

**User’s Guide Appendix 3b:**  
**2013-2015 National Survey of Family Growth**  
**Female Pregnancy File Recode Specifications**

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***All of the recodes included in this appendix have been specified based on the pregnancy file layout.***

*The CAPI Reference Questionnaire (CRQ) contains the full specifications for the computer-assisted survey instrument, including all CRQ flow checks (routing statements) referenced below.*

\*\* A double-asterisk after the recode name indicates there was a comparable recode of the same name in the 2011-2013 NSFG. Please also see User’s Guide Appendix 4, presenting “cross-walk” spreadsheets of the NSFG recodes.

## Section B: Pregnancy and Birth History

**OUTCOME\*\*:** "Pregnancy outcome"

*This recode assigns a single outcome code to each pregnancy, even if the pregnancy had multiple outcomes. If there were multiple outcomes for the pregnancy (e.g., 2 fetuses, with 1 born alive but other being a stillbirth), OUTCOME gives the following priority:*

*live birth (either vaginal or Cesarean delivery)  
induced abortion  
stillbirth  
miscarriage  
ectopic pregnancy*

The raw variable indicating pregnancy outcome is BC-1 PREGEND, and for each pregnancy up to 6 outcomes are recorded. There were no pregnancies in the 2013-2015 NSFG data with more than 2 outcomes reported (PREGEND1, PREGEND2). There is also a Blaise-computed variable **prgoutcome** defined in Flow Check B-42a that indicates whether the pregnancy ended in live birth (code 1), ended in non-live birth (code 2), or is a current pregnancy (code 3). The computed variable **outcom\_s** has the same code categories as prgoutcome, but reflects the pregnancy outcome after all key details about the pregnancy, including pregnancy order, have been verified and corrected in Section B's summary screens.

SAS logic:

```
If outcom_s=. then OUTCOME= -1; /* impute this case */
Else if outcom_s = 1 then OUTCOME = 1;
Else if outcom_s = 3 then OUTCOME = 6;
Else if outcom_s = 2 then do;
  If PREGEND1=3 or PREGEND2=3 then OUTCOME = 2;
  Else if PREGEND1=2 or PREGEND2=2 then OUTCOME = 3;
  Else if PREGEND1=1 or PREGEND2=1 then OUTCOME = 4;
  Else if PREGEND1=4 or PREGEND2=4 then OUTCOME = 5;
  Else if PREGEND1=dk/rf then do;
    If BC-1b HOWENDDK=1 (live birth) then OUTCOME=1;
    Else if HOWENDDK in(5,8,9) then OUTCOME= -1; /* impute this case */
  End;
End;
```

*User note: If interested in all outcomes for a multiple-gestation pregnancy (i.e., 2 or more fetuses, use raw variables BC-1 PREGENDn. To determine if a pregnancy resulted in a multiple birth (e.g., twins, triplets), see computed variable **nbrnlv\_s**.*

*Imputation Note: Done for cases with outcom\_s =missing or HOWENDDK=5, dk, or rf. Outcom\_s will be missing (sysmis) if both BC-1 PREGEND1=dk/rf\_and BC-1b HOWENDDK=dk/rf.*

- ❖ *If OUTCOME is imputed and HOWENDDK NE 1 (live birth), then OUTCOME can only be imputed to a value of 2, 3, 4, or 5 (non-live birth outcome).*

Code categories:

- 1 = Live birth
- 2 = Induced abortion
- 3 = Stillbirth
- 4 = Miscarriage
- 5 = Ectopic pregnancy
- 6 = Current pregnancy

**PRGLNGTH\*\*:** "Duration of completed pregnancy in weeks"

Blaise-computed variable **moscurrp** indicate months gestation of a current pregnancy. Blaise-computed variables **mosgestv** and **wksgestv** indicate months or weeks gestational length of a completed pregnancy, based on any corrections that might have been made in the summary screens.

Blaise-computed variable **outcom\_s** (see specs for OUTCOME for further details) indicates whether pregnancy ended in live birth (code 1), ended in non-live birth (code 2), or is a current pregnancy (code 3).

If these variables above have non-missing values, they are used to define PRGLNGTH as follows.

SAS logic:

```
If outcom_s in(1,2) and wksgestv ne . then PRGLNGTH=wksgestv;
Else if outcom_s in(1,2) and wksgestv = . and mosgestv ne . then
  PRGLNGTH=round(mosgestv*4.33);
Else if outcom_s =3 and moscurrp not in(.,98,99) then PRGLNGTH
  =round(moscurrp*4.33);
```

NOTE: In the survey instrument, only mosgestv (not wksgestv) and moscurrp were assigned values based on responses to DK follow-up questions, as follows:

- BB-3 NOWPRGDK for current pregnancies -- "1st trimester" = 2 months  
"2nd trimester" = 5 months  
"3rd trimester" = 8 months
- BC-6 DK1GEST for stillbirths -- "less than 6 months" = 4.5 months  
"6 months or more" = 7.5 months
- BC-7 DK2GEST for live births -- preterm = 30/4.33 months  
not preterm = 40/4.33 months
- BC-8 DK3GEST for all others -- "less than 3 months" = 1.5 months  
"3+ months but < 6 months" = 4.5 months  
"6 months or more" = 7.5 months

Below is more specific information on how the DK followup questions are used in defining PRGLNGTH:

If OUTCOME=1 (live birth) then do;  
    If DK2GEST=1 then set PRGLNGTH=30;  
    Else if DK2GEST=5 then set PRGLNGTH=40;  
    End;

If OUTCOME=3 (stillbirth) then do;  
    If DK1GEST=1 then set PRGLNGTH= ROUND(4.5\*4.33);  
    Else if DK1GEST=5 then set PRGLNGTH=ROUND(7.5\*4.33);  
    End;

If OUTCOME in (2,4,5) (induced abortion, miscarriage, ectopic) then do;  
    If DK3GEST=1 then set PRGLNGTH= ROUND(1.5\*4.33);  
    Else if DK3GEST=2 then set PRGLNGTH= ROUND(4.5\*4.33);  
    Else if DK3GEST=3 then set PRGLNGTH= ROUND(7.5\*4.33);  
    End;

*Imputation Notes:*     --Done for completed pregnancies with missing values for mosgestv/wksgestv and the outcome-appropriate DK followup question. --  
                          --Also done for current pregnancies with missing values for moscurrp and NOWPRGDK.  
                          --If both OUTCOME and PRGLNGTH are flagged for imputation, imputation of PRGLNGTH was constrained by how OUTCOME is imputed:

- If OUTCOME is imputed to livebirth, PRGLNGTH must be imputed to a value between 30 and 44.
- If OUTCOME is imputed to stillbirth, PRGLNGTH must be imputed to a value between 24 and 40.
- If OUTCOME is imputed to abortion, miscarriage or ectopic, PRGLNGTH must be imputed to a value LE 24.

Code categories:  
    xx-nn = Duration of pregnancy in weeks

**BIRTHORD\*\*:**     **“Birth order”**

BIRTHORD is blank (inapplicable) if the pregnancy did not result in live birth (pregnancy file recode OUTCOME NE 1).

Otherwise, BIRTHORD is set to 1 for R’s first live birth and incremented by 1 for each additional live birth R reported. BIRTHORD reflects births in chronological order. No imputation is needed, but BIRTHORD values may reflect imputed values of OUTCOME and DATEND.



Blank = inapplicable  
xxxx - nnnn = date (century month) pregnancy ended

**AGEPREG\*\*:** "Age at pregnancy outcome"

AGEPREG is blank (inapplicable) if this is a current pregnancy (recode OUTCOME=6).

Otherwise,

AGEPREG is defined using 2 variables:

**DATEND** recode indicates century-month when pregnancy ended.

**cmbirth** indicates century-month when R was born.

$AGEPREG = INT[((DATEND - cmbirth)/12)*100]$

*User Note: To use completed years as an independent variable, the analyst can use just the first two columns of this variable. The full 4 digits, divided by 100, can be used for computing mean ages.*

*See specs for DATEND for further information on cmendp\_s.*

*Imputation Note: All imputed values of AGE PREG are based on imputed values of DATEND if DATEND was imputed.*

Code categories:

Blank = inapplicable  
xxxx - 4499 = age at pregnancy outcome

**DATECON\*\*:** "CM date of conception"

For current pregnancies, values of DATECON are based directly on non-missing values of cmpbeg\_s (defined in Flow Check B-42d) or imputed values of PRGLNGTH.

IF recode OUTCOME=6 and  $0 < cmpbeg\_s < 9997$ , then  $DATECON=cmpbeg\_s$ ;

IF recode OUTCOME=6 and  $cmpbeg\_s$  in (., 9997, 9998, 9999) then

$DATECON=cmintvw - INT(PRGLNGTH/4.33)$ .

Else, for completed pregnancies, values of DATECON are based on recodes DATEND and PRGLNGTH (weeks converted to months).

If recode OUTCOME in (1,2,3,4,5) then do;

$DATECON = DATEND - INT(PRGLNGTH/4.33)$ ;

End;

For most cases, DATECON defined in this manner will be equivalent to Blaise-computed cmprgbeg (defined in Flow Check B-42a). For those where the pregnancy beginning date or the ordering of pregnancies was corrected, then DATECON will likely be equivalent to Blaise-

computed `cmpbeg_s` (defined in Flow Check B-42d). When there were such corrections, `cmpbeg_s` reflects the corrected information, including gestational length captured in the Blaise-computed variables `mosgestv` or `moscurrp`:

`cmpbeg_s` = `int(cmendp_s - mosgestv)` if `outcom_s = 1` or `2` and `mosgestv` ne .  
= `int(cmintvw - moscurrp)` if `outcom_s = 3` and `moscurrp` ne .

*Imputation Note:* If either `DATEND` or `PRGLNGTH` is based on imputed values, then `DATECON` should be based on those imputed values.

Code categories:

`xxxx - nnnn` = date (century month) of conception

### **AGECON\*\*:** “Age at time of conception”

AGECON is defined using the `DATECON` recode and a Blaise-computed variable **`cmbirth`**, indicating the century-month when R was born.

$AGECON = INT[((DATECON - cmbirth)/12)*100]$

*User Note:* To use completed years as an independent variable, the analyst can use just the first two columns of this variable. The full 4 digits, divided by 100, can be used for computing mean ages.

*Imputation Note:* All imputed values of AGECON are based on imputed values of `DATECON` if `DATECON` was imputed.

Code categories:

`xxxx - 4499` = age at time of conception

### **PMARPREG\*\*:** “Whether pregnancy ended before R’s 1st marriage (premaritally)”

PMARPREG is blank (inapplicable) if this is a current pregnancy (pregnancy file recode `OUTCOME = 6`).

Otherwise:

PMARPREG=1 (yes) if: --R has never been married (recode `FMARITAL=5`), or  
--pregnancy file recode `DATEND < recode MARDAT01`

PMARPREG=2 (no) if: `DATEND >= MARDAT01`

*Note:* If users wish to limit to pregnancies to “ever-married” respondents, they should subset cases with `FMARITAL NE 5`.

*Imputation Note:* All imputed values of PMARPREG are based on imputed values of DATEND, FMARITAL, and MARDAT01, if those recodes were imputed.

Code categories:

- Blank = inapplicable
- 1 = yes (pregnancy ended before 1st marriage)
- 2 = no (pregnancy ended in same month as or later than 1st marriage)

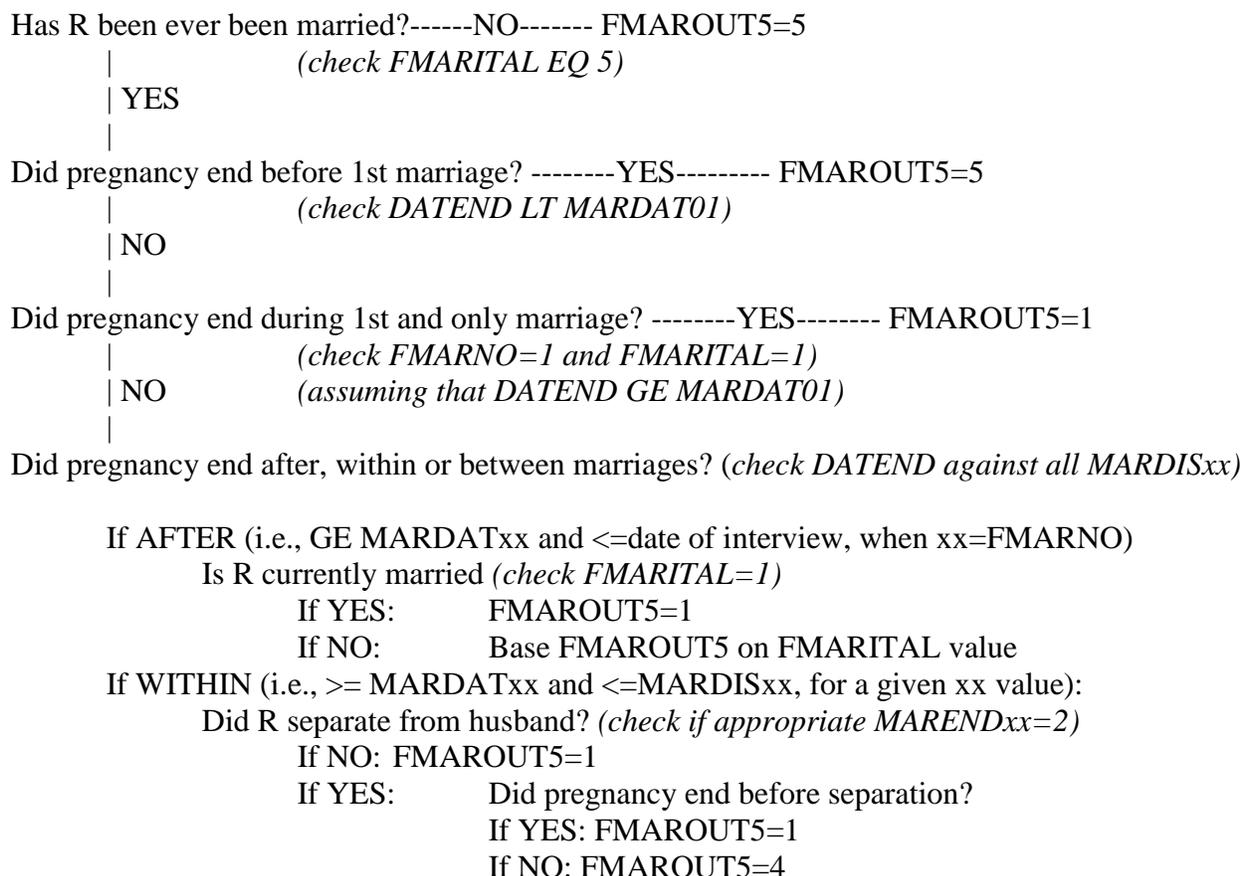
**FMAROUT5\*\*:** "Formal marital status at pregnancy outcome -- 5 categories

FMAROUT5 is blank (inapplicable) if this is a current pregnancy (recode OUTCOME=6).

*Variables for computing FMAROUT5:*

- respondent file recode FMARITAL=formal marital status at interview
- respondent file recode FMARNO=number of marriages
- respondent file recodes MARDATxx=date of each marriage (up to 6)
- respondent file recodes MARDISxx=date of each marital dissolution (up to 6)
- respondent file recodes MARENDxx=how each marriage ended (up to 6)
- pregnancy file recode DATEND=date of pregnancy outcome

**Flow chart for computing FMAROUT5:**



If BETWEEN (i.e.,  $\geq$ MARDIS<sub>xx</sub> and  $\leq$ MARDAT<sub>(xx+1)</sub> and MAREND<sub>xx</sub> NE 2):  
Did pregnancy end after divorce or death? (*check appropriate MAREND<sub>xx</sub>*)  
If DIVORCE: FMAROUT5=2  
If DEATH: FMAROUT5=3

*Imputation Note:* All imputed values of this recode are based on imputed values for all source recodes.

Codes categories:

Blank = Inapplicable  
1 = Married  
2 = Divorced  
3 = Widowed  
4 = Separated  
5 = Never married

**RMAROUT6\*\*:** "Informal marital status at pregnancy outcome -- 6 categories

RMAROUT6 is blank (inapplicable) if this is a current pregnancy (recode OUTCOME=6).

*Variables for computing RMAROUT6:*

respondent file recode COHEVER=has R ever cohabited outside of marriage  
respondent file recode RMARITAL=informal marital status at time of interview  
respondent file Blaise-computed cmpmcohx=date of premar cohab with husband x (up to 6)  
respondent file recodes MARDAT<sub>xx</sub>=date of each marriage (up to 6)  
respondent file Blaise-computed cmstrtcp=date of current cohab start  
respondent file Blaise-computed cmcohx=date of cohab start with former partner x (up to 4)  
respondent file Blaise-computed cmstpcohx=date of cohab end with former partner x (up to 4)  
pregnancy file recode DATEND=date of pregnancy outcome  
pregnancy file recode FMAROUT5=formal marital status at pregnancy outcome

**Flow chart for computing RMAROUT6:**

If R has never cohabited outside of marriage (COHEVER=no), then RMAROUT6 should be based on FMAROUT5:

If COHEVER=2 then do;  
if FMAROUT5=1 then RMAROUT6=1;  
else if FMAROUT5 in( 2 3 4) then RMAROUT6=FMAROUT5;  
else if FMAROUT5=5 then RMAROUT6=6;  
end;

ELSE, for all who have COHEVER=1:  
If FMAROUT5=1 then set RMAROUT6=1.  
ELSE IF FMAROUT5=4 then set RMAROUT6=4.

ELSE Is R currently cohabiting? (Check RMARITAL=2)

If yes ----- Did pregnancy end during current cohabitation?

(if DATEND GE cmstrtcp then RMAROUT6=5)

Else, only if RMAROUT5 has not been coded 1 or 4 (married or separated), check DATEND against all dates of cohabitation with former (nonmarital) partners (if any)

and dates of premarital cohabitations with husbands (if any)

to determine if DATEND falls within a cohabiting interval

CODE RMAROUT6=5 if:

(cmcohstx LE DATEND LE cmstpcohx) or

(cmcohstx2 LE DATEND LE cmstpcohx2) or

(cmcohstx3 LE DATEND LE cmstpcohx3) or

(cmcohstx4 LE DATEND LE cmstpcohx4) or

CODE RMAROUT6=5 if:

(cmpmcohx LE DATEND LT MARDAT01) or

(cmpmcohx2 LE DATEND LT MARDAT02) or

(cmpmcohx3 LE DATEND LT MARDAT03) or

(cmpmcohx4 LE DATEND LT MARDAT04) or

(cmpmcohx5 LE DATEND LT MARDAT05) or

(cmpmcohx6 LE DATEND LT MARDAT06).

ELSE:

If pregnancy did not end during any period of cohabitation, RMAROUT6 should be based on FMAROUT5, as indicated above for cases with COHEVER=2.

*Imputation Note: All imputed values of this recode are based on imputed values for all source recodes. However, model-based imputation may still be needed if there are DK/RF values on key CM variables for the start/end of cohabitations.*

Codes categories:

Blank = Inapplicable

1 = Married

2 = Divorced

3 = Widowed

4 = Separated

5 = Cohabiting

6 = Never married, not cohabiting

**FMARCON5\*\*:** "Formal marital status at time of conception -- 5 categories"

*Variables for computing FMARCON5:*

respondent file recode FMARITAL=formal marital status at interview

respondent file recode FMARNO=number of marriages  
 respondent file recodes MARDATxx=date of each marriage (up to 6)  
 respondent file recodes MARDISxx=date of each marital dissolution (up to 6)  
 respondent file recodes MARENDxx=how each marriage ended (up to 6)  
 pregnancy file recode DATECON=date of pregnancy conception

**Flow chart for computing FMARCON5:**

Has R been ever been married?-----NO----- FMARCON5=5  
 | (check FMARITAL EQ 5)  
 | YES  
 |  
 Did conception occur before 1st marriage? -----YES----- FMARCON5=5  
 | (check DATECON LT MARDAT01)  
 | NO  
 |  
 Did conception occur during 1st and only marriage? -----YES----- FMARCON5=1  
 | (check FMARNO=1 and FMARITAL=1)  
 | NO (assuming that DATECON GE MARDAT01)  
 |  
 Did conception occur after, within or between marriages? (check DATECON against all MARDISxx)

If AFTER (i.e., GE MARDATxx and <=date of interview, when xx=FMARNO)  
 Is R currently married (check FMARITAL=1)  
 If YES: FMAROUT5=1  
 If NO: Base FMAROUT5 on FMARITAL value

If WITHIN (i.e., >= MARDATxx and <=MARDISxx, for a given xx value):  
 Did R separate from husband? (check if appropriate MARENDxx=2)  
 If NO: FMARCON5=1  
 If YES: Did conception occur before separation?  
 If YES: FMARCON5=1  
 If NO: FMARCON5=4

If BETWEEN (i.e., >=MARDISxx and <=MARDAT(xx+1) and MARENDxx NE 2):  
 Did conception occur after divorce or death? (check appropriate MARENDxx)  
 If DIVORCE: FMARCON5=2  
 If DEATH: FMARCON5=3

*Imputation Note: All imputed values of this recode are based on imputed values for all source recodes.*

Code categories:  
 1 = Married  
 2 = Divorced  
 3 = Widowed

- 4 = Separated
- 5 = Never married

**RMARCON6: "Informal marital status at pregnancy outcome -- 6 categories"**

RMARCON6 is applicable for all pregnancies, whether current or completed, and is defined similarly to RMAROUT6. It uses the DATECON recode (century month when the pregnancy began) in place of DATEND (century month when the pregnancy ended), and it defaults to the FMARCON5 value rather than FMAROUT5.

*Variables for computing RMARCON6:*

- respondent file recode COHEVER=has R ever cohabited outside of marriage
- respondent file recode RMARITAL=informal marital status at time of interview
- respondent file Blaise-computed cmpmcohx=date of premar cohab with husband x (up to 6)
- respondent file recodes MARDATxx=date of each marriage (up to 6)
- respondent file Blaise-computed cmstrtcp=date of current cohab start
- respondent file Blaise-computed cmcohstx=date of cohab start with former partner x (up to 4)
- respondent file Blaise-computed cmstpcohx=date of cohab end with former partner x (up to 4)
- pregnancy file recode DATECON=date when pregnancy began
- pregnancy file recode FMARCON5=formal marital status at pregnancy conception

**Flow chart for computing RMARCON6:**

If R has never cohabited outside of marriage (COHEVER=no), then RMARCON6 should be based on FMARCON5:

```

If COHEVER=2 then do;
  if FMARCON5=1 then RMARCON6=1;
  else if FMARCON5 in( 2 3 4) then RMARCON6=FMARCON5;
  else if FMARCON5=5 then RMARCON6=6;
end;

```

ELSE, for all who have COHEVER=1:

If FMARCON5=1 then set RMARCON6=1.

ELSE IF FMARCON5=4 then set RMARCON6=4.

ELSE Is R currently cohabiting? (Check RMARITAL=2)

```

  If yes ----- Did pregnancy end during current cohabitation?
    (if DATECON GE cmstrtcp then RMARCON6=5)

```

Else, only if RMARCON5 has not been coded 1 or 4 (married or separated), check DATECON against all dates of cohabitation with former (nonmarital) partners (if any) and dates of premarital cohabitations with husbands (if any) to determine if DATECON falls within a cohabiting interval:

```

CODE RMARCON6=5 if:
  (cmcohstx LE DATECON LE cmstpcohx) or

```

(cmcohstx2 LE DATECON LE cmstpcohx2) or  
(cmcohstx3 LE DATECON LE cmstpcohx3) or  
(cmcohstx4 LE DATECON LE cmstpcohx4) or

CODE RMARCON6=5 if:

(cmpmcohx LE DATECON LT MARDAT01) or  
(cmpmcohx2 LE DATECON LT MARDAT02) or  
(cmpmcohx3 LE DATECON LT MARDAT03) or  
(cmpmcohx4 LE DATECON LT MARDAT04) or  
(cmpmcohx5 LE DATECON LT MARDAT05) or  
(cmpmcohx6 LE DATECON LT MARDAT06).

ELSE:

If pregnancy did not end during any period of cohabitation, RMARCON6 should be based on FMARCON5, as indicated above for cases with COHEVER=2.

*Imputation Note:* All imputed values of this recode are based on imputed values for all source recodes. However, model-based imputation may still be needed if there are DK/RF values on key CM variables for the start/end of cohabitations.

Codes categories:

Blank	= Inapplicable
1	= Married
2	= Divorced
3	= Widowed
4	= Separated
5	= Cohabiting
6	= Never married, not cohabiting

**LEARNPRG\*\*:** "Number of weeks pregnant when R learned she was pregnant"

LEARNPRG is blank (inapplicable) if BE-1 KNEWPREG was not meant to be asked, that is, if:

- this is a current pregnancy (recode OUTCOME=6); or
- this pregnancy ended in induced abortion (OUTCOME=2); or
- this pregnancy ended before January of 5 years before the interview date (recode DATEND LT cmjan5yr); or
- the baby was placed for adoption or no name was given (OUTCOME=1 and Blaise-computed variable BPA\_BDScheck1=1 or blank; this variable is defined in Flow Check B-17)

Otherwise,

LEARNPRG is based on responses to BE-1 KNEWPREG and, if necessary, the outcome-specific DK/RF followup questions BE-2a TRIMESTR and BE-2b LTRIMEST.

SAS logic:

```

If (. LT KNEWPREG LT 97) then LEARNPRG = KNEWPREG;
Else do;
  If OUTCOME in(1,3) then do; /* live birth or stillbirth */
    If TRIMESTR=1 then LEARNPRG=10;
    Else if TRIMESTR=2 then LEARNPRG=18;
    Else if TRIMESTR=3 then LEARNPRG=30;
  End;
  Else if OUTCOME in(4,5) then do; /* miscarriage or ectopic */
    If LTRIMEST=1 then LEARNPRG=10;
    Else if LTRIMEST=2 then LEARNPRG=18;
  End;
End;

```

*User Note: If user wishes to limit analysis to pregnancies with non-estimated LEARNPRG, should use those where KNEWPREG NE DK/RF.*

*Imputation Note: Done primarily for pregnancies with DK/RF on TRIMESTR or LTRIMEST. Also done for cases imputed on OUTCOME or DATEND, and the imputed values of those recodes should be used in determining the values on LEARNPRG. For example, if DATEND is imputed to a date earlier than cmjan5yr, then LEARNPRG is imputed to sysmis/inapp. Imputation is constrained such that no imputed value of LEARNPRG would be greater than PRGLNGTH or greater than PNCAREWK. (LEARNPRG can be equal to PRGLNGTH or PNCAREWK, just not longer.)*

Code categories:

Blank = inapplicable

00 - nn = weeks pregnant when first learned of pregnancy

**PNCAREWK\*\*:** "Number of weeks pregnant at first prenatal care"

PNCAREWK is blank (inapplicable) if BE-7 BGNPRENA was not meant to be asked, that is, if:

- this is a current pregnancy (recode OUTCOME=6); or
- this pregnancy ended in induced abortion (OUTCOME=2); or
- this pregnancy ended before January of 5 years before the interview date (recode DATEND LT cmjan5yr); or
- the baby was placed for adoption or no name was given (OUTCOME=1 and Blaise-computed variable BPA\_BDScheck1=1 or blank; this variable is defined in Flow Check B-17)

Otherwise:

If R did not report receiving prenatal care for this pregnancy (BE-6 GETPRENA = 5, DK, or RF), PNCAREWK EQ 95.

Else,  
PNCAREWK is based on responses to BE-7 BGNPRENA and, if necessary, the outcome-specific DK/RF followup questions BE-8a PNCTRIM and BE-8b LPNCTRI.

SAS Logic:

```
If (. LT BGNPRENA LT 97) then PNCAREWK = BGNPRENA;
Else do;
  If OUTCOME in(1,3) then do; /* live birth or stillbirth */
    If PNCTRIM=1 then PNCAREWK=10;
    Else if PNCTRIM=2 then PNCAREWK=18;
    Else if PNCTRIM=3 then PNCAREWK=30
  End;
  Else if OUTCOME in(4,5) then do; /* miscarriage or ectopic */
    If LPNCTRI=1 then PNCAREWK=10;
    Else if LPNCTRI=2 then PNCAREWK=18;
  End;
End;
```

*User Note:* If user wishes to limit analysis to pregnancies with non-estimated PNCAREWK, should use those where BGNPRENA NE DK/RF.

*Imputation Note:* Done primarily for pregnancies with DK/RF on PNCTRIM or LPNCTRI. Also done for cases imputed on OUTCOME or DATEND, and the imputed values of those recodes should be used in determining the values on PNCAREWK. For example, if DATEND is imputed to a date earlier than cmjan5yr, then PNCAREWK is imputed to sysmis/inapp. Imputation is constrained such that no imputed value of PNCAREWK would be earlier than LEARNPRG or greater than PRGLNGTH.

Code categories:

Blank = inapplicable  
00 - nn = weeks pregnant at first prenatal care visit  
95 = did not report receiving any prenatal care

**PAYDELIV\*\*:** "Payment for delivery"

PAYDELIV is blank (inapplicable) if:

- this is a current pregnancy or it did not result in live birth (recode OUTCOME NE 1); or
- this birth occurred before January of 5 years before the interview date (OUTCOME=1 and recode DATEND LT cmjan5yr)

Otherwise,

The responses to BD-8 PAYBIRTH are used to define PAYDELIV. PAYBIRTH1-PAYBIRTH5 code up to 5 forms of payment for the delivery, as follows:

1=Insurance

- 2=Co-payment or out-of-pocket payment
- 3=Medicaid
- 4=No payment required
- 5=Some other way

Checking across PAYBIRTH1-PAYBIRTH5 (note: only 3 mentions used in 2013-2015 file):

If ANY mention of code 3, */	PAYDELIV=4 /* medicaid
ELSE If ONLY payment specified is code 2,	PAYDELIV=1 /* own \$\$\$ */
ELSE If ONLY payment specified is code 1,	PAYDELIV=2 /* insur */
ELSE If ONLY payments specified are codes 1 & 2,	PAYDELIV=3
ELSE for all other combinations of payment methods,	PAYDELIV=5

*User Note: The use of the recodes OUTCOME and DATEND here ensures that we use pregnancy outcome and end dates that reflect any summary screen corrections. But it also means we may be creating inconsistencies between the original values of raw PAYBIRTHx and the PAYDELIV recode. Some cases where PAYBIRTHx was asked may become inapplicable, and some cases where PAYBIRTHx was originally inapp may need to be imputed to a non-inapp value. For example, because DK/RF values on cmbabdob were routed into the delivery payment questions, you may find non-inapp values on PAYBIRTHx while PAYDELIV may be set to inapp if DATEND was imputed to a value outside the 5 year window.*

*Imputation Note: Done primarily for cases with DK/RF on the "1st mention" variable (PAYBIRTH). Also done for cases imputed on OUTCOME or DATEND, and the imputed values of those recodes should be used in determining the values on PAYDELIV. For example, if DATEND is imputed to a date earlier than cmjan5yr, then PAYDELIV is imputed to sysmis/inapp. If OUTCOME is imputed to a nonlivebirth code, then PAYDELIV is imputed to sysmis/inapp.*

Code categories:

- Blank = inapplicable
- 1 = own income only
- 2 = insurance only
- 3 = Own income & insurance only
- 4 = Medicaid mentioned at all
- 5 = All other combinations of payment methods

**LBW1\*\*:** "Low birthweight--Baby 1"

LBW1 is blank (inapplicable) if this pregnancy did result in live birth (recode OUTCOME ne 1).

Otherwise if OUTCOME=1,  
If (6 LE (BD-3 BIRTHWGT\_LB) LT 97) or (BIRTHWGT\_LB LT 6 and BIRTHWGT\_OZ NE DK/RF):

BIRTHWGT\_LB and BIRTHWGT\_OZ are converted to ounces or grams.  
If (BIRTHWGT\_LB GE 6 and BIRTHWGT\_OZ = DK/RF), then assign LBW1=2.  
If total weight is less than or equal to 88 ounces or 2,500 grams, LBW1=1.  
Otherwise, LBW1=2.

Else if BD-3 BIRTHWGT\_LB = DK/RF or (BIRTHWGT\_LB LT 6 and BIRTHWGT\_OZ=DK/RF):

BD-5 LOBTHWGT is used to define LBW1, as follows.  
If BD-5 LOBTHWT1 EQ 2 (less than 5 1/2 pounds), LBW1=1.  
Else if BD-5 LOBTHWT1 EQ 1 (5 1/2 pounds or more), LBW1=2.

*Imputation Note:* Done for cases with BD-5 LOBTHWT1=DK/RF.  
Also done for cases imputed on OUTCOME, and the imputed values of OUTCOME should be used in determining the values on LBW1. For example, if OUTCOME is imputed to a nonlivebirth code, then LBW1 is imputed to sysmis/inapp.

Code categories:

Blank = inapplicable  
1 = Yes, low birth weight (< 2500 grams or 89 ounces)  
2 = No, not low birth weight (>= 2500 grams or 89 ounces)

**BFEEDWKS\*\*:** "Duration of breastfeeding in weeks"

*User Note:* Because duration of breastfeeding can be affected by multiple births and because multiple births were relatively rare in the NSFG sample, this recode is defined ONLY for singleton gestations. However, this algorithm could be used for all births.

BFEEDWKS is blank (inapplicable) if:

- this is a current pregnancy or it did not result in live birth (recode OUTCOME NE 1);
- it was a multiple birth (Blaise-computed variable **nbrnlv\_s** > 1);
- the baby was placed for adoption, died shortly after birth, or no name was given (OUTCOME=1 and Blaise-computed variable BPA\_BDScheck1=1 or 2 or blank; this variable is defined in Flow Check B-17, but may not be on the output data file)
- baby did not live with R for at least 2 months (OUTCOME=1 and Blaise-computed variable  $0 \leq \text{lastage1} < 2$ ); or **kidage**=0 or 1
- child is older than 18 years (OUTCOME=1 and Blaise-computed variables lastage = blank and kidage >= 228)

Otherwise IF OUTCOME=1 then do:

BFEEDWKS=995 if R reported never breastfeeding this baby (BH-1 ANYNURSE1 = NO)  
BFEEDWKS=994 if R is still breastfeeding this baby (Blaise-computed variable

lastage1=blank and kidage < 228) and (BH-4 QUITNURS1=NO or BH-2 FEDSOLID1=NO or AGEQTNUR\_N1=996)

Otherwise, if BH-1 ANYNURSE1 = YES:  
responses to BH-5 (AGEQTNUR\_N1 and AGEQTNUR\_P1 which are combined in **AGEQTNUR1**) are used to define BFEEDWKS.

AGEQTNUR\_N1 = Number of months, weeks, or days R breastfed this child  
AGEQTNUR\_P1 = Units in which number was reported (months, weeks, days)  
AGEQTNUR1 = Number of months this child was breastfed

For all cases where AGEQTNUR1 has a valid value, not DK/RF or not ascertained 997:

$BFEEDWKS = ROUND(AGEQTNUR1 * 4.33)$

*Imputation Note:* For all imputation of BFEEDWKS, no imputed value should be greater than the smallest value among 48 weeks, lastage1 (in weeks), and kidage (in weeks). Put another way, they can never be imputed to have breastfed longer than the child lived with them, AND no imputed value should exceed 48 weeks.

*Imputation is done for cases with:*

- DK/RF on BH-1 ANYNURSE1, BH-2 FEDSOLID1, BH-4 QUITNUR1, or AGEQTNUR1
- OUTCOME=1 and either nbrnlv\_s=blank or cmbabdob=DK/RF
- LASTAGE1 GE 2 and KIDAGE LE 228, but AGEQTNUR1=sysmis (for these cases, nonsymis values of cmkidlft1 or cmkidied1 may constrain the upper bound of imputed values for BFEEDWKS – e.g., imputed value of BFEEDWKS should not be greater than CMKIDIED1 – DATEND, converted to weeks, or CMKIDLFT1 – DATEND, converted to weeks)
- LASTAGE1 < 0 (these are cases where the date when child died or left R were reported earlier than DATEND, but the edit checks were suppressed)

Code categories:

Blank = Inapplicable  
000 = Breastfed for less than 1 week  
001 = Breastfed for 1 week  
002 = Breastfed for 2 weeks  
003 = Breastfed for 3 weeks  
etc.  
994 = Still breastfeeding this child  
995 = Never breast-fed this child

**LIVCHILD\*\*:** “Current Living Arrangements of Liveborn Child”

*User Note: As in 2011-2013, we define this recode for every pregnancy that results in live birth. In cases of multiple births (twins, triplets, etc.), this recode is defined only for the first reported child from the pregnancy.*

LIVCHILD is blank (inapplicable) if the pregnancy did not result in live birth (recode OUTCOME NE 1).

Otherwise if OUTCOME=1,  
LIVCHILD is defined as follows:

LIVCHILD = 1 if a biological child with this baby's name was listed in the Household Roster (BG-1 LIVEHERE1 not asked and equals sysmis and BPA\_BDScheck1 = 0) or if R reported that this child still lives with her "usually" (BG-1 LIVEHERE1=1)

ELSE

LIVCHILD = 2 if baby died shortly after birth (BPA\_BDScheck1= 2) or R reported that this child is deceased (BG-2 ALIVENOW1=5 (no))

ELSE

LIVCHILD = 3 if baby was placed for adoption soon after birth (BPA\_BDScheck1= 1) or R reported that this child lives with adoptive family (BG-5 WHERENOW1=3)

ELSE

LIVCHILD = 4 if R reported that child lives with biological father (BG-5 WHERENOW1=1)

ELSE

LIVCHILD = 5 if R reported that child lives with other relatives (BG-5 WHERENOW1=2)

ELSE

LIVCHILD = 6 if any other living arrangements or unknown living arrangements

(If more than one live birth resulted from the pregnancy (Blaise-computed variable **nbrnlv\_s** > 1), base LIVCHILD on first reported child from this pregnancy, using the variable names shown above.)

*Imputation Note: Should not be needed because cases with unknown information default to LIVCHILD=6.*

Code categories:

- Blank = Inapplicable
- 1 = Child lives with R
- 2 = Child is dead
- 3 = Child lives with adoptive parents/family
- 4 = Child lives with biological father
- 5 = Child lives with other relatives
- 6 = Child's living arrangements are other or unknown

## Section E: Wantedness of Pregnancies

**OLDWANTR\*\*:** "Wantedness of Pregnancy -- Respondent -- Cycle 4 Version"

If EG-6 WANTBOLD=5 then OLDWANTR=5

Else if EG-6 WANTBOLD in(1,6) or EG-5 RESNOUSE=1 or EG-3 WHYSTOPD=1 and EG-7 PROBBABE in (5,6,9) or

if EG-6 WANTBOLD in (8,9) and EG-7 PROBBABE in (5,6,9)

then do:

If EG-7 PROBBABE=5 then OLDWANTR=5.

Else if EG-7 PROBBABE=6 or EG-7 PROBBABE=DK then OLDWANTR=6.

Else do:

If EG-10 TIMINGOK=1 then OLDWANTR=3.

Else if EG-10 TIMINGOK=2 then OLDWANTR=2.

Else if EG-10 TIMINGOK=3 then OLDWANTR=1.

Else if EG-10 TIMINGOK=4 then OLDWANTR=4.

*User Note:* OLDWANTR is comparable to Cycle 4 (1988) WANTWIFE and OLDWANTR from 1995, 2002, 2006-10 and 2011-2013 NSFG in that it does not take into account the confirmation question, EG-9 WANTBLD2, which was asked for only for Rs aged 15-19. Recode "WANTRESP" takes this confirmation question into account.

*Imputation note:* Done if (EG-6 WANTBOLD=1 or EG-7 PROBBABE=1 or EG-9 WANTBLD2=1) and EG-10 TIMINGOK=8, 9, or system-missing. Other combinations resulting in missing value on OLDWANTR qualify for imputation as well.  
If WANTBOLD=1 (yes), or PROBBABE=1(yes) or WANTBLD2=1(yes) then OLDWANTR can be imputed to any value **other than 5** (unwanted).

Code categories:

- 1= Later, overdue
- 2= Right time
- 3= Too soon, mistimed
- 4= Didn't care, indifferent
- 5= Unwanted
- 6= Don't know, not sure

**OLDWANTP\*\*:** "Wantedness of Pregnancy -- Respondent's Partner (father of pregnancy) -- Cycle 4 Version"

If EG-16 HPWNOLD=5 then OLDWANTP=5.

Else if EG-16 HPWNOLD=6 or EG-16 HPWNOLD=DK then OLDWANTP=6.

Else if EG-16 HPWNOLD=1 then do:

If EG-17 TIMOKHP=1 then OLDWANTP=3.

Else if EG-17 TIMOKHP=2 then OLDWANTP=2.

Else if EG-17 TIMOKHP=3 then OLDWANTP=1.

Else if EG-17 TIMOKHP=4 then OLDWANTP=4.

*User Note:* OLDWANTP is comparable to Cycle 4 (1988) WANTMAN and OLDWANTP from 1995, 2002, 2006-10 and 2011-2013 NSFG. See WANTPART for alternative recode comparable to the 1995, 2002, 2006-10 and 2011-2013 NSFG recodes of the same name. OLDWANTP captures “DK” responses on HPWNOLD and assigns 6 on the recode. WANTPART, instead, calls for imputation on cases with “DK” on HPWNOLD.

*Imputation Note:* If HPWNOLD=1(yes), then OLDWANTP can be imputed to any value **other than 5** (unwanted).

Code categories:

- 1= Later, overdue
- 2= Right time
- 3= Too soon, mistimed
- 4= Didn't care, indifferent
- 5= Unwanted
- 6= Don't know, not sure

**WANTRESP\*\*:** “Wantedness of Pregnancy – Respondent”

If EG-10 TIMINGOK=1 then WANTRESP=3.

Else if EG-10 TIMINGOK=2 then WANTRESP=2.

Else if EG-10 TIMINGOK=3 then WANTRESP=1.

Else if EG-10 TIMINGOK=4 then WANTRESP=4.

Else if EG-6 WANTBOLD=5 or EG-7 PROBBABE=5 or EG-9 WANTBLD2=5 then WANTRESP=5.

Else if EG-7 PROBBABE=6 or EG-7 PROBBABE=DK then WANTRESP=6.

*User Note:* This recode is comparable to the recode of the same name in Cycles 5 (1995) and later data files because it takes into account confirmation question EG-9 WANTBLD2, which was asked only for Rs aged 15-19. Recode OLDWANTR is comparable to Cycles 3 & 4 (WANTWIFE).

*Imputation Note:* If WANTBOLD=1 (yes), then WANTRESP can be imputed to any value **other than 5** (unwanted).

Code categories:

- 1= Later, overdue

- 2= Right time
- 3= Too soon, mistimed
- 4= Didn't care, indifferent
- 5= Unwanted
- 6= Don't know, not sure (Cycle 4 equivalent: Undetermined)

**WANTPART\*\*:**     **“Wantedness of pregnancy -- Respondent's Partner (father of pregnancy)”**

If EG-17 TIMOKHP=1 then WANTPART=3.  
 Else if EG-17 TIMOKHP=2 then WANTPART=2.  
 Else if EG-17 TIMOKHP=3 then WANTPART=1.  
 Else if EG-17 TIMOKHP=4 then WANTPART=4.

Else if EG-16 HPWNOLD=5 then WANTPART=5.  
 Else if EG-16 HPWNOLD=6 then WANTPART=6.

*User Note:*     See *OLDWANTP* for recode comparable to Cycles 3 & 4 (*WANTMAN*).  
*OLDWANTP* captures “DK” responses on *HPWNOLD* and assigns 6 on the recode. *WANTPART*, instead, calls for imputation on cases with “DK” on *HPWNOLD*.

*Imputation Note:*     If *HPWNOLD*=1(yes), then *WANTPART* can be imputed to any value **other than 5** (unwanted).

Code categories:

- 1= Later, overdue
- 2= Right time
- 3= Too soon, mistimed
- 4= Didn't care, indifferent
- 5= Unwanted
- 6= Don't know, not sure

**TOOSOON\*\*:**     **“Number of Months Too Soon Pregnancy Occurred”**

TOOSOON is blank (inapplicable) if R did not choose “1 – Too soon” on EG-10 TIMINGOK.

If EG-11 TOOSOON\_N ne DK/RF (<998) THEN  
 If EG-11 TOOSOON\_P = 2 then TOOSOON = EG-11 TOOSOON\_N\*12  
 Else if EG-11 TOOSOON\_P = 1 then TOOSOON = EG-11 TOOSOON\_N

*Imputation note:*     Imputation is needed for cases with DK/RF on either EG-11 *TOOSOON\_P* or EG-11 *TOOSOON\_N*.

Code categories:

Blank = inapplicable  
1 – xxx = number of months too soon

**NEWWANTR\*\*:** “Detailed Wantedness of Pregnancy – Respondent”

*User Note:* This recode is comparable to recode WANTRESP in prior cycles except that it includes two categories of “too soon.”

NEWWANTR is defined using the recodes WANTRESP and the TOOSOON first created for 2011-2013.

If WANTRESP=1 then NEWWANTR=1  
Else if WANTRESP=2 then NEWWANTR=2  
Else if WANTRESP=3 then:  
    If TOOSOON LT 24 then NEWWANTR=3  
    Else if TOOSOON GE 24 then NEWWANTR=4  
Else if WANTRESP=4 then NEWWANTR=5  
Else if WANTRESP=5 then NEWWANTR=6  
Else if WANTRESP=6 then NEWWANTR=7

*Imputation note:* Imputed values on NEWWANTR are determined by recodes TOOSOON and WANTRESP. If TOOSOON is to be imputed: NEWWANTR is defined using the imputed value of TOOSOON. If WANTRESP is to be imputed: NEWWANTR is defined using the imputed value of WANTRESP, for all values other than 3. When WANTRESP is imputed to 3, NEWWANTR should be imputed by regression, constrained to be 3 or 4. (when WANTRESP is being imputed, meaning EG-10 TIMINGOK was missing, TOOSOON will not have a valid value.)

Code categories:

1= Later, overdue  
2= Right time  
3= Too soon: by less than 2 years  
4= Too soon: by 2 years or more  
5= Didn't care, indifferent  
6= Unwanted  
7= Don't know, not sure