

```
-----  
name: <unnamed>  
log: D:\jason\workshop\Constructing variables with Stata\constructing variables with stata.log  
log type: text  
opened on: 30 Jan 2022, 22:01:46  
  
. /*****  
> This command file was crated on 1/31/21 to demonstrate how to constructd  
> the marriage history for respondents  
>  
> The command file: constructing variables with Stata.do  
> The log file:      constructing variables with Stata.log  
> The original data file: D:\jason\workshop\Constructing variables with Stata\original.dta"  
> The outcome data file : D:\jason\workshop\Constructing variables with Stata\final.dta"  
>  
>  
> The command files complete the following tasks  
>  
> #1: check what variables are in the data, how many observation are in the data,  
> whether the data are in long or wide format, whether some of the variables are string variables  
>  
> #2 Generate numeric variables for inter_y and inter_m and replace the  
> impossible values of these two variables.  
>  
> #3: check why there is only six valid observations for the end date of the secon marriage  
>  
> #4: check if the number of valid observations for the start and end of each marriage is correct.  
>  
>  
> #5: Reshape the data and drop empty records, so it is easier to check for inconsistencies across marriages  
>  
>  
> #6: Using the interview date to fill the missing end date of continuous marriages  
>  
>  
> #7: check if the interview date occurred before the start or end of the marriage  
>  
>
```

```

> #8: check if some marriages ended before they started
>
> #9: check if some marriages are out of the temporal order
>
> #10: check if marriage overlaps with each other
>
> *****/
.
.
. *****
. * Read in the data
. *****
.
.
. use "D:\jason\workshop\Constructing variables with Stata\original.dta", clear
. save "D:\jason\workshop\Constructing variables with Stata\templ.dta", replace
file D:\jason\workshop\Constructing variables with Stata\templ.dta saved
.
. /*****
> Check #1: what variables are in the data, how many observation are in the data,
> whether the data are in long or wide format, whether some of the variables are string variables
> *****/
. count
14
. duplicates report id

Duplicates in terms of id

-----
copies | observations      surplus
-----+-----
      1 |          14          0
-----
.

```

```
. des
```

Contains data from D:\jason\workshop\Constructing variables with Stata\templ.dta

```
obs:      14
vars:     17          30 Jan 2022 22:01
size:     378
```

```
-----
variable name  storage  display  value  variable label
                type    format   label
-----
id             byte    %10.0g   Id
inter_y       str4    %9s      Interview Year
inter_m       str2    %9s      Interview Month
mar_sy1       int     %10.0g   year    Start of First Marriage, Year
mar_sm1       byte    %10.0g   month   Start of First Marriage, Month
mar_ey1       int     %10.0g   year    End of First Marriage, Year
mar_em1       byte    %10.0g   month   End of First Marriage, Month
mar_sy2       int     %10.0g   year    Start of Second Marriage, Year
mar_sm2       byte    %10.0g   month   Start of Second Marriage, Month
mar_ey2       int     %10.0g   year    End of Second Marriage, Year
mar_em2       byte    %10.0g   month   End of Second Marriage, Month
mar_sy3       int     %10.0g   year    Start of Third Marriage, Year
mar_sm3       byte    %10.0g   month   Start of Third Marriage, Month
mar_ey3       int     %10.0g   year    End of Third Marriage, Year
mar_em3       byte    %10.0g   month   End of Third Marriage, Month
marital       byte    %21.0g   marital Current Marital Status
mar_num       byte    %11.0g   mar_num Total Number of Marriages
-----
```

Sorted by:

```
. sum
```

```
-----+-----
Variable |      Obs      Mean   Std. Dev.   Min      Max
-----+-----
      id |         14         7.5     4.1833         1      14
inter_y |          0
inter_m |          0
mar_sy1 |         14    1990.929    15.43455    1970    2017
-----+-----
```

mar_sm1	14	5.071429	3.315796	1	12
mar_ey1	13	2003.077	15.18476	1969	2021
mar_em1	13	4.615385	2.785033	2	11
mar_sy2	10	2004	7.133645	1990	2018
mar_sm2	10	6.4	3.657564	1	11
mar_ey2	6	2010.333	6.713171	2001	2018
mar_em2	6	7.666667	3.444803	3	12
mar_sy3	4	2014.5	5.802298	2006	2019
mar_sm3	4	4.5	3.872983	1	10
mar_ey3	3	2017.667	1.527525	2016	2019
mar_em3	3	7.333333	3.21455	5	11
marital	14	.3571429	.4972452	0	1
mar_num	14	2	.7844645	1	3

```
. tab1 inter_y - mar_num, mis
```

```
-> tabulation of inter_y
```

Interview	Year	Freq.	Percent	Cum.
	2012	1	7.14	7.14
	2020	6	42.86	50.00
	2021	7	50.00	100.00
Total		14	100.00	

```
-> tabulation of inter_m
```

Interview	Month	Freq.	Percent	Cum.
	1	7	50.00	50.00
	12	6	42.86	92.86
	14	1	7.14	100.00

```
-----+-----
      Total |          14      100.00
```

-> tabulation of mar_syl

```

Start of |
First |
Marriage, |
Year |          Freq.      Percent      Cum.
-----+-----
1970 |          1          7.14         7.14
1972 |          1          7.14        14.29
1974 |          1          7.14        21.43
1976 |          1          7.14        28.57
1984 |          1          7.14        35.71
1986 |          2         14.29        50.00
1992 |          1          7.14        57.14
1994 |          1          7.14        64.29
2000 |          1          7.14        71.43
2002 |          1          7.14        78.57
2004 |          1          7.14        85.71
2016 |          1          7.14        92.86
2017 |          1          7.14       100.00
-----+-----
      Total |          14      100.00
```

-> tabulation of mar_sml

```

Start of |
First |
Marriage, |
Month |          Freq.      Percent      Cum.
-----+-----
January |          2         14.29        14.29
February |          1          7.14        21.43
March |          2         14.29        35.71
April |          3         21.43        57.14
May |          1          7.14        64.29
```

June	|	1	7.14	71.43
August	|	1	7.14	78.57
September	|	2	14.29	92.86
December	|	1	7.14	100.00

-----+-----				
Total	|	14	100.00	

-> tabulation of mar_ey1

End of First Marriage, Year	|	Freq.	Percent	Cum.
-----+-----				
1969	|	1	7.14	7.14
1980	|	1	7.14	14.29
1996	|	1	7.14	21.43
2000	|	1	7.14	28.57
2001	|	1	7.14	35.71
2004	|	2	14.29	50.00
2005	|	1	7.14	57.14
2006	|	1	7.14	64.29
2016	|	1	7.14	71.43
2019	|	2	14.29	85.71
2021	|	1	7.14	92.86
.	|	1	7.14	100.00
-----+-----				
Total	|	14	100.00	

-> tabulation of mar_em1

End of First Marriage, Month	|	Freq.	Percent	Cum.
-----+-----				
February	|	2	14.29	14.29
March	|	5	35.71	50.00

April	|	1	7.14	57.14
May	|	2	14.29	71.43
July	|	1	7.14	78.57
September	|	1	7.14	85.71
November	|	1	7.14	92.86
.	|	1	7.14	100.00

Total	|	14	100.00	

-> tabulation of mar_sy2

Start of Second Marriage, Year	|	Freq.	Percent	Cum.
1990	|	1	7.14	7.14
2000	|	2	14.29	21.43
2002	|	1	7.14	28.57
2004	|	1	7.14	35.71
2005	|	1	7.14	42.86
2006	|	1	7.14	50.00
2007	|	1	7.14	57.14
2008	|	1	7.14	64.29
2018	|	1	7.14	71.43
.	|	4	28.57	100.00

Total	|	14	100.00	

-> tabulation of mar_sm2

Start of Second Marriage, Month	|	Freq.	Percent	Cum.
January	|	1	7.14	7.14
February	|	1	7.14	14.29

April	|	1	7.14	21.43
May	|	2	14.29	35.71
June	|	1	7.14	42.86
September	|	1	7.14	50.00
October	|	1	7.14	57.14
November	|	2	14.29	71.43
.	|	4	28.57	100.00

Total	|	14	100.00	

-> tabulation of mar_ey2

End of	|			
Second	|			
Marriage,	|			
Year	|	Freq.	Percent	Cum.

2001	|	1	7.14	7.14
2005	|	1	7.14	14.29
2008	|	1	7.14	21.43
2014	|	1	7.14	28.57
2016	|	1	7.14	35.71
2018	|	1	7.14	42.86
.	|	8	57.14	100.00

Total	|	14	100.00	

-> tabulation of mar_em2

End of	|			
Second	|			
Marriage,	|			
Month	|	Freq.	Percent	Cum.

March	|	1	7.14	7.14
May	|	1	7.14	14.29
July	|	1	7.14	21.43
August	|	1	7.14	28.57

November |	1	7.14	35.71
December |	1	7.14	42.86
. |	8	57.14	100.00

Total |	14	100.00	

-> tabulation of mar_sy3

Start of Third Marriage, Year |	Freq.	Percent	Cum.
2006 |	1	7.14	7.14
2016 |	1	7.14	14.29
2017 |	1	7.14	21.43
2019 |	1	7.14	28.57
. |	10	71.43	100.00

Total |	14	100.00	

-> tabulation of mar_sm3

Start of Third Marriage, Month |	Freq.	Percent	Cum.
January |	1	7.14	7.14
March |	1	7.14	14.29
April |	1	7.14	21.43
October |	1	7.14	28.57
. |	10	71.43	100.00

Total |	14	100.00	

-> tabulation of mar_ey3

End of Third Marriage, Year	Freq.	Percent	Cum.
2016	1	7.14	7.14
2018	1	7.14	14.29
2019	1	7.14	21.43
.	11	78.57	100.00
Total	14	100.00	

-> tabulation of mar_em3

End of Third Marriage, Month	Freq.	Percent	Cum.
May	1	7.14	7.14
June	1	7.14	14.29
November	1	7.14	21.43
.	11	78.57	100.00
Total	14	100.00	

-> tabulation of marital

Current Marital Status	Freq.	Percent	Cum.
currently not married	9	64.29	64.29
currently married	5	35.71	100.00
Total	14	100.00	

-> tabulation of mar_num

Total Number of Marriages	Freq.	Percent	Cum.
once	4	28.57	28.57
twice	6	42.86	71.43
three times	4	28.57	100.00
Total	14	100.00	

```

.
.
. /*****
> Check #2: Generate numeric variables for inter_y and inter_m and replace the
> impossible values of these two variables.
> *****/
.
. destring inter_y, gen(inter_y1)
inter_y: all characters numeric; inter_y1 generated as int
. destring inter_m, gen(inter_m1)
inter_m: all characters numeric; inter_m1 generated as byte
.
.
. des inter_y inter_y1 inter_m inter_m1

variable name      storage   display   value      variable label
                  type      format    label
-----
inter_y            str4      %9s
inter_y1           int       %10.0g
inter_m            str2      %9s
inter_m1           byte      %10.0g

.
.
. tab2 inter_y inter_y1, mis nol

```

-> tabulation of inter_y by inter_y1

Interview Year	Interview Year			Total
	2012	2020	2021	
2012	1	0	0	1
2020	0	6	0	6
2021	0	0	7	7
Total	1	6	7	14

. tab2 inter_m inter_m1, mis nol

-> tabulation of inter_m by inter_m1

Interview Month	Interview Month			Total
	1	12	14	
1	7	0	0	7
12	0	6	0	6
14	0	0	1	1
Total	7	6	1	14

. label variable inter_y1 "Interview Year as a numeric variable"

. label variable inter_m1 "Interview Month as a numeric variable"

. label value inter_y1 year

. label value inter_m1 month

```
. /*****
> replacing impossible values in inter_y1 and inter_m1
> *****/
. list id inter_y inter_y1 inter_m inter_m1 if inter_y1 ==2012
```

```
+-----+
| id   inter_y   inter_y1   inter_m   inter_m1 |
+-----+
7. |   7       2012       2012         1   January |
+-----+
```

```
. replace inter_y1 = 2021 if id ==7 & inter_y1 ==2012
(1 real change made)
```

```
. list id inter_y inter_y1 inter_m inter_m1 if id ==7, nol
```

```
+-----+
| id   inter_y   inter_y1   inter_m   inter_m1 |
+-----+
7. |   7       2012       2021         1         1 |
+-----+
```

```
. tab2 inter_y inter_y1, mis nol
```

```
-> tabulation of inter_y by inter_y1
```

Interview Year	Interview Year as a numeric variable		Total
	2020	2021	
2012	0	1	1
2020	6	0	6
2021	0	7	7
Total	6	8	14

```
. list id inter_y inter_y1 inter_m inter_m1 if inter_m1 ==14
```

```

+-----+
| id   inter_y   inter_y1   inter_m   inter_m1 |
+-----+
8. | 8     2021     2021       14         14 |
+-----+

```

```
. replace inter_m1 = 1 if id ==8 & inter_m1 ==14
```

```
(1 real change made)
```

```
. list id inter_y inter_y1 inter_m inter_m1 if id ==8, nol
```

```

+-----+
| id   inter_y   inter_y1   inter_m   inter_m1 |
+-----+
8. | 8     2021     2021       14         1 |
+-----+

```

```
. tab2 inter_m inter_m1, mis nol
```

```
-> tabulation of inter_m by inter_m1
```

Interview Month	Interview Month as a numeric variable		Total
	1	12	
1	7	0	7

12	|	0	6	|	6
14	|	1	0	|	1
-----+					
Total	|	8	6	|	14

```
.
. /*****
> Identify the correct number of valid observations for the start and end of each marriage
> based on the cross-tab of mar_num and marital
>
> There should be 14 valid start dates for the first marriage, 10 for the second
> marriage, and 4 for the third marriage.
>
> There should be 13 valid end dates for the first marriage, 7 for the second marriage,
> and 3 for the third marriage.
> *****/
. tab2 mar_num marital, mis nol
```

-> tabulation of mar_num by marital

Total Number of Marriages	Current Marital Status		Total
	0	1	
1	3	1	4
2	3	3	6
3	3	1	4
-----+			
Total	9	5	14

```
. sum mar_sy1 mar_sm1 mar_ey1 mar_em1 mar_sy2 mar_sm2 mar_ey2 mar_em2 mar_sy3 ///
> mar_sm3 mar_ey3 mar_em3
```

Variable	Obs	Mean	Std. Dev.	Min	Max
-----+					


```

. *****
. * Check #4.1:Check for respondents married once and currently married
. *****
.
. tab1 mar_syl mar_sml mar_eyl mar_eml if mar_num == 1 & marital ==1, mis

```

-> tabulation of mar_syl if mar_num == 1 & marital ==1

Start of First Marriage, Year	Freq.	Percent	Cum.
1976	1	100.00	100.00
Total	1	100.00	

-> tabulation of mar_sml if mar_num == 1 & marital ==1

Start of First Marriage, Month	Freq.	Percent	Cum.
April	1	100.00	100.00
Total	1	100.00	

-> tabulation of mar_eyl if mar_num == 1 & marital ==1

End of First Marriage, Year	Freq.	Percent	Cum.
.	1	100.00	100.00
Total	1	100.00	

-> tabulation of mar_em1 if mar_num == 1 & marital ==1

End of First Marriage, Month	Freq.	Percent	Cum.
.	1	100.00	100.00
Total	1	100.00	

.

.

. *****

. * Check #4.2: Check for respondents married twice and currently not married

. *****

.

. tabl mar_syl mar_sm1 mar_ey1 mar_em1 if mar_num == 1 & marital !=1, mis

-> tabulation of mar_syl if mar_num == 1 & marital !=1

Start of First Marriage, Year	Freq.	Percent	Cum.
1970	1	33.33	33.33
1972	1	33.33	66.67
1974	1	33.33	100.00
Total	3	100.00	

-> tabulation of mar_sm1 if mar_num == 1 & marital !=1

Start of First Marriage, Year
--

Month	Freq.	Percent	Cum.
January	1	33.33	33.33
February	1	33.33	66.67
March	1	33.33	100.00
Total	3	100.00	

-> tabulation of mar_ey1 if mar_num == 1 & marital !=1

End of First Marriage, Year	Freq.	Percent	Cum.
1969	1	33.33	33.33
1980	1	33.33	66.67
2021	1	33.33	100.00
Total	3	100.00	

-> tabulation of mar_em1 if mar_num == 1 & marital !=1

End of First Marriage, Month	Freq.	Percent	Cum.
July	1	33.33	33.33
September	1	33.33	66.67
November	1	33.33	100.00
Total	3	100.00	

.

.

```
. *****
. * Check #4.3:Check for respondents married twice and currently married
. *****
. tab1 mar_sy2 mar_sm2 mar_ey2 mar_em2 if mar_num == 2 & marital ==1, mis
```

-> tabulation of mar_sy2 if mar_num == 2 & marital ==1

Start of Second Marriage, Year	Freq.	Percent	Cum.
2000	1	33.33	33.33
2008	1	33.33	66.67
2018	1	33.33	100.00
Total	3	100.00	

-> tabulation of mar_sm2 if mar_num == 2 & marital ==1

Start of Second Marriage, Month	Freq.	Percent	Cum.
January	1	33.33	33.33
February	1	33.33	66.67
June	1	33.33	100.00
Total	3	100.00	

-> tabulation of mar_ey2 if mar_num == 2 & marital ==1

End of Second Marriage, Year	Freq.	Percent	Cum.
---------------------------------------	-------	---------	------

	Freq.	Percent	Cum.
.	3	100.00	100.00
Total	3	100.00	

-> tabulation of mar_em2 if mar_num == 2 & marital ==1

End of Second Marriage, Month	Freq.	Percent	Cum.
.	3	100.00	100.00
Total	3	100.00	

.

.

. *****

. * Check #4.4:Check for respondents married once and currently not married

. *****

.

. **tab1 mar_sy2 mar_sm2 mar_ey2 mar_em2 if mar_num == 2 & marital !=1, mis**

-> tabulation of mar_sy2 if mar_num == 2 & marital !=1

Start of Second Marriage, Year	Freq.	Percent	Cum.
1990	1	33.33	33.33
2000	1	33.33	66.67
2004	1	33.33	100.00
Total	3	100.00	

-> tabulation of mar_sm2 if mar_num == 2 & marital !=1

Start of Second Marriage, Month	Freq.	Percent	Cum.
April	1	33.33	33.33
May	1	33.33	66.67
November	1	33.33	100.00
Total	3	100.00	

-> tabulation of mar_ey2 if mar_num == 2 & marital !=1

End of Second Marriage, Year	Freq.	Percent	Cum.
2001	1	33.33	33.33
2008	1	33.33	66.67
.	1	33.33	100.00
Total	3	100.00	

-> tabulation of mar_em2 if mar_num == 2 & marital !=1

End of Second Marriage, Month	Freq.	Percent	Cum.
May	1	33.33	33.33
July	1	33.33	66.67
.	1	33.33	100.00
Total	3	100.00	

.

```

. *****
. * Check #4.5:Check for respondents married three times and currently married
. *****
.
. tab1 mar_sy3 mar_sm3 mar_ey3 mar_em3 if mar_num == 3 & marital ==1, mis

```

-> tabulation of mar_sy3 if mar_num == 3 & marital ==1

Start of Third Marriage, Year	Freq.	Percent	Cum.
2019	1	100.00	100.00
Total	1	100.00	

-> tabulation of mar_sm3 if mar_num == 3 & marital ==1

Start of Third Marriage, Month	Freq.	Percent	Cum.
January	1	100.00	100.00
Total	1	100.00	

-> tabulation of mar_ey3 if mar_num == 3 & marital ==1

End of Third Marriage, Year	Freq.	Percent	Cum.
.	1	100.00	100.00

```
Total |          1      100.00
```

```
-> tabulation of mar_em3 if mar_num == 3 & marital ==1
```

```
End of |
Third |
Marriage, |
Month |          Freq.      Percent      Cum.
-----+-----
. |          1      100.00      100.00
-----+-----
Total |          1      100.00
```

```
.
. *****
. * Check #4.6:Check for respondents married three times and currently not married
. *****
. tab1 mar_sy3 mar_sm3 mar_ey3 mar_em3 if mar_num == 3 & marital !=1, mis
```

```
-> tabulation of mar_sy3 if mar_num == 3 & marital !=1
```

```
Start of |
Third |
Marriage, |
Year |          Freq.      Percent      Cum.
-----+-----
2006 |          1      33.33      33.33
2016 |          1      33.33      66.67
2017 |          1      33.33      100.00
-----+-----
Total |          3      100.00
```

```
-> tabulation of mar_sm3 if mar_num == 3 & marital !=1
```

```
Start of |
Third |
Marriage, |
Month |          Freq.      Percent      Cum.
```


March	1	33.33	33.33
April	1	33.33	66.67
October	1	33.33	100.00
Total	3	100.00	

-> tabulation of mar_ey3 if mar_num == 3 & marital !=1

End of Third Marriage, Year	Freq.	Percent	Cum.
2016	1	33.33	33.33
2018	1	33.33	66.67
2019	1	33.33	100.00
Total	3	100.00	

-> tabulation of mar_em3 if mar_num == 3 & marital !=1

End of Third Marriage, Month	Freq.	Percent	Cum.
May	1	33.33	33.33
June	1	33.33	66.67
November	1	33.33	100.00
Total	3	100.00	

.

.

```
. *****
. * check #5: Reshape the data and drop empty records, so it is easier to check for inconsistencies across
marriages
. *****
.
. reshape long mar_sy mar_sm mar_ey mar_em , i(id) j(marriage)
(note: j = 1 2 3)
```

```
Data                                wide  ->  long
-----
Number of obs.                      14   ->   42
Number of variables                  19   ->   12
j variable (3 values)                ->  marriage
xij variables:
      mar_sy1 mar_sy2 mar_sy3  ->  mar_sy
      mar_sm1 mar_sm2 mar_sm3  ->  mar_sm
      mar_ey1 mar_ey2 mar_ey3  ->  mar_ey
      mar_em1 mar_em2 mar_em3  ->  mar_em
```

```
. des
```

```
Contains data
  obs:          42
  vars:         12
  size:        798
```

```
-----
storage  display  value
variable name  type    format    label    variable label
-----
id         byte    %10.0g    Id
marriage   byte    %9.0g
inter_y    str4    %9s      Interview Year
inter_y1   int     %10.0g    year    Interview Year as a numeric variable
inter_m    str2    %9s      Interview Month
inter_m1   byte    %10.0g    month   Interview Month as a numeric variable
mar_sy     int     %10.0g    year
mar_sm     byte    %10.0g    month
```

```

mar_ey      int      %10.0g      year
mar_em      byte     %10.0g      month
marital     byte     %21.0g      marital    Current Marital Status
mar_num     byte     %11.0g      mar_num    Total Number of Marriages

```

Sorted by: id marriage

Note: Dataset has changed since last saved.

```
. label variable marriage "the order of variable, based on the respondent's report"
```

```
. label variable mar_sy "starting year of marriage"
```

```
. label variable mar_sm "starting year of marriage"
```

```
. label variable mar_ey "ending year of marriage"
```

```
. label variable mar_em "ending year of marriage"
```

```
.
.
. *****
. * drop empty records created by the reshape command
. *****
```

```
. list, nol sepby(id)
```

	id	marriage	inter_y	inter_y1	inter_m	inter_m1	mar_sy	mar_sm	mar_ey	mar_em	marital	mar_num
1.	1	1	2020	2020	12	12	1974	3	1980	7	0	1
2.	1	2	2020	2020	12	12	.	.	.	.	0	1
3.	1	3	2020	2020	12	12	.	.	.	.	0	1
4.	2	1	2020	2020	12	12	1976	4	.	.	1	1
5.	2	2	2020	2020	12	12	.	.	.	.	1	1
6.	2	3	2020	2020	12	12	.	.	.	.	1	1
7.	3	1	2020	2020	12	12	1984	8	2000	3	0	2
8.	3	2	2020	2020	12	12	2004	4	2008	7	0	2
9.	3	3	2020	2020	12	12	.	.	.	.	0	2

10.	4	1	2020	2020	12	12	1986	9	2004	3	1	2
11.	4	2	2020	2020	12	12	2008	1	.	.	1	2
12.	4	3	2020	2020	12	12	.	.	.	.	1	2
13.	5	1	2021	2021	1	1	2002	5	2005	3	0	3
14.	5	2	2021	2021	1	1	2006	10	2016	11	0	3
15.	5	3	2021	2021	1	1	2017	4	2019	5	0	3
16.	6	1	2021	2021	1	1	2004	6	2006	2	1	3
17.	6	2	2021	2021	1	1	2007	11	2018	12	1	3
18.	6	3	2021	2021	1	1	2019	1	.	.	1	3
19.	7	1	2012	2021	1	1	2000	4	2001	4	0	3
20.	7	2	2012	2021	1	1	2005	9	2014	8	0	3
21.	7	3	2012	2021	1	1	2016	3	2018	6	0	3
22.	8	1	2021	2021	14	1	1994	1	1996	5	1	2
23.	8	2	2021	2021	14	1	2000	6	.	.	1	2
24.	8	3	2021	2021	14	1	.	.	.	.	1	2
25.	9	1	2020	2020	12	12	1970	1	1969	11	0	1
26.	9	2	2020	2020	12	12	.	.	.	.	0	1
27.	9	3	2020	2020	12	12	.	.	.	.	0	1
28.	10	1	2020	2020	12	12	1972	2	2021	9	0	1
29.	10	2	2020	2020	12	12	.	.	.	.	0	1
30.	10	3	2020	2020	12	12	.	.	.	.	0	1
31.	11	1	2021	2021	1	1	1992	12	2016	2	1	2
32.	11	2	2021	2021	1	1	2018	2	.	.	1	2
33.	11	3	2021	2021	1	1	.	.	.	.	1	2
34.	12	1	2021	2021	1	1	2016	3	2019	3	0	2
35.	12	2	2021	2021	1	1	1990	11	.	.	0	2
36.	12	3	2021	2021	1	1	.	.	.	.	0	2
37.	13	1	2021	2021	1	1	1986	9	2004	3	0	2
38.	13	2	2021	2021	1	1	2000	5	2001	5	0	2
39.	13	3	2021	2021	1	1	.	.	.	.	0	2
40.	14	1	2021	2021	1	1	2017	4	2019	5	0	3
41.	14	2	2021	2021	1	1	2002	5	2005	3	0	3
42.	14	3	2021	2021	1	1	2006	10	2016	11	0	3

```
. keep if marriage <= mar_num
(14 observations deleted)
```

```
. list, nol sepby(id)
```

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| id  marriage  inter_y  inter_y1  inter_m  inter_m1  mar_sy  mar_sm  mar_ey  mar_em  marital  mar_num |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1. | 1      1      2020     2020     12      12      1974    3      1980    7      0      1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
2. | 2      1      2020     2020     12      12      1976    4      .      .      1      1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3. | 3      1      2020     2020     12      12      1984    8      2000    3      0      2 |
4. | 3      2      2020     2020     12      12      2004    4      2008    7      0      2 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5. | 4      1      2020     2020     12      12      1986    9      2004    3      1      2 |
6. | 4      2      2020     2020     12      12      2008    1      .      .      1      2 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
7. | 5      1      2021     2021     1       1       2002    5      2005    3      0      3 |
8. | 5      2      2021     2021     1       1       2006   10      2016   11      0      3 |
9. | 5      3      2021     2021     1       1       2017    4      2019    5      0      3 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
10. | 6      1      2021     2021     1       1       2004    6      2006    2      1      3 |
11. | 6      2      2021     2021     1       1       2007   11      2018   12      1      3 |
12. | 6      3      2021     2021     1       1       2019    1      .      .      1      3 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
13. | 7      1      2012     2021     1       1       2000    4      2001    4      0      3 |
14. | 7      2      2012     2021     1       1       2005    9      2014    8      0      3 |
15. | 7      3      2012     2021     1       1       2016    3      2018    6      0      3 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
16. | 8      1      2021     2021     14      1       1994    1      1996    5      1      2 |
17. | 8      2      2021     2021     14      1       2000    6      .      .      1      2 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
18. | 9      1      2020     2020     12      12      1970    1      1969   11      0      1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
19. | 10     1      2020     2020     12      12      1972    2      2021    9      0      1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
20. | 11     1      2021     2021     1       1       1992   12      2016    2      1      2 |
21. | 11     2      2021     2021     1       1       2018    2      .      .      1      2 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
22. | 12     1      2021     2021     1       1       2016    3      2019    3      0      2 |
23. | 12     2      2021     2021     1       1       1990   11      .      .      0      2 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
24. | 13     1      2021     2021     1       1       1986    9      2004    3      0      2 |
25. | 13     2      2021     2021     1       1       2000    5      2001    5      0      2 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
26. | 14     1      2021     2021     1       1       2017    4      2019    5      0      3 |
27. | 14     2      2021     2021     1       1       2002    5      2005    3      0      3 |
28. | 14     3      2021     2021     1       1       2006   10      2016   11      0      3 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

```

.
.
.
.
. *****
. * check 6: Using the interview date to fill the missing end date of continuous marriages
. *****
.
. tab2 mar_num marital, mis nol

```

-> tabulation of mar_num by marital

Total Number of Marriages	Current Marital Status		Total
	0	1	
1	3	1	4
2	6	6	12
3	9	3	12
Total	18	10	28

```

.
.
. list id inter_y1 inter_m1 mar_num marital marriage mar_sy mar_sm mar_ey mar_em if marital ==1, nol sepby(id)

```

	id	inter_y1	inter_m1	mar_num	marital	marriage	mar_sy	mar_sm	mar_ey	mar_em
2.	2	2020	12	1	1	1	1976	4	.	.
5.	4	2020	12	2	1	1	1986	9	2004	3
6.	4	2020	12	2	1	2	2008	1	.	.
10.	6	2021	1	3	1	1	2004	6	2006	2
11.	6	2021	1	3	1	2	2007	11	2018	12
12.	6	2021	1	3	1	3	2019	1	.	.

```

-----+-----
16. | 8      2021      1      2      1      1      1994      1      1996      5
17. | 8      2021      1      2      1      2      2000      6      .      .
-----+-----
20. | 11     2021      1      2      1      1      1992     12     2016      2
21. | 11     2021      1      2      1      2      2018      2      .      .
-----+-----

```

```

. replace mar_ey = inter_y1 if marital ==1 & mar_ey ==.
(5 real changes made)

```

```

. replace mar_em = inter_m1 if marital ==1 & mar_em ==.
(5 real changes made)

```

```

. list id inter_y1 inter_m1 mar_num marital marriage mar_sy mar_sm mar_ey mar_em if marital ==1, nol sepby(id)

```

```

-----+-----
| id   inter_y1  inter_m1  mar_num  marital  marriage  mar_sy  mar_sm  mar_ey  mar_em |
-----+-----
2. | 2     2020      12        1        1        1      1976     4     2020      12
-----+-----
5. | 4     2020      12        2        1        1      1986     9     2004      3
6. | 4     2020      12        2        1        2      2008     1     2020      12
-----+-----
10. | 6     2021      1         3        1        1      2004     6     2006      2
11. | 6     2021      1         3        1        2      2007    11     2018     12
12. | 6     2021      1         3        1        3      2019     1     2021      1
-----+-----
16. | 8     2021      1         2        1        1      1994     1     1996      5
17. | 8     2021      1         2        1        2      2000     6     2021      1
-----+-----
20. | 11    2021      1         2        1        1      1992    12     2016      2
21. | 11    2021      1         2        1        2      2018     2     2021      1
-----+-----

```

```

.
.
.

```

```

. *****
. * Generate the century months of the date variables
. *****
.
.
. gen inter_cm = (inter_y1 -1900) *12 + inter_m1
.
. gen mar_scm = (mar_sy -1900)*12 + mar_sm
.
. gen mar_ecm = (mar_ey -1900)*12 + mar_em
(1 missing value generated)
.
.
. *****
. * look at the data
. *****
.
.
. list, nol sepby(id)

```

	id	marriage	inter_y	inter_y1	inter_m	inter_m1	mar_sy	mar_sm	mar_ey	mar_em	marital	mar_num	inter_cm	mar_scm	mar_ecm
1.	1	1	2020	2020	12	12	1974	3	1980	7	0	1	1452	891	967
2.	2	1	2020	2020	12	12	1976	4	2020	12	1	1	1452	916	1452
3.	3	1	2020	2020	12	12	1984	8	2000	3	0	2	1452	1016	1203
4.	3	2	2020	2020	12	12	2004	4	2008	7	0	2	1452	1252	1303
5.	4	1	2020	2020	12	12	1986	9	2004	3	1	2	1452	1041	1251
6.	4	2	2020	2020	12	12	2008	1	2020	12	1	2	1452	1297	1452
7.	5	1	2021	2021	1	1	2002	5	2005	3	0	3	1453	1229	1263
8.	5	2	2021	2021	1	1	2006	10	2016	11	0	3	1453	1282	1403
9.	5	3	2021	2021	1	1	2017	4	2019	5	0	3	1453	1408	1433
10.	6	1	2021	2021	1	1	2004	6	2006	2	1	3	1453	1254	1274
11.	6	2	2021	2021	1	1	2007	11	2018	12	1	3	1453	1295	1428
12.	6	3	2021	2021	1	1	2019	1	2021	1	1	3	1453	1429	1453
13.	7	1	2012	2021	1	1	2000	4	2001	4	0	3	1453	1204	1216
14.	7	2	2012	2021	1	1	2005	9	2014	8	0	3	1453	1269	1376
15.	7	3	2012	2021	1	1	2016	3	2018	6	0	3	1453	1395	1422

16.	8	1	2021	2021	14	1	1994	1	1996	5	1	2	1453	1129	1157
17.	8	2	2021	2021	14	1	2000	6	2021	1	1	2	1453	1206	1453
18.	9	1	2020	2020	12	12	1970	1	1969	11	0	1	1452	841	839
19.	10	1	2020	2020	12	12	1972	2	2021	9	0	1	1452	866	1461
20.	11	1	2021	2021	1	1	1992	12	2016	2	1	2	1453	1116	1394
21.	11	2	2021	2021	1	1	2018	2	2021	1	1	2	1453	1418	1453
22.	12	1	2021	2021	1	1	2016	3	2019	3	0	2	1453	1395	1431
23.	12	2	2021	2021	1	1	1990	11	.	.	0	2	1453	1091	.
24.	13	1	2021	2021	1	1	1986	9	2004	3	0	2	1453	1041	1251
25.	13	2	2021	2021	1	1	2000	5	2001	5	0	2	1453	1205	1217
26.	14	1	2021	2021	1	1	2017	4	2019	5	0	3	1453	1408	1433
27.	14	2	2021	2021	1	1	2002	5	2005	3	0	3	1453	1229	1263
28.	14	3	2021	2021	1	1	2006	10	2016	11	0	3	1453	1282	1403

```
. list id mar_num marital marriage inter_y1 inter_m1 mar_sy mar_sm mar_ey mar_em inter_cm mar_scm mar_ecm ,
nol sepby(id)
```

	id	mar_num	marital	marriage	inter_y1	inter_m1	mar_sy	mar_sm	mar_ey	mar_em	inter_cm	mar_scm	mar_ecm
1.	1	1	0	1	2020	12	1974	3	1980	7	1452	891	967
2.	2	1	1	1	2020	12	1976	4	2020	12	1452	916	1452
3.	3	2	0	1	2020	12	1984	8	2000	3	1452	1016	1203
4.	3	2	0	2	2020	12	2004	4	2008	7	1452	1252	1303
5.	4	2	1	1	2020	12	1986	9	2004	3	1452	1041	1251
6.	4	2	1	2	2020	12	2008	1	2020	12	1452	1297	1452
7.	5	3	0	1	2021	1	2002	5	2005	3	1453	1229	1263
8.	5	3	0	2	2021	1	2006	10	2016	11	1453	1282	1403
9.	5	3	0	3	2021	1	2017	4	2019	5	1453	1408	1433
10.	6	3	1	1	2021	1	2004	6	2006	2	1453	1254	1274
11.	6	3	1	2	2021	1	2007	11	2018	12	1453	1295	1428
12.	6	3	1	3	2021	1	2019	1	2021	1	1453	1429	1453
13.	7	3	0	1	2021	1	2000	4	2001	4	1453	1204	1216
14.	7	3	0	2	2021	1	2005	9	2014	8	1453	1269	1376
15.	7	3	0	3	2021	1	2016	3	2018	6	1453	1395	1422
16.	8	2	1	1	2021	1	1994	1	1996	5	1453	1129	1157
17.	8	2	1	2	2021	1	2000	6	2021	1	1453	1206	1453

```

18. | 9      1      0      1      2020      12      1970      1      1969      11      1452      841      839 |
-----+-----
19. | 10     1      0      1      2020      12      1972      2      2021      9      1452      866      1461 |
-----+-----
20. | 11     2      1      1      2021      1      1992      12     2016      2      1453      1116     1394 |
21. | 11     2      1      2      2021      1      2018      2      2021      1      1453      1418     1453 |
-----+-----
22. | 12     2      0      1      2021      1      2016      3      2019      3      1453      1395     1431 |
23. | 12     2      0      2      2021      1      1990      11     .        .        1453      1091     . |
-----+-----
24. | 13     2      0      1      2021      1      1986      9      2004      3      1453      1041     1251 |
25. | 13     2      0      2      2021      1      2000      5      2001      5      1453      1205     1217 |
-----+-----
26. | 14     3      0      1      2021      1      2017      4      2019      5      1453      1408     1433 |
27. | 14     3      0      2      2021      1      2002      5      2005      3      1453      1229     1263 |
28. | 14     3      0      3      2021      1      2006      10     2016      11     1453      1282     1403 |
-----+-----

```

```

.
.
.
. *****
. * check #7: check if the interview date occurred before the start or end of the marriage
. *****
.
. gen check7_1 = inter_cm - mar_scm
.
. gen check7_2 = inter_cm - mar_ecm
(1 missing value generated)
.
.
. tab1 check7_1 check7_2, mis

```

```
-> tabulation of check7_1
```

check7_1	Freq.	Percent	Cum.
24	1	3.57	3.57
35	1	3.57	7.14
45	2	7.14	14.29
58	2	7.14	21.43
155	1	3.57	25.00
158	1	3.57	28.57

171 |	2	7.14	35.71
184 |	1	3.57	39.29
199 |	1	3.57	42.86
200 |	1	3.57	46.43
224 |	2	7.14	53.57
247 |	1	3.57	57.14
248 |	1	3.57	60.71
249 |	1	3.57	64.29
324 |	1	3.57	67.86
337 |	1	3.57	71.43
362 |	1	3.57	75.00
411 |	1	3.57	78.57
412 |	1	3.57	82.14
436 |	1	3.57	85.71
536 |	1	3.57	89.29
561 |	1	3.57	92.86
586 |	1	3.57	96.43
611 |	1	3.57	100.00

-----+-----
 Total | 28 100.00

-> tabulation of check7_2

check7_2 |	Freq.	Percent	Cum.
-9 |	1	3.57	3.57
0 |	5	17.86	21.43
20 |	2	7.14	28.57
22 |	1	3.57	32.14
25 |	1	3.57	35.71
31 |	1	3.57	39.29
50 |	2	7.14	46.43
59 |	1	3.57	50.00
77 |	1	3.57	53.57
149 |	1	3.57	57.14
179 |	1	3.57	60.71
190 |	2	7.14	67.86
201 |	1	3.57	71.43

202	|	1	3.57	75.00
236	|	1	3.57	78.57
237	|	1	3.57	82.14
249	|	1	3.57	85.71
296	|	1	3.57	89.29
485	|	1	3.57	92.86
613	|	1	3.57	96.43
.	|	1	3.57	100.00

Total	|	28	100.00	

```
.
.
.
. *****
. * Two possible ways to solve the inconsistencies
. * (1) treat it as an invalid observation
. * (2) treat it as the year 2020 was miscoded as the year 2021
. * I chose the first way
. *****
.
. list id inter_y1 inter_m1 mar_num marital marriage mar_sy mar_sm mar_ey mar_em inter_cm mar_scm mar_ecm
check7_2 if check7_2 < 0, sepby(id) nol
```

	id	inter_y1	inter_m1	mar_num	marital	marriage	mar_sy	mar_sm	mar_ey	mar_em	inter_cm	mar_scm	mar_ecm	check7_2
19.	10	2020	12	1	0	1	1972	2	2021	9	1452	866	1461	-9

```
. replace mar_ey =. if id ==10 & check7_2 ==-9
(1 real change made, 1 to missing)

. replace mar_em =. if id ==10 & check7_2 ==-9
(1 real change made, 1 to missing)

. replace mar_ecm =. if id ==10 & check7_2 ==-9
(1 real change made, 1 to missing)
```

```
. replace check7_2 =. if id ==10 & check7_2 ==-9
(1 real change made, 1 to missing)
```

```
. list id inter_y1 inter_m1 mar_num marital marriage mar_sy mar_sm mar_ey mar_em inter_cm mar_scm mar_ecm
check7_2 if id ==10, nol
```

```
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| id   inter_y1  inter_m1  mar_num  marital  marriage  mar_sy  mar_sm  mar_ey  mar_em  inter_cm  mar_scm  mar_ecm  check7_2 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
19. | 10      2020      12         1         0         1       1972      2       .       .       1452      866      .       .
```

```
.
.
.
.
.
*****
. * check #8: check if some marriages ended before they started
. *****
.
. gen check8 = mar_ecm-mar_scm
(2 missing values generated)
. tab1 check8, mis
```

```
-> tabulation of check8
```

check8	Freq.	Percent	Cum.
-2	1	3.57	3.57
12	2	7.14	10.71
20	1	3.57	14.29
24	1	3.57	17.86
25	2	7.14	25.00
27	1	3.57	28.57
28	1	3.57	32.14
34	2	7.14	39.29
35	1	3.57	42.86
36	1	3.57	46.43

51	|	1	3.57	50.00
76	|	1	3.57	53.57
107	|	1	3.57	57.14
121	|	2	7.14	64.29
133	|	1	3.57	67.86
155	|	1	3.57	71.43
187	|	1	3.57	75.00
210	|	2	7.14	82.14
247	|	1	3.57	85.71
278	|	1	3.57	89.29
536	|	1	3.57	92.86
.	|	2	7.14	100.00

Total	|	28	100.00	
-------	--	----	--------	--

```
. list id inter_y1 inter_m1 mar_num marital marriage mar_sy mar_sm mar_ey mar_em mar_scm mar_ecm check8 if
check8 < 0, sepby(id) nol
```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+													
	id	inter_y1	inter_m1	mar_num	marital	marriage	mar_sy	mar_sm	mar_ey	mar_em	mar_scm	mar_ecm	check8
18.	8	2020	12	1	0	1	1970	1	1969	11	841	839	-2

```
. list id inter_y1 inter_m1 mar_num marital marriage mar_sy mar_sm mar_ey mar_em mar_scm mar_ecm check8 if
check8 ==., sepby(id) nol
```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+													
	id	inter_y1	inter_m1	mar_num	marital	marriage	mar_sy	mar_sm	mar_ey	mar_em	mar_scm	mar_ecm	check8
19.	10	2020	12	1	0	1	1972	2	.	.	866	.	.
23.	12	2021	1	2	0	2	1990	11	.	.	1091	.	.

```
. *****
. * I chose to recode the end date of marriage to missing for this problematic record
. *****
.
. list id inter_y1 inter_m1 mar_num marital marriage mar_sy mar_sm mar_ey mar_em mar_scm mar_ecm check8 if id
==9, sepby(id) nol
```

```
+-----+
| id  inter_y1  inter_m1  mar_num  marital  marriage  mar_sy  mar_sm  mar_ey  mar_em  mar_scm  mar_ecm  check8 |
+-----+
18. | 9      2020      12        1        0        1        1970    1       1969    11      841      839     -2 |
+-----+
```

```
. replace mar_ey =.      if id ==9 & check8 ==-2
(1 real change made, 1 to missing)
```

```
. replace mar_em =.      if id ==9 & check8 ==-2
(1 real change made, 1 to missing)
```

```
. replace mar_ecm =.     if id ==9 & check8 ==-2
(1 real change made, 1 to missing)
```

```
. replace check8 =.      if id ==9 & check8 ==-2
(1 real change made, 1 to missing)
```

```
.
. list id inter_y1 inter_m1 mar_num marital marriage mar_sy mar_sm mar_ey mar_em mar_scm mar_ecm check8 if id
==9, sepby(id) nol
```

```
+-----+
| id  inter_y1  inter_m1  mar_num  marital  marriage  mar_sy  mar_sm  mar_ey  mar_em  mar_scm  mar_ecm  check8 |
+-----+
18. | 9      2020      12        1        0        1        1970    1       .       .       841      .       . |
+-----+
```

```

. *****
. * check #9: check if some marriages are out of the temporal order
. *****
.
.
. sort id mar_scm mar_ecm
.
. by id: gen mar_order=_n
.
. label variable mar_order "the order of variable, based on the order of marriages' dates"
.
. tab2 marriage mar_order, mis
-> tabulation of marriage by mar_order

the order |
of |
variable, |
based on |
the | the order of variable, based on
respondent | the order of marriages' dates
's report | 1 2 3 | Total
-----+-----+-----+-----+-----
1 | 12 1 1 | 14
2 | 2 8 0 | 10
3 | 0 1 3 | 4
-----+-----+-----+-----+-----
Total | 14 10 4 | 28

.
. gen check9_temp= 1 if marriage ~= mar_order
(23 missing values generated)
. by id: egen check9 = max(check9_temp)
(23 missing values generated)

```



```
.
.
. list id inter_y1 inter_m1 mar_num marital marriage mar_order mar_sy mar_sm mar_ey mar_em mar_scm mar_ecm
check9_temp check9 if check9==1, sepby(id) nol
```

	id	inter_y1	inter_m1	mar_num	marital	marriage	mar_order	mar_sy	mar_sm	mar_ey	mar_em	mar_scm	mar_ecm	check9_p	check9
22.	12	2021	1	2	0	2 1	1990 11	.	.	1091	.	1	1	1	1
23.	12	2021	1	2	0	1 2	2016 3	2019 3	.	1395	1431	1	1	1	1
26.	14	2021	1	3	0	2 1	2002 5	2005 3	.	1229	1263	1	1	1	1
27.	14	2021	1	3	0	3 2	2006 10	2016 11	.	1282	1403	1	1	1	1
28.	14	2021	1	3	0	1 3	2017 4	2019 5	.	1408	1433	1	1	1	1

```
.
.
. *****
. * check #10: check if marriage overlaps with each other
. *****
.
. gen check10_1 = 1 if mar_order ~=1 & mar_scm[_n] ~= . & mar_scm[_n-1] ~= . & (mar_scm[_n] <= mar_scm[_n-1])
(28 missing values generated)
.
. gen check10_2 = 1 if mar_order ~=1 & mar_scm[_n] ~= . & mar_ecm[_n-1] ~= . & (mar_scm[_n] <= mar_ecm[_n-1])
(27 missing values generated)
.
. gen check10_3 = 1 if mar_order ~=1 & mar_ecm[_n] ~= . & mar_scm[_n-1] ~= . & (mar_ecm[_n] <= mar_scm[_n-1])
(28 missing values generated)
.
. gen check10_4 = 1 if mar_order ~=1 & mar_ecm[_n] ~= . & mar_ecm[_n-1] ~= . & (mar_ecm[_n] <= mar_ecm[_n-1])
(27 missing values generated)
.
.
.
. list id marriage mar_order mar_sy mar_sm mar_ey mar_em mar_scm mar_ecm check10* if check10_1 ==1 | check10_2
==1 | check10_3 ==1 | check10_4 ==1, sepby(id) nol
```

```

+-----+
| id  marriage  mar_or~r  mar_sy  mar_sm  mar_ey  mar_em  mar_scm  mar_ecm  check1~1  check1~2  check1~3  check1~4 |
+-----+
25. | 13          2          2      2000    5      2001    5      1205    1217      .          1          .          1 |
+-----+

```

```
. list id marriage mar_order mar_sy mar_sm mar_ey mar_em mar_scm mar_ecm check10* if id ==13, sepby(id) nol
```

```

+-----+
| id  marriage  mar_or~r  mar_sy  mar_sm  mar_ey  mar_em  mar_scm  mar_ecm  check1~1  check1~2  check1~3  check1~4 |
+-----+
24. | 13          1          1      1986    9      2004    3      1041    1251      .          .          .          . |
25. | 13          2          2      2000    5      2001    5      1205    1217      .          1          .          1 |
+-----+

```

```
. replace mar_sy =. if id ==13 & marriage ==2
(1 real change made, 1 to missing)
```

```
. replace mar_sm =. if id ==13 & marriage ==2
(1 real change made, 1 to missing)
```

```
. replace mar_ey =. if id ==13 & marriage ==2
(1 real change made, 1 to missing)
```

```
. replace mar_em =. if id ==13 & marriage ==2
(1 real change made, 1 to missing)
```

```
. replace mar_scm =. if id ==13 & marriage ==2
(1 real change made, 1 to missing)
```

```
. replace mar_ecm =. if id ==13 & marriage ==2
(1 real change made, 1 to missing)
```

```
. replace check10_2 =. if id ==13 & marriage ==2
(1 real change made, 1 to missing)
```

```
. replace check10_4 =. if id ==13 & marriage ==2
(1 real change made, 1 to missing)
```

```

.
.
. list id marriage mar_order mar_sy mar_sm mar_ey mar_em mar_scm mar_ecm check10* if id ==13, sepby(id) nol

+-----+
| id  marriage  mar_order  mar_sy  mar_sm  mar_ey  mar_em  mar_scm  mar_ecm  check1~1  check1~2  check1~3  check1~4 |
+-----+
24. | 13          1          1    1986     9    2004     3    1041    1251      .          .          .          . |
25. | 13          2          2      .      .      .      .      .      .          .          .          .          . |
+-----+

.
. *****
. * Reshape the data back to the wide format
. *****
.
.
. keep id marriage inter_y inter_y1 inter_m inter_m1 mar_sy mar_sm mar_ey mar_em marital mar_num mar_order

.
. reshape wide marriage mar_sy mar_sm mar_ey mar_em, i(id) j( mar_order)
(note: j = 1 2 3)

Data
-----
Number of obs.          28  ->   14
Number of variables     13  ->   22
j variable (3 values)   mar_order -> (dropped)
xij variables:
      marriage ->   marriagel marriage2 marriage3
      mar_sy   ->   mar_sy1  mar_sy2  mar_sy3
      mar_sm   ->   mar_sm1  mar_sm2  mar_sm3
      mar_ey   ->   mar_ey1  mar_ey2  mar_ey3
      mar_em   ->   mar_em1  mar_em2  mar_em3
-----

. list id inter_y1 inter_m1 mar_sy1 mar_sm1 mar_ey1 mar_em1 mar_sy2 mar_sm2 mar_ey2 mar_em2 mar_sy3 mar_sm3
mar_ey3 mar_em3 marital mar_num, nol sepby(id)

```

	id	inter_y1	inter_m1	mar_sy1	mar_sml	mar_ey1	mar_em1	mar_sy2	mar_sm2	mar_ey2	mar_em2	mar_sy3	mar_sm3	mar_ey3	mar_em3	marital	mar_num
1.	1	2020	12	1974	3	1980	7	.	.	.	.	.	.	.	.	0	1
2.	2	2020	12	1976	4	2020	12	.	.	.	.	.	.	.	.	1	1
3.	3	2020	12	1984	8	2000	3	2004	4	2008	7	.	.	.	.	0	2
4.	4	2020	12	1986	9	2004	3	2008	1	2020	12	.	.	.	.	1	2
5.	5	2021	1	2002	5	2005	3	2006	10	2016	11	2017	4	2019	5	0	3
6.	6	2021	1	2004	6	2006	2	2007	11	2018	12	2019	1	2021	1	1	3
7.	7	2021	1	2000	4	2001	4	2005	9	2014	8	2016	3	2018	6	0	3
8.	8	2021	1	1994	1	1996	5	2000	6	2021	1	.	.	.	.	1	2
9.	9	2020	12	1970	1	.	.	.	.	.	.	.	.	.	.	0	1
10.	10	2020	12	1972	2	.	.	.	.	.	.	.	.	.	.	0	1
11.	11	2021	1	1992	12	2016	2	2018	2	2021	1	.	.	.	.	1	2
12.	12	2021	1	1990	11	.	.	2016	3	2019	3	.	.	.	.	0	2
13.	13	2021	1	1986	9	2004	3	.	.	.	.	.	.	.	.	0	2
14.	14	2021	1	2002	5	2005	3	2006	10	2016	11	2017	4	2019	5	0	3

```
. save "D:\jason\workshop\Constructing variables with Stata\final.dta", replace
file D:\jason\workshop\Constructing variables with Stata\final.dta saved
```

```
. log close
name: <unnamed>
log: D:\jason\workshop\Constructing variables with Stata\constructing variables with stata.log
log type: text
closed on: 30 Jan 2022, 22:01:46
```