

## CHAPTER 4: DIARY, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES

The MTUS contains identifiers (equal to the original survey identifiers wherever possible), as well as harmonised diary, demographic and socio-economic variables. Most original datasets contain a larger number of such variables. In the context of MTUS, we prioritise variables available in a large majority datasets. This section lists the categories of the harmonised variables. Details of the specific conversions appear in the survey-specific (readme) documents.

The harmonised variables cluster into the following five sets:

- Diary, survey and case information
- Household-level variables
- Person-level demographic variables
- Employment and education
- Health

Some background variables are not included in all versions of all files. The table shows which variables are in which MTUS versions. We present the variables in the order in which they should appear in the final files in both the table and the subsequent variable descriptions.

Variable	Episode File	Aggregate File	Core File
Country – country of survey	included	included	included
Survey - survey start year	included	included	included
Swave - wave if longitudinal	included	included	-
Msamp - multi-sample marker	included	included	-
Hldid - household identifier	included	included	included
Persid - person identifier	included	included	included
Id - diary identifier	included	included	included
Parntid1 - identifier parent 1	included	included	-
Parntid2 - identifier parent 2	included	included	-
Partid - spouse identifier	included	included	-
Day - day of week diary kept	included	included	included
Cday - calendar day of diary	included	-	-
Month - month diary kept	included	included	included

Variable	Episode File	Aggregate File	Core File
Year - year diary kept	included	included	included
Diary - diary order	included	included	-
Nowght – propwt not created	included	included	-
Hhtype - household type	-	included	-
Hhldsize - household size	-	included	included
Nchild - number children <18	-	included	included
Agekidx - age youngest groups	-	included	included
Agekid2 - age youngest actual	-	included	-
Incorig - original hhld income	-	included	-
Income - hhld income groups	-	included	-
Ownhome - own or rent home	-	included	-
Urban - urban or rural home	-	included	-
Computer - has home internet	-	included	-
Vehicle - household vehicles	-	included	-
Sex - sex of diarist	included	included	included
Age - age of diarist	included	included	included
Famstat - diarist & child age	-	included	-
Singpar - single parent diarist	-	included	-
Relrefp - relation to reference person	-	included	-
Civstat - is diarist in couple	-	included	included
Cohab - married or cohabit	-	included	-
Citizen - citizen of country	-	included	-
Empstat - employment status	-	included	included
Emp - employed or not	-	included	-
Unemp - unemployed	-	included	-
Student - diarist is a student	-	included	-
Retired - diarist is retired	-	included	-
Empsp - spouse employment	-	included	-
Workhrs - paid work hours	-	included	included
Empinclm - labour income	-	included	-
Occupo - original occupation	-	included	-
ISCO1 – ISCO 1 occupation	-	included	-
Sector - public or private job	-	included	-
Educa - education - original	-	included	-
Edcat - highest education	-	included	Included
Rushed - time pressure	-	included	-
Health - self-assessed health	-	included	-
Carer - looks after an adult	-	included	-
Disab - diarist has disability	-	included	-

## 4.1 Diary, survey and case information

- COUNTRY
- SURVEY
- SWAVE
- MSAMP
- HLDID
- PERSID
- ID
- PARNTID1
- PARNTID2
- PARTID
- DAY
- MONTH
- YEAR
- DIARY
- BADCASE

### COUNTRY: Country of survey - HEF HAF HCF

This variable records the country where the survey was carried out. This is the only text variable in the MTUS.

Country	Code	Country	Code	Country	Code
Albania	AL	Hungary	HU	Poland	PL
Algeria	DZ	India	IN	Portugal	PT
Armenia	AM	Indonesia	ID	Qatar	QA
Australia	AU	Ireland	IE	Republic of Korea	KR
Austria	AT	Israel	IL	Romania	RO
Belgium	BE	Italy	IT	Russian Federation	RU
Bosnia & Herzegovina	BA	Japan	JP	Serbia	RS
Brazil	BR	Laos	LA	Slovenia	SI
Bulgaria	BG	Latvia	LV	South Africa	ZA
Canada	CA	Lithuania	LT	Spain	ES
Chile	CL	Macedonia	MK	Sweden	SE
China	CN	Mauritius	MU	Switzerland	CH
Czechoslovakia	CZ	México	MX	Tanzania	TZ
Denmark	DK	Mongolia	MN	Thailand	TH
Djibouti	DJ	Morocco	MA	Tunisia	TN
Estonia	EE	Netherlands	NL	Turkey	TR
Ethiopia	ET	New Zealand	NZ	United Kingdom	UK
Finland	FI	Norway	NO	United States	US
France	FR	Oman	OM	Uruguay	UY
Germany	DE	Pakistan	PK	Yugoslavia	YU
Ghana	GH	Palestine	PS		
Greece	GR	Peru	PE		

These country codes are based on the International Organisation for Standardisation (ISO) 3166-1 alpha-2 typology. Users should note three derivations. The official designation for the United Kingdom is GB, but UK is reserved for use by the UK. As the MTUS documents already used UK, we deemed changing to GB an inefficient use of our labour, hence UK remains. The YU for Yugoslavia was deleted from the original ISO 3166-1 but remains reserved transitionally for Yugoslavia. As the survey from Yugoslavia has elements in two newer countries, both of which have data in the MTUS, we retain this designation for this older survey. CZ now applies only to the Czech Republic. The Czechoslovakian surveys are old, and neither the Czech Republic nor Slovakia have recent time use surveys. Information taken from this website: [https://en.wikipedia.org/wiki/ISO\\_3166-1\\_alpha-2#Exceptional\\_reservations](https://en.wikipedia.org/wiki/ISO_3166-1_alpha-2#Exceptional_reservations)

Surveys collected in what were East and West Germany, and the Slovenian and Serbian elements of the 1965 Yugoslavia Szalai survey can be distinguished using the variable MSAMP.

#### **SURVEY: Year the survey began - HEF HAF only**

This variable records the 4-digit year in which data collection began

#### **SWAVE: Longitudinal study wave marker - HEF HAF only**

This variable is relevant only for surveys that are longitudinal.

Value	Label
0	Not longitudinal
1	Wave 1
2	Wave 2
3	Wave 3
4	Wave 4

Note that in the case of Denmark 1987/2001 (with multiple samples), the code '1' in 1987 and 2 in 2001 indicates a longitudinal case, while the code '0' indicates that that it is not a longitudinal case.

**MSAMP: Multiple samples using the same diary instrument - HEF HAF only**

Value	Label
0	One sample
1	Szalai USA 1965 sample
2	National USA 1965 sample
3	USA 1998-99
4	USA 2000-01
5	Slovenia in Szalai Yugoslavia
6	Serbia in Szalai Yugoslavia
7	UK 1987 - main sample, drawn from SCELLI survey
8	UK 1987 - spouses and additional household members
9	East Germany
10	West Germany
11	Basque Country in Spain

**HLDID: Household identifier - HEF HAF HCF**

This variable uniquely identifies households for those studies where more than one household member completed a diary. For surveys in which only one person per household completed a diary and no household identifier is included in the original data, HLDID=0. For surveys in which only one person per household completed a diary but a household identifier is included, HLDID takes the original value for the corresponding variable. If the household identifier should be combined with a higher level identifier, such as sampling region, then the value of HLDID should combine the larger group identifier and the household identifier so that each HLDID uniquely identifies one household.

In some limited cases, the original survey data does not include a household identifier even though the study collected a diary from more than one person in the household. In these cases, we construct a household identifier using a combination of other variables that enable us to make a unique identification (full details of these cases are explained in the survey conversion files where this was needed).

If the household identifier maps to other data but is not relevant to the time use survey or if the household identifier needs to be computed or adjusted in any

way, an explanatory note should be included in the Readme documentation file. The household identifier should enable users to match MTUS data back to the original survey.

#### **PERSID: Person/diarist identifier - HEF HAF HCF**

This variable uniquely identifies diarists within sampled households. For surveys with only one diarist per household, this identifier should uniquely identify each diarist. Use the original person-level identifier to allow users to match back to the original data. If no identifier was included with the data, construct an identifier from a combination of person and household-level variables that allows the unique identification of diarists.

#### **ID: Diary identifier - HEF HAF HCF**

This variable uniquely identifies each diary kept by each diarist. Normally, if the survey collected three diaries per participant, ID would have values between 1 and 3. Keep the original diary identifier if there is one to allow users to match MTUS data back to the original data. If the survey collected only one diary per diarist, ID should = 1.

#### **PARNTID1: Person identifier of 1st parent of diarist - HEF HAF only**

This variable records the person-level identifier of the first parent of the diarist if that parent also completed a diary or otherwise has person-level information included in the original survey. In cases where only one person per household completed a diary and no other information is available about household members, this variable is coded as -9. If multiple people completed diaries in the household and the diarist does not live with a parent, this variable takes a value of -7. If the diarist lives with a parent and this parent should have but did not complete a diary or cannot be identified, this variable takes a value of -8. If both parents are in the same household and completed diaries, this variable takes the value of the parent with the lower person identifier.

#### **PARNTID2: Person identifier of 2nd parent of diarist - HEF HAF only**

This variable records the person-level identifier of the second parent of the diarist if the parent also completed a diary or otherwise has person-level information included in the original survey. In cases where only one person per household completed a diary and no other information is available about other household members, this variable is coded as -9. If multiple people completed diaries in the household and the diarist does not live with a parent or only lives with one parent, this variable takes a value of -7. If the diarist lives with two parents and

both parents should have but did not complete a diary or cannot be identified, this variable takes a value of -8. If both parents are in the same household and completed diaries or have other person-specific information in the original survey, this variable takes the value of the parent with the higher person identifier.

### **PARTID: Person identifier of spouse or partner - HEF HAF only**

This variable records the person-level identifier of the spouse or partner of the diarist if the spouse or partner also completed a diary or has other person-level information in the original survey. In cases where only one person per household completed a diary and other information is not available about other household members, this variable is coded as -9. If multiple people completed diaries in the household and the diarist does not have a spouse or partner, this variable takes a value of -7. If the diarist has a partner who cannot be identified, this variable takes a value of -8.

### **DAY: Day of week diary kept - HEF HAF HCF**

This variable records the day of the week when the diary was kept. Note that some older surveys only included all week averages or distinguished Saturdays and Sundays from week days, but did not distinguish week days.

Value	Label
1	Sunday
2	Monday
3	Tuesday
4	Wednesday
5	Thursday
6	Friday
7	Saturday
8	Averaged time across week
9	Unspecified weekday
10	Unspecified weekend day

### **CDAY: Calendar day diary kept - HEF only**

The sole variable not in the other versions is **CDAY**. This variable takes a value between 1 and 31 where the information has been released, or -9 if the information is not available. This variable appears here partly to allow matching of additional information relevant to specific days (weather conditions, sunrise

and sunset on the diary day, whether the diary took place before or after a major event), and partly to allow testing of potential minor variations in activities across months (for instance closer or further away from when most people get paid).

### **MONTH: Month diary kept - HEF HAF HCF**

This variable records the month when the diary was kept. Some surveys only record the quarter or season when the survey was carried out. In such cases, we assumed that the survey was conducted during the first month of the quarter even though the data collection was actually spread throughout the quarter. Such cases are documented in the relevant Readme documents.

Value	Label
1	January
2	February
3	March
4	April
5	May
6	June
7	July
8	August
9	September
10	October
11	November
12	December

### **YEAR: Year diary kept - HEF HAF HCF**

This variable records the year when the diary was kept in four digits.

### **DIARY: Diary order - HEF HAF only**

When surveys collected more than one diary per person, this variable records the order in which diaries were completed. In most cases, this variable has the same value as ID, the diary identifier. In a limited number of surveys, the UK 2000-01 and France 2009-10, a minority of diaries have a diary identifier order that differs from the date order in which diaries were completed. In both cases, this coding variation reflects coding mistakes. We use the variable DIARY to mark the order of completion rather than correcting the variable ID so that users are able to smoothly match MTUS data back to the original survey data. Where users wish to control for or examine effects of completing multiple diaries, users will need to



use this variable instead of ID. For surveys that collected only one diary per participant, this variable takes the value 1.

Value	Label
1	First diary day
2	Second diary day
3	Third diary day
4	Fourth diary day
5	Fifth diary day
6	Sixth diary day
7	Seventh diary day

**NOWGHT: Marker of insufficient information to make propwt - HEF HAF only**

This variable distinguishes diaries with basic background variables (age and sex), known day of the week, and sufficient diary information to permit most forms of analysis, from those diaries lacking at least any one of these essential characteristics. Diaries with these elements missing have a propwt value = 0.

Value	NOWGHT Labels
0	Diary case has a weight
1	Insufficient information to create weight: propwt=0

## 4.2 Household-level variables

- HHTYPE
- HHLDSIZE
- NCHILD
- AGEKIDX
- AGEKID2
- INCORIG
- INCOME
- OWNHOME
- URBAN
- COMPUTER
- VEHICLE

### HHTYPE: Household type - HAF only

This variable records the type of household in which the diarist lived at the time of the survey. This variable is computed from a household type variable or a household grid when available, and from a combination of marital status and household size when no household type classification was available. Where there is inconsistency in the reporting in the survey, the converter should opt for the most logical solution and document the process of coding this variable in the code file.

One person households have only 1 member. In instances where a household size variable suggests that there is only one household member, but the person is also a parent and not in a couple and at least one child also lives in the household, then the household type should be coded as 4.

Values 2 and 3 mark instances where a household includes a couple (cohabiting or married). If the couple are the only people in the household (and the household size=2, then the appropriate code is category 2. If a couple lives in the household with at least one other person, then the code is 3. It does not matter if the couple are lodgers of the household reference person, or the household is a multi-couple household, or the reference person is a widow/widower or divorced person and has a child who has a partner that lives in the same household, or is a couple and children, the appropriate code is 3. If two or more people live in the household, and no household member is in a couple, then the appropriate code is 4. A crosstab of civstat and hhtype should produce no cases of a person with civstat=1 (in couple) and hhtype=4.

Value	Label
1	One person household
2	Couple alone
3	Couple + others
4	Other household types

In some surveys, we cannot identify cohabiting couples, and these people may be miscoded as HHTYPE =4. Some surveys make the identification of single parent households difficult. If there are potential miscodes in this variable, these should be noted in the documentation.

In contrast to FAMSTAT, this variable is a household characteristic and all household members should be coded the same way.

### **HHLDSIZE: Number of people in household - HAF HCF only**

This variable records the total number of household members. In some surveys, the size of large households is capped, with the value 'n' meaning 'n or more members'. Such cases should be documented in the Readme documents.

There are cases where household size is not presented directly or in full. In such cases, we made the best possible calculation based on what information is available (summing number of income earners + non-income earners, number of people listed on the household matrix, 2 + the number of children for couple households with children, etc.). Any instances where this information is incomplete for a survey should be documented in the Readme file for the survey.

### **General notes on 3 household child variables**

If a household member is a dependent child, someone will have a legal responsibility for looking after that child, and the presence of the child in the household will likely have some impact on the behaviour of other household members (if only in influencing the storage of chemicals, use of language, some late night leisure activity choices, or timing of some forms of housework). NCHILD values 1 and higher, AGEKIDX values 1, 2, & 3, and AGEKID2 values 0 through 17 indicate that a child of this age lives in the household. The relationship of the child to the other household members does not matter. In some cases, a child may also be the household reference person. If a 17-year-old lives alone or a 16 and 17-year-old married couple live alone together, the NCHILD, AGEKIDX and AGEKID2 should have values in the child present range.

When we look at the time use patterns of adults, there are some altered social expectations when the relationship between two adults is that of parent and child. We also mark these relationships in the value of AGEKIDX=4 and values of 18 and greater for AGEKID2. AGEKIDX=4 and AGEKID2>17 apply only when the relationship between two people in the household is that of parent and child and no person aged 17 or younger lives in the household. If no people aged less than

18 live in the household and no household member is the child of another household member, then the appropriate codes are: NCHILD=0; AGEKIDX and AGEKID2= -7.

### **NCHILD: Number of children under 18 in household - HAF HCF only**

This variable records the total number of children aged under 18 in the household. The children are not necessarily the diarist's own children. If the diarist is aged <18, nchild should be >0, even if the diarist is married.

This variable is highly comparable across countries, though there are some surveys with limited information about household composition and different age bands (such as the number of children aged <15 or <12). We made adjustments and corrections when possible. Users are asked to consult the Readme documents for more detailed explanations.

### **AGEKIDX: Age of youngest child in household (including adult children) - HAF HCF only**

This variable records grouped information on the age of the youngest child in the household. If no household member is the child of another household member and all members are aged 18 or older, this variable takes the value -7.

Value	Label
1	Youngest child aged between 0-4
2	Youngest child aged between 5-12
3	Youngest child aged between 13-17
4	Youngest child aged 18+

If the survey has different cut-off points in categories of age of the youngest child, or only report information on the diarist's children rather than children residing in the diarist's household, a note should be recorded in the Readme document.

### **AGEKID2: Age of youngest child in household - HAF only**

This variable records the actual age of the youngest child in the household. If a household member is aged less than 18, then this variable has a positive value (unless the exact age is not known). If no household member is aged less than 18 and no household member is the child of another household member, this variable takes the value -7. In the unlikely event that a child in the household is

aged older than 60, the age should be top-coded at 60 – that is the value 60 means 60 or older.

### **INCORIG: Original household income - HAF only**

This variable records total household income as originally recorded in the survey. This variable is **not harmonised** (see INCOME for the harmonised variable). This variable is not suitable for analysis across the megafile, but is provided to enable users to make customised variables for individual research projects.

Note that when merging data from different surveys, the original value labels for this variable will be lost since they are survey-specific. Labels are recorded in the Readme document for each survey.

### **INCOME: Total household income - grouped - HAF only**

This variable records the annual household income, recoded in quartiles.

Value	Label
1	lowest 25%
2	middle 50%
3	highest 25%

Income often has a high percentage of cases with missing values. Also, in many surveys, data on household income was collected and/or coded in income groups rather than interval values. As a result, the identification of the cut-off points for the first quartile (lowest 25%) and fourth quartile (highest 25%) may not be precise.

### **OWNHOME: Whether household owns or rents home - HAF only**

This variable marks whether a diarist's household owns or rents accommodation.

Value	Label
1	Own (outright or on mortgage)
2	Rent
3	Other arrangement

### **URBAN: Urban or rural household - HAF only**

This variable indicates whether or not the diarist lives in an urban area.

Value	Label
1	Urban/suburban
2	Rural/semi-rural

Survey-specific definition of 'urban' and 'rural' is included in the conversion code. Look up the official statistical office definition of rural areas where the available data indicate the population of the area in which the diarist resides.

### **COMPUTER: Does household have a computer - HAF only**

This variable indicates whether the diarist's household has a home computer and / or internet access at home.

Value	Label
0	No
1	Yes

### **VEHICLE: Does household have a private vehicle - HAF only**

This variable reflects the private transport options of the diarist's household. In most developed countries, the question of access to animal is not asked. In urban areas of many developed countries, transport by animal may not be permitted. Most people in most developed countries can afford to purchase a bicycle and are able to ride that bicycle if they chose to do so. Most surveys ask

whether the household has a car or the number of cars the household owns. A smaller number of surveys ask whether the household owns a bicycle. Often the number of cars and ownership of a bicycle are separate questions. Unless noted in the documentation to the contrary, for most developed countries only options 0, 3 and 4 will apply. Options 1 and 2 are for those countries where such data are collected, generally also where the affordability of any private transport option is not accessible to all households.

Value	Label
0	No
1	Animal only
2	Non-motorised vehicle
3	1 car or motorcycle
4	2+ cars or motorcycles

### 4.3 Person-level demographic variables

- SEX
- AGE
- FAMSTAT
- SINGPAR
- RELREFP
- CIVSTAT
- COHAB
- CITIZEN

#### SEX: Sex - HEF HAF HCF

Value	Label
1	Man
2	Woman

#### AGE: Age - HEF HAF HCF

This variable records the age of respondents (2 digits). For surveys in which age was recorded in categories, we recoded age into a continuous variable by assigning the mid-point of each age group (e.g. 17 for age group 15-19). When surveys only included the year of birth of respondents, we computed AGE by subtracting the year of birth from the year of the survey. To protect the anonymity of the oldest diarists, we top-code age at 90 – that is the value 90 means aged 90 or older.

#### FAMSTAT: Individual level family status - HAF only

This variable is an individual characteristic, which means that not every member of a household would be coded the same way (in the case of multi-member surveys). It records the presence of any children in the household (irrespective of whether those children are the diarist's own children), and the diarist's age.

Value	Label
0	Adult aged 18 to 39 with no co-resident children <18
1	Adult 18+ living with 1+ co-resident children aged <5
2	Adult 18+ living with 1+ co-resident children 5-17, none <5
3	Adult aged 40+ with no co-resident children <18
4	Respondent aged <18 and living with parent(s)/guardian(s)
5	Respondent aged <18, living arrangement other or unknown



### SINGPAR: Whether diarist is a single parent - HAF only

This variable records whether the diarist is a sole parent living with her or his child or children.

Value	Label
0	No
1	Yes

### RELREFP: Relation to household reference person - HAF only

This variable indicates the relationship of the diarist to the household reference person. In the MTUS, the reference person usually is the person who answered the household questionnaire (generally person identifier 1). In some cases, this may be the person the survey designates as the head of the household.

Value	Label
1	Person 1
2	Spouse/ Common-law partner
3	Child
4	Parent
5	Sibling
6	Son/Daughter-in-law
7	Father/Mother-in-law
8	Brother/Sister-in-law
9	Other Relative
10	Not related

### CIVSTAT: Is diarist in a couple? - HAF HCF only

This variable marks whether the diarists is in a couple.

Value	Label
1	Yes, diarist is in a couple, lives with spouse/partner
2	No, diarist not in a couple

### COHAB: Respondent is cohabiting - HAF only

This variable indicates whether or not the diarist is cohabiting or legally married. People not in couples are coded as -7.

Value	Label
-7	Not in a couple
0	Married/civil partnership
1	Cohabiting

#### CITIZEN: Whether diarist is a citizen of the country - HAF only

This variable indicates whether or not the diarist is citizen or national of the country in which she or he completed the diary.

Value	Label
0	No
1	Yes

#### 4.4 Employment and education variables

- EMPSTAT
- EMP
- UNEMP
- STUDENT
- RETIRED
- EMPSP
- WORKHRS
- EMPINCLM
- OCCUPO
- ISCO1
- SECTOR
- EDUCA
- EDCAT

#### EMPSTAT: Employment status - HAF HCF only

This variable reflects attachment to the labour market. People who are retired, students, seeking work or looking after family but who work at least some hours should be coded as working part time. Category 4 should mean no attachment to the labour force, though when it is not possible to make this distinction, this fact is noted in the Readme file for the survey.

Value	Value Label	Description
1	Employed Full Time	Employed/self-employed (including military service), full-time hours
2	Employed Part Time	Employed/self-employed (including military service), part-time hours
3	Employed, unknown status	Employed/self-employed (including military service), hours of work unknown
4	Not in paid work	Other

		Unemployed, looking for work Retired Homemaker Currently attending school Currently on maternity leave Disability retirement/leave
--	--	---

### EMP: In paid work - HAF only

This variable indicates whether or not the diarist was employed or self-employed (i.e. had a paid job) during the week prior to the survey (or whatever the period of reference was in the original questionnaire). The value 1 here means the diarist should have a value between 1 and 3 for EMPSTAT.

Value	Label
0	Not in paid work
1	In paid work

### UNEMP: Unemployed - HAF only

This variable indicates whether or not the diarist was unemployed during the week prior to the survey (or whatever the period of reference was in the original questionnaire). This variable does not differentiate between respondents who were registered as unemployed, who were not working but available for work and actively seeking work, and who self-reported themselves to be unemployed. Ideally, when combined with EMPSTAT, this variable should distinguish unemployed people not undertaking any paid work from those with some part-time or unknown hours work time.

Value	Label
0	Not-unemployed
1	Unemployed

### STUDENT: Whether diarist is a student - HAF only

This variable indicates whether or not the diarist was a student. This variable should be coded from a question about whether or not the diarist was a student (or was enrolled in school). Where no information on whether the diarist is a student is available, but the diarist is in the age range where children are

required to attend school in the country where the survey was collected, if any study activity is coded in any of the diaries from this respondent or the diary is completed during school holidays, we code this diarist as a student. When combined with EMPSTAT, this variable should distinguish working and non-working students.

Value	Label
0	Not a student
1	Student

Some surveys only identify students whose general economic activity status is study. In such surveys, students may be miscoded if the survey took place during summer months. For example, a student who is working full-time during summer months and is interviewed during such a month would declare his/her main activity during the week prior to the survey as 'employed' as opposed to 'student'. Cases where a general economic activity status variable is the only way to identify students should be noted in the Readme documentation file.

#### **RETIRED: Whether diarist has retired - HAF only**

This variable indicates whether or not the diarist has retired. This variable should be created from a question about retirement. If the study did not include retirement questions, the receipt of a retirement pension income can be used instead. Where no information is reported, but the diarist is aged above the legal retirement age and does not report working full-time hours, we code this perso as retired. Only when this information was not available was data regarding the diarist's main activity during the week prior to the survey used to compute this variable. Ideally, when combined with EMPSTAT, this variable should distinguish working and non-working retired people. The Readme documentation file should not when the retirement variable only can be created from a main economic activity status last week variable.

Value	Label
0	Not retired
1	Retired

#### **EMPSP: Employment status of spouse/partner - HAF only**

This variable records the employment status of the diarist's spouse or partner for diarists who are in couples. Where the survey collected diaries from both people in the couple, each partner's own self-reported employment status should be used to identify the corresponding spouse's employment status. Where one

partner's employment status is not reported or where only one person in the household completed a diary, we use questions about the employment status of the diarist's spouse during the week prior to the survey (or whatever the period of reference was in the original questionnaire).

Note that if the diarist is not in a couple (CIVSTAT=2), EMPSP is coded as '-7'.

Value	Label
1	Employed full-time
2	Employed part-time
3	Employed, unknown hours
4	Not in paid work

#### **WORKHRS: Paid work hours last week including overtime - HAF HCF only**

This variable records the number of hours of paid work reported during the week prior to the survey including any overtime. Note that the number of hours of paid work during the last week was given priority even if data on the number of hours 'usually worked' was available. If data on the number of paid work hours last week was not available, then WORKHRS was computed by using usual hours of paid work. When neither question was available, 7-day diaries or work schedules (as collected in HETUS surveys) were used to measure hours worked during the diary week. Surveys in which this variable does not represent hours worked last week should be documented in the Readme documents. The variable includes reported hours of paid work for any diarist who answered the question, whether or not this person reports being employed on a main economic activity variable.

Value of 0 means that the diarist reported zero hours of paid work. If diarists were not asked the question, they were given a value of -9 or -7 as appropriate. If diarists did not answer the question, they were coded as -8 for this variable.

#### **EMPINCLM: Original monthly employment income - HAF only**

This variable records the monthly personal income from wages/employment/self-employment during the last month. This variable is not harmonised and is instead recorded in national currency. Note that if data is only available on the personal income from wages/employment/self-employment during the last 12 months, include this variable as presented and add a note the Readme file.

Note that when merging data from different surveys, the original value labels for this variable will be lost since they are survey-specific. Labels should be recorded in the Readme document.

### **OCCUPO: Original occupation - HAF only**

This variable details the diarist's occupation. If the diarist is employed at the time of the survey, use the diarist's current occupation. If the diarist is not presently employed, but there is information on the diarist's most recent occupation, use this information to code occupation. Aim to use an ISCO 2008 compatible variable if this is available, otherwise use the closest approximation. Ensure that you enter the original value labels associated with each value in the survey documentation. If you need to combine multiple variables to make a single variable, ensure all the original elements have a separate label in the new combined variable.

### **ISCO1: ISCO 2008 1-Digit Occupation - HAF only**

This variable uses the first digit of ISCO 2008 code for occupation groups. If a respondent's occupation is not given in ISCO categories, make the best approximation of these categories that can be made from OCCUPO and note the variations in the survey documentation. As with OCCUPO, if the diarist is presently employed, use the current occupation to make this variable. If the diarist is not currently employed but a last occupation variable is available, use this last occupation variable to make ISCO1.

Armed Forces occupations	0
Managers, senior officials and legislators	1
Professionals	2
Technicians and associate professionals	3
Clerical workers	4
Service and sales workers	5
Skilled agricultural, fishery, and forestry workers	6
Craft and related trades workers	7
Plant and machine operators and assemblers	8
Elementary occupations	9

### **SECTOR: Sector of employment - HAF only**

This variable records if employed people work in the public or the private sector.

Value	Label
1	Public sector
2	Private sector

### **EDUCA: Educational level-original study code - HAF only**

This variable contains the diarists' education level as originally coded in the surveys. This variable is not harmonised. Note that when merging data from different surveys, the original value labels for this variable will be lost since they are survey-specific. Labels should be recorded in the Readme document. Also note that where original surveys offer a large number of individual education qualification variables, use a highest level of completed education variable. If only a number of qualifications is offered and no highest level of education variable is available, we create a highest level of education from the available variables in the original survey.

### **EDCAT: Harmonised highest level of education - HAF HCF only**

This variable contains the harmonised diarists' highest education level. It is based on the [International Classification of Education \(ISCED\)](#). This variable proved one of the most difficult to harmonise. In earlier versions of the MTUS, this variable had the column name EDTRY.

Value	Label	ISCED equivalent
1	uncompleted secondary or less	Not completed ISCED level 3
2	completed secondary	Completed ISCED level 3 and/or attendance at level 4
3	above secondary education	ISCED level 5 or above

This variable refers to the diarist's highest level of education completed (in the case of '1' and '2') or attended (in the case of '3').

## 4.5 Health variables

- RUSHED
- HEALTH
- CARER
- DISAB

### RUSHED: Whether diarist generally feels rushed - HAF only

This variable indicates self-reported feelings of time pressure. If the scale includes more categories in the original, make the most logical collapse of categories.

Value	Label
0	Almost never
1	Sometimes
2	Often

### HEALTH: Diarist's general health - HAF only

This variable indicates is drawn from a self-reported general health status.

Value	Label
0	Poor
1	Fair
2	Good
3	Very good

### CARER: Diarist looks after an adult or child with a disability - HAF only

This variable indicates whether the diarist provides any level of routine care to an adult who needs regular assistance with daily living or looks after a child whose disability or health condition requires more than the standard child care a child of that age might typically require.

Value	Label
0	No
1	Yes



**DISAB: Diarist has disability / limiting health condition - HAF only**

This variable indicates whether or not the diarist has a disability or long-term health limiting condition.

Value	Label
0	No
1	Yes

It should be noted that the way disability is defined tends to vary across surveys, which may affect the degree of cross-survey comparability. We attempt to ensure consistency in the coding across time in the same country. Also, where possible, we use health variables and not economic activity status to code this variable (thus allowing users to identify working people with disabilities). When such distinctions are not possible and the only information is from a main economic activity status variable, we add a note in the Readme documentation file.