Metrics

Contents

Labeling factors and exploring scales.

0.1 Data preliminaries

Initial point of departure - the databox of the selected variables, described in the Methods chapter.

VARIABLE TITLE	Units	Codename														
CV_SAMPLE_TYPE	1/0	*sample*	1997													
PUBID, YOUTH CASE IDENTIFICATION CODE	integers	*id*	1997													
KEY!**SEX**, RS GENDER	m/f	*sex*	1997													
KEY!**RACE**_ETHNICITY, COMBINED RACE AND ETHNICITY	b/h/m/o	*race*	1997													
KEY!BDATE, RS BIRTHDATE **MONTH**/YEAR	01-12	*bmonth*	1997													
KEY!BDATE, RS BIRTHDATE MONTH/**YEAR**	years	*byear*	1997													
HOW OFTEN PR **ATTEND** CHURCH IN LAST YEAR?	1-8	*attendPR*	1997													
WHAT IS **PR**S CURRENT **RELI**GIOUS **PREF**ERENCE?	1-8	*relprefPR*	1997													
WHAT **RELI**GION WAS **PR RAISED** IN?	1-8	*relraisedPR*	1997													
RS **AGE** IN **MON**THS AS OF INTERVIEW DATE	months	*agemon*	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
RS **AGE** AT INTERVIEW DATE	years	*ageyear*	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
# DAYS PER WEEK TYPICALLY **FAM**ILY DOES SOMETHING **RELI**GIOUS	# days	*famrel*	1997	1998	1999	2000											
HOW OFTEN R **ATTENDED** WORSHIP SERVICE IN PAST 12 MONTHS	1-8	*attend*				2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
R DOES NOT NEED RELIGION FOR GOOD **VALUES**	y/n	*values*						2002			2005			2008			2011
GOD NOTHING **TO DO** HAPPENS TO R	y/n	*todo*						2002			2005			2008			2011
R BELIEVES RELIGIOUS TEACHINGS ARE TO BE **OBEYED** EXACTLY AS WRITTEN	y/n	*obeyed*						2002			2005			2008			2011
R **PRAY**S MORE THAN ONCE A DAY	y/n	*pray*						2002			2005			2008			2011
R ASKS GOD HELP MAKE **DECISIONS**	y/n	*decisions*						2002			2005			2008			2011
WHAT IS R'S CURRENT **RELIGIOUS** PREFERENCE?	cats:35	*relpref*									2005			2008			2011
R A **BORN-AGAIN** EVANGELICAL CHRISTIAN?	y/n	*bornagain*												2008			2011
IMPORTANCE OF RELIGIOUS **FAITH** IN DAILY LIFE	1-5	*faith*												2008			2011
HOW OFTEN R FELT CALM AND **PEACEFUL** IN PAST MONTH	1-4	*calm*				2000		2002		2004		2006		2008		2010	
HOW OFTEN R FELT DOWN OR **BLUE** IN PAST MONTH	1-4	*blue*				2000		2002		2004		2006		2008		2010	
HOW OFTEN R HAS BEEN A **HAPPY** PERSON IN PAST MONTH	1-4	*happy*				2000		2002		2004		2006		2008		2010	
HOW OFTEN R **DEPRESSED** IN LAST MONTH	1-4	*depressed*				2000		2002		2004		2006		2008		2010	
HOW OFTEN R HAS BEEN A **NERVOUS** PERSON IN PAST MONTH	1-4	*nervous*				2000		2002		2004		2006		2008		2010	
HOW MANY HOURS PER WEEK DOES R WATCH **TELEVISION**	cats:6	*tv*						2002					2007	2008	2009	2010	2011
HOW MANY HOURS PER WEEK DOES R USE A **COMPUTER**	cats:6	*computer*						2002					2007	2008	2009	2010	2011
CURRENTLY HAVE ACCESS TO INTER**NET?**	y/n	*internet*						2002	2003	2004	2005	2006	2007	2008	2009	2010	2011

This databox corresponds to the dataset **dsL** produced by Derive_dsL_from_Extract report, given in the Appendix.

```
dsL<-readRDS("./Data/Derived/dsL.rds")
```

Time Invariant | Time Variant

sample	id	sex	race	bmonth	byear	attendPR	relprefPR	relraisedPR	year	agemon	ageyear	famrel	attend	values	todo	obeyed	pray	decisions	relpref	bornagain	faith	calm	blue	happy	depressed	nervous	tv	computer	internet
1	1	2	4	9	1981	7	21	21	1997	190	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1	1	2	4	9	1981	7	21	21	1998	206	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1	1	2	4	9	1981	7	21	21	1999	219	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1	1	2	4	9	1981	7	21	21	2000	231	19	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	3	3	3	3	3	NA	NA	NA
1	1	2	4	9	1981	7	21	21	2001	243	20	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1	1	2	4	9	1981	7	21	21	2002	256	21	NA	2	1	1	1	0	1	NA	NA	NA	4	2	3	2	1	2	5	NA
1	1	2	4	9	1981	7	21	21	2003	266	22	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1
1	1	2	4	9	1981	7	21	21	2004	279	23	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	4	1	4	1	1	NA	NA	0
1	1	2	4	9	1981	7	21	21	2005	290	24	NA	1	0	1	0	0	1	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	1
1	1	2	4	9	1981	7	21	21	2006	302	25	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	4	1	4	1	1	NA	NA	1
1	1	2	4	9	1981	7	21	21	2007	313	26	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	6	1
1	1	2	4	9	1981	7	21	21	2008	325	27	NA	1	0	1	0	0	1	21	NA	NA	3	3	3	3	3	NA	NA	1
1	1	2	4	9	1981	7	21	21	2009	337	28	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	6	1
1	1	2	4	9	1981	7	21	21	2010	350	29	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	3	3	3	3	3	1	6	1
1	1	2	4	9	1981	7	21	21	2011	360	29	NA	1	0	1	0	0	1	21	NA	1	NA	NA	NA	NA	NA	NA	6	1
1	2	1	2	7	1982	NA	NA	NA	1997	178	14	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1	2	1	2	7	1982	NA	NA	NA	1998	196	16	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Figure 3.3 Generic dataset used in the current study, view for one respondent

Note that the variable **year** serves as a natural devided between time invariant (TIvars) and time variant (TVvars) variables. All modeling operations beging with subsetting this dataset. For the grammer rules of operations with relevant data see Data Manipulation Guide.

0.2 Labeling Factor Levels

Review of the item reference cards shows that initially, all items were recorded on some discrete scale, either counting occasions or assigning an intiger to a category of response. However, data were saved as numerical values or intigers

```
ds<- dsL %>%
  dplyr::select(
        sample, id, sex, race, bmonth,byear, attendPR, relprefPR,relraisedPR,
    year,
        agemon, ageyear, famrel, attend,
        values, todo, obeyed, pray, decisions,
        relpref, bornagain, faith,
        calm, blue, happy, depressed, nervous,
        tv, computer, internet)
str(ds)
```

```
'data.frame':   134745 obs. of  30 variables:
 $ sample     : int  1 1 1 1 1 1 1 1 1 1 ...
 $ id         : int  1 1 1 1 1 1 1 1 1 1 ...
 $ sex        : int  2 2 2 2 2 2 2 2 2 2 ...
 $ race       : int  4 4 4 4 4 4 4 4 4 4 ...
 $ bmonth     : int  9 9 9 9 9 9 9 9 9 9 ...
 $ byear      : int  1981 1981 1981 1981 1981 1981 1981 1981 1981 1981 ...
 $ attendPR   : int  7 7 7 7 7 7 7 7 7 7 ...
 $ relprefPR  : int  21 21 21 21 21 21 21 21 21 21 ...
 $ relraisedPR: int  21 21 21 21 21 21 21 21 21 21 ...
 $ year       : int  1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 ...
 $ agemon     : num  190 206 219 231 243 256 266 279 290 302 ...
 $ ageyear    : num  15 17 18 19 20 21 22 23 24 25 ...
 $ famrel     : num  NA NA NA NA NA NA NA NA NA NA ...
 $ attend     : num  NA NA NA 1 6 2 1 1 1 1 ...
 $ values     : num  NA NA NA NA NA 1 NA NA 0 NA ...
 $ todo       : num  NA NA NA NA NA 1 NA NA 1 NA ...
 $ obeyed     : num  NA NA NA NA NA 1 NA NA 0 NA ...
 $ pray       : num  NA NA NA NA NA 0 NA NA 0 NA ...
 $ decisions  : num  NA NA NA NA NA 1 NA NA 1 NA ...
 $ relpref    : num  NA NA NA NA NA NA NA NA 21 NA ...
 $ bornagain  : num  NA NA NA NA NA NA NA NA NA NA ...
 $ faith      : num  NA NA NA NA NA NA NA NA NA NA ...
 $ calm       : num  NA NA NA 3 NA 4 NA 4 NA 4 ...
 $ blue       : num  NA NA NA 3 NA 2 NA 1 NA 1 ...
 $ happy      : num  NA NA NA 3 NA 3 NA 4 NA 4 ...
 $ depressed  : num  NA NA NA 3 NA 2 NA 1 NA 1 ...
 $ nervous    : num  NA NA NA 3 NA 1 NA 1 NA 1 ...
 $ tv         : num  NA NA NA NA NA 2 NA NA NA NA ...
 $ computer   : num  NA NA NA NA NA 5 NA NA NA NA ...
 $ internet   : num  NA NA NA NA NA NA 1 0 1 1 ...
```

LabelingFactorLevels.R sourced at the end of Derive_dsL_from_Extract matches numeric values with response labels from the questionnaire and adds to **dsL** copies of the variables, saved as labeled factors. For estimations routines such as lme4

or graphing functions such as ggplot2, the data type (string,numeric, factor) is a meaningful input, so a quick access to both formats frequently proves useful. It is convenient to think that **dsL** contains only

```
ncol(dsL)/2
```

```
[1] 30
```

variables, but each of them has a double, a labeled factor.

```
str(dsL)
```

```
'data.frame':   134745 obs. of  60 variables:
 $ sample      : int  1 1 1 1 1 1 1 1 1 1 ...
 $ id          : int  1 1 1 1 1 1 1 1 1 1 ...
 $ sex         : int  2 2 2 2 2 2 2 2 2 2 ...
 $ race        : int  4 4 4 4 4 4 4 4 4 4 ...
 $ bmonth      : int  9 9 9 9 9 9 9 9 9 9 ...
 $ byear       : int  1981 1981 1981 1981 1981 1981 1981 1981 1981 1981 ...
 $ attendPR    : int  7 7 7 7 7 7 7 7 7 7 ...
 $ relprefPR   : int  21 21 21 21 21 21 21 21 21 21 ...
 $ relraisedPR : int  21 21 21 21 21 21 21 21 21 21 ...
 $ year        : int  1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 ...
 $ agemon      : num  190 206 219 231 243 256 266 279 290 302 ...
 $ ageyear     : num  15 17 18 19 20 21 22 23 24 25 ...
 $ famrel      : num  NA NA NA NA NA NA NA NA NA NA ...
 $ attend      : num  NA NA NA 1 6 2 1 1 1 1 ...
 $ values      : num  NA NA NA NA NA 1 NA NA 0 NA ...
 $ todo        : num  NA NA NA NA NA 1 NA NA 1 NA ...
 $ obeyed      : num  NA NA NA NA NA 1 NA NA 0 NA ...
 $ pray        : num  NA NA NA NA NA 0 NA NA 0 NA ...
 $ decisions   : num  NA NA NA NA NA 1 NA NA 1 NA ...
 $ relpref     : num  NA NA NA NA NA NA NA NA 21 NA ...
 $ bornagain   : num  NA NA NA NA NA NA NA NA NA NA ...
 $ faith       : num  NA NA NA NA NA NA NA NA NA NA ...
 $ calm        : num  NA NA NA 3 NA 4 NA 4 NA 4 ...
 $ blue        : num  NA NA NA 3 NA 2 NA 1 NA 1 ...
 $ happy       : num  NA NA NA 3 NA 3 NA 4 NA 4 ...
 $ depressed   : num  NA NA NA 3 NA 2 NA 1 NA 1 ...
 $ nervous     : num  NA NA NA 3 NA 1 NA 1 NA 1 ...
 $ tv          : num  NA NA NA NA NA 2 NA NA NA NA ...
 $ computer    : num  NA NA NA NA NA 5 NA NA NA NA ...
 $ internet    : num  NA NA NA NA NA NA 1 0 1 1 ...
 $ sampleF     : Ord.factor w/ 2 levels "Cross-Sectional"<..: 1 1 1 1 1 1 1 1 1 1 ...
 $ idF         : Factor w/ 8983 levels "1","2","3","4",..: 1 1 1 1 1 1 1 1 1 1 ...
 $ sexF        : Ord.factor w/ 3 levels "Male"<"Female"<..: 2 2 2 2 2 2 2 2 2 2 ...
 $ raceF       : Ord.factor w/ 4 levels "Black"<"Hispanic"<..: 4 4 4 4 4 4 4 4 4 4 ...
 $ bmonthF     : Ord.factor w/ 12 levels "Jan"<"Feb"<"Mar"<..: 9 9 9 9 9 9 9 9 9 9 ...
 $ byearF      : Factor w/ 5 levels "1980","1981",..: 2 2 2 2 2 2 2 2 2 2 ...
 $ attendPRF   : Ord.factor w/ 8 levels "Never"<"Once or Twice"<..: 7 7 7 7 7 7 7 7 7 7 ...
 $ relprefPRF  : Ord.factor w/ 33 levels "Catholic"<"Baptist"<..: 21 21 21 21 21 21 21 21 21 21 ...
 $ relraisedPRF: Ord.factor w/ 33 levels "Catholic"<"Baptist"<..: 21 21 21 21 21 21 21 21 21 21 ...
 $ yearF       : Factor w/ 15 levels "1997","1998",..: 1 2 3 4 5 6 7 8 9 10 ...
 $ agemonF     : Factor w/ 244 levels "146","147","148",..: 45 61 74 86 98 111 121 134 145 157 ...
```

```
 $ ageyearF    : Factor w/ 21 levels "12","13","14",..: 4 6 7 8 9 10 11 12 13 14 ...
 $ famrelF     : Factor w/ 8 levels "0","1","2","3",..: NA NA NA NA NA NA NA NA NA NA ...
 $ attendF     : Ord.factor w/ 8 levels "Never"<"Once or Twice"<..: NA NA NA 1 6 2 1 1 1 1 ...
 $ valuesF     : Ord.factor w/ 2 levels "FALSE/less Religious"<..: NA NA NA NA NA 2 NA NA 1 NA ...
 $ todoF       : Ord.factor w/ 2 levels "FALSE/less Religious"<..: NA NA NA NA NA 2 NA NA 2 NA ...
 $ obeyedF     : Ord.factor w/ 2 levels "FALSE/less Religious"<..: NA NA NA NA NA 2 NA NA 1 NA ...
 $ prayF       : Ord.factor w/ 2 levels "FALSE/less Religious"<..: NA NA NA NA NA 1 NA NA 1 NA ...
 $ decisionsF  : Ord.factor w/ 2 levels "FALSE/less Religious"<..: NA NA NA NA NA 2 NA NA 2 NA ...
 $ relprefF    : Ord.factor w/ 33 levels "Catholic"<"Baptist"<..: NA NA NA NA NA NA NA NA 21 NA ...
 $ bornagainF  : Ord.factor w/ 2 levels "NO"<"YES": NA NA NA NA NA NA NA NA NA NA ...
 $ faithF      : Ord.factor w/ 5 levels "Exrtemely"<"Very"<..: NA NA NA NA NA NA NA NA NA NA ...
 $ calmF       : Ord.factor w/ 4 levels "All of the time"<..: NA NA NA NA NA NA NA NA NA NA ...
 $ blueF       : Ord.factor w/ 4 levels "All of the time"<..: NA NA NA NA NA NA NA NA NA NA ...
 $ happyF      : Ord.factor w/ 4 levels "All of the time"<..: NA NA NA NA NA NA NA NA NA NA ...
 $ depressedF  : Ord.factor w/ 4 levels "All of the time"<..: NA NA NA NA NA NA NA NA NA NA ...
 $ nervousF    : Ord.factor w/ 4 levels "All of the time"<..: NA NA NA NA NA NA NA NA NA NA ...
 $ tvF         : Ord.factor w/ 6 levels "less than 2"<..: NA NA NA NA NA 2 NA NA NA NA ...
 $ computerF   : Ord.factor w/ 6 levels "None"<"less than 1"<..: NA NA NA NA NA 5 NA NA NA NA ...
 $ internetF   : Ord.factor w/ 2 levels "No"<"Yes": NA NA NA NA NA NA 2 1 2 2 ...
```

This give a certain flexibity in assembling needed dataset quickly and have access to factor labels. One can alternate between the raw metric and labeled factor by adding "F" suffix to the end of the variable name:

```
ds<- dsL %>%
  dplyr::filter(id==25) %>%
  dplyr::select(id,byear,year, attend,attendF)
ds
```

```
   id byear year attend            attendF
1  25  1983 1997     NA               <NA>
2  25  1983 1998     NA               <NA>
3  25  1983 1999     NA               <NA>
4  25  1983 2000      5  About twice/month
5  25  1983 2001      7 Several times/week
6  25  1983 2002      7 Several times/week
7  25  1983 2003      2      Once or Twice
8  25  1983 2004      7 Several times/week
9  25  1983 2005      5  About twice/month
10 25  1983 2006      7 Several times/week
11 25  1983 2007      5  About twice/month
12 25  1983 2008      7 Several times/week
13 25  1983 2009      7 Several times/week
14 25  1983 2010      7 Several times/week
15 25  1983 2011      7 Several times/week
```

Having quick access to factor labels will be especially useful during graph production.

0.3 Time metrics : Age, Period, Cohort

NLSY97 sample includes individuals from five cohorts, born between 1980 and 1984.The following graphics shows how birth cohort, age of respondents, and round of observation are related in NSLY97.

Wide age	Age in years																		
	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Born in 1980					1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
1981				1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
1982			1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011		
1983		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011			
1984	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011				
															Wave				

Wide wave	Waves of measurement														
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Born in 1980	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1981	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1982	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1983	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1984	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
															Age

Long wave	Born in					
	1980	1981	1982	1983	1984	
Wave: 1997	17	16	15	14	13	
1998	18	17	16	15	14	
1999	19	18	17	16	15	
2000	20	19	18	17	16	
2001	21	20	19	18	17	
2002	22	21	20	19	18	
2003	23	22	21	20	19	
2004	24	23	22	21	20	
2005	25	24	23	22	21	
2006	26	25	24	23	22	
2007	27	26	25	24	23	
2008	28	27	26	25	24	
2009	29	28	27	26	25	
2010	30	29	28	27	26	
2011	31	30	29	28	27	Age

Long age	Born in					
	1980	1981	1982	1983	1984	
Age years 13					1997	
14				1997	1998	
15			1997	1998	1999	
16		1997	1998	1999	2000	
17	1997	1998	1999	2000	2001	
18	1998	1999	2000	2001	2002	
19	1999	2000	2001	2002	2003	
20	2000	2001	2002	2003	2004	
21	2001	2002	2003	2004	2005	
22	2002	2003	2004	2005	2006	
23	2003	2004	2005	2006	2007	
24	2004	2005	2006	2007	2008	
25	2005	2006	2007	2008	2009	
26	2006	2007	2008	2009	2010	
27	2007	2008	2009	2010	2011	Wave
28	2008	2009	2010	2011		
29	2009	2010	2011			
30	2010	2011				
31	2011					

NSLY97 contains static (**bmonth**, **byear**) and dynamic (**agemon**, **ageyear**) indicators of age :

```
ds<- dsL %>%
  dplyr::filter(id==25, year %in% c(1997:2011)) %>%
  dplyr::select(id,byear,bmonthF,year,agemon,ageyear)
print(ds)
```

```
   id byear bmonthF year agemon ageyear
```

```
1  25  1983     Mar 1997    167      13
2  25  1983     Mar 1998    188      15
3  25  1983     Mar 1999    201      16
4  25  1983     Mar 2000    214      17
5  25  1983     Mar 2001    226      18
6  25  1983     Mar 2002    236      19
7  25  1983     Mar 2003    254      21
8  25  1983     Mar 2004    261      21
9  25  1983     Mar 2005    272      22
10 25  1983     Mar 2006    284      23
11 25  1983     Mar 2007    295      24
12 25  1983     Mar 2008    307      25
13 25  1983     Mar 2009    319      26
14 25  1983     Mar 2010    332      27
15 25  1983     Mar 2011    342      28
```

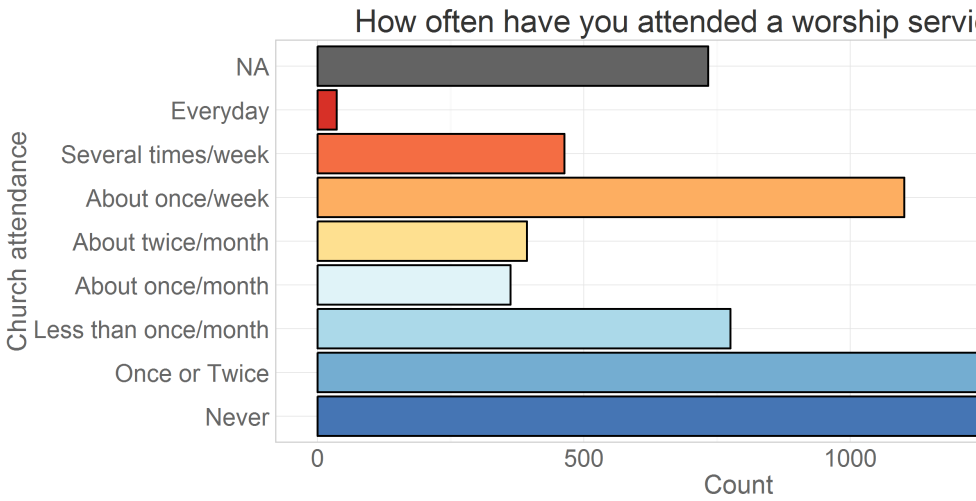
When transforming the metric of time, and using biological age instead of year of measurement as the temporal dimension, the value of age at the time of the interview will be computed as **age** = **agemon**/12

```
ds<- dsL %>%
  dplyr::filter(id==25, year %in% c(1997:2011)) %>%
  dplyr::select(id,bmonthF,byear,year, agemon,ageyear) %>%
  dplyr::mutate (age =  agemon/12)
print(ds)
```

```
   id bmonthF byear year agemon ageyear   age
1  25     Mar  1983 1997    167      13 13.92
2  25     Mar  1983 1998    188      15 15.67
3  25     Mar  1983 1999    201      16 16.75
4  25     Mar  1983 2000    214      17 17.83
5  25     Mar  1983 2001    226      18 18.83
6  25     Mar  1983 2002    236      19 19.67
7  25     Mar  1983 2003    254      21 21.17
8  25     Mar  1983 2004    261      21 21.75
9  25     Mar  1983 2005    272      22 22.67
10 25     Mar  1983 2006    284      23 23.67
11 25     Mar  1983 2007    295      24 24.58
12 25     Mar  1983 2008    307      25 25.58
13 25     Mar  1983 2009    319      26 26.58
14 25     Mar  1983 2010    332      27 27.67
15 25     Mar  1983 2011    342      28 28.50
```

0.4 Attendance

NLSY97 asked to report church attendance (**attend**)for the past 12 months preceding the interview date. The response offered a



choice of 7 categories ordered by magnitude.

0.5 Read more

in ./Models/Descriptives:

- Metrics - how values of items are labeled
- Descriptives - basic stats of various items (**Continue**)
- Attendance - focus on church attendence over time
- Databox

See also

- Deriving Data from NLYS97 extract
- Data Manipulation Guide