User's Guide Appendix 3b:
2011-2013 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 2006-2010 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 2011-13 NSFG data with more than 2 outcomes reported (PREGEND1, PREGEND2, and PREGEND3). 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 or PREGEND3=3 then OUTCOME = 2;
>   Else if PREGEND1=2 or PREGEND2=2 or PREGEND3=2 then OUTCOME = 3;
>   Else if PREGEND1=1 or PREGEND2=1 or PREGEND3=1 then OUTCOME = 4;
>   Else if PREGEND1=4 or PREGEND2=4 or PREGEND3=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 <u>both</u> BC-1 PREGEND1=dk/rf _and BC-1b HOWENDDK=dk/rf.

❖ *If outcom_s=., then OUTCOME could be imputed to any value other than 6=current pregnancy.*
❖ *If OUTCOME was 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	

<div align="center">"3+ months but < 6 months" = 4.5 months
"6 months or more" = 7.5 months</div>

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.

SAS logic:

```
data births; set pregs;
if outcome=1; /* subset live births */
data birthord; set births; by caseid;
if first.caseid then birthord=1;
else birthord+1;
retain birthord;
label birthord="birth order";
```

Imputation Note: *Based on any imputed values of OUTCOME and DATEND. BIRTHORD should be adjusted if any changes are made to PREGORDR and the affected pregnancies include live births.*

Code categories:
        Blank   = inapplicable
        1-nn   = birth order

DATEND**: "CM date pregnancy ended"

DATEND is blank (inapplicable) if the pregnancy is a current pregnancy (recode OUTCOME=6).

Values of DATEND are directly drawn from the Blaise-computed variable **cmendp_s** (defined in Flow Check B-42d).

        DATEND = cmendp_s

If there were no corrections to the pregnancy end date or the ordering of pregnancies in Section B, then cmendp_s is equivalent to the Blaise-computed variable cmprgend (defined in Flow Check B-42a):

        cmprgend   =   blank (inapplicable)
                               if this is a current pregnancy (Blaise-computed **outcom_s** =3)
                      =   cmbabdob if **outcom_s** =1 (live birth)
                               (can be DK/RF)
                      =   cmotpreg if **outcom_s** =2 (non live birth)
                               (can be DK/RF)

Imputation Note: *Done for all pregnancies where cmendp_s = DK or RF or where outcom_s=sysmis. Imputed values of OUTCOME should be used to constrain imputation of DATEND (e.g., if OUTCOME is imputed to be a current pregnancy, then DATEND should be imputed to*

blank/inapplicable.)

Code categories:

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 AGEPREG 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:

$$cmpbeg\_s = int(cmendp\_s - mosgestv) \text{ if } outcom\_s = 1 \text{ or } 2 \text{ and } mosgestv \text{ ne } .$$
$$= int(cmintvw - moscurrp) \text{ if } outcom\_s = 3 \text{ and } moscurrp \text{ ne } .$$

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:

Has R been ever been married?------NO------- FMAROUT5=5
    | *(check FMARITAL EQ 5)*
    | YES
    |
Did pregnancy end before 1st marriage? --------YES--------- FMAROUT5=5
    | *(check DATEND LT MARDAT01)*
    | NO
    |
Did pregnancy end during 1st and only marriage? --------YES-------- FMAROUT5=1
    | *(check FMARNO=1 and FMARITAL=1)*
    | NO   *(assuming that DATEND GE MARDAT01)*
    |
Did pregnancy end after, within or between marriages? (*check DATEND 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: FMAROUT5=1

If YES: Did pregnancy end before separation?
                If YES: FMAROUT5=1
                If NO: FMAROUT5=4

If BETWEEN (i.e., >=MARDISxx and <=MARDAT(xx+1) and MARENDxx NE 2):
        Did pregnancy end after divorce or death? *(check appropriate MARENDxx)*
                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 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 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, <u>only if RMAROUT5 has not been coded 1 or 4</u> (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 <u>during</u> 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**" (new recode for 2006-08)

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, <u>only if RMARCON5 has not been coded 1 or 4</u> (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 <u>during</u> 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 2011-2013 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 <= **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 <u>months</u> 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 2006-2010, we are defining 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, and 2006-10 NSFG in that it does <u>not</u> 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 <u>**other than 5**</u> (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, and 2006-10 NSFG. See WANTPART for alternative recode comparable to the 1995, 2002, and 2006-10 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 Cycles 5 and 6 recode of the same name 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 a recode new for 2011-2013:
TOOSOON.

     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