

Millennium Cohort Study

Physical Activity: Time Use Diary harmonised dataset

MCS6(2015)

USER GUIDE

March 2018, Edition 2

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1 Preface

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The Centre for Longitudinal Studies (CLS) is an ESRC Resource Centre based at the Institute of Education (UCL).

It provides support and facilities for those using the three internationally-renowned birth cohort studies: the National Child Development Study (1958), the 1970 British Cohort Study and the Millennium Cohort Study (2000). CLS conducts research using the birth cohort study data, with a special interest in family life and parenting, family economics, youth life course transitions and basic skills. The views expressed in this work are those of the author(s) and do not necessarily reflect the views of the Economic and Social Research Council. All errors and omissions remain those of the author(s).

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2 Millennium Cohort Study

The Millennium Cohort Study (MCS) is a multi-disciplinary research project following the lives of around 19,000 children born in the UK in 2000-01. It is the most recent of Britain's world-renowned national longitudinal birth cohort studies. The study has been tracking the Millennium children through their early childhood years and plans to follow them into adulthood. It collects information on the children's siblings and parents. MCS's field of inquiry covers such diverse topics as parenting; childcare; school choice; child behaviour and cognitive development; child and parental health; parent's employment and education; income and poverty; housing, neighbourhood and residential mobility; and social capital and ethnicity.

The study is core funded by the Economic and Social Research Council (ESRC) and a consortium of Government departments.

To date, there have been six surveys of the cohort: at age nine months, three, five, seven, eleven and fourteen years old.

Sweep	Fieldwork start	Mean age of Cohort Members
MCS 1	2001	9 months
MCS 2	2004	3 years old
MCS 3	2006	5 years old
MCS 4	2008	7 years old
MCS 5	2012	11 years old
MCS 6	2015	14 years old
MCS 7	2018	17 years old

Further information about the MCS is available from the CLS website <http://www.cls.ioe.ac.uk/mcs>.

For any queries please contact help@ukdataservice.ac.uk

3 Introduction to the Time Use Diary of MCS6

This document accompanies the deposit of the Millennium Cohort Study's physical activity data. This data contains the harmonized information collected by the Time Use Diary through a paper form or through a mobile application or through an online form. Cohort members who participated in the age 14 sweep of MCS were asked to complete a Time Use Diary for two specified full days: one during the week and another over a weekend ¹ .

Details on the Physical Activity module and the Time Use Diary or Accelerometer is provided ¹ and ² .

3.1 Different modes

Cohort members were provided with the option of two modes (online or app). If the Cohort Member refused these two modes or they were impractical, then a paper mode was provided as a n option. The three modes are:

- Online, the data were entered in a web form
- App, the data were entered in a mobile/tablet application
- Paper, the data were entered on a paper form

The online and paper versions split the day into 10 minute slots starting from 4am each day.

CLS standardized the three different modes and harmonized the data so that they represent 10-minute blocks.

¹ Centre for Longitudinal Studies (2017) *Millennium Cohort Study Sixth Sweep (MCS6). Age 14 Survey. Activity Monitor, Time Use and Physical Measurement*

² Ipsos MORI Social Research Institute (2016) *Millennium Cohort Study Sixth Sweep (MCS6). Time Use Diary Documentation. Prepared for the Centre for Longitudinal Studies, UCL Institute of Education*

4 Variables

MCSID	MCS Research ID - Anonymised Family/Household Identifier
FCNUM00	Cohort Member number within an MCS family
FCTUDAD	Order of day assigned for Accelerometer and Time Use Diary
FCTUDSLOT	10-minute slot of data entry starting from 04:00
FCTUDMOD	TUD Mode of data collection
FCTUDMONTH	Date: Month for Physical Activity (Time Use Diary and Accelerometer)
FCTUDYEAR	Date: Year for Physical Activity (Time Use Diary and Accelerometer)
FCTUDWEEKDAY	Weekday for Physical Activity (Time Use Diary and Accelerometer)
FCTUDACT	Activity for the slot

4.1 Dataset structure

The structure of the dataset is on the `_cm_` level which means that each Cohort Member occupies a row. There are families that have more than one Cohort Members (e.g. twins, triplets). The information is provided in a long format with one row per 10 minute slot for each of the assigned days.

There are 144 10-minute slots within a day and 288 in two days. This means that for one Cohort Member that filled in both days there are 288 rows that cover the slots of the first and the second day.

The percentage of complete diaries with no activities missing is 82,18. This percentage corresponds to 7088 diaries of both assigned days across cohort members. Only 1537 diaries have activity not reported for one or more slots.

The total number of Cohort Members that completed the time use diary is 4642. The majority of the Cohort Members of those that have completed the time use diary has done so for both assigned days; that is 3983. However, for a few cases only the first (617 cases) or the second day (42 cases) is available.

The variable `weekday` gives the day of the week. The order of the assigned day provided by the `FCTUDAD` is not related to `weekday`. This means that researchers need to use `FCTUDWEEKDAY` to identify whether the first or the second day of the case is weekday or weekend.

Time Use Diary visualisation of the dataset format

MCSID	FCNUM00	FCTUDAD	FCTUDSLOT	FCTUDACT	FCTUDWEEKDAY
Household / Family identifier	Cohort Member number within a family	Assigned Day	10-minute slot (144 in 24 hours)	Activity	Whether the assigned day is weekday or weekend (Month and Year are also provided)
Family 1	1 st CM of the family	First assigned day	10-minute slot 1 (at 4am)		Weekend (Saturday, Sunday)
Family 1	1 st CM of the family	First assigned day	10-minute slot 2		Weekend (Saturday, Sunday)
Family 1	1 st CM of the family	First assigned day	10-minute slot 50		Weekend (Saturday, Sunday)
Family 1	1 st CM of the family	First assigned day	10-minute slot 70		Weekend (Saturday, Sunday)
Family 1	1 st CM of the family	First assigned day	10-minute slot 100		Weekend (Saturday, Sunday)
...
Family 1	1 st CM of the family	First assigned day	10-minute slot 144		Weekend (Saturday, Sunday)
Family 1	1 st CM of the family	Second assigned day	10-minute slot 1 (at 4am)		Weekday (Monday – Friday)
Family 1	1 st CM of the family	Second assigned day	10-minute slot 30		Weekday (Monday – Friday)
Family 1	1 st CM of the family	Second assigned day	10-minute slot 40		Weekday (Monday – Friday)
Family 1	1 st CM of the family	Second assigned day	10-minute slot 50		Weekday (Monday – Friday)
...
Family 1	1 st CM of the family	Second assigned day	10-minute slot 144		Weekday (Monday – Friday)
Family 1	2 nd CM of the family	First assigned day	10-minute slot 40		Weekday (Monday – Friday)
...
Family 2	1 st CM of the family	Second assigned day	10-minute slot 110		Weekday (Monday – Friday)

The assigned days are two per child: one is a weekday and one is in the weekend. **The order of the assigned day does not correspond to the weekday.**

The 44 activities can get clustered into general activities using syntax provided

_cm_level multiple CMs per family

There may be only one day collected for a CM

4.2 10-minute slots

There are 144 10-minute slots in a day. The 10-minute slots start from 4 a.m. as shown in the table below.

Slot	Period	Slot	Period	Slot	Period	Slot	Period
1	04:00 to 04:10	37	10:00 to 10:10	73	16:00 to 16:10	109	22:00 to 22:10
2	04:10 to 04:20	38	10:10 to 10:20	74	16:10 to 16:20	110	22:10 to 22:20
3	04:20 to 04:30	39	10:20 to 10:30	75	16:20 to 16:30	111	22:20 to 22:30
4	04:30 to 04:40	40	10:30 to 10:40	76	16:30 to 16:40	112	22:30 to 22:40
5	04:40 to 04:50	41	10:40 to 10:50	77	16:40 to 16:50	113	22:40 to 22:50
6	04:50 to 05:00	42	10:50 to 11:00	78	16:50 to 17:00	114	22:50 to 23:00
7	05:00 to 05:10	43	11:00 to 11:10	79	17:00 to 17:10	115	23:00 to 23:10
8	05:10 to 05:20	44	11:10 to 11:20	80	17:10 to 17:20	116	23:10 to 23:20
9	05:20 to 05:30	45	11:20 to 11:30	81	17:20 to 17:30	117	23:20 to 23:30
10	05:30 to 05:40	46	11:30 to 11:40	82	17:30 to 17:40	118	23:30 to 23:40
11	05:40 to 05:50	47	11:40 to 11:50	83	17:40 to 17:50	119	23:40 to 23:50
12	05:50 to 06:00	48	11:50 to 12:00	84	17:50 to 18:00	120	23:50 to 00:00
13	06:00 to 06:10	49	12:00 to 12:10	85	18:00 to 18:10	121	00:00 to 00:10
14	06:10 to 06:20	50	12:10 to 12:20	86	18:10 to 18:20	122	00:10 to 00:20
15	06:20 to 06:30	51	12:20 to 12:30	87	18:20 to 18:30	123	00:20 to 00:30
16	06:30 to 06:40	52	12:30 to 12:40	88	18:30 to 18:40	124	00:30 to 00:40
17	06:40 to 06:50	53	12:40 to 12:50	89	18:40 to 18:50	125	00:40 to 00:50
18	06:50 to 07:00	54	12:50 to 13:00	90	18:50 to 19:00	126	00:50 to 01:00
19	07:00 to 07:10	55	13:00 to 13:10	91	19:00 to 19:10	127	01:00 to 01:10
20	07:10 to 07:20	56	13:10 to 13:20	92	19:10 to 19:20	128	01:10 to 01:20
21	07:20 to 07:30	57	13:20 to 13:30	93	19:20 to 19:30	129	01:20 to 01:30
22	07:30 to 07:40	58	13:30 to 13:40	94	19:30 to 19:40	130	01:30 to 01:40
23	07:40 to 07:50	59	13:40 to 13:50	95	19:40 to 19:50	131	01:40 to 01:50
24	07:50 to 08:00	60	13:50 to 14:00	96	19:50 to 20:00	132	01:50 to 02:00
25	08:00 to 08:10	61	14:00 to 14:10	97	20:00 to 20:10	133	02:00 to 02:10
26	08:10 to 08:20	62	14:10 to 14:20	98	20:10 to 20:20	134	02:10 to 02:20
27	08:20 to 08:30	63	14:20 to 14:30	99	20:20 to 20:30	135	02:20 to 02:30
28	08:30 to 08:40	64	14:30 to 14:40	100	20:30 to 20:40	136	02:30 to 02:40
29	08:40 to 08:50	65	14:40 to 14:50	101	20:40 to 20:50	137	02:40 to 02:50
30	08:50 to 09:00	66	14:50 to 15:00	102	20:50 to 21:00	138	02:50 to 03:00
31	09:00 to 09:10	67	15:00 to 15:10	103	21:00 to 21:10	139	03:00 to 03:10
32	09:10 to 09:20	68	15:10 to 15:20	104	21:10 to 21:20	140	03:10 to 03:20
33	09:20 to 09:30	69	15:20 to 15:30	105	21:20 to 21:30	141	03:20 to 03:30
34	09:30 to 09:40	70	15:30 to 15:40	106	21:30 to 21:40	142	03:30 to 03:40
35	09:40 to 09:50	71	15:40 to 15:50	107	21:40 to 21:50	143	03:40 to 03:50
36	09:50 to 10:00	72	15:50 to 14:00	108	21:50 to 22:00	144	03:50 to 04:00

5 Recoding to General Activities

The 44 specific activities can get clustered in 11 general activities as they appear in the paper version of the TUD questionnaire. The following SPSS syntax and STATA code creates the general activity variable.

5.1 SPSS Syntax

```
* Sleep and personal care > Sleeping and resting (including sick in bed) .
IF (FCTUDACT EQ 1) GENERAL_ACTIVITY = 1.
* Sleep and personal care > Personal care (including taking a shower/bath,
  grooming, getting dressed etc.) .
IF (FCTUDACT EQ 2) GENERAL_ACTIVITY = 1.
* Education related > Homework .
IF (FCTUDACT EQ 3) GENERAL_ACTIVITY = 2.
* Education related > In class .
IF (FCTUDACT EQ 4) GENERAL_ACTIVITY = 2.
* Education related > School breaks .
IF (FCTUDACT EQ 5) GENERAL_ACTIVITY = 2.
* Education related > School clubs .
IF (FCTUDACT EQ 6) GENERAL_ACTIVITY = 2.
* Education related > Detention .
IF (FCTUDACT EQ 7) GENERAL_ACTIVITY = 2.
* WORK > Paid work (including paid babysitting and paid work for the family
  ) .
IF (FCTUDACT EQ 8) GENERAL_ACTIVITY = 3.
* WORK > Unpaid work for family or other non-household members (e.g. help
  in family business) .
IF (FCTUDACT EQ 9) GENERAL_ACTIVITY = 3.
* House chores > Cooking, cleaning, and shopping for the household .
IF (FCTUDACT EQ 10) GENERAL_ACTIVITY = 4.
* House chores > Fixing things around the house, fixing bike, gardening .
IF (FCTUDACT EQ 11) GENERAL_ACTIVITY = 4.
* House chores > Looking after brothers, sisters, other children in the
  household .
IF (FCTUDACT EQ 12) GENERAL_ACTIVITY = 4.
* House chores > Looking after parent or other adult in the households (
  medical or personal care) .
IF (FCTUDACT EQ 13) GENERAL_ACTIVITY = 4.
* House chores > Pet care .
IF (FCTUDACT EQ 14) GENERAL_ACTIVITY = 4.
* Eating and drinking > Eating or drinking in a restaurant or caf?? .
IF (FCTUDACT EQ 15) GENERAL_ACTIVITY = 5.
* Eating and drinking > Eating a meal .
IF (FCTUDACT EQ 16) GENERAL_ACTIVITY = 5.
* Eating and drinking > Eating a snack or having a drink .
IF (FCTUDACT EQ 17) GENERAL_ACTIVITY = 5.
* Physical exercise and sports > Cycling .
IF (FCTUDACT EQ 18) GENERAL_ACTIVITY = 6.
* Physical exercise and sports > Individual ball games and training (e.g.
  tennis, badminton) .
```

IF (FCTUDACT EQ 19) GENERAL_ACTIVITY = 6.
 * Physical exercise and sports > Jogging, running, walking, hiking .
 IF (FCTUDACT EQ 20) GENERAL_ACTIVITY = 6.
 * Physical exercise and sports > Team ball games and training (e.g. football, hockey) .
 IF (FCTUDACT EQ 21) GENERAL_ACTIVITY = 6.
 * Physical exercise and sports > Swimming and other water sports .
 IF (FCTUDACT EQ 22) GENERAL_ACTIVITY = 6.
 * Physical exercise and sports > Other exercise and sports, dancing, keeping fit, skiing, gymnastics .
 IF (FCTUDACT EQ 23) GENERAL_ACTIVITY = 6.
 * Travelling > Travel by bus, taxi, tube, plane .
 IF (FCTUDACT EQ 24) GENERAL_ACTIVITY = 7.
 * Travelling > Travel by car, van (including vehicles owned by friends and family) .
 IF (FCTUDACT EQ 25) GENERAL_ACTIVITY = 7.
 * Travelling > Travel by physically active means (walk, bike etc.) .
 IF (FCTUDACT EQ 26) GENERAL_ACTIVITY = 7.
 * Social events, outings > Attending live sporting events .
 IF (FCTUDACT EQ 27) GENERAL_ACTIVITY = 8.
 * Social events, outings > Cinema, theatre, performance, gig etc. .
 IF (FCTUDACT EQ 28) GENERAL_ACTIVITY = 8.
 * Social events, outings > Exhibition, museum, library, other cultural events .
 IF (FCTUDACT EQ 29) GENERAL_ACTIVITY = 8.
 * Social events, outings > Shopping (including window shopping, hanging out at shopping centre) .
 IF (FCTUDACT EQ 30) GENERAL_ACTIVITY = 8.
 * Social events, outings > Speaking on the phone (including Skype, video calls) .
 IF (FCTUDACT EQ 31) GENERAL_ACTIVITY = 8.
 * Social events, outings > Speaking, socialising face-to-face .
 IF (FCTUDACT EQ 32) GENERAL_ACTIVITY = 8.
 * Digital media > Answering emails, instant messaging, texting .
 IF (FCTUDACT EQ 33) GENERAL_ACTIVITY = 9.
 * Digital media > Browsing and updating social networking sites (e.g. Twitter, Facebook, BBM, Snapchat) .
 IF (FCTUDACT EQ 34) GENERAL_ACTIVITY = 9.
 * Digital media > General internet browsing, programming (not time on social networking sites) .
 IF (FCTUDACT EQ 35) GENERAL_ACTIVITY = 9.
 * Digital media > Listening to music, radio, iPod, other audio content .
 IF (FCTUDACT EQ 36) GENERAL_ACTIVITY = 9.
 * Digital media > Playing electronic games and Apps .
 IF (FCTUDACT EQ 37) GENERAL_ACTIVITY = 9.
 * Digital media > Watch TV, DVDs, downloaded videos .
 IF (FCTUDACT EQ 38) GENERAL_ACTIVITY = 9.
 * Volunteering, Spiritual > Volunteering .
 IF (FCTUDACT EQ 39) GENERAL_ACTIVITY = 10.
 * Volunteering, Spiritual > Religious activities (including going to places of worship, praying etc.) .
 IF (FCTUDACT EQ 40) GENERAL_ACTIVITY = 10.
 * Hobbies incl relaxing > Did nothing, just relaxing, bored, waiting .
 IF (FCTUDACT EQ 41) GENERAL_ACTIVITY = 11.

```

* Hobbies incl relaxing > Hobbies, arts and crafts, musical activities,
  writing stories, poetry etc. .
IF (FCTUDACT EQ 42) GENERAL_ACTIVITY = 11.
* Hobbies incl relaxing > Reading (not for school) .
IF (FCTUDACT EQ 43) GENERAL_ACTIVITY = 11.
* Hobbies incl relaxing > Other activities not listed .
IF (FCTUDACT EQ 44) GENERAL_ACTIVITY = 11.

IF SYSMIS(GENERAL_ACTIVITY) GENERAL_ACTIVITY = -1.

VARIABLE LABELS GENERAL_ACTIVITY 'TUD General Activity'.
VALUE LABELS GENERAL_ACTIVITY -1 'Missing or Other Activity'
1 'Sleep and personal care'
2 'Education related'
3 'Work'
4 'House chores'
5 'Eating and drinking'
6 'Physical exercise and sports'
7 'Travelling'
8 'Social events, outings'
9 'Digital media'
10 'Volunteering, Spiritual'
11 'Hobbies incl relaxing'.
MISSING VALUES GENERAL_ACTIVITY (-1).
FREQUENCIES GENERAL_ACTIVITY .

CROSSTABS GENERAL_ACTIVITY BY FCTUDACT .

```

5.2 STATA

```

* Sleep and personal care > Sleeping and resting (including sick in bed) .
gen GENERAL_ACTIVITY = 1 if (FCTUDACT == 1)
* Sleep and personal care > Personal care (including taking a shower/bath,
  grooming, getting dressed etc.) .
replace GENERAL_ACTIVITY = 1 if (FCTUDACT == 2)
* Education related > Homework .
replace GENERAL_ACTIVITY = 2 if (FCTUDACT == 3)
* Education related > In class .
replace GENERAL_ACTIVITY = 2 if (FCTUDACT == 4)
* Education related > School breaks .
replace GENERAL_ACTIVITY = 2 if (FCTUDACT == 5)
* Education related > School clubs .
replace GENERAL_ACTIVITY = 2 if (FCTUDACT == 6)
* Education related > Detention .
replace GENERAL_ACTIVITY = 2 if (FCTUDACT == 7)
* WORK > Paid work (including paid babysitting and paid work for the family
  ) .
replace GENERAL_ACTIVITY = 3 if (FCTUDACT == 8)
* WORK > Unpaid work for family or other non-household members (e.g. help
  in family business) .
replace GENERAL_ACTIVITY = 3 if (FCTUDACT == 9)
* House chores > Cooking, cleaning, and shopping for the household .
replace GENERAL_ACTIVITY = 4 if (FCTUDACT == 10)

```

```

* House chores > Fixing things around the house, fixing bike, gardening .
replace GENERAL_ACTIVITY = 4 if (FCTUDACT == 11)
* House chores > Looking after brothers, sisters, other children in the
  household .
replace GENERAL_ACTIVITY = 4 if (FCTUDACT == 12)
* House chores > Looking after parent or other adult in the households (
  medical or personal care) .
replace GENERAL_ACTIVITY = 4 if (FCTUDACT == 13)
* House chores > Pet care .
replace GENERAL_ACTIVITY = 4 if (FCTUDACT == 14)
* Eating and drinking > Eating or drinking in a restaurant or caf?? .
replace GENERAL_ACTIVITY = 5 if (FCTUDACT == 15)
* Eating and drinking > Eating a meal .
replace GENERAL_ACTIVITY = 5 if (FCTUDACT == 16)
* Eating and drinking > Eating a snack or having a drink .
replace GENERAL_ACTIVITY = 5 if (FCTUDACT == 17)
* Physical exercise and sports > Cycling .
replace GENERAL_ACTIVITY = 6 if (FCTUDACT == 18)
* Physical exercise and sports > Individual ball games and training (e.g.
  tennis, badminton) .
replace GENERAL_ACTIVITY = 6 if (FCTUDACT == 19)
* Physical exercise and sports > Jogging, running, walking, hiking .
replace GENERAL_ACTIVITY = 6 if (FCTUDACT == 20)
* Physical exercise and sports > Team ball games and training (e.g.
  football, hockey) .
replace GENERAL_ACTIVITY = 6 if (FCTUDACT == 21)
* Physical exercise and sports > Swimming and other water sports .
replace GENERAL_ACTIVITY = 6 if (FCTUDACT == 22)
* Physical exercise and sports > Other exercise and sports, dancing,
  keeping fit, skiing, gymnastics .
replace GENERAL_ACTIVITY = 6 if (FCTUDACT == 23)
* Travelling > Travel by bus, taxi, tube, plane .
replace GENERAL_ACTIVITY = 7 if (FCTUDACT == 24)
* Travelling > Travel by car, van (including vehicles owned by friends and
  family) .
replace GENERAL_ACTIVITY = 7 if (FCTUDACT == 25)
* Travelling > Travel by physically active means (walk, bike etc.) .
replace GENERAL_ACTIVITY = 7 if (FCTUDACT == 26)
* Social events, outings > Attending live sporting events .
replace GENERAL_ACTIVITY = 8 if (FCTUDACT == 27)
* Social events, outings > Cinema, theatre, performance, gig etc. .
replace GENERAL_ACTIVITY = 8 if (FCTUDACT == 28)
* Social events, outings > Exhibition, museum, library, other cultural
  events .
replace GENERAL_ACTIVITY = 8 if (FCTUDACT == 29)
* Social events, outings > Shopping (including window shopping, hanging out
  at shopping centre) .
replace GENERAL_ACTIVITY = 8 if (FCTUDACT == 30)
* Social events, outings > Speaking on the phone (including Skype, video
  calls) .
replace GENERAL_ACTIVITY = 8 if (FCTUDACT == 31)
* Social events, outings > Speaking, socialising face-to-face .
replace GENERAL_ACTIVITY = 8 if (FCTUDACT == 32)
* Digital media > Answering emails, instant messaging, texting .

```

```

replace GENERAL_ACTIVITY = 9 if (FCTUDACT == 33)
* Digital media > Browsing and updating social networking sites (e.g.
  Twitter, Facebook, BBM, Snapchat) .
replace GENERAL_ACTIVITY = 9 if (FCTUDACT == 34)
* Digital media > General internet browsing, programming (not time on
  social networking sites) .
replace GENERAL_ACTIVITY = 9 if (FCTUDACT == 35)
* Digital media > Listening to music, radio, iPod, other audio content .
replace GENERAL_ACTIVITY = 9 if (FCTUDACT == 36)
* Digital media > Playing electronic games and Apps .
replace GENERAL_ACTIVITY = 9 if (FCTUDACT == 37)
* Digital media > Watch TV, DVDs, downloaded videos .
replace GENERAL_ACTIVITY = 9 if (FCTUDACT == 38)
* Volunteering, Spiritual > Volunteering .
replace GENERAL_ACTIVITY = 10 if (FCTUDACT == 39)
* Volunteering, Spiritual > Religious activities (including going to places
  of worship, praying etc.) .
replace GENERAL_ACTIVITY = 10 if (FCTUDACT == 40)
* Hobbies incl relaxing > Did nothing, just relaxing, bored, waiting .
replace GENERAL_ACTIVITY = 11 if (FCTUDACT == 41)
* Hobbies incl relaxing > Hobbies, arts and crafts, musical activities,
  writing stories, poetry etc. .
replace GENERAL_ACTIVITY = 11 if (FCTUDACT == 42)
* Hobbies incl relaxing > Reading (not for school) .
replace GENERAL_ACTIVITY = 11 if (FCTUDACT == 43)
* Hobbies incl relaxing > Other activities not listed .
replace GENERAL_ACTIVITY = 11 if (FCTUDACT == 44)

replace GENERAL_ACTIVITY = -1 if (GENERAL_ACTIVITY == .)

label variable GENERAL_ACTIVITY "TUD General Activity"
label define GENERAL_ACTIVITY_labels -1 "Missing or Other Activity" 1 "Sleep
  and personal care" 2 "Education related" ///
  3 "Work" 4 "House chores" 5 "Eating and drinking" ///
  6 "Physical exercise and sports" 7 "Travelling" ///
  8 "Social events, outings" 9 "Digital media" ///
  10 "Volunteering, Spiritual" 11 "Hobbies incl relaxing"
label values GENERAL_ACTIVITY GENERAL_ACTIVITY_labels
tab GENERAL_ACTIVITY

tab FCTUDACT GENERAL_ACTIVITY

```

6 How to handle the data in the long format

There are two ways the data can be used. The first one would be to transform the dataset into wide format (cases to variables) where there is one variable for each slot (Slot_1, Slot_2, etc). The second way is to keep the data in the long format. Both ways will bring the same results, however, this section focuses on the second way. This is because it will provide you overall time spent in an activity (for example, sleeping) with less steps. In this section we provide you with syntax for the second solution.

Data users may be interested in aggregating the number of 10-minute slots in one activity spent by a Cohort Member. The syntax below can be used to count the 10-minute slots for each day of each Cohort Member of each family.

6.1 SPSS syntax

```
* generate a sleep variable .
IF (FCTUDACT EQ 1) sleeping = 1 .
IF sysmis(sleeping) sleeping = 0 .
FREQUENCIES sleeping.

* total sleeping per assigned day per Cohort Member per family .
AGGREGATE
  outfile = *
  overwrite = yes
  mode = addvariables
  /break = MCSID FCNUM00 FCTUDAD
  /total_sleeping = SUM(sleeping)
  /groupsize = N.
EXECUTE.

* perusal in one family .
* 10-minute slots of sleeping and not sleeping .
TEMPORARY.
SELECT IF (MCSID EQ "M10002P").
CROSSTABS FCTUDAD BY sleeping.
* total number of 10-minute slots of sleeping .
TEMPORARY.
SELECT IF (MCSID EQ "M10002P").
CROSSTABS FCTUDAD BY total_sleeping.
* total numbers that can get used for analysis
* user needs to keep one row per cohort member per assigned day .
TEMPORARY.
SELECT IF (MCSID EQ "M10002P").
FREQUENCIES total_sleeping.
```

6.2 STATA syntax

```
* generate a sleep variable .
gen sleeping = 1 if (FCTUDACT == 1)
replace sleeping = 0 if (FCTUDACT != 1)
```

```

tab sleeping

* total sleeping per assigned day per Cohort Member per family .
egen total_sleeping = count(sleeping) if sleeping == 1 , by (MCSID FCNUM00
    FCTUDAD)

* perusal in one family .
gen example_family = 1 if MCSID == "M10002P"
* 10-minute slots of sleeping and not sleeping .
tab FCTUDAD sleeping if example_family == 1
* total number of 10-minute slots of sleeping .
tab FCTUDAD total_sleeping if example_family == 1
* total numbers that can get used for analysis
* user needs to keep one row per cohort member per assigned day .
tab total_sleeping if example_family == 1

* Let's assume that different activity binary variables have been created
* LOOP FOR GENERATING VARIABLES SUITABLE FOR FOR ANALYSIS
foreach X of varlist act1 act2 act3 act4 act5 act6 act7 act8 act9 act10
    act11 act12 act13 act14 act15 act16 act17 act18 act19 act20 act21 act22
    act23 act24 act25 act26 act27 act28 act29 act30 act31 act32 act33 act34
    act35 act36 act37 act38 act39 act40 act41 act42 act43 act44 {

*generate total activity slots per day.
cap drop tot_`X'
egen tot_`X' = count(`X') if `X' == 1 , by (MCSID FCNUM00 FCTUDAD)
tab tot_`X'

*generate total activity slots per day (all time slots have this value)
cap drop day_`X'
egen day_`X' = max (tot_`X'), by (MCSID FCNUM00 FCTUDAD)
replace day_`X' = 0 if day_`X'==.

*generate total activity slots averaged over both days (all time slots have
    this value)
cap drop avg_`X'
egen avg_`X' = mean(tot_`X'), by (MCSID FCNUM00)
replace avg_`X' = 0 if avg_`X'==.

}

```

7 Further information

Further information on MCS is available from the CLS website (<http://www.cls.ioe.ac.uk/mcs>). CLS can also be contacted at the following email address: clsfeedback@ioe.ac.uk

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graphicx, *afterpage* and *color* by David Carlisle and the LaTeX Team
<http://www.ctan.org/pkg/graphicx> , <http://www.ctan.org/pkg/afterpage> ,
<http://www.ctan.org/pkg/color>

tcolorbox by Thomas F. Sturm <http://www.ctan.org/pkg/tcolorbox>

xcolor by Uwe Kern <http://www.ctan.org/pkg/xcolor>

sectsty by Rowland McDonnell <http://www.ctan.org/pkg/sectsty>

geometry by Hideo Umeki <http://www.ctan.org/pkg/geometry>

tikz by Till Tantau and Christian Feuers?nger <http://www.ctan.org/pkg/pgf>

helvet by Walter Schmidt <http://www.ctan.org/pkg/helvet>

hyperref by Heiko Oberdiek and Sebastian Rahtz <http://www.ctan.org/pkg/hyperref>

datetime2 by Nicola Talbot <https://www.ctan.org/tex-archive/macros/latex/contrib/datetime2>