

Technical note

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# Data cleaning and management of the Click and Drag Diary Instrument (CaDDI) time diary data

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July 2022



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## About the technical note

This technical note is published alongside 3 Stata Do Files (syntax also included as an Appendix in this report), which can be used for data cleaning and management of the Click and Drag Diary Instrument (CaDDI) data, or act as a guide, focusing on creating new variables, diary quality indicators and instantaneous enjoyment.

**Anyone is free to use any part of the syntax provided, however, we ask that you cite this technical note.**

## Acknowledgments

I would like to thank my colleagues at the Centre for Time Use Research, Prof. Gershuny, Prof. Sullivan, Dr. Lamote de Grignon Perez, and Dr. Vega-Rapun, who have worked on the development of the CaDDI. I would also like to thank Prof. Sanders for his guidance on producing this technical note.

## Funding

This work was supported by the Economic and Social Research Council [grant number ES/V016644/1].

## The Click and Drag Diary Instrument (CaDDI) data

The online Click and Drag Diary Instrument (CaDDI) was developed in 2016 by the ESRC Centre for Time Use Research at the Social Research Institute, UCL (Gershuny et al., 2022). Time use diary data were collected using a population-representative (quota sample) from Dynata's large international market research panel across 9 countries.

The same instrument was fielded using the UK panel across the COVID-19 pandemic: in May-June 2020, August 2020, November 2020, January 2021, and in August/September 2021, capturing a range of different lockdown restrictions. For each wave, there are up to 3 time use diaries per respondent, recording their primary and secondary activities, location, co-presence, device use, and enjoyment level, using 10-minute episodes throughout the diary day. Participants were also asked to complete a survey questionnaire, including sociodemographic, health and time use related questions.

An additional set of survey questions were added from Wave 2 onward, including the 'ONS4' wellbeing questions (ONS, 2018). In total, 6896 diaries were collected across the 6 waves, allowing analysis of behavioural change between a baseline (in 2016), three national lockdowns, and two intervening periods of the relaxation of social restrictions.

### Data availability

All waves of the CaDDI data are free and available to download from the UK Data Service, available to academic and non-academic users, upon acceptance of the terms and conditions. Users should delete any data files upon the expiration of the usage licence. Data are already in an anonymised form; however, no attempt should be made for single individuals to be identified in statistical analyses.

## Stata Do Files

This technical note is published alongside 3 Stata Do Files. In all Do Files, users should:

- Open/use the data file
- Reshape the data from wide to long format (so that we get 144 rows of data, equivalent to 10-minute slots, per participant, per diary day)
- Sort the data by: Participant ID, diary order (as some participants completed more than 1 time diary per wave), and slot (reflecting the right order of the time in the day the activities were reported)

*Optional, depending on the analysis:*

- Weight the data using the recommended weight provided in the dataset by the Centre for Time Use Research
- At the end of the Do File, keep a single row per diary, as given the recoding of the data, we do not require 144 rows per participant per diary anymore for various types of analyses

### Do File 1: Creating new variables

This Do File provides the syntax for creating new variables:

- A broad activities variable, grouping all 37 primary activities in 11 broad categories
- A set of 11 variables, counting the duration of each broad activity in the diary day
- A set of 11 variables, indicating whether the participant engaged in that broad activity in the diary day or not
- A set of 4 variables counting the number of episode changes per participant per diary day for: Primary activity, Enjoyment level, Location, Co-presence (person A)
- A variable indicating whether the diary was completed on a weekday or a weekend day

### Do File 2: Quality indicators

This Do File provides the syntax for creating quality indicator variables:

*To create any variables using episode changes, you will need to run the syntax from Do File 1 to create the episode changes variables.*

- A binary indicator of whether the participant had 5 or more episode changes reported in the primary activity in the diary day
- A binary indicator of whether the participant had reported eating/drinking as a secondary activity in the diary day
- A binary indicator of whether the participant had reported any secondary activity in the diary day
- A set of 6 different scenarios that indicate the quality of the data at the level of an individuals' diary day, using a binary indicator based on the following conditions:
  - I. > 5 episode changes (primary activity)
  - II. > 5 episode changes (primary activity) and at least one episode of sleep/rest/personal care
  - III. > 5 episode changes (primary activity) and at least one episode of sleep/rest/personal care and at least one episode of eating/drinking (primary or secondary)
  - IV. > 5 episode changes (primary activity) and at least one episode of sleep/rest/personal care and at least one episode of eating/drinking (primary or secondary), and at least one activity reported on the secondary activity category
  - V. > 5 episode changes (primary activity) and at least one episode of sleep/rest/personal care and at least one episode of eating/drinking (primary or secondary), and at least one activity reported on the secondary activity category and at least one change reported in location
  - VI. > 5 episode changes (primary activity) and at least one episode of sleep/rest/personal care and at least one episode of eating/drinking (primary or secondary), and at least one activity reported on the secondary activity category and at least one change reported in location and at least one change reported in co-presence of others

### Do File 3: Instantaneous enjoyment

This Do File provides the syntax for creating variables related to instantaneous enjoyment:

*To create any variables using the broad categories, you will need to run the syntax from Do File 1 to create the broad activities variables.*

- A binary indicator of whether a participant's enjoyment level changed at any point at least once during the diary day
- A variable calculating the mean enjoyment per participant per diary day
- A set of 11 variables calculating the mean enjoyment per participant per diary day of each broad activity
- A few examples using the command 'tabstat' to generate descriptive statistics for instantaneous enjoyment

## References

Gershuny, J., Sullivan, O., Lamote de Grignon Perez, J., Vega-Rapun, M. (2022). *Centre for Time Use Research UK Time Use Survey 6-Wave Sequence across the COVID-19 Pandemic, 2016-2021*. [data collection]. 4th Edition. UK Data Service. SN: 8741, DOI: 10.5255/UKDA-SN-8741-4

ONS (2018). *Personal well-being user guidance* [online]. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/methodologies/personalwellbeingsurveyuserguide>

## Appendix (Syntax)

### Do File 1: Creating new variables

**\* Needs to run for all Do Files to work \***

\* Open/use the file \*

```
global CaDDI_folder "C:\Users\"
```

```
use "$CaDDI_folder/uk_6_wave_caddi.dta"
```

\* OR specify the location of the Data file\*

```
use "C:\Users\Elena\Desktop\Analysis\uk_6_wave_caddi.dta"
```

\* Wide to long

```
reshape long pri sec loc dev enj whoa whob whoc whod, i( mainid diaryord ) j(slot)
```

\* Sort the data

```
sort mainid diaryord slot
```

\* Weight (Optional)

```
svyset [pweight= daywtq4]
```

**\* Creates a 'broad' activities variable \***

\* Sleep/Personal care: Sleeping

```
gen broad = 1 if (pri == 101)
```

\* Sleep/Personal care: Resting

```
replace broad = 1 if (pri == 102)
```

\* Sleep/Personal care: Washing, dressing

```
replace broad = 1 if (pri == 103)
```

\* Eat/Drink: Eating or Drinking

```
replace broad = 2 if (pri == 104)
```

\* housework > Preparing food, cooking etc

```
replace broad = 3 if (pri == 105)
```

\* housework > Cleaning tidying housework .

```
replace broad = 3 if (pri == 106)
```

\* housework > Clothes washing, mending .

```
replace broad =3 if (pri == 107)
```



\* housework > Maintenance DIY, etc .  
replace broad = 3 if (pri == 108)

\* services > Personal services .  
replace broad = 4 if (pri == 109)

\* services > Shopping, bank etc incl. internet .  
replace broad = 4 if (pri == 126)

\* leisure > Church, temple, synagogue, prayer.  
replace broad = 5 if (pri == 110)

\* leisure > Recreational courses.  
replace broad = 5 if (pri == 119)

\* leisure > Reading including e-books.  
replace broad = 5 if (pri == 128)

\* leisure > Going out to eat, drink.  
replace broad = 5 if (pri == 130)

\* leisure > Walking, dog walking.  
replace broad = 5 if (pri == 131)

\* leisure > eating or drinking in a restaurant or caf?? .  
replace broad = 5 if (pri == 133)

\* leisure > Cinema, theatre, sport etc.  
replace broad = 5 if (pri == 135)

\* leisure > Hobbies  
replace broad = 5 if (pri == 136)

\* travel > Travel: walking, jogging .  
replace broad = 6 if (pri == 111)

\* travel > Travel: cycle .  
replace broad = 6 if (pri == 112)

\* travel > Travel: by car.  
replace broad = 6 if (pri == 113)

\* travel > Travel: by bus, tram .  
replace broad = 6 if (pri == 114)

\* travel > Travel: by train, tube.  
replace broad = 6 if (pri == 115)

```
* travel > Travel: other .
replace broad = 6 if (pri == 116)

* work > Paid work including at home .
replace broad = 7 if (pri == 117)

* work > Formal education .
replace broad = 7 if (pri == 118)

* work > Work or study break .
replace broad = 7 if (pri == 125)

* unpaidwork > Voluntary work for organisation.
replace broad = 8 if (pri == 120)

* unpaidwork > Caring for own child .
replace broad = 8 if (pri == 121)

* unpaidwork > Caring for other children.
replace broad = 8 if (pri == 122)

* unpaidwork > Help, caring for cores adult .
replace broad = 8 if (pri == 123)

* unpaidwork > Help, caring for no coresidents .
replace broad = 8 if (pri == 124)

* media > Watching tv, video, DVD, music .
replace broad = 9 if (pri == 127)

* media > Playing computer games .
replace broad = 9 if (pri == 132)

* media > Telephone, text, email, letters.
replace broad = 9 if (pri == 134)

* sports > Playing sports, exercise.
replace broad = 10 if (pri == 129)

* other > Write-in, not code .
replace broad = 11 if (pri == 137)

label variable broad "Broad activities"

label define broadx 1 "Sleeping/Personal care" 2 "Eating/drinking" 3 "Housework" 4 "Services" 5 "Leisure" 6
"Travelling" 7 "Paid work/Education" 8 "Unpaid work" 9 "Media" 10 "Sports" 11 "Other"

label values broad broadx
```

tab broad

tab pri broad

**\* Creates a duration and a participation variable for each 'broad' activity \***

\* Sleeping/Relaxing/Personal care (primary activity)

by mainid diaryord, sort: egen personal1 = total(pri == 101 | pri == 102 | pri == 103)

gen personal01=personal1

recode personal01 (1/144=1) (0=0)

label variable personal01 "Personal care including sleeping and relaxing"

gen personal=personal01\*10

\* Eating/drinking (primary activity)

by mainid diaryord, sort: egen eating1 = total(pri == 104)

gen eating01=eating1

recode eating01 (1/144=1) (0=0)

label variable eating01 "Eating/drinking"

gen eating=eating01\*10

\* Housework (primary activity)

by mainid diaryord, sort: egen housework1 = total(pri == 105 | pri == 106 | pri == 108 | pri == 109)

gen housework01=housework1

recode housework01 (1/144=1) (0=0)

label variable housework01 "Housework"

gen housework=housework01\*10

\* Services (primary activity)

by mainid diaryord, sort: egen services1 = total(pri == 109 | pri == 126)

gen services01=services1

recode services01 (1/144=1) (0=0)

label variable services01 "Services"

gen services=services01\*10

\* Leisure activities (primary activity)

by mainid diaryord, sort: egen leisure1 = total(pri == 110 | pri == 119 | pri == 128 | pri == 130 | pri == 131  
| pri == 133 | pri == 135 | pri == 136)

gen leisure01=leisure1

recode leisure01 (1/144=1) (0=0)

```
label variable leisure01 "Leisure"

gen leisure=leisure*10

* Travel (primary activity)

by mainid diaryord, sort: egen travell = total(pri == 111 | pri == 112 | pri == 113 | pri == 114 | pri == 115
| pri == 116)

gen travel01=travell

recode travel01 (1/144=1) (0=0)

label variable travel01 "Travel"

gen travel=travel*10

* Work (primary activity)

by mainid diaryord, sort: egen workl = total(pri == 117 | pri == 118 | pri == 125)

gen work01=workl

recode work01 (1/144=1) (0=0)

label variable work01 "Work"

gen work=work*10

* Unpaid (primary activity)

by mainid diaryord, sort: egen unpaidl = total(pri == 120 | pri == 121 | pri == 122 | pri == 123 | pri ==
124)

gen unpaid01=unpaidl

recode unpaid01 (1/144=1) (0=0)

label variable unpaid01 "Unpaid"

gen unpaid=unpaid*10

* Media (primary activity)

by mainid diaryord, sort: egen medial = total(pri == 127 | pri == 132 | pri == 134)

gen media01=medial

recode media01 (1/144=1) (0=0)

label variable media01 "Media"

gen media=medial*10

* Sports (primary activity)

by mainid diaryord, sort: egen sportsl = total(pri == 129)

gen sports01=sportsl

recode sports01 (1/144=1) (0=0)

label variable sports01 "Sports"
```

```

gen sports=sportsl*10
* Other (primary activity)
by mainid diaryord, sort: egen otherl = total(pri == 137)
gen other01=otherl
recode other01 (1/144=1) (0=0)
label variable other01 "Other"
gen other=otherl*10

```

**\* Creates a variable for episode changes \***

```

* Number of episode changes: Primary activity
gen slot1 = slot
replace slot1 = slot1 +144 if(diaryord == 2)
replace slot1 = slot1 +288 if(diaryord == 3)
replace slot1 = slot1 +432 if(diaryord == 4)
xtset mainid slot1
gen change_activity = pri - l.pri
gen tag=0
replace tag = 1 if( change_activity != 0 ) & change_activity!=.
egen day1tags = total( tag ) if(slot1 <= 144), by( mainid )
egen day2tags = total( tag )if(slot1 > 144 & slot1 <=288), by( mainid )
egen day3tags = total( tag ) if(slot1 > 288 & slot1 <=432), by( mainid )
egen day4tags = total( tag )if(slot1 > 432), by( mainid )
gen episodes = day1tags
replace episodes = day2tags if(diaryord == 2)
replace episodes = day3tags if(diaryord == 3)
replace episodes = day4tags if(diaryord == 4)

```

```

* Number of episode changes: Enjoyment level
gen slot2=slot
replace slot2 = slot2 +144 if(diaryord == 2)
replace slot2 = slot2 +288 if(diaryord == 3)
replace slot2 = slot2 +432 if(diaryord == 4)
xtset mainid slot2

```

```
gen change_enj = enj - l.enj
```

```
gen tagenj=0
```

```
replace tagenj = 1 if( change_enj != 0 ) & change_enj!=.
```

\* Calculate a variable that counts the number of enjoyment changes for each participant (every 144)

```
egen day1tagsenj = total( tagenj ) if(slot2 <= 144), by( mainid )
```

```
egen day2tagsenj = total( tagenj )if(slot2 > 144 & slot2 <=288), by( mainid )
```

```
egen day3tagsenj = total( tagenj ) if(slot2 > 288 & slot2 <=432), by( mainid )
```

```
egen day4tagsenj = total( tagenj )if(slot2 > 432), by( mainid )
```

```
gen episodesenj = day1tagsenj
```

```
replace episodesenj = day2tagsenj if(diaryord == 2)
```

```
replace episodesenj = day3tagsenj if(diaryord == 3)
```

```
replace episodesenj = day4tagsenj if(diaryord == 4)
```

\* Number of episode changes: Location

```
gen slot3=slot
```

```
replace slot3 = slot3 +144 if(diaryord == 2)
```

```
replace slot3 = slot3 +288 if(diaryord == 3)
```

```
replace slot3 = slot3 +432 if(diaryord == 4)
```

```
xtset mainid slot3
```

```
gen change_loc = loc - l.loc
```

```
gen tagloc=0
```

```
replace tagloc = 1 if( change_loc != 0 ) & change_loc!=.
```

```
egen day1tagsloc = total( tagloc ) if(slot3 <= 144), by( mainid )
```

```
egen day2tagsloc = total( tagloc )if(slot3 > 144 & slot2 <=288), by( mainid )
```

```
egen day3tagsloc = total( tagloc ) if(slot3 > 288 & slot2 <=432), by( mainid )
```

```
egen day4tagsloc = total( tagloc )if(slot3 > 432), by( mainid )
```

```
gen episodesloc = day1tagsloc
```

```
replace episodesloc = day2tagsloc if(diaryord == 2)
```

```
replace episodesloc = day3tagsloc if(diaryord == 3)
```

```
replace episodesloc = day4tagsloc if(diaryord == 4)
```

\* Number of episode changes: Co-presence (person A)

```

gen slot4=slot
replace slot4 = slot4 +144 if(diaryord == 2)
replace slot4 = slot4 +288 if(diaryord == 3)
replace slot4 = slot4 +432 if(diaryord == 4)
xtset mainid slot4
gen change_who = whoa - l.whoa
gen tagwho=0
replace tagwho = 1 if( change_who != 0 ) & change_who!=.
egen day1tagswho = total( tagwho ) if(slot4 <= 144), by( mainid )
egen day2tagswho = total( tagwho )if(slot4 > 144 & slot2 <=288), by( mainid )
egen day3tagswho = total( tagwho ) if(slot4 > 288 & slot2 <=432), by( mainid )
egen day4tagswho = total( tagwho )if(slot4 > 432), by( mainid )
gen episodeswho = day1tagswho
replace episodeswho = day2tagswho if(diaryord == 2)
replace episodeswho = day3tagswho if(diaryord == 3)
replace episodeswho = day4tagswho if(diaryord == 4)

```

**\* Creates a variable for weekday/weekend day \***

```

by mainid dday diaryord , sort: egen weekday1 = total(dday == 1 | dday == 2 | dday == 3 | dday == 4
| dday == 5 )
gen weekday=weekday1
recode weekday (1/144=1) (0=0)
label variable weekday "Weekday/Weekend day"
label define weekdayx 0 "Weekend day" 1 "Weekday"
label values weekday weekdayx
tab dday weekday

```

**\*This code moves the data from having one row per individual/10 minute time period, to having one row per individual. Essentially reducing to one diary per participant per row \***

```

keep if slot == 1

```

## Do File 2: Diary quality indicators

*Requires part of the syntax from Do File 1*

**\* Creates a variable for whether the participant had 5 or more episode changes reported in the primary activity \***

```
gen epi=episodes
recode epi (1/5=0) (6/144=1)
label variable epi "Episode changes"
label define epix 0 "1-5 episode changes" 1 "6-144 episode changes"
label values epi epix
```

**\* Creates a variable for whether the participant had reported eating/drinking as a secondary activity \***

```
by mainid diaryord, sort: egen eatingll = total(sec == 104)
gen eating001=eatingll
recode eating001 (1/144=1) (0=0)
label variable eating001 "Eating/drinking Secondary"
gen eatingsec=eatingll*10
```

**\* Creates a variable for whether the participant had reported any secondary activity \***

```
by mainid diaryord, sort: egen nosec = total(sec == 138)
gen nosec01=nosec
recode nosec01 (144=1) (1/143=0)
label variable nosec01 "No secondary activity reported"
label define nosec01x 0 "Secondary activity reported" 1 "No secondary activity reported"
label values nosec01 nosec01x
```

**\* A set of 6 different scenarios that indicate the quality of the data at the level of an individuals' diary day \***

```
* Scenario A: > 5 episode changes (primary activity)
by mainid diaryord epi, sort: egen qualitya = total(epi == 1)
gen qualitya01=qualitya
recode qualitya01 (1/144=1) (0=0)
label variable qualitya01 "Quality A"
label define qualitya01x 0 "Poor" 1 "Good"
label values qualitya01 qualitya01x
```



\* Scenario B: > 5 episode changes (primary activity) and sleep/rest/personal care

by mainid diaryord epi personal01, sort: egen qualityb = total(epi == 1 & personal01 == 1)

gen qualityb01=qualityb

recode qualityb01 (1/144=1) (0=0)

label variable qualityb01 "Quality B"

label define qualityb01x 0 "Poor" 1 "Good"

label values qualityb01 qualityb01x

\* Scenario C: > 5 episode changes (primary activity) and sleep/rest/personal care and eating/drinking (primary or secondary)

by mainid diaryord epi personal01 eating01, sort: egen qualityc = total(epi == 1 & personal01 == 1 & [eating01 == 1 | eating001 == 1] )

gen qualityc01=qualityc

recode qualityc01 (1/144=1) (0=0)

label variable qualityc01 "Quality C"

label define qualityc01x 0 "Poor" 1 "Good"

label values qualityc01 qualityc01x

\* by mainid diaryord epi personal01 eating01, sort: egen qualityl = total(epi == 1 & personal01 == 1 & eating01 == 1 )

\* Scenario D. > 5 episode changes (primary activity) and sleep/rest/personal care and eating/drinking (primary or secondary) and at least one activity on the secondary activity category

by mainid diaryord epi personal01 eating01 nosec01, sort: egen qualityd = total(epi == 1 & personal01 == 1 & [eating01 == 1 | eating001 == 1] & nosec01==0)

gen qualityd01=qualityd

recode qualityd01 (1/144=1) (0=0)

label variable qualityd01 "Quality D"

label define qualityd01x 0 "Poor" 1 "Good"

label values qualityd01 qualityd01x

\* Scenario E: > 5 episode changes (primary activity) and sleep/rest/personal care and eating/drinking (primary or secondary) and at least one activity on the secondary activity category and at least one change in location

by mainid diaryord epi personal01 eating01 nosec01 episodesloc, sort: egen qualitye = total(epi == 1 & personal01 == 1 & [eating01 == 1 | eating001 == 1] & nosec01==0 & episodesloc >= 1)

```
gen qualitye01=qualitye  
recode qualitye01 (1/144=1) (0=0)  
label variable qualitye01 "Quality E"  
label define qualitye01x 0 "Poor" 1 "Good"  
label values qualitye01 qualitye01x
```

\* Scenario F: > 5 episode changes (primary activity) and sleep/rest/personal care and eating/drinking (primary or secondary) and at least one activity on the secondary activity category and at least one change in location and at least one change in co-presence of others

```
by mainid diaryord epi personal01 eating01 nosec01 episodesloc episodeswho, sort: egen qualityf =  
total(epi == 1 & personal01 == 1 & [eating01 == 1 | eating001 == 1] & nosec01==0 & episodesloc >= 1 &  
episodeswho >=1)
```

```
gen qualityf01=qualityf  
recode qualityf01 (1/144=1) (0=0)  
label variable qualityf01 "Quality F"  
label define qualityf01x 0 "Poor" 1 "Good"  
label values qualityf01 qualityf01x
```

## Do File 3: Instantaneous enjoyment

Requires part of the syntax from Do File 1

**\* Creates a variable for whether a participant's enjoyment level changed at any point at least once during the diary day \***

\* This variable takes the value of 0 if the participant reported no change in their enjoyment throughout the day

```
gen indifferent = episodesenj
```

```
recode indifferent (1/144=1) (0=0)
```

```
label variable indifferent "Indifferent"
```

```
label define indifferentx 0 "Indifferent" 1 "At least one change in enjoyment"
```

```
label values indifferent indifferentx
```

```
tab dday indifferent
```

**\* Creates a variable calculating the mean enjoyment per participant per diary day\***

```
by mainid diaryord , sort: egen mean_enj = mean( enj )
```

**\* Creates a set of 11 variables calculating the mean enjoyment per participant per diary day of each broad activity \***

```
* mean_enj_personal
```

```
by mainid diaryord, sort: egen mean_enj_personall = mean( enj ) if broad==1
```

```
bysort mainid diaryord : egen mean_enj_personal = mean( mean_enj_personall )
```

```
* mean_enj_eating
```

```
by mainid diaryord, sort: egen mean_enj_eatingl = mean( enj ) if broad==2
```

```
bysort mainid diaryord : egen mean_enj_eating = mean( mean_enj_eatingl )
```

```
* mean_enj_housework
```

```
by mainid diaryord, sort: egen mean_enj_houseworkl = mean( enj ) if broad==3
```

```
bysort mainid diaryord : egen mean_enj_housework = mean( mean_enj_houseworkl )
```

```
* mean_enj_services
```

```
by mainid diaryord, sort: egen mean_enj_servicesl = mean( enj ) if broad==4
```

```
bysort mainid diaryord : egen mean_enj_services = mean( mean_enj_servicesl )
```

```
* mean_enj_leisure
```

```
by mainid diaryord, sort: egen mean_enj_leisurel = mean( enj ) if broad==5
```

```
bysort mainid diaryord : egen mean_enj_leisure = mean( mean_enj_leisurel )
```

```
* mean_enj_travel
```

```
by mainid diaryord, sort: egen mean_enj_travell = mean( enj ) if broad==6
```

```
bysort mainid diaryord : egen mean_enj_travel = mean( mean_enj_travell)
```

```
* mean_enj_work
```

```
by mainid diaryord, sort: egen mean_enj_workl = mean( enj ) if broad==7
```

```
bysort mainid diaryord : egen mean_enj_work = mean( mean_enj_workl )
```

```
* mean_enj_unpaid
```

```
by mainid diaryord, sort: egen mean_enj_unpaidl = mean( enj ) if broad==8
```

```
bysort mainid diaryord : egen mean_enj_unpaid = mean( mean_enj_unpaidl)
```

```
* mean_enj_media
```

```
by mainid diaryord, sort: egen mean_enj_medial = mean( enj ) if broad==9
```

```
bysort mainid diaryord : egen mean_enj_media = mean( mean_enj_medial )
```

```
* mean_enj_sports
```

```
by mainid diaryord, sort: egen mean_enj_sportsl = mean( enj ) if broad==10
```

```
bysort mainid diaryord : egen mean_enj_sports = mean( mean_enj_sportsl)
```

```
* mean_enj_other
```

```
by mainid diaryord, sort: egen mean_enj_otherl = mean( enj ) if broad==11
```

```
bysort mainid diaryord : egen mean_enj_other = mean( mean_enj_otherl)
```

**\* A few examples using the command 'tabstat' to generate descriptive statistics for instantaneous enjoyment; after command 'keep if slot == 1' has been ran\***

```
tabstat mean_enj, s(n mean SD semean min max) c(s) by(broad)
```

```
tabstat mean_enj, s(n mean SD semean min max) c(s) by(personal)
```

```
tabstat mean_enj, s(n mean SD semean min max) c(s) by(qualitya01), if indifferent==0
```