

Bevorzugter Zitierstil für diesen Vortrag

Axhausen, K.W. (2001) The 2003 Thurgau six-week diary: Fatigue and other aspects in a long-duration survey, Meeting of the COST Action 355, Namur, December 2004.

The 2003 Thurgau six-week diary: Fatigue and other aspects in a long-duration survey

KW Axhausen

IVT

ETH

Zürich

December 2004

 *Institut für Verkehrsplanung und Transportsysteme*
Institute for Transport Planning and Systems

ETH

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Motivation

- Extension of the set of long-duration surveys
- Contrast to the urbanised context of the Mobidrive and 12 week leisure survey
- Improve our understanding of
 - Human activity spaces
 - Rhythms of daily behaviour
 - Activity scheduling

Project team

Funding by ASTRA via an SVI project

Team:

- R. Schlich (IVT)
- M. Löchl (IVT)
- T. Buhl (Büro Widmer)
- P. Widmer (Büro Widmer)

- H. Machgut (IVT)

Context

Small town:

- Frauenfeld (20'000 inhabitants)
- Freestanding, but increasingly in the commuter belt of Zürich and Winterthur

Various villages north of Frauenfeld; just south of the Rhine (Seerücken)

- Mostly commuters to Frauenfeld and beyond

Protocol

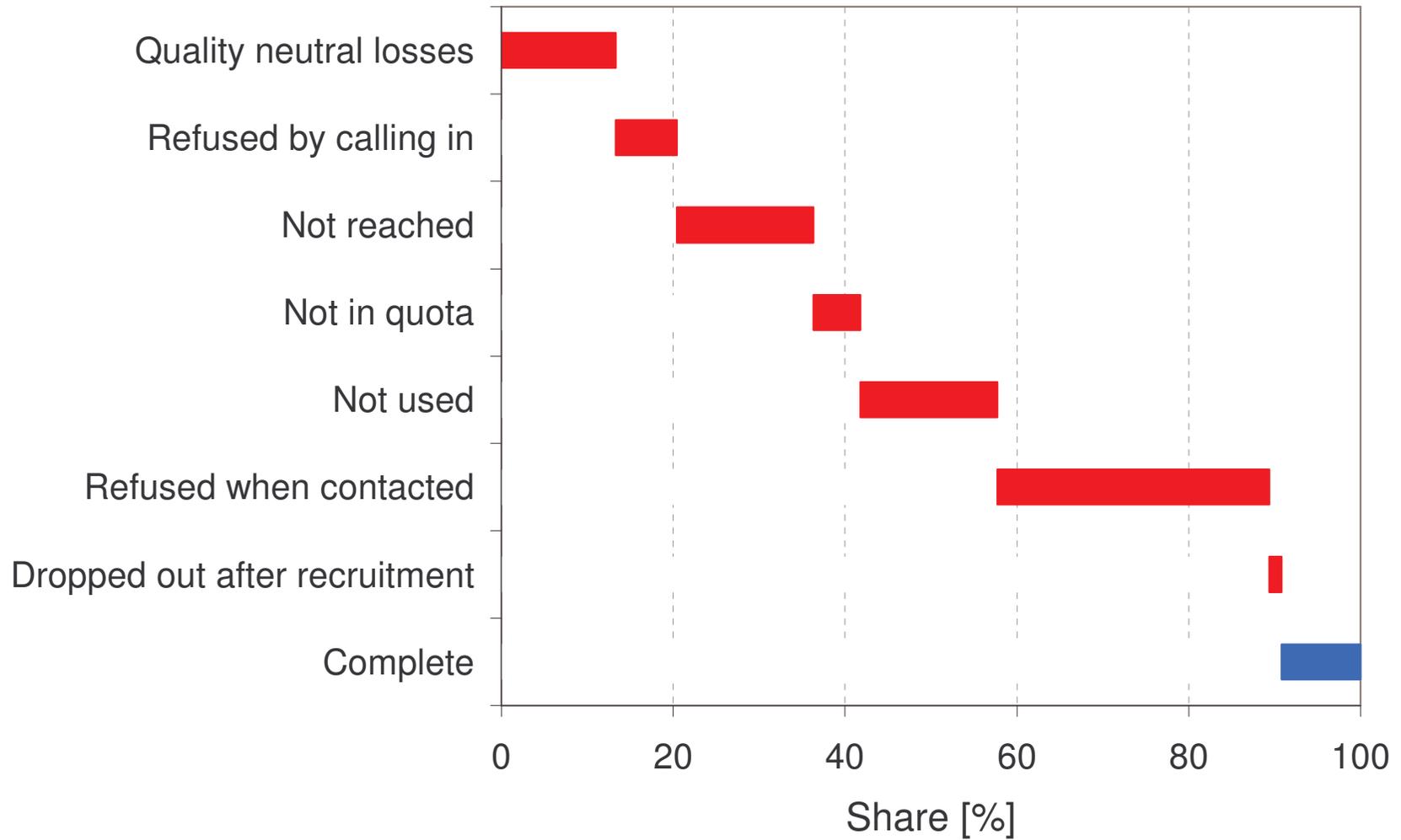
Elements:

- Announcement letter (ETH stationary)
- Recruitment call
- Face-to-face interview (about 60 minutes)
- 6 times:
 - weekly forms sent to be received Saturdays
 - Return of the forms by the respondents
 - If necessary, call backs to check problems and addresses
- Payment of incentive

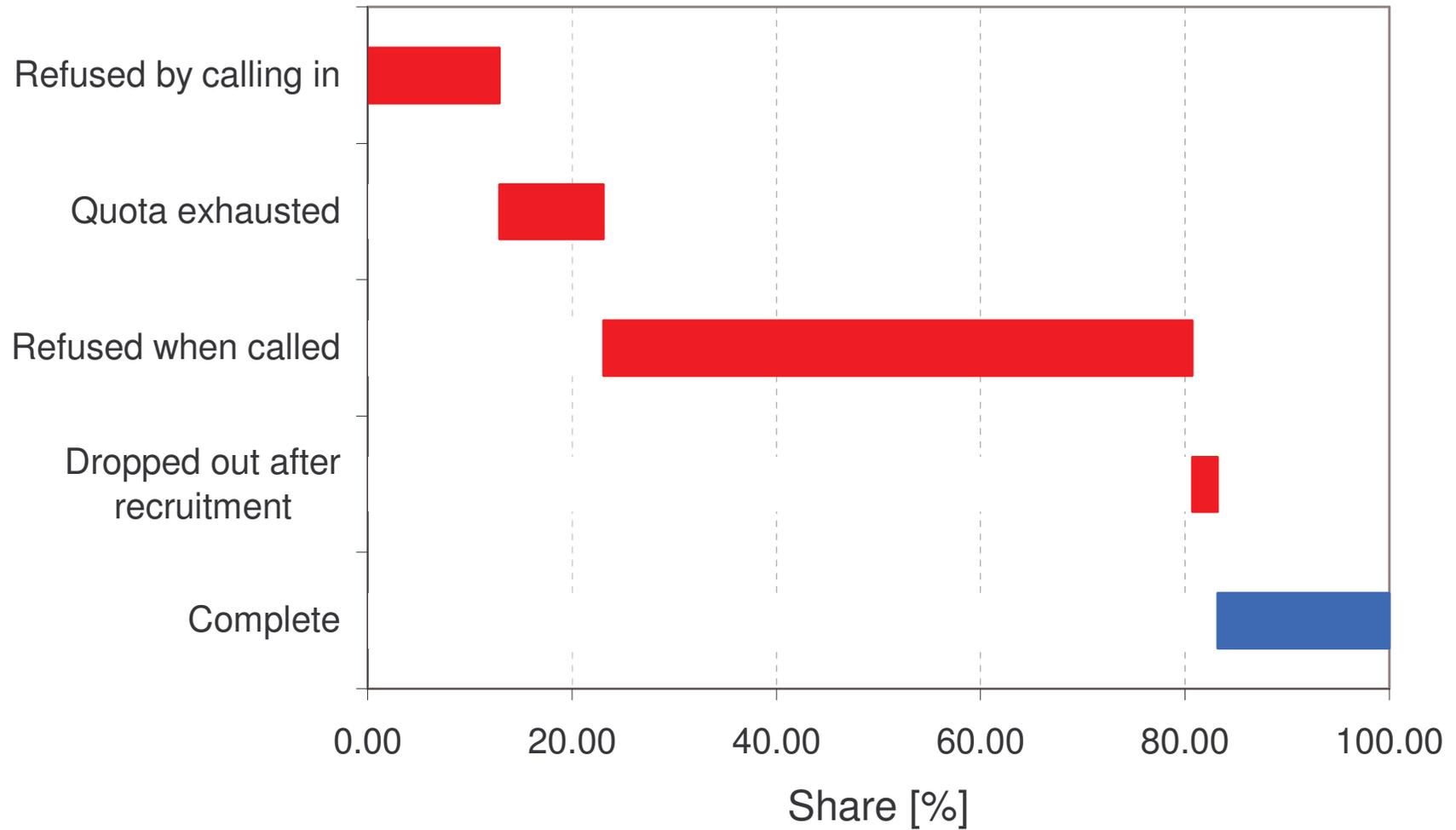
Quotas

Household type	Area		Total
	Frauenfeld	Seerücken	
Singles	18	15	33
Couples	19	16	35
Families	11	20	31
Total	48	51	99

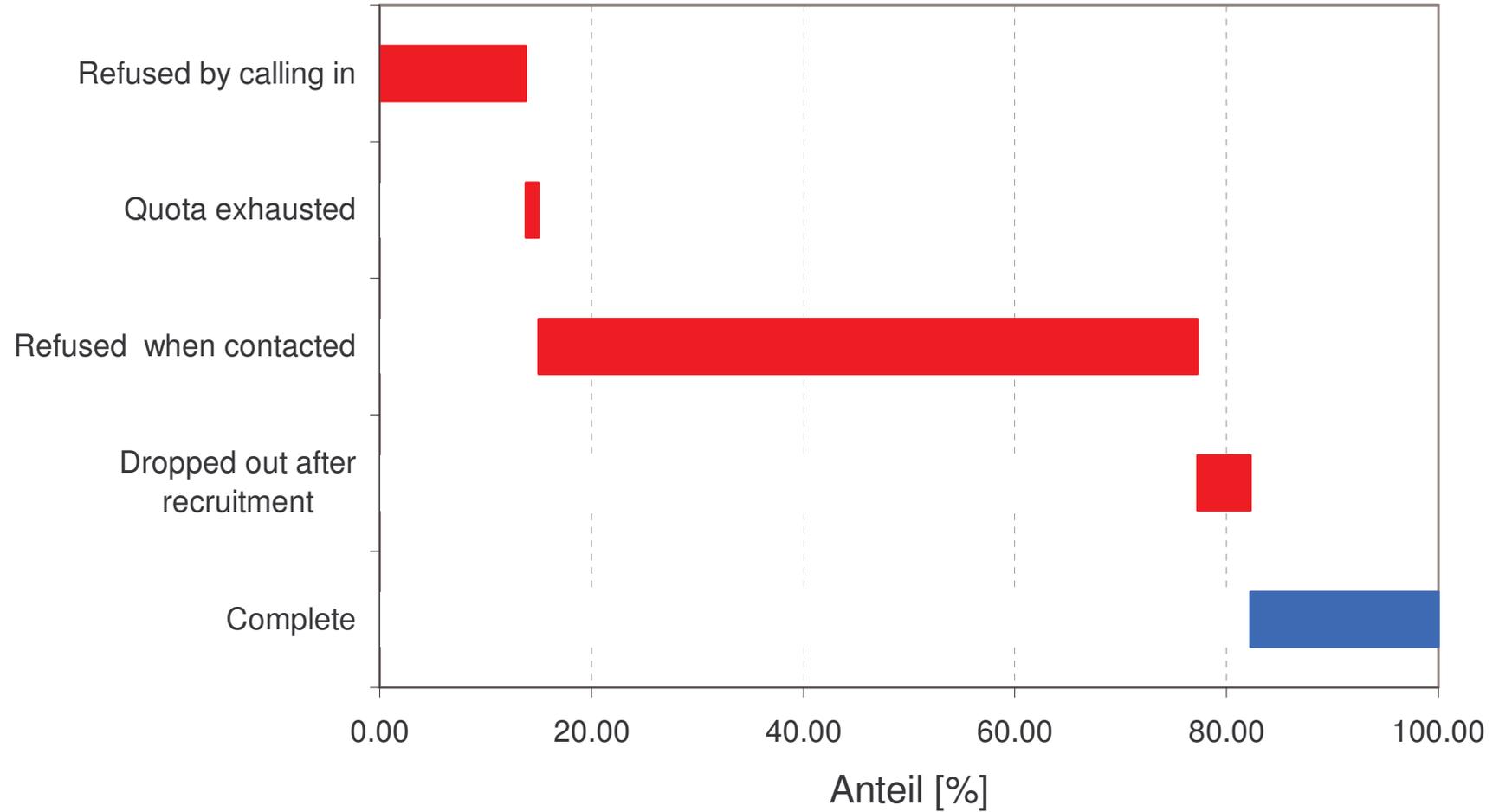
Recruitment experience (All addresses)



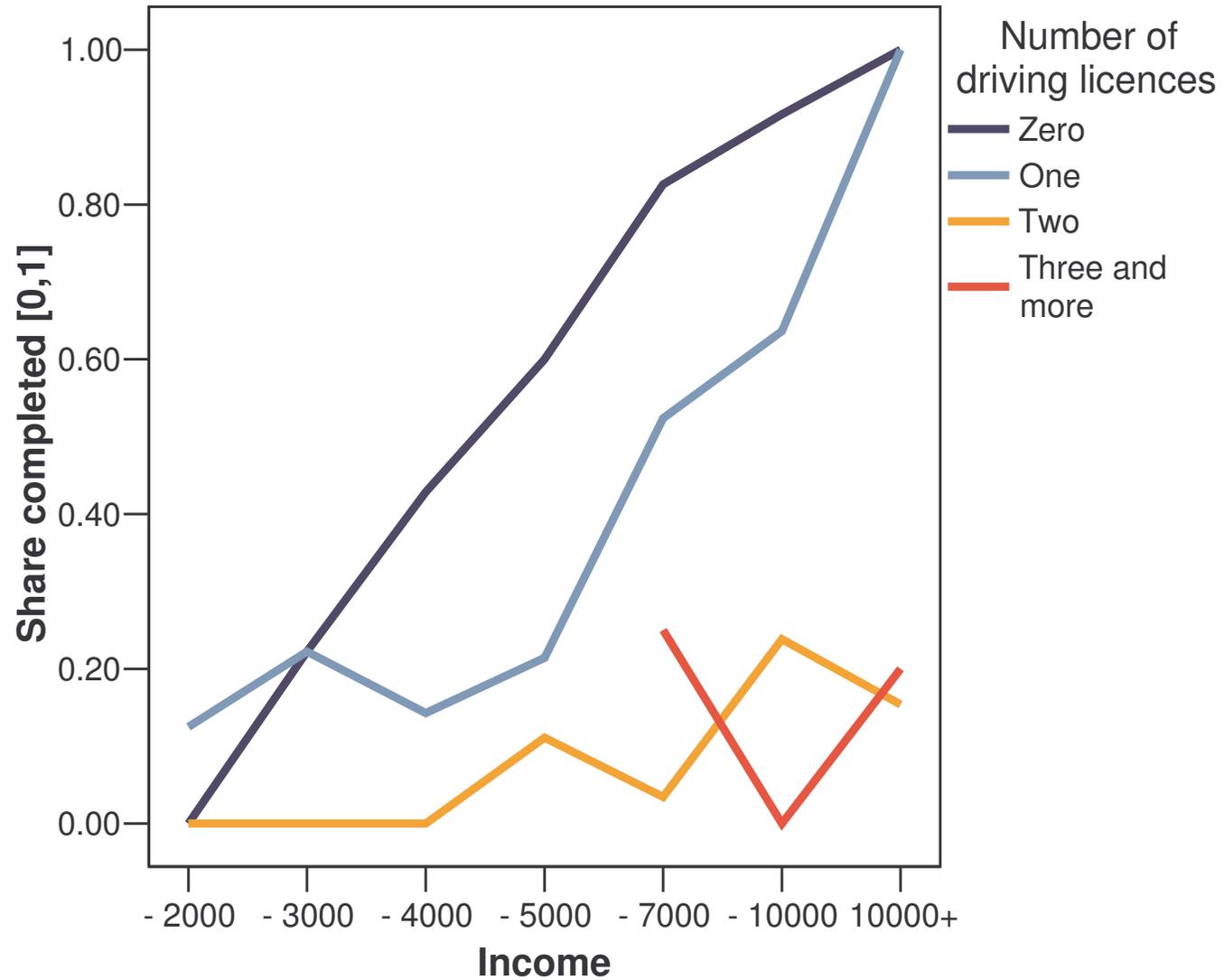
Recruitment experience (Base: those eligible)



Recruitment experience (Base: those eligible; Mobidrive)



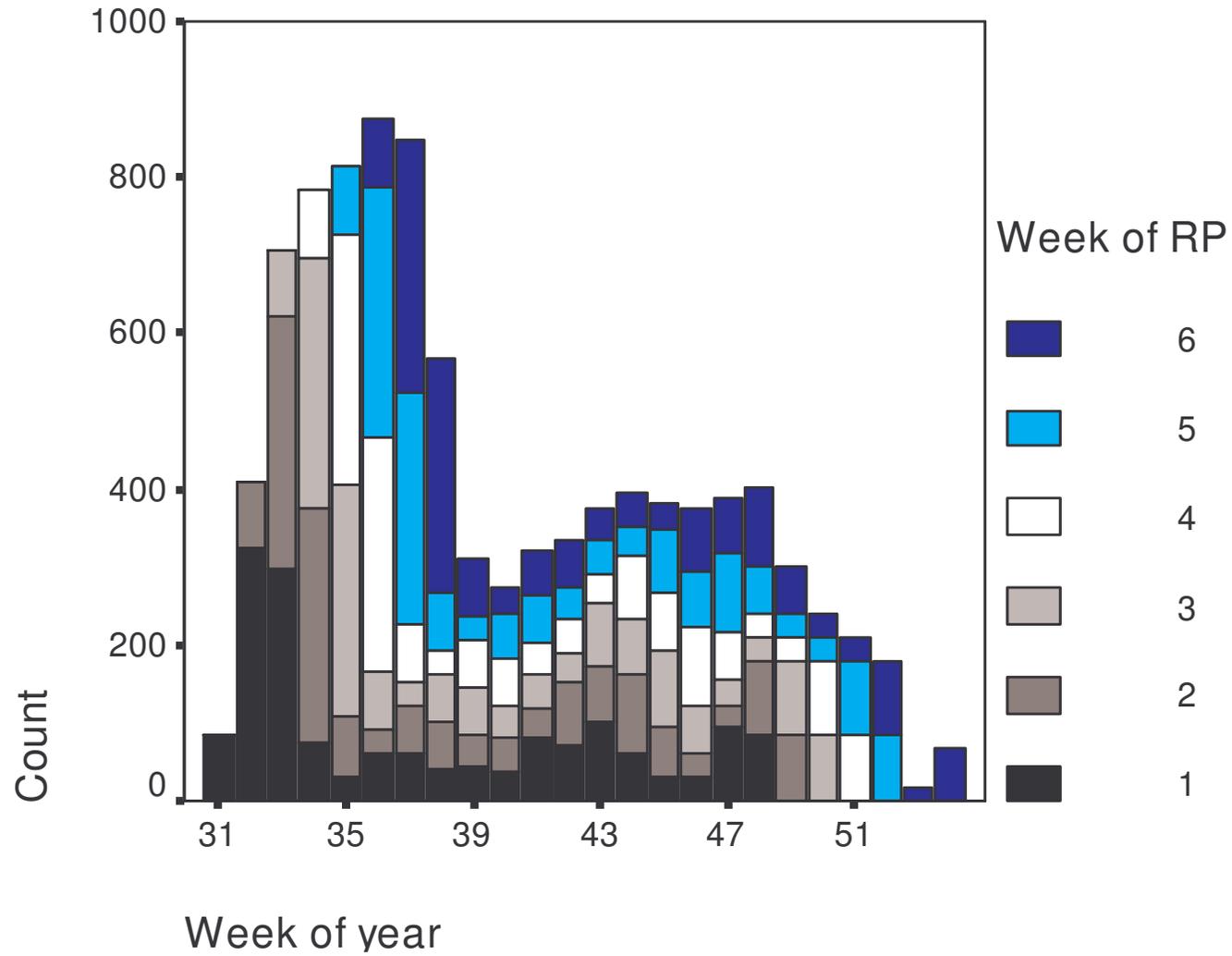
Selectivity (262 recruitment interviews)



Selectivity analysis: Logit model of participation

Household variable	Parameter	Significance level
Income [k SFr]	0.22	0.00
Number of season tickets	0.82	0.00
Number of driving licence holders	-1.99	0.00
Number of employed	1.20	0.00
Household size	-0.35	0.05
Constant	-1.57	0.00
N	262	
ρ^2	0.44	

Flow of returns



Units collected

- Households 99
- Persons 247 with six weeks

- Wege 36783
- Ausgänge/Reisen 13642

- Personentage 9960
(8385 mobile days in the region)

Form and new variables (1)

Mo	Di	Mi	Do	Fr	Sa	So	TAG
<input type="text"/>							ZEIT
Beginn (Uhrzeit)							
<input type="radio"/> Jmd. bringen/abholen							ZIEL UND ZWECK
<input type="radio"/> Erledigung/Dienstleistung							
<input type="radio"/> Dienstlich/geschäftlich							
<input type="radio"/> Zur Schule/Ausbildung							
<input type="radio"/> Zur Arbeit							
<input type="radio"/> Einkauf							
<input type="radio"/> <input type="radio"/> täglicher Bedarf							
<input type="radio"/> <input type="radio"/> langfristiger Bedarf							
<input type="radio"/> Freizeit, und zwar							
<input type="text"/>							
<input type="radio"/> Sonstiges, und zwar							
<input type="text"/>							
<input type="radio"/> Nach Hause							

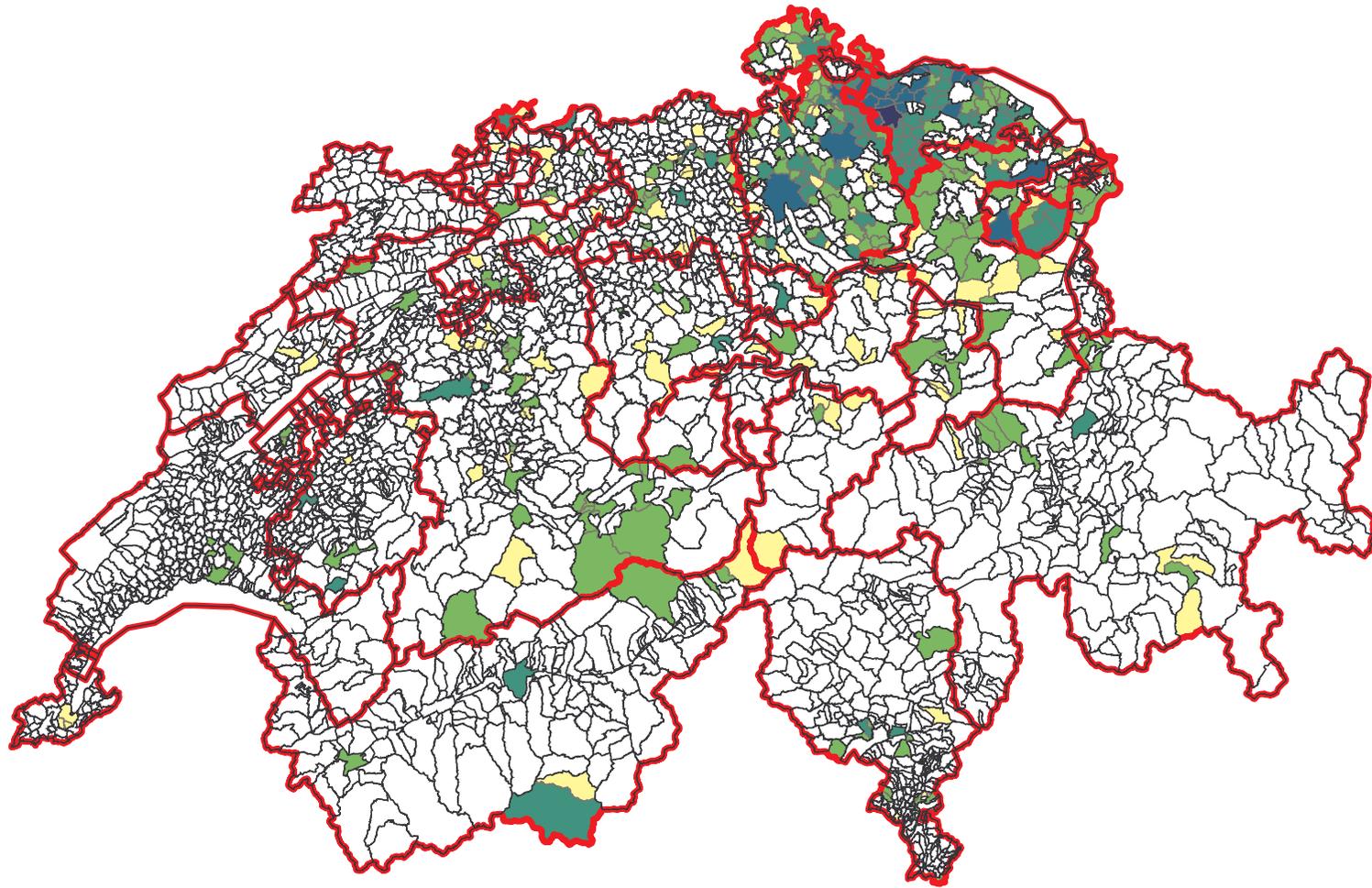
Form and new variables (2)

		h	min
<input type="radio"/>	Zu Fuss	<input type="text"/>	<input type="text"/>
<input type="radio"/>	Fahrrad	<input type="text"/>	<input type="text"/>
<input type="radio"/>	Mofa, Motorrad	<input type="text"/>	<input type="text"/>
<input type="radio"/>	Pkw als Fahrer	<input type="text"/>	<input type="text"/>
<input type="radio"/>	Pkw als Mitfahrer	<input type="text"/>	<input type="text"/>
<input type="radio"/>	Bus, Tram, Car	<input type="text"/>	<input type="text"/>
<input type="radio"/>	Eisenbahn	<input type="text"/>	<input type="text"/>
<input type="radio"/>	Andere	<input type="text"/>	<input type="text"/>
Distanz Fussweg von Haltestelle/Parkplatz zum Ziel			
<input type="text"/>			
Meter			
Strasse und Hausnummer			
PLZ und Ort			

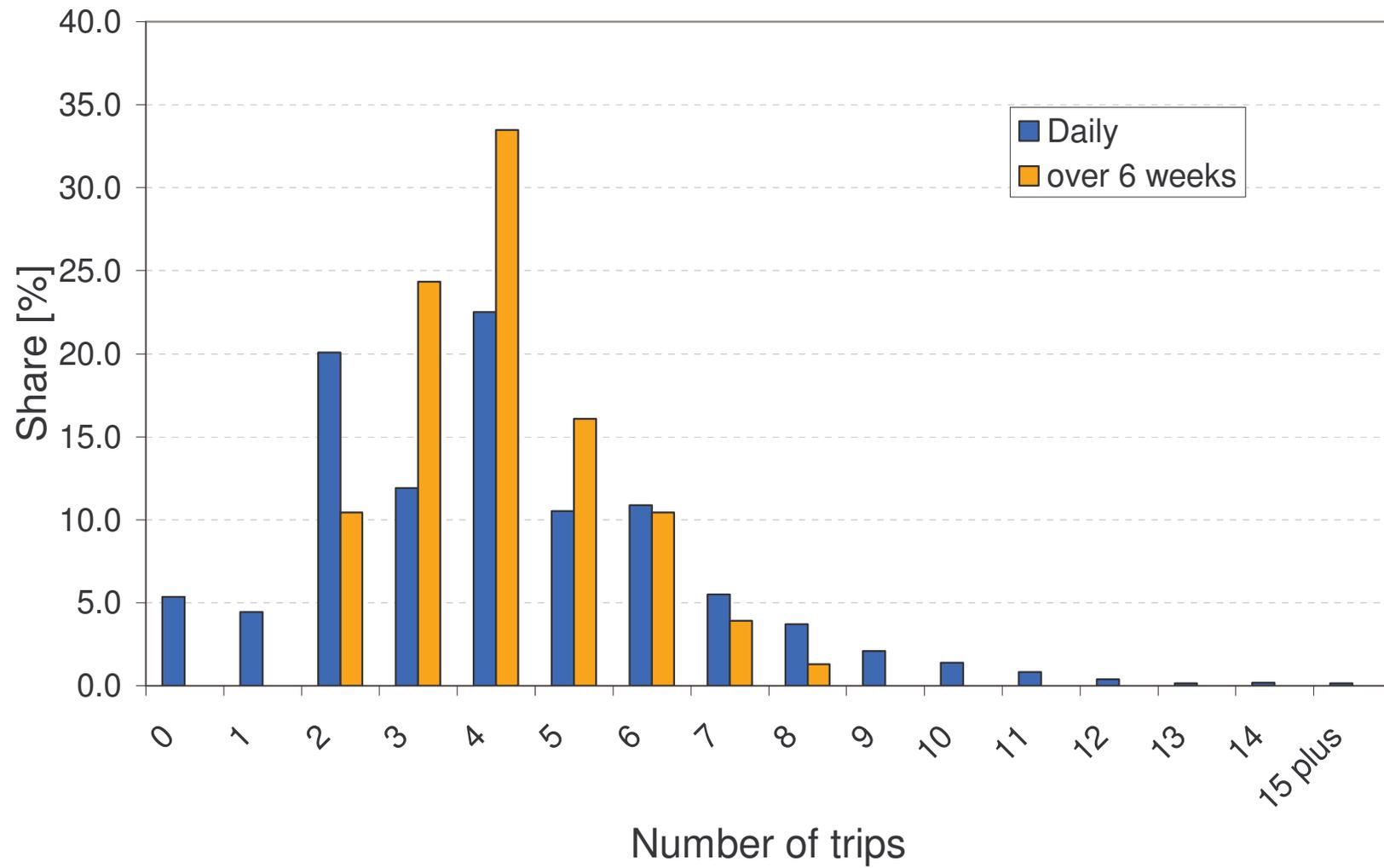
VERKEHRSMITTEL

ZIEL

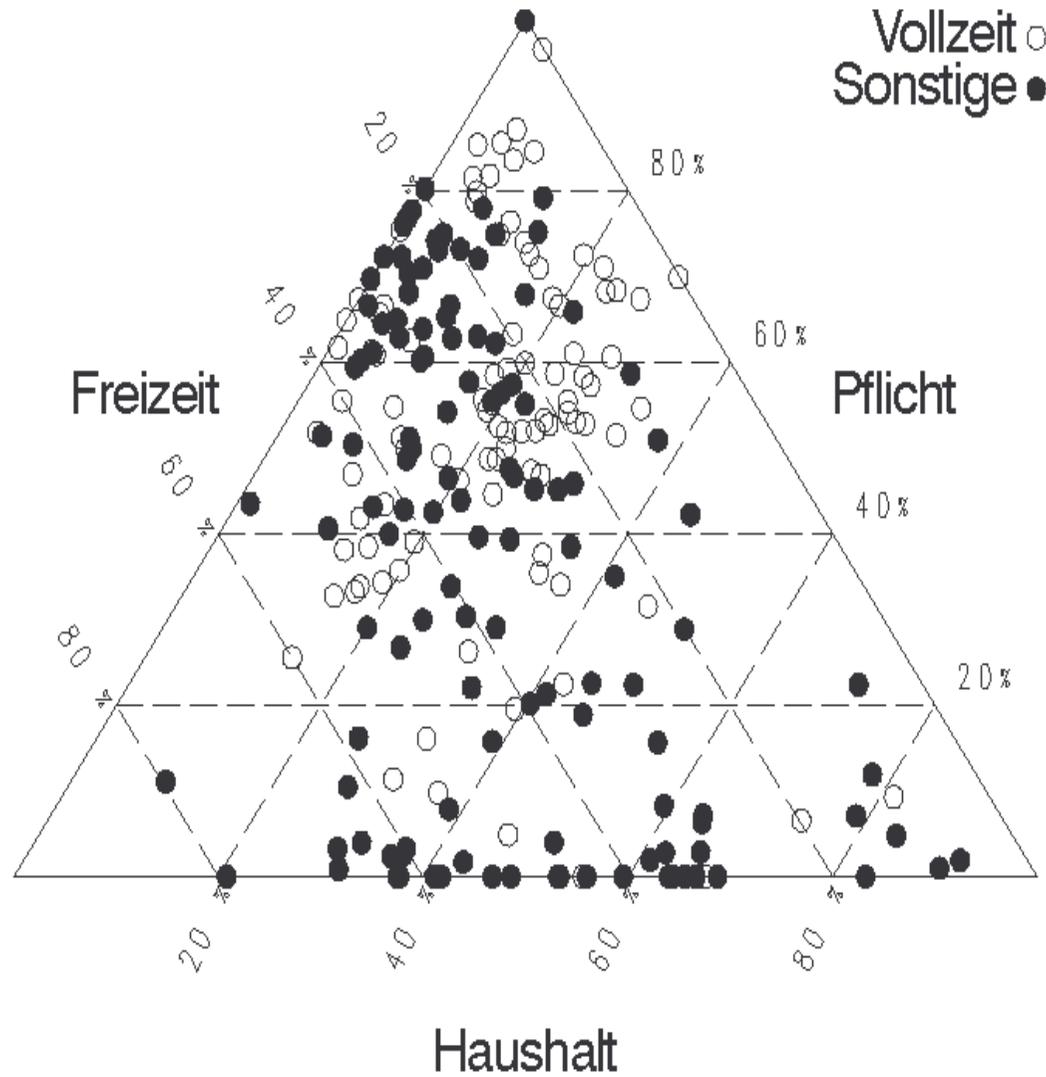
Geocoding



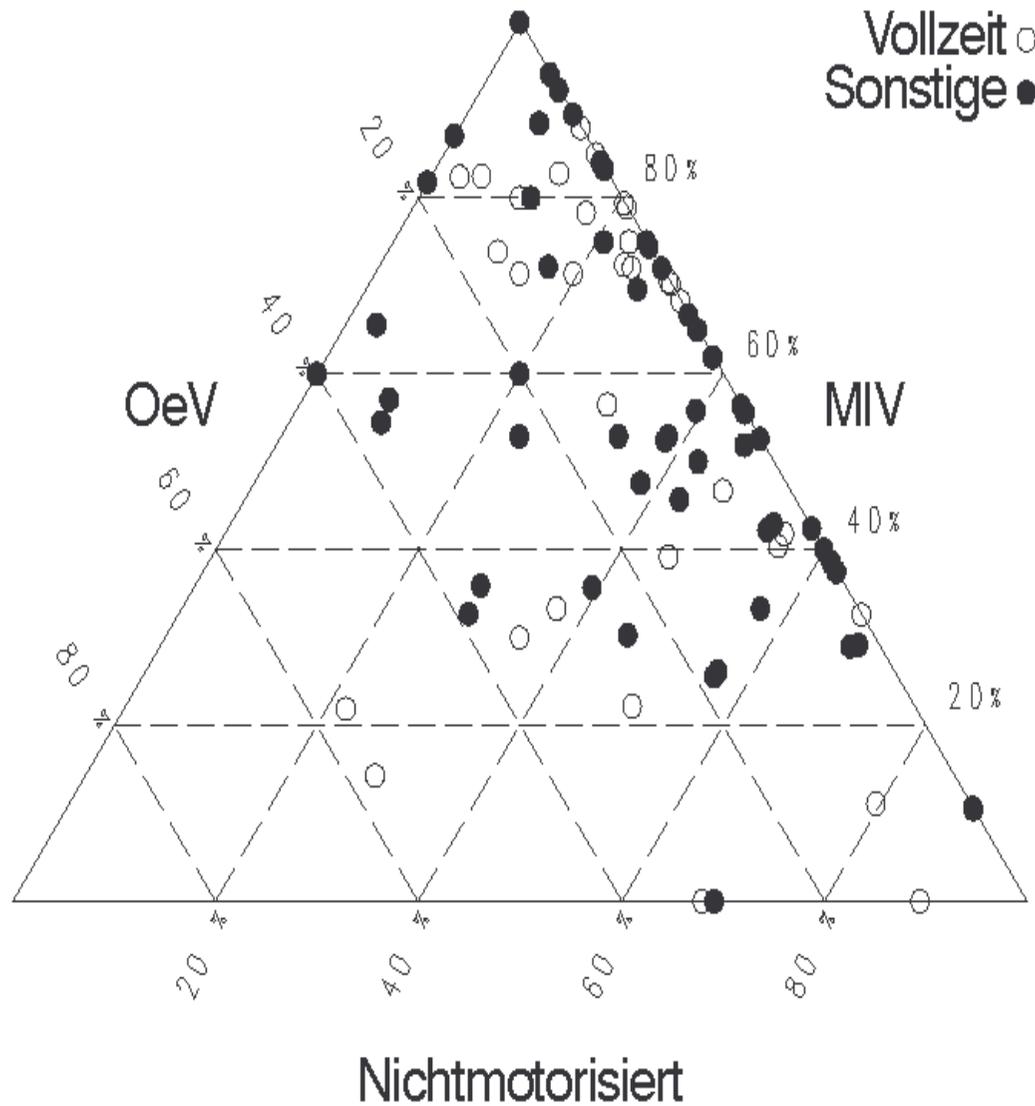
Distribution of number of trips



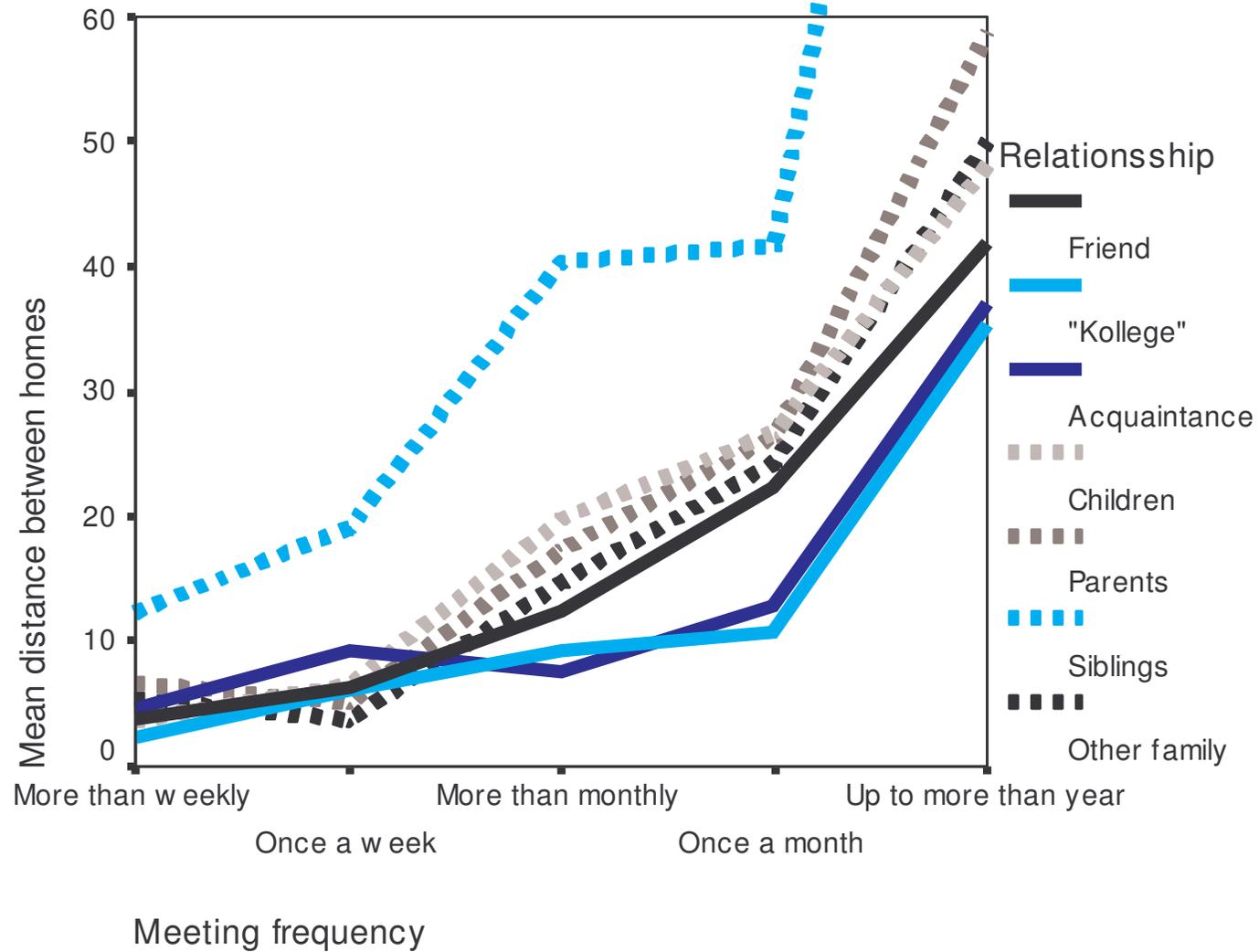
Share of trips by purpose (weekdays)



Share of trips by mode (weekdays)



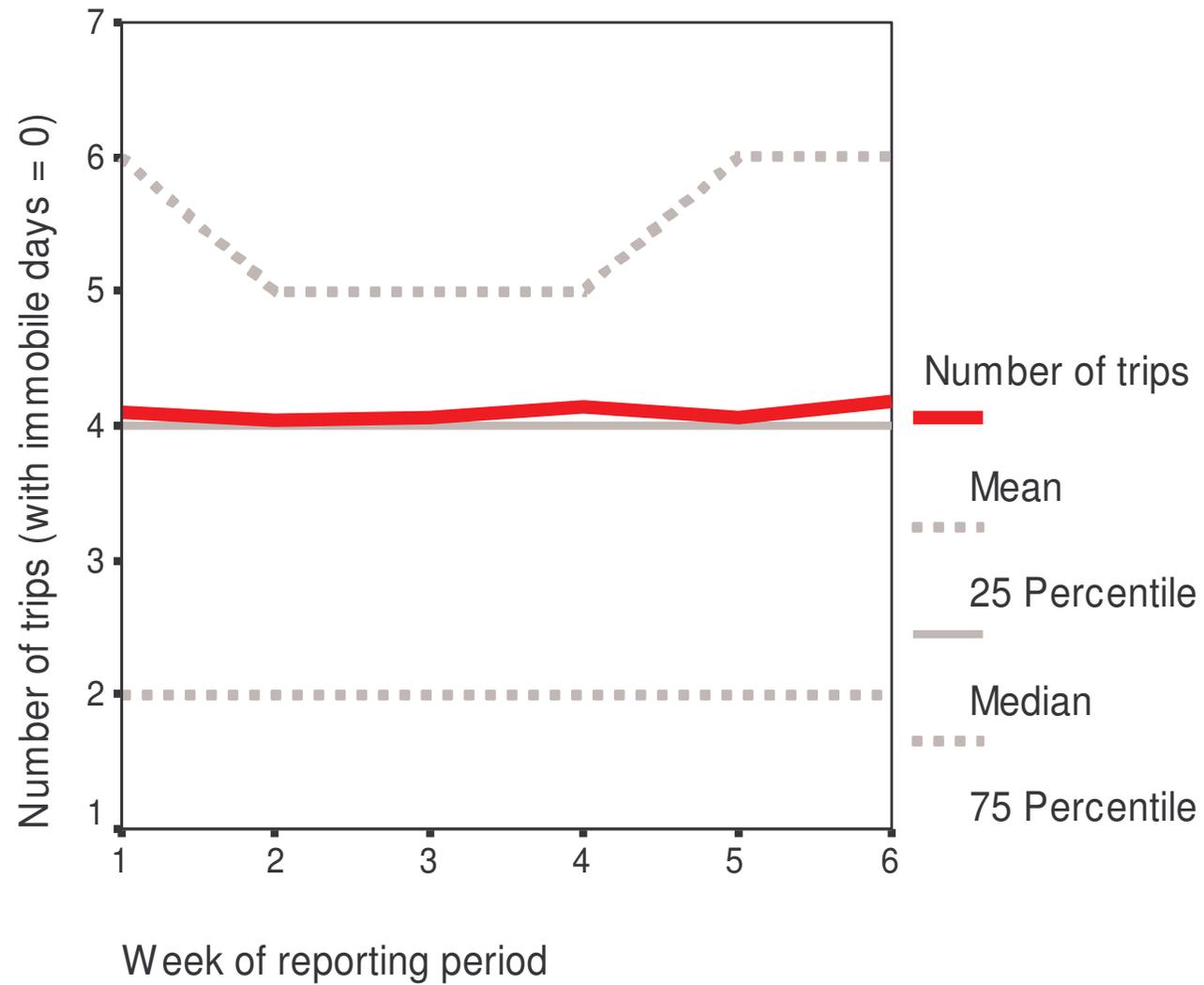
Vicinity of family and friends



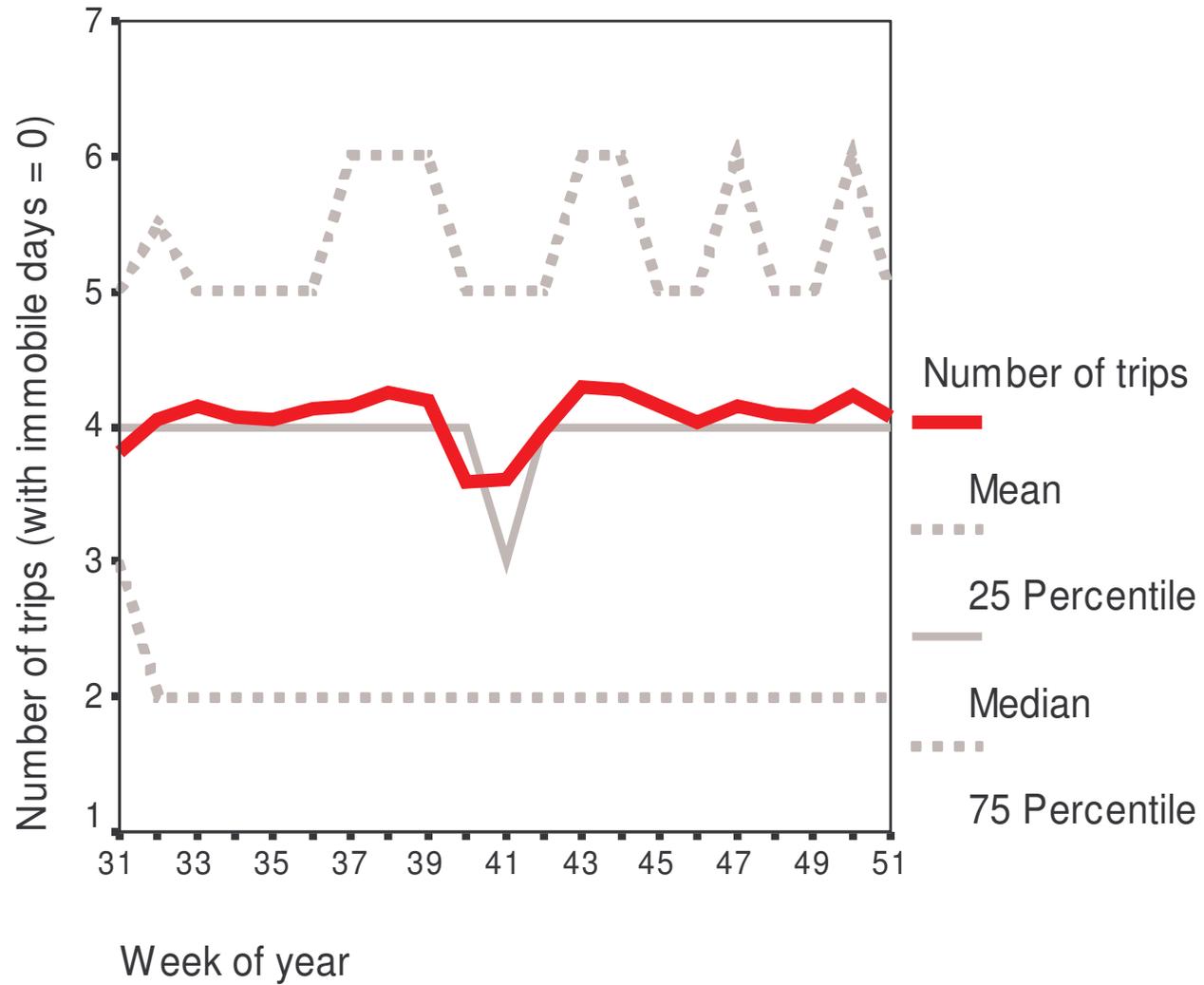
Planning and innovation

Frequency of visit to this location	When planned				Share of trips
	One or more days in advance	During the day	Just now	Routine/Return home	
Never before	60.8%	16.7%	22.5%	.	4.1%
1-3 times	53.2%	23.0%	23.8%	.	6.4%
More often	14.3%	8.6%	9.7%	67.5%	89.5%
Share of trips	18.7%	9.8%	11.1%	60.4%	100%

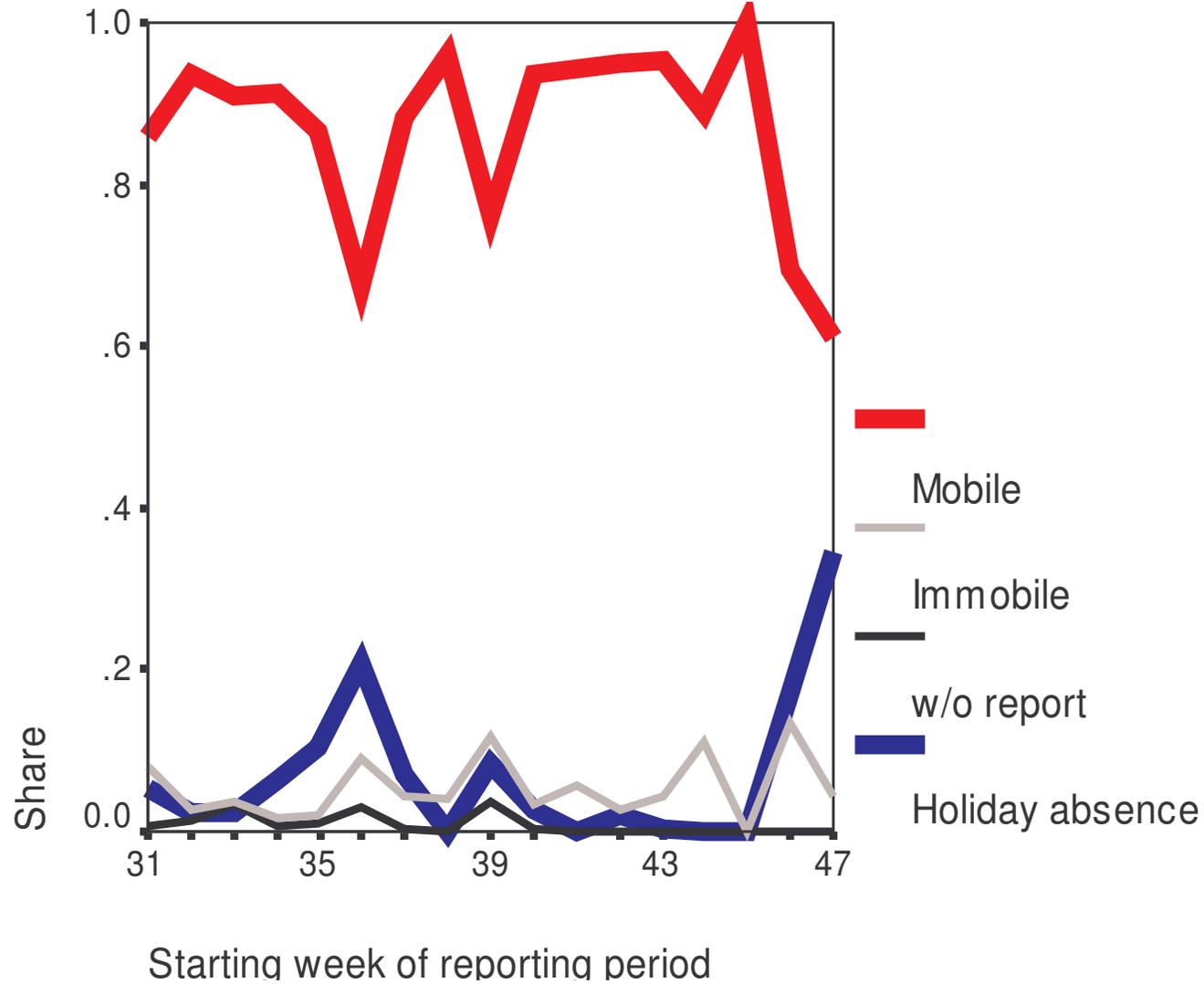
Mean trip rate by week of reporting period



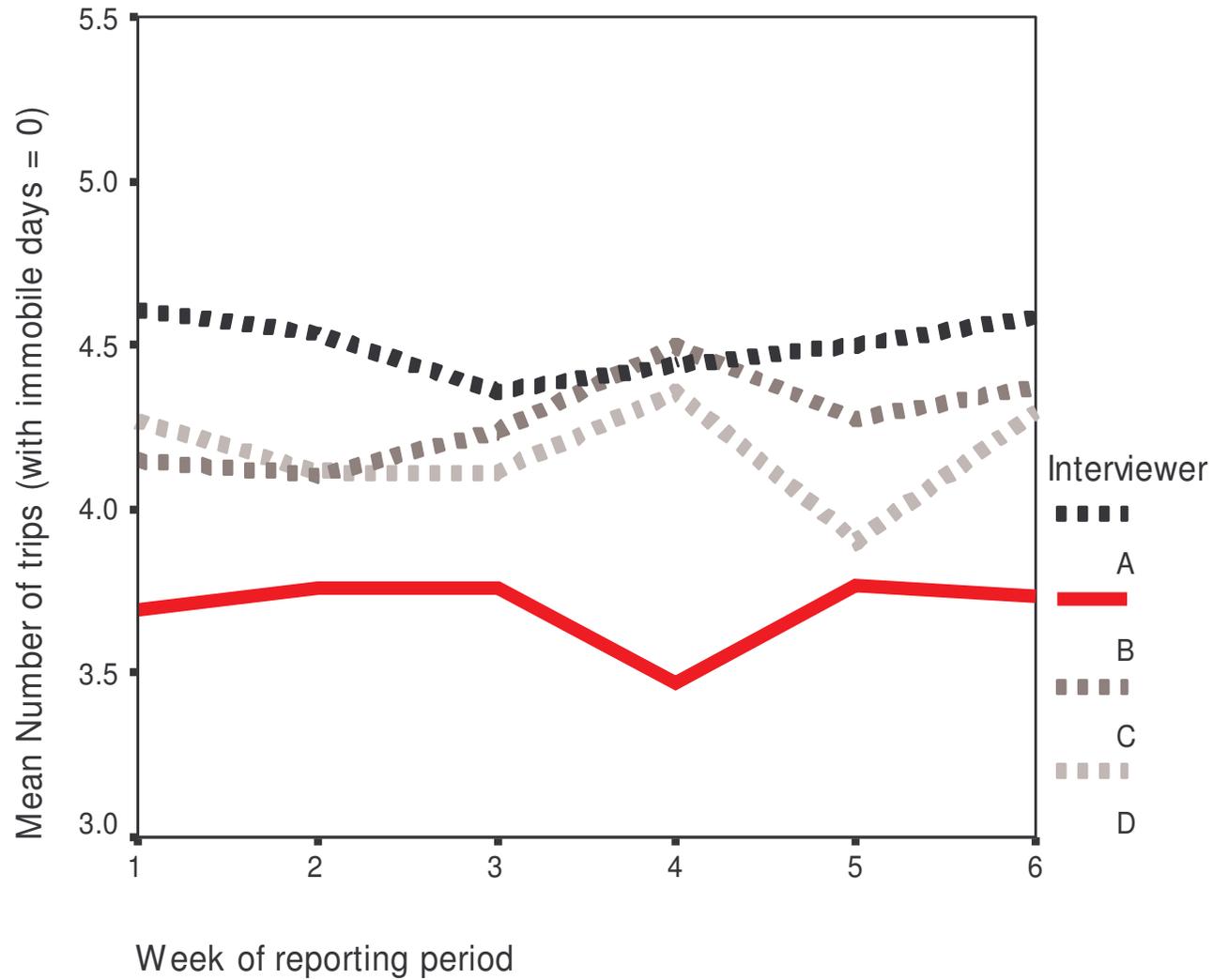
Mean trip rate by week of year



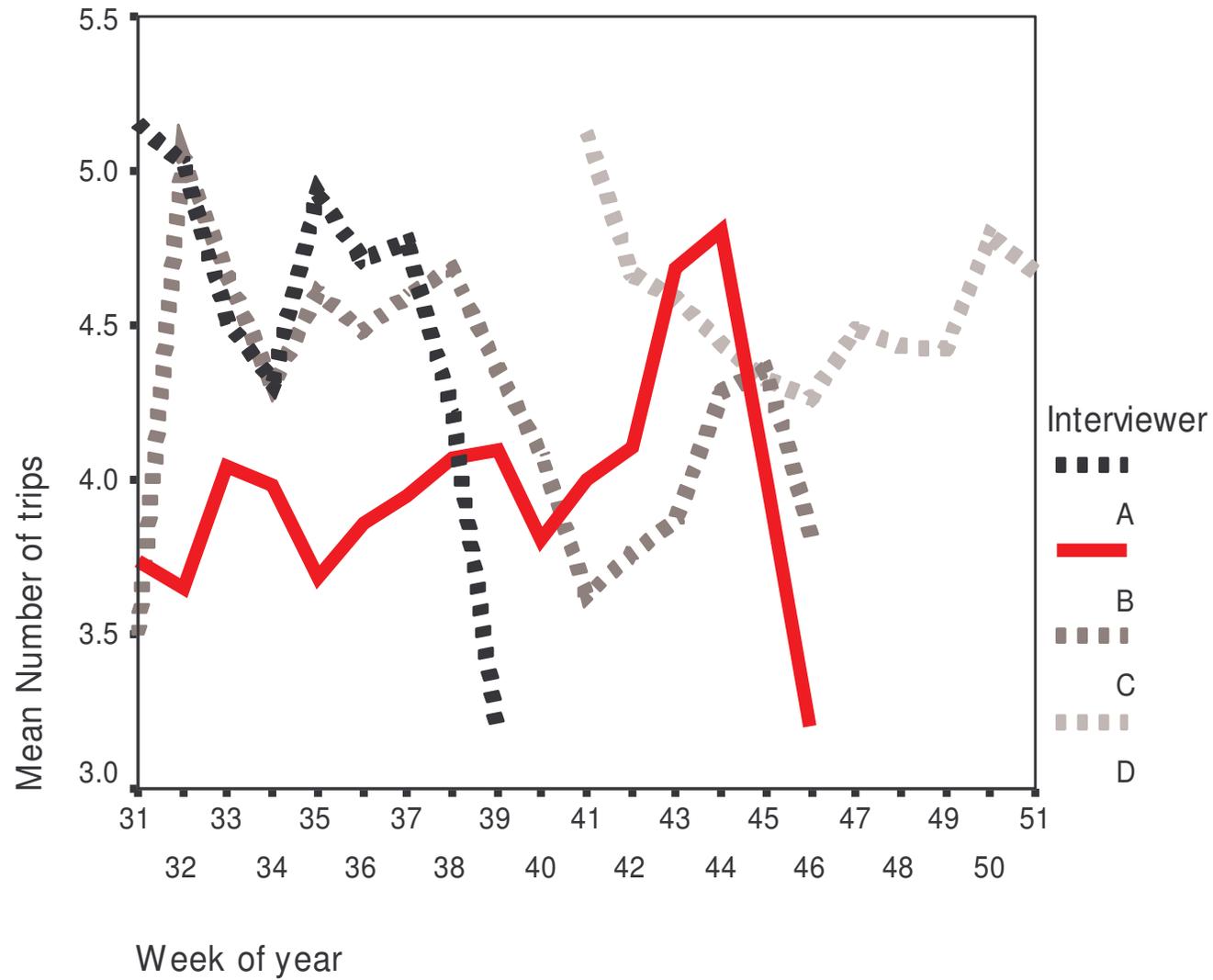
Mean trip rate by start of reporting period



Interviewer effect by week of reporting period



Interviewer effect by week of year



Fatigue: Assumptions

Fatigue due to:

- Loss of commitment
- Boredom

Learning due to:

- Feedback
- Improved relationship with interviewer

OLS results: hypothesis 1 (linear and ln terms)

Linear term	Logarithmic term			Total (N = 230)
	Negative	Not significant	Positive	
Negative		.9%	3.0%	3.9%
Not significant		90.0%		90.0%
Positive	4.3%	1.7%		6.1%
Total	4.3%	92.6%	3.0%	100.0%

Poisson results: hypothesis 1 (linear and ln terms)

Linear term	Logarithmic term			Total(N = 230)
	Negative	Not significant	Positive	
Negative		2.6%	2.6%	5.2%
Not significant	3.4%	81.1%	3.0%	87.6%
Positive	3.0%	3.4%	.9%	7.3%
Total	6.4%	87.1%	6.4%	100.0%

Conclusions

Plus:

- New, well coded datasets
- New insights into planning and innovation
- No fatigue

- Comparison with Mobidrive possible

Minus:

- Need for weighting