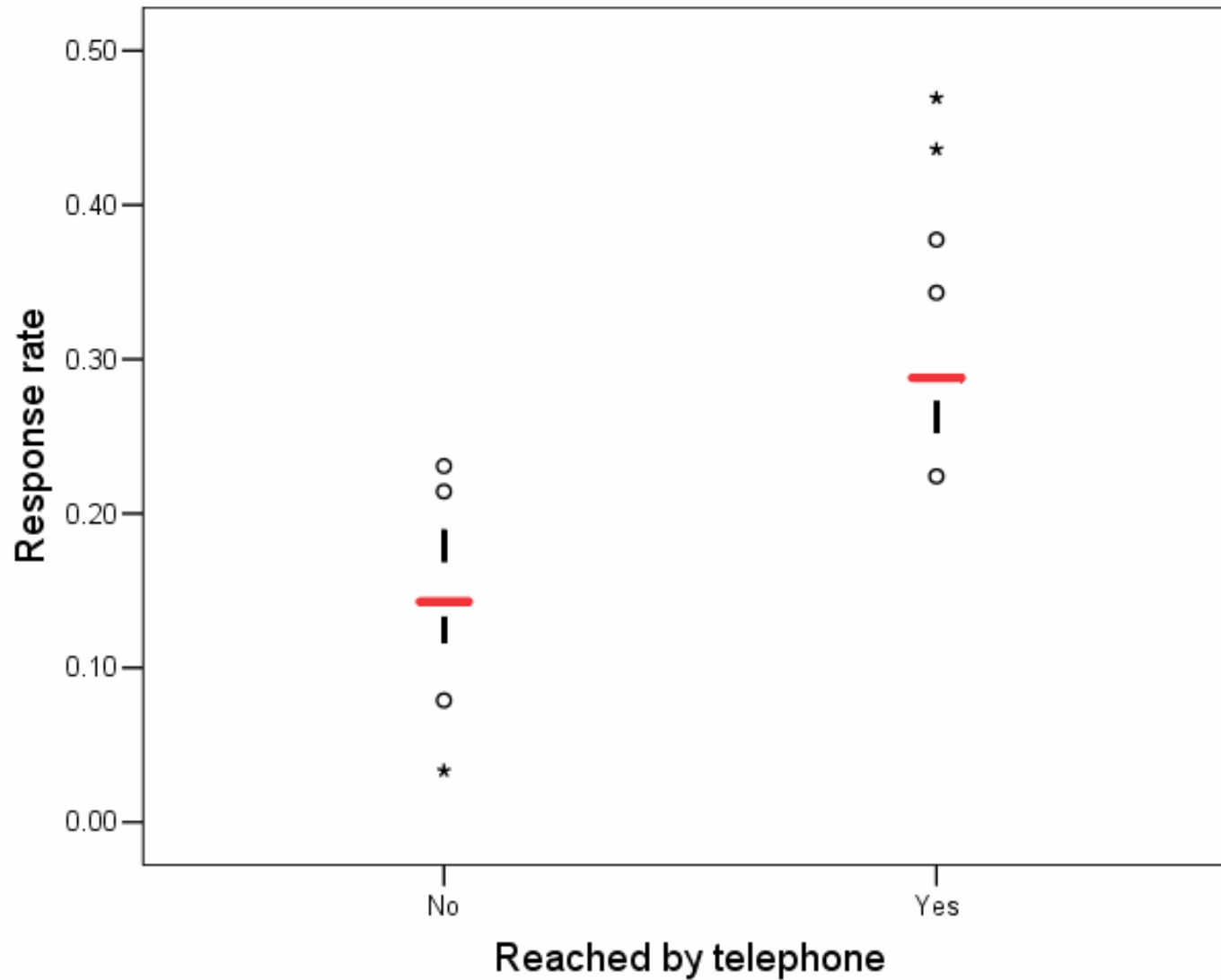
## Current IVT experiences

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- Face-to-face interviews (Mobility biographies; “most important contacts”; mobile phone book lists; Zürich, Berlin, Lancaster) (about 50 € incentives; 2-3 h + questionnaire) (No problems recruiting; even to quota)
- Mobility biographies (Zürich, postal questionnaire) (No incentive, but some were “motivated” with a phone call) 22% response, but see below
- Mobility biographies plus contact geographies (Zürich, Bern Basel; postal and web-based questionnaire) (No incentive) Expected response about 5-8% percent

# Zürich Mobility biographies – Response rate by area

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## Current IVT experiences: Easy add-ons

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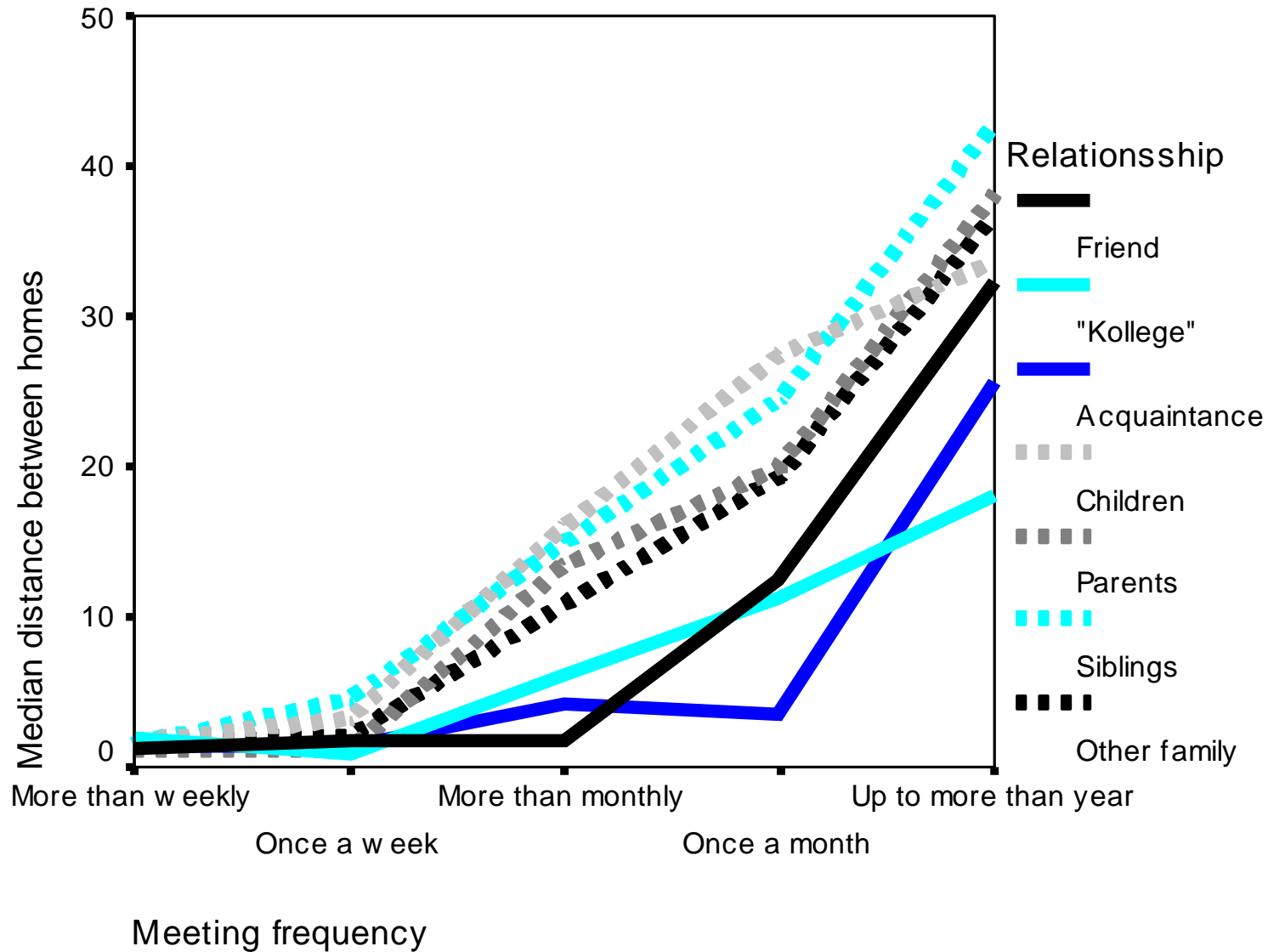
### Context of a trip/activity diary:

- Number of persons meet at the activity travelled to
  - By type (household, non-household member, dog)
- Home location of non-household members met (even retrospectively in the 12 week leisure diary)

### Context of a face-to-face interview:

- Names, type, meeting frequency and home locations of relatives and friends (up to five of each category)
- Mobility biographies (last ten April 1st) (part of Univox)

# Example: Contact costs, frequency and type of contact



# Outlook

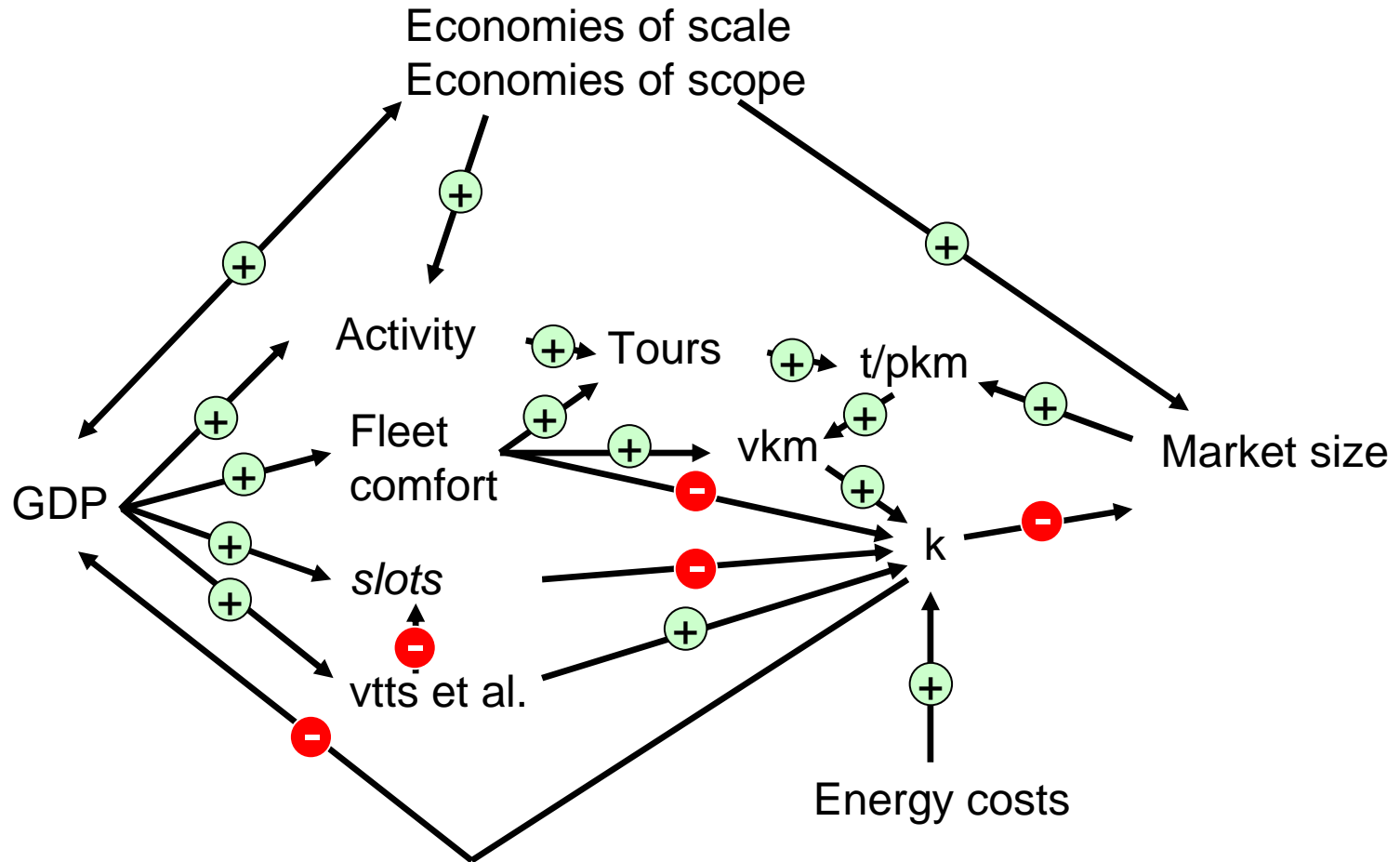
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- Development of common questions
- Allocation of questions blocks between survey modes
- Incentive versus intrusiveness trade-off
- Tools to extract administrative records and to support their coding

# Appendix

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# Size of goods markets and productivity: A hypothesis



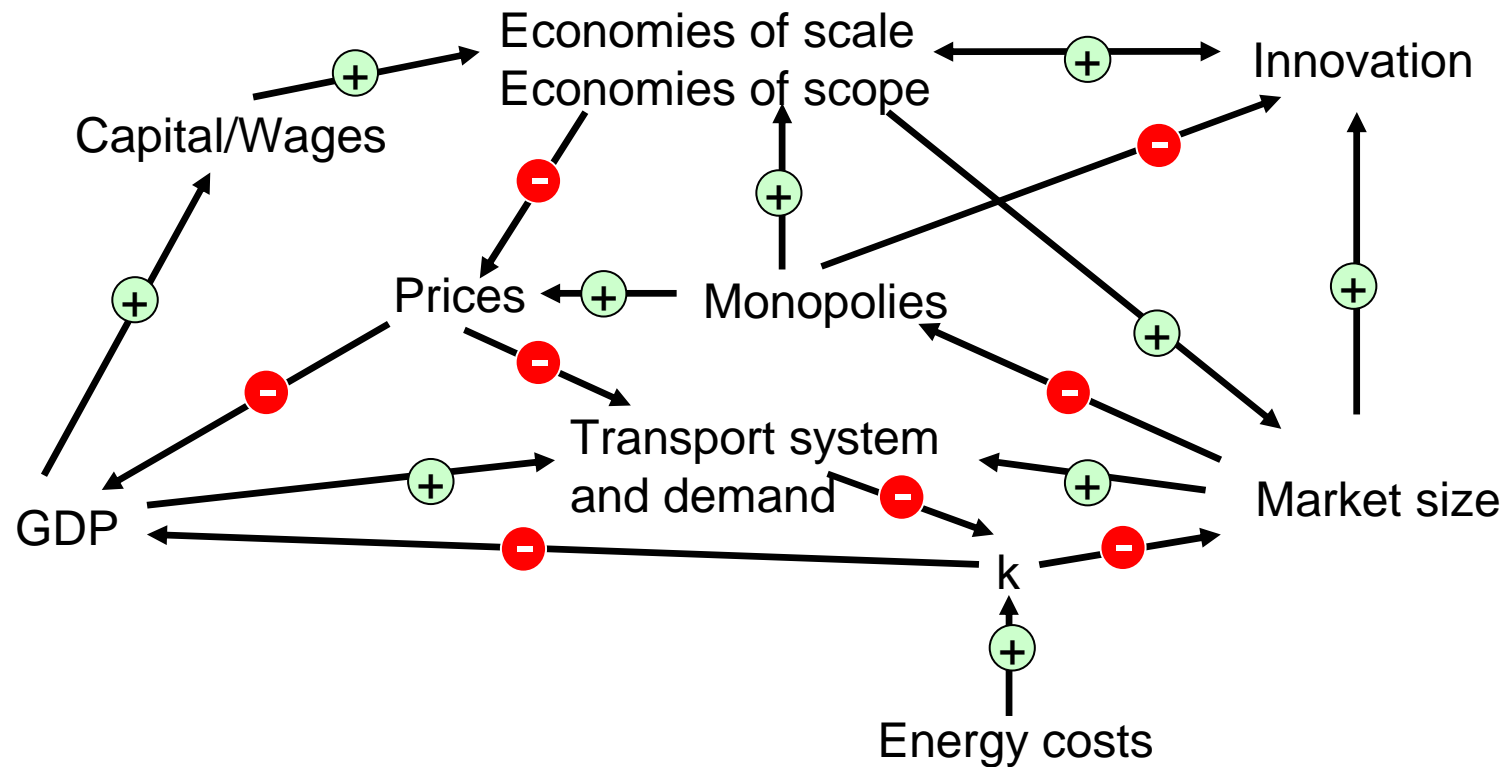
⊕ Elasticity > 0

⊖ Elasticity < 0

Slots: possibilities to move goods or people  
 For a given infrastructure and commercial and private fleet



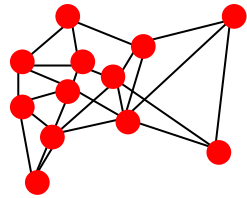
# Size of goods markets and productivity: A hypothesis



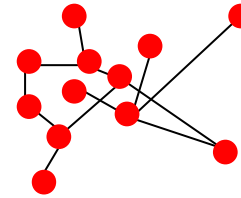
(+) Elastizität > 0    k: Generalisierte  
 (-) Elastizität < 0    Kosten

# Spatial and social density

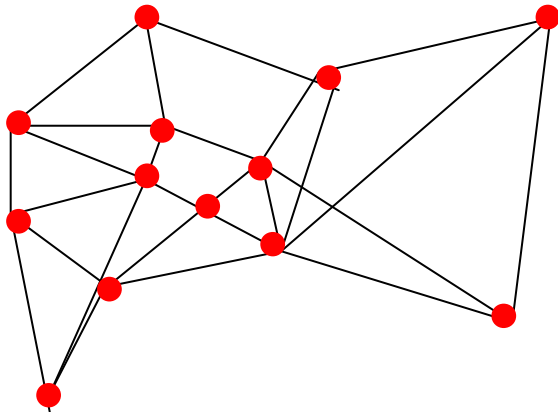
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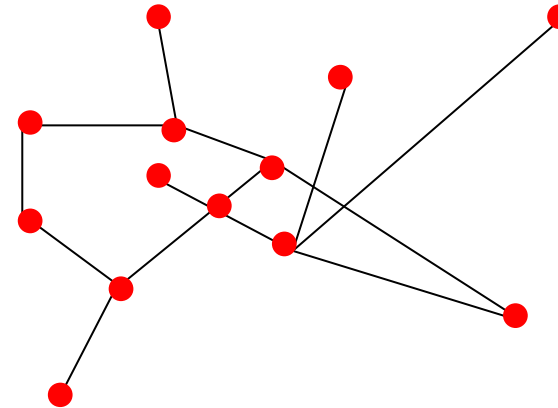
Dense/tight



Dense/loose



Sparse/tight



Sparse/loose