SmokingPackYears

*------------------------------------------------------------------------*
| PROGRAM NAME:           SMOKINGPACKYEARS.SAS                          |
|                         |
| VARIABLES CREATED:      PACKYEARS: PY0 PY2 PY5 PY7 PY10 PY15          |
|                         PY20 PY25 LTSMK0 LTSMK2                         |
|                         LTSMK5 LTSMK7                                 |
|                         LTSMK10 LTSMK15 LTSMK20                         |
|                         LTSMK25 LTSMK30                                |
| CARDIA DATASETS USED:   A5REF B3REF C1REF D2REF E2REF F2REF          |
|                         G4REF H3REF A4F09TOB                         |
| B2F09TOB C1F09TOB       | D1F09TOBA E1F09TOB F1F09TOB                                 |
| G3F09TOB               | H3F09TOBA I1F09TOB A4F10 B2F10                                |
| C1F10 D1F10            | E1F10 F1F10 G3F10 H3F10                                    |
| I1F10                  | I10SMOKE                                                   |
| VARIABLES USED:        SEX A09CGTDY A09SMKYR A10SMOKE B09CGTDY          |
|                         B09SMKYR B10SMOKE C09CGTDY                         |
|                         C09SMKYR                                    |
|                         E09CGTDY                                    |
|                         G09CGTDY                                    |
|                         I09CGTDY                                    |
|                         I10SMOKE                                   |
*------------------------------------------------------------------------*;

LIBNAME CARDIA ('Q:\SAS\V8\Y0' 'Q:\SAS\V8\Y2' 'Q:\SAS\V8\Y5' |
                   'Q:\SAS\V8\Y7' 'Q:\SAS\V8\Y10' 'Q:\SAS\V8\Y15' |
                   'Q:\SAS\VER73\DATA' 'Q:\SAS\VER83\DATA' |
                   'Q:\SAS\VER91\DATA');
LIBNAME DV       'Q:\CARDIA\CARDIA CC\DERIVED VARIABLES\Y30 Derived variables\DATA\VER91';

* SIMPLE CALCULATION WITHOUT ALL THOSE ASSUMPTIONS PROPOSED BY DR. MARK PLETCHER ;
DATA ID;
  SET CARDIA.A5REF (KEEP=ID);
  SHORT_ID=INT(ID/10**7);
RUN;

DATA B2F09TOB (DROP=SHORT_ID);
  MERGE      ID CARDIA.B2F09TOB (KEEP=SHORT_ID B09CGTDY B09SMKYR);
  BY SHORT_ID;
RUN;
DATA DV.PackYrs (KEEP=ID PY0 PY2 PY5 PY7 PY10 PY15 PY20 PY25 PY30 LTSMK0 LTSMK2 LTSMK5 LTSMK7 LTSMK10 LTSMK15 LTSMK20 LTSMK25 LTSMK30);
MERGE CARDIA.A5REF (KEEP=ID SEX)
   CARDIA.A4F09TOB (KEEP=ID A09CGTDY A09SMKYR)
   CARDIA.A4F10 (KEEP=ID A10SMOKE)
   B2F09TOB
   CARDIA.B2F10 (KEEP=ID B10SMOKE)
   CARDIA.C1F09TOB (KEEP=ID C09CGTDY C09SMKYR)
   CARDIA.C1F10 (KEEP=ID C10SMOKE)
   CARDIA.D1F9TOBA (KEEP=ID D09CGTDY) /* NO D09SMKYR
   VARIABLE */
   CARDIA.D1F10 (KEEP=ID D10SMOKE)
   CARDIA.E1F09TOB (KEEP=ID E09CGTDY) /* NO E09SMKYR
   VARIABLE */
   CARDIA.E1F10 (KEEP=ID E10SMOKE)
   CARDIA.F1F09TOB (KEEP=ID F09CGTDY) /* NO F09SMKYR
   VARIABLE */
   CARDIA.F1F10 (KEEP=ID F10SMOKE)
   CARDIA.G3F09TOB (KEEP=ID G09CGTDY) /* NO G09SMKYR
   VARIABLE */
   CARDIA.G3F10 (KEEP=ID G10SMOKE)
   CARDIA.H3F09TOB (KEEP=ID H09CGTDY) /* NO H09SMKYR
   VARIABLE */
   CARDIA.H3F10 (KEEP=ID H10SMOKE)
   CARDIA.I1F09TOB (KEEP=ID I09CGTDY)
   CARDIA.I1F10 (KEEP=ID I10SMOKE)
;
   BY ID;

* THIS PARTICIPANT WITHDREW CONSENT TO ALL CARDIA DATA;
IF ID=203323105195 THEN DELETE;
PY0=A09SMKYR*A09CGTDY/20;
PY2=2*B09CGTDY/20;
PY5=3*C09CGTDY/20;
PY7=2*D09CGTDY/20;
PY10=3*E09CGTDY/20;
PY15=5*F09CGTDY/20;
PY20=5*G09CGTDY/20;
PY25=5*H09CGTDY/20;
PY30=5*I09CGTDY/20;
LTSMK0=SUM(0, A09SMKYR*A09CGTDY)/20;
LTSMK2=SUM(0, A09SMKYR*A09CGTDY, 2*B09CGTDY)/20;
LTSMK5=SUM(0, A09SMKYR*A09CGTDY, 2*B09CGTDY, 3*C09CGTDY)/20;
LTSMK7=SUM(0, A09SMKYR*A09CGTDY, 2*B09CGTDY, 3*C09CGTDY, 2*D09CGTDY)/20;
LTSMK10=SUM(0, A09SMKYR*A09CGTDY, 2*B09CGTDY, 3*C09CGTDY, 2*D09CGTDY)/20;
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2*D09CGTDY, 3*E09CGTDY)/20;

LTSMK15=SUM(0, A09SMKYR*A09CGTDY, 2*B09CGTDY, 3*C09CGTDY,
2*D09CGTDY, 3*E09CGTDY, 5*F09CGTDY)/20;

LTSMK20=SUM(0, A09SMKYR*A09CGTDY, 2*B09CGTDY, 3*C09CGTDY,
2*D09CGTDY, 3*E09CGTDY, 5*F09CGTDY, 5*G09CGTDY)/20;

LTSMK25=SUM(0, A09SMKYR*A09CGTDY, 2*B09CGTDY, 3*C09CGTDY,
2*D09CGTDY, 3*E09CGTDY, 5*F09CGTDY, 5*G09CGTDY, 5*H09CGTDY)/20;

LTSMK30=SUM(0, A09SMKYR*A09CGTDY, 2*B09CGTDY, 3*C09CGTDY,
2*D09CGTDY, 3*E09CGTDY, 5*F09CGTDY, 5*G09CGTDY, 5*H09CGTDY, 5*I09CGTDY)/20;

LABEL PY0 = 'PACK-YEARS AT YEAR 0'
PY2 = 'PACK-YEARS AT YEAR 2'
PY5 = 'PACK-YEARS AT YEAR 5'
PY7 = 'PACK-YEARS AT YEAR 7'
PY10 = 'PACK-YEARS AT YEAR 10'
PY15 = 'PACK-YEARS AT YEAR 15'
PY20 = 'PACK-YEARS AT YEAR 20'
PY25 = 'PACK-YEARS AT YEAR 25'
PY30 = 'PACK-YEARS AT YEAR 30'

LTSMK0 = 'LIFETIME PACK-YEARS AT YEAR 0'
LTSMK2 = 'LIFETIME PACK-YEARS AT YEAR 2'
LTSMK5 = 'LIFETIME PACK-YEARS AT YEAR 5'
LTSMK7 = 'LIFETIME PACK-YEARS AT YEAR 7'
LTSMK10 = 'LIFETIME PACK-YEARS AT YEAR 10'
LTSMK15 = 'LIFETIME PACK-YEARS AT YEAR 15'
LTSMK20 = 'LIFETIME PACK-YEARS AT YEAR 20'
LTSMK25 = 'LIFETIME PACK-YEARS AT YEAR 25'
LTSMK30 = 'LIFETIME PACK-YEARS AT YEAR 30'

; 
RUN;

ODS LISTING;
PROC CONTENTS DATA = DV.PackYrs VARNUM;
TITLE " DERIVED DATA: PACK YEARS";
RUN;
TITLE;