



# CLS Cohort Studies

## Data Note 4

Centre for  
Longitudinal  
Studies

BCS70 Partnership Histories

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## CLS Cohort Studies Data Note 4

### **BCS70 Partnership Histories**

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#### **Introduction**

This Data Note is concerned with preparation of continuous partnership histories for female members of the 1970 British Cohort Study (BCS70) between ages 16-30 using data collected at age 30. It is based on the BCS70 deposited data collected during the 1999/2000 follow-up. The resulting dataset contains all cohort members with validated partnership history and it has been used for the analysis of the link between partnership and childbearing processes (Steele et al. 2005) and the link between partnership formation and partnership outcomes (Kallis et al. 2005).

Further information about BCS70 is available at: <http://www.cls.ioe.ac.uk/bcs>

There is a corresponding CLS Cohort Studies Data Note 5 (Kallis 2005), which is concerned with preparation of comparable continuous partnership histories for female members of the National Child Development Study (NCDS) between ages 16-42, using data collected at 23 (NCDS4), 33 (NCDS5) and 42 (NCDS6).

For the purposes of the following analysis, partnership is defined as a continuous period spent living with the same partner. A partnership episode is the period of time spent continuously with the same partner in the same state (cohabitation or marriage). An episode during which a cohort member has lived without a cohabiting partner is defined as a single period.

#### **1970 British Cohort Study**

BCS70 began when data were collected about the births of families of 17,198 babies born in England, Scotland, Wales and Northern Ireland in the week 5-11 April 1970 (Dodgeon 2002). Since the 1970 survey there have been five additional data collection exercises in order to monitor their health, education, social and economic circumstances. These took place in 1975 (age 5), 1980 (age 10), 1986 (age 16), 1996 (age 26), and 1999/2000 (age 30).

From its original focus on the circumstances and outcomes of birth, BCS70 has broadened in scope to collect data on all aspects of health, education and social development of their subjects as they passed through childhood and adolescence. In later sweeps, the information collected has covered their transitions into adult life, including events related to their participation in education and labour market and also partnership and fertility events.

## Preliminary steps

Initially, as each row (record) in the deposited dataset contains all the information about the partnerships of a cohort member, it was necessary to reshape the data so that each record corresponded to a partnership. The time periods that a woman was without a cohabiting partner (single periods) have been identified by the time intervals between partnerships.

Next, a common date format was created for the episodes recorded at age 30. The century month code (cmc) is a common way of combining the year and the month of an event. The following formula was applied:

$$\text{cmc}=12*\text{year}+\text{month}, \text{year}=\text{number of years since 1900}$$

## Episode start and end dates

After defining the partnership start and end dates, the next step was to compute the episode starting and ending century month codes. A number of variables were used to define the partnership state for each time period of the partnership and the type of transition at the end of each episode in the partnership. The corresponding variables for creating episode state and transition indicators for ex-partnerships are the following:

expartf#: Were you and (name of ex-partner) married when you moved in together?

- 1: married
- 2 living as a couple

expartg#: Did you get married to (name of ex-partner)?

- 1: Yes
- 2: No

expartl#: Can I just check, how did this relationship end?

- 1: couple separated
- 2: partner died

The table below shows the rules applied to create partnership episodes using variables related to ex-partnerships:

Expartf	Expartg	Epxartl	Event history within partnership
1	-	1	Started as married couple, separated
1	-	2	Started as married couple, partner died
2	1	1	Started with cohabitation, married, separated
2	1	2	Started with cohabitation, married, partner died
2	2	1	Started with cohabitation, never married, separated
2	2	2	Started with cohabitation, never married, partner died

For the partnership with the current partner at age 30, the following variables are used:

dmsppart: whether cm has current partner in household

- 1: yes
- 2: no

marstat2: legal marital status

- 1: single, never married
- 2: married, 1<sup>st</sup> & only marriage
- 3: remarried - 2nd or later married
- 4: legally separated
- 5: divorced
- 6: widowed
- 8: don't know
- 9: not answered

curpartb: did cm and current partner live together before they married

- 1: yes, lived as a couple
- 2: never cohabited before marriage

The procedure followed to create partnership episodes with the variables described above is summarised in the following table:

<b>Dmsppart</b>	<b>Marstat2</b>	<b>Curpartb</b>	<b>Event history within partnership</b>
1	1 or 4 or 5 or 6	-	Started cohabiting, never married
1	2 or 3	1	Started cohabiting, married
1	2 or 3	2	Started as married couple

### **Inconsistencies**

Based on the definition of partnership and episode, the following inconsistencies have been identified in the following order:

1. No cohabitation period reported and start of marriage different from beginning of the partnership. If a negative premarital duration was identified (marriage began before the start of partnership), only marital episode was assumed and the marriage date was regarded as the partnership beginning date. If a premarital duration period was found, then it was assumed that this corresponds to a cohabitation period preceding marriage with the same partner.
2. If the end of a past partnership was not known, the cohort member has been removed from the sample prepared for analysis.
3. Where the presence or absence of marital episode could not be verified, the cohort members have been excluded from the sample prepared for analysis.
4. Cohort members with at least one partner of the same sex. These individuals have been removed from the sample prepared for analysis.

5. End date of episodes before the start of the same episode. These cases were excluded from the sample prepared for analysis.

6. Overlapping episodes when the start of the an episode is before the end of the preceding episodes. These cohort members have been removed from the partnership event history sample.

## Summary

The number of cohort members and the action applied to resolve each type of inconsistency mentioned above is the following:

Type of Inconsistency	# of women	Action	Cumulative # of removals
<b>Initial number of women in the sample</b>	<b>5790</b>		
Negative premarital period (ex-partnership)	29	Correction	-
Premarital duration > 0 (ex-partnership)	20	Correction	-
End of ex-partnership not known	1	Removal	1
Negative premarital period (current partnership)	41	Correction	1
Premarital duration > 0 (current partnership)	50	Correction	1
No clear indication of marital episode	34	Removal	35
Same sex partnerships	57	Removal	61
Partnership start date before corresponding end date	23	Removal	84
Overlapping episodes	20	Removal	87
Beginning same as end of previous episode	49	Removal	135
Beginning before end of previous episode	42	Removal	177
<b>Final number of women in the sample</b>	<b>5613</b>		

## Data

The dataset derived as indicated above is available containing the following for each episode:

key    bcs70 identifier 2  
s      partnership state including single state  
b      episode beginning  
e      episode ending  
t      transition indicator

See the Appendices for more information.

## Queries

Queries about this Data note or accompanying dataset should be addressed to: [cls@cls.ioe.ac.uk](mailto:cls@cls.ioe.ac.uk)

## **Acknowledgements**

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## **References**

Dodgeon, B 2002. *Longitudinal Linkage in BCS70: Rationalising Case Identifiers*. CLS Cohort Studies Data Note 1. Centre for Longitudinal Studies, Institute of Education, London.

Kallis, C., F. Steele, H. Joshi and H. Goldstein. 2005. *Formation and outcomes of cohabiting and marital partnerships to age 30*. Working Paper, Institute of Education, University of London.

Steele, F., H. Joshi, C. Kallis and H. Goldstein. 2005. *Changes in the Relationship between the Outcomes of Cohabiting Partnerships and Fertility among Young British Women: Evidence from the 1958 and 1970 Birth Cohort Studies*. Paper presented at the Annual Meetings of the Population Association of America, Philadelphia.

Kallis, C. 2005. NCDS5 and NCDS6 Partnership Histories, CLS Cohort Studies Data Note 5

## Appendix 1

### Variables in file bsc70ph.dta

obs: 15,922  
vars: 5

---

variable name	storage type	display format	value label	variable label
key	long	%12.0g		bc70 identifier 2
s	byte	%12.0g	sc	partnership state including single state
b	float	%9.0g		episode beginning
e	float	%9.0g		episode ending
t	float	%35.0g	tc	transition indicator

---

Sorted by: key b e s t

**b**  
beginning century month code of episode

**e**  
ending century month of episode

**s**  
0 single (unpartnered)  
1 cohabitation (marriage)

**t**  
transition indicator of an episode  
0 no transition  
1 cohabitation formation or separation from either cohabitation or marriage  
2 marriage formation or death of partner  
3 marriage after cohabitation with same partner

## Appendix 2

### Stata syntax to produce variables in file bsc70ph.dta

```
cd "D:\shared"
```

```
log using "0410\041015pr.txt", append text
```

```
use "bsc70\bsc70 30-year survey.dta", clear
```

```
* keep variables for bsc70 partnership event history
```

```
keep key bserial nserial intdate dmsppart dmsex marstat2 curpart curparta curpartb curpartc  
curpartd sexp expart1 expart2 expartb expartc expartd exparte expartf expartg exparth exparti  
expartl expartm expartn expartb2 expartc2 expartd2 exparte2 expartf2 expartg2 exparth2  
exparti2 expartl2 expartm2 expartn2 expartb3 expartc3 expartd3 exparte3 expartf3 expartg3  
exparth3 exparti3 expartl3 expartm3 expartn3 expartb4 expartc4 expartd4 exparte4 expartf4  
exparth4 exparti4 expartl4 expartm4 expartn4 expartb5 expartc5 expartd5 exparte5  
expartf5 expartg5 exparth5 exparti5 expartl5 expartm5 expartn5 expartb6 expartc6 expartd6  
exparte6 expartf6 expartg6 exparth6 exparti6 expartl6 expartm6 expartn6 expartb7 expartc7  
expartd7 exparte7 expartf7 expartg7 exparth7 exparti7 expartl7 expartm7 expartn7
```

```
* keep female cohort members in analysis sample
```

```
keep if dmsex==2
```

```
sort key
```

```
* rename and create variables for current partnership
```

```
ren curpart expartb0
```

```
ren curparta expartc0
```

```
gen expartd0=0
```

```
ren sexp exparte0
```

```
ren curpartb expartf0
```

```
gen expartg0=0
```

```
ren curpartc exparth0
```

```
ren curpartd exparti0
```

```
gen expartl0=0
```

```
gen expartm0=0
```

```
gen expartn0=0
```

```
* ren ex-partnership 1 variables
```

```
ren expartb expartb1
```

```
ren expartc expartc1
```

```
ren expartd expartd1
```

```
ren exparte exparte1
```

```
ren expartf expartf1
```

```
ren expartg expartg1
```

```
ren exparth exparth1
```

```
ren exparti exparti1
```

```
ren expartl expartl1
```

```
ren expartm expartm1
```

```
ren expartn expartn1
```

```
* reshape datafile to create a record for each partnership
```

```
reshape long expartb expartc expartd exparte expartf expartg exparth exparti expartl expartm  
expartn, i(key) j(expn)
```

```
sort key expn
```

```
* convert interview date format from string to numerical variables
```

```
gen intyear=substr(intdate,5,4)
```

```
destring intyear, generate(intyear2)
```

```
gen intmonth=substr(intdate,3,2)
```

destring intmonth, generate(intmonth2)

\* create century month format episode limits

gen b1=0

gen e1=0

gen t1=0

gen b2=0

gen e2=0

gen t2=0

\* for ex-partnerships

\* marriage only

gen bm1=0

replace bm1=12\*(expartb-1900)+expartc if expartf==1 & expn>0

gen bm2=0

replace bm2=12\*(exparth-1900)+exparti if expartf==1 & expn>0

gen bm1bm2=0

replace bm1bm2=bm2-bm1 if expartf==1 & expn>0

\* if partnership beginning and marriage cmc the same

replace b2=12\*(expartb-1900)+expartc if expartf==1 & expn>0 & bm1bm2==0

replace e2=12\*(expartm-1900)+expartn if expartf==1 & expn>0 & bm1bm2==0

replace t2=1 if expartl==1 & expartf==1 & expn>0 & bm1bm2==0

replace t2=2 if expartl==2 & expartf==1 & expn>0 & bm1bm2==0

replace t2=1 if expartl==. & expartf==1 & expn>0 & bm1bm2==0

\* if negative premarital period assume only marital period

\* use marriage date as partnership beginning

\* see 031002pr.doc p.2 (printed version) for details

replace b2=12\*(exparth-1900)+exparti if expartf==1 & expn>0 & bm1bm2<0

replace e2=12\*(expartm-1900)+expartn if expartf==1 & expn>0 & bm1bm2<0

replace t2=1 if expartl==1 & expartf==1 & expn>0 & bm1bm2<0

replace t2=2 if expartl==2 & expartf==1 & expn>0 & bm1bm2<0

replace t2=1 if expartl==. & expartf==1 & expn>0 & bm1bm2<0

\* if premarital duration>0 assume premarital period

\* see 031002pr.doc p.2 (printed version) for details

replace b1=12\*(expartb-1900)+expartc if expartf==1 & expn>0 & bm1bm2>0

replace e1=12\*(exparth-1900)+exparti if expartf==1 & expn>0 & bm1bm2>0

replace t1=3 if expartf==1 & expn>0 & bm1bm2>0

replace b2=12\*(exparth-1900)+exparti+1 if expartf==1 & expn>0 & bm1bm2>0

replace e2=12\*(expartm-1900)+expartn if expartf==1 & expn>0 & bm1bm2>0

replace t2=1 if expartl==1 & expartf==1 & expn>0 & bm1bm2>0

replace t2=2 if expartl==2 & expartf==1 & expn>0 & bm1bm2>0

replace t2=1 if expartl==. & expartf==1 & expn>0 & bm1bm2>0

\* cohabitation only

replace b1=12\*(expartb-1900)+expartc if expartf==2 & expartg==2 & expn>0

replace e1=12\*(expartm-1900)+expartn if expartf==2 & expartg==2 & expn>0

replace t1=1 if expartl==1 & expartf==2 & expartg==2 & expn>0

replace t1=2 if expartl==2 & expartf==2 & expartg==2 & expn>0

replace t1=1 if expartl==. & expartf==2 & expartg==2 & expn>0

\* cohabitation and marriage with same partner

replace b1=12\*(expartb-1900)+expartc if expartf==2 & expartg==1 & expn>0

replace e1=12\*(exparth-1900)+exparti if expartf==2 & expartg==1 & expn>0

replace t1=3 if expartf==2 & expartg==1 & expn>0

replace b2=12\*(exparth-1900)+exparti+1 if expartf==2 & expartg==1 & expn>0

replace e2=12\*(expartm-1900)+expartn if expartf==2 & expartg==1 & expn>0

replace t2=1 if expartl==1 & expartf==2 & expartg==1 & expn>0

replace t2=2 if expartl==2 & expartf==2 & expartg==1 & expn>0

replace t2=1 if expartl==. & expartf==2 & expartg==1 & expn>0

\* generate removal indicators for each partnership and each cohort member

gen rempa=0

gen remcm=0

\* indicate partnership with end of ex-partnership 1 not known for removal

replace rempa=1 if key==135880 & bm1bm2==.

\* indicate woman with end of ex-partnership 1 not known for removal

replace remcm=1 if key==135880

\* for current partnership

\* cohabitation only

replace b1=12\*(expartb-1900)+expartc if dmsppart==1 & (marstat2==1 | marstat2==4 | marstat2==5 | marstat2==6) & expn==0

replace e1=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (marstat2==1 | marstat2==4 | marstat2==5 | marstat2==6) & expn==0

replace t1=0 if dmsppart==1 & (marstat2==1 | marstat2==4 | marstat2==5 | marstat2==6) & expn==0

replace b1=12\*(expartb-1900)+expartc if dmsppart==1 & (expartf==. & expartb!=0 & expartc!=0) & expn==0

replace e1=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (expartf==. & expartb!=0 & expartc!=0) & expn==0

replace t1=0 if dmsppart==1 & (expartf==. & expartb!=0 & expartc!=0) & expn==0

\* started living together as unmarried couple

replace b1=12\*(expartb-1900)+expartc if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

replace e1=12\*(exparth-1900)+exparti if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

replace t1=3 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

replace b2=12\*(exparth-1900)+exparti+1 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

replace e2=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

replace t2=0 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

\* marriage only

replace bm1=12\*(expartb-1900)+expartc if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0

replace bm2=12\*(exparth-1900)+exparti if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0

replace bm1bm2=bm2-bm1 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0

\* if partnership beginning and marriage cmc the same

replace b2=12\*(expartb-1900)+expartc if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2==0

replace e2=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2==0

replace t2=0 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0

\* if negative premarital period assume only marital period

\* use marriage date as partnership beginning

\* see 031002pr.doc p.2 (printed version) for details

replace b2=12\*(exparth-1900)+exparti if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2<0

replace e2=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2<0

replace t2=0 if expartl==1 & dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2<0

\* if premarital duration>0 assume premarital period

\* see 031002pr.doc p.2 (printed version) for details

replace b1=12\*(expartb-1900)+expartc if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

replace e1=12\*(exparth-1900)+exparti if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

replace t1=3 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

replace b2=12\*(exparth-1900)+exparti+1 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

replace e2=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

replace t2=0 if expartl==1 & dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

\* indicate partnerships with not clear indication of marriage

replace rempa=1 if b1==0 & b2==0 & expartb!=.

\* indicate women with not clear indication of marriage

drop remcm

by key: egen remcm=max(rempa)

\* indicate same sex partnerships for removal

replace rempa=1 if dmsex==exparte & dmsex!=.

\* indicate women with same sex partnerships for removal

drop remcm

by key: egen remcm=max(rempa)

\* remove if starting episode date before corresponding end date

replace rempa=1 if b1>e1

replace rempa=1 if b2>e2

\* remove overlapping episodes

replace rempa=1 if b2<=e1 & t1==3

replace rempa=1 if b2<=b1 & t1==3

replace rempa=1 if e2<=e1 & t1==3

\* update cohort member removal indicator

drop remcm

by key: egen remcm=max(rempa)

\* reshape datafile to create a record for each episode

reshape long b e t, i(key expn) j(ep)

sort key expn ep

\* remove all episodes without starting and ending month

keep if b!=0 & e!=0

sort key expn ep

\* generate episode counter for each woman

by key: gen epn=\_n

\* check for inconsistencies between episodes

\* generate lagged variables

gsort key -expn ep b

gen lagkey=key[\_n-1]

gen lagexpn=expn[\_n-1]

gen lagep=ep[\_n-1]

gen lagb=b[\_n-1]

gen lage=e[\_n-1]

gen lagt=t[\_n-1]

\* generate episode removal indicator

gen remep=0

\* flag episodes where beginning the same as end of previous episode

replace remep=1 if b==lage & key==lagkey & remcm==0

\* flag episodes where beginning before the end of previous episode

replace remep=1 if b<lage & key==lagkey & remcm==0

\* generate and update second cohort member removal indicator

by key: egen remcm2=max(remep)

\* sort dataset entries

gsort key -expn ep b

\* update episode counter for each woman

by key: replace epn=\_n

\* drop women with at least one removal indicator equal to 1

drop if remcm==1

drop if remcm2==1

\* sort dataset entries

gsort key -expn ep b

\* update lagged variables

replace lagkey=key[\_n-1]

replace lagexpn=expn[\_n-1]

replace lagep=ep[\_n-1]

replace lagb=b[\_n-1]

replace lage=e[\_n-1]

replace lagt=t[\_n-1]

\* rename state indicator

ren ep s

\* generate partnership number

by key: egen expnm=max(expn)

gen pn=expnm-expn+1

\* update episode counter for each woman

by key: replace epn=\_n

\* sort dataset

```
sort key pn epn b e s t
```

```
* generate revived partnership variable
```

```
gen expnr=expn
```

```
replace expnr=0 if expartd==1
```

```
* keep variables not necessary for further analysis
```

```
keep key expn expnr pn epn b e s t
```

```
* calculate duration for each episode
```

```
gen d=e-b+1
```

```
save "0409\04092401.dta", replace
```

```
* expand dataset to month format
```

```
expand d
```

```
* generate counter for each cohort member
```

```
sort key pn epn b e
```

```
by key: gen keyc=_n
```

```
* generate counter for each partnership and for each episode
```

```
by key pn: gen keypc=_n
```

```
by key pn epn: gen keyec=_n
```

```
* generate century month for each record
```

```
gen cmc=b+keyec-1
```

```
* sort dataset

sort key cmc pn epn

save "0409\04092402.dta", replace

* create single state time periods for all women

use "bcs70\bcs70 30-year survey.dta", clear

* keep variables for bcs70 partnership event history

keep key dmsex intdate

* keep female cohort members in analysis sample

keep if dmsex==2

drop dmsex

sort key

* generate duration variable

gen d=12*(100-81)

* create cmc records

expand d

sort key

* generate century month code

by key: gen cmc=12*82+_n

drop d

sort key cmc

save "0409\04092403.dta", replace
```

```

* merge partnership and "single state" time periods
use "0409\04092402", clear

merge key cmc using "0409\04092403.dta"

sort key cmc pn epn

* convert interview date format from string to numerical variables

gen intyear=substr(intdate,5,4)

destring intyear, generate(intyear2)

gen intmonth=substr(intdate,3,2)

destring intmonth, generate(intmonth2)

gen intcmc=12*(intyear2-1900)+intmonth2

* generate transition indicator for single periods

replace s=0 if s==.

gen leaps=s[_n+1]

gen leapkey=key[_n+1]

gen t2=0

replace t2=1 if s==1 & leaps==0 & key==leapkey

replace t2=1 if s==2 & leaps==0 & key==leapkey

replace t2=2 if s==1 & leaps==2 & key==leapkey

replace t2=1 if s==0 & leaps==1 & key==leapkey

replace t2=2 if s==0 & leaps==2 & key==leapkey

replace t2=t if cmc==intcmc

replace t2=0 if t2==.

* drop observations after interview month

```

```
drop if cmc>intcmc
```

```
* drop variables not necessary for further data preparation
```

```
drop t d keyc keypc keyec intdate _merge intyear intyear2 intmonth intmonth2 leaps leapkey
```

```
* label variables
```

```
label var expn "partner number without revived partnerships"
```

```
label var s "partnership state including single state"
```

```
label var b "cohabiting partnership episode start cmc"
```

```
label var e "cohabiting partnership episode end cmc"
```

```
label var epn "cohabiting episode number"
```

```
label var pn "cohabiting partnership number"
```

```
label var expnr "partner number including revived partnerships"
```

```
label var cmc "century month code"
```

```
label var intcmc "interview cmc"
```

```
ren t2 t
```

```
label var t "transition indicator"
```

```
save "0409\04092404.dta", replace
```

```
* repeat code to create file with removal indicators
```

```
* merge with 0409\04092404.dta to exclude women with removal flags
```

```
use "bcs70\bcs70 30-year survey.dta", clear
```

```
* keep variables for bcs70 partnership event history
```

```
keep key bserial nserial intdate dmsppart dmsex marstat2 curpart curparta curpartb curpartc  
curpartd sexp expart1 expart2 expartb expartc expartd exparte expartf expartg exparth exparti  
expartl expartm expartn expartb2 expartc2 expartd2 exparte2 expartf2 expartg2 exparth2  
exparti2 expartl2 expartm2 expartn2 expartb3 expartc3 expartd3 exparte3 expartf3 expartg3  
exparth3 exparti3 expartl3 expartm3 expartn3 expartb4 expartc4 expartd4 exparte4 expartf4  
expartg4 exparth4 exparti4 expartl4 expartm4 expartn4 expartb5 expartc5 expartd5 exparte5  
expartf5 expartg5 exparth5 exparti5 expartl5 expartm5 expartn5 expartb6 expartc6 expartd6
```

exparte6 expartf6 expartg6 exparth6 exparti6 expartl6 expartm6 expartn6 expartb7 expartc7  
expartd7 exparte7 expartf7 expartg7 exparth7 exparti7 expartl7 expartm7 expartn7

\* keep female cohort members in analysis sample

keep if dmsex==2

sort key

\* rename and create variables for current partnership

ren curpart expartb0

ren curparta expartc0

gen expartd0=0

ren sexp exparte0

ren curpartb expartf0

gen expartg0=0

ren curpartc exparth0

ren curpartd exparti0

gen expartl0=0

gen expartm0=0

gen expartn0=0

\* ren ex-partnership 1 variables

ren expartb expartb1

ren expartc expartc1

ren expartd expartd1

ren exparte exparte1

ren expartf expartf1

ren expartg expartg1

```
ren exparth exparth1
```

```
ren exparti exparti1
```

```
ren expartl expartl1
```

```
ren expartm expartm1
```

```
ren expartn expartn1
```

```
* reshape datafile to create a record for each partnership
```

```
reshape long expartb expartc expartd exparte expartf expartg exparth exparti expartl expartm  
expartn, i(key) j(expn)
```

```
sort key expn
```

```
* convert interview date format from string to numerical variables
```

```
gen intyear=substr(intdate,5,4)
```

```
destring intyear, generate(intyear2)
```

```
gen intmonth=substr(intdate,3,2)
```

```
destring intmonth, generate(intmonth2)
```

```
* create century month format episode limits
```

```
gen b1=0
```

```
gen e1=0
```

```
gen t1=0
```

```
gen b2=0
```

```
gen e2=0
```

```
gen t2=0
```

```
* for ex-partnerships
```

```
* marriage only
```

gen bm1=0

replace bm1=12\*(expartb-1900)+expartc if expartf==1 & expn>0

gen bm2=0

replace bm2=12\*(exparth-1900)+exparti if expartf==1 & expn>0

gen bm1bm2=0

replace bm1bm2=bm2-bm1 if expartf==1 & expn>0

\* if partnership beginning and marriage cmc the same

replace b2=12\*(expartb-1900)+expartc if expartf==1 & expn>0 & bm1bm2==0

replace e2=12\*(expartm-1900)+expartn if expartf==1 & expn>0 & bm1bm2==0

replace t2=1 if expartl==1 & expartf==1 & expn>0 & bm1bm2==0

replace t2=2 if expartl==2 & expartf==1 & expn>0 & bm1bm2==0

replace t2=1 if expartl==. & expartf==1 & expn>0 & bm1bm2==0

\* if negative premarital period assume only marital period

\* use marriage date as partnership beginning

\* see 031002pr.doc p.2 (printed version) for details

replace b2=12\*(exparth-1900)+exparti if expartf==1 & expn>0 & bm1bm2<0

replace e2=12\*(expartm-1900)+expartn if expartf==1 & expn>0 & bm1bm2<0

replace t2=1 if expartl==1 & expartf==1 & expn>0 & bm1bm2<0

replace t2=2 if expartl==2 & expartf==1 & expn>0 & bm1bm2<0

replace t2=1 if expartl==. & expartf==1 & expn>0 & bm1bm2<0

\* if premarital duration>0 assume premarital period

\* see 031002pr.doc p.2 (printed version) for details

replace b1=12\*(expartb-1900)+expartc if expartf==1 & expn>0 & bm1bm2>0

replace e1=12\*(exparth-1900)+exparti if expartf==1 & expn>0 & bm1bm2>0

replace t1=3 if expartf==1 & expn>0 & bm1bm2>0

replace b2=12\*(exparth-1900)+exparti+1 if expartf==1 & expn>0 & bm1bm2>0

replace e2=12\*(expartm-1900)+expartn if expartf==1 & expn>0 & bm1bm2>0

replace t2=1 if expartl==1 & expartf==1 & expn>0 & bm1bm2>0

replace t2=2 if expartl==2 & expartf==1 & expn>0 & bm1bm2>0

replace t2=1 if expartl==. & expartf==1 & expn>0 & bm1bm2>0

\* cohabitation only

replace b1=12\*(expartb-1900)+expartc if expartf==2 & expartg==2 & expn>0

replace e1=12\*(expartm-1900)+expartn if expartf==2 & expartg==2 & expn>0

replace t1=1 if expartl==1 & expartf==2 & expartg==2 & expn>0

replace t1=2 if expartl==2 & expartf==2 & expartg==2 & expn>0

replace t1=1 if expartl==. & expartf==2 & expartg==2 & expn>0

\* cohabitation and marriage with same partner

replace b1=12\*(expartb-1900)+expartc if expartf==2 & expartg==1 & expn>0

replace e1=12\*(exparth-1900)+exparti if expartf==2 & expartg==1 & expn>0

replace t1=3 if expartf==2 & expartg==1 & expn>0

replace b2=12\*(exparth-1900)+exparti+1 if expartf==2 & expartg==1 & expn>0

replace e2=12\*(expartm-1900)+expartn if expartf==2 & expartg==1 & expn>0

replace t2=1 if expartl==1 & expartf==2 & expartg==1 & expn>0

replace t2=2 if expartl==2 & expartf==2 & expartg==1 & expn>0

replace t2=1 if expartl==. & expartf==2 & expartg==1 & expn>0

\* generate removal indicators for each partnership and each cohort member

gen rempa=0

gen remcm=0

\* indicate partnership with end of ex-partnership 1 not known for removal

replace rempa=1 if key==135880 & bm1bm2==.

\* indicate woman with end of ex-partnership 1 not known for removal

replace remcm=1 if key==135880

\* for current partnership

\* cohabitation only

replace b1=12\*(expartb-1900)+expartc if dmsppart==1 & (marstat2==1 | marstat2==4 | marstat2==5 | marstat2==6) & expn==0

replace e1=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (marstat2==1 | marstat2==4 | marstat2==5 | marstat2==6) & expn==0

replace t1=0 if dmsppart==1 & (marstat2==1 | marstat2==4 | marstat2==5 | marstat2==6) & expn==0

replace b1=12\*(expartb-1900)+expartc if dmsppart==1 & (expartf==. & expartb!=0 & expartc!=0) & expn==0

replace e1=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (expartf==. & expartb!=0 & expartc!=0) & expn==0

replace t1=0 if dmsppart==1 & (expartf==. & expartb!=0 & expartc!=0) & expn==0

\* started living together as unmarried couple

replace b1=12\*(expartb-1900)+expartc if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

replace e1=12\*(exparth-1900)+exparti if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

replace t1=3 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

replace b2=12\*(exparth-1900)+exparti+1 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

replace e2=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

replace t2=0 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==1 & expn==0

\* marriage only

replace bm1=12\*(exparth-1900)+expartc if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0

replace bm2=12\*(exparth-1900)+exparti if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0

replace bm1bm2=bm2-bm1 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0

\* if partnership beginning and marriage cmc the same

replace b2=12\*(exparth-1900)+expartc if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2==0

replace e2=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2==0

replace t2=0 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0

\* if negative premarital period assume only marital period

\* use marriage date as partnership beginning

\* see 031002pr.doc p.2 (printed version) for details

replace b2=12\*(exparth-1900)+exparti if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2<0

replace e2=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2<0

replace t2=0 if expartl==1 & dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2<0

\* if premarital duration>0 assume premarital period

\* see 031002pr.doc p.2 (printed version) for details

replace b1=12\*(exparth-1900)+expartc if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

replace e1=12\*(exparth-1900)+exparti if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

replace t1=3 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

replace b2=12\*(exparth-1900)+exparti+1 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

replace e2=12\*(intyear2-1900)+intmonth2 if dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

replace t2=0 if expartl==1 & dmsppart==1 & (marstat2==2 | marstat2==3) & expartf==2 & expn==0 & bm1bm2>0

\* indicate partnerships with not clear indication of marriage

replace rempa=1 if b1==0 & b2==0 & expartb!=.

\* indicate women with not clear indication of marriage

drop remcm

by key: egen remcm=max(rempa)

\* indicate same sex partnerships for removal

replace rempa=1 if dmsex==exparte & dmsex!=.

\* indicate women with same sex partnerships for removal

drop remcm

by key: egen remcm=max(rempa)

\* remove if starting episode date before corresponding end date

replace rempa=1 if b1>e1

replace rempa=1 if b2>e2

\* remove overlapping episodes

replace rempa=1 if b2<=e1 & t1==3

replace rempa=1 if b2<=b1 & t1==3

replace rempa=1 if e2<=e1 & t1==3

\* update cohort member removal indicator

drop remcm

by key: egen remcm=max(rempa)

\* reshape datafile to create a record for each episode

reshape long b e t, i(key expn) j(ep)

sort key expn ep

\* remove all episodes without starting and ending month

keep if b!=0 & e!=0

sort key expn ep

\* generate episode counter for each woman

by key: gen epn=\_n

\* check for inconsistencies between episodes

\* generate lagged variables

gsort key -expn ep b

gen lagkey=key[\_n-1]

gen lagexpn=expn[\_n-1]

gen lagep=ep[\_n-1]

gen lagb=b[\_n-1]

gen lage=e[\_n-1]

gen lagt=t[\_n-1]

\* generate episode removal indicator

```
gen remep=0
```

\* flag episodes where beginning the same as end of previous episode

```
replace remep=1 if b==lage & key==lagkey & remcm==0
```

\* flag episodes where beginning before the end of previous episode

```
replace remep=1 if b<lage & key==lagkey & remcm==0
```

\* generate and update second cohort member removal indicator

```
by key: egen remcm2=max(remep)
```

\* sort dataset entries

```
gsort key -expn ep b
```

\* update episode counter for each woman

```
by key: replace epn=_n
```

\* keep only first episode and variables necessary for merging

```
keep if epn==1
```

```
keep key remcm remcm2
```

\* save file with removal indicators

```
sort key
```

```
save "0409\04092405.dta", replace
```

\* merge with partnership history file 0409\04092404.dta

```
use "0409\04092404.dta", clear
```

```
merge key using "0409\04092405.dta"
```

```
* remove records with at least one of the removal flags equal to 1
```

```
drop if remcm==1
```

```
drop if remcm2==1
```

```
drop remcm remcm2 _merge
```

```
sort key cmc pn epn
```

```
save "0409\04092406.dta", replace
```

```
* revise transition indicator if episode starts the month
```

```
* after the end of previous episode
```

```
sort key epn pn cmc
```

```
by key epn: gen epnc=_n
```

```
by key epn: egen epnm=max(epnc)
```

```
sort key pn epn cmc
```

```
by key pn: gen pnc=_n
```

```
by key pn: egen pnm=max(epnc)
```

```
* episodes ended in separation, see 0410\041015pr.doc, p.33
```

```
replace t=1 if t==0 & epnc==epnm & cmc!=intcmc
```

```
sort key cmc pn epn
```

```
save "0410\04101501.dta", replace
```

```
use "0410\04101501.dta", clear
```

```
* create episode counter to include single state period
```

```
gen trans=0
```

```
replace trans=1 if t!=0
```

by key: gen transtot=sum(trans)

by key: gen transt=transtot[\_n-1]+1

by key: gen keyc=\_n

by key: egen keym=max(keyc)

replace transt=transt[\_n+1] if keyc==1

\* modify transt if transt==2 for first time period

replace transt=1 if keyc==1 & transt==2

\* create month counter for each partnership

sort key pn epn cmc

by key pn: replace pnc=\_n

drop pnm

by key pn: egen pnm=max(pnc)

\* create month counter for each partnership state episode

sort key transt cmc

by key transt: replace epnc=\_n

drop epnm

by key transt: egen epnm=max(epnc)

sort key transt cmc

gen bep=0

replace bep=cmc if s==0 & epnc==1

by key transt: egen bep2=max(bep)

replace b=bep2 if s==0

```
gen eep=0

replace eep=cmc if s==0 & epnc==epnm

by key transt: egen eep2=max(eep)

replace e=eep2 if s==0

keep if epnc==epnm

save "0505\05052601.dta", replace

use "0505\05052601.dta", clear

keep key b e s t

sort key b e s t

label define sc 0 "single" 1 "cohabitation" 2 "marriage"

label values s sc

label define tc 0 "no transition" 1 "separation-cohabitation formation" 2 "death of partner-
marriage formation" 3 "marriage"

label values t tc

save "0505\bcs70ph.dta", replace

label var b "episode beginning"

label var e "episode ending"

save "0505\bcs70ph.dta", replace
```

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