TimeUse+ Pretest

Data and variable description

Other Research Data

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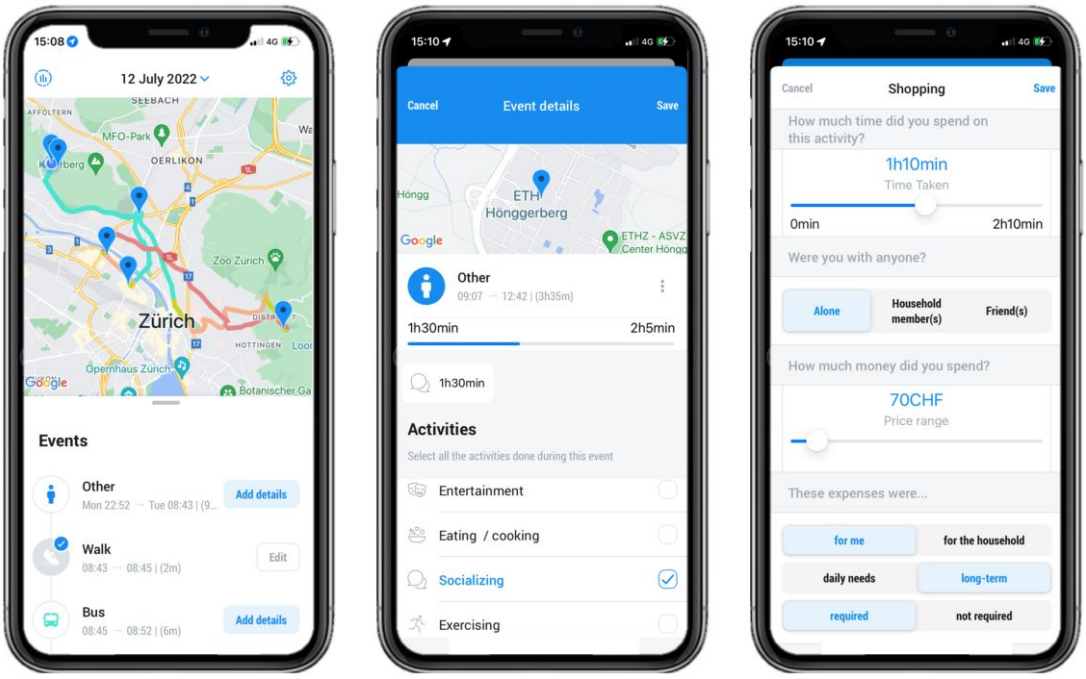

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Travel Survey Metadata Series 85 **January 2023**

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Abstract

The TimeUse+ study is an effort to collect data to understand daily patterns in travel, time use, and expenditure behavior. Study participation begins with an initial survey that collects personal and household level characteristics along with information on mobility tool ownership. Next, participants took part in either 14 or 28 days of tracking and validating, or annotating, their passively recorded events with all of the activities their performed at each location or during travel. For each activity, some or all of the following attributes had to be validated: duration, social partners, and expenditures. The TimeUse+ smartphone app was developed specifically for this project and the tracking portion relies on the software development kit from MotionTag (www.motiontag.com). After a successful tracking period, participants completed a final questionnaire that mainly collected long-term expenditure information. 7,500 individuals were invited to participated in this pretest between March and April 2022, and 205 successfully completed all three parts (i.e. net response rate around 2.7%).

Keywords

Codebook, list of variables, GPS data, time use and travel data, expenditure data

Suggested Citation

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Contents

Study description

Title

TimeUse+ Pretest

Creator

Caroline Winkler (IVT, ETH Zurich)

Subject

Codebook, list of variables, initial and final questionnaire data, tracking summary data, GPS tracking with diary information

Description

The TimeUse+ study is an effort to collect data to understand daily patterns in travel, time use, and expenditure behavior. Study participation begins with an initial survey that collects personal and household level characteristics along with information on mobility tool ownership. Next, participants took part in either 14 or 28 days of tracking and validating, or annotating, their passively recorded events with all of the activities their performed at each location or during travel. For each activity, some or all of the following attributes had to be validated: duration, social partners, and expenditures. The TimeUse+ smartphone app was developed specifically for this project and the tracking portion relies on the software development kit from MotionTag (www.motiontag.com). After a successful tracking period, participants completed a final questionnaire that mainly collected long-term expenditure information. 7,500 individuals were invited to participated in this pretest during March and April 2022, and 205 successfully completed all three parts (i.e. net response rate around 2.7%).

This pretest aimed to test different configurations of the TimeUse+ study. To that end, 1) study duration, 2) activity list complexity, and 3) incentive level were tested. The five groups tested had the following characteristics (1,500 invitations sent per group):

1. 28 days tracking & validating /detailed activity list /50 CHF incentive
2. 28 days tracking & validating /simple activity list /50 CHF incentive
3. 14 days tracking & validating /detailed activity list /50 CHF incentive
4. 14 days tracking & validating /simple activity list /50 CHF incentive
5. 28 days tracking & validating /detailed activity list /100 CHF incentive

With respect to the detailed vs. simple activity lists, simple lists of activities are a shorter, aggregated version of the detailed versions.

Table 1: Full list of activities

	Simple	**Detailed**
Home	Sleeping	Sleeping
	Self-care	Self-care, Resting
	Eating and cooking	Eating and cooking
	Chores	General household work, caretaking
	Leisure	Exercising, Socializing, Entertainment
	Digital entertainment	Digital entertainment
	Working or studying	Home-office, Studying
	Online Shopping	Online shopping
		Other
Other	Shopping	Shopping
	Leisure	Gastronomy, Entertainment, Socializing, Exercising
	Eating and drinking	Eating and cooking (without expenses)
	Waiting	Waiting
	Errands	Errands, Caretaking, Person pick up/drop off, Package pick up/drop off
	Working or studying	Coworking, Studying
	Overnight stay	Sleeping, Resting, Self-care
		Other
Work	Working	Working
	Other	Other

Group affiliation is included in the participants_tracking_summary.EXT files.

Publisher

Institute for Transport Planning and Systems (IVT), ETH Zurich

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Date

2023-01-30

Type

Codebook, surveydata

Format

Portable document format (pdf), R data (.Rda), comma-separated (.csv)

Source

`https://www.ivt.ethz.ch/`
`https://www.timeuse.ethz.ch/`

Language

Codebook contents are described in English.

Questionnaires were available in English and German; the app (tracking data) in English, German, French, and Italian. The p_language variable in the participant.EXT files indicates which language the initial questionnaire was filled out in.

Relation

`https://www.ivt.ethz.ch/`
`https://www.timeuse.ethz.ch/`

Coverage

German speaking part of Switzerland, 2022. Adults only.

Rights

Other identifications, funding and acknowledgements

The project was financed by the Swiss National Science Foundation (SNF).

Unit of analysis

Adult respondents from the German speaking part of Switzerland

Document responsibility

Caroline Winkler

Email: caroline.winkler at ivt.baug.ethz.ch

Participants: File description

Title: participants.rda, participants.csv

Contents: Data from the initial and final questionnaires, 106 variables from 205 participants.

Data collection: Merged from both Qualtrics questionnaires

Unit of analysis: Individual data. Each row corresponds to a unique respondent. Household-level characteristics are prefixed by hh_.

File Structure: Data frame, with participant_id uniquely identifying each row. Columns 4 - 60 stem from the initial questionnaire (before tracking period), while columns 61 - 106 are from the final questionnaire.

Number of cases: 205. Variables per record: 106.

Participants: Variables

`participant_id`: Participant identification number

Format = numeric.

`survey_date_intro`: Recorded date introductory questionnaire

Format = POSIXct, POSIXt, numeric.

`survey_date_final`: Recorded date final questionnaire

Format = POSIXct, POSIXt, numeric.

`distribution_channel`: Whether participant used the QR code for the initial online questionnaire

Format = character.

	qr	anonymous
Count	172	33

`p_language`: Initial questionnaire language

Format = character.

	DE	EN
Count	194	11

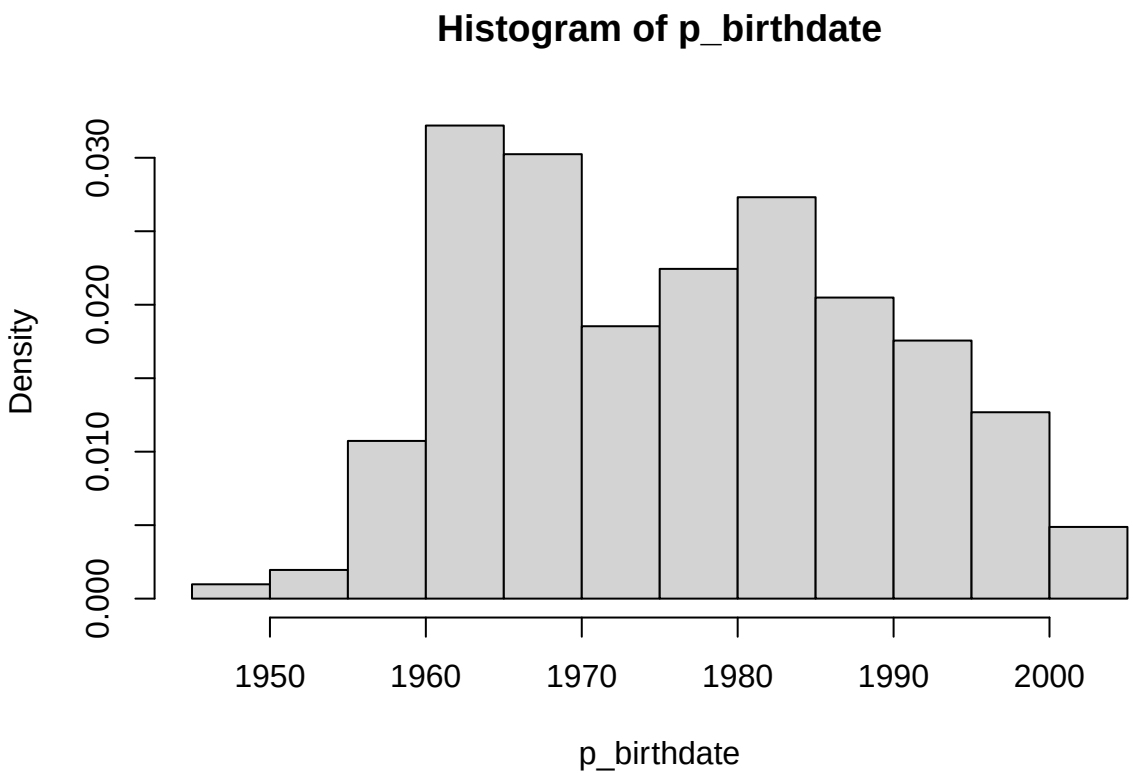
`p_sex`: Sex

Format = character.

	female	male
Count	101	104

`p_birthdate`: Birth year

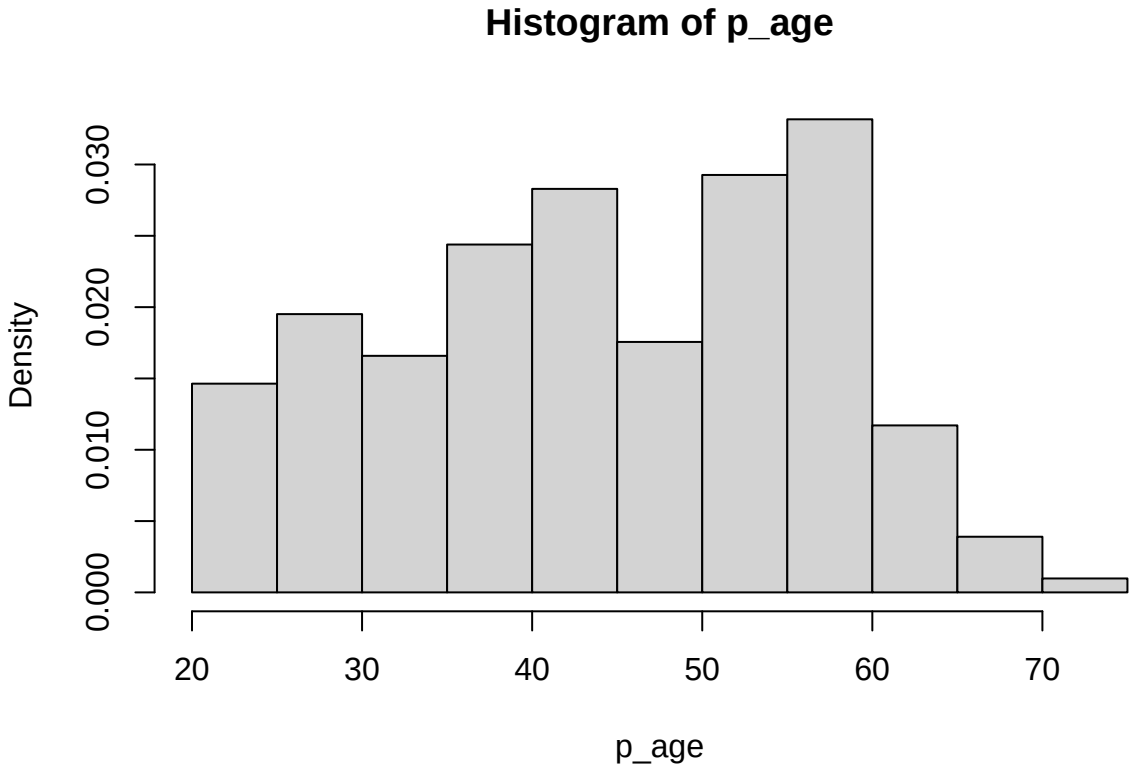
Format = numeric.



`p_age`: Age at time of study (2022)

Format = numeric.

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
20	35	45	44.82	55	74



`p_age_group`: Age group (2022)

Format = character.

	18 - 40	41 - 55	56 - 65	66 +
Count	77	77	46	5

`p_citizenship_swiss`: Whether the participant is a Swiss citizen

Format = character.

	Switzerland	Other
Count	192	13

`p_citizenship_2`: Country of citizenship (non-Swiss)

Format = character.

	Switzerland	Germany	France	Portugal	Italy	Colombia
Count	12	3	1	1	2	1

	Austria	Serbia	Spain	NA's
Count	1	1	1	182

`p_citizenship_3`: First country of dual (or multiple) citizenship (non-Swiss)

Format = character.

	Germany	NA's
Count	1	204

`p_citizenship_4`: Second country of dual (or multiple) citizenship

Format = character.

	Germany	Austria	Finland	Bosnia and Herzegovina	Turkey
Count	3	1	1	1	1

	Serbia	Italy	Brazil	United Kingdom of Great Britain and Northern Ireland	NA's
Count	1	4	1	1	191

`p_educ`: Participant's highest completed level of education

Format = character.

	Secondary education (e.g., apprenticeship or diploma)	Higher education (e.g., university)
Count	119	80

	Mandatory education
Count	6

`p_occup_1_employed`: Normal employment

Format = character.

	employed	NA's
Count	168	37

`p_occup_1_selfemployed`: Self-employment

Format = character.

	self-employed	NA's
Count	11	194

`p_occup_1_student`: Student/trainee

Format = character.

	student	NA's
Count	18	187

`p_occup_1_other`: Other occupational status

Format = character.

	other	NA's
Count	16	189

`p_occup_employed`: Employment vs. self-employment

Format = character.

	employed	self-employed	NA's
Count	168	6	31

`p_occup_workload`: Percent of full time employment

Format = numeric.

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
15	80	100	83.35	100	100	30

`p_occup_loc_regularity`: Whether main work location changes regularly

Format = character.

	No, I have a fixed workplace	Yes, weekly or more often
Count	149	15

	Yes, monthly	NA's
Count	1	40

`p_occup_plz`: Postcode of main place of employment

Format = numeric.

`p_occup_plz_otherloc`: Postcode of the second most frequented place of employment

Format = numeric.

`p_occup_shift`: Whether participant works in shifts

Format = character.

	Yes	No	NA's
Count	21	154	30

`p_occup_shorttimework`: Whether participant is in short time work

Format = character.

	No	Yes	NA's
Count	173	2	30

`p_occup_n_days`: Number of days per week that the participant works at their usual workplace away from home

Format = numeric.

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
0	2	3	3.257	5	7	30

`p_occup_wfh_possibility`: Whether participant is allowed to work from home

Format = character.

	No, never did	Yes	No, but I worked from home during COVID-19 related lockdowns	NA's
Count	67	87	21	30

`p_occup_wfh_n_days`: Number of days per week that the participant works from home

Format = numeric.

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
0	1	1	2.092	3	7	118

`p_occup_wfh_n_days_covid`: Number of days per week that the participant worked from home in the average week during COVID-19 related lockdowns

Format = numeric.

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
0	1	4	3.241	5	7	97

`p_ptmobtool_ga1cl`: Whether the participant owns a 1st class national (unlimited) railway pass

Format = character.

	ga1cl	NA's
Count	3	202

`p_ptmobtool_ga2cl`: Whether the participant owns a 2nd class national (unlimited) railway pass

Format = character.

	ga2cl	NA's
Count	27	178

`p_ptmobtool_ht`: Whether the participant owns a half-fare card (Halbtax)

Format = character.

	ht	NA's
Count	126	79

`p_ptmobtool_regional_or_point_to_point`: Whether the participant owns a regional or 'point-to-point' public transport pass

Format = character.

	regional_point2point	NA's
Count	30	175

`p_ptmobtool_seven25`: Whether the participant owns a seven25 (Gleis 7) pass

Format = character.

	seven25	NA's
Count	1	204

`p_ptmobtool_other`: Whether the participant owns another public transport pass

Format = character.

	other	NA's
Count	3	202

`p_driverslicense`: Whether the participant owns a driver's license for cars

Format = character.

	Yes	No
Count	196	9

`p_motolicense`: Whether the participant owns a driver's license for motorbikes

Format = character.

	No	Yes
Count	118	87

`p_carsharing_subscription`: Whether the participant has a carsharing subscription

Format = character.

	No	Yes	NA's
Count	172	24	9

`p_carsharing_user`: Whether the participant has used the carsharing service they have a subscription for in the past 12 months

Format = character.

	Yes	No	NA's
Count	13	11	181

`p_bikesharing_subscription`: Whether the participant has a bikesharing subscription

Format = character.

	No	Yes
Count	202	3

`p_bikesharing_user`: Whether the participant has used the bikesharing service they have a subscription for in the past 12 months

Format = character.

	No	Yes	NA's
Count	1	2	202

`p_car_access`: How often the participant has access to a car

Format = character.

	No, but I can arrange to borrow one from someone (e.g., my partner, friend, neighbor)	Yes	No	NA's
Count	22	152	22	9

`p_motorbike_access`: How often the participant has access to a car

Format = character.

	No	Yes	No, but I can arrange to borrow one from someone (e.g., my partner, friend, neighbor)	NA's
Count	57	27	3	118

`p_bike_access`: How often the participant has access to a car

Format = character.

	No	Yes	No, but I can arrange to borrow one from someone (e.g., my partner, friend, neighbor)
Count	28	173	4

`hh_privatemobtool_bike_regular`: Whether the participant owns a normal bicycle

Format = character.

	bike-regular	NA's
Count	141	64

`hh_privatemobtool_bike_e25`: Whether the participant owns an e-bike with 25 km/h max. speed

Format = character.

	bike-e25	NA's
Count	42	163

`hh_privatemobtool_bike_e45`: Whether the participant owns an e-bike with 45 km/h max. speed

Format = character.

	bike-e45	NA's
Count	8	197

`car_fuel`: Fuel type of main car

Format = character.

`car_year`: Year of main car

Format = character.

`car_size`: Size of main car

Format = character.

`car_engine`: Engine size of main car

Format = logical.

`parking_spaces`: Number of owned or rented parking spaces at home

Format = character.

	1	2	more than 3	3	None	NA's
Count	69	49	19	12	3	53

`parking_spaces_cost`: Monthly cost of parking spaces at home

Format = character.

	up to 100 CHF	0 CHF	101 - 200 CHF	301 - 400	201 - 300 CHF
Count	30	71	40	3	5

	NA's
Count	56

`parking_work`: Number of owner or rented parking spaces at work

Format = character.

	None	1	more than 3	3	2	NA's
Count	86	52	11	2	1	53

`parking_work_cost`: Monthly cost of parking spaces at work

Format = character.

	0 CHF	up to 100 CHF	101 - 200 CHF	NA's
Count	38	24	4	139

`hh_postcode`: Home postcode

Format = numeric.

`hh_income`: Gross household income per month (in CHF)

Format = character.

	4 001 - 8 000 CHF	More than 16 000 CHF	8 001 - 12 000 CHF
Count	69	13	58

	12 001 - 16 000 CHF	4 000 CHF or less	Prefer not to say	NA's
Count	30	20	14	1

`hh_dogs`: Whether household owns dogs

Format = character.

	No	Yes	NA's
Count	187	17	1

`hh_size_total`: Total household size

Format = character.

	2	4	5 or more	1	3	NA's
Count	67	44	16	43	34	1

`hh_young_kids`: Do any children aged 12 or younger live in the household?

Format = character.

	youngkids	NA's
Count	46	159

`living_movein`: Year moved into current residence

Format = numeric.

`living_situation`: Current residential situation (renter/owner)

Format = character.

	I live in a housing cooperative	I own my home and pay a mortgage	I rent my home
Count	50	109	43

	I own my home and have paid it off fully
Count	3

`living_rentcost`: Cost of monthly rent (renters)

Format = character.

	between 1,501 CHF and 2,000 CHF	between 1,000 CHF and 1,500 CHF
Count	29	26

	between 2,001 CHF and 2,500 CHF	up to 1,000 CHF
Count	18	6

	between 2,501 CHF and 3,000 CHF	I do not pay my rent
Count	4	5

	between 3,001 CHF and 3,500 CHF	more than 4,000 CHF	NA's
Count	3	2	112

`living_perc_rent`: Percentage of total rent participant personally pays for

Format = character.

	between 51 and 80%	100%	up to 49%	50%	0%
Count	7	35	12	24	13

	between 81 and 99%	NA's
Count	2	112

`living_mortgagecost`: Cost of monthly mortgage (owners)

Format = character.

	between 3,001 CHF and 3,500 CHF	between 1,001 CHF and 1,500 CHF
Count	3	29

	between 1,501 CHF and 2,000 CHF	between 2,001 CHF and 2,500 CHF
Count	13	7

	up to 1,000 CHF	I do not pay my rent
Count	51	3

	between 2,501 CHF and 3,000 CHF	NA's
Count	2	97

`living_perc_mortgage`: Percentage of total mortgage participant personally pays for

Format = character.

	50%	100%	0%	up to 49%	between 51 and 80%	NA's
Count	26	54	11	11	5	98

`living_clothes`: Amount of money spent on clothing for oneself in the past year

Format = character.

	between 501 and 1,000 CHF	between 1,001 and 2,000 CHF
Count	64	33

	between 101 CHF and 250 CHF	between 251 and 500 CHF
Count	28	55

	up to 100 CHF	over 2,000 CHF
Count	14	11

`living_hhitems`: Amount spent on household items in the past year

Format = character.

	between 251 and 500 CHF	over 2,000 CHF	up to 100 CHF
Count	60	16	28

	between 501 and 1,000 CHF	between 1,001 and 2,000 CHF
Count	35	14

	between 101 CHF and 250 CHF
Count	52

`living_hh_appliances`: Amount spent on household appliances in the past year

Format = character.

	between 101 CHF and 250 CHF	between 501 and 1,000 CHF
Count	36	19

	between 251 and 500 CHF	up to 100 CHF
Count	36	93

	between 1,001 and 2,000 CHF	over 2,000 CHF
Count	12	9

`living_sports_equip`: Amount of money spent on sports equipment in the past year

Format = character.

	up to 100 CHF	between 251 and 500 CHF
Count	47	48

	between 501 and 1,000 CHF	between 1,001 and 2,000 CHF
Count	31	21

	over 2,001 CHF	between 101 CHF and 250 CHF
Count	8	50

`online_internet_time`: Number of hours spent on the internet weekly

Format = character.

	more than 25 hours	between 6 and 24 hours	less than 5 hours
Count	62	109	18

	NA's
Count	16

`online_ict_devices`: Which of the following IT devices do you own? - Multiple answers possible

Format = character.

`online_prod_type`: Types of products the participant buys online - Multiple answers possible

Format = character.

`online_order_freq`: Frequency of online product purchases

Format = character.

	less than once a month	up to 4 times per month
Count	83	89

	more than four times per month	NA's
Count	17	16

`subs_phoneTVinternet`: Amount spent on combined phone, internet and TV plan monthly

Format = character.

	between 31 and 70 CHF	between 101 and 150 CHF
Count	48	51

	more than 150 CHF	between 71 and 100 CHF
Count	27	44

	I do not have a combined plan	up to 30 CHF
Count	16	19

`subs_phoneplan`: Amount spent on mobile phone plan monthly

Format = character.

	up to 30 CHF	between 71 and 100 CHF
Count	14	1

	I do not have a mobile phone plan	NA's
Count	1	189

`subs_homewifi`: Amount spent on home internet plan monthly

Format = character.

	up to 30 CHF	between 31 and 70 CHF	between 71 and 100 CHF
Count	7	7	1

	I do not have a home internet plan	NA's
Count	1	189

`subs_TVplan`: Amount of money spent on a cable/satellite TV plan monthly

Format = character.

	up to 30 CHF	I do not have a cable (or satellite plan) at home	between 71 and 100 CHF
Count	8	6	1

	between 30 and 70 CHF	NA's
Count	1	189

`services_TVstreaming`: Amount of money spent on TV streaming services per month

Format = character.

	between 11 and 30 CHF	up to 10 CHF	I do not use a TV streaming service
Count	57	30	89

	between 31 and 80 CHF	I use someone else's TV streaming service account
Count	12	15

	more than 100 CHF	between 81 and 100 CHF
Count	1	1

`services_musicstream`: Amount of money spent on music streaming services per month

Format = character.

	I do not use a music streaming service	between 11 and 30 CHF
Count	110	52

	up to 10 CHF	I use someone else's music streaming service account	between 31 and 80 CHF
Count	33	9	1

`services_education`: Amount of money spent on education per month

Format = character.

	up to 10 CHF	between 81 and 100 CHF	between 11 and 30 CHF
Count	140	12	26

	more than 100 CHF	between 31 and 80 CHF
Count	13	14

`services_childcare`: Amount of money spent on childcare per month

Format = character.

	I have no children in the household	between 801 and 1,000 CHF
Count	156	4

	up to 100 CHF	between 301 and 800 CHF	between 101 and 300 CHF
Count	26	7	10

	between 1,001 and 2,000 CHF
Count	2

`services_cleaning`: Amount of money spent on cleaning services per month

Format = character.

	I never hire cleaners	more than 100 CHF
Count	171	24

	between 51 CHF and 100 CHF	up to 50 CHF
Count	6	4

`services_hobbies`: Amount of money spent on hobbies per month

Format = character.

	0 CHF	between 81 and 100 CHF	between 11 and 30 CHF
Count	64	19	45

	between 31 and 80 CHF	more than 100 CHF	up to 10 CHF
Count	30	25	22

`services_printmedia`: Amount of money spent on print media per month

Format = character.

	0 CHF	between 11 and 30 CHF	between 81 and 100 CHF
Count	95	40	5

	between 31 and 80 CHF	up to 10 CHF	more than 100 CHF
Count	28	30	7

`services_beauty`: Amount of money spent on beauty services per month

Format = character.

	0 CHF	between 11 and 30 CHF	up to 10 CHF
Count	56	49	30

	between 31 and 80 CHF	between 81 and 100 CHF	more than 100 CHF
Count	48	13	9

`services_wellness`: Amount of money spent on wellness services per month

Format = character.

	0 CHF	between 11 and 30 CHF	between 31 and 80 CHF
Count	136	19	14

	between 81 and 100 CHF	up to 10 CHF	more than 100 CHF
Count	14	15	7

`services_counceling`: Amount of money spent on counseling services per month

Format = character.

	0 CHF	between 50 and 100 CHF	between 100 and 200 CHF
Count	172	13	5

	up to 50 CHF	more than 200 CHF
Count	9	6

`health_insurance`: Monthly cost of health insurance premium

Format = character.

	between 301 and 400 CHF	between 401 and 500 CHF
Count	59	33

	between 100 and 300 CHF	more than 500 CHF	less than 100 CHF
Count	90	21	2

`health_suppl_insuran`: Amount spent on supplementary health insurance per month

Format = character.

	between 20 and 50 CHF	between 101 and 250 CHF	less than 20 CHF
Count	77	25	18

	between 51 and 100 CHF	more than 250 CHF
Count	54	9

	I do not have a supplementary health insurance plan
Count	22

`health_accident_insu`: Whether the participant has an active accident insurance policy

Format = character.

	Yes, my employer covers my accident insurance	Yes, I pay for it as part of my health insurance	No
Count	161	39	5

`health_liability_ins`: Whether the participant has an active third-partly liability insurance policy

Format = character.

	Yes	No
Count	196	9

`health_home_insuranc`: Whether the participant has an active household contents insurance policy

Format = character.

	Yes	No
Count	190	15

`vacation_duringstudy`: Whether a participant took time off of work during study participation

Format = character.

	No	Yes
Count	153	52

`vacation_yearly`: Number of weeks of vacation per year

Format = character.

	4 - 5 weeks	5 - 6 weeks	6 - 8 weeks	2 - 3 weeks
Count	77	55	19	11

	1 - 2 weeks	more than two months per year	less than 1 week
Count	9	9	5

	3 - 4 weeks
Count	20

`vacation_company`: Who usually accompanies the participant on vacation

Format = character.

	Friends	Partner and other household members	Partner only	Colleagues
Count	24	67	69	6

	Extended family members	Other (please specify)
Count	16	12

	I prefer traveling alone
Count	11

`vacation_expensepn`: Average amount of CHF participant is willing to spend on an average night during a typical vacation

Format = character.

	between 51 and 100 CHF	between 151 and 200 CHF
Count	67	33

	between 101 and 150 CHF	up to 50 CHF	between 201 and 300 CHF
Count	86	11	4

	more than 300 CHF
Count	4

`vacation_expensefood`: Average amount of CHF the participant is willing to spend on gastronomy daily while on a typical vacation

Format = character.

	between 51 and 100 CHF	between 151 and 200 CHF	up to 50 CHF
Count	103	12	60

	between 101 and 150 CHF	more than 300 CHF
Count	26	1

	between 201 and 300 CHF
Count	3

`vacation_expenseleis`: Average amount of CHF the participant is willing to spend on entertainment daily while on a typical vacation

Format = character.

	between 101 and 150 CHF	up to 50 CHF	between 51 and 100 CHF
Count	14	119	68

	between 151 and 200 CHF	between 201 and 300 CHF
Count	3	1

`hh_fin_who`: Who takes care of the finances in your household? - Multiple answers possible

Format = character.

	I do	My partner and I manage our finances together	My partner does
Count	103	49	13

	My partner and I manage our finances separately	Other arrangement (please specify)
Count	22	4

	Another household member does	I do not know/ rather not say
Count	11	3

`hh_fin_org`: How are finances organized in your household? - Multiple answers possible

Format = character.

	Other arrangement (please specify)	I share almost all of my money
Count	27	76

	I share part of my money	I do not know/ rather not say
Count	70	32

`hh_fin_share`: Percentage of personal income the participant shares with other household members

Format = character.

	less than 20%	51 - 75 %	21 - 50%	more than 76%
Count	36	8	19	1

	I do not know/ rather not say	NA's
Count	6	135

`savings_amountleft`: Amount of money left at the end of a month on average

Format = character.

	between 2,001 and 3,000 CHF	between 1,001 and 2,000 CHF
Count	26	34

	between 501 and 1,000 CHF	I usually break even
Count	43	21

	between 101 and 500 CHF	I rarely have money left	up to 100 CHF
Count	39	19	10

	between 3,001 and 4,000 CHF	more than 5,000 CHF
Count	7	4

	between 4,001 and 5,000 CHF
Count	2

`savings_monthlydonat`: Percent of monthly income donated

Format = character.

	0%	1 - 5%	more than 20%	6 - 10%	11 - 20%
Count	77	109	3	14	2

`savings_investments`: Regular contributions to investment plans - Multiple answers possible

Format = character.

`savings_mainjob`: Percent of total income that is earned through the participant's main job

Format = character.

	100%	less than 50%	71 - 80%	91 - 99%
Count	108	13	13	22

	I am not currently employed	61 - 70%	81 - 90%	51 - 60%
Count	22	3	13	11

Participants_tracking_summary: File description

Title: participants_tracking_summary.rda, participants_tracking_summary.csv

Contents: Data about which TimeUse+ pretest configuration each participant belonged to, when they started/stopped tracking, and what phone type they hold.

Data collection: Summary based on tracking data using the TimeUse+ app.

Unit of analysis: Individual data. Each row corresponds to a unique respondent.

File Structure: Data frame, with participant_id uniquely identifying each row. 7 variables from 205 participants.

Number of cases: 205. Variables per record: 11.

Participants_tracking_summary: Variables

`participant_id`: Participant identification number

Format = numeric.

`group`: Group belonging

Format = numeric.

	1	2	3	4	5
Count	39	33	40	38	55

`participation_days`: Number of required participation days

Format = numeric.

	14	28
Count	78	127

`activity_segmentation`: Activity segmentation

Format = character.

	detailed	simple
Count	134	71

`monetary_incentive`: Monetary incentive amount in CHF for study participation

Format = character.

	50 CHF	100 CHF
Count	150	55

`first_tracking_date`: First date of tracking

Format = character.

`last_tracking_date`: Last date of tracking

Format = character.

`validation_passed`: Whether participant validated enough

Format = character.

`validation_percentage`: Percent of activities validated by the participant

Format = character.

`participant_handset`: Device model used by participant

Format = character.

`participant_os`: Device OS used by participant

Format = character.

Activities: File description

Title: activities.rda, activities.csv

Contents: Annotated tracking data from all 205 participants. Locations (event_type "stay") and start, mid, and end points for stages (event_type "track") are provided as coordinates using the LV95 system, anonymized to a 100m grid. This level of anonymization also matches the https://www.bfs.admin.ch/bfs/de/home.assetdetail.14716365.html. The original data are therefore necessary for investigating trips outside of Switzerland.

Data collection: Passively tracked start and end points using TimeUse+ (based on SDK from MotionTag GmbH) with activity information provided by participants who were asked to annotate/validate events (i.e. stays or tracks) over five minutes.

Unit of analysis: Activity-level data. Each row corresponds to a unique activity. Group by distinct "event_id" for pure list of stays and tracks.

File Structure: Data frame

Number of cases: 82906. Variables per record: 34.

Activities: Variables

`event_id`: Event ID

Format = numeric.

`status`: Event validated by participant

Format = character.

	complete	incomplete
Count	79421	3485

`event_type`: Event type

Format = character.

	stay	track	untracked	deleted
Count	44701	36021	1341	843

`event_name_detected`: Event start time

Format = character.

`event_name_validated`: Event start timezone

Format = character.

	other	car	walk	bus	untracked	work	home
Count	24929	10134	17857	1878	1352	4198	15562

	passenger	train	other_track	tram	bicycle	ski	cable_car
Count	639	1263	151	750	2084	302	108

	regional_train	airplane	ebicycle	subway	motorbike_scooter
Count	537	12	119	6	121

	boat	taxi_uber	ebikesharing	carsharing	kick_scooter	NA's
Count	20	13	3	1	24	843

`event_name_imputed`: Event end time

Format = character.

	home	car	other	walk	bus	untracked	work
Count	23184	10134	17320	17853	1878	1343	4198

	passenger	train	other_track	tram	bicycle	ski	cable_car
Count	639	1263	151	750	2084	302	108

	regional_train	airplane	ebicycle	subway	motorbike_scooter
Count	537	12	119	6	121

	boat	taxi_uber	ebikesharing	carsharing	kick_scooter	NA's
Count	20	13	3	1	24	843

`started_at`: Event end timezone

Format = POSIXct, POSIXt, numeric.

`started_at_tz`: Event duration in minutes

Format = character.

`finished_at`: Event distance in meters

Format = POSIXct, POSIXt, numeric.

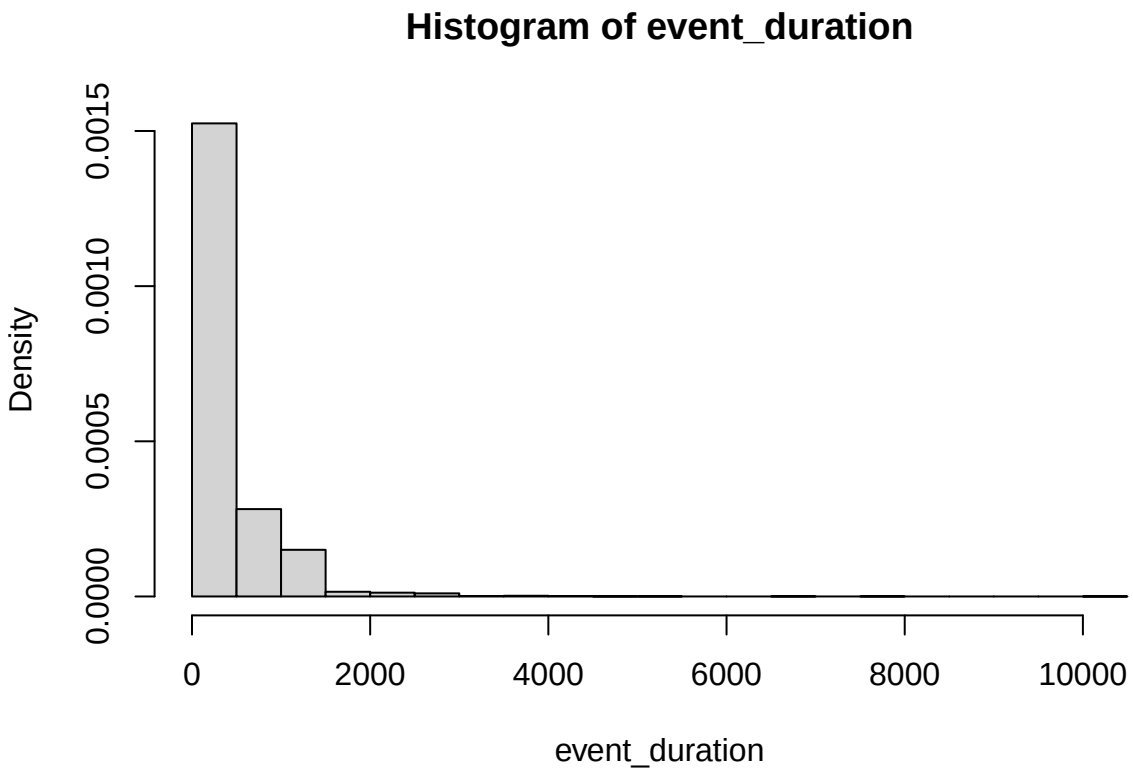
`finished_at_tz`: Mode or location detected by app algorithm

Format = character.

`event_duration`: Mode or location validated by participant

Format = integer, numeric.

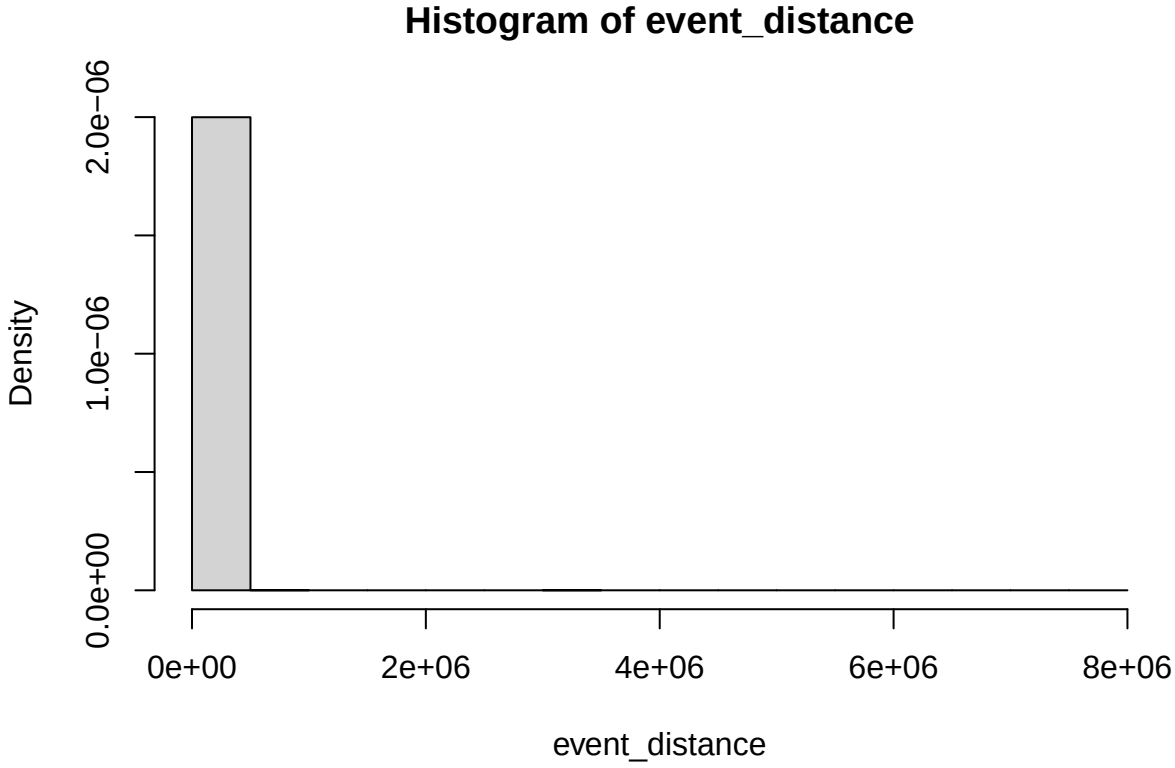
Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
1	6	23	288.8	375	10311



`event_distance`: Mode or location refined by imputing location through clustering and activity information

Format = integer, numeric.

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
0	0	0	3480	882.5	7811873	843



`event_start_lat`: Latitude of track start point location

Format = numeric.

`event_start_lon`: Longitude of track start point location

Format = numeric.

`event_mid_lat`: Latitude of stay location or mid point of track

Format = numeric.

`event_mid_lon`: Longitude of stay location or mid point of track

Format = numeric.

`event_end_lat`: Latitude of track end point location

Format = numeric.

`event_end_lon`: Longitude of track end point location

Format = numeric.

`trip_id`: Trip ID

Format = numeric.

`trip_status`: All stages of this trip are validated by participant

Format = character.

	complete	incomplete	NA's
Count	34254	1726	46926

`trip_main_mode`: Trip main mode by distance share

Format = character.

	car	walk	bus	passenger	train	other_track	bicycle
Count	12743	10764	2781	837	2967	126	2271

	ski	tram	regional_train	airplane	ebicycle	subway
Count	376	1237	1398	21	129	20

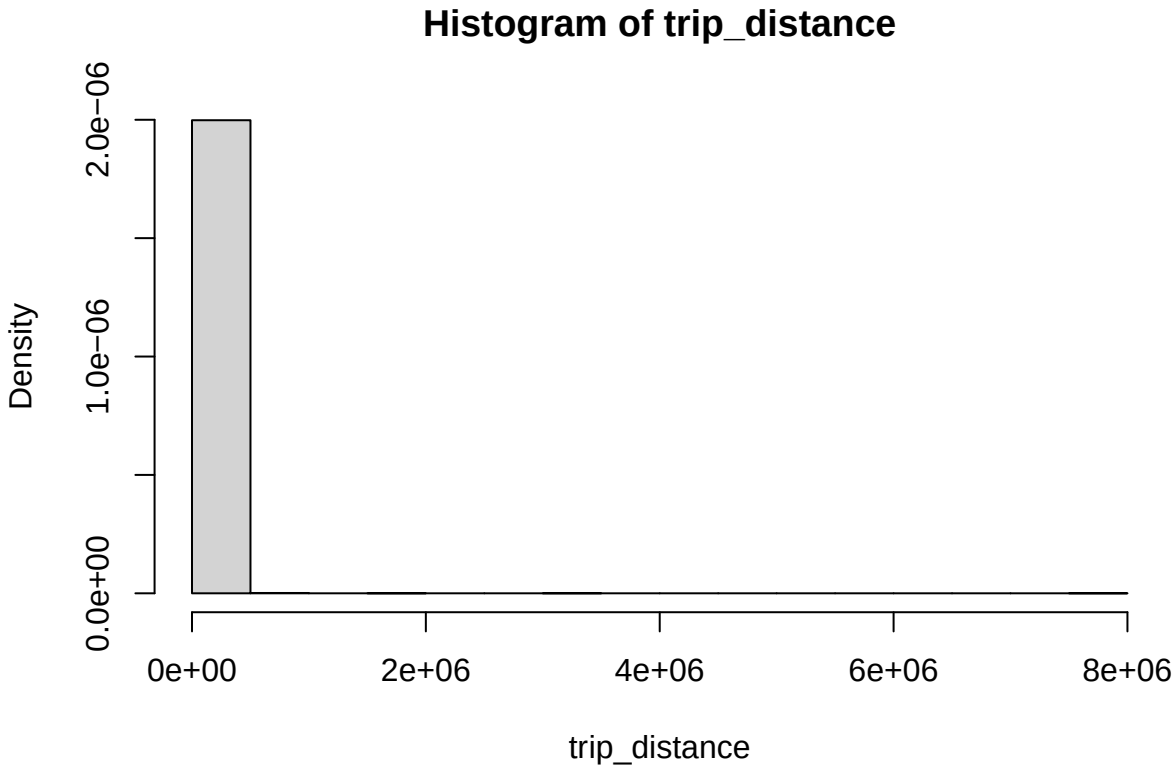
	cable_car	motorbike_scooter	boat	ebikesharing	carsharing
Count	82	169	17	4	2

	kick_scooter	taxi_uber	NA's
Count	13	23	46926

`trip_distance`: Trip distance in meters

Format = integer, numeric.

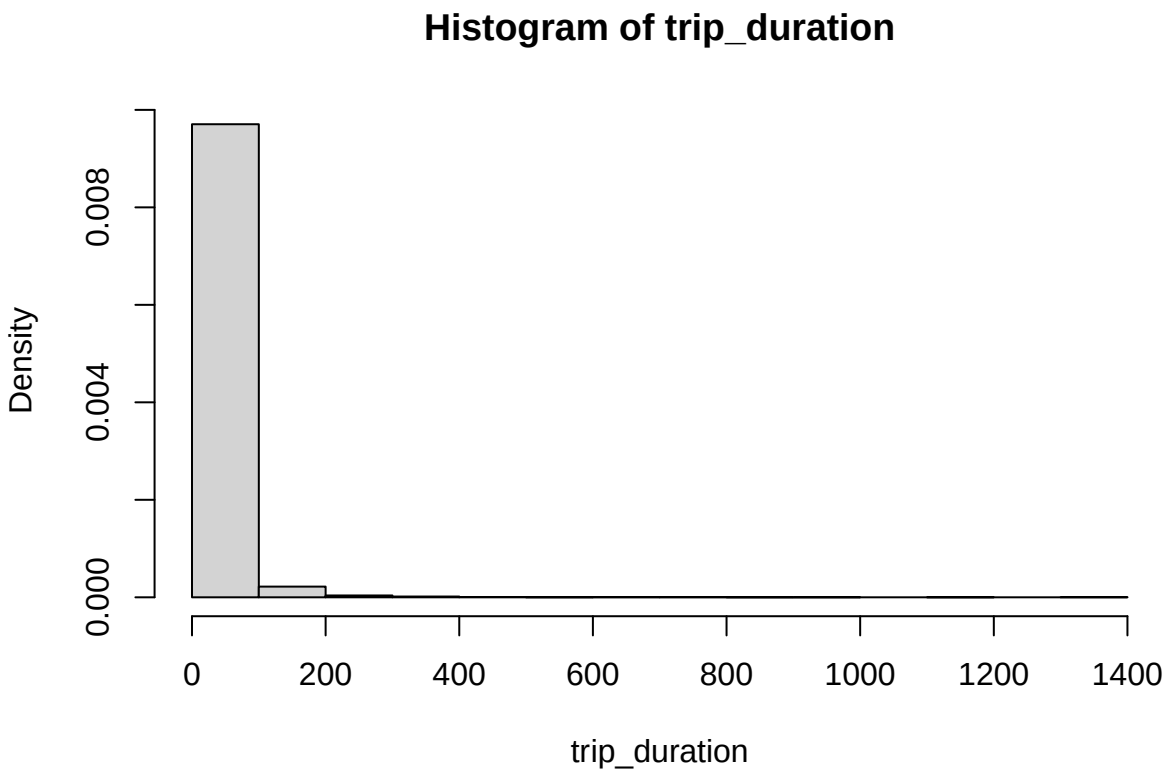
Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
10	1114	4250	15107	13265	7811991	46926



`trip_duration`: Trip duration in minutes

Format = integer, numeric.

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
1	6	14	25.59	31	1373	46926



`trip_started_at`: Trip start time

Format = POSIXct, POSIXt, numeric.

`trip_finished_at`: Trip end time

Format = POSIXct, POSIXt, numeric.

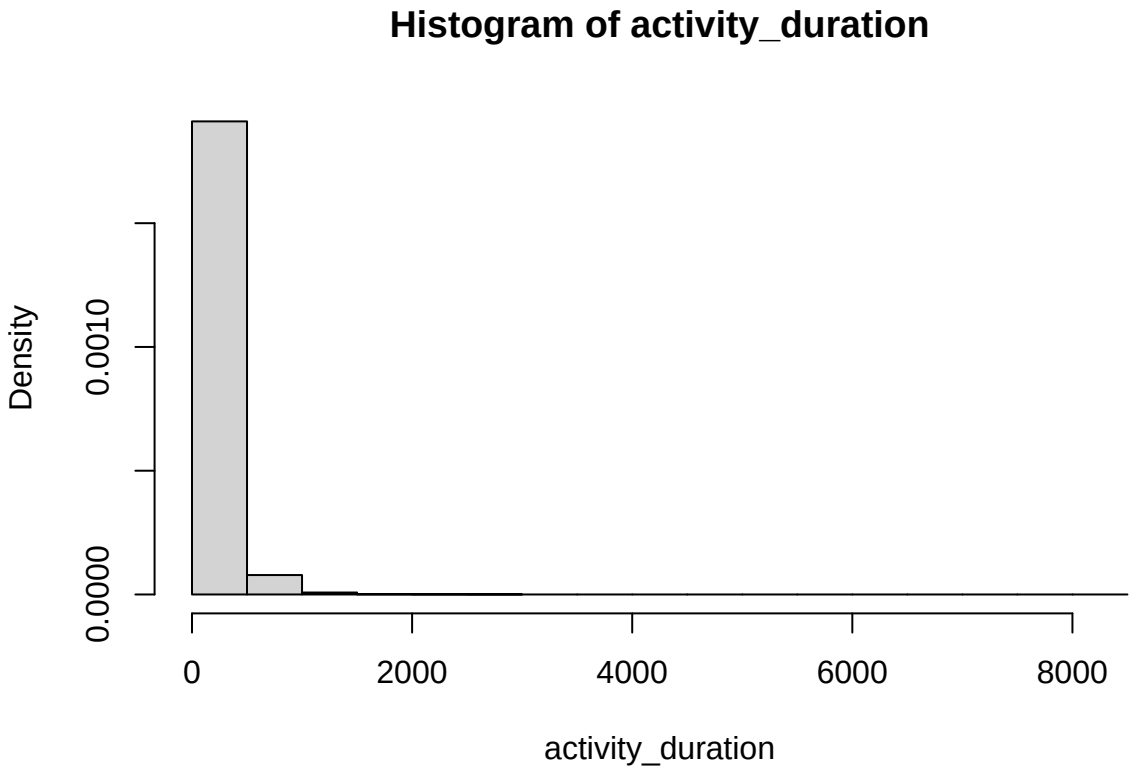
`activity_name`: Activity name, if activity logged by participant

Format = character.

`activity_duration`: Activity duration in minutes

Format = integer, numeric.

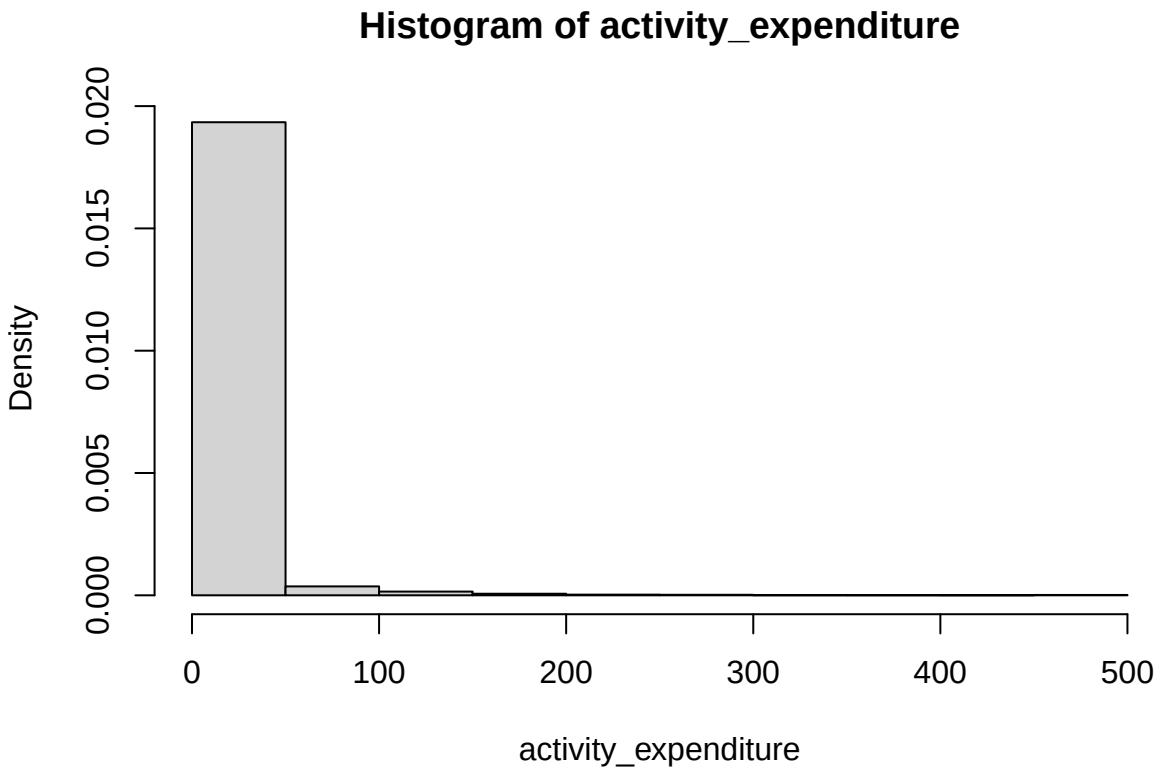
Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
0	20	40	110.2	120	8400	24095



`activity_expenditure`: Expenditures during activity in CHF

Format = integer, numeric.

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
0	0	0	5.471	0	500	48283



`activity_expenditure_necessity`: Reported necessity of expenditure

Format = character.

	required	not required	NA's
Count	27226	205	55475

`activity_expenditure_beneficiary`: Reported beneficiary of expenditure

Format = character.

	for me	for the household	NA's
Count	26626	805	55475

`activity_expenditure_timehorizon`: Reported time horizon of expenditure

Format = character.

	daily needs	long-term	NA's
Count	27065	366	55475

`activity_socialpartner`: Social companion reported for activity

Format = character.

	alone	householdmembers	friends	NA's
Count	29173	5809	3346	44578

`participant_id`: Participant ID

Format = numeric.

Waypoints: File description

Titles: pretest_geometries_week_2022-03-03.csv \ pretest_geometries_week_2022-03-10.csv \ pretest_geometries_week_2022-03-17.csv \ pretest_geometries_week_2022-03-31.csv \ pretest_geometries_week_2022-04-07.csv \ pretest_geometries_week_2022-04-14.csv \ pretest_geometries_week_2022-04-21.csv \

Contents: Waypoints for all tracks in the activities files. Longitude and latitude mapped on The World Geodetic System 1984 (WGS84). Data archived on a weekly basis.

Data collection: Passively tracked waypoints using TimeUse+ (based on SDK from MotionTag GmbH).

Unit of analysis: Event-level data. event_id variable can be used to join these files to the activities file.

File Structure: Data frame

Number of cases: 1048148. Variables per record: 3.

Waypoints: Variables

`event_id`:

Format = numeric.

`lon`:

Format = numeric.

`lat`:

Format = numeric.