APPENDIX K

SAS CODE

1. REMOVE CONFIDENTIAL DATA

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*****************************************************************************
**

* PROGRAM:   SANITIZE.SAS

* WRITTEN:   1/5/99 BY KELLY WHITE

* MODIFIED   3/19/99 BY DAISY EWELL TO MERGE IN UPDATED DEERS INFORMATION
* PURPOSE:   TO DELETE CONFIDENTIAL FIELDS FROM FILE
* INPUT:     C:\uhc-dod\1998\DATA1998\final\HARET03.SD2
*            J:\8574\DATA1998\DEERS\CONVAR1B.SD2
* OUTPUT:    J:\8574\DATA1998\final\HCS98A_1.SD2
*****************************************************************************
**
*;
LIBNAME IN 'c:\uhc-dod\1998\DATA1998\FINAL';
LIBNAME OUT 'J:\8574\DATA1998\FINAL';
LIBNAME IN2 'J:\8574\DATA1998\DEERS';
LIBNAME LIBRARY 'J:\8574\DATA1998\PRELIM\FMTLIB';
OPTIONS PS=79 LS=132 ERRORS=2;

PROC CONTENTS DATA=IN2.CONVAR1B;
TITLE 'Updated DEERS Data';
RUN;

DATA HCS98A (DROP = SSNSMPL SSN FSN DDS DSSN RADRFLG RCLINIC SADRFLG
                    SADRREG UADRFLG UCLINIC );
    SET IN.HARET03;
    RUN;

PROC SORT DATA=HCS98A;
BY MPRID;
RUN;

DATA OUT.HCS98A_1(KEEP = H98ELGA -- SRYEAR
      MPRID -- BWT98 ENLSMPL
      PRVCDE -- RADRDMIS
      ARVDATE -- DUPRET2 SCSINEL -- RETPROC
      ENLSMPLP BFGROUPP CACSMPL CELLP ELGCDEP XREGION)
      ;

MERGE IN2.CONVAR1B HCS98A(IN=SURVEY);
BY MPRID;
IF SURVEY;

RUN;

PROC CONTENTS DATA=OUT.HCS98A_1 POSITION ;
TITLE 'Preliminary Data 1998 Sanitized';
RUN;
```

2. IMPLEMENT CODING SCHEME AND CODING TABLES

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*************************************************************
* PROGRAM:  CSCHEM98.SAS
* PURPOSE:  APPLY CODING SCHEME TO DATA.
* WRITTEN:  01/11/98 MASON
* NOTE:     ** change date range for SRDATE for real run **
*     ENTER MACRO VALUES FOR BEG_DATE AND END_DATE AS MMDDYY.
* NOTE:     ** SRYEAR is a 2 digit year not 4 on the 20 recs test **
* NOTE:     ** DOB is 8 bytes character, YYYYMMDD **
* MODIFIED 01/21/99 by Daisy Ewell
* MODIFIED 03/19/99 by Daisy Ewell TO USE ENLSMPLP
*  MODIFIED 3/23/99 by Daisy Ewell to skip all .B (no survey return)
*  MODIFIED 4/14/99 by Daisy Ewell to make H98043 values > 12 to .O in recode
* modified 6/17/99 by Daisy Ewell to make modifications after logic review.
*    Changes made to Note 15, Note 16, Note 18, Note 21, Note 23, Note 24,
*    Note 37, and added Note 38
* INPUT:    J:\8574\DATA1998\FINAL\HCS98A_1.SD2
* OUTPUT:   J:\8574\DATA1998\FINAL\HCS98A_2.SD2
*************************************************************;
OPTIONS PS=79 LS=132 PAGENO=1;
%LET BEG_DATE = 110198;
%LET END_DATE = 061199;
TITLE 'DoD 1998 survey form A';
Title2 'Apply coding scheme';
LIBNAME IN1 'J:\8574\DATA1998\FINAL\';
libname library 'J:\8574\DATA1998\PRELIM\fmtlib';

 /* Data step function to calculate the exact integer age                 */
 /* Algorithm: counts months and corrects by subtracting one when         */
 /* birth day is after the reference day. The subtraction is critical     */
 /* when the birth and reference day are in the same month and irrelevant */
 /* otherwise.                                                            */
 %macro w_age (birth,     /* SAS date of birth */
               ref  );    /* SAS reference date for age calculation */
       int((intck('month',&birth,&ref)-(day(&birth)>day(&ref)))/12)
 %mend w_age;


DATA in1.hcs98a_2;
  SET IN1.HCS98A_1 (RENAME=DOB=CDOB);
  /* This is a version of the coding scheme and coding tables for the
     1998 HCSDB Form A.
     The following tables outline the coding of screening questions (skip),
     and subsequent items to be answered (or not answered in a series
     following a skip question.  */

  IF _N_ = 1 THEN DO;
     RETAIN DATE_BEG DATE_END;
     DATE_BEG = INPUT("&BEG_DATE", MMDDYY6.);
     DATE_END = INPUT("&END_DATE", MMDDYY6.);
     PUT DATE_BEG= DATE_END=;
     FORMAT DATE_BEG DATE_END MMDDYY8.;
  END;
```

```
****3/22/99 found that DRC had entered .B for all surveys not returned**;
****we will skip around coding scheme for all surveys not returned***;
  IF SCANDATE = .B AND H98ELGA = .B THEN GO TO NOSURVEY ;

  /* note 1 - Edit SRDATE */
  LENGTH  SRDATE 4 DEFAULT=3;
  /* 12/29/98 - use SRYEAR in formula to calculate SRDATE.
                let day ranges from 1 to 28 for February */
  /* set srday = out-of-range if it is zero or > 31 */
  IF ((SRDAY = 0) OR (SRDAY GT 31)) THEN SRDAY = .O;
  /* 12/29/98 set srmo = out-of-range if it is zero or > 12 */
  IF ((SRMO = 0) OR (SRMO GT 12)) THEN SRMO = .O;
  /* 12/29/98 set sryear = out-of-range if it is < 98 or > 99 */
  IF ((SRYEAR < 98 ) OR (SRYEAR GT 99)) THEN SRYEAR = .O;
  /* set srdate to out of range if it is not within specified dates */
  IF ((SRMO IN (1,3,5,7,8,10,12) AND                /*  good date   */
     1 <= SRDAY <= 31) OR
     (SRMO IN (4,6,9,11) AND 1 <= SRDAY <= 30) OR
     (SRMO = 2 AND 1 <= SRDAY <= 28)) AND SRYEAR IN (98, 99)
     THEN DO;
    SRDATE = MDY(SRMO,SRDAY,SRYEAR);
    IF (SRDATE = . ) THEN SRDATE = .O;            /* out of range */
  END;
  ELSE IF (SRMO= . AND SRDAY= . AND SRYEAR=.)
    THEN SRDATE= . ;   /*   missing   */
  ELSE IF (SRMO= .A OR SRDAY= .A OR SRYEAR=.A)
    THEN SRDATE= .A;   /*   multiples  */
  ELSE IF (SRMO= .  OR SRDAY= . OR SRYEAR=.) OR
          (SRMO= .I OR SRDAY= .I OR SRYEAR=.I)
    THEN SRDATE= .I;   /*  incomplete  */
  ELSE SRDATE=.O;
  /* updated 1/21/99 to use macro-entered values  */
  IF (SRDATE GT .Z) AND
     ((SRDATE LT DATE_BEG) OR (SRDATE GT DATE_END)) THEN SRDATE = .O;
  FORMAT SRDATE YYMMDD6.;
  DROP DATE_BEG DATE_END;

  /*  Note 2 - Compute SRAGE_R, calculated age of respondent at
      time of survey administration    */

  /* 2/24/99 EWELL, DOB (RENAMED TO CDOB) is $char8, YYYYMMDD */
  /*         created numeric variable & called DOB for numeric DOB */
  if cdob = '00000000' then dob = . ;
  else DOB=INPUT(CDOB,YYMMDD8.);
  length dob 4;

  if DOB ^= . then do;
    if SRDATE not in(.,.A,.I,.O) then SRAGE_R = %w_age(DOB,SRDATE);
    else if SCANDATE ^= . then SRAGE_R = %w_age(DOB,SCANDATE);
  end;
  /* Reset SRAGE_R to .O if the age is out of range */
  if SRAGE_R < 18 then SRAGE_R = .O;
  DROP CDOB;

  /*   NOTE 3 - education.    */
  ARRAY NOTE3 SREDF SREDE SREDD SREDC SREDB SREDA;
  /* modified 1/21/99 */
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  DO IDX = 1 TO 6;
      IF NOTE3(IDX) = 1 THEN GO TO HIGH;
  END;
  SREDHIGH = .;
  GO TO NOTE4;
HIGH:
      SREDHIGH = 7 - IDX;
  DROP IDX;

NOTE4:
  /* Note 4 - receive any care in the past 12 months  */
  ARRAY NOTE4 H98002-H98004 H98005A H98005B H98006-H98008
          H98009A H98009B H98010-H98012 H98013A H98013B H98014;
  ARRAY NOTE4A H98002 H98004 H98006 H98008 H98010 H98012;
  SUM2_14 = 0;
  SUMN4 = 0;
  /* 12/28/98 set no and not sure to special character,
     they will be reset later */
  IF H98014 = 1 THEN H98014 = .L;   /* will be reset later */
  DO OVER NOTE4A;                   /* will be reset later */
     IF NOTE4A=2 THEN NOTE4A=.J;
     ELSE IF NOTE4A=3 THEN NOTE4A=.K;
  END;
  DO OVER NOTE4;
     IF (NOTE4 NE . ) AND (NOTE4 NE .N) AND (NOTE4 NE .L) AND
        (NOTE4 NE .J) AND (NOTE4 NE .K) AND(NOTE4 NE  0)
       THEN SUM2_14 + 1;
     IF (NOTE4 NE .) THEN SUMN4 +1;
  END;
  /* reset special characters */
  IF H98014 = .L THEN H98014 = 1;
  DO OVER NOTE4A;
     IF NOTE4A=.J THEN NOTE4A=2;
       ELSE IF NOTE4A=.K THEN NOTE4A=3;
  END;
  /*  1/21/99 changed order */
  IF H98001 = 1 AND        /* yes */
      (SUM2_14 GT 0 OR  /* at least 1 is marked */
        SUMN4 = 0) THEN DO;  /* all blank */
       H98001_R = H98001; N4 = 1; END;
  else IF H98001 in (1, ., .A) AND
     SUM2_14 = 0  AND SUMN4 NE 0 THEN DO;    /* blank or no or not sure */
       H98001_R = 2;
       DO OVER NOTE4;
         NOTE4=.N;
         END;
       N4 = 2;
  END;
  ELSE IF H98001 IN (2, ., .A) AND
       SUM2_14 GT 0 THEN DO;     /* at least 1 is marked */
        H98001_R = 1; N4 = 3; END;
  ELSE IF H98001 = 2 AND
     (SUM2_14 = 0  OR    /* blank or no or not sure */
        SUMN4 = 0) THEN DO;  /* all blank */
            DO OVER NOTE4;
              NOTE4 = .N;
            END;
```

```
          H98001_R = H98001; N4 = 4;
END;
ELSE IF H98001 = .  AND
  SUMN4=0 THEN DO;      /* all blank */
    H98001_R = H98001; N4 = 5; END;
ELSE IF H98001 = .A AND
  SUMN4=0 THEN DO;      /* all blank */
     H98001_R = 2;
     DO OVER NOTE4;
       NOTE4 = .N;
     END;
     N4 = 6; END;
DROP SUM2_14 SUMN4;

/*  NOTE 5 - military hospital stay in the past 12 months   */
/*  reorganized 1/21/99 */
IF H98002 = .N AND H98003 = .N THEN DO;
  N5 = 1; H98002_R = H98002; H98003_R = H98003; END;
ELSE IF H98002 = 1 THEN DO;
  IF (H98003 GE 1) OR (H98003 = .A) OR (H98003 = .I) OR (H98003=.)
   THEN DO;
      H98002_R = H98002; H98003_R=H98003; N5 = 2; END;
  ELSE IF H98003 = 0 THEN DO;
      H98002_R = 2; H98003_R = .C; N5 = 3; END;
END;
ELSE IF H98002 IN (2, 3, ., .A) AND
  (H98003 GE 1) OR (H98003 = .A) OR (H98003 = .I) THEN DO;
      H98002_R = 1; H98003_R=H98003; N5 = 4; END;
ELSE IF H98002 IN (2, 3) AND  H98003 = . THEN DO;
      H98002_R = H98002; H98003_R = .N; N5 = 5; END;
ELSE IF H98002 IN (2, 3) AND H98003 = 0 THEN DO;
      H98002_R = H98002; H98003_R = .C; N5 = 6; END;
ELSE IF H98002 = . OR H98002=.A THEN DO;
    IF H98003 = 0 THEN DO;
      H98002_R = 2; H98003_R = .C; N5 = 7; END;
    ELSE IF H98003 = . THEN DO;
      H98002_R = H98002; H98003_R = H98003; N5 = 8; END;
END;

/*  Note 6 - civilian hospital stay  */
/*  reorganized 1/21/99 */
ARRAY NOTE6 (2) H98005A H98005B;
ARRAY NOTE6R (2) H98005AR H98005BR;
SUMN6=0;
SUMN6A=0;
DO I = 1 TO 2 ;
  IF NOTE6(I) NE . THEN SUMN6+1;
  IF NOTE6(I) GE 1 OR NOTE6(I) =.I OR NOTE6(I)=.A THEN SUMN6A+1;
  END;
IF H98004 = .N AND H98005A = .N AND H98005B = .N THEN DO;
  H98004_R = H98004; H98005AR = H98005A; H98005BR = H98005B; N6 = 1; END;
ELSE IF H98004 = 1       /* yes */
  AND (SUMN6A > 0 OR      /* at least one is >=1,.A,.I */
       SUMN6=0) THEN DO;  /* both missing */
  H98004_R = H98004; H98005AR = H98005A; H98005BR = H98005B; N6 = 2; END;
ELSE IF H98004 IN (1, ., .A) AND
  SUMN6A = 0 AND SUMN6 > 0 THEN DO; /*both zero or zero/missing*/
```

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    DO I=1 TO 2;
      IF NOTE6(I)=. THEN NOTE6R(I)=.N;
        ELSE IF NOTE6(I)=0 THEN NOTE6R(I)=.C;
    END;
    H98004_R = 2; N6 = 3; END;
ELSE IF H98004 IN (2, 3, ., .A) AND
   SUMN6A > 0 THEN DO;   /* at least one >=1 or .A, .I */
  H98004_R = 1; H98005AR = H98005A; H98005BR = H98005B; N6 = 4; END;
ELSE IF H98004 IN (2, 3) AND
  SUMN6A = 0  THEN DO;   /* all zero or missing */
    DO I=1 TO 2;
      IF NOTE6(I)=. THEN NOTE6R(I)=.N;
        ELSE IF NOTE6(I)=0 THEN NOTE6R(I)=.C;
    END;
    H98004_R = H98004; N6 = 5; END;
ELSE IF H98004 IN (., .A) AND SUMN6=0 THEN DO;      /* both missing */
  H98004_R = H98004; H98005AR = H98005A; H98005BR = H98005B; N6 = 6; END;
DROP SUMN6 SUMN6A I;

/*  NOTE 7 - military outpatient visits in the past 12 months   */
/*  reorganized 1/21/99 */
IF H98006 = .N AND H98007 = .N THEN DO;
  N7 = 1; H98006_R = H98006; H98007_R = H98007; END;
ELSE IF H98006 = 1 THEN DO;
  IF (H98007 GE 1) OR (H98007 = .A) OR (H98007 = .I) OR (H98007=.)
   THEN DO;
      H98006_R = H98006; H98007_R = H98007; N7 = 2; END;
  ELSE IF H98007 = 0 THEN DO;
      H98006_R = 2; H98007_R = .C; N7 = 3; END;
END;
ELSE IF H98006 IN (2, 3, ., .A) AND
  (H98007 GE 1) OR (H98007 = .A) OR (H98007 = .I) THEN DO;
      H98006_R = 1; H98007_R = H98007; N7 = 4; END;
ELSE IF H98006 IN (2, 3) AND  H98007 = . THEN DO;
      H98006_R = H98006; H98007_R = .N; N7 = 5; END;
ELSE IF H98006 IN (2, 3) AND H98007 = 0 THEN DO;
      H98006_R = H98006; H98007_R = .C; N7 = 6; END;
ELSE IF H98006 = . OR H98006 = .A THEN DO;
    IF H98007 = 0 THEN DO;
      H98006_R = 2; H98007_R = .C; N7 = 7; END;
    ELSE IF H98007 = . THEN DO;
      H98006_R = H98006; H98007_R = H98007; N7 = 8; END;
END;

/*  Note 8 - civilian outpatient visits in last 12 months  */
/*  reorganized 1/21/99 */
ARRAY NOTE8 (2) H98009A H98009B;
ARRAY NOTE8R (2) H98009AR H98009BR;
SUMN8=0;
SUMN8A=0;
DO I = 1 TO 2 ;
  IF NOTE8(I) NE . THEN SUMN8+1;
  IF NOTE8(I) GE 1 OR NOTE8(I) =.I OR NOTE8(I)=.A THEN SUMN8A+1;
  END;
IF H98008 = .N AND H98009A = .N AND H98009B = .N THEN DO;
  H98008_R = H98008; H98009AR = H98009A; H98009BR = H98009B; N8 = 1; END;
ELSE IF H98008 = 1       /* yes */
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```
  AND (SUMN8A > 0 OR      /* at least one is >=1,.A,.I */
       SUMN8=0) THEN DO;  /* both missing */
  H98008_R = H98008; H98009AR = H98009A; H98009BR = H98009B; N8 = 2; END;
ELSE IF H98008 IN (1, ., .A) AND
  SUMN8A = 0 AND SUMN8 > 0 THEN DO; /*both zero or zero/missing*/
    DO I=1 TO 2;
      IF NOTE8(I)=. THEN NOTE8R(I)=.N;
        ELSE IF NOTE8(I)=0 THEN NOTE8R(I)=.C;
    END;
    H98008_R = 2; N8 = 3; END;
ELSE IF H98008 IN (2, 3, ., .A) AND
   SUMN8A > 0 THEN DO;   /* at least one >=1 or .A, .I */
  H98008_R = 1; H98009AR = H98009A; H98009BR = H98009B; N8 = 4; END;
ELSE IF H98008 IN (2, 3) AND
  SUMN8A = 0  THEN DO;   /* all zero or missing */
    DO I=1 TO 2;
      IF NOTE8(I)=. THEN NOTE8R(I)=.N;
        ELSE IF NOTE8(I)=0 THEN NOTE8R(I)=.C;
    END;
    H98008_R = H98008; N8 = 5; END;
ELSE IF H98008 IN (., .A) AND SUMN8=0 THEN DO;      /* both missing */
  H98008_R = H98008; H98009AR = H98009A; H98009BR = H98009B; N8 = 6; END;
DROP SUMN8 SUMN8A I;

/*  NOTE 9 - military ER visits in the past 12 months   */
/*  reorganized 1/21/99 */
IF H98010 = .N AND H98011 = .N THEN DO;
  N9 = 1; H98010_R = H98010; H98011_R = H98011; END;
ELSE IF H98010 = 1 THEN DO;
  IF (H98011 GE 1) OR (H98011 = .A) OR (H98011 = .I) OR (H98011=.)
   THEN DO;
      H98010_R = H98010; H98011_R = H98011; N9 = 2; END;
  ELSE IF H98011 = 0 THEN DO;
      H98010_R = 2; H98011_R = .C; N9 = 3; END;
END;
ELSE IF H98010 IN (2, 3, ., .A) AND
  (H98011 GE 1) OR (H98011 = .A) OR (H98011 = .I) THEN DO;
      H98010_R = 1; H98011_R = H98011; N9 = 4; END;
ELSE IF H98010 IN (2, 3) AND  H98011 = . THEN DO;
      H98010_R = H98010; H98011_R = .N; N9 = 5; END;
ELSE IF H98010 IN (2, 3) AND H98011 = 0 THEN DO;
      H98010_R = H98010; H98011_R = .C; N9 = 6; END;
ELSE IF H98010 = . OR H98010 = .A THEN DO;
    IF H98011 = 0 THEN DO;
      H98010_R = 2; H98011_R = .C; N9 = 7; END;
    ELSE IF H98011 = . THEN DO;
      H98010_R = H98010; H98011_R = H98011; N9 = 8; END;
END;

/*  Note 10 - civilian ER visits in past 12 months */
/*  reorganized 1/21/99 */
ARRAY NOTE10 (2) H98013A H98013B;
ARRAY NOTE10R (2) H98013AR H98013BR;
SUMN10=0;
SUMN10A=0;
DO I = 1 TO 2 ;
  IF NOTE10(I) NE . THEN SUMN10+1;
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  IF NOTE10(I) GE 1 OR NOTE10(I) =.I OR NOTE10(I)=.A THEN SUMN10A+1;
  END;
IF H98012 = .N AND H98013A = .N AND H98013B = .N THEN DO;
  H98012_R = H98012; H98013AR = H98013A; H98013BR = H98013B; N10 = 1; END;
ELSE IF H98012 = 1       /* yes */
  AND (SUMN10A > 0 OR      /* at least one is >=1,.A,.I */
       SUMN10=0) THEN DO;  /* both missing */
  H98012_R = H98012; H98013AR = H98013A; H98013BR = H98013B; N10 = 2; END;
ELSE IF H98012 IN (1, ., .A) AND
  SUMN10A = 0 AND SUMN10 > 0 THEN DO; /*both zero or zero/missing*/
    DO I=1 TO 2;
      IF NOTE10(I)=. THEN NOTE10R(I)=.N;
        ELSE IF NOTE10(I)=0 THEN NOTE10R(I)=.C;
    END;
    H98012_R = 2; N10 = 3; END;
ELSE IF H98012 IN (2, 3, ., .A) AND
   SUMN10A > 0 THEN DO;   /* at least one >=1 or .A, .I */
  H98012_R = 1; H98013AR = H98013A; H98013BR = H98013B; N10 = 4; END;
ELSE IF H98012 IN (2, 3) AND
  SUMN10A = 0 THEN DO;   /* all zero or missing */
    DO I=1 TO 2;
      IF NOTE10(I)=. THEN NOTE10R(I)=.N;
        ELSE IF NOTE10(I)=0 THEN NOTE10R(I)=.C;
    END;
    H98012_R = H98012; N10 = 5; END;
ELSE IF H98012 IN (., .A) AND SUMN10=0 THEN DO;      /* both missing */
  H98012_R = H98012; H98013AR = H98013A; H98013BR = H98013B; N10 = 6; END;
DROP SUMN10 SUMN10A I;

/* Note 11- smoking  */
 IF H98021=1 and H98022 IN (3,4) THEN DO;  /* still smoke */
  IF H98023 NE . THEN DO;
    H98021_R=H98021; H98022_R=H98022; H98023_R=.C; H98024_R=H98024;
    N11=1; END;
  ELSE IF H98023 = . THEN DO;
    H98021_R=H98021; H98022_R=H98022; H98023_R=.N; H98024_R=H98024;
    N11=2; END;
 END;
 ELSE IF H98021=1 AND H98022 = 2 THEN DO;    /* quit */
    IF H98023 IN (1,2) AND H98024 NE . THEN DO;   /* > 1 year ago */
      H98021_R=H98021; H98022_R=H98022; H98023_R=H98023; H98024_R=.C;
      N11=3; END;
    ELSE IF H98023 IN (1,2) AND H98024 = . THEN DO;
      H98021_R=H98021; H98022_R=H98022; H98023_R=H98023; H98024_R=.N;
      N11=4; END;
    ELSE IF H98023 IN (3, ., .A) THEN DO;     /* < 1 year ago */
      H98021_R=H98021; H98022_R=H98022; H98023_R=H98023; H98024_R=H98024;
      N11=5; END;
 END;
 ELSE IF H98021=1 AND H98022 IN (1, ., .A) THEN DO;  /* don't know */
   IF H98023 = 2 AND H98024 NE . THEN DO;   /* > 1 year ago */
     H98021_R=H98021; H98022_R=2; H98023_R=H98023; H98024_R=.C; N11=6; END;
   ELSE IF H98023 =2 AND H98024 = . THEN DO;
     H98021_R=H98021; H98022_R=2; H98023_R=H98023; H98024_R=.N; N11=7; END;
   ELSE IF H98023 = 3 THEN DO;            /* < 1 year ago */
     H98021_R=H98021; H98022_R=2; H98023_R=H98023; H98024_R=H98024;
     N11=8; END;
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  ELSE IF H98023 IN (1, ., .A) THEN DO;            /* don't know */
    H98021_R=H98021; H98022_R=H98022; H98023_R=H98023; H98024_R=H98024;
    N11=9; END;
END;
ELSE IF H98021 IN (2,3,.,.A) AND H98022 IN (3,4) THEN DO; /*never smoke*/
  IF H98023 NE . THEN DO;
    H98021_R=1; H98022_R=H98022; H98023_R=.C; H98024_R=H98024; N11=10; END;
  ELSE IF H98023 = . THEN DO;
    H98021_R=1; H98022_R=H98022; H98023_R=.N; H98024_R=H98024; N11=11; END;
END;
ELSE IF H98021 IN (2,3) AND H98022 IN (2,1,.A) THEN DO; /*never smoke*/
  IF H98023 NE . AND H98024 NE . THEN DO;
    H98021_R=H98021; H98022_R=.C; H98023_R=.C; H98024_R=.C; N11=12; END;
  ELSE IF H98023 NE . AND H98024=. THEN DO;
    H98021_R=H98021; H98022_R=.C; H98023_R=.C; H98024_R=.N; N11=13; END;
  ELSE IF H98023 = . AND H98024 NE . THEN DO;
    H98021_R=H98021; H98022_R=.C; H98023_R=.N; H98024_R=.C; N11=14; END;
  ELSE IF H98023 = . AND H98024=. THEN DO;
    H98021_R=H98021; H98022_R=.C; H98023_R=.N; H98024_R=.N; N11=15; END;
END;
ELSE IF H98021 IN (2,3) AND H98022 = . THEN DO; /*never smoke*/
  IF H98023 NE . AND H98024 NE . THEN DO;
    H98021_R=H98021; H98022_R=.N; H98023_R=.C; H98024_R=.C; N11=16; END;
  ELSE IF H98023 NE . AND H98024=. THEN DO;
    H98021_R=H98021; H98022_R=.N; H98023_R=.C; H98024_R=.N; N11=17; END;
  ELSE IF H98023 = . AND H98024 NE . THEN DO;
    H98021_R=H98021; H98022_R=.N; H98023_R=.N; H98024_R=.C; N11=18; END;
  ELSE IF H98023 = . AND H98024=. THEN DO;
    H98021_R=H98021; H98022_R=.N; H98023_R=.N; H98024_R=.N; N11=19; END;
END;
ELSE IF H98021 IN (.A, .) AND H98022 IN (2,.,.A) THEN DO; /*MRE/blank*/
  IF H98023 = 3 THEN DO;
    H98021_R=1; H98022_R=H98022; H98023_R=H98023; H98024_R=H98024;
    N11=20; END;
  ELSE IF H98023 = 2 AND H98024 NE . THEN DO;
    H98021_R=1; H98022_R=H98022; H98023_R=H98023; H98024_R=.C; N11=21; END;
  ELSE IF H98023 = 2 AND H98024 = . THEN DO;
    H98021_R=1; H98022_R=H98022; H98023_R=H98023; H98024_R=.N; N11=22; END;
  ELSE IF H98023 = 1 AND H98024 = . THEN DO;
    H98021_R=H98021; H98022_R=H98022; H98023_R=H98023; H98024_R=.N;
    N11=23; END;
  ELSE IF H98023 = 1 AND H98024 NE . THEN DO;
    H98021_R=H98021; H98022_R=H98022; H98023_R=H98023; H98024_R=.C;
    N11=24; END;
  ELSE IF H98023 IN (.,.A) AND H98024 IN (2,3,4,5) THEN DO;
    H98021_R=1; H98022_R=H98022; H98023_R=H98023; H98024_R=H98024;
    N11=25; END;
  ELSE IF H98023 IN (.,.A) AND H98024 IN (1,.,.A) THEN DO;
    H98021_R=H98021; H98022_R=H98022; H98023_R=H98023; H98024_R=H98024;
    N11=26; END;
END;
ELSE IF H98021 IN (.A, .) AND H98022 = 1 THEN DO; /*MRE/blank*/
  IF H98023 NE . AND H98024 NE .  THEN DO;
    H98021_R=H98021; H98022_R=H98022; H98023_R=.C; H98024_R=.C;
    N11=27; END;
  ELSE IF H98023 NE . AND H98024 = .  THEN DO;
    H98021_R=H98021; H98022_R=H98022; H98023_R=.C; H98024_R=.N;
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     N11=28; END;
   IF H98023 = . AND H98024 = .  THEN DO;
     H98021_R=H98021; H98022_R=H98022; H98023_R=.N; H98024_R=.N;
     N11=29; END;
   ELSE IF H98023 = . AND H98024 NE .  THEN DO;
     H98021_R=H98021; H98022_R=H98022; H98023_R=.N; H98024_R=.C;
     N11=30; END;
 END;

/* Note 12a  - gender */
/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed MALE, FMALE based on gender specific questions */
IF H98027 > 0 THEN MALE=1;     /* prostate */
ELSE MALE = 0;
IF H98028 > 0 OR H98029A > 0 OR H98029B > 0 OR H98029C > 0 OR
   H98030 > 0 OR H98031 > 0 THEN FMALE=1; /* mammogram/pap smear/PREGNANT*/
ELSE FMALE = 0;
IF SRSEX = . OR SRSEX = .A THEN DO;
  IF  (SEX = 'F' AND MALE AND FMALE) THEN DO; N12A = 1; XSEXA = 2; END;
  ELSE IF (SEX = 'F' AND MALE=0 AND FMALE=0) THEN DO;
    N12A = 2; XSEXA = 2; END;
  ELSE IF (SEX = 'M' AND MALE AND FMALE) THEN DO;
    N12A = 3; XSEXA = 1; END;
  ELSE IF (SEX = 'M' AND MALE=0 AND FMALE=0) THEN DO;
    N12A = 4; XSEXA = 1; END;
  ELSE IF MALE AND NOT FMALE THEN DO;
    N12A = 5; XSEXA = 1; END;
  ELSE IF FMALE AND NOT MALE THEN DO;
    N12A = 6; XSEXA = 2; END;
  ELSE IF (SEX = 'Z' AND MALE AND FMALE) THEN DO;
    N12A = 7; XSEXA = .; END;
  ELSE IF (SEX = 'Z' AND MALE=0 AND FMALE=0) THEN DO;
    N12A = 8; XSEXA = .; END;
END;
ELSE IF (SRSEX = 1 ) THEN DO;
  IF MALE AND NOT FMALE THEN DO; N12A = 9; XSEXA = 1; END;
  ELSE IF NOT MALE AND FMALE THEN DO;
    IF SEX = 'F' THEN DO; N12A = 10; XSEXA = 2; END;
    ELSE DO; N12A = 11; XSEXA = 1; END;
  END;
  ELSE IF MALE AND FMALE THEN DO; N12A = 12; XSEXA = 1; END;
  ELSE IF MALE=0 AND FMALE=0 THEN DO; N12A = 13; XSEXA = 1; END;
END;
ELSE IF (SRSEX = 2 ) THEN DO;
  IF NOT MALE AND FMALE THEN DO; N12A = 14; XSEXA = 2; END;
  ELSE IF MALE AND NOT FMALE THEN DO;
    IF SEX = 'M' THEN DO; N12A = 15; XSEXA = 1; END;
    ELSE DO; N12A = 16; XSEXA = 2; END;
  END;
  ELSE IF MALE AND FMALE THEN DO; N12A = 17; XSEXA = 2; END;
  ELSE IF MALE=0 AND FMALE=0 THEN DO; N12A = 18; XSEXA = 2; END;
END;

/* Note 12b - gender vs prostate */
IF XSEXA=1 THEN DO;   /* male */
  N12B =1; H98027_R=H98027; END;  /* valid */
```

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ELSE IF XSEXA=2 THEN DO;   /* female */
    IF H98027 NE . THEN DO; N12B =2; H98027_R=.C; END; /*inconsistent resp*/
    ELSE DO; N12B = 3; H98027_R = .N;  END;      /* valid skip */
END;
ELSE IF XSEXA=. THEN DO;   /*  missing sex  */
  N12B =4; H98027_R=.; END;


/* Note 12c - gender vs mammogram/paps */
/*   REDEFINE FMALE TO LOOK ONLY AT MAMMOGRAM OR PAP SMEAR ENTRIES  */
IF H98028 NE . OR H98029A NE . OR H98029B NE . OR H98029C NE . OR
   H98030 NE . OR H98031 NE . THEN FMALE=1; /* mammogram or pap smear */
ELSE FMALE = 0;
IF XSEXA=1 THEN DO;   /* male */
  IF FMALE=1 THEN DO;  N12C=1; H98028_R=.C; H98029AR=.C; H98029BR=.C;
    H98029CR=.C; H98030_R=.C; H98031_R=.C; END; /* inconsistent response */
  ELSE DO; N12C=2; H98028_R=.N; H98029AR=.N; H98029BR=.N; H98029CR=.N;
    H98030_R=.N; H98031_R=.N;  END;   /* valid skip */
END;
ELSE IF XSEXA=2 THEN DO;   /* female */
  N12C=3; H98028_R=H98028; H98029AR=H98029A; H98029BR=H98029B;
  H98029CR=H98029C; H98030_R=H98030; H98031_R=H98031; END; /* valid*/
ELSE IF XSEXA=. THEN DO;   /*  missing sex  */
  N12C=4; H98028_R=.; H98029AR=.; H98029BR=.;
  H98029CR=.; H98030_R=.; H98031_R=.; END;
DROP MALE FMALE;

/* Note 13 - breast exam for female 40 or over */
IF XSEXA=1 THEN DO;  /* male */
    /*  correction 1/21/99  */
    /*  CORRECTION 3/23/99 TO MAKE AGE TEST < 40 TO 17 < AGE < 40
       AND TO MAKE AGE TEST = . TO < 18  */
  IF (H98029AR = .C OR H98029AR = .N)
       AND (H98029BR = .C OR H98029BR = .N)
       AND (H98029CR = .C OR H98029CR = .N)
    THEN N13 = 1;
END;
ELSE IF XSEXA=2 AND H98029AR=2 THEN DO; /* female 40 or over */
  IF SRAGE > = 40 OR SRAGE_R >=40 OR
     (SRAGE < 18 AND SRAGE_R < 18) THEN N13=2;
  ELSE IF 17 < SRAGE < 40 AND 17 < SRAGE_R < 40 THEN DO;
    IF H98029BR NE . OR H98029CR NE . THEN DO;
      H98029AR = 1; H98029BR = .C; H98029CR = .C; N13 = 3; END;
    ELSE DO; H98029AR = 1; H98029BR = .N; H98029CR = .N; N13 = 4; END;
  END;
  ELSE IF (17 < SRAGE < 40 AND SRAGE_R < 18) OR
          (SRAGE < 18 AND 17 < SRAGE_R < 40) THEN N13=5;
END;
ELSE IF XSEXA=2 AND H98029AR=1 THEN DO; /* female under 40 */
  IF 17 < SRAGE < 40 OR 17 < SRAGE_R < 40 OR
     (SRAGE < 18 AND SRAGE_R < 18) THEN DO;
    IF H98029BR NE . OR H98029CR NE . THEN DO;
      N13=6; H98029BR=.C; H98029CR=.C; END;
    ELSE DO; N13=7; H98029BR=.N; H98029CR=.N; END;
    END;
  ELSE IF SRAGE >=40 AND SRAGE_R >=40 THEN DO; H98029AR=2; N13=8; END;
  ELSE IF (SRAGE >=40 AND SRAGE_R < 18) OR
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            (SRAGE < 18 AND SRAGE_R>= 40) THEN DO;
      IF H98029BR NE . OR H98029CR NE . THEN DO;
        N13=9; H98029BR=.C; H98029CR=.C; END;
      ELSE DO; N13=10; H98029BR=.N; H98029CR=.N; END;
    END;
  END;
  ELSE IF XSEXA=2 AND (H98029AR=. OR H98029AR=.A) THEN DO; /*female unknown
age*/
    IF (17 < SRAGE < 40 AND SRAGE_R < 18) OR (SRAGE < 18 AND 17 < SRAGE_R < 40)
OR
       (17 < SRAGE < 40 AND 17 < SRAGE_R < 40) THEN DO;
      IF H98029BR NE . OR H98029CR NE . THEN DO;
        N13=11; H98029AR=1; H98029BR=.C; H98029CR=.C; END;
      ELSE DO; N13=12; H98029AR=1; H98029BR=.N; H98029CR=.N; END;
      END;
    ELSE IF (SRAGE >= 40 AND SRAGE_R >=40) OR
            (SRAGE >= 40 AND SRAGE_R < 18) OR
            (SRAGE < 18 AND SRAGE_R >= 40) THEN DO;
      N13=13; H98029AR=2; END;
    ELSE IF (17 < SRAGE < 40 AND SRAGE_R >=40) OR
            (SRAGE >= 40 AND 17 < SRAGE_R < 40) OR
            (SRAGE < 18 AND SRAGE_R < 18) THEN N13=14;
  END;
  ELSE IF XSEXA=. THEN N13 = 15;   /*  missing sex  */


  /* Note 14 - gender vs Pregnancy */
  IF XSEXA=1 THEN N14=1;    /* male */
  ELSE IF XSEXA=2 THEN DO;  /* female */
    IF H98030_R=1 THEN N14=2; /* pregnant */
    ELSE IF H98031_R IN (2,3,4) AND H98030_R IN (2,.,.A) THEN DO;
      H98030_R=1; N14=3; END;
    ELSE IF H98031_R = . AND H98030_R=2 THEN DO;
      H98031_R=.N; N14=4; END;
    ELSE IF H98030_R=2 AND H98031_R IN (1,5,6,7,.A) THEN DO;
      H98031_R=.C; N14=5; END;
    ELSE IF H98030_R IN (.,.A) AND H98031_R IN (1,5,6,7,.,.A) THEN N14=6;
  END;
  ELSE IF XSEXA=. THEN N14 = 7;   /*  missing sex  */

  /* Note 15 - active duty */
  /*  correction made 1/21/99 and 6/17/99  */
  ARRAY NOTE15(5) H98036 H98037 H98038 H98039 H98040;
  ARRAY NOTE15R(5) H98036_R H98037_R H98038_R H98039_R H98040_R;
  ****modifications made on 6/17/99 to use DEERS value if
    H98035 and H98118A do not agree  ****;
  IF H98035 = 1 AND H98118A = 1 THEN DO;  /* active duty */
      DO I = 1 TO 5;
        IF NOTE15(I) = . THEN NOTE15R(I) = .N;
        ELSE NOTE15R(I) = .C;
      END; N15=1; H98035_R=H98035; END;
  ELSE IF H98035=2 AND H98118A = 2 THEN DO; /* not active duty */
    DO I = 1 TO 5;
      NOTE15R(I)=NOTE15(I);
    END;  N15=2; H98035_R=H98035; END;
  ELSE IF H98035 = 1 AND H98118A NE 1 THEN DO; /* different  */
    IF ENLSMPLP=1 THEN DO;
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      DO I = 1 TO 5;
        IF NOTE15(I) = . THEN NOTE15R(I) = .N;
        ELSE NOTE15R(I) = .C;
      END; N15=3; H98035_R=1; END;
   ELSE IF ENLSMPLP > 1 THEN DO;
      DO I = 1 TO 5;
        NOTE15R(I) = NOTE15(I);
      END; N15=4; H98035_R=2; END;
   ELSE IF ENLSMPLP = . THEN DO;
      IF H98036 = . AND H98037 = . AND H98038 = . AND
         H98039 = . AND H98040 = . THEN DO;
            DO I = 1 TO 5;
              NOTE15R(I) = .N;
            END; N15=5;  H98035_R=1;  END;
      ELSE DO;
        DO I = 1 TO 5;
          NOTE15R(I) = NOTE15(I);
        END; N15=6; H98035_R=2; END;
  END;
END;
ELSE IF H98035 = 2 AND H98118A NE 2 THEN DO; /* different  */
  IF ENLSMPLP=1 THEN DO;
      DO I = 1 TO 5;
        IF NOTE15(I) = . THEN NOTE15R(I) = .N;
        ELSE NOTE15R(I) = .C;
      END; N15=7; H98035_R=1; END;
   ELSE IF ENLSMPLP > 1 THEN DO;
      DO I = 1 TO 5;
        NOTE15R(I) = NOTE15(I);
      END; N15=8; H98035_R=2; END;
   ELSE IF ENLSMPLP = . THEN DO;
      IF H98036 = . AND H98037 = . AND H98038 = . AND
         H98039 = . AND H98040 = . THEN DO;
            DO I = 1 TO 5;
              NOTE15R(I) = .N;
            END; N15=9;  H98035_R=1;  END;
      ELSE DO;
        DO I = 1 TO 5;
          NOTE15R(I) = NOTE15(I);
        END; N15=10; H98035_R=2; END;
   END;
END;
ELSE IF H98035 = . OR H98035 = .A THEN DO;
     IF ENLSMPLP=1 THEN DO;
         DO I = 1 TO 5;
            IF NOTE15(I) = . THEN NOTE15R(I) = .N;
            ELSE NOTE15R(I) = .C;
         END; N15=11; H98035_R=1; END;
     ELSE IF ENLSMPLP > 1 THEN DO;
         DO I = 1 TO 5;
            NOTE15R(I) = NOTE15(I);
         END; N15=12; H98035_R=2; END;
     ELSE IF ENLSMPLP = . THEN DO;
         IF H98118A = 1 THEN DO;
              DO I = 1 TO 5;
                IF NOTE15(I) = . THEN NOTE15R(I) = .N;
                ELSE NOTE15R(I) = .C;
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              END; N15=13;  H98035_R=1;  END;
         ELSE IF H98118A = 2 THEN DO;
              DO I = 1 TO 5;
                 NOTE15R(I) = NOTE15(I);
              END; N15=14; H98035_R=2; END;
         ELSE IF H98118A IN (.,.A) THEN DO;
              DO I = 1 TO 5;
                 NOTE15R(I) = NOTE15(I);
              END; N15=15; H98035_R=H98035; END;
     END;
END;
DROP I;

/* Note 16 - TRICARE Prime or Senior Prime */
/*  modified 6/22/99  */
IF H98036_R=.N OR H98036_R=.C THEN N16=1;
ELSE IF H98036_R=1 THEN DO;
    N16=2;
    IF H98039_R = . THEN H98039_R = .N;
    ELSE IF H98039_R >= 1 OR H98039_R = .A THEN H98039_R = .C;
END;
ELSE IF H98036_R=2 AND H98037_R=. AND H98038_R=. THEN DO;
  H98037_R=.N; H98038_R=.N; N16=3; END;
ELSE IF H98036_R IN (2,3,.,.A) AND
        (H98037_R NE . OR H98038_R NE .) THEN DO;
  H98036_R=1; N16=4;
END;
ELSE IF H98036_R=3 AND H98037_R=. AND H98038_R=. AND H98039_R=.
  THEN DO; H98037_R=.N; H98038_R=.N; H98039_R=.N; N16=5; END;
ELSE IF H98036_R IN (3,.,.A) AND H98037_R=. AND H98038_R=. AND
        H98039_R NE .
  THEN DO; H98036_R=2; H98037_R=.N; H98038_R=.N; N16=6; END;
ELSE IF H98036_R IN (.,.A) AND H98037_R=. AND H98038_R=. AND
        H98039_R = . THEN N16=7;

/* Note 17 - rely on TRICARE Prime for past 12 months */
IF H98042=1 THEN DO;
  IF H98043 NE 0 THEN DO;
    N17=1; H98042_R=H98042;
    IF H98043 > 12 THEN H98043_R=.O;    /*  ADDED 4/14/99 DWE  */
    ELSE H98043_R=H98043;
  END;
  ELSE DO; N17=2; H98042_R=2; H98043_R=.C; END;
END;
ELSE IF H98042 IN (2,3,.,.A) AND (H98043 >=1 OR H98043=.A OR H98043=.I)
  THEN DO;
    N17=3; H98042_R=1;
    IF H98043 > 12 THEN H98043_R=.O;    /*  ADDED 4/14/99 DWE  */
    ELSE H98043_R=H98043;
END;
ELSE IF H98042 IN (2,3) AND H98043 =.
  THEN DO; N17=4; H98042_R=H98042; H98043_R=.N; END;
ELSE IF H98042 IN (2,3) AND H98043 = 0
  THEN DO; N17=5; H98042_R=H98042; H98043_R=.C; END;
ELSE IF H98042 IN (.,.A) AND H98043 = 0
  THEN DO; N17=6; H98042_R=2; H98043_R=.C; END;
ELSE IF H98042 IN (.,.A) AND H98043 = .
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  THEN DO; N17=7; H98042_R=H98042; H98043_R=H98043; END;

/* Note 18 - Supplemental Insurance Coverage */
/*  reorganized 1/22/99, modified 6/22/99  */
ARRAY NOTE18 H98045A H98045B H98045C;
SUMN18=0;
DO OVER NOTE18;
  IF NOTE18=1 THEN SUMN18+1;
END;
IF H98044=1 THEN DO;
  IF SUMN18 > 0 AND  H98045D=1 THEN DO;
    H98044_R=H98044; H98045AR=H98045A; H98045BR=H98045B; H98045CR=H98045C;
    H98045DR=.C; H98046_R=H98046; N18=1; END;
  ELSE IF H98045D=2 THEN DO;
    H98044_R=H98044; H98045AR=H98045A; H98045BR=H98045B; H98045CR=H98045C;
    H98045DR=H98045D; H98046_R=H98046; N18=2; END;
  ELSE IF SUMN18=0 AND H98045D=1 THEN DO;
    H98044_R=2; H98045AR=.N; H98045BR=.N; H98045CR=.N;
    H98045DR=.C; H98046_R=H98046; N18=3; END;
END;
ELSE IF H98044 IN (2,3) AND SUMN18=0 AND H98045D=2
  AND H98046 IN (1,3) THEN DO;
    H98044_R=2; H98045AR=.N; H98045BR=.N; H98045CR=.N;
    H98045DR=.N; H98046_R=H98046; N18=4; END;
ELSE IF H98044 IN (2,3) AND SUMN18=0 AND H98045D=2
  AND H98046 IN (2,.,.A) THEN DO;
    H98044_R=1; H98045AR=H98045A; H98045BR=H98045B; H98045CR=H98045C;
    H98045DR=H98045D; H98046_R=H98046; N18=5; END;
ELSE IF H98044=2 AND SUMN18=0 AND H98045D=1 THEN DO;
    H98044_R=H98044; H98045AR=.N; H98045BR=.N; H98045CR=.N;
    H98045DR=.C; H98046_R=H98046; N18=6; END;
ELSE IF H98044=2 AND SUMN18 > 0 AND  H98045D=1 THEN DO;
    H98044_R=H98044; H98045AR=.C; H98045BR=.C; H98045CR=.C;
    H98045DR=.C; H98046_R=H98046; N18=7; END;
ELSE IF H98044 IN (2, 3, ., .A) AND
  SUMN18 > 0 AND  H98045D=2 THEN DO;
    H98044_R=1; H98045AR=H98045A; H98045BR=H98045B; H98045CR=H98045C;
    H98045DR=H98045D; H98046_R=H98046; N18=8; END;
ELSE IF H98044 IN (3, ., .A) AND
  SUMN18 > 0 AND  H98045D=1 THEN DO;
    H98044_R=1; H98045AR=H98045A; H98045BR=H98045B; H98045CR=H98045C;
    H98045DR=.C; H98046_R=H98046; N18=9; END;
ELSE IF H98044=3 AND SUMN18=0 AND H98045D=2 THEN DO;
  IF H98046 = . THEN DO;
    H98044_R=H98044; H98045AR=.N; H98045BR=.N; H98045CR=.N;
    H98045DR=.N; H98046_R=.N; N18=10; END;
  ELSE IF H98046 = .A THEN DO;
    H98044_R=H98044; H98045AR=.N; H98045BR=.N; H98045CR=.N;
    H98045DR=.N; H98046_R=.C; N18=11; END;
END;
ELSE IF H98044 IN (3, ., .A) AND
  SUMN18=0 AND H98045D=1 THEN DO;
    H98044_R=2; H98045AR=.N; H98045BR=.N; H98045CR=.N;
    H98045DR=.C; H98046_R=H98046; N18=12; END;
ELSE IF H98044 IN (.,.A) AND
  SUMN18=0 AND H98045D=2 THEN DO;
    H98044_R=H98044; H98045AR=H98045A; H98045BR=H98045B; H98045CR=H98045C;
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    H98045DR=H98045D; H98046_R=H98046; N18=13; END;
DROP SUMN18;

/* Note 19 - out of pocket money */
/*  reorganized 1/22/99  */
IF H98049A=1 THEN DO;
  IF H98049B > 0 OR H98049B IN (.A, .I) THEN DO;
    H98049AR=2; H98049BR=H98049B; N19=1; END;
  ELSE IF H98049B = 0 THEN DO; H98049AR=H98049A; H98049BR=.C; N19=2; END;
  ELSE IF H98049B = . THEN DO; H98049AR=H98049A; H98049BR=.N; N19=3; END;
END;
ELSE IF H98049A=2 THEN DO;
  IF H98049B > 0 OR H98049B IN (., .A, .I) THEN DO;
    H98049AR=H98049A; H98049BR=H98049B; N19=4; END;
  ELSE IF H98049B = 0 THEN DO; H98049AR=1; H98049BR=.C; N19=5; END;
END;

/* Note 20 - Personal doctor or nurse */
/*  reorganized 1/22/99  */
IF H98051 = 1 AND H98052 NE .N THEN DO;
  H98051_R=H98051; H98052_R=H98052; N20=1; END;
ELSE IF H98051 IN (1, ., .A) AND H98052 = .N THEN DO;
  H98051_R=2; H98052_R=.C; N20=2; END;
ELSE IF H98051 IN (2, ., .A) AND ( 0<=H98052<=10 OR H98052 = .A) THEN DO;
  H98051_R=1; H98052_R=H98052; N20=3; END;
ELSE IF H98051 = 2 AND (H98052 = .N OR H98052 = .) THEN DO;
  H98051_R=H98051; H98052_R=.N; N20=4; END;
ELSE IF H98051 = . AND H98052 = . THEN DO;
  H98051_R=H98051; H98052_R=H98052; N20=5; END;
ELSE IF H98051 = .A AND H98052 = . THEN DO;
  H98051_R=2; H98052_R=.N; N20=6; END;

/* Note 21 - need to see a specialist */
/*  reorganized 1/22/99, modified 6/22/99  */
IF H98053 = 1 and H98054 NE 4 THEN DO;
   H98053_R=H98053; H98054_R=H98054; N21=1; END;
ELSE IF H98053 = 1 and H98054=4 THEN DO;
   H98053_R=H98053; H98054_R=.N; N21=2; END;
ELSE IF H98053 IN (2, ., .A) AND H98054 IN (.A, 1, 2, 3) THEN DO;
  H98053_R=1; H98054_R=H98054; N21=3; END;
ELSE IF H98053 = 2 AND H98054 IN (.,4) THEN DO;
  H98053_R=H98053; H98054_R=.N; N21=4; END;
ELSE IF H98053 = . AND  H98054 = . THEN DO;
  H98053_R=H98053; H98054_R=H98054; N21=5; END;
ELSE IF H98053 = . AND  H98054 = 4 THEN DO;
  H98053_R=2; H98054_R=.N; N21=6; END;
ELSE IF H98053 = .A AND H98054 IN (.,4) THEN DO;
  H98053_R=2; H98054_R=.N; N21=7; END;

/* Note 22 - saw a specialist in past 12 months */
/*  reorganized 1/22/99  */
IF H98055 = 1 AND H98056 NE .N THEN DO;
  H98055_R=H98055; H98056_R=H98056; N22=1; END;
ELSE IF H98055 IN (1, ., .A) AND H98056 = .N THEN DO;
  H98055_R=2; H98056_R=.C; N22=2; END;
ELSE IF H98055 IN (2, ., .A) AND ( 0<=H98056<=10 OR H98056 = .A) THEN DO;
  H98055_R=1; H98056_R=H98056; N22=3; END;
```

```
  ELSE IF H98055 = 2 AND (H98056 = .N OR H98056 = .) THEN DO;
    H98055_R=H98055; H98056_R=.N; N22=4; END;
  ELSE IF H98055 = . AND H98056 = . THEN DO;
    H98055_R=H98055; H98056_R=H98056; N22=5; END;
  ELSE IF H98055 = .A AND H98056 = . THEN DO;
    H98055_R=2; H98056_R=.N; N22=6; END;

  /* Note 23 - need mental health treatment */
  /*  reorganized 1/22/99, modified 6/22/99  */
  IF H98057 = 1 AND H98058 NE 4 THEN DO;
     H98057_R=H98057; H98058_R=H98058; N23=1; END;
  ELSE IF H98057 = 1 AND H98058 = 4 THEN DO;
     H98057_R=H98057; H98058_R=.N; N23=2; END;
  ELSE IF H98057 IN (2, ., .A) AND H98058 IN (.A, 1, 2, 3) THEN DO;
    H98057_R=1; H98058_R=H98058; N23=3; END;
  ELSE IF H98057 = 2 AND H98058 IN (., 4) THEN DO;
    H98057_R=H98057; H98058_R=.N; N23=4; END;
  ELSE IF H98057 = . AND  H98058 = . THEN DO;
    H98057_R=H98057; H98058_R=H98058; N23=5; END;
  ELSE IF H98057 = . AND  H98058 = 4 THEN DO;
    H98057_R=H98057; H98058_R=.N; N23=6; END;
  ELSE IF H98057 = .A AND H98058 IN (., 4) THEN DO;
    H98057_R=2; H98058_R=.N; N23=7; END;

  /* Note 24 - submit claims in past 12 month */
  /*  reorganized 1/22/99  */
  ARRAY NOTE24 H98062 H98063 H98064;
  NOTMISS=0;
  NOTNA=0;
  NOTMISNA=0;
  DO OVER NOTE24;
    IF NOTE24 NE . THEN NOTMISS+1;    /* check for all missing */
    IF NOTE24 NE .N THEN NOTNA+1;   /* check for all NA */
    IF NOTE24 NE . AND NOTE24 NE .N THEN NOTMISNA+1; /* missing or NA */
    END;
  /*  NOTMISS=0  =>  ALL ARE BLANK
      NOTNA=0    =>  ALL ARE N/A
      NOTMISNA=0 =>  ALL ARE BLANK OR N/A
      NOTMISNA>0 =>  AT LEAST ONE IS MARKED   */
  IF H98061=1 AND (NOTMISS = 0 OR NOTMISNA > 0) THEN DO;
     H98061_R=H98061; N24=1; END;
  ELSE IF H98061 IN (1, 3, ., .A) AND NOTNA = 0 THEN DO;   /* all NA */
     H98061_R=2; H98062=.N; H98063=.N; H98064=.N; N24=2; END;
  ELSE IF H98061 IN (1, ., .A) AND
    NOTMISNA=0 AND NOTMISS > 0 THEN DO;  /* missing or NA */
     H98061_R=2; H98062=.N; H98063=.N; H98064=.N; N24=3; END;
  ELSE IF H98061 IN (2, 3, . .A) AND
    NOTMISNA > 0 THEN DO;        /*   at least one is marked   */
     H98061_R=1;  N24=4; END;
  ELSE IF H98061 IN (2, 3) AND
     NOTMISS=0 OR (NOTMISNA=0 AND NOTMISS > 0 AND NOTNA > 0) THEN DO; /*miss or
NA*/
     H98061_R=H98061; H98062=.N; H98063=.N; H98064=.N; N24=5; END;
  ELSE IF H98061=2 AND NOTNA = 0 THEN DO;   /* all NA */
     H98061_R=H98061; H98062=.N; H98063=.N; H98064=.N; N24=6; END;
  ELSE IF H98061=. AND NOTMISS=0 THEN DO;  /* all missing */
     H98061_R=H98061; N24=7; END;
```

```
ELSE IF H98061=.A AND NOTMISS=0 THEN DO; /* all missing */
   H98061_R=2; H98062=.N; H98063=.N; H98064=.N; N24=8; END;
DROP NOTMISS NOTNA NOTMISNA;

/* Note 25 - look for written information in past 12 month */
/*  reorganized 1/22/99  */
IF H98065 = 1 AND H98066 NE .N THEN DO;
   H98065_R=H98065; H98066_R=H98066; N25=1; END;
ELSE IF H98065 IN (1, ., .A) AND H98066 = .N THEN DO;
   H98065_R=2; H98066_R=.C; N25=2; END;
ELSE IF H98065 IN (2, ., .A) AND H98066 NE .N AND H98066 NE . THEN DO;
   H98065_R=1; H98066_R=H98066; N25=3; END;
ELSE IF H98065 = 2 AND (H98066 = .N OR H98066 = .) THEN DO;
   H98065_R=H98065; H98066_R=.N; N25=4; END;
ELSE IF H98065 = . AND H98066 = . THEN DO;
   H98065_R=H98065; H98066_R=H98066; N25=5; END;
ELSE IF H98065 = .A AND H98066 = . THEN DO;
   H98065_R=2; H98066_R=.N; N25=6; END;

/* Note 26 - call customer service in past 12 month */
/*  reorganized 1/22/99  */
IF H98067 = 1 AND H98068 NE .N THEN DO;
   H98067_R=H98067; H98068_R=H98068; N26=1; END;
ELSE IF H98067 IN (1, ., .A) AND H98068 = .N THEN DO;
   H98067_R=2; H98068_R=.C; N26=2; END;
ELSE IF H98067 IN (2, ., .A) AND H98068 NE .N AND H98068 NE . THEN DO;
   H98067_R=1; H98068_R=H98068; N26=3; END;
ELSE IF H98067 = 2 AND (H98068 = .N OR H98068 = .) THEN DO;
   H98067_R=H98067; H98068_R=.N; N26=4; END;
ELSE IF H98067 = . AND H98068 = . THEN DO;
   H98067_R=H98067; H98068_R=H98068; N26=5; END;
ELSE IF H98067 = .A AND H98068 = . THEN DO;
   H98067_R=2; H98068_R=.N; N26=6; END;

/* Note 27 - paper work in past 12 months */
/*  reorganized 1/22/99  */
IF H98069A = 1 AND H98069B NE .N THEN DO;
   H98069AR=H98069A; H98069BR=H98069B; N27=1; END;
ELSE IF H98069A IN (1, ., .A) AND H98069B = .N THEN DO;
   H98069AR=2; H98069BR=.C; N27=2; END;
ELSE IF H98069A IN (2, ., .A) AND H98069B NE .N AND H98069B NE . THEN DO;
   H98069AR=1; H98069BR=H98069B; N27=3; END;
ELSE IF H98069A = 2 AND (H98069B = .N OR H98069B = .) THEN DO;
   H98069AR=H98069A; H98069BR=.N; N27=4; END;
ELSE IF H98069A = . AND H98069B = . THEN DO;
   H98069AR=H98069A; H98069BR=H98069B; N27=5; END;
ELSE IF H98069A = .A AND H98069B = . THEN DO;
   H98069AR=2; H98069BR=.N; N27=6; END;

/* Note 28 - filed complaint in past 12 months */
/*  reorganized 1/22/99  */
ARRAY NOTE28 H98071 H98072;
NOTMISS=0;
NOTMISNA=0;
DO OVER NOTE28;
  IF NOTE28 NE . THEN NOTMISS+1;    /* check for all missing */
  IF NOTE28 NE . AND NOTE28 NE .N THEN NOTMISNA+1; /* missing or NA */
```

```
  END;
/*  NOTMISS=0  =>  ALL ARE BLANK
    NOTMISNA=0 =>  ALL ARE BLANK OR N/A
    NOTMISNA>0 =>  AT LEAST ONE IS MARKED   */
IF H98070=1 AND (NOTMISNA > 0 OR NOTMISS = 0) THEN DO;
   H98070_R=H98070; N28=1; END;
ELSE IF H98070 IN (1, ., .A) AND NOTMISNA = 0 AND NOTMISS > 0 THEN DO;
    H98070_R=2; H98071=.N; H98072=.N;  N28=2; END;
ELSE IF H98070 IN (2, ., .A) AND NOTMISNA > 0 THEN DO;
    H98070_R=1; N28=3; END;
ELSE IF H98070 = 2 AND (NOTMISS=0 OR NOTMISNA=0) THEN DO; /*miss or NA*/
    H98070_R=H98070; H98071=.N; H98072=.N; N28=4; END;
ELSE IF H98070=. AND NOTMISS=0 THEN DO; /* all missing */
    H98070_R=H98070; N28=5; END;
ELSE IF H98070=.A AND NOTMISS=0 THEN DO; /* all missing */
    H98070_R=2; H98071=.N; H98072=.N; N28=6; END;
DROP NOTMISS NOTMISNA;

/* Note 29 - primary type of facility */
/*  reorganized 1/22/99  */
ARRAY NOTE29A H98075 H98082 H98083 H98090-H98095;
ARRAY NOTE29B H98077A H98077B;
ARRAY NOTE29C H98076A H98076B H98078 H98080 H98084 H98086 H98088 H98097
              H98101;
ARRAY NOTE29  H98075 H98076A H98076B H98077A H98077B H98078
              H98079 H98080 H98081 H98082 H98083 H98084 H98085 H98086
              H98087 H98088 H98089 H98090-H98095 H98096 H98097 H98098
              H98099A H98099B H98100A--H98100S H98101 H98102 H98103A
              H98103B H98104A--H98104S;
MARKED=0;
DO OVER NOTE29A;
  IF NOTE29A = 5 THEN NOTE29A=.L;
END;
DO OVER NOTE29B;
  IF NOTE29B = 4 THEN NOTE29B=.L;
END;
DO OVER NOTE29C;
  IF NOTE29C = 2 THEN NOTE29C=.L;
END;
DO OVER NOTE29;
  IF NOTE29 NE . AND NOTE29 NE .N AND NOTE29 NE .L THEN MARKED+1;
END;
/* reset .L to numeric valid vaLue */
DO OVER NOTE29A;
  IF NOTE29A = .L THEN NOTE29A=5;
END;
DO OVER NOTE29B;
  IF NOTE29B = .L THEN NOTE29B=4;
END;
DO OVER NOTE29C;
  IF NOTE29C = .L THEN NOTE29C=2;
END;
IF H98074=1 OR H98074=2 THEN DO;  /* military or civilian */
  H98074_R=H98074; N29=1; END;
ELSE IF H98074=3 THEN DO;   /* neither */
  IF MARKED > 0  THEN DO;
    DO OVER NOTE29;
```

```
      NOTE29=.C;
    END;
    H98074_R=H98074; N29=2; END;
  ELSE DO;
    DO OVER NOTE29;
      NOTE29=.N;
    END;
    H98074_R=H98074; N29=3; END;
END;
ELSE IF H98074=. OR H98074=.A THEN DO; /* missing or multiple responses*/
  IF MARKED = 0 THEN DO;
    DO OVER NOTE29;
      NOTE29=.N;
    END;
    H98074_R=3; N29=4; END;
  ELSE DO;
    H98074_R=H98074; N29=5; END;
END;
DROP MARKED;

/* Note 30 - routine visits in past 12 month */
/* reorganized 1/22/99   */
IF H98078=.N OR H98078=.C THEN DO;
  H98078_R=H98078; H98079_R=H98079; N30=1; END;
ELSE IF H98078=1 AND H98079 NE .N THEN DO;
  H98078_R=H98078; H98079_R=H98079; N30=2; END;
ELSE IF H98078 IN (1, ., .A) AND H98079 = .N THEN DO;
  H98078_R=2; H98079_R=.C; N30=3; END;
ELSE IF H98078 IN (2, ., .A) AND
 H98079 NE .N AND H98079 NE . THEN DO;
  H98078_R=1; H98079_R=H98079; N30=4; END;
ELSE IF H98078 = 2 AND (H98079 = .N OR H98079 = .) THEN DO;
  H98078_R=H98078; H98079_R=.N; N30=5; END;
ELSE IF H98078=. AND H98079=. THEN DO;
  H98078_R=H98078; H98079_R=H98079; N30=6; END;
ELSE IF H98078=.A AND H98079=. THEN DO;
  H98078_R=2; H98079_R=.N; N30=7; END;

/* Note 31 - urgent care visits in past 12 month */
/* reorganized 1/22/99   */
IF H98080=.N OR H98080=.C THEN DO;
  H98080_R=H98080; H98081_R=H98081; N31=1; END;
ELSE IF H98080=1 AND H98081 NE .N THEN DO;
  H98080_R=H98080; H98081_R=H98081; N31=2; END;
ELSE IF H98080 IN (1, ., .A) AND H98081 = .N THEN DO;
  H98080_R=2; H98081_R=.C; N31=3; END;
ELSE IF H98080 IN (2, ., .A) AND
 H98081 NE .N AND H98081 NE . THEN DO;
  H98080_R=1; H98081_R=H98081; N31=4; END;
ELSE IF H98080 = 2 AND (H98081 = .N OR H98081 = .) THEN DO;
  H98080_R=H98080; H98081_R=.N; N31=5; END;
ELSE IF H98080=. AND H98081=. THEN DO;
  H98080_R=H98080; H98081_R=H98081; N31=6; END;
ELSE IF H98080=.A AND H98081=. THEN DO;
  H98080_R=2; H98081_R=.N; N31=7; END;

/* Note 32 - phone advice in past 12 month */
```

```
/* reorganized 1/22/99   */
IF H98084=.N OR H98084=.C THEN DO;
  H98084_R=H98084; H98085_R=H98085; N32=1; END;
ELSE IF H98084=1 AND H98085 NE .N THEN DO;
  H98084_R=H98084; H98085_R=H98085; N32=2; END;
ELSE IF H98084 IN (1, ., .A) AND H98085 = .N THEN DO;
  H98084_R=2; H98085_R=.C; N32=3; END;
ELSE IF H98084 IN (2, ., .A) AND
 H98085 NE .N AND H98085 NE . THEN DO;
  H98084_R=1; H98085_R=H98085; N32=4; END;
ELSE IF H98084 = 2 AND (H98085 = .N OR H98085 = .) THEN DO;
  H98084_R=H98084; H98085_R=.N; N32=5; END;
ELSE IF H98084=. AND H98085=. THEN DO;
  H98084_R=H98084; H98085_R=H98085; N32=6; END;
ELSE IF H98084=.A AND H98085=. THEN DO;
  H98084_R=2; H98085_R=.N; N32=7; END;

/* Note 33 - seek care in past 12 month */
/* reorganized 1/22/99   */
IF H98086=.N OR H98086=.C THEN DO;
  H98086_R=H98086; H98087_R=H98087; N33=1; END;
ELSE IF H98086=1 AND H98087 NE .N THEN DO;
  H98086_R=H98086; H98087_R=H98087; N33=2; END;
ELSE IF H98086 IN (1, ., .A) AND H98087 = .N THEN DO;
  H98086_R=2; H98087_R=.C; N33=3; END;
ELSE IF H98086 IN (2, ., .A) AND
 H98087 NE .N AND H98087 NE . THEN DO;
  H98086_R=1; H98087_R=H98087; N33=4; END;
ELSE IF H98086 = 2 AND (H98087 = .N OR H98087 = .) THEN DO;
  H98086_R=H98086; H98087_R=.N; N33=5; END;
ELSE IF H98086=. AND H98087=. THEN DO;
  H98086_R=H98086; H98087_R=H98087; N33=6; END;
ELSE IF H98086=.A AND H98087=. THEN DO;
  H98086_R=2; H98087_R=.N; N33=7; END;

/* Note 34 - apppointment in past 12 month */
/* reorganized 1/22/99   */
IF H98088=.N OR H98088=.C THEN DO;
  H98088_R=H98088; H98089_R=H98089; N34=1; END;
ELSE IF H98088=1 AND H98089 NE .N THEN DO;
  H98088_R=H98088; H98089_R=H98089; N34=2; END;
ELSE IF H98088 IN (1, ., .A) AND H98089 = .N THEN DO;
  H98088_R=2; H98089_R=.C; N34=3; END;
ELSE IF H98088 IN (2, ., .A) AND
 H98089 NE .N AND H98089 NE . THEN DO;
  H98088_R=1; H98089_R=H98089; N34=4; END;
ELSE IF H98088 = 2 AND (H98089 = .N OR H98089 = .) THEN DO;
  H98088_R=H98088; H98089_R=.N; N34=5; END;
ELSE IF H98088=. AND H98089=. THEN DO;
  H98088_R=H98088; H98089_R=H98089; N34=6; END;
ELSE IF H98088=.A AND H98089=. THEN DO;
  H98088_R=2; H98089_R=.N; N34=7; END;

/* Note 35 - military facility care in past 12 month */
/*  reorganized 1/22/99   */
ARRAY NOTE35 H98098 H98099A H98099B H98100A--H98100S;
NOTMISS=0;
```

```
MARKED=0;
DO OVER NOTE35;
  IF NOTE35 NE . THEN NOTMISS+1;
  IF NOTE35 NE . AND NOTE35 NE .N THEN MARKED+1;
END;
IF H98097 = .N OR H98097 = .C THEN DO; H98097_R=H98097; N35=1; END;
ELSE IF H98097 = 1 AND (MARKED > 0 OR NOTMISS = 0) THEN DO;
  H98097_R=H98097; N35=2; END;
ELSE IF H98097 IN (1, ., .A) AND MARKED = 0 AND NOTMISS > 0 THEN DO;
  DO OVER NOTE35;
      NOTE35=.N;
  END;
  H98097_R=2; N35=3; END;
ELSE IF H98097 IN (2, ., .A) AND MARKED > 0  THEN DO;
  H98097_R=1; N35=4; END;
ELSE IF H98097 = 2 AND (NOTMISS = 0 OR MARKED = 0)  THEN DO;
    DO OVER NOTE35;
      NOTE35=.N;
    END;
    H98097_R=H98097; N35=5; END;
ELSE IF H98097=. AND NOTMISS=0 THEN DO; H98097_R=H98097; N35=6; END;
ELSE IF H98097=.A AND NOTMISS=0  THEN DO;
    DO OVER NOTE35;
      NOTE35=.N;
    END;
    H98097_R=2; N35=7; END;
DROP MARKED NOTMISS;

/* Note 36 - civilian facility care in past 12 month */
/*  reorganized 1/22/99   */
ARRAY NOTE36 H98102 H98103A H98103B H98104A--H98104S;
NOTMISS=0;
MARKED=0;
DO OVER NOTE36;
  IF NOTE36 NE . THEN NOTMISS+1;
  IF NOTE36 NE . AND NOTE36 NE .N THEN MARKED+1;
END;
IF H98101 = .N OR H98101 = .C THEN DO; H98101_R=H98101; N36=1; END;
ELSE IF H98101 = 1 AND (MARKED > 0 OR NOTMISS = 0) THEN DO;
  H98101_R=H98101; N36=2; END;
ELSE IF H98101 IN (1, ., .A) AND MARKED = 0 AND NOTMISS > 0 THEN DO;
  DO OVER NOTE36;
      NOTE36=.N;
  END;
  H98101_R=2; N36=3; END;
ELSE IF H98101 IN (2, ., .A) AND MARKED > 0  THEN DO;
  H98101_R=1; N36=4; END;
ELSE IF H98101 = 2 AND (NOTMISS = 0 OR MARKED = 0)  THEN DO;
    DO OVER NOTE36;
      NOTE36=.N;
    END;
    H98101_R=H98101; N36=5; END;
ELSE IF H98101=. AND NOTMISS=0 THEN DO; H98101_R=H98101; N36=6; END;
ELSE IF H98101=.A AND NOTMISS=0  THEN DO;
    DO OVER NOTE36;
      NOTE36=.N;
    END;
```

```
    H98101_R=2; N36=7; END;
DROP NOTMISS MARKED;

/* Note 37 - active duty */
/*   revised 1/25/99 & 6/22/99   */
IF H98118A = 1 AND H98035_R = 1 THEN DO;  /* active duty */
    N37=1; H98118AR=H98118A; H98118BR=H98118B; END;
ELSE IF H98118A=2 AND H98035_R = 2 THEN DO; /* not active duty */
     N37=2; H98118AR=H98118A;
     IF H98118B NE . THEN H98118BR=.C;
     ELSE H98118BR = .N;
END;
ELSE IF H98118A = 1 AND H98035_R NE 1 THEN DO;  /* different  */
  IF ENLSMPLP = 1 THEN DO;
    N37=3; H98118AR=H98118A; H98118BR=H98118B; END;
  ELSE IF ENLSMPLP > 1 THEN DO;
     N37=4; H98118AR=2;
     IF H98118B NE . THEN H98118BR=.C;
     ELSE H98118BR = .N;
  END;
  ELSE IF ENLSMPLP = . THEN DO;
     IF H98118B NE . THEN DO;
       N37=5; H98118AR=H98118A; H98118BR=H98118B;  END;
     ELSE DO;
       N37=6; H98118AR=2; H98118BR=.N;  END;
  END;
END;
ELSE IF H98118A = 2 AND H98035_R NE 2 THEN DO;  /* different  */
  IF ENLSMPLP = 1 THEN DO;
    N37=7; H98118AR=1; H98118BR=H98118B; END;
  ELSE IF ENLSMPLP > 1 THEN DO;
     N37=8; H98118AR=2;
     IF H98118B NE . THEN H98118BR=.C;
     ELSE H98118BR = .N;
  END;
  ELSE IF ENLSMPLP = . THEN DO;
     IF H98118B NE . THEN DO;
       N37=9; H98118AR=1; H98118BR=H98118B;  END;
     ELSE DO;
       N37=10; H98118AR=2; H98118BR=.N;  END;
  END;
END;
ELSE IF H98118A IN (.,.A) THEN DO;
  IF ENLSMPLP=1 THEN DO;
    N37=11; H98118AR=1; H98118BR=H98118B; END;
  ELSE IF ENLSMPLP>1 THEN DO;
      N37=12; H98118AR=2;
      IF H98118B NE . THEN H98118BR=.C;
      ELSE H98118BR = .N;
  END;
  ELSE IF ENLSMPLP = . THEN DO;
      IF H98035_R = 1 THEN DO;
        N37=13; H98118AR=1; H98118BR=H98118B;   END;
      ELSE IF H98035_R = 2 THEN DO;
        N37=14; H98118AR=2;
        IF H98118B NE . THEN H98118BR=.C;
        ELSE H98118BR = .N;
```

```
      END;
      ELSE IF H98035_R IN (., .A) THEN DO;
        N37=15; H98118AR=H98118A; H98118BR=H98118B;   END;
  END;
END;

/*  Note 38  Make inconclusive responses such as No visits into
    NA  (.N)   */
 /*   ADDED 6/22/99  */
/*  Note 38A  Q59 - No Visits  */
IF H98059 = 4 THEN DO;
  N38A = 1;  H98059_R = .N;  END;
ELSE DO;
  N38A = 2;  H98059_R = H98059;   END;

/*  Note 38B  Q60 - No Visits  */
IF H98060 = 4 THEN DO;
  N38B = 1;  H98060_R = .N;  END;
ELSE DO;
  N38B = 2;  H98060_R = H98060;  END;

/*  Note 38C  Q75 - Tried to make no appointments  */
IF H98075 = 5 THEN DO;
  N38C = 1;  H98075_R = .N;  END;
ELSE DO;
  N38C = 2;  H98075_R = H98075;  END;

/*  Note 38D  Q77A - Did not need  */
IF H98077A = 4 THEN DO;
  N38D = 1;  H98077AR = .N;  END;
ELSE DO;
  N38D = 2;  H98077AR = H98077A;  END;

/*  Note 38E  Q77B - Did not need  */
IF H98077B = 4 THEN DO;
  N38E = 1;  H98077BR = .N;  END;
ELSE DO;
  N38E = 2;  H98077BR = H98077B;  END;

/*  Note 38F  Q82 - No Visits  */
IF H98082 = 5 THEN DO;
  N38F = 1;  H98082_R = .N;  END;
ELSE DO;
  N38F = 2;  H98082_R = H98082;  END;

/*  Note 38G  Q83 - No Visits  */
IF H98083 = 5 THEN DO;
  N38G = 1;  H98083_R = .N;  END;
ELSE DO;
  N38G = 2;  H98083_R = H98083;  END;

/*  Note 38H  Q90 - No Visits  */
IF H98090 = 5 THEN DO;
  N38H = 1;  H98090_R = .N;  END;
ELSE DO;
  N38H = 2;  H98090_R = H98090;  END;
```

```
  /*  Note 38I  Q91 - No Visits  */
  IF H98091 = 5 THEN DO;
    N38I = 1;  H98091_R = .N;  END;
  ELSE DO;
    N38I = 2;  H98091_R = H98091;  END;

  /*  Note 38J  Q92 - No Visits  */
  IF H98092 = 5 THEN DO;
    N38J = 1;  H98092_R = .N;  END;
  ELSE DO;
    N38J = 2;  H98092_R = H98092;  END;

  /*  Note 38K  Q93 - No Visits  */
  IF H98093 = 5 THEN DO;
    N38K = 1;  H98093_R = .N;  END;
  ELSE DO;
    N38K = 2;  H98093_R = H98093;  END;

  /*  Note 38L  Q94 - No Visits  */
  IF H98094 = 5 THEN DO;
    N38L = 1;  H98094_R = .N;  END;
  ELSE DO;
    N38L = 2;  H98094_R = H98094;  END;

  /*  Note 38M  Q95 - No Visits  */
  IF H98095 = 5 THEN DO;
    N38M = 1;  H98095_R = .N;  END;
  ELSE DO;
    N38M = 2;  H98095_R = H98095;  END;

NOSURVEY:
  /* missing values */
  ARRAY MISS    MISS_9 MISS_8 MISS_7 MISS_6 MISS_4 MISS_1 ;
  MISS_TOT = 0;
  DO OVER MISS;
    MISS = 0;
  END;
  ARRAY MISSARAY H98001 H98002 H98003 H98004 H98005A H98005B H98006
                 H98007 H98008 H98009A H98009B H98010 H98011 H98012
                 H98013A H98013B H98014 H98015 H98016 H98017A H98017B
                 H98018 H98019 H98020 H98021 H98022 H98023 H98024 H98025
                 SRSEX H98027 H98028 H98029A H98029B H98029C H98030
                 H98031 H98032 H98033A H98033B H98033C H98033D H98033E
                 H98033F H98033G H98033H H98033I H98033J H98034A H98034B
                 H98034C H98034D H98034E H98034F H98034G H98034H H98034I
                 H98034J H98034K H98034L H98035 H98036 H98037 H98038
                 H98039 H98040 H98041A H98041B H98041C H98041D H98041E
                 H98042 H98043 H98044 H98045A H98045B H98045C H98045D
                 H98046 H98047A H98047B H98047C H98047D H98047E H98047F
                 H98047G H98048 H98049A H98049B H98050 H98051 H98052
                 H98053 H98054 H98055 H98056 H98057 H98058 H98059 H98060
                 H98061 H98062 H98063 H98064 H98065 H98066 H98067 H98068
                 H98069A H98069B H98070 H98071 H98072 H98073 H98074 H98075
                 H98076A H98076B H98077A H98077B H98078 H98079 H98080
                 H98081 H98082 H98083 H98084 H98085 H98086 H98087 H98088
                 H98089 H98090 H98091 H98092 H98093 H98094 H98095 H98096
                 H98097 H98098 H98099A H98099B H98100A--H98100S H98101
```

```
                 H98102 H98103A H98103B H98104A--H98104S H98105 H98106A
                 H98106B H98107A H98107B H98108A H98108B H98109 H98110A
                 H98110B H98110C H98111 H98112 H98113 SRMARST SRAGE
                 SREDA SREDB SREDC SREDD SREDE SREDF SRRACEA SRRACEB
                 SRRACEC SRRACED SRRACEE SRRACEF H98118A H98118B
                 H98119 SRMO SRDAY SRYEAR;

  DO OVER MISSARAY;
    IF (MISSARAY EQ . ) THEN MISS_9 = MISS_9 + 1;
    ELSE IF (MISSARAY EQ .A) THEN MISS_8 = MISS_8 + 1;
    ELSE IF (MISSARAY EQ .O) THEN MISS_7 = MISS_7 + 1;
    ELSE IF (MISSARAY EQ .N) THEN MISS_6 = MISS_6 + 1;
    ELSE IF (MISSARAY EQ .I) THEN MISS_4 = MISS_4 + 1;
    ELSE IF (MISSARAY EQ .C) THEN MISS_1 = MISS_1 + 1;
  END;
  DO OVER MISS;
    MISS_TOT=MISS_TOT + MISS;
  END;
  /*************************************************************/

  OUTPUT;
  RUN;

PROC CONTENTS;
  RUN;

PROC FREQ;
 TABLES N4-N11 N12A N12B N12C N13-N37
    N38A N38B N38C N38D N38E N38F N38G N38H N38I N38J N38K N38L N38M
    ENLSMPLP*H98118A*H98118AR*H98035*H98035_R
         / MISSING LIST;
  RUN;

PROC FORMAT;
  VALUE GRID
    0 = '0'
    1-9999 = '>=1'
    ;
  VALUE AGE
    18-39 = '<40'
    40-120 = '>=40'
    ;
  VALUE SCALE
   0-10 = '0-10';
  VALUE MARK
    1-6 = 'Marked' ;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 1';
TABLES SRYEAR*SRMO*SRDAY*SRDATE / MISSING LIST;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 2';
TABLES SRAGE*SRAGE_R / MISSING LIST;
RUN;
```

```
PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 3';
TABLES SREDHIGH*SREDF*SREDE*SREDD*SREDC*SREDB*SREDA
/ MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 4';
TABLES N4*H98001*H98001_R*
       H98002*H98004*H98006*H98008*H98010*H98012
       N4*H98003*H98005A*H98005B*H98007*H98009A*H98009B
       N4*H98011*H98013A*H98013B*H98014
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98003 H98005A H98005B H98007 H98009A H98009B H98011
  H98013A H98013B GRID.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 5';
TABLES N5*H98002*H98003*H98002_R*H98003_R
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98003 H98003_R GRID.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 6';
TABLES N6*H98004*H98005A*H98005B*H98004_R*H98005AR*H98005BR
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98005A H98005B H98005AR H98005BR GRID.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 7';
TABLES N7*H98006*H98007*H98006_R*H98007_R
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98007 H98007_R GRID.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 8';
TABLES N8*H98008*H98009A*H98009B*H98008_R*H98009AR*H98009BR
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98009A H98009B H98009AR H98009BR GRID.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 9';
TABLES N9*H98010*H98011*H98010_R*H98011_R
   / MISSING LIST;
FORMAT _ALL_;
```

```
FORMAT H98011 H98011_R GRID.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 10';
TABLES N10*H98012*H98013A*H98013B*H98012_R*H98013AR*H98013BR
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98013A H98013B H98013AR H98013BR GRID.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 11';
TABLES N11*H98021*H98022*H98023*H98024*H98021_R*H98022_R*H98023_R*H98024_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 12A';
TABLES N12A*SRSEX*SEX*XSEXA
   / MISSING LIST;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 12B';
TABLES N12B*XSEXA*H98027*H98027_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 12C';
TABLES N12C*XSEXA*H98028*H98029A*H98029B*H98029C*H98030*H98031*H98028_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 13';
TABLES N13*XSEXA*SRAGE*SRAGE_R*H98029AR*H98029BR*H98029CR
   / MISSING LIST;
FORMAT _ALL_;
FORMAT SRAGE SRAGE_R AGE.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 14';
TABLES N14*XSEXA*H98030_R*H98031_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 15';
TABLES N15*H98035*H98118A*ENLSMPLP*H98035_R*H98040_R
   / MISSING LIST;
```

```
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 16';
TABLES N16*H98036_R*H98037_R*H98038_R*H98039_R
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98037_R H98038_R H98039_R MARK.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 17';
TABLES N17*H98042*H98043*H98042_R*H98043_R
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98043 H98043_R GRID.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 18';
TABLES N18*H98044*H98045A*H98045B*H98045C*H98045D*H98046
 N18*H98044_R*H98045AR*H98045BR*H98045CR*H98045DR*H98046_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 19';
TABLES N19*H98049A*H98049B*H98049AR*H98049BR
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98049B H98049BR GRID.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 20';
TABLES N20*H98051*H98052*H98051_R*H98052_R
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98052 H98052_R SCALE.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 21';
TABLES N21*H98053*H98054*H98053_R*H98054_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 22';
TABLES N22*H98055*H98056*H98055_R*H98056_R
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98056 H98056_R SCALE.;
RUN;
```

```
PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 23';
TABLES N23*H98057*H98058*H98057_R*H98058_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 24';
TABLES N24*H98061*H98062*H98063*H98064*H98061_R
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98062 H98063 H98064 MARK.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 25';
TABLES N25*H98065*H98066*H98065_R*H98066_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 26';
TABLES N26*H98067*H98068*H98067_R*H98068_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 27';
TABLES N27*H98069A*H98069B*H98069AR*H98069BR
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 28';
TABLES N28*H98070*H98071*H98072*H98070_R
   / MISSING LIST;
FORMAT _ALL_;
FORMAT H98071 H98072 MARK.;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 29';
TABLES N29*H98074*H98074_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 30';
TABLES N30*H98078*H98079*H98078_R*H98079_R
   / MISSING LIST;
FORMAT _ALL_;
```

```
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 31';
TABLES N31*H98080*H98081*H98080_R*H98081_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 32';
TABLES N32*H98084*H98085*H98084_R*H98085_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 33';
TABLES N33*H98086*H98087*H98086_R*H98087_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 34';
TABLES N34*H98088*H98089*H98088_R*H98089_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 35';
TABLES N35*H98097*H98097_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 36';
TABLES N36*H98101*H98101_R
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 37';
TABLES N37*H98118A*H98035_R*ENLSMPLP*H98118AR*H98118BR
   / MISSING LIST;
FORMAT _ALL_;
RUN;

PROC FREQ DATA=IN1.HCS98A_2;
TITLE3 'Frequency Checks - Note 38';
TABLES N38A*H98059*H98059_R     / MISSING LIST;
TABLES N38B*H98060*H98060_R     / MISSING LIST;
TABLES N38C*H98075*H98075_R     / MISSING LIST;
TABLES N38D*H98077A*H98077AR    / MISSING LIST;
```

```
TABLES N38E*H98077B*H98077BR    / MISSING LIST;
TABLES N38F*H98082*H98082_R     / MISSING LIST;
TABLES N38G*H98083*H98083_R     / MISSING LIST;
TABLES N38H*H98090*H98090_R     / MISSING LIST;
TABLES N38I*H98091*H98091_R     / MISSING LIST;
TABLES N38J*H98092*H98092_R     / MISSING LIST;
TABLES N38K*H98093*H98093_R     / MISSING LIST;
TABLES N38L*H98094*H98094_R     / MISSING LIST;
TABLES N38M*H98095*H98095_R     / MISSING LIST;
RUN;

 PROC MEANS DATA=IN1.HCS98A_2 N NMISS MIN MAX SUM MEAN;
TITLE3 'Frequency Checks - Missing Value Totals';
   VAR MISS_TOT MISS_1 MISS_4 MISS_6-MISS_9;
   RUN;
```

3. CREATE STATUS FLAG FOR RECORD SELECTION

```
*****************************************************************************

*

* PROGRAM: SELECTA.SAS

* TASK:    DOD HEALTH CARE SURVEY ANALYSIS (8574-002)
* PURPOSE: ASSIGN FINAL STATUS FOR RECORD SELECTION PURPOSES.
* WRITTEN: 01/06/99 BY KEITH RATHBUN
*
* INPUTS:  1) HCS98A_2.SD2 - Test data for 1998 DOD Health Survey
*
* OUTPUTS: 1) SELECTA.SD2 - Test data for 1998 DOD Health Survey w/FNSTATUS
*
*****************************************************************************
*;
LIBNAME IN      'D:\KEITH\DOD98-8574\DATA';
LIBNAME OUT     'D:\KEITH\DOD98-8574\DATA';
LIBNAME LIBRARY 'D:\KEITH\DOD98-8574\DATA\FMTLIB';

OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=2 NOCENTER;

PROC SORT DATA=IN.HCS98A_2 OUT=TEMPA1; BY MPRID; RUN;

DATA TEMPA2 OUT.DUPSA;
   SET TEMPA1;
   BY MPRID;
   /*********************************************************************/
   /** KEY VARIABLES (total=18)                                        **/
   /*********************************************************************/
   ARRAY SECT00 H98043_R H98053_R H98084_R H98088_R H98086_R H98011_R
                H98013AR H98013BR H98006_R H98007_R H98008_R H98009AR H98009BR
                H98065_R H98067_R H98069AR H98073   H98105
                 ;
   S0COUNT = 0;
```

```
DO I = 1 TO DIM(SECT00);
   IF SECT00(I) IN (.,.A,.O,.I,.B) THEN S0COUNT = S0COUNT + 1;
END;

/*********************************************************************/
/** SECTION 1 VARIABLES - USE OF HEALTH CARE (total=17)              **/
/*********************************************************************/
ARRAY SECT01 H98001_R H98002_R H98003_R H98004_R H98005AR H98005BR
             H98006_R H98007_R H98008_R H98009AR H98009BR H98010_R
             H98011_R H98012_R H98013AR H98013BR H98014
              ;
S1COUNT = 0;
DO I = 1 TO DIM(SECT01);
   IF SECT01(I) IN (.,.A,.O,.I,.B) THEN S1COUNT = S1COUNT + 1;
END;

/*********************************************************************/
/** SECTION 2 VARIABLES - PREVENTIVE HEALTH CARE (total=20)          **/
/*********************************************************************/
ARRAY SECT02 H98015   H98016   H98017A  H98017B  H98018   H98019   H98020
             H98021_R H98022_R H98023_R H98024_R H98025   XSEXA    H98027_R
             H98028_R H98029AR H98029BR H98029CR H98030_R H98031_R
              ;
S2COUNT = 0;
DO I = 1 TO DIM(SECT02);
   IF SECT02(I) IN (.,.A,.O,.I,.B) THEN S2COUNT = S2COUNT + 1;
END;

/*********************************************************************/
/** SECTION 3 VARIABLES - UNDERSTANDING TRICARE (total=23)           **/
/*********************************************************************/
ARRAY SECT03 H98032 H98033A--H98033J H98034A--H98034L
               ;
S3COUNT =0;
DO I = 1 TO DIM(SECT03);
   IF SECT03(I) IN (.,.A,.O,.I,.B) THEN S3COUNT = S3COUNT + 1;
END;

/*********************************************************************/
/** SECTION 4 VARIABLES - HEALTH PLAN (total=29)                     **/
/*********************************************************************/
ARRAY SECT04 H98035_R H98036_R  H98037_R H98038_R H98039_R H98040_R
             H98041A--H98041E   H98042_R H98043_R H98044_R
             H98045AR H98045BR  H98045CR H98045DR H98046_R H98047A--H98047G
             H98048   H98049AR  H98049BR
              ;
S4COUNT = 0;
DO I = 1 TO DIM(SECT04);
   IF SECT04(I) IN (.,.A,.O,.I,.B) THEN S4COUNT = S4COUNT + 1;
END;

/*********************************************************************/
/** SECTION 5 VARIABLES - SATISFACTION WITH HEALTH PLAN (total=25)   **/
/*********************************************************************/
ARRAY SECT05 H98050   H98051_R H98052_R H98053_R H98054   H98055_R
             H98056_R H98057_R H98058   H98059   H98060   H98061_R H98062
             H98063   H98064   H98065_R H98066_R H98067_R H98068_R
```

```
             H98069AR H98069BR H98070_R H98071   H98072   H98073
              ;
S5COUNT = 0;
DO I = 1 TO DIM(SECT05);
   IF SECT05(I) IN (.,.A,.O,.I,.B) THEN S5COUNT = S5COUNT + 1;
END;

/*********************************************************************/
/** SECTION 6 VARIABLES - ACCESS TO HEALTH CARE (total=12)          **/
/*********************************************************************/
ARRAY SECT06 H98074_R H98075   H98076A  H98076B  H98077A  H98077B
             H98078_R H98079_R H98080_R H98081_R H98082   H98083
              ;
S6COUNT = 0;
DO I = 1 TO DIM(SECT06);
   IF SECT06(I) IN (.,.A,.O,.I,.B) THEN S6COUNT = S6COUNT + 1;
END;

/*********************************************************************/
/** SECTION 7 VARIABLES - SATISFACTION WITH HEALTH CARE (PART 1) tot=13 **/
/*********************************************************************/
ARRAY SECT07 H98084_R H98085_R H98086_R H98087_R H98088_R H98089_R
             H98090   H98091   H98092   H98093   H98094   H98095   H98096
              ;
S7COUNT = 0;
DO I = 1 TO DIM(SECT07);
   IF SECT07(I) IN (.,.A,.O,.I,.B) THEN S7COUNT = S7COUNT + 1;
END;

/*********************************************************************/
/** SECTION 8 VARIABLES - SATISFACTION WITH HEALTH CARE (PART 2) tot=46 **/
/*********************************************************************/
ARRAY SECT08 H98097_R H98098   H98099A  H98099B  H98100A--H98100S
             H98101_R H98102   H98103A  H98103B  H98104A--H98104S
              ;
S8COUNT = 0;
DO I = 1 TO DIM(SECT08);
   IF SECT08(I) IN (.,.A,.O,.I,.B) THEN S8COUNT = S8COUNT + 1;
END;

/*********************************************************************/
/** SECTION 9 VARIABLES - YOUR HEALTH (total=13)                    **/
/*********************************************************************/
ARRAY SECT09 H98105   H98106A  H98106B  H98107A  H98107B H98108A  H98108B
        H98109   H98110A  H98110B  H98110C  H98111  H98112
              ;
S9COUNT = 0;
DO I = 1 TO DIM(SECT09);
   IF SECT09(I) IN (.,.A,.O,.I,.B) THEN S9COUNT = S9COUNT + 1;
END;

/*********************************************************************/
/** SECTION 10 VARIABLES - FACTS ABOUT YOU (total=14)               **/
/*********************************************************************/
ARRAY SECT10 H98113   SRMARST  SRAGE_R  SREDHIGH SRRACEA--SRRACEF
        H98118AR H98118B  H98119   SRDATE
              ;
```

```
S10COUNT = 0;
DO I = 1 TO DIM(SECT10);
   IF SECT10(I) IN (.,.A,.O,.I,.B) THEN S10COUNT = S10COUNT + 1;
END;

/*********************************************************************/
/** SET FLAG FOR DUPLICATES                                         **/
/*********************************************************************/
LENGTH DUPFLAG $3;
DUPFLAG = 'NO';
IF NOT (FIRST.MPRID AND LAST.MPRID) THEN DUPFLAG = 'YES';

/*********************************************************************/
/** DETERMINE FNSTATUS                                              **/
/*********************************************************************/
FNSTATUS = 0;
IF FLAG_FIN = 1 THEN DO;
   ************************************************************
   **** APPLY THE COMPLETE QUESTIONNAIRE RULE (50% OF KEY   ****
   **** VARIABLES).                                         ****
   ************************************************************;
   IF S0COUNT GT  9 THEN FNSTATUS = 12;
   ELSE FNSTATUS = 11;
END;
ELSE IF FLAG_FIN IN(3,6,8,10,11,14,16,21) THEN DO;
   FNSTATUS = 20;
END;
ELSE IF FLAG_FIN IN(2,4,5,7,12,13,15) THEN DO;
   FNSTATUS = 30;
END;
ELSE IF FLAG_FIN IN(9,17,18,19,20,22) THEN DO;
   IF FLAG_FIN IN (18,19,20) THEN DO;
      FNSTATUS = 42;
   END;
   ELSE DO;
      FNSTATUS = 41;
   END;
END;

TOTCOUNT = S1COUNT + S2COUNT + S3COUNT + S4COUNT + S5COUNT +
           S6COUNT + S7COUNT + S8COUNT + S9COUNT + S10COUNT;
IF DUPFLAG = 'YES' THEN OUTPUT OUT.DUPSA;
ELSE OUTPUT TEMPA2;

************************************
* DEBUG PRINT
************************************;
IF _N_ = 1 THEN DO;
   XXX=DIM(SECT01)+DIM(SECT02)+DIM(SECT03)+DIM(SECT04)+DIM(SECT05)+
       DIM(SECT06)+DIM(SECT07)+DIM(SECT08)+DIM(SECT09)+DIM(SECT10);
   X01=DIM(SECT01); X02=DIM(SECT02); X03=DIM(SECT03); X04=DIM(SECT04);
   X05=DIM(SECT05); X06=DIM(SECT06); X07=DIM(SECT07); X08=DIM(SECT08);
   X09=DIM(SECT09); X10=DIM(SECT10);
   PUT "# of Section 01 Items = " X01;
   PUT "# of Section 02 Items = " X02;
   PUT "# of Section 03 Items = " X03;
   PUT "# of Section 04 Items = " X04;
```

```
      PUT "# of Section 05 Items = " X05;
      PUT "# of Section 06 Items = " X06;
      PUT "# of Section 07 Items = " X07;
      PUT "# of Section 08 Items = " X08;
      PUT "# of Section 09 Items = " X09;
      PUT "# of Section 10 Items = " X10;
      PUT "** Total Survey Items = " XXX;
      DROP XXX X01-X10;
   END;
RUN;

************************************************************************
* Select the "most complete" questionaire from duplicates and
* SET it back into the non-duplicates file. For now assume the lowest
* FNSTATUS Value is the "most complete".
************************************************************************
;
PROC SORT DATA=OUT.DUPSA;
BY MPRID FNSTATUS;
RUN;

DATA DEDUPED;
   SET OUT.DUPSA;
   BY MPRID FNSTATUS;
   IF      FNSTATUS = 30 THEN ORDER = 1;
   ELSE IF FNSTATUS = 11 THEN ORDER = 2;
   ELSE IF FNSTATUS = 12 THEN ORDER = 3;
   ELSE IF FNSTATUS = 20 THEN ORDER = 4;
   ELSE IF FNSTATUS = 41 THEN ORDER = 5;
   ELSE IF FNSTATUS = 42 THEN ORDER = 6;
RUN;

PROC SORT DATA=DEDUPED;
BY MPRID ORDER;
RUN;

DATA DEDUPED;
   SET DEDUPED;
   BY MPRID ORDER;
   IF FIRST.MPRID; *KEEP only the first - most complete questionaire;
RUN;

DATA OUT.SELECTA;
   SET TEMPA2 DEDUPED;
RUN;

TITLE1 "98 DOD Health Survey FNSTATUS assignment (8574-002)";
TITLE2 "Program Name: SELECTA.SAS By Keith Rathbun";
TITLE3 "Program Output: SELECTA.SD2";

PROC CONTENTS DATA=OUT.SELECTA; RUN;

PROC FREQ DATA=OUT.SELECTA;
TABLES FNSTATUS TOTCOUNT FLAG_FIN
       FNSTATUS*TOTCOUNT*FLAG_FIN
   /MISSING LIST;
RUN;
```

4. RESPONSE RATE CALCULATIONS

```
*************************************************************************

*
* PROGRAM: TABLE02.SAS
* TASK:    1998 DOD HEALTH CARE SURVEY ANALYSIS (8574-002)
* PURPOSE: BUILD TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          1998 DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 01/08/99 BY KEITH RATHBUN
*
* INCLUDES: 1) TABLE02.IN1
*           2) TABLE02.IN2
* MODIFIED:
* 1) 5/17/1999, Keith Rathbun - Removed printing of the final location rate
*    (FLR) and final completion rate (FCR).  Added OVERALL summary print that
*    had previously been in TABLE01.SAS in a more detailed format.
* 2) 7/07/99, Keith Rathbun - Added back printing of FLR
*
*************************************************************************
*;
LIBNAME IN   'D:\KEITH\DOD98-8574\DATA';
LIBNAME OUT  'D:\KEITH\DOD98-8574\DATA';
OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=0 NOCENTER;

************************************************************************
* FORMATS for newly created variable recodes
************************************************************************
;
PROC FORMAT;
   VALUE SEXF
   1 = 'Male'
   2 = 'Female'
  ;
   VALUE EDEPCXF
   0 = '0'
   1 = '1'
   2 = '2'
   3 = '3'
   4 = '>=4'
  ;
   VALUE MSTATXF
   1 = 'Married'
   2 = 'Unmarried'
   3 = 'Unknown'
  ;
   VALUE PGXF
   1 = 'Enlisted (0-9)'
   2 = 'Warrant Office (10-15)'
   3 = 'Office (19-31)'
   4 = 'Unknown (otherwise)'
  ;
RUN;

%MACRO PROCESS(INPT,FORM,LIB);
```

```
LIBNAME LIBRARY &LIB;
*********************************************************************
* Process OVERALL Summary of response rates
*********************************************************************
;
DATA _NULL_;
   SET IN.&INPT END=FINISHED;
   IF _N_ = 1 THEN DO;
      SN    = 0;
      SN1   = 0;
      SN11  = 0;
      SN12  = 0;
      SN2   = 0;
      SN3   = 0;
      SN4   = 0;
      SN41  = 0;
      SN42  = 0;
      WN   = 0;
      WN1  = 0;
      WN11 = 0;
      WN12 = 0;
      WN2  = 0;
      WN3  = 0;
      WN4  = 0;
      WN41 = 0;
      WN42 = 0;
   END;
****************************************************
* Accumulate group 1 weighted and unweighted counts
****************************************************
;
SN + 1;
WN + BWT98;
IF FNSTATUS IN(11,12) THEN DO;
   SN1 + 1;
   WN1 + BWT98;
   IF FNSTATUS = 11 THEN DO;
      SN11 + 1;
      WN11 + BWT98;
   END;
   ELSE DO;
      SN12 + 1;
      WN12 + BWT98;
   END;
END;
****************************************************
* Accumulate group 2 weighted and unweighted counts
****************************************************
;
ELSE IF FNSTATUS = 20 THEN DO;
   SN2 + 1;
   WN2 + BWT98;
END;
****************************************************
* Accumulate group 3 weighted and unweighted counts
****************************************************
;
```

```
ELSE IF FNSTATUS = 30 THEN DO;
   SN3 + 1;
   WN3 + BWT98;
END;
*****************************************************
* Accumulate group 4 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS IN(41,42) THEN DO;
   SN4 + 1;
   WN4 + BWT98;
   IF FNSTATUS = 42 THEN DO;
      SN42 + 1;
      WN42 + BWT98;
   END;
   ELSE DO;
      SN41 + 1;
      WN41 + BWT98;
   END;
END;

DROP I;
RETAIN
   SN
   SN1
   SN11
   SN12
   SN2
   SN3
   SN4
   SN41
   SN42
   WN
   WN1
   WN11
   WN12
   WN2
   WN3
   WN4
   WN41
   WN42
  ;

   IF FINISHED THEN GO TO FINISHED;

   RETURN;

FINISHED:
   FILE "D:\KEITH\DOD98-8574\RES-RATE\TABLE02&FORM..OUT" LRECL=132;
   PUT; PUT;
   PUT @001 "TABLE 2: OVERALL RESPONSE RATES SUMMARY";
   PUT @001 "WRITTEN BY KEITH RATHBUN, 05-17-99, TASK: 8574-002";
   PUT;
   PUT "SUMMARY OF GROUP COUNTS: FORM &FORM";
   PUT;
   PUT @060 "UNWEIGHTED COUNT"
       @100 "WEIGHTED COUNT"
```

```
      ;
   PUT @050 'FLR'
       @060 'IRR'
       @070 'FRR'
       @090 'FLR'
       @100 'IRR'
       @110 'FRR'
      ;
   %INCLUDE "D:\KEITH\DOD98-8574\SAS\TABLE02.IN2";
RUN;
%MEND PROCESS;

%PROCESS(SELECTA,A,"D:\KEITH\DOD98-8574\DATA\FMTLIB");
RUN;

************************************************************************
* Process Single Domain where domain1 is the variable of interest
************************************************************************
;

%MACRO PROCESS1(DOMAIN1,INPT,FORM,LIB);

LIBNAME LIBRARY &LIB;

PROC SORT DATA=OUT.&INPT OUT=&INPT TAGSORT; BY &DOMAIN1; RUN;

DATA _NULL_;
   SET &INPT;
   BY &DOMAIN1;
   FILE "D:\KEITH\DOD98-8574\RES-RATE\&DOMAIN1..OUT" LRECL=132;
   LENGTH VARNAME1 $8;
   LENGTH VARIABLE $30;
   CALL VNAME(&DOMAIN1,VARNAME1);
   VARIABLE = VARNAME1;
   %INCLUDE 'D:\KEITH\DOD98-8574\SAS\TABLE02.IN1';
   IF LAST.&DOMAIN1 THEN DO;
      PUT @001 &DOMAIN1 @;
      %INCLUDE 'D:\KEITH\DOD98-8574\SAS\TABLE02.IN2';
   END; * DOMAIN;
RUN;
%MEND PROCESS1;

*************************************************************************
* Process Double Domain where domain1/domain2 are the variables of interest
*************************************************************************
;
%MACRO PROCESS2(DOMAIN1,DOMAIN2,INPT,FORM,LIB);

LIBNAME LIBRARY &LIB;

PROC SORT DATA=OUT.&INPT OUT=&INPT TAGSORT; BY &DOMAIN1 &DOMAIN2; RUN;

DATA _NULL_;
   SET &INPT;
   BY &DOMAIN1 &DOMAIN2;
   FILE "D:\KEITH\DOD98-8574\RES-RATE\&DOMAIN1&DOMAIN2..OUT" LRECL=132;
   LENGTH VARNAME1 $8;
```

```
   LENGTH VARNAME2 $8;
   LENGTH VARIABLE $30;
   CALL VNAME(&DOMAIN1,VARNAME1);
   CALL VNAME(&DOMAIN2,VARNAME2);
   VARIABLE = VARNAME1 || " " || VARNAME2;
   %INCLUDE 'D:\KEITH\DOD98-8574\SAS\TABLE02.IN1';
   IF LAST.&DOMAIN2 THEN DO;
      PUT @001 &DOMAIN1 @;
      PUT @025 &DOMAIN2 @;
      %INCLUDE 'D:\KEITH\DOD98-8574\SAS\TABLE02.IN2';
      SN    = 0;
      SN1   = 0;
      SN11  = 0;
      SN12  = 0;
      SN2   = 0;
      SN3   = 0;
      SN4   = 0;
      SN41  = 0;
      SN42  = 0;
      WN   = 0;
      WN1  = 0;
      WN11 = 0;
      WN12 = 0;
      WN2  = 0;
      WN3  = 0;
      WN4  = 0;
      WN41 = 0;
      WN42 = 0;
   END; * DOMAIN;
RUN;
%MEND PROCESS2;

***************************************************************************
* Process Triple Domain where domain1-3 are the variables of interest
***************************************************************************
;
%MACRO PROCESS3(DOMAIN1,DOMAIN2,DOMAIN3,INPT,FORM,LIB);

LIBNAME LIBRARY &LIB;

PROC SORT DATA=OUT.&INPT OUT=&INPT TAGSORT; BY &DOMAIN1 &DOMAIN2 &DOMAIN3; RUN;

DATA _NULL_;
   SET &INPT;
   BY &DOMAIN1 &DOMAIN2 &DOMAIN3;
   FILE "D:\KEITH\DOD98-8574\RES-RATE\&DOMAIN1&DOMAIN2&DOMAIN3..OUT" LRECL=132;
   LENGTH VARNAME1 $8;
   LENGTH VARNAME2 $8;
   LENGTH VARNAME3 $8;
   LENGTH VARIABLE $30;
   CALL VNAME(&DOMAIN1,VARNAME1);
   CALL VNAME(&DOMAIN2,VARNAME2);
   CALL VNAME(&DOMAIN3,VARNAME3);
   VARIABLE = VARNAME1 || " " || VARNAME2 || " " || VARNAME3;
   %INCLUDE 'D:\KEITH\DOD98-8574\SAS\TABLE02.IN1';
   IF LAST.&DOMAIN3 THEN DO;
      PUT @001 &DOMAIN1 @;
```

```
      PUT @018 &DOMAIN2 @;
      PUT @038 &DOMAIN3 @;
      %INCLUDE 'D:\KEITH\DOD98-8574\SAS\TABLE02.IN2';
      SN    = 0;
      SN1   = 0;
      SN11  = 0;
      SN12  = 0;
      SN2   = 0;
      SN3   = 0;
      SN4   = 0;
      SN41  = 0;
      SN42  = 0;
      WN   = 0;
      WN1  = 0;
      WN11 = 0;
      WN12 = 0;
      WN2  = 0;
      WN3  = 0;
      WN4  = 0;
      WN41 = 0;
      WN42 = 0;
   END; * DOMAIN;
RUN;
%MEND PROCESS3;

*****************************************************
* PROCESS SINGLE DOMAIN TABULATION - FORM A
*****************************************************
;
%PROCESS1(CACSMPL,KEEPERSA,"FORM A",
         "D:\KEITH\DOD98-8574\DATA\FMTLIB");
%PROCESS1(ENLSMPL,KEEPERSA,"FORM A",
         "D:\KEITH\DOD98-8574\DATA\FMTLIB");
%PROCESS1(BFGROUP,KEEPERSA,"FORM A",
         "D:\KEITH\DOD98-8574\DATA\FMTLIB");
%PROCESS1(XREGION,KEEPERSA,"FORM A",
         "D:\KEITH\DOD98-8574\DATA\FMTLIB");
RUN;

*****************************************************
* PROCESS DOUBLE DOMAIN TABULATION - FORM A
*****************************************************
;
%PROCESS2(XREGION,CACSMPL,KEEPERSA,"FORM A",
         "D:\KEITH\DOD98-8574\DATA\FMTLIB");
%PROCESS2(ENLSMPL,BFGROUP,KEEPERSA,"FORM A",
         "D:\KEITH\DOD98-8574\DATA\FMTLIB");
%PROCESS2(BFGROUP,MPCSMPL,KEEPERSA,"FORM A",
         "D:\KEITH\DOD98-8574\DATA\FMTLIB");
%PROCESS2(BFGROUP,SEXSMPL,KEEPERSA,"FORM A",
         "D:\KEITH\DOD98-8574\DATA\FMTLIB");
%PROCESS2(BFGROUP,SVCSMPL,KEEPERSA,"FORM A",
         "D:\KEITH\DOD98-8574\DATA\FMTLIB");
%PROCESS2(BFGROUP,RACE,KEEPERSA,"FORM A",
         "D:\KEITH\DOD98-8574\DATA\FMTLIB");
RUN;
```

```
*************************************************************************
*
* PROGRAM: TABLE02.IN1
* TASK:    1998 DOD HEALTH CARE SURVEY ANALYSIS (8574-002)
* PURPOSE: COMMON CODE INCLUDE FILE USED TO BUILD
*          TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          1998 DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 01/08/99 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 5/17/1999, Keith Rathbun - Removed printing of the final location rate
*    (FLR) and final completion rate (FCR).
* 2) 7/07/99, Keith Rathbun - Added back printing of FLR
*
*************************************************************************
*;
IF _N_ = 1 THEN DO;
   PUT; PUT;
   PUT @001 "TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY";
   PUT @001 "WRITTEN BY KEITH RATHBUN, 05-17-99, TASK: 8574-002";
   PUT;
   PUT "SUMMARY OF GROUP COUNTS: " &FORM;
   PUT "VARIABLE = " VARIABLE;
   PUT;
   PUT @060 "UNWEIGHTED COUNT"
       @100 "WEIGHTED COUNT"
      ;
   PUT @050 'FLR'
       @060 'IRR'
       @070 'FRR'
       @090 'FLR'
       @100 'IRR'
       @110 'FRR'
      ;
END;
IF FIRST.&DOMAIN1 THEN DO;
   SN    = 0;
   SN1   = 0;
   SN11  = 0;
   SN12  = 0;
   SN2   = 0;
   SN3   = 0;
   SN4   = 0;
   SN41  = 0;
   SN42  = 0;
   WN   = 0;
   WN1  = 0;
   WN11 = 0;
   WN12 = 0;
   WN2  = 0;
   WN3  = 0;
```

```
   WN4  = 0;
   WN41 = 0;
   WN42 = 0;
END;
*****************************************************
* Accumulate group 1 weighted and unweighted counts
*****************************************************
;
SN + 1;
WN + BWT98;
IF FNSTATUS IN(11,12) THEN DO;
   SN1 + 1;
   WN1 + BWT98;
   IF FNSTATUS = 11 THEN DO;
      SN11 + 1;
      WN11 + BWT98;
   END;
   ELSE DO;
      SN12 + 1;
      WN12 + BWT98;
   END;
END;
*****************************************************
* Accumulate group 2 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS = 20 THEN DO;
   SN2 + 1;
   WN2 + BWT98;
END;
*****************************************************
* Accumulate group 3 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS = 30 THEN DO;
   SN3 + 1;
   WN3 + BWT98;
END;
*****************************************************
* Accumulate group 4 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS IN(41,42) THEN DO;
   SN4 + 1;
   WN4 + BWT98;
   IF FNSTATUS = 42 THEN DO;
      SN42 + 1;
      WN42 + BWT98;
   END;
   ELSE DO;
      SN41 + 1;
      WN41 + BWT98;
   END;
END;

DROP I;
RETAIN
```

```
   SN
   SN1
   SN11
   SN12
   SN2
   SN3
   SN4
   SN41
   SN42
   WN
   WN1
   WN11
   WN12
   WN2
   WN3
   WN4
   WN41
   WN42
  ;

*************************************************************************

*

* PROGRAM: TABLE02.IN2

* TASK:    1998 DOD HEALTH CARE SURVEY ANALYSIS (8574-002)

* PURPOSE: COMMON CODE INCLUDE FILE USED TO BUILD
*          TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          1998 DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 01/08/99 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 5/17/1999, Keith Rathbun - Removed printing of the final location rate
*    (FLR) and final completion rate (FCR).
* 2) 7/07/99, Keith Rathbun - Added back printing of FLR
*
*************************************************************************
*;
   *Interim Response Rate;
   IRR1 = ((SN1 + SN2 + SN3)/SN)*(SN1/(SN1 + SN2));
   IRR2 = ((WN1 + WN2 + WN3)/WN)*(WN1/(WN1 + WN2));

   *Final Response Rate;
   FRR1 = ((SN1 + SN2 + SN3)/SN)*(SN1/(SN1+SN2))*(SN11/SN1);
   FRR2 = ((WN1 + WN2 + WN3)/WN)*(WN1/(WN1+WN2))*(WN11/WN1);

   *Final Location Rate;
   L = ((SN1 + SN2)/(SN1 + SN2 + SN3))*SN41;
   WL = ((WN1 + WN2)/(WN1 + WN2 + WN3))*WN41;
   FLR1 = (SN1 + SN2 + L)/(SN1 + SN2 + SN4*((SN1 + SN2)/(SN1 + SN2 + SN3)));
   FLR2 = (WN1 + WN2 + WL)/(WN1 + WN2 + WN4*((WN1 + WN2)/(WN1 + WN2 + WN3)));

   *Final Completion Rate;
   FCR1 = SN11/(SN1 + SN2 + L);
   FCR2 = WN11/(WN1 + WN2 + WL);
```

```
PUT @050 FLR1 5.3
    @060 IRR1 5.3
    @070 FRR1 5.3
    @090 FLR2 5.3
    @100 IRR2 5.3
    @110 FRR2 5.3
   ;
```

5. DEVELOPMENT OF WEIGHTS

```
***************************************************************************
*
* PROGRAM: WEIGHT03.SAS
* TASK:    1998 DOD HEALTH CARE SURVEY ANALYSIS (8574-002)
* PURPOSE: BUILD AND ASSIGN ADJUSTED WEIGHTS.
*          WEIGHTS FOR DOD SURVEY.
*          DOD HEALTH CARE SURVEY FILE.
*          REQUESTED BY DON JANG.
* WRITTEN: 02/26/99 BY KEITH RATHBUN
*
* INPUTS   1) KEEPERSA.SD2 - Reduced/Deduped 1998 DOD survey dataset - Form A
*
* OUTPUTS: 1) WEIGH03A.SD2 - Form A dataset with adjusted weight (AWT)
*
***************************************************************************
*;
LIBNAME IN       'D:\KEITH\DOD98-8574\DATA';
LIBNAME OUT      'D:\KEITH\DOD98-8574\DATA';
LIBNAME LIBRARY  'D:\KEITH\DOD98-8574\DATA\FMTLIB';
OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=0 NOCENTER;

***************************************************************************
* Calculate adjusted weight for Form A based on user-specified
* domains.
***************************************************************************;
%MACRO PROCESS(DOMAIN1,DOMAIN2,FORM,INPT);
PROC SORT DATA=IN.&INPT(KEEP= MPRID FNSTATUS BWT98 &DOMAIN1 &DOMAIN2)
          OUT=&INPT(KEEP= MPRID FNSTATUS BWT98 &DOMAIN1 &DOMAIN2)
          TAGSORT;
BY &DOMAIN1 &DOMAIN2;
RUN;

***************************************************************************
* Calculate adjustment factor A1 for each cell
***************************************************************************;
DATA CELLSA1  (KEEP=SUMBWT SUMG1-SUMG3 A1 CELLNAME CELLCNT)
     MPRIDSA1 (KEEP=CELLNAME MPRID FNSTATUS BWT98 &DOMAIN1 &DOMAIN2)
    ;
   SET &INPT;
   BY &DOMAIN1 &DOMAIN2;

   LENGTH CELLNAME $25;
   CELLNAME = &DOMAIN1 || &DOMAIN2;

   IF FIRST.&DOMAIN1 THEN DO;
      CELLCNT = 0;
      SUMBWT  = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
      A1 = 0.0;
   END;
   CELLCNT + 1;

   ****************************************************
```

```
   * Accumulate total weight sum
   ****************************************************;
   SUMBWT + BWT98;
   ****************************************************
   * Accumulate group 1 weight sum
   ****************************************************;
   IF FNSTATUS IN(11,12) THEN SUMG1 + BWT98;
   ****************************************************
   * Accumulate group 2 weight sum
   ****************************************************;
   ELSE IF FNSTATUS = 20 THEN SUMG2 + BWT98;
   ****************************************************
   * Accumulate group 3 weight sum
   ****************************************************;
   ELSE IF FNSTATUS = 30 THEN SUMG3 + BWT98;

   RETAIN SUMBWT SUMG1-SUMG3 A1 CELLNAME CELLCNT MPRID;

   IF LAST.&DOMAIN2 THEN DO;
      A1 = SUMBWT/(SUMG1 + SUMG2 + SUMG3);
      OUTPUT CELLSA1;
      CELLCNT = 0;
      SUMBWT  = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
   END; * DOMAIN;
   OUTPUT MPRIDSA1;
RUN;

*************************************************************************
* Calculate adjustment factor A2 for each cell
*************************************************************************;
DATA CELLSA2 (KEEP=CELLNAME CELLCNT A1 A2 NUMER DENOM);
   MERGE MPRIDSA1 CELLSA1;
   BY CELLNAME;

   IF FIRST.CELLNAME THEN DO;
      A2 = 0.0;
      NUMER = 0.0;
      DENOM = 0.0;
   END;
   RETAIN NUMER DENOM A2;

   IF FNSTATUS IN(11,12) OR FNSTATUS = 20 THEN NUMER + BWT98*A1;
   IF FNSTATUS  = 11 THEN DENOM + BWT98*A1;

   IF LAST.CELLNAME THEN DO;
      A2 = NUMER/DENOM;
      OUTPUT CELLSA2;
   END;
RUN;

*************************************************************************
* Calculate Adjusted Weight
*************************************************************************;
DATA WEIGHT03;
```

```
   MERGE CELLSA2 MPRIDSA1;
   BY CELLNAME;
   IF FNSTATUS = 11 THEN
      AWT = A1*A2*BWT98;
   ELSE IF FNSTATUS IN(12,20,41,42) THEN
      AWT = 0;
   ELSE IF FNSTATUS = 30 THEN
      AWT = A1*BWT98;
   LABEL AWT = 'Adjusted Weight';
   KEEP MPRID AWT A1 A2;
RUN;

***************************************************************************
* Sort the original data
***************************************************************************;
PROC SORT DATA=IN.&INPT OUT=&INPT TAGSORT; BY MPRID; RUN;

***************************************************************************
* Sort the adjusted weight (AWT) data
***************************************************************************;
PROC SORT DATA=WEIGHT03 TAGSORT; BY MPRID; RUN;

***************************************************************************
* Append adjusted weight (AWT) variable
***************************************************************************;
DATA OUT.WEIGH03&FORM;
   MERGE WEIGHT03 &INPT;
   BY MPRID;
RUN;

%MEND PROCESS;

***************************************************************************
* Calculate adjusted weight for Form A based on user-specified
* domains.
***************************************************************************;
%PROCESS(BGCSMPL,STESMPL,A,KEEPERSA);
RUN;

TITLE1 '1998 DOD SURVEY OF HEALTH BENES - FORM A';
TITLE2 'PROGRAM: WEIGHT03.SAS, INPUT: KEEPERSA.SD2, OUTPUT: WEIGH03A.SD2';

TITLE3 'DOMAIN TABULATIONS - WEIGHTED BY AWT';
PROC TABULATE DATA=OUT.WEIGH03A NOSEPS;
CLASS BGCSMPL STESMPL;
VAR AWT;
TABLE  STESMPL ALL, SUM*F=12.0*AWT*(BGCSMPL ALL);
FORMAT BGCSMPL XBGC_S.;
RUN;

TITLE3 'DOMAIN TABULATIONS - WEIGHTED BY BWT98';
PROC TABULATE DATA=OUT.WEIGH03A NOSEPS;
CLASS BGCSMPL STESMPL;
VAR BWT98;
TABLE  STESMPL ALL, SUM*F=12.0*BWT98*(BGCSMPL ALL);
FORMAT BGCSMPL XBGC_S.;
RUN;
```

```
TITLE3 'WEIGHT TABULATIONS - UNWEIGHTED WHERE FNSTATUS=11';
PROC SORT DATA=OUT.WEIGH03A OUT=WEIGH03A; BY BGCSMPL STESMPL; RUN;

PROC MEANS DATA=WEIGH03A NOPRINT;
BY BGCSMPL STESMPL;
WHERE FNSTATUS = 11;
VAR A1 A2;
OUTPUT OUT=TEMP MEAN=A1MEAN A2MEAN N=NA1 NA2;
RUN;
PROC PRINT; RUN;



***************************************************************************

*

* PROGRAM: WEIGHT04.SAS

* TASK:    DOD HEALTH CARE SURVEY ANALYSIS (8574-002)
* PURPOSE: BUILD AND ASSIGN FINAL WEIGHTS - POST STRATIFICATION - FORM A.
*          WEIGHTS FOR DOD SURVEY.
*          DOD HEALTH CARE SURVEY FILE.
*          REQUESTED BY DON JANG.
* WRITTEN: 02/26/99 BY KEITH RATHBUN
*
* INPUTS:   1) POPA01.TXT - ENLSMPL by CELL by BFGROUP population matrix
*              (from HATAB9901.TXT)
*           2) WEIGH03A.SD2 - Adjusted Weights file - Form A
*
* OUTPUTS   1) WEIGH04A.SD2 - Final Weights file - Form A
*
* INCLUDES: 1) POPA01.INC - ENLSMPL by CELL by BFGROUP population matrix
*              input step
*
***************************************************************************
*;
LIBNAME IN   'D:\KEITH\DOD98-8574\DATA';
LIBNAME OUT  'D:\KEITH\DOD98-8574\DATA';
LIBNAME LIBRARY  'D:\KEITH\DOD98-8574\DATA\FMTLIB';
OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=0 NOCENTER;

*********************************************************************
* Assign a DUMMY variables to accomodate up to three DOMAINS in the MACRO.
* Create Post-Stratification BFGROUPP (POSTB).
*********************************************************************;
DATA WEIGH03A;
   SET IN.WEIGH03A;

   POSTB = BFGROUPP;
   IF      CACSMPL =    2 AND BFGROUPP = 3 THEN POSTB = 2;
   ELSE IF CACSMPL = 5 AND BFGROUPP = 4 THEN POSTB = 3;
   ELSE IF CACSMPL IN (37, 49, 68, 90, 92, 104, 123, 620) AND BFGROUPP = 4 THEN
POSTB = 3;
   ELSE IF CACSMPL =   53 AND BFGROUPP = 4 THEN POSTB = 3;
   ELSE IF CACSMPL =   66 AND BFGROUPP = 4 THEN POSTB = 3;
```

```
ELSE IF CACSMPL =   81 AND BFGROUPP IN (2, 3) THEN POSTB = 1;
ELSE IF CACSMPL =   85 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =   91 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =   93 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =   94 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =   97 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =  120 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =  121 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =  131 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =  203 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  280 THEN POSTB = 1;
ELSE IF CACSMPL =  297 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  310 AND BFGROUPP IN (2, 3) THEN POSTB = 1;
ELSE IF CACSMPL =  321 AND BFGROUPP IN (2,3) THEN POSTB = 1;
ELSE IF CACSMPL =  330 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  335 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  356 THEN POSTB = 1;
ELSE IF CACSMPL =  363 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  413 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  422 THEN POSTB = 1;
ELSE IF CACSMPL =  432 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  433 AND BFGROUPP IN (1,2,3) THEN POSTB = 1;
ELSE IF CACSMPL =  449 THEN POSTB = 1;
ELSE IF CACSMPL =  606 AND BFGROUPP IN (3,4) THEN POSTB = 2;
ELSE IF CACSMPL =  607 AND BFGROUPP IN (3,4) THEN POSTB = 2;
ELSE IF CACSMPL =  609 AND BFGROUPP IN (3,4) THEN POSTB = 2;
ELSE IF CACSMPL =  610 AND BFGROUPP IN (1,2,3) THEN POSTB = 1;
ELSE IF CACSMPL =  612 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =  615 THEN POSTB = 1;
ELSE IF CACSMPL =  616 AND BFGROUPP IN (2,3,4) THEN POSTB = 2;
ELSE IF CACSMPL =  617 AND BFGROUPP IN (3,4) THEN POSTB = 2;
ELSE IF CACSMPL =  618 AND BFGROUPP IN (3,4) THEN POSTB = 2;
ELSE IF CACSMPL =  621 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =  622 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =  623 AND BFGROUPP IN (2,3) THEN POSTB = 1;
ELSE IF CACSMPL =  624 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  629 AND BFGROUPP = 2 THEN POSTB = 1;
ELSE IF CACSMPL =  633 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =  635 AND BFGROUPP IN (2,3,4) THEN POSTB = 2;
ELSE IF CACSMPL =  637 AND BFGROUPP IN (2,3,4) THEN POSTB = 1;
ELSE IF CACSMPL =  638 AND BFGROUPP IN (2, 3, 4) THEN POSTB = 3;
ELSE IF CACSMPL =  639 AND BFGROUPP IN (3,4) THEN POSTB = 2;
ELSE IF CACSMPL =  640 AND BFGROUPP = 4 THEN POSTB = 3;
ELSE IF CACSMPL =  653 AND BFGROUPP IN (1,2,3) THEN POSTB = 1;
ELSE IF CACSMPL =  802 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  804 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  805 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  806 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  808 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  814 AND BFGROUPP IN (1,2,3) THEN POSTB = 1;
ELSE IF CACSMPL =  853 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL =  862 AND BFGROUPP IN (1,2,3) THEN POSTB = 1;
ELSE IF CACSMPL = 7043 AND BFGROUPP IN (1,2,3) THEN POSTB = 1;
ELSE IF CACSMPL = 7139 AND BFGROUPP = 3 THEN POSTB = 2;
ELSE IF CACSMPL = 7200 AND BFGROUPP IN (1,2,3) THEN POSTB = 1;
ELSE IF CACSMPL = 8931 AND BFGROUPP IN (1,2,3) THEN POSTB = 1;
ELSE IF CACSMPL = 8982 AND BFGROUPP = 2 THEN POSTB = 1;
```

```
   ELSE IF CACSMPL = 9912 AND BFGROUPP IN (1,2,3) THEN POSTB = 2;
   ELSE IF CACSMPL = 9913 AND BFGROUPP = 4 THEN POSTB = 3;
   ELSE IF CACSMPL = 9914 AND BFGROUPP IN (2,3,4) THEN POSTB = 2;
   ELSE IF CACSMPL = 9915 THEN POSTB = 1;
   ELSE IF CACSMPL = 9916 AND BFGROUPP = 1 THEN POSTB = 2;

   LENGTH POSTCELL $25;
   POSTCELL = PUT(CACSMPL,Z4.) || PUT(POSTB,Z1.);

RUN;

%MACRO PROCESS(DOMAIN1,DOMAIN2,FORM,INCLUDE,REQUEST);

*********************************************************************
* Include the input step for the population matrix
*********************************************************************;
%INCLUDE &INCLUDE;

*********************************************************************
* Sort the adjusted weights file by user-specified domains
*********************************************************************;
PROC SORT DATA=WEIGH03&FORM
          OUT=WEIGHT03(KEEP=FNSTATUS MPRID AWT POSTCELL &DOMAIN1 &DOMAIN2)
         ;
     BY &DOMAIN1 &DOMAIN2;
RUN;

*********************************************************************
* Assign cell names and calculate the sum of AWT
*********************************************************************;
DATA CELLS  (KEEP=SUMAWT SUMFN11 POSTCELL)
     MPRIDS (KEEP=MPRID FNSTATUS AWT POSTCELL &DOMAIN1 &DOMAIN2)
    ;
   SET WEIGHT03;
   BY &DOMAIN1 &DOMAIN2;

   IF FIRST.&DOMAIN1 THEN DO;
      SUMAWT   = 0.0;
      SUMFN11  = 0;
   END;

   *********************************************************************
   * Accumulate sum of adjusted weight
   *********************************************************************;
   SUMAWT + AWT;

   *********************************************************************
   * COUNT the FNSTATUS = 11 within each DOMAIN
   *********************************************************************;
   IF FNSTATUS = 11 THEN SUMFN11 + 1;

   RETAIN SUMAWT SUMFN11;

   IF LAST.&DOMAIN2 THEN DO;
      OUTPUT CELLS;
      SUMAWT  = 0.0;
      SUMFN11  = 0;
```

```
   END; * DOMAIN;
   OUTPUT MPRIDS;
RUN;

*************************************************************************
* Merge the population counts and calculate the adjusted population (AP)
*************************************************************************;
DATA AP;
   MERGE OUT.POPULATE CELLS;
   BY POSTCELL;
   AP = POP/SUMAWT;
RUN;

*************************************************************************
* Merge the adjusted population and calculate the final weight (WRWT98)
*************************************************************************;
DATA WEIGHT04;
   MERGE AP(IN=IN1) MPRIDS(IN=IN2);
   BY POSTCELL;

   IF IN2 THEN DO;
      WRWT98 = AP*AWT;
      OUTPUT;
   END;

   LABEL WRWT98   = 'Final Weight';
   LABEL AP       = 'Adjusted population';
   LABEL POP      = 'DEERS population by CELLNAME for weights';
   LABEL SUMFN11  = 'COUNT of FNSTATUS=11 within CELLNAME';
   LABEL POSTB    = 'Post-Stratification BFGROUPP';
   LABEL POSTCELL = "Post-Strata";

   KEEP FNSTATUS WRWT98 AWT AP MPRID POP SUMFN11 POSTB POSTCELL;
RUN;

TITLE1 '1998 DOD SURVEY OF HEALTH BENES - FORM A';
TITLE2 'PROGRAM: WEIGHT04.SAS, INPUT: WEIGH03A.SD2, OUTPUT: WEIGH04A.SD2';
TITLE3 'WEIGHT TABULATIONS - UNWEIGHTED';

PROC MEANS DATA=WEIGHT04 NOPRINT;
   VAR POP WRWT98 AP SUMFN11;
   BY POSTCELL;
   OUTPUT OUT=STATS(KEEP=POSTCELL DEERSPOP POPCNT APM FN11CNT)
                    SUM= DUMMY1   POPCNT  DUMMY2  DUMMY3
                    MEAN=DUMMY4   DUMMY5  APM     DUMMY6
                    MAX= DEERSPOP DUMMY7  DUMMY8 FN11CNT;
RUN;
PROC PRINT; RUN;

*************************************************************************
* Sort the original data and append the final weight (WRWT98)
*************************************************************************;
PROC SORT DATA=IN.WEIGH03&FORM OUT=WEIGHT03 TAGSORT; BY MPRID; RUN;
PROC SORT DATA=WEIGHT04 TAGSORT; BY MPRID; RUN;

DATA OUT.WEIGH04&FORM;
   MERGE WEIGHT03 WEIGHT04;
```

```
   BY MPRID;
RUN;

%MEND;

%PROCESS(CACSMPL,POSTB,A,"D:\KEITH\DOD98-8574\SAS\POPA01.INC",3);
RUN;



***************************************************************************
*
* PROGRAM: POPA01.INC
* TASK:    DOD HEALTH CARE SURVEY ANALYSIS (8574-002)
* PURPOSE: BUILD AND ASSIGN FINAL WEIGHTS - POST STRATIFICATION - FORM A.
*          WEIGHTS FOR DOD SURVEY.
*          DOD HEALTH CARE SURVEY FILE.
*          REQUESTED BY DON JANG.
* WRITTEN: 03/17/99 BY KEITH RATHBUN
*
* INPUTS:  1) POPA01.TXT - ENLSMPL by CELL by BFGROUP population matrix
*             (from HATAB9901.TXT)
*
* OUTPUTS: 1) POPULATE.SD2 - Post-Strata POPULATION Matrix - Form A
*
***************************************************************************
* Input the Form A Post-Stratification population matrix for
* CELL*ENLSMPL/BFGROUP from POPA01.TXT.
***************************************************************************
*
* Post-Stratification POPULATION ARRAY definitions:
*
* (1) ENLSMPL=1, BFGROUP=1
* (2) ENLSMPL=1, BFGROUP=2
* (3) ENLSMPL=1, BFGROUP=3
* (4) ENLSMPL=2, BFGROUP=1
* (5) ENLSMPL=2, BFGROUP=2
* (6) ENLSMPL=2, BFGROUP=3
* (7) ENLSMPL=3, BFGROUP=2
* (8) ENLSMPL=3, BFGROUP=3
* (9) ENLSMPL=3, BFGROUP=4
*
***************************************************************************;
LIBNAME OUT "D:\KEITH\DOD98-8574\DATA";
OPTIONS LS=132 PS=79 NOCENTER;

DATA POPULATE;
   INFILE "D:\KEITH\DOD98-8574\DATA\POPA01.TXT";
   ARRAY  POPULATE(9) POP1-POP9;
   INPUT  CELLX
          POP1-POP9
   ;
RUN;

DATA POPULATE;
   SET POPULATE;
```

```
   ***************************************************************************
   * Rearrange original matrix to be one row per cell for data merge purposes
   ***************************************************************************;
   ARRAY  POPULATE(9) POP1-POP9;
   DO I = 1 TO 9;
      SELECT (I);
         WHEN (1) DO;
            E = 1;
            B = 1;
         END;
         WHEN (2) DO;
            E = 1;
            B = 2;
         END;
         WHEN (3) DO;
            E = 1;
            B = 3;
         END;
         WHEN (4) DO;
            E = 2;
            B = 1;
         END;
         WHEN (5) DO;
            E = 2;
            B = 2;
         END;
         WHEN (6) DO;
            E = 2;
            B = 3;
         END;
         WHEN (7) DO;
            E = 3;
            B = 2;
         END;
         WHEN (8) DO;
            E = 3;
            B = 3;
         END;
         WHEN (9) DO;
            E = 3;
            B = 4;
         END;
      END;
      POP = POPULATE(I);
      OUTPUT;
   END;
   KEEP POP E B CELLX;
   LABEL
           POP = 'Post-Strata POPulation 01/31/99'
             E = 'Post-Strata ENLSMPL 01/31/99'
             B = 'Post-Strata BFGROUP 01/31/99'
             ;
RUN;

DATA OUT.POPULATX;
   SET POPULATE;
   LABEL C = 'Post-Strata CACSMPL 01/31/99';
```

```
*********************************************************************
* CALCULATE C(ACSMPL) BASED ON CELLX
*********************************************************************;
C = CELLX; *Set as default = CELLX;
IF      CELLX = 1581 THEN C = 0001;
ELSE IF CELLX = 1582 THEN C = 0001;
ELSE IF CELLX = 201  THEN C = 0002;
ELSE IF CELLX = 1577 THEN C = 0002;
ELSE IF CELLX = 1972 THEN C = 0002;
ELSE IF CELLX = 1230 THEN C = 0003;
ELSE IF CELLX = 202  THEN C = 0005;
ELSE IF CELLX = 204  THEN C = 0005;
ELSE IF CELLX = 538  THEN C = 0005;
ELSE IF CELLX = 1229 THEN C = 0005;
ELSE IF CELLX = 25   THEN C = 0024;
ELSE IF CELLX = 26   THEN C = 0024;
ELSE IF CELLX = 208  THEN C = 0024;
ELSE IF CELLX = 209  THEN C = 0024;
ELSE IF CELLX = 210  THEN C = 0024;
ELSE IF CELLX = 214  THEN C = 0024;
ELSE IF CELLX = 215  THEN C = 0024;
ELSE IF CELLX = 217  THEN C = 0024;
ELSE IF CELLX = 269  THEN C = 0024;
ELSE IF CELLX = 415  THEN C = 0024;
ELSE IF CELLX = 509  THEN C = 0024;
ELSE IF CELLX = 510  THEN C = 0024;
ELSE IF CELLX = 1657 THEN C = 0024;
ELSE IF CELLX = 1659 THEN C = 0024;
ELSE IF CELLX = 1974 THEN C = 0024;
ELSE IF CELLX = 1975 THEN C = 0024;
ELSE IF CELLX = 1976 THEN C = 0024;
ELSE IF CELLX = 1977 THEN C = 0024;
ELSE IF CELLX = 1978 THEN C = 0024;
ELSE IF CELLX = 1979 THEN C = 0024;
ELSE IF CELLX = 1980 THEN C = 0024;
ELSE IF CELLX = 6216 THEN C = 0024;
ELSE IF CELLX = 6218 THEN C = 0024;
ELSE IF CELLX = 222  THEN C = 0028;
ELSE IF CELLX = 319  THEN C = 0028;
ELSE IF CELLX = 230  THEN C = 0029;
ELSE IF CELLX = 231  THEN C = 0029;
ELSE IF CELLX = 232  THEN C = 0029;
ELSE IF CELLX = 233  THEN C = 0029;
ELSE IF CELLX = 234  THEN C = 0029;
ELSE IF CELLX = 239  THEN C = 0029;
ELSE IF CELLX = 407  THEN C = 0029;
ELSE IF CELLX = 414  THEN C = 0029;
ELSE IF CELLX = 701  THEN C = 0029;
ELSE IF CELLX = 1310 THEN C = 0029;
ELSE IF CELLX = 6207 THEN C = 0029;
ELSE IF CELLX = 6215 THEN C = 0029;
ELSE IF CELLX = 212  THEN C = 0030;
ELSE IF CELLX = 1311 THEN C = 0030;
ELSE IF CELLX = 31   THEN C = 0032;
ELSE IF CELLX = 291  THEN C = 0032;
ELSE IF CELLX = 371  THEN C = 0032;
ELSE IF CELLX = 443  THEN C = 0032;
```

```
ELSE IF CELLX = 585  THEN C = 0032;
ELSE IF CELLX = 1245 THEN C = 0032;
ELSE IF CELLX = 1521 THEN C = 0032;
ELSE IF CELLX = 1522 THEN C = 0032;
ELSE IF CELLX = 1523 THEN C = 0032;
ELSE IF CELLX = 1524 THEN C = 0032;
ELSE IF CELLX = 1525 THEN C = 0032;
ELSE IF CELLX = 1526 THEN C = 0032;
ELSE IF CELLX = 6100 THEN C = 0032;
ELSE IF CELLX = 7293 THEN C = 0032;
ELSE IF CELLX = 252  THEN C = 0033;
ELSE IF CELLX = 328  THEN C = 0035;
ELSE IF CELLX = 1667 THEN C = 0035;
ELSE IF CELLX = 255  THEN C = 0037;
ELSE IF CELLX = 256  THEN C = 0037;
ELSE IF CELLX = 7148 THEN C = 0037;
ELSE IF CELLX = 260  THEN C = 0038;
ELSE IF CELLX = 261  THEN C = 0038;
ELSE IF CELLX = 262  THEN C = 0038;
ELSE IF CELLX = 264  THEN C = 0038;
ELSE IF CELLX = 265  THEN C = 0038;
ELSE IF CELLX = 316  THEN C = 0038;
ELSE IF CELLX = 317  THEN C = 0038;
ELSE IF CELLX = 513  THEN C = 0038;
ELSE IF CELLX = 527  THEN C = 0038;
ELSE IF CELLX = 654  THEN C = 0038;
ELSE IF CELLX = 41   THEN C = 0039;
ELSE IF CELLX = 266  THEN C = 0039;
ELSE IF CELLX = 267  THEN C = 0039;
ELSE IF CELLX = 270  THEN C = 0039;
ELSE IF CELLX = 275  THEN C = 0039;
ELSE IF CELLX = 276  THEN C = 0039;
ELSE IF CELLX = 277  THEN C = 0039;
ELSE IF CELLX = 337  THEN C = 0039;
ELSE IF CELLX = 405  THEN C = 0039;
ELSE IF CELLX = 517  THEN C = 0039;
ELSE IF CELLX = 6206 THEN C = 0039;
ELSE IF CELLX = 7079 THEN C = 0042;
ELSE IF CELLX = 273  THEN C = 0047;
ELSE IF CELLX = 1550 THEN C = 0047;
ELSE IF CELLX = 7197 THEN C = 0047;
ELSE IF CELLX = 8924 THEN C = 0047;
ELSE IF CELLX = 305  THEN C = 0048;
ELSE IF CELLX = 1316 THEN C = 0048;
ELSE IF CELLX = 1551 THEN C = 0048;
ELSE IF CELLX = 1552 THEN C = 0048;
ELSE IF CELLX = 1555 THEN C = 0048;
ELSE IF CELLX = 1557 THEN C = 0048;
ELSE IF CELLX = 1560 THEN C = 0048;
ELSE IF CELLX = 1565 THEN C = 0048;
ELSE IF CELLX = 1939 THEN C = 0048;
ELSE IF CELLX = 272  THEN C = 0049;
ELSE IF CELLX = 1562 THEN C = 0049;
ELSE IF CELLX = 1563 THEN C = 0049;
ELSE IF CELLX = 1564 THEN C = 0049;
ELSE IF CELLX = 6203 THEN C = 0049;
ELSE IF CELLX = 7239 THEN C = 0049;
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ELSE IF CELLX = 278  THEN C = 0052;
ELSE IF CELLX = 286  THEN C = 0052;
ELSE IF CELLX = 437  THEN C = 0052;
ELSE IF CELLX = 470  THEN C = 0052;
ELSE IF CELLX = 531  THEN C = 0052;
ELSE IF CELLX = 532  THEN C = 0052;
ELSE IF CELLX = 534  THEN C = 0052;
ELSE IF CELLX = 318  THEN C = 0055;
ELSE IF CELLX = 462  THEN C = 0056;
ELSE IF CELLX = 518  THEN C = 0056;
ELSE IF CELLX = 1660 THEN C = 0056;
ELSE IF CELLX = 1959 THEN C = 0056;
ELSE IF CELLX = 7061 THEN C = 0056;
ELSE IF CELLX = 1531 THEN C = 0057;
ELSE IF CELLX = 1534 THEN C = 0057;
ELSE IF CELLX = 1537 THEN C = 0057;
ELSE IF CELLX = 1538 THEN C = 0057;
ELSE IF CELLX = 7289 THEN C = 0057;
ELSE IF CELLX = 1835 THEN C = 0058;
ELSE IF CELLX = 1503 THEN C = 0060;
ELSE IF CELLX = 1504 THEN C = 0060;
ELSE IF CELLX = 1505 THEN C = 0060;
ELSE IF CELLX = 1506 THEN C = 0060;
ELSE IF CELLX = 1507 THEN C = 0060;
ELSE IF CELLX = 1508 THEN C = 0060;
ELSE IF CELLX = 1641 THEN C = 0060;
ELSE IF CELLX = 290  THEN C = 0061;
ELSE IF CELLX = 296  THEN C = 0061;
ELSE IF CELLX = 313  THEN C = 0061;
ELSE IF CELLX = 1237 THEN C = 0061;
ELSE IF CELLX = 1543 THEN C = 0061;
ELSE IF CELLX = 1544 THEN C = 0061;
ELSE IF CELLX = 1545 THEN C = 0061;
ELSE IF CELLX = 1802 THEN C = 0061;
ELSE IF CELLX = 1928 THEN C = 0061;
ELSE IF CELLX = 5213 THEN C = 0061;
ELSE IF CELLX = 7198 THEN C = 0061;
ELSE IF CELLX = 1621 THEN C = 0064;
ELSE IF CELLX = 7199 THEN C = 0064;
ELSE IF CELLX = 846  THEN C = 0066;
ELSE IF CELLX = 259  THEN C = 0067;
ELSE IF CELLX = 301  THEN C = 0067;
ELSE IF CELLX = 302  THEN C = 0067;
ELSE IF CELLX = 303  THEN C = 0067;
ELSE IF CELLX = 322  THEN C = 0067;
ELSE IF CELLX = 323  THEN C = 0067;
ELSE IF CELLX = 344  THEN C = 0067;
ELSE IF CELLX = 346  THEN C = 0067;
ELSE IF CELLX = 347  THEN C = 0067;
ELSE IF CELLX = 348  THEN C = 0067;
ELSE IF CELLX = 384  THEN C = 0067;
ELSE IF CELLX = 386  THEN C = 0067;
ELSE IF CELLX = 401  THEN C = 0067;
ELSE IF CELLX = 404  THEN C = 0067;
ELSE IF CELLX = 515  THEN C = 0067;
ELSE IF CELLX = 522  THEN C = 0067;
ELSE IF CELLX = 703  THEN C = 0067;
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ELSE IF CELLX = 1810 THEN C = 0067;
ELSE IF CELLX = 307  THEN C = 0069;
ELSE IF CELLX = 308  THEN C = 0069;
ELSE IF CELLX = 309  THEN C = 0069;
ELSE IF CELLX = 350  THEN C = 0069;
ELSE IF CELLX = 351  THEN C = 0069;
ELSE IF CELLX = 352  THEN C = 0069;
ELSE IF CELLX = 353  THEN C = 0069;
ELSE IF CELLX = 441  THEN C = 0069;
ELSE IF CELLX = 481  THEN C = 0069;
ELSE IF CELLX = 545  THEN C = 0069;
ELSE IF CELLX = 1511 THEN C = 0075;
ELSE IF CELLX = 1519 THEN C = 0075;
ELSE IF CELLX = 324  THEN C = 0081;
ELSE IF CELLX = 325  THEN C = 0081;
ELSE IF CELLX = 438  THEN C = 0081;
ELSE IF CELLX = 7154 THEN C = 0081;
ELSE IF CELLX = 311  THEN C = 0086;
ELSE IF CELLX = 440  THEN C = 0086;
ELSE IF CELLX = 1815 THEN C = 0086;
ELSE IF CELLX = 567  THEN C = 0089;
ELSE IF CELLX = 568  THEN C = 0089;
ELSE IF CELLX = 569  THEN C = 0089;
ELSE IF CELLX = 571  THEN C = 0089;
ELSE IF CELLX = 574  THEN C = 0089;
ELSE IF CELLX = 575  THEN C = 0089;
ELSE IF CELLX = 576  THEN C = 0089;
ELSE IF CELLX = 577  THEN C = 0089;
ELSE IF CELLX = 1927 THEN C = 0089;
ELSE IF CELLX = 6208 THEN C = 0089;
ELSE IF CELLX = 7143 THEN C = 0089;
ELSE IF CELLX = 7286 THEN C = 0089;
ELSE IF CELLX = 333  THEN C = 0091;
ELSE IF CELLX = 507  THEN C = 0091;
ELSE IF CELLX = 1662 THEN C = 0091;
ELSE IF CELLX = 1663 THEN C = 0091;
ELSE IF CELLX = 1664 THEN C = 0091;
ELSE IF CELLX = 1992 THEN C = 0091;
ELSE IF CELLX = 1993 THEN C = 0091;
ELSE IF CELLX = 1994 THEN C = 0091;
ELSE IF CELLX = 1995 THEN C = 0091;
ELSE IF CELLX = 1997 THEN C = 0091;
ELSE IF CELLX = 6205 THEN C = 0091;
ELSE IF CELLX = 207  THEN C = 0098;
ELSE IF CELLX = 218  THEN C = 0098;
ELSE IF CELLX = 339  THEN C = 0098;
ELSE IF CELLX = 1625 THEN C = 0098;
ELSE IF CELLX = 511  THEN C = 0103;
ELSE IF CELLX = 358  THEN C = 0104;
ELSE IF CELLX = 360  THEN C = 0104;
ELSE IF CELLX = 1567 THEN C = 0105;
ELSE IF CELLX = 1809 THEN C = 0105;
ELSE IF CELLX = 361  THEN C = 0107;
ELSE IF CELLX = 327  THEN C = 0108;
ELSE IF CELLX = 1617 THEN C = 0108;
ELSE IF CELLX = 1585 THEN C = 0109;
ELSE IF CELLX = 1587 THEN C = 0109;
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ELSE IF CELLX = 362  THEN C = 0110;
ELSE IF CELLX = 1592 THEN C = 0110;
ELSE IF CELLX = 1593 THEN C = 0110;
ELSE IF CELLX = 1597 THEN C = 0110;
ELSE IF CELLX = 1599 THEN C = 0110;
ELSE IF CELLX = 1601 THEN C = 0110;
ELSE IF CELLX = 1801 THEN C = 0110;
ELSE IF CELLX = 7236 THEN C = 0110;
ELSE IF CELLX = 111  THEN C = 0113;
ELSE IF CELLX = 1745 THEN C = 0117;
ELSE IF CELLX = 369  THEN C = 0118;
ELSE IF CELLX = 370  THEN C = 0118;
ELSE IF CELLX = 656  THEN C = 0118;
ELSE IF CELLX = 7127 THEN C = 0118;
ELSE IF CELLX = 372  THEN C = 0121;
ELSE IF CELLX = 464  THEN C = 0121;
ELSE IF CELLX = 553  THEN C = 0121;
ELSE IF CELLX = 373  THEN C = 0122;
ELSE IF CELLX = 374  THEN C = 0122;
ELSE IF CELLX = 376  THEN C = 0122;
ELSE IF CELLX = 555  THEN C = 0122;
ELSE IF CELLX = 375  THEN C = 0123;
ELSE IF CELLX = 390  THEN C = 0123;
ELSE IF CELLX = 393  THEN C = 0123;
ELSE IF CELLX = 6200 THEN C = 0123;
ELSE IF CELLX = 6201 THEN C = 0123;
ELSE IF CELLX = 6202 THEN C = 0123;
ELSE IF CELLX = 378  THEN C = 0124;
ELSE IF CELLX = 380  THEN C = 0124;
ELSE IF CELLX = 381  THEN C = 0124;
ELSE IF CELLX = 382  THEN C = 0124;
ELSE IF CELLX = 387  THEN C = 0124;
ELSE IF CELLX = 508  THEN C = 0124;
ELSE IF CELLX = 519  THEN C = 0124;
ELSE IF CELLX = 6204 THEN C = 0124;
ELSE IF CELLX = 6214 THEN C = 0124;
ELSE IF CELLX = 6221 THEN C = 0124;
ELSE IF CELLX = 246  THEN C = 0125;
ELSE IF CELLX = 247  THEN C = 0125;
ELSE IF CELLX = 320  THEN C = 0125;
ELSE IF CELLX = 341  THEN C = 0125;
ELSE IF CELLX = 394  THEN C = 0125;
ELSE IF CELLX = 1646 THEN C = 0125;
ELSE IF CELLX = 1648 THEN C = 0125;
ELSE IF CELLX = 1649 THEN C = 0125;
ELSE IF CELLX = 397  THEN C = 0126;
ELSE IF CELLX = 398  THEN C = 0126;
ELSE IF CELLX = 1307 THEN C = 0126;
ELSE IF CELLX = 1656 THEN C = 0126;
ELSE IF CELLX = 7138 THEN C = 0126;
ELSE IF CELLX = 206  THEN C = 0131;
ELSE IF CELLX = 1644 THEN C = 0131;
ELSE IF CELLX = 6031 THEN C = 0131;
ELSE IF CELLX = 281  THEN C = 0280;
ELSE IF CELLX = 284  THEN C = 0280;
ELSE IF CELLX = 285  THEN C = 0280;
ELSE IF CELLX = 524  THEN C = 0280;
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ELSE IF CELLX = 528  THEN C = 0280;
ELSE IF CELLX = 1987 THEN C = 0280;
ELSE IF CELLX = 1988 THEN C = 0280;
ELSE IF CELLX = 436  THEN C = 0297;
ELSE IF CELLX = 1990 THEN C = 0297;
ELSE IF CELLX = 525  THEN C = 0306;
ELSE IF CELLX = 7017 THEN C = 0306;
ELSE IF CELLX = 298  THEN C = 0321;
ELSE IF CELLX = 299  THEN C = 0321;
ELSE IF CELLX = 300  THEN C = 0321;
ELSE IF CELLX = 329  THEN C = 0330;
ELSE IF CELLX = 408  THEN C = 0330;
ELSE IF CELLX = 7113 THEN C = 0330;
ELSE IF CELLX = 1770 THEN C = 0366;
ELSE IF CELLX = 1670 THEN C = 0385;
ELSE IF CELLX = 1671 THEN C = 0385;
ELSE IF CELLX = 433  THEN C = 0432;
ELSE IF CELLX = 1003 THEN C = 0606;
ELSE IF CELLX = 1135 THEN C = 0606;
ELSE IF CELLX = 1144 THEN C = 0606;
ELSE IF CELLX = 1145 THEN C = 0606;
ELSE IF CELLX = 7152 THEN C = 0606;
ELSE IF CELLX = 8987 THEN C = 0606;
ELSE IF CELLX = 8995 THEN C = 0606;
ELSE IF CELLX = 8996 THEN C = 0606;
ELSE IF CELLX = 8998 THEN C = 0606;
ELSE IF CELLX = 611  THEN C = 0607;
ELSE IF CELLX = 614  THEN C = 0607;
ELSE IF CELLX = 896  THEN C = 0607;
ELSE IF CELLX = 1126 THEN C = 0607;
ELSE IF CELLX = 1128 THEN C = 0607;
ELSE IF CELLX = 1147 THEN C = 0607;
ELSE IF CELLX = 1154 THEN C = 0607;
ELSE IF CELLX = 8977 THEN C = 0607;
ELSE IF CELLX = 8992 THEN C = 0607;
ELSE IF CELLX = 1013 THEN C = 0609;
ELSE IF CELLX = 1014 THEN C = 0609;
ELSE IF CELLX = 1015 THEN C = 0609;
ELSE IF CELLX = 1016 THEN C = 0609;
ELSE IF CELLX = 1017 THEN C = 0609;
ELSE IF CELLX = 1019 THEN C = 0609;
ELSE IF CELLX = 1124 THEN C = 0609;
ELSE IF CELLX = 1127 THEN C = 0609;
ELSE IF CELLX = 1232 THEN C = 0609;
ELSE IF CELLX = 1235 THEN C = 0609;
ELSE IF CELLX = 8982 THEN C = 0609;
ELSE IF CELLX = 1156 THEN C = 0612;
ELSE IF CELLX = 1157 THEN C = 0612;
ELSE IF CELLX = 1158 THEN C = 0612;
ELSE IF CELLX = 8903 THEN C = 0612;
ELSE IF CELLX = 8907 THEN C = 0612;
ELSE IF CELLX = 8910 THEN C = 0612;
ELSE IF CELLX = 8912 THEN C = 0612;
ELSE IF CELLX = 8913 THEN C = 0612;
ELSE IF CELLX = 8916 THEN C = 0612;
ELSE IF CELLX = 8917 THEN C = 0612;
ELSE IF CELLX = 8921 THEN C = 0612;
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ELSE IF CELLX = 855  THEN C = 0617;
ELSE IF CELLX = 874  THEN C = 0617;
ELSE IF CELLX = 871  THEN C = 0620;
ELSE IF CELLX = 872  THEN C = 0620;
ELSE IF CELLX = 861  THEN C = 0621;
ELSE IF CELLX = 1269 THEN C = 0621;
ELSE IF CELLX = 7032 THEN C = 0621;
ELSE IF CELLX = 7033 THEN C = 0621;
ELSE IF CELLX = 7107 THEN C = 0621;
ELSE IF CELLX = 625  THEN C = 0622;
ELSE IF CELLX = 852  THEN C = 0622;
ELSE IF CELLX = 8939 THEN C = 0622;
ELSE IF CELLX = 858  THEN C = 0624;
ELSE IF CELLX = 653  THEN C = 0633;
ELSE IF CELLX = 7234 THEN C = 0633;
ELSE IF CELLX = 7235 THEN C = 0633;
ELSE IF CELLX = 825  THEN C = 0635;
ELSE IF CELLX = 799  THEN C = 0805;
ELSE IF CELLX = 800  THEN C = 0806;
ELSE IF CELLX = 130  THEN C = 7043;
ELSE IF CELLX = 1179 THEN C = 8931;
ELSE IF CELLX = 190  THEN C = 9901;
ELSE IF CELLX = 191  THEN C = 9901;
ELSE IF CELLX = 193  THEN C = 9901;
ELSE IF CELLX = 424  THEN C = 9901;
ELSE IF CELLX = 781  THEN C = 9901;
ELSE IF CELLX = 907  THEN C = 9901;
ELSE IF CELLX = 908  THEN C = 9901;
ELSE IF CELLX = 920  THEN C = 9901;
ELSE IF CELLX = 921  THEN C = 9901;
ELSE IF CELLX = 922  THEN C = 9901;
ELSE IF CELLX = 930  THEN C = 9901;
ELSE IF CELLX = 931  THEN C = 9901;
ELSE IF CELLX = 933  THEN C = 9901;
ELSE IF CELLX = 939  THEN C = 9901;
ELSE IF CELLX = 940  THEN C = 9901;
ELSE IF CELLX = 946  THEN C = 9901;
ELSE IF CELLX = 995  THEN C = 9901;
ELSE IF CELLX = 5208 THEN C = 9901;
ELSE IF CELLX = 934  THEN C = 9902;
ELSE IF CELLX = 996  THEN C = 9902;
ELSE IF CELLX = 911  THEN C = 9903;
ELSE IF CELLX = 941  THEN C = 9903;
ELSE IF CELLX = 953  THEN C = 9903;
ELSE IF CELLX = 975  THEN C = 9903;
ELSE IF CELLX = 987  THEN C = 9903;
ELSE IF CELLX = 787  THEN C = 9904;
ELSE IF CELLX = 901  THEN C = 9904;
ELSE IF CELLX = 925  THEN C = 9904;
ELSE IF CELLX = 943  THEN C = 9904;
ELSE IF CELLX = 988  THEN C = 9904;
ELSE IF CELLX = 989  THEN C = 9904;
ELSE IF CELLX = 199  THEN C = 9905;
ELSE IF CELLX = 782  THEN C = 9905;
ELSE IF CELLX = 783  THEN C = 9905;
ELSE IF CELLX = 914  THEN C = 9905;
ELSE IF CELLX = 915  THEN C = 9905;
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ELSE IF CELLX = 918  THEN C = 9905;
ELSE IF CELLX = 923  THEN C = 9905;
ELSE IF CELLX = 936  THEN C = 9905;
ELSE IF CELLX = 950  THEN C = 9905;
ELSE IF CELLX = 904  THEN C = 9906;
ELSE IF CELLX = 937  THEN C = 9906;
ELSE IF CELLX = 990  THEN C = 9906;
ELSE IF CELLX = 993  THEN C = 9906;
ELSE IF CELLX = 785  THEN C = 9907;
ELSE IF CELLX = 929  THEN C = 9907;
ELSE IF CELLX = 932  THEN C = 9907;
ELSE IF CELLX = 994  THEN C = 9907;
ELSE IF CELLX = 784  THEN C = 9908;
ELSE IF CELLX = 906  THEN C = 9908;
ELSE IF CELLX = 916  THEN C = 9908;
ELSE IF CELLX = 917  THEN C = 9908;
ELSE IF CELLX = 924  THEN C = 9908;
ELSE IF CELLX = 927  THEN C = 9908;
ELSE IF CELLX = 928  THEN C = 9908;
ELSE IF CELLX = 935  THEN C = 9908;
ELSE IF CELLX = 942  THEN C = 9908;
ELSE IF CELLX = 945  THEN C = 9908;
ELSE IF CELLX = 951  THEN C = 9908;
ELSE IF CELLX = 974  THEN C = 9908;
ELSE IF CELLX = 213  THEN C = 9909;
ELSE IF CELLX = 786  THEN C = 9909;
ELSE IF CELLX = 986  THEN C = 9909;
ELSE IF CELLX = 5205 THEN C = 9909;
ELSE IF CELLX = 985  THEN C = 9910;
ELSE IF CELLX = 435  THEN C = 9911;
ELSE IF CELLX = 938  THEN C = 9911;
ELSE IF CELLX = 948  THEN C = 9911;
ELSE IF CELLX = 973  THEN C = 9911;
ELSE IF CELLX = 912  THEN C = 9912;
ELSE IF CELLX = 957  THEN C = 9913;
ELSE IF CELLX = 958  THEN C = 9913;
ELSE IF CELLX = 960  THEN C = 9913;
ELSE IF CELLX = 964  THEN C = 9913;
ELSE IF CELLX = 966  THEN C = 9913;
ELSE IF CELLX = 967  THEN C = 9913;
ELSE IF CELLX = 968  THEN C = 9913;
ELSE IF CELLX = 976  THEN C = 9913;
ELSE IF CELLX = 977  THEN C = 9913;
ELSE IF CELLX = 979  THEN C = 9913;
ELSE IF CELLX = 982  THEN C = 9913;
ELSE IF CELLX = 1170 THEN C = 9913;
ELSE IF CELLX = 952  THEN C = 9914;
ELSE IF CELLX = 961  THEN C = 9914;
ELSE IF CELLX = 963  THEN C = 9914;
ELSE IF CELLX = 965  THEN C = 9914;
ELSE IF CELLX = 978  THEN C = 9914;
ELSE IF CELLX = 983  THEN C = 9914;
ELSE IF CELLX = 969  THEN C = 9915;
ELSE IF CELLX = 970  THEN C = 9915;
ELSE IF CELLX = 971  THEN C = 9915;
ELSE IF CELLX = 972  THEN C = 9915;
ELSE IF CELLX = 902  THEN C = 9916;
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ELSE IF CELLX = 0    THEN C = 9999;
ELSE IF CELLX = 900  THEN C = 9999;
ELSE IF CELLX = 998  THEN C = 9999;
ELSE IF CELLX = 999  THEN C = 9999;
ELSE IF C = .  THEN C = 9999;
*********************************************************************
* End of CALCULATE (C)ACSMPL BASED ON CELLX
*********************************************************************;
* Create Post-Stratification BFGROUPP (POSTB)
*********************************************************************;
POSTB = B;
IF      C =    2 AND B = 3 THEN POSTB = 2;
ELSE IF C = 5 AND B = 4 THEN POSTB = 3;
ELSE IF C IN (37, 49, 68, 90, 92, 104, 123, 620) AND B = 4 THEN POSTB = 3;
ELSE IF C =   53 AND B = 4 THEN POSTB = 3;
ELSE IF C =   66 AND B = 4 THEN POSTB = 3;
ELSE IF C =   81 AND B IN (2, 3) THEN POSTB = 1;
ELSE IF C =   85 AND B = 4 THEN POSTB = 3;
ELSE IF C =   91 AND B = 4 THEN POSTB = 3;
ELSE IF C =   93 AND B = 4 THEN POSTB = 3;
ELSE IF C =   94 AND B = 4 THEN POSTB = 3;
ELSE IF C =   97 AND B = 4 THEN POSTB = 3;
ELSE IF C =  120 AND B = 4 THEN POSTB = 3;
ELSE IF C =  121 AND B = 4 THEN POSTB = 3;
ELSE IF C =  131 AND B = 4 THEN POSTB = 3;
ELSE IF C =  203 AND B = 3 THEN POSTB = 2;
ELSE IF C =  280 THEN POSTB = 1;
ELSE IF C =  297 AND B = 3 THEN POSTB = 2;
ELSE IF C =  310 AND B IN (2, 3) THEN POSTB = 1;
ELSE IF C =  321 AND B IN (2,3) THEN POSTB = 1;
ELSE IF C =  330 AND B = 3 THEN POSTB = 2;
ELSE IF C =  335 AND B = 3 THEN POSTB = 2;
ELSE IF C =  356 THEN POSTB = 1;
ELSE IF C =  363 AND B = 3 THEN POSTB = 2;
ELSE IF C =  413 AND B = 3 THEN POSTB = 2;
ELSE IF C =  422 THEN POSTB = 1;
ELSE IF C =  432 AND B = 3 THEN POSTB = 2;
ELSE IF C =  433 AND B IN (1,2,3) THEN POSTB = 1;
ELSE IF C =  449 THEN POSTB = 1;
ELSE IF C =  606 AND B IN (3,4) THEN POSTB = 2;
ELSE IF C =  607 AND B IN (3,4) THEN POSTB = 2;
ELSE IF C =  609 AND B IN (3,4) THEN POSTB = 2;
ELSE IF C =  610 AND B IN (1,2,3) THEN POSTB = 1;
ELSE IF C =  612 AND B = 4 THEN POSTB = 3;
ELSE IF C =  615 THEN POSTB = 1;
ELSE IF C =  616 AND B IN (2,3,4) THEN POSTB = 2;
ELSE IF C =  617 AND B IN (3,4) THEN POSTB = 2;
ELSE IF C =  618 AND B IN (3,4) THEN POSTB = 2;
ELSE IF C =  621 AND B = 4 THEN POSTB = 3;
ELSE IF C =  622 AND B = 4 THEN POSTB = 3;
ELSE IF C =  623 AND B IN (2,3) THEN POSTB = 1;
ELSE IF C =  624 AND B = 3 THEN POSTB = 2;
ELSE IF C =  629 AND B = 2 THEN POSTB = 1;
ELSE IF C =  633 AND B = 4 THEN POSTB = 3;
ELSE IF C =  635 AND B IN (2,3,4) THEN POSTB = 2;
ELSE IF C =  637 AND B IN (2,3,4) THEN POSTB = 1;
ELSE IF C =  638 AND B IN (2, 3, 4) THEN POSTB = 3;
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   ELSE IF C =  639 AND B IN (3,4) THEN POSTB = 2;
   ELSE IF C =  640 AND B = 4 THEN POSTB = 3;
   ELSE IF C =  653 AND B IN (1,2,3) THEN POSTB = 1;
   ELSE IF C =  802 AND B = 3 THEN POSTB = 2;
   ELSE IF C =  804 AND B = 3 THEN POSTB = 2;
   ELSE IF C =  805 AND B = 3 THEN POSTB = 2;
   ELSE IF C =  806 AND B = 3 THEN POSTB = 2;
   ELSE IF C =  808 AND B = 3 THEN POSTB = 2;
   ELSE IF C =  814 AND B IN (1,2,3) THEN POSTB = 1;
   ELSE IF C =  853 AND B = 3 THEN POSTB = 2;
   ELSE IF C =  862 AND B IN (1,2,3) THEN POSTB = 1;
   ELSE IF C = 7043 AND B IN (1,2,3) THEN POSTB = 1;
   ELSE IF C = 7139 AND B = 3 THEN POSTB = 2;
   ELSE IF C = 7200 AND B IN (1,2,3) THEN POSTB = 1;
   ELSE IF C = 8931 AND B IN (1,2,3) THEN POSTB = 1;
   ELSE IF C = 8982 AND B = 2 THEN POSTB = 1;
   ELSE IF C = 9912 AND B IN (1,2,3) THEN POSTB = 2;
   ELSE IF C = 9913 AND B = 4 THEN POSTB = 3;
   ELSE IF C = 9914 AND B IN (2,3,4) THEN POSTB = 2;
   ELSE IF C = 9915 THEN POSTB = 1;
   ELSE IF C = 9916 AND B = 1 THEN POSTB = 2;
   ***********************************************************************
   * Recode POSTCELL for possible domains
   ***********************************************************************;
   * Request = 1 for DOMAIN = Post-strata CACSMPL;
   DUMMY = 1;
   LENGTH POSTCELL $25;
   IF &REQUEST = 1 THEN DO;
      POSTCELL = DUMMY || C;
   END;
   * Request = 2 for DOMAIN = Post-strata CACSMPL by ENLSMPL;
   ELSE IF &REQUEST = 2 THEN DO;
      POSTCELL = C || E;
   * Request = 3 for DOMAIN = Post-strata DUMMY by CACSMPL by POSTB;
   END;
   ELSE IF &REQUEST = 3 THEN DO;
      POSTCELL =  PUT(C,Z4.) || PUT(POSTB,Z1.);
   END;
RUN;

TITLE1 '1998 DOD SURVEY OF HEALTH BENES - FORM A';
TITLE2 'PROGRAM: POPA01.INC, INPUT: POPA01.TXT, OUTPUT: POPULATE.SD2';

PROC SORT DATA=OUT.POPULATX; BY C CELLX; RUN;
/*
PROC MEANS DATA=OUT.POPULATX NOPRINT;
   BY C CELLX;
   VAR POP;
   OUTPUT OUT=TEMP(KEEP=C CELLX POP) SUM=POP;
RUN;
PROC PRINT; RUN;
*/

%MACRO REQUEST;
%IF &REQUEST = 1 %THEN %DO;
   TITLE3 'POPULATION COUNTS BY C(ACSMPL)';
%END;
```

```
%ELSE %IF &REQUEST = 2 %THEN %DO;
   TITLE3 'POPULATION COUNTS BY C(ACSMPL) AND E(NLSMPL)';
%END;
%ELSE %IF &REQUEST = 3 %THEN %DO;
   TITLE3 'POPULATION COUNTS BY C(ACSMPL) AND POSTB';
%END;
%MEND REQUEST;

%REQUEST; RUN;

***************************************************************************
* Generate Post-Strata population counts
***************************************************************************;
PROC SORT DATA=OUT.POPULATX; BY POSTCELL; RUN;
PROC MEANS DATA=OUT.POPULATX NOPRINT;
   BY POSTCELL;
   VAR POP;
   OUTPUT OUT=OUT.POPULATE(KEEP=POSTCELL POP) SUM=POP;
RUN;

/*
PROC SORT DATA=OUT.POPULATX; BY POSTCELL B; RUN;
PROC MEANS DATA=OUT.POPULATX NOPRINT;
   BY POSTCELL B;
   VAR POP;
   OUTPUT OUT=TEMP(KEEP=POSTCELL B POP) SUM=POP;
RUN;
PROC PRINT; RUN;
*/


***************************************************************************
*
* PROGRAM: WEIGHT05.SAS
* TASK:    DOD HEALTH CARE SURVEY ANALYSIS (8574-002)
* PURPOSE: BUILD AND ASSIGN JK WEIGHTS - POST STRATIFICATION - FORM A.
*          WEIGHTS FOR DOD SURVEY.
*          DOD HEALTH CARE SURVEY FILE.
*          REQUESTED BY DON JANG.
* WRITTEN: 02/26/99 BY KEITH RATHBUN
*
* INPUTS:   1) POPA01.TXT - CACSMPL by BGCSMPL population matrix
*              (from FORMA.TXT)
*           2) WEIGH04A.SD2 - Final Weights file - Form A
*
* OUTPUTS   1) WEIGH05A.SD2 - JackKnife (JK) Weights file - Form A
*
* INCLUDES: 1) POPA01.INC - ENLSMPL by CELL by BFGROUP population matrix
*              input step
*
***************************************************************************
*;
LIBNAME IN   'D:\KEITH\DOD98-8574\DATA';
LIBNAME OUT  'D:\KEITH\DOD98-8574\DATA';
LIBNAME LIBRARY  'D:\KEITH\DOD98-8574\DATA\FMTLIB';
OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=0 NOCENTER;
```

```
%MACRO PROCESS(DOMAIN1,DOMAIN2,DOMAIN3,DOMAIN4,FORM,INCLUDE,REQUEST);

************************************************************************
* Include the input step for the population matrix
************************************************************************;
%INCLUDE &INCLUDE;

************************************************************************
* Sort the final weights file by user-specified domains
************************************************************************;
PROC SORT DATA=IN.WEIGH04&FORM
          OUT=WEIGHT04(KEEP=FNSTATUS MPRID BWT98 &DOMAIN1 &DOMAIN2 &DOMAIN3
                       &DOMAIN4)
         ;
     BY &DOMAIN1 &DOMAIN2;
RUN;

************************************************************************
* Append SUBSET index (I) to each observation
************************************************************************;
DATA SUBSETS;
   SET WEIGHT04;
   BY &DOMAIN1 &DOMAIN2;

   IF _N_ = 1 OR MOD(_N_-1,40) = 0 THEN SUBSET = 1;
   ELSE SUBSET + 1;

   RETAIN SUBSET;
   BBWT = BWT98*(40/39);
RUN;

************************************************************************
************************************************************************
* Generate JackKnife/replicated weights WRWT01-WRWT40
************************************************************************
************************************************************************;
%DO I = 1 %TO 40;

DATA SUBSET;
   SET SUBSETS;
   IF &I = SUBSET THEN DELETE; *Remove the current subset;
RUN;

*************************************************************************
* Calculate adjustment factor A1 for each cell
*************************************************************************;
DATA CELLSA1  (KEEP=SUMBBWT SUMG1-SUMG3 A1 CELLNAME CELLCNT)
     MPRIDSA1 (KEEP=CELLNAME MPRID FNSTATUS BBWT &DOMAIN1 &DOMAIN2 &DOMAIN3
               &DOMAIN4)
    ;
   SET SUBSET;
   BY &DOMAIN1 &DOMAIN2;

   LENGTH CELLNAME $25;
   CELLNAME = &DOMAIN1 || &DOMAIN2;

   IF FIRST.&DOMAIN1 THEN DO;
```

```
      CELLCNT = 0;
      SUMBBWT = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
      A1 = 0.0;
   END;
   CELLCNT + 1;

   ****************************************************
   * Accumulate total weight sum
   ****************************************************;
   SUMBBWT + BBWT;
   ****************************************************
   * Accumulate group 1 weight sum
   ****************************************************;
   IF FNSTATUS IN(11,12) THEN SUMG1 + BBWT;
   ****************************************************
   * Accumulate group 2 weight sum
   ****************************************************;
   ELSE IF FNSTATUS = 20 THEN SUMG2 + BBWT;
   ****************************************************
   * Accumulate group 3 weight sum
   ****************************************************;
   ELSE IF FNSTATUS = 30 THEN SUMG3 + BBWT;

   RETAIN SUMBBWT SUMG1-SUMG3 A1 CELLNAME CELLCNT MPRID;

   IF LAST.&DOMAIN2 THEN DO;
      A1 = SUMBBWT/(SUMG1 + SUMG2 + SUMG3);
      OUTPUT CELLSA1;
      CELLCNT = 0;
      SUMBBWT = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
   END; * DOMAIN;
   OUTPUT MPRIDSA1;
RUN;

*************************************************************************
* Calculate adjustment factor A2 for each cell
*************************************************************************;
DATA CELLSA2 (KEEP=CELLNAME CELLCNT A1 A2 NUMER DENOM);
   MERGE MPRIDSA1 CELLSA1;
   BY CELLNAME;

   IF FIRST.CELLNAME THEN DO;
      A2 = 0.0;
      NUMER = 0.0;
      DENOM = 0.0;
   END;
   RETAIN NUMER DENOM A2;

   IF FNSTATUS IN(11,12) OR FNSTATUS = 20 THEN NUMER + BBWT*A1;
   IF FNSTATUS  = 11 THEN DENOM + BBWT*A1;
```

```
   IF LAST.CELLNAME THEN DO;
      A2 = NUMER/DENOM;
      OUTPUT CELLSA2;
   END;
RUN;

*************************************************************************
* Calculate Adjusted Weight
*************************************************************************;
DATA ADJWGT;
   MERGE CELLSA2 MPRIDSA1;
   BY CELLNAME;
   IF FNSTATUS = 11 THEN
      AWT = A1*A2*BBWT;
   ELSE IF FNSTATUS IN(12,20,41,42) THEN
      AWT = 0;
   ELSE IF FNSTATUS = 30 THEN
      AWT = A1*BBWT;
   KEEP MPRID FNSTATUS AWT BBWT &DOMAIN1 &DOMAIN2 &DOMAIN3 &DOMAIN4;
RUN;

**********************************************************************
*BEGIN FINAL WEIGHT CODE
**********************************************************************
* Assign cell names and calculate the sum of AWT
**********************************************************************;

PROC SORT DATA=ADJWGT; BY &DOMAIN3 &DOMAIN4; RUN;

DATA CELLS  (KEEP=SUMAWT POSTCELL)
     MPRIDS (KEEP=POSTCELL MPRID FNSTATUS AWT &DOMAIN1 &DOMAIN2 &DOMAIN3
            &DOMAIN4)
    ;
   SET ADJWGT;
   BY &DOMAIN3 &DOMAIN4;

   LENGTH POSTCELL $25;
   POSTCELL =  PUT(&DOMAIN3,Z4.) || PUT(&DOMAIN4,Z1.);

   IF FIRST.&DOMAIN3 THEN DO;
      SUMAWT  = 0.0;
   END;

   ******************************************************************
   * Accumulate sum of adjusted weight
   ******************************************************************;
   SUMAWT + AWT;

   RETAIN SUMAWT;

   IF LAST.&DOMAIN4 THEN DO;
      OUTPUT CELLS;
      SUMAWT  = 0.0;
   END; * DOMAIN;
   OUTPUT MPRIDS;
RUN;
```

```
*************************************************************************
* Merge the population counts and calculate the adjusted population (AP)
*************************************************************************;
DATA AP;
   MERGE OUT.POPULATE CELLS;
   BY POSTCELL;
   AP = POP/SUMAWT;
RUN;

*************************************************************************
* Merge the adjusted population and calculate JackKnife Weights
* (WRWT1-WRWT40)
*************************************************************************;
DATA SUBSET&I(KEEP=MPRID SUBSET JKWEIGHT);
   MERGE AP(IN=IN1) MPRIDS(IN=IN2);
   BY POSTCELL;

   SUBSET = &I;
   IF IN2 THEN DO;
      JKWEIGHT = AP*AWT;
      OUTPUT;
   END;

RUN;
PROC SORT DATA=SUBSET&I; BY MPRID; RUN;

*************************************************************************
*************************************************************************
* End of JackKnife/replicated weights WRWT01-WRWT40 assignments
*************************************************************************
*************************************************************************;
%END;

*************************************************************************
* Combine all of the JackKnife weight subsets by MPRID
*************************************************************************;
DATA ALLSETS;
   SET SUBSET1   SUBSET2   SUBSET3   SUBSET4   SUBSET5
       SUBSET6   SUBSET7   SUBSET8   SUBSET9   SUBSET10
       SUBSET11  SUBSET12  SUBSET13  SUBSET14  SUBSET15
       SUBSET16  SUBSET17  SUBSET18  SUBSET19  SUBSET20
       SUBSET21  SUBSET22  SUBSET23  SUBSET24  SUBSET25
       SUBSET26  SUBSET27  SUBSET28  SUBSET29  SUBSET30
       SUBSET31  SUBSET32  SUBSET33  SUBSET34  SUBSET35
       SUBSET36  SUBSET37  SUBSET38  SUBSET39  SUBSET40
   ;
   BY MPRID;
   ARRAY JKWT(40) WRWT1-WRWT40; RETAIN WRWT1-WRWT40;
   IF FIRST.MPRID THEN DO;
      DO I = 1 TO 40; DROP I;
         JKWT(I) = . ;
      END;
   END;
   JKWT(SUBSET) = JKWEIGHT;
   IF LAST.MPRID THEN OUTPUT;
   KEEP MPRID WRWT1-WRWT40;
RUN;
```

```
*************************************************************************
* Sort the original data, get the final weight (WRWT98), append the
* JackKnife/Replicated weights (WRWT1-WRWT40), and label variables.
*************************************************************************;
PROC SORT DATA=IN.WEIGH04&FORM
          OUT=WEIGHT04;
     BY MPRID;
RUN;

DATA OUT.WEIGH05&FORM;
   MERGE WEIGHT04 ALLSETS;
   BY MPRID;
   LABEL
      MPRID = 'MPR ID Number'
      WRWT1  = 'Replicated/JackKnife Weight 1'
      WRWT2  = 'Replicated/JackKnife Weight 2'
      WRWT3  = 'Replicated/JackKnife Weight 3'
      WRWT4  = 'Replicated/JackKnife Weight 4'
      WRWT5  = 'Replicated/JackKnife Weight 5'
      WRWT6  = 'Replicated/JackKnife Weight 6'
      WRWT7  = 'Replicated/JackKnife Weight 7'
      WRWT8  = 'Replicated/JackKnife Weight 8'
      WRWT9  = 'Replicated/JackKnife Weight 9'
      WRWT10 = 'Replicated/JackKnife Weight 10'
      WRWT11 = 'Replicated/JackKnife Weight 11'
      WRWT12 = 'Replicated/JackKnife Weight 12'
      WRWT13 = 'Replicated/JackKnife Weight 13'
      WRWT14 = 'Replicated/JackKnife Weight 14'
      WRWT15 = 'Replicated/JackKnife Weight 15'
      WRWT16 = 'Replicated/JackKnife Weight 16'
      WRWT17 = 'Replicated/JackKnife Weight 17'
      WRWT18 = 'Replicated/JackKnife Weight 18'
      WRWT19 = 'Replicated/JackKnife Weight 19'
      WRWT20 = 'Replicated/JackKnife Weight 20'
      WRWT21 = 'Replicated/JackKnife Weight 21'
      WRWT22 = 'Replicated/JackKnife Weight 22'
      WRWT23 = 'Replicated/JackKnife Weight 23'
      WRWT24 = 'Replicated/JackKnife Weight 24'
      WRWT25 = 'Replicated/JackKnife Weight 25'
      WRWT26 = 'Replicated/JackKnife Weight 26'
      WRWT27 = 'Replicated/JackKnife Weight 27'
      WRWT28 = 'Replicated/JackKnife Weight 28'
      WRWT29 = 'Replicated/JackKnife Weight 29'
      WRWT30 = 'Replicated/JackKnife Weight 30'
      WRWT31 = 'Replicated/JackKnife Weight 31'
      WRWT32 = 'Replicated/JackKnife Weight 32'
      WRWT33 = 'Replicated/JackKnife Weight 33'
      WRWT34 = 'Replicated/JackKnife Weight 34'
      WRWT35 = 'Replicated/JackKnife Weight 35'
      WRWT36 = 'Replicated/JackKnife Weight 36'
      WRWT37 = 'Replicated/JackKnife Weight 37'
      WRWT38 = 'Replicated/JackKnife Weight 38'
      WRWT39 = 'Replicated/JackKnife Weight 39'
      WRWT40 = 'Replicated/JackKnife Weight 40'
   ;
RUN;
```

```
TITLE1 "DOD Health Survey Final/Replicated Weights (8574-002)";
TITLE2 "Program Name: WEIGHT05.SAS By Keith Rathbun";
TITLE3 "Program Output: WEIGH05&FORM..SD2";

PROC CONTENTS DATA=OUT.WEIGH05&FORM;

PROC MEANS DATA=OUT.WEIGH05&FORM;
VAR  WRWT98 WRWT1-WRWT40;
RUN;

PROC SORT DATA=OUT.WEIGH05&FORM; BY POSTCELL; RUN;
PROC MEANS DATA=OUT.WEIGH05&FORM NOPRINT;
   VAR POP WRWT1;
   BY POSTCELL;
   OUTPUT OUT=STATS(KEEP=POSTCELL DEERSPOP POPCNT)
                    SUM= DUMMY1   POPCNT
                    MAX= DEERSPOP DUMMY2;
RUN;
PROC PRINT; RUN;

PROC PRINT DATA=OUT.WEIGH05&FORM(OBS=50);
VAR MPRID BWT98 AWT WRWT98 WRWT1-WRWT40;
RUN;

%MEND;

%PROCESS(BGCSMPL,STESMPL,CACSMPL,POSTB,A,
          "D:\KEITH\DOD98-8574\SAS\POPA01.INC",3);
RUN;



*************************************************************************

*

* PROGRAM: FINAL02.SAS

* TASK:    DOD HEALTH CARE SURVEY ANALYSIS (8574-002)

* PURPOSE: RECODE MISSING REPLICATED WEIGHTS TO ZERO.

*          DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 02/26/99 BY KEITH RATHBUN
*
* INPUT:   1) WEIGH05A.SD2 - Replicated Weights file - Form A
*
* OUTPUTS: 1) FINAL02A.SD2 - Replicated Weights file with recodes - Form A
*
*************************************************************************
*;
LIBNAME IN   'D:\KEITH\DOD98-8574\DATA';
LIBNAME OUT  'D:\KEITH\DOD98-8574\DATA';
LIBNAME LIBRARY 'D:\KEITH\DOD98-8574\DATA\FMTLIB';
OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=2 NOCENTER;
```

```
%MACRO PROCESS(FORM);

PROC SORT DATA=OUT.WEIGH05&FORM; BY MPRID; RUN;
DATA OUT.FINAL02&FORM;
   SET OUT.WEIGH05&FORM;
   BY MPRID;

   ARRAY WGTS(40) WRWT1-WRWT40;
   DO I = 1 TO 40; DROP I;
      IF WGTS(I) EQ . THEN WGTS(I) = 0;
   END;

   KEEP MPRID POSTCELL WRWT98 WRWT1-WRWT40;
RUN;

TITLE1 "1998 DOD SURVEY OF HEALTH BENES - FORM &FORM";
TITLE2 "PROGRAM: FINAL02.SAS, OUTPUT: FINAL02&FORM..SD2";

PROC CONTENTS DATA=OUT.FINAL02&FORM; RUN;

PROC MEANS DATA=OUT.FINAL02&FORM;
VAR WRWT98 WRWT1-WRWT40;
RUN;

%MEND PROCESS;

%PROCESS(A);
RUN;
```

6. FINAL RECORD SELECTION

```
*************************************************************

* PROGRAM:  SELECT.SAS     1998 FORM A DATA

* PURPOSE:  SUBSET FULL FILE ACCORDING TO RECORD SELECTION

*           SPECS FROM DONSIG JANG, I.E. ALL RECORDS WITH
*           FNSTATUS = 11.
* WRITTEN:  1/26/98 EWELL
* INPUT:    J:\8574\DATA1998\FINAL\SELECTA.SD2
* OUTPUT:   J:\8574\DATA1998\FINAL\HCS98A_3.SD2
*************************************************************;
OPTIONS PS=79 LS=132 PAGENO=1;
TITLE 'DoD 1998 Survey Data Form A';
Title2 'Subset File to Valid Responses';
LIBNAME INA 'J:\8574\DATA1998\FINAL';
LIBNAME LIBRARY 'J:\8574\DATA1998\PRELIM\FMTLIB';
PROC FREQ DATA=INA.SELECTA;
TABLES FNSTATUS / MISSING;
RUN;

PROC CONTENTS DATA=INA.SELECTA;
RUN;

DATA INA.HCS98A_3(DROP=FNSTATUS);
SET INA.SELECTA(DROP=I S0COUNT S1COUNT S2COUNT S3COUNT S9COUNT S4COUNT
    S5COUNT S6COUNT S7COUNT S8COUNT S10COUNT DUPFLAG TOTCOUNT ORDER);
IF FNSTATUS = 11;
RUN;


PROC CONTENTS DATA=INA.HCS98A_3 POSITION;
RUN;
```

7. FORMATTING

```
*****************************************************************************
**

* PROGRAM:   FORMAT.SAS

* WRITTEN:   3/25/99 BY KELLY WHITE

* PURPOSE:   TO ATTACH LABELS AND FORMATS

* INPUT:     J:\8574\DATA1998\PRELIM\HCS98A_3.SD2
* OUTPUT:    J:\8574\DATA1998\PRELIM\HCS98A_4.SD2
*****************************************************************************
**
*;
LIBNAME IN 'J:\8574\DATA1998\FINAL';
LIBNAME LIBRARY 'J:\8574\DATA1998\FINAL\FMTLIB';
OPTIONS PS=75 LS=111 ERRORS=2;

/*PROC CONTENTS DATA=IN.HCS98A_3;
RUN;  */
DATA IN.HCS98A_4;
     SET IN.HCS98A_3;

/* ATTACH LABELS AND FORMATS */
LABEL
       H98001_R = 'In last year, receive any health care-R'
       H98002_R = 'Mil fclty past yr: stay overnight-R'
       H98003_R = 'Mil fclty past yr: how many overnights-R'
       H98004_R = 'Civ fclty past yr: stay overnight-R'
       H98005AR = 'Civ fclty past yr: paid by TRICARE-R'
       H98005BR = 'Civ fclty yr: prvt,Medcre,Medcaid-R'
       H98006_R = 'Mil fclty past yr: make outptnt visit-R'
       H98007_R = 'Mil fclty past yr: how mny outptnt vst-R'
       H98008_R = 'Civ fclty past yr: make outptnt visit-R'
       H98009AR = 'Civ fclty pst yr: otptnt pd by TRICRE-R'
       H98009BR = 'Civ fclty yr: prvt,Medicre,Medicaid-R'
       H98010_R = 'Mil fclty past yr: go to emrgncy rm-R'
       H98011_R = 'Mil fclty past yr: how mny emrgncy rm-R'
       H98012_R = 'Civ fclty past yr: go to emrgncy rm-R'
       H98013AR = 'Civ fclty yr:how mny emrgncy rm TRICRE-R'
       H98013BR = 'Civ fclty yr:#ER vis priv,Medcre/caid-R'
       H98021_R = 'Smoked at least 100 cigarettes in life-R'
       H98022_R = 'Smoke daily, some days, or not at all-R'
       H98023_R = 'How long since quit smoking-R'
       H98024_R = 'Lst year: # vis advsed to quit smking-R'
       H98027_R = 'Lst prostate dsease exam/blood test-R'
       H98028_R = 'Lst routine female exam w/Pap-R'
       H98029AR = 'Under age 40-R'
       H98029BR = 'Lst time breasts examined: mammography-R'
       H98029CR = 'Lst time breasts examined: clincl exam-R'
       H98030_R = 'Been prgnant in lst yr or prgnant now-R'
       H98031_R = 'Whn frst receive dr care for prgncy-R'
       H98035_R = 'Are you active duty-R'
```

```
H98036_R = 'Currently enrlled: TRICARE Prime/Sr-R'
H98037_R = 'Currently enrlled: disenroll for other-R'
H98038_R = 'Membr/TRICARE PRM: mil/civ prmry prvdr-R'
H98039_R = 'Not membr TRICRE: how likly to enroll-R'
H98040_R = 'TRICARE Extra/Standard: prvdr in ntwk-R'
H98042_R = 'Rely on TRICARE Prime for most of care-R'
H98043_R = 'In lst yr, how many mo cvrd by TRICARE-R'
H98044_R = 'Currently cvrd by suppl insurance-R'
H98045AR = 'Which supplemental: CHAMPUS-R'
H98045BR = 'Which supplemental: Medicare (Medigap)-R'
H98045CR = 'Which supplemental: Other not pd prmry-R'
H98045DR = 'Which supplemental: None-R'
H98046_R = 'TRICARE affctd dcsion: CHAMPUS/Mdcare-R'
H98049AR = 'In lst yr: no expenses-R'
H98049BR = 'In lst yr: how much out-of-pckt exp.-R'
H98051_R = 'Have prsn you consider prsnl dr/nurse-R'
H98052_R = 'Rating of personal doctor or nurse-R'
H98053_R = 'In lst yr: dr think you needed spclst-R'
H98054_R = 'In lst yr: dfclty of refrrl to spclst-R'
H98055_R = 'In last year: did you see specialist-R'
H98056_R = 'Rtng spclst seen most oftn in lst yr-R'
H98057_R = 'In lst yr: mntal hlth trtmnt/counsel.-R'
H98058_R = 'In lst yr: prblm w/mntl hlth/cnslng pln-R'
H98059_R = 'In lst yr:prblm getting necessary care-R'
H98060_R = 'In lst yr: delays bcause wtng on aprvl-R'
H98061_R = 'In lst yr: send in claims to hlthcare-R'
H98065_R = 'In lst yr: lk for info in writ. mtrls-R'
H98066_R = 'In lst yr:prblm fndng/undrstndng mtrls-R'
H98067_R = 'In lst yr: call customer svc for info-R'
H98068_R = 'In lst yr: prblm w/hlp frm cstmer svc-R'
H98069AR = 'In last yr: any paprwrk w/hlth pln-R'
H98069BR = 'In lst yr:prblm w/prwrk from hlth pln-R'
H98070_R = 'Called or writ. plan w/cmplnt/prblm-R'
H98074_R = 'In lst yr: facility most used for care-R'
H98075_R = 'In lst yr: how oftn mk 3/more phne cls-R'
H98077AR = 'How mny wks wait: a well patient visit-R'
H98077BR = 'How mny wks wait: for a spcialty visit-R'
H98078_R = 'In lst yr: vsts for minor illnss/injry-R'
H98079_R = 'How mny days wait: vst for minor care-R'
H98080_R = 'In lst yr: any urgent care visits-R'
H98081_R = 'How mny days wait: vst for urgnt care-R'
H98082_R = 'How oftn take more than 30 min to trvl-R'
H98083_R = 'In lst yr: how oftn wt 30 min pst appt-R'
H98084_R = 'In lst yr: call durng bus. hrs for slf-R'
H98085_R = 'Whn called at bus. hrs, get help-R'
H98086_R = 'In lst yr: illnss/injry need dr immed.-R'
H98087_R = 'Whn needed dr immed., receive it-R'
H98088_R = 'In lst yr: make routine appts w/doctor-R'
H98089_R = 'In lst yr: how quick did you get appt-R'
H98090_R = 'How often office staff treat w/respect-R'
H98091_R = 'How oftn offce staff helpful as needed-R'
H98092_R = 'How oftn did dr listen crefully to you-R'
H98093_R = 'How oftn dr explain understandably-R'
H98094_R = 'How oftn dr show rpct fr thngs you say-R'
H98095_R = 'How oftn did dr spend enough tme w/you-R'
H98097_R = 'Receive care from mil in lst yr-R'
H98101_R = 'Receive care from civ prvdr in lst yr-R'
```

```
H98118AR = 'Are you on active duty-R'
H98118BR = 'Currently in operatnal deployment/tour-R'
MISS_1   = 'Count of:Violates Skip Pattern         '
MISS_4   = 'Count of: Incomplete grid error        '
MISS_6   = 'Count of: Not applicable - valid skip  '
MISS_7   = 'Count of: Out-of-range error           '
MISS_8   = 'Count of: Multiple response error      '
MISS_9   = 'Count of: No response - invalid skip   '
MISS_TOT = 'Total number of missing responses      '
N4       = 'Coding Scheme Note 4                   '
N5       = 'Coding Scheme Note 5          '
N6       = 'Coding Scheme Note 6          '
N7       = 'Coding Scheme Note 7          '
N8       = 'Coding Scheme Note 8          '
N9       = 'Coding Scheme Note 9          '
N10      = 'Coding Scheme Note 10         '
N11      = 'Coding Scheme Note 11         '
N13      = 'Coding Scheme Note 13         '
N14      = 'Coding Scheme Note 14         '
N15      = 'Coding Scheme Note 15         '
N16      = 'Coding Scheme Note 16         '
N17      = 'Coding Scheme Note 17         '
N18      = 'Coding Scheme Note 18         '
N19      = 'Coding Scheme Note 19         '
N20      = 'Coding Scheme Note 20         '
N21      = 'Coding Scheme Note 21         '
N22      = 'Coding Scheme Note 22         '
N23      = 'Coding Scheme Note 23         '
N24      = 'Coding Scheme Note 24         '
N25      = 'Coding Scheme Note 25         '
N26      = 'Coding Scheme Note 26         '
N27      = 'Coding Scheme Note 27         '
N28      = 'Coding Scheme Note 28         '
N29      = 'Coding Scheme Note 29         '
N30      = 'Coding Scheme Note 30         '
N31      = 'Coding Scheme Note 31         '
N32      = 'Coding Scheme Note 32         '
N33      = 'Coding Scheme Note 33         '
N34      = 'Coding Scheme Note 34         '
N35      = 'Coding Scheme Note 35         '
N36      = 'Coding Scheme Note 36         '
N37      = 'Coding Scheme Note 37         '
N38A     = 'Coding Scheme Note 38A        '
N38B     = 'Coding Scheme Note 38B        '
N38C     = 'Coding Scheme Note 38C        '
N38D     = 'Coding Scheme Note 38D        '
N38E     = 'Coding Scheme Note 38E        '
N38F     = 'Coding Scheme Note 38F        '
N38G     = 'Coding Scheme Note 38G        '
N38H     = 'Coding Scheme Note 38H        '
N38I     = 'Coding Scheme Note 38I        '
N38J     = 'Coding Scheme Note 38J        '
N38K     = 'Coding Scheme Note 38K        '
N38L     = 'Coding Scheme Note 38L        '
N38M     = 'Coding Scheme Note 38M        '
N12A     = 'Coding Scheme Note 12A         '
N12B     = 'Coding Scheme Note 12B         '
```

```
      N12C     = 'Coding Scheme Note 12C         '
      DOB      = 'Date of Birth                  '
      SRAGE_R  = 'Current age-R                  '
      SREDHIGH = 'Highest school grade completed - HIGH '
      XSEXA    = 'Male or Female  - R'
      SRDATE   = 'Date Survey Completed '
      ;

FORMAT
       ENLSMPLP       ENLSMP.
       ENLSMPL        ENLSMP.
       CACSMPL        CAC.
       H98001_R       HAYN2_.
       H98002_R       HAY1_.
       H98003_R       HAGRID.
       H98004_R       HAY1_.
       H98005AR       HAGRID.
       H98005BR       HAGRID.
       H98006_R       HAY1_.
       H98007_R       HAGRID.
       H98008_R       HAY1_.
       H98009AR       HAGRID.
       H98009BR       HAGRID.
       H98010_R       HAY1_.
       H98011_R       HAGRID.
       H98012_R       HAY1_.
       H98013AR       HAGRID.
       H98013BR       HAGRID.
       H98021_R       HAY4_.
       H98022_R       HASMK.
       H98023_R       HAQUIT.
       H98024_R       HAVISIT.
       H98027_R       HATIME2_.
       H98028_R       HATIME2_.
       H98029AR       HAYN2_.
       H98029BR       HATIME2_.
       H98029CR       HATIME2_.
       H98030_R       HAYN3_.
       H98031_R       HACARE.
       H98035_R       HAYN2_.
       H98036_R       HAY1_.
       H98037_R       HALIKELY.
       H98038_R       HAMGR.
       H98039_R       HALIKE2_.
       H98040_R       HAYNTRI.
       H98042_R       HAY1_.
       H98043_R       HAGRID.
       H98044_R       HAY1_.
       H98045AR       HAMARK.
       H98045BR       HAMARK.
       H98045CR       HAMARK.
       H98045DR       HAMARK.
       H98046_R       HATRI.
       H98049AR       HAMARK.
       H98049BR       HAGRID.
       H98051_R       HAYN2_.
       H98052_R       HARATE1_.
```

```
H98053_R        HAYN2_.
H98054_R        HAPROB.
H98055_R        HAYN2_.
H98056_R        HARATE2_.
H98057_R        HAYN2_.
H98058_R        HAPROB1_.
H98059_R        HAPROB2_.
H98060_R        HAPROB2_.
H98061_R        HAY4_.
H98065_R        HAYN2_.
H98066_R        HAPROB3_.
H98067_R        HAYN2_.
H98068_R        HAPROB4_.
H98069AR        HAYN2_.
H98069BR        HAPROB5_.
H98070_R        HAYN2_.
H98074_R        HAMILFAC.
H98075_R        HAOFTN6_.
H98077AR        HAWEEKS.
H98077BR        HAWEEKS.
H98078_R        HAYN2_.
H98079_R        HADAY.
H98080_R        HAYN2_.
H98081_R        HAWAIT.
H98082_R        HAOFTEN.
H98083_R        HAOFTEN.
H98084_R        HAYN2_.
H98085_R        HAOFTN4_.
H98086_R        HAYN2_.
H98087_R        HAOFTN3_.
H98088_R        HAYN2_.
H98089_R        HAOFTN2_.
H98090_R        HAOFTEN.
H98091_R        HAOFTEN.
H98092_R        HAOFTEN.
H98093_R        HAOFTEN.
H98094_R        HAOFTEN.
H98095_R        HAOFTEN.
H98097_R        HAYN2_.
H98101_R        HAYN2_.
H98118AR        HAYN2_.
H98118BR        HAYN2_.
MISS_1          HAMISS.
MISS_4          HAMISS.
MISS_6          HAMISS.
MISS_7          HAMISS.
MISS_8          HAMISS.
MISS_9          HAMISS.
MISS_TOT        HAMISS.
SRAGE_R         HAGRID.
SREDHIGH        HAEDUC.
XSEXA           HASEX.
ELGCDE          $ELGCDE.
GROUP           $GROUP.
MSTATUS         $MSTATUS.
PRVCDE          $PRVCDE.
RACE            $RACE.
```

```
        RECTYP          $RECTYP.
        SEX             $SEX.
        STATUS          $STATUS.
        SVC             $SVC.
        SEXSMPL         HASEX.
        BFGROUP         XBGC_S.
        ELGCDEP         $ELGCDE.
        AGESMPL         AGESMPL.
        BGCSMPL         BGCSMPL.
        MPCSMPL         MPCSMPL.
        SVCSMPL         SVCSMPL.
        DOB             YYMMDD10.
        RADRDMIS        $DMIS.
        ENR_DMIS        $DMIS.
        UDMIS           $DMIS.
        ;

 RUN;

 PROC CONTENTS DATA=IN.HCS98A_4;
 RUN;
```

8. CONSTRUCTED VARIABLES FOR ANALYSIS

```
*****************************************************************************
**
* PROGRAM:   CONSVAR2.SAS
* WRITTEN:   2/3/99 BY KELLY WHITE
* PURPOSE:   TO CREATE 5 INDEPENDENT VARIABLES: XENRLLMT, XENR_PCM, XINS_COV
*            XQENROLL,  XBNFGRP
*            1 INDEPENDENT VARIABLE ALREADY CREATED FROM DEERS-BFGROUPP
*            TO CREATE 24 DEPENDENT VARIABLES: KMIL98, KCIV98, KENRINTN,
*            KDISENRL,  KNOWLG98, KBGPRB1 KBGPRB2
*            KMILWAT1, KCIVWAT1,
*            KMILOFFC, KCIVOFFC,
*            KMILEMER, KCIVEMER, KTOTEMER, KMILOP98,
*            KCIVOP98, KTOTOP98, KPRSCPTN, HP_PRNTL, HP_MAMOG, HP_PAP,
*            HP_BP, HP_FLU, HP_PROS
*            TO CREATE 7 1997 TREND VARIABLES: KMIL97, KCIV97, KNOWLG97,
*            KMILOP9, KCIVOP97, KTOTOP97, - WILL ALSO INCLUDE THE
*            FOLLOWING VARIABLES FROM 1997: BFGROUP, XENRLLMT, XREGION
*            TO CREATE 6 1996 TREND VARIABLES: KMIL96, KCIV96, KMILOP96,
*            KCIVOP96, KTOTOP96, XENRLLMT
* INPUT:     J:\8574\DATA1998\FINAL\HCS98A_4.SD2
*            J:\8438\DATA1997\FORMA\HCS97A_2.SD2
*            J:\8574\DATA1996\HCS96A_3.SD2
* OUTPUT:    J:\8574\DATA1998\FINAL\CONSVAR2.SD2
*            J:\8574\DATA1998\FINAL\TREND97.SD2
*            J:\8574\DATA1998\FINAL\TREND96.SD2
*****************************************************************************
**
*;

LIBNAME IN 'J:\8574\DATA1998\FINAL';
LIBNAME IN2'J:\8438\DATA1997\FORMA';
```

```
LIBNAME IN3'J:\8574\DATA1996';
LIBNAME LIBRARY 'J:\8574\data1998\FINAL\fmtlib';
OPTIONS PS=79 LS=132 ERRORS=2 CENTER ;
TITLE1 '1998 Health Care Survey of DoD Beneficiaries Study - Adult Form A';
TITLE2 'CREATE CONSTRUCTED & OUTCOME MEASURE VARIABLES';

DATA IN.CONSVAR2 (KEEP = XENRLLMT XENR_PCM XINS_COV XQENROLL XREGION
                         BFGROUPP XBNFGRP KMIL98 KCIV98 KENRINTN KDISENRL
                         KNOWLG98 KMILWAT1 KCIVWAT1 KMILOFFC
                         KCIVOFFC KBGPRB1 KBGPRB2 KMILEMER KCIVEMER
                         KTOTEMER KMILOP98 KCIVOP98  KTOTOP98 KPRSCPTN
                         HP_PRNTL HP_MAMOG HP_PAP HP_BP HP_FLU HP_PROS MPRID)
       CONSVAR2;
   SET IN.HCS98A_4(drop=XREGION);

  LABEL
       XENRLLMT    =  "Enrollment in TRICARE Prime"
       XENR_PCM    =  "Enrollment by PCM type"
       XINS_COV    =  "Insurance Coverage"
       XQENROLL    =  "Enrllmnt accordng to questionre rspnse"
       XREGION     =  "Health Care regions "
       XBNFGRP     =  "Constructed Beneficiary Group"
       KMIL98      =  "Satisfied with Military care"
       KCIV98      =  "Satisfied with Civilian care"
       KENRINTN    =  "Intention to enroll         "
       KDISENRL    =  "Intention to disenroll      "
       KNOWLG98    =  "TRICARE knowledge           "
       KMILWAT1    =  "Wait <4 wks for well patient visit-Mil"
       KCIVWAT1    =  "Wait <4 wks for well patient visit-Civ"
       KMILOFFC    =  "Office wait of 30 min or more-Mil"
       KCIVOFFC    =  "Office wait of 30 min or more-Civ"
       KBGPRB1     =  "Big problem getting referrals to spclst"
       KBGPRB2     =  "Big problem getting neccessary care"
       KMILEMER    =  "One or more emergency rm visits-Mil"
       KCIVEMER    =  "One or more emergency rm visits-Civ"
       KTOTEMER    =  "One or more emergency room visits"
       KMILOP98    =  "Outpatient visits to Military facility"
       KCIVOP98    =  "Outpatient visits to Civilian facility"
       KTOTOP98    =  "Total outpatient visits"
       KPRSCPTN    =  "7 or > civ prscrptns filled by mil phmcy"
       HP_PRNTL    =  "Prgnt in lst yr, received cre 1st trimstr"
       HP_MAMOG    =  "Women 50>=, mammography in pst 2 yrs"
       HP_PAP      =  "All women, pap smear in lst 3 yrs"
       HP_BP       =  "Bld prsre chck in lst 2 yrs,know rslts"
       HP_FLU      =  "65 and older, flu shot in lst 12 mnths"
       HP_PROS     =  "Men 50>=, prostrate exam in lst 12 mnths" ;


  FORMAT
        ENLSMPLP       ENLSMP.
        XENRLLMT       ENROLL.
        XENR_PCM       PCM.
        XINS_COV       INSURE.
        XQENROLL       PCM.
        XREGION        CREG.
        XBNFGRP        XBGC_S.
        KMIL98         HAYNN.
```

```
        KCIV98         HAYNN.
        KENRINTN       HAYNN.
        KDISENRL       HAYNN.
        KNOWLG98       KNOW.
        KMILWAT1       HAYNN.
        KCIVWAT1       HAYNN.
        KMILOFFC       HAYNN.
        KCIVOFFC       HAYNN.
        KBGPRB1        HAYNN.
        KBGPRB2        HAYNN.
        KMILEMER       VISITS.
        KCIVEMER       VISITS.
        KTOTEMER       VISITS.
        KMILOP98       HAGRID.
        KCIVOP98       HAGRID.
        KTOTOP98       HAGRID_.
        KPRSCPTN       HAYNN.
        HP_PRNTL       PRNTL.
        HP_MAMOG       HAYNN.
        HP_PAP         HAYNN.
        HP_BP          HAYNN2_.
        HP_FLU         HAYNN.
        HP_PROS        HAYNN.
        BFGROUPP       XBGC_S. ;



/* CREATE INDEPENDENT VARIABLES */

/*   XREGION  */
%include 'XREGION.INC' /source2;

/* XENRLLMT--ENROLLMENT STATUS */
IF 18 <= SRAGE_R < 65 THEN DO;
 IF BFGROUPP = 1 THEN XENRLLMT = 1;             /*   Active duty (<65) */
 ELSE IF ENLSMPLP IN ( 1, 2)THEN XENRLLMT = 2;  /*   Non-active duty enrolled
(<65)*/
 ELSE IF ENLSMPLP =3 THEN XENRLLMT = 3;        /*   Not Enrolled (<65)*/
END;
ELSE IF SRAGE_R > = 65
  AND ENLSMPLP = 3 THEN XENRLLMT = 4;           /*   Not Enrolled (65+)*/

/* XENR_PCM--ENROLLMENT BY PCM TYPE */
IF 18 <= SRAGE_R < 65 THEN DO;
 IF BFGROUPP = 1 THEN XENR_PCM = 1;        /*   Active duty (<65)        */
 ELSE IF ENLSMPLP = 1 THEN XENR_PCM = 2;   /*   Enrolled (<65) - mil PCM */
 ELSE IF ENLSMPLP = 2 THEN XENR_PCM = 3;   /*   Enrolled (<65) - civ PCM */
 ELSE IF ENLSMPLP =3  THEN XENR_PCM = 4;   /*   Not Enrolled (<65)       */
END;
 ELSE IF SRAGE_R > = 65
 AND ENLSMPLP = 3 THEN XENR_PCM = 5;        /*  Not Enrolled (65+)       */

/* XINS_COV--INSURANCE COVERAGE */
 IF XENRLLMT = 1 THEN XINS_COV =1; /* Prime <65-Active Duty */
  ELSE IF 18 <= SRAGE_R < 65 AND H98050 IN (1,2) THEN XINS_COV = 2; /* Prime
<65-Non-active Duty */
  ELSE IF H98050 = 3 THEN XINS_COV = 3;    /* Standard/Extra */
```

```
  ELSE IF H98050 = 4 THEN XINS_COV = 4;    /* Medicare */
  ELSE IF H98050 = 5 THEN XINS_COV = 5;    /* Other Insurance */

/* XQENROLL--ENROLLMENT ACCORDING TO QUESTIONNAIRE RESPONSES */
  IF H98035_R = 1 AND 18 <= SRAGE_R < 65 THEN XQENROLL = 1; /* Active Duty
(<65)*/
  ELSE IF H98035_R = 2 THEN DO;        /* Non-Active Duty */
     IF 18 <= SRAGE_R < 65 AND H98036_R = 1 THEN DO;
       IF H98038_R = 1 THEN XQENROLL = 2;    /*  Enrolled (<65) - mil PCM */
       ELSE IF H98038_R = 2 THEN XQENROLL = 3;/* Enrolled (<65) - civ PCM */

/* for unsure, default to DEERS sampling values   */
       ELSE IF H98038_R = 3 THEN DO;
         IF ENLSMPLP = 1 THEN XQENROLL = 2;   /* Enrolled (<65) - Mil PCM */
         ELSE IF ENLSMPLP = 2 THEN XQENROLL = 3;/* Enrolled (<65) - Civ PCM */
       END;
     END;
     ELSE IF H98036_R = 2 THEN DO;
      IF 18 <= SRAGE_R < 65 THEN XQENROLL = 4;     /* Not enrolled (<65)   */
      ELSE IF SRAGE_R >= 65 THEN XQENROLL = 5; /* Not enrolled (>=65) */
     END;
  END;


 /* XBNFGRP-Beneficiary Group that excludes those 65 and over-Active Duty
           and Family Members of Active Duty */
   IF SRAGE_R >= 65 AND BFGROUPP IN (1,2) THEN XBNFGRP = .;
   ELSE XBNFGRP = BFGROUPP;



/* CREATE DEPENDENT VARIABLES */

/* KMIL98--SATISFIED WITH MILITARY CARE */
   IF H98099A IN (4, 5) THEN KMIL98 = 1;             /*  Yes  */
      ELSE IF H98099A IN (1, 2, 3) THEN KMIL98 = 2;  /*  No  */

/* KCIV98--SATISFIED WITH CIVILIAN CARE */
   IF H98103A IN (4, 5) THEN KCIV98 = 1;             /* Yes */
      ELSE IF H98103A IN (1, 2, 3) THEN KCIV98 = 2;  /* No  */

/* KENRINTN--INTENTION TO ENROLL */
   IF H98039_R IN (4, 5) THEN KENRINTN = 1;                  /* Yes */
      ELSE IF H98039_R IN (1, 2, 3, 6) THEN KENRINTN = 2;    /* No  */

/* KDISENRL--INTENTION TO DISNEROLL */
   IF H98037_R IN (4, 5) THEN KDISENRL = 1;                  /* Yes */
      ELSE IF H98037_R IN (1, 2, 3, 6) THEN KDISENRL = 2;    /* No  */

/* KNOWLG98--TRICARE KNOWLEDGE */
   IF H98032 = 1 THEN KNOWLG98 = 1;                  /*  None */
      ELSE IF H98032 IN (2, 3, 4) THEN KNOWLG98 = 2; /*  Some   */

/* KMILWAT1--WAIT LESS THAN 4 WEEKS FOR WELL PATIENT VISIT AT MIL FACILITIES
   KCIVWAT1--WAIT LESS THAN 4 WEEKS FOR WELL PATIENT VISIT AT CIV FACILITIES*/
   IF H98074_R = 1 THEN DO;       /* Military */
      IF H98077A IN (1, 2) THEN KMILWAT1 = 1;    /*   Yes */
```

```
      ELSE IF H98077A =  3 THEN KMILWAT1 = 2;    /*   No  */
   END;
      ELSE IF H98074_R = 2 THEN DO;    /*   Civilian */
           IF H98077A IN (1, 2) THEN KCIVWAT1 = 1;    /*   Yes */
           ELSE IF H98077A =  3 THEN KCIVWAT1 = 2;    /*   No  */
      END;

/* KMILOFFC--OFFICE WAIT OF 30 MINUTES OR MORE AT MILITARY FACILITES
   KCIVOFFC--OFFICE WAIT OF 30 MINUTES OR MORE AT CIVILIAN FACILITES */
   IF H98074_R = 1 THEN DO;       /* Military */
      IF H98083 IN (3,4) THEN KMILOFFC = 1;                /*  Yes */
      ELSE IF H98083 IN (1,2) THEN KMILOFFC = 2;          /*  No  */
   END;
      ELSE IF H98074_R = 2 THEN DO;    /*   Civilian */
           IF H98083 IN (3,4) THEN KCIVOFFC = 1;              /* Yes */
           ELSE IF H98083 IN (1,2) THEN KCIVOFFC = 2;        /* No */
      END;

/* KBGPRB1--BIG PROBLEM GETTING REFERRALS TO SPECIALISTS */
   IF H98054 =1 THEN KBGPRB1 =1;                            /* YES */
      ELSE IF H98054 IN (2,3) THEN KBGPRB1 =2;               /* NO  */

/* KBGPRB2--BIG PROBLEM GETTING NECESSARY CARE */
   IF H98059 =1 THEN KBGPRB2 =1;                           /* YES */
       ELSE IF H98059 IN (2,3) THEN KBGPRB2 =2;            /* NO  */

/* KMILEMER--FLAG TO INDICATE 1 OR MORE EMERGENCY RM VISITS TO MIL FACILITY
   KCIVEMER--FLAG TO INDICATE 1 OR MORE EMERGENCY RM VISITS TO CIV FACILITY */
   IF H98010_R=1 AND H98011_R >=1 THEN KMILEMER = 1;  /*1 OR MORE VISITS */
        ELSE IF H98010_R=2 OR H98001_R=2 THEN KMILEMER=2 ;    /* NO VISITS */
    IF H98012_R=1 AND SUM(H98013AR, H98013BR)>=1 THEN KCIVEMER =1; /* 1 OR MORE
VISITS */
        ELSE IF H98012_R=2 OR H98001_R=2 THEN KCIVEMER=2;      /* NO VISITS */

/* KTOTEMER--FLAG TO INDICATE EITHER MIL OR CIV EMERGENCY ROOM VISITS */
   IF KMILEMER=1 OR KCIVEMER=1 THEN KTOTEMER = 1; /*1 OR MORE VISITS */
      ELSE IF KMILEMER=2 AND KCIVEMER=2 THEN KTOTEMER=2; /* NO VISITS */

/* KMILOP98--OUTPATIENT VISITS TO MILITARY FACILITY
   KCIVOP98--OUTPATIENT VISITS TO CIVILIAN FACILITY */
   IF H98001_R=2 OR H98006_R = 2 THEN KMILOP98=0;
      ELSE KMILOP98 = H98007_R;
   IF H98001_R=2 OR H98008_R = 2 THEN KCIVOP98=0;
      ELSE KCIVOP98 = SUM(H98009AR, H98009BR);

 /* KTOTOP98--SUM OF ALL OUTPATIENT VISITS */
    KTOTOP98 = SUM(KMILOP98, KCIVOP98);

/* KPRSCPTN--7 OR MORE CIVILIAN PRESCRIPTIONS FILLED BY MILITARY PHARMACY */
   IF H98014 IN (3,4) THEN KPRSCPTN = 1; /* YES */
      ELSE IF H98014 IN (1,2) OR H98001_R=2 THEN KPRSCPTN =2; /* NO */

/* HP_PRNTL--IF PREGNANT LAST YEAR, RECEIVED PRENATAL CARE IN 1ST TRIMESTER */
   IF H98030_R = 1 THEN DO;      /*   Pregnant in last 12 months   */
      IF H98031_R = 7 THEN HP_PRNTL = 1;            /*   Yes   */
         ELSE IF H98031_R = 4 THEN HP_PRNTL = .;    /* <3 months pregnant now */
         ELSE IF H98031_R IN (1, 2, 3, 5, 6) THEN HP_PRNTL = 2;   /*   No */
```

```
   END;

/* HP_MAMOG--FOR WOMEN AGE 50 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS */
   IF XSEXA = 2 AND SRAGE_R >= 50 THEN DO;
      IF H98029B IN (5, 4) THEN HP_MAMOG = 1;            /* Yes */
      ELSE IF H98029B IN (1, 2, 3) THEN HP_MAMOG = 2;    /* No */
   END;

/* HP_PAP--FOR ALL WOMEN, HAD PAP SMEAR IN LAST 3 YEARS */
   IF XSEXA = 2 THEN DO;
      IF H98028_R IN (4, 5) THEN HP_PAP = 1;            /* Yes */
      ELSE IF H98028_R IN (1, 2, 3) THEN HP_PAP = 2;    /* No  */
   END;

/* HP_BP--HAD BLOOD PRESSURE SCREENING IN LAST 2 YEARS AND KNOW RESULT */
   IF H98017A IN (4, 5) AND H98017B IN (1, 2) THEN HP_BP = 1; /* Yes */
      ELSE IF H98017A in (1, 2, 3) THEN HP_BP = 2;         /*    No */
      ELSE IF H98017A < 0 OR H98017B < 0 THEN HP_BP = .;     /* Unknown */
      ELSE HP_BP = 2;         /*    No */

/* HP_FLU--FOR PERSON AGE 65 OR OVER, HAD FLU SHOT IN LAST 12 MONTHS */
   IF SRAGE_R >= 65 THEN DO;
      IF H98019 = 5 THEN HP_FLU = 1;                     /*   Yes */
      ELSE IF H98019 IN (1, 2, 3, 4) THEN HP_FLU = 2;    /*   No  */
   END;

/* HP_PROS--FOR MEN AGE 50 AND OVER, HAD PROSTRATE EXAM W/IN PAST 12 MONTHS */
   IF XSEXA = 1 AND SRAGE_R >= 50 THEN DO;
      IF H98027_R = 5 THEN HP_PROS = 1;                    /*   Yes */
      ELSE IF H98027_R IN (1, 2, 3, 4) THEN HP_PROS = 2;   /*   No   */
   END;

 RUN;

 PROC FORMAT ;
        value hamuch      /*FROM 1997- INCLUDE FOR KNOWLG97 */
        1 = "Nothing         "
        2 = "A little        "
        3 = "Something       "
        4 = "A great deal    "
        . = "No response     "
       .A = "Mult response   "
       .B = "No survey return"
       .C = "Violates Skip Pattern"
       .N = "NA or valid skip"
  ;

 DATA IN.TREND97 ;
   SET IN2.HCS97A_3(KEEP= H9751A H9766A H9771 H9746  H9743_R  H9758_R
                    H9761 H9753_R H9754 XBGC_S XENRSTAT XREGION SRAGE_R
                    STRATUM WRWT97 SF12MCS SF12PCS) ;
   FORMAT _ALL_;

  LABEL
       KMIL97      =  "Satisfied with Military care"
       KCIV97      =  "Satisfied with Civilian care"
       KNOWLG97    =  "Tricare knowledge"
```

```
      KMILOP97    =  "Outpatient visits to Military facility"
      KCIVOP97    =  "Outpatient visits to Civilian facility"
      KTOTOP97    =  "Total outpatient visits"
      XBNFGRP     =  "Recoded Beneficiary Category"
      XENRLLMT    =  "Enrollment in TRICARE Prime"
      XREGION     =  "Health Care regions " ;


  FORMAT
        KMIL97         HAYNN.
        KCIV97         HAYNN.
        H9751A         HAAGREE.
        H9766A         HAAGREE.
        KNOWLG97       KNOW.
        H9771          HAMUCH.
        H9743_R        HAYNN.
        H9758_R        HAYNN.
        H9746          HAGRID.
        H9761          HAGRID.
        KMILOP97       HAGRID.
        KCIVOP97       HAGRID.
        KTOTOP97       HAGRID_.
        H9753_R        HAY4_.
        H9754          HAPRE.
        XBNFGRP        XBGC_S.
        XENRLLMT       ENROLL.
        XENRSTAT       ENROLL.
        XREGION        CREG.   ;

/*CREATE TREND VARIABLES FROM 1997 */

/* KMIL97--SATISFIED WITH MILITARY CARE */
   IF H9751A IN (4, 5) THEN KMIL97 = 1;               /* Yes */
      ELSE IF H9751A IN (1, 2, 3) THEN KMIL97 = 2;    /* No */

/* KCIV97--SATISFIED WITH CIVILIAN CARE */
   IF H9766A IN (4, 5) THEN KCIV97 = 1;                /* Yes */
      ELSE IF H9766A IN (1, 2, 3) THEN KCIV97 = 2;    /*  No */

/* KNOWLG97--TRICARE KNOWLEDGE */
   IF H9771 = 1 THEN KNOWLG97 = 1;                     /*   None */
      ELSE IF H9771 IN (2, 3, 4) THEN KNOWLG97 = 2;    /*   Some */

/* KMILOP97--OUTPATIENT VISITS TO MILITARY FACILITY
   KCIVOP97--OUTPATIENT VISITS TO CIVILIAN FACILITY */
   IF H9743_R=2 THEN KMILOP97=0;
      ELSE KMILOP97 = H9746;
   IF H9758_R=2 THEN KCIVOP97=0;
      ELSE KCIVOP97 = H9761;

/* KTOTOP97--TOTAL OUTPATIENT VISITS */
   KTOTOP97 = SUM(KMILOP97, KCIVOP97);

/* XBNFGRP--BENIFICIARY GROUP ADJUSTED FOR AGE */
   IF SRAGE_R >=65 AND XBGC_S IN (1,2) THEN XBNFGRP =.;
   ELSE XBNFGRP= XBGC_S;
```

```
/* XENRLLMT, WAS XENRSTAT IN '97 */
   IF SRAGE_R >= 65 THEN DO;
      IF XENRSTAT IN (1,2) THEN XENRLLMT = .;
      ELSE IF XENRSTAT IN (3,4)THEN XENRLLMT =4;
   END;
      ELSE XENRLLMT = XENRSTAT;

  RUN;

 PROC FORMAT  ;
      value HATRIC   /* FROM 1996 - INCLUDE FOR  XTRICARE */
            1 = "TRICARE region"
            2 = "no TRICARE region"
            . = "Missing/Unknown"
         ;

DATA IN.TREND96 ;
   SET IN3.HCS96A_3(KEEP= H9646A H9659A KMILOUT SRAGER
                    KCIVOUT XBGC_S XENROLL XTRICARE BGCSMPL CACSMPL
                    WRWT96 XREGION);
   FORMAT _ALL_;

 LABEL
       KMIL96      =  "Satisfied with Military care"
       KCIV96      =  "Satisfied with Civilian care"
       KMILOP96    =  "Outpatient visits to Military facility"
       KCIVOP96    =  "Outpatient visits to Civilian facility"
       KTOTOP96    =  "Total outpatient visits"
       XENRLLMT    =  "Enrollment status" ;


 FORMAT
        KMIL96         HAYNN.
        KCIV96         HAYNN.
        KMILOP96       HAYNN.
        KCIVOP96       HAYNN.
        KTOTOP96       HAYNN.
        XENRLLMT       ENROLL.
        XBGC_S         XBGC_S.
        XTRICARE       HATRIC.
        XENROLL        ENLSMP.;

/*CREATE TREND VARIABLES FROM 1996 */

/* KMIL96--SATISFIED WITH MILITARY CARE */
   IF H9646A IN (4, 5) THEN KMIL96 = 1;                /* Yes */
      ELSE IF H9646A IN (1, 2, 3) THEN KMIL96 = 2;    /*  No */

/*KCIV96--SATISFIED WITH CIVILIAN CARE */
  IF H9659A IN (4, 5) THEN KCIV96 = 1;                /* Yes */
     ELSE IF H9659A IN (1, 2, 3) THEN KCIV96 = 2;    /*  No */

/*KMILOP96--OUTPATIENT VISITS TO MILITARY FACILITY
  KCIVOP96--OUTPATIENT VISITS TO CIVILIAN FACILITY */
  KMILOP96 = KMILOUT;
  KCIVOP96 = KCIVOUT;
```

```
/* KTOTOP96--TOTAL OUTPATIENT VISITS */
   KTOTOP96 = SUM(KMILOP96, KCIVOP96);


/*XENRLLMT --ENROLLMENT STATUS */
  IF SRAGER < 65 THEN DO;
    IF XBGC_S = 1 AND XTRICARE = 1
    THEN XENRLLMT = 1;                              /*   Active duty (<65) */
    ELSE IF XENROLL IN ( 1, 2)  THEN XENRLLMT = 2; /*   Enrolled (<65) */
    ELSE IF XENROLL = 3 THEN XENRLLMT = 3;          /*   Not Enrolled (<65) */
  END;
    ELSE IF SRAGER > = 65
    AND XENROLL = 3 THEN XENRLLMT = 4;              /*   Not Enrolled (65+) */

/***MAKE 1996 XREGION COMPARABLE TO 1998 FOR ALASKA
   NOTE THAT FOREIGN REGIONS DO NOT MATCH, BUT ARE NOT USED */
IF XREGION = 13 THEN XREGION = 16;

RUN;

/* CHECK NEW 1998 VARIABLES */
PROC FREQ DATA=CONSVAR2;
 TABLES XENRLLMT XENR_PCM XINS_COV XQENROLL BFGROUPP XBNFGRP XREGION
        KMIL98 KCIV98 KENRINTN KDISENRL KBGPRB1 KBGPRB2
        KNOWLG98 KMILWAT1 KCIVWAT1 KMILOFFC KCIVOFFC KMILEMER KCIVEMER KTOTEMER
        KMILOP98  KCIVOP98  KTOTOP98  KPRSCPTN  HP_PRNTL  HP_MAMOG  HP_PAP  HP_BP
HP_FLU
        HP_PROS
        / MISSING LIST;
 TITLE3 'ONE WAY FREQUENCIES ON ALL NEW 1998 CONSTRUCTED VARIABLES';
 RUN;

 /* CHECK NEW 1997 VARIABLES */
 PROC FREQ DATA=IN.TREND97;
  TABLES KMIL97 KCIV97 KNOWLG97 KMILOP97 KCIVOP97 KTOTOP97
         XBNFGRP XENRLLMT XREGION / MISSING LIST;
  TITLE3 'ONE WAY FREQUENCIES ON ALL NEW 1997 CONSTRUCTED VARIABLES';
  RUN;

/* CHECK NEW 1996 VARIABLES */
  PROC FREQ DATA=IN.TREND96;
   TABLES KMIL96 KCIV96 KMILOP96 KCIVOP96 KTOTOP96 XENRLLMT / MISSING LIST;
   TITLE3 'ONE WAY FREQUENCIES ON ALL NEW 1996 CONSTRUCTED VARIABLES';
   RUN;

/* CROSSTABS TO CHECK CREATION OF NEW VARIABLES */
   PROC FORMAT;        /* COLLAPSE AGE FOR CROSSTABS */
     VALUE AGE
             18 -< 65 = "LESS THAN 65"
             65-HIGH = "65 OR OLDER"
             .O      = "Out of range err"
             .       = "Missing/unknown" ;
             RUN ;

   PROC FREQ DATA=CONSVAR2;
    TABLES SRAGE_R*BFGROUPP*ENLSMPLP*XENRLLMT
```

```
        SRAGE_R*BFGROUPP*ENLSMPLP*XENR_PCM
        SRAGE_R*XENRLLMT*H98050*XINS_COV
        SRAGE_R*H98035_R*H98036_R*H98038_R*ENLSMPLP*XQENROLL
        XENR_PCM*XQENROLL   /* compare enrollment by pcm & questionnaire */
        XREGION*CACSMPL
        SRAGE_R*BFGROUPP*XBNFGRP
        H98099A*KMIL98
        H98103A*KCIV98
        H98039_R*KENRINTN
        H98037_R*KDISENRL
        H98032*KNOWLG98
        H98074_R*H98077A*KMILWAT1*KCIVWAT1
        H98074_R*H98083*KMILOFFC*KCIVOFFC
        H98054*KBGPRB1
        H98059*KBGPRB2
        H98010_R*H98011_R*H98001_R*KMILEMER
        H98012_R*H98013AR*H98013BR*H98001_R*KCIVEMER
        KMILEMER*KCIVEMER*KTOTEMER
        H98007_R*H98001_R*H98006_R*KMILOP98
        H98009AR*H98009BR*H98001_R*H98008_R*KCIVOP98
        KMILOP98*KCIVOP98*KTOTOP98
        H98014*H98001_R*KPRSCPTN
        H98030_R*H98031_R*HP_PRNTL
        XSEXA*H98028_R*HP_PAP
        H98017A*H98017B*HP_BP
        SRAGE_R*H98019*HP_FLU
        / MISSING LIST;
        FORMAT SRAGE_R AGE.;
  TITLE3 'CROSSTABS ON ALL NEW VARIABLES';
         RUN;

PROC FREQ DATA=CONSVAR2;
   tables XREGION*CACSMPL
        / MISSING LIST;
   format _all_;
run;
  PROC FORMAT ;  /* COLLAPSE FOR MAMMOGRAPHY AND PROSTRATE XTAB*/
     VALUE AGE2_
          18 - 49 = "LESS THAN 50"
          50-HIGH = "50 OR OLDER"
          .O      = "Out of range err"
          .       = "Missing/unknown" ;
          RUN ;

      PROC FREQ DATA=CONSVAR2;
          TABLES XSEXA*SRAGE_R*H98029B*HP_MAMOG
                 XSEXA*H98027_R*SRAGE_R*HP_PROS
                 /MISSING LIST;
                 FORMAT SRAGE_R AGE2_.;

 PROC FREQ DATA=IN.TREND97;
     TABLES H9751A*KMIL97
            H9766A*KCIV97
            H9771*KNOWLG97
            H9746*KMILOP97
            H9761*KCIVOP97
            KMILOP97*KCIVOP97*KTOTOP97
```

```
              SRAGE_R*XBGC_S*XBNFGRP
              SRAGE_R*XENRSTAT*XENRLLMT
              / MISSING LIST;
              FORMAT SRAGE_R AGE.;
              RUN;

    PROC FREQ DATA=IN.TREND96;
        TABLES H9646A*KMIL96
               H9659A*KCIV96
               SRAGER*XBGC_S*XTRICARE*XENROLL*XENRLLMT
               xregion*cacsmpl
               / MISSING LIST;
               FORMAT SRAGER AGE.;
               RUN;

   PROC CONTENTS DATA =IN.CONSVAR2;
   RUN;

   PROC CONTENTS DATA =IN.TREND97;
   RUN;

   PROC CONTENTS DATA =IN.TREND96;
   RUN;


****include file for XREGION creation:   XREGION.INC  ****;



/* XREGION -HEALTH CARE REGIONS */

  IF CACSMPL IN (35, 36, 37, 66, 67, 68, 69, 81, 86, 100, 123,
       306, 310, 321, 326, 330, 385, 413, 9901)
    THEN XREGION=1;  /* NORTHEAST */
  ELSE IF CACSMPL IN (89, 90, 91, 92, 120, 121, 122, 124, 335, 432,
       433, 9902)
      THEN XREGION=2; /* MIDATLANTIC */
  ELSE IF CACSMPL IN (39, 41, 45, 46, 47, 48, 49, 50, 51, 101, 103, 104,
      105, 356, 422, 9903)
      THEN XREGION=3;  /* SOUTHEAST & PR*/
  ELSE IF CACSMPL IN (1, 2, 3, 4, 38, 42, 43, 73, 74, 107, 297, 7139,
       9904)
      THEN XREGION=4;  /* GULFSOUTH */
  ELSE IF CACSMPL IN (55, 56, 60, 61, 95, 9905)
      THEN XREGION=5;  /* HEARTLAND */
  ELSE IF CACSMPL IN (13, 62, 64, 96, 97, 98, 109, 110, 112, 113,
      114, 117, 118, 338, 363, 364, 365, 366, 9906)
      THEN XREGION=6; /* SOUTHWEST */
  ELSE IF CACSMPL IN (8, 9, 10, 79, 83, 84, 85, 108, 9907)
      THEN XREGION=7; /* DESERT STATES */
  ELSE IF CACSMPL IN (32, 33, 53, 57, 58, 59, 75, 76, 77, 78, 93, 94, 106,
      119, 129, 7200, 9908) THEN XREGION=8; /* NORTH CENTRAL */
  ELSE IF CACSMPL IN (18, 19, 24, 29, 30, 131, 213, 248,
       5205, 9909)
      THEN XREGION=9; /* SOUTHERN CALIFORNIA */
  ELSE IF CACSMPL IN (14, 15, 28, 235, 250, 9910)
```

```
      THEN XREGION=10; /* GOLDEN GATE */
  ELSE IF CACSMPL IN (125, 126, 127, 128, 395, 9911)
      THEN XREGION=11; /* NORTHWEST */
  ELSE IF CACSMPL IN (52, 280, 287, 7043, 9912)
      THEN XREGION=12; /* HAWAII */
  ELSE IF CACSMPL IN (606, 607, 609, 617, 618, 623, 624, 629,
      633, 635, 653, 805, 806, 808, 814, 8931, 8982, 9913)
       THEN XREGION=13; /* EUROPE */
  ELSE IF CACSMPL IN (610, 612, 620, 621, 622, 637, 638, 639, 640,
        802, 804, 853, 862, 9914)
      THEN XREGION=14; /* WESTERN PACIFIC COMMAND*/
  ELSE IF CACSMPL IN (449, 613, 615, 616, 9915)
      THEN XREGION=15; /* LATIN AMERICA */
  ELSE IF CACSMPL IN (5, 6, 203, 9916)
      THEN XREGION=16; /* ALASKA */
  ELSE IF CACSMPL=9999 THEN XREGION=.;
        /*ASSIGN TO. IF 9999(ADDR MISSING)*/
```

9. CONSTRUCTION OF HEALTH STATUS VARIABLES

```
/*****************************************************************************
Project: 1998 Health Care Survey of DoD Beneficiaries Study
Program: CONSVAR3.SAS
Purpose: The purpose of this program is to create the SF-12 (Health Status)
         variables as outlined in the Database Prep Plan, SF-12 Manual,
         Variables created here are used for defining
         rows in the deliverable tables.  Variables created include:

         USE S* VARIABLES TO COMPUTE AVERAGE OF SCALES (NONMISSING VALUES):
         SF12PF, SF12RP, SF12RE, SF12VT, SF12MH, SF12SF, SF12BP, SF12GH,
         SFHCHG (AS IN 1994-5)

         Create health status variables based on norms for general US
         population by age group: KMID_H, KMID_MH KPOOR_H KBOTM_H,
         KPOOR_MH KBOTM_MH,KVGOOD_H KTOP_H, KVGOODMH KTOP_MH

         FOLLOWING CODE IN SF-12 MANUAL, COMPUTE PHYSICAL HEALTH SUMMARY
         MEASURE (SF12PCS) AND MENTAL HEALTH SUMMARY MEASURE (SF12MCS).
         INTERMEDIATE VARIABLES CREATED HERE HAVE THE SAME NAMES AS THOSE
         IN SF-12 MANUAL AND ARE BASED ON THE NON-SCALED VERSIONS OF ITEMS
         1-8.

Date     : 1/26/99
Modified :11/10/98 by Daisy Ewell to correct detected errors from 1997's
          program
           03/22/99 by Daisy Ewell to eliminate the top and bottom
              quartile health status variables
Author   : Kelly White
Input    : J:\8574\DATA1998\FINAL\HCS98A_4.SD2
Output   : J:\8574\DATA1998\FINAL\CONSVAR3.SD2
*****************************************************************************
*****/
LIBNAME IN 'J:\8574\DATA1998\FINAL';
LIBNAME LIBRARY 'J:\8574\data1998\FINAL\fmtlib';
```

```
OPTIONS PS=79 LS=132 ERRORS=2 ;
TITLE 'CREATE SF12 HEALTH STATUS VARIABLES';

DATA IN.CONSVAR3 (KEEP=SF12PCS SF12MCS MPRID
   /*KTOP_H KTOP_MH KBOTM_H KBOTM_MH*/ KMID_H KMID_MH)
   CONSVAR3;
   SET IN.HCS98A_4;

 /* LENGTH  KBOTM_H KBOTM_MH KTOP_H KTOP_MH KMID_H
          KMID_MH 3;  */

/* PER SF12 MANUAL, CALCULATE PHYSICAL & MENTAL HEALTH SUMMARY VARS -
   REVERSE SCORE 5 VARS THEN CREATE BINARY VARIABLES */
/* NOTE:ALL RS98* VARS AND THE BINARY INDICATOR VARS ARE TEMPORARY --
   NOT DELIVERED */

  LENGTH RS98106A RS98106B RS98111 RS98109 RS98110C
       PF02_1 PF02_2 PF04_1 PF04_2 RP2_1 RP3_1 BP2_1 BP2_2 BP2_3 BP2_4
       GH1_1 GH1_2 GH1_3 GH1_4 VT2_1 VT2_2 VT2_3 VT2_4 VT2_5 SF2_1 SF2_2
       SF2_3 SF2_4 RE2_1 RE3_1 MH3_1 MH3_2 MH3_3 MH3_4 MH3_5 MH4_1 MH4_2
       MH4_3 MH4_4 MH4_5 3 ;

/* REVERSE SCORE 5 VARIABLES SO THAT HIGHER SCORE INDICATES BETTER HEALTH */
  RS98106A=4-H98106A;
  RS98106B=4-H98106B;
  RS98109 =6-H98109;
  RS98110C=7-H98110C;

  select (h98111);
        when (6) rs98111 = 1;
        when (5) rs98111 = 2;
        when (4,3) rs98111 = 3;
        when (2) rs98111 = 4;
        when (1) rs98111 = 5;
        otherwise rs98111 = .;
  end;
/* THE FOLLOWING CODE COMES FROM SF-12 MANUAL */
/* CREATE BINARY INDICATOR VARIABLES FROM ITEM RESPONSE CHOICES */
  PF02_1 = .;
  if RS98106A < 0 then PF02_1 = .; else
  if RS98106A = 1 then PF02_1 = 1; else PF02_1 = 0;

  PF02_2 = .;
  if RS98106A < 0 then PF02_2 = .; else
  if RS98106A = 2 then PF02_2 = 1; else PF02_2 = 0;

  PF04_1 = .;
  if RS98106B < 0 then PF04_1 = .; else
  if RS98106B = 1 then PF04_1 = 1; else PF04_1 = 0;

  PF04_2 = .;
  if RS98106B < 0 then PF04_2 = .; else
  if RS98106B = 2 then PF04_2 = 1; else PF04_2 = 0;

  RP2_1 = .;
  if H98107A < 0 then RP2_1 = .; else
  if H98107A = 1 then RP2_1 = 1; else RP2_1 = 0;
```

```
RP3_1 = .;
if H98107B < 0 then RP3_1 = .; else
if H98107B = 1 then RP3_1 = 1; else RP3_1 = 0;

BP2_1 = .;
if RS98109 < 0 then BP2_1 = .; else
if RS98109 = 1 then BP2_1 = 1; else BP2_1 = 0;

BP2_2 = .;
if RS98109 < 0 then BP2_2 = .; else
if RS98109 = 2 then BP2_2 = 1; else BP2_2 = 0;

BP2_3 = .;
if RS98109 < 0 then BP2_3 = .; else
if RS98109 = 3 then BP2_3 = 1; else BP2_3 = 0;

BP2_4 = .;
if RS98109 < 0 then BP2_4 = .; else
if RS98109 = 4 then BP2_4 = 1; else BP2_4 = 0;

GH1_1 = .;
if H98105 < 0 then GH1_1 = .; else
if H98105 = 1 then GH1_1 = 1; else GH1_1 = 0;

GH1_2 = .;
if H98105 < 0 then GH1_2 = .; else
if H98105 = 2 then GH1_2 = 1; else GH1_2 = 0;

GH1_3 = .;
if H98105 < 0 then GH1_3 = .; else
if H98105 = 3 then GH1_3 = 1; else GH1_3 = 0;

GH1_4 = .;
if H98105 < 0 then GH1_4 = .; else
if H98105 = 4 then GH1_4 = 1; else GH1_4 = 0;

VT2_1 = .;
if H98110B < 0 then VT2_1 = .; else
if H98110B = 1 then VT2_1 = 1; else VT2_1 = 0;

VT2_2 = .;
if H98110B < 0 then VT2_2 = .; else
if H98110B = 2 then VT2_2 = 1; else VT2_2 = 0;

VT2_3 = .;
if H98110B < 0 then VT2_3 = .; else
if H98110B = 3 then VT2_3 = 1; else VT2_3 = 0;

VT2_4 = .;
if H98110B < 0 then VT2_4 = .; else
if H98110B = 4 then VT2_4 = 1; else VT2_4 = 0;

VT2_5 = .;
if H98110B < 0 then VT2_5 = .; else
if H98110B = 5 then VT2_5 = 1; else VT2_5 = 0;
```

```
SF2_1 = .;
if RS98111 < 0 then SF2_1 = .; else
if RS98111 = 1 then SF2_1 = 1; else SF2_1 = 0;

SF2_2 = .;
if RS98111 < 0 then SF2_2 = .; else
if RS98111 = 2 then SF2_2 = 1; else SF2_2 = 0;

SF2_3 = .;
if RS98111 < 0 then SF2_3 = .; else
if RS98111 = 3 then SF2_3 = 1; else SF2_3 = 0;

SF2_4 =.;
if RS98111 < 0 then  SF2_4 =.; ELSE
if RS98111 = 4 THEN  SF2_4= 1; ELSE SF2_4 = 0;

RE2_1 = .;
IF H98108A < 0 then RE2_1 = .; ELSE
IF H98108A = 1 THEN RE2_1 = 1; ELSE RE2_1 = 0;

RE3_1 = .;
IF H98108B < 0 then RE3_1 = .; ELSE
IF H98108B = 1 THEN RE3_1 = 1; ELSE RE3_1 = 0;

MH3_1 = .;
IF H98110A < 0 then MH3_1 = .; ELSE
IF H98110A = 1 THEN MH3_1 = 1; ELSE MH3_1 = 0;

MH3_2 = .;
IF H98110A < 0 then MH3_2 = .; ELSE
IF H98110A = 2 THEN MH3_2 = 1; ELSE MH3_2 = 0;

MH3_3 = .;
IF H98110A < 0 then MH3_3 = .; ELSE
IF H98110A = 3 THEN MH3_3 = 1; ELSE MH3_3 = 0;

MH3_4 = .;
IF H98110A < 0 then MH3_4 = .; ELSE
IF H98110A = 4 THEN MH3_4 = 1; ELSE MH3_4 = 0;

MH3_5 = .;
IF H98110A < 0 then MH3_5 = .; ELSE
IF H98110A = 5 THEN MH3_5 = 1; ELSE MH3_5 = 0;

MH4_1 = .;
IF RS98110C < 0 then  MH4_1 = .; ELSE
IF RS98110C = 1 THEN  MH4_1 = 1; ELSE MH4_1 = 0;

MH4_2 = .;
IF RS98110C < 0 then MH4_2 = .; ELSE
IF RS98110C = 2 THEN MH4_2 = 1; ELSE MH4_2 = 0;

MH4_3 = .;
IF RS98110C < 0 then MH4_3 = .; ELSE
IF RS98110C = 3 THEN MH4_3  = 1;ELSE MH4_3 = 0;

MH4_4 = .;
```

```
  IF RS98110C < 0 then MH4_4 = .; ELSE
  IF RS98110C = 4 THEN MH4_4  = 1; ELSE MH4_4 = 0;

  MH4_5 = .;
  IF RS98110C < 0 then MH4_5 = .; ELSE
  IF RS98110C = 5 THEN MH4_5 = 1; ELSE MH4_5 = 0;

/*************************************************************
WEIGHTING AND AGGREGATION OF INDICATOR VARIABLES USING
PHYSICAL AND MENTAL REGRESSION WEIGHTS.
RAWPCS12 & RAWMCS12 ARE TEMPORARY VARIABLES.
 *************************************************************/
  RAWPCS12 = (-7.23216*PF02_1) + (-3.45555*PF02_2) +
      (-6.24397*PF04_1) + (-2.7357*PF04_2) + (-4.61617*RP2_1) +
      (-5.51747*RP3_1) + (-11.25544*BP2_1) + (-8.38063*BP2_2) +
      (-6.50522*BP2_3) + (-3.80130*BP2_4) + (-8.37399*GH1_1) +
      (-5.56461*GH1_2) + (-3.02396*GH1_3) + (-1.31872*GH1_4) +
      (-2.44706*VT2_1) + (-2.02168*VT2_2) + (-1.6185*VT2_3)  +
      (-1.14387*VT2_4) + (-0.42251*VT2_5) + (-0.33682*SF2_1) +
      (-0.94342*SF2_2) + (-0.18043*SF2_3) + (0.11038*SF2_4)  +
      (3.04365*RE2_1) + (2.32091*RE3_1)  + (3.46638*MH3_1) +
      (2.90426*MH3_2) + (2.37241*MH3_3)  + (1.36689*MH3_4) +
      (0.66514*MH3_5) + (4.61446*MH4_1)  + (3.41593*MH4_2) +
      (2.34247*MH4_3) + (1.28044*MH4_4)  + (0.41188*MH4_5);

  RAWMCS12 = (3.93115*PF02_1) + (1.8684*PF02_2) +
      (2.68282*PF04_1) + (1.43103*PF04_2) + (1.4406*RP2_1)  +
      (1.66968*RP3_1)  + (1.48619*BP2_1)  +  (1.76691*BP2_2)  +
      (1.49384*BP2_3)  + (0.90384*BP2_4)  +  (-1.71175*GH1_1) +
      (-0.16891*GH1_2) + (0.03482*GH1_3)  +  (-0.06064*GH1_4) +
      (-6.02409*VT2_1) + (-4.88962*VT2_2) +  (-3.29805*VT2_3) +
      (-1.65178*VT2_4) + (-0.92057*VT2_5) +  (-6.29724*SF2_1) +
      (-8.26066*SF2_2) + (-5.63286*SF2_3) +  (-3.13896*SF2_4) +
      (-6.82672*RE2_1) + (-5.69921*RE3_1) +  (-10.19085*MH3_1) +
      (-7.92717*MH3_2) + (-6.31121*MH3_3) +  (-4.09842*MH3_4) +
      (-1.94949*MH3_5) + (-16.15395*MH4_1) +  (-10.77911*MH4_2) +
      (-8.09914*MH4_3) + (-4.59055*MH4_4) + (-1.95934*MH4_5);

/*****************************************************************
NORM-BASED STANDARDIZATION OF SCALE SCORES
*****************************************************************/
  SF12PCS = RAWPCS12 + 56.57706;
  SF12MCS = RAWMCS12 + 60.75781;

/*****************************************************************
BINARY MEASURES BASED ON HEALTH STATUS, AGE OF RESPONDENT, &
NORMS FOR GENERAL U.S. POPULATION
*****************************************************************/
/*
****BOTTOM QUARTILE PHYSICAL HEALTH****;
IF SRAGE < 18 OR SF12PCS = . THEN KBOTM_H = .;
ELSE IF 18 <= SRAGE <= 34 AND SF12PCS <= 51.56 THEN KBOTM_H = 1;
ELSE IF 35 <= SRAGE <= 44 AND SF12PCS <= 50.22 THEN KBOTM_H = 1;
ELSE IF 45 <= SRAGE <= 54 AND SF12PCS <= 46.54 THEN KBOTM_H = 1;
ELSE IF 55 <= SRAGE <= 64 AND SF12PCS <= 41.43 THEN KBOTM_H = 1;
ELSE IF 65 <= SRAGE <= 74 AND SF12PCS <= 35.83 THEN KBOTM_H = 1;
ELSE IF SRAGE >= 75 AND SF12PCS <= 29.37 THEN KBOTM_H = 1;
```

```
ELSE KBOTM_H = 2;  */

****BOTTOM QUARTILE MENTAL HEALTH****;
/*
IF SRAGE < 18 OR SF12MCS = . THEN KBOTM_MH = .;
ELSE IF 18 <= SRAGE <= 34 AND SF12MCS <= 44.48 THEN KBOTM_MH = 1;
ELSE IF 35 <= SRAGE <= 44 AND SF12MCS <= 45.67 THEN KBOTM_MH = 1;
ELSE IF 45 <= SRAGE <= 54 AND SF12MCS <= 45.30 THEN KBOTM_MH = 1;
ELSE IF 55 <= SRAGE <= 64 AND SF12MCS <= 46.39 THEN KBOTM_MH = 1;
ELSE IF 65 <= SRAGE <= 74 AND SF12MCS <= 47.06 THEN KBOTM_MH = 1;
ELSE IF SRAGE >= 75 AND SF12MCS <= 40.48 THEN KBOTM_MH = 1;
ELSE KBOTM_MH = 2; */

****TOP QUARTILE PHYSICAL HEALTH****;
/*
IF SRAGE < 18 OR SF12PCS = . THEN KTOP_H = .;
ELSE IF 18 <= SRAGE <= 34 AND SF12PCS > 57.21 THEN KTOP_H = 1;
ELSE IF 35 <= SRAGE <= 44 AND SF12PCS > 56.82 THEN KTOP_H = 1;
ELSE IF 45 <= SRAGE <= 54 AND SF12PCS > 56.24 THEN KTOP_H = 1;
ELSE IF 55 <= SRAGE <= 64 AND SF12PCS > 54.78 THEN KTOP_H = 1;
ELSE IF 65 <= SRAGE <= 74 AND SF12PCS > 53.18 THEN KTOP_H = 1;
ELSE IF SRAGE >= 75 AND SF12PCS > 47.77 THEN KTOP_H = 1;
ELSE KTOP_H = 2; */

****TOP QUARTILE MENTAL HEALTH****;
/*
IF SRAGE < 18 OR SF12MCS = . THEN KTOP_MH = .;
ELSE IF 18 <= SRAGE <= 34 AND SF12MCS > 56.43 THEN KTOP_MH = 1;
ELSE IF 35 <= SRAGE <= 44 AND SF12MCS > 56.83 THEN KTOP_MH = 1;
ELSE IF 45 <= SRAGE <= 54 AND SF12MCS > 57.83 THEN KTOP_MH = 1;
ELSE IF 55 <= SRAGE <= 64 AND SF12MCS > 57.49 THEN KTOP_MH = 1;
ELSE IF 65 <= SRAGE <= 74 AND SF12MCS > 58.91 THEN KTOP_MH = 1;
ELSE IF SRAGE >= 75 AND SF12MCS > 58.89 THEN KTOP_MH = 1;
ELSE KTOP_MH = 2; */

****BELOW MEDIAN PHYSICAL HEALTH****;
IF SRAGE < 18 OR SF12PCS = . THEN KMID_H = .;
ELSE IF 18 <= SRAGE <= 34 AND SF12PCS < 55.18 THEN KMID_H = 1;
ELSE IF 35 <= SRAGE <= 44 AND SF12PCS < 54.30 THEN KMID_H = 1;
ELSE IF 45 <= SRAGE <= 54 AND SF12PCS < 52.76 THEN KMID_H = 1;
ELSE IF 55 <= SRAGE <= 64 AND SF12PCS < 50.22 THEN KMID_H = 1;
ELSE IF 65 <= SRAGE <= 74 AND SF12PCS < 46.36 THEN KMID_H = 1;
ELSE IF SRAGE >= 75 AND SF12PCS < 38.68 THEN KMID_H = 1;
ELSE KMID_H = 2;


****BELOW MEDIAN MENTAL HEALTH****;
IF SRAGE < 18 OR SF12MCS = . THEN KMID_MH = .;
ELSE IF 18 <= SRAGE <= 34 AND SF12MCS < 51.81 THEN KMID_MH = 1;
ELSE IF 35 <= SRAGE <= 44 AND SF12MCS < 52.24 THEN KMID_MH = 1;
ELSE IF 45 <= SRAGE <= 54 AND SF12MCS < 53.30 THEN KMID_MH = 1;
ELSE IF 55 <= SRAGE <= 64 AND SF12MCS < 53.14 THEN KMID_MH = 1;
ELSE IF 65 <= SRAGE <= 74 AND SF12MCS < 55.31 THEN KMID_MH = 1;
ELSE IF SRAGE >= 75 AND SF12MCS < 53.53 THEN KMID_MH = 1;
ELSE KMID_MH = 2;
```

```
LABEL
   PF02_1 = "SF12 Binary indicator var - Q106A val 1"
   PF02_2 = "SF12 Binary indicator var - Q106A val 2"
   PF04_1 = "SF12 Binary indicator var - Q106B val 1"
   PF04_2 = "SF12 Binary indicator var - Q106B val 2"
   RP2_1 = "SF12 Binary indicator var - Q107A"
   RP3_1 = "SF12 Binary indicator var - Q107B"
   BP2_1 = "SF12 Binary indicator var - Q109 val 1"
   BP2_2 = "SF12 Binary indicator var - Q109 val 2"
   BP2_3 = "SF12 Binary indicator var - Q109 val 3"
   BP2_4 = "SF12 Binary indicator var - Q109 val 4"
   GH1_1 = "SF12 Binary indicator var - Q105 val 1"
   GH1_2 = "SF12 Binary indicator var - Q105 val 2"
   GH1_3 = "SF12 Binary indicator var - Q105 val 3"
   GH1_4 = "SF12 Binary indicator var - Q105 val 4"
   VT2_1 = "SF12 Binary indicator var - Q110B val 1"
   VT2_2 = "SF12 Binary indicator var - Q110B val 2"
   VT2_3 = "SF12 Binary indicator var - Q110B val 3"
   VT2_4 = "SF12 Binary indicator var - Q110B val 4"
   VT2_5 = "SF12 Binary indicator var - Q110B val 5"
   SF2_1 = "SF12 Binary indicator var - Q111  val 1"
   SF2_2 = "SF12 Binary indicator var - Q111  val 2"
   SF2_3 = "SF12 Binary indicator var - Q111  val 3"
   SF2_4 = "SF12 Binary indicator var - Q111  val 4"
   RE2_1 = "SF12 Binary indicator var - Q108A"
   RE3_1 = "SF12 Binary indicator var - Q108B"
   MH3_1 = "SF12 Binary indicator var - Q110A val 1"
   MH3_2 = "SF12 Binary indicator var - Q110A val 2"
   MH3_3 = "SF12 Binary indicator var - Q110A val 3"
   MH3_4 = "SF12 Binary indicator var - Q110A val 4"
   MH3_5 = "SF12 Binary indicator var - Q110A val 5"
   MH4_1 = "SF12 Binary indicator var - Q110C val 1"
   MH4_2 = "SF12 Binary indicator var - Q110C val 2"
   MH4_3 = "SF12 Binary indicator var - Q110C val 3"
   MH4_4 = "SF12 Binary indicator var - Q110C val 4"
   MH4_5 = "SF12 Binary indicator var - Q110C val 5"
   RS98106A = "Reverse score for SF12 calc - Q106A"
   RS98106B = "Reverse score for SF12 calc - Q106B"
   RS98111 = "Reverse score for SF12 calc - Q111"
   RS98109 = "Reverse score for SF12 calc - Q109"
   RS98110C = "Reverse score for SF12 calc - Q110C"
   RAWPCS12 = "Uses physical regression weights"
   RAWMCS12 = "Uses mental regression weights"
   SF12PCS = "Physical Health Summary"
   SF12MCS = "Mental Health Summary"
  /* KBOTM_H = 'Bottom Quartile Physical Health' */
  /* KBOTM_MH = 'Bottom Quartile Mental Health'  */
  /* KTOP_H = 'Top Quartile Physical Health' */
  /* KTOP_MH = 'Top Quartile Mental Health' */
   KMID_H   = 'Below Median Physical Health'
   KMID_MH  = 'Below Median Mental Health'
   ;

FORMAT
        KMID_H   HAYNN.
        KMID_MH  HAYNN.  ;
```

```
  RUN;


PROC FREQ DATA=CONSVAR3;
FORMAT _ALL_;
TABLES
   PF02_1*RS98106A*H98106A PF02_2*RS98106A*H98106A
   PF04_1*RS98106B*H98106B PF04_2*RS98106B*H98106B
   RP2_1*H98107A RP3_1*H98107B
   (BP2_1 BP2_2 BP2_3 BP2_4)*RS98109*H98109
   (GH1_1 GH1_2 GH1_3 GH1_4)*H98105
   (VT2_1 VT2_2 VT2_3 VT2_4 VT2_5)*H98110B
   (SF2_1 SF2_2 SF2_3 SF2_4)*RS98111*H98111
   RE2_1*H98108A RE3_1*H98108B
   (MH3_1 MH3_2 MH3_3 MH3_4 MH3_5)*H98110A
   (MH4_1 MH4_2 MH4_3 MH4_4 MH4_5)*RS98110C*H98110C
   /*KBOTM_H KBOTM_MH KTOP_H KTOP_MH
   KBOTM_H*KTOP_H KBOTM_MH*KTOP_MH*/
   KMID_H KMID_MH /*KBOTM_H*KMID_H KTOP_H*KMID_H
   KBOTM_MH*KMID_MH KTOP_MH*KMID_MH*/
   /MISSING LIST;
  RUN;


PROC MEANS;
 VAR SF12PCS SF12MCS;

PROC CORR;
 VAR SF12PCS;
 WITH SF12MCS;
 RUN;

DATA MISSING  (KEEP=H98106A H98106B H98111 H98109 H98110C RS98106A
              RS98106B RS98111 RS98109 RS98111);
   SET CONSVAR3;
   IF RS98106A= .;

 PROC PRINT;
 TITLE 'OBSERVATIONS WITH MISSING DATA VALUES GENERATED';
 RUN;

PROC CONTENTS DATA=IN.CONSVAR3;
  RUN;
```

10. CONSTRUCTION OF VARIABLES FOR SUBVENTION REPORT

```
*****************************************************************************
**

* PROGRAM:   CONSVAR4.SAS

* WRITTEN:   3/5/99 BY KELLY WHITE

* PURPOSE:   TO CREATE 26 VARIABLES:

*            FOR SUBVENTION REPORT
* INPUT:     J:\8574\DATA1998\PRELIM\HCS98A_4.SD2
* OUTPUT:    J:\8574\DATA1998\PRELIM\CONSVAR4.SD2
*****************************************************************************
**
*;

LIBNAME IN 'J:\8574\DATA1998\FINAL';
LIBNAME LIBRARY 'J:\8574\DATA1998\FINAL\FMTLIB';
OPTIONS PS=79 LS=132 ERRORS=2 CENTER ;
TITLE1 '1998 Health Care Survey of DoD Beneficiaries Study - Adult Form A';
TITLE2 'CREATE CONSTRUCTED VARIABLES FOR SUBVENTION REPORT';

PROC SORT DATA=IN.HCS98A_4;
        BY MPRID;
        RUN;

PROC SORT DATA=IN.CONSVAR2;
        BY MPRID;
        RUN;

DATA IN.CONSVAR4 (KEEP= MPRID XDEMOSTE DEDUC DAGE DINCOM1 KIPMIL1
                  KIPMIL4 KOPMIL1 KOPMIL5 KPRESC12 XDEMO KCIVINS KMEDIGAP
                  KCOST_2) CONSVAR4;
   MERGE IN.HCS98A_4 IN.CONSVAR2;
   BY MPRID;

  LABEL
        XDEMOSTE       = "7 Demnstrtn stes by age group"
        XDEMO          = "7 Demnstrtn sts for age 18 and over"
        DEDUC          = "Some post-secondary education?"
        DAGE           = "Age 65 or older?"
        DINCOM1        = "Annual income less than 20K?"
        KIPMIL1        = "Stayed 1 or more nights in a MTF?"
        KIPMIL4        = "Stayed 4 or more nights in a MTF?"
        KOPMIL1        = "Had 1 or more outptnt vsts to a MTF?"
        KOPMIL5        = "Had 5 or more outpatient vists to a MTF?"
        KPRESC12       = "Have 12>= civ prscptns fil by mil phmcy?"
        KCIVINS        = "Is bnfciary covered by civ insurance?"
        KMEDIGAP       = "Bnfcry cov by Mdgp or othr spplmntl ins?"
        KCOST_2        = "Out-of-pocket costs more than 200?"
       ;

 FORMAT
      XDEMOSTE         DEMO.
      XDEMO            DEMOQ.
```

```
      DEDUC            HAYNN.
      DAGE             HAYNN.
      DINCOM1          HAYNN.
      KIPMIL1          HAYNN.
      KIPMIL4          HAYNN.
      KOPMIL1          HAYNN.
      KOPMIL5          HAYNN.
      KPRESC12         HAYNN.
      KCIVINS          HAYNN.
      KMEDIGAP         HAYNN.
      KCOST_2          HAYNN.
      ;


/* CREATE INDEPENDENT VARIABLES */

/* XDEMOSTE--BENEFICIARIES BY DEMO SITE --- revised July 7, 1999 */
/* Combine Lackland AFB and Fort Sam Houston into San Antonio    */
/* Combine Fort Sill and Sheppard AFB into TexOma                */
/* Combine USAF Academy and Fort Carson into Colorado Springs    */
     IF            SRAGE_R >=65 AND CACSMPL IN ( 109, 117) THEN XDEMOSTE= 1;
     ELSE IF 18 <= SRAGE_R < 65 AND CACSMPL IN ( 109, 117) THEN XDEMOSTE= 2;
     ELSE IF       SRAGE_R >=65 AND CACSMPL IN (  98, 113) THEN XDEMOSTE= 3;
     ELSE IF 18 <= SRAGE_R < 65 AND CACSMPL IN (  98, 113) THEN XDEMOSTE= 4;
     ELSE IF       SRAGE_R >=65 AND CACSMPL IN (  33,  32) THEN XDEMOSTE= 5;
     ELSE IF 18 <= SRAGE_R < 65 AND CACSMPL IN (  33,  32) THEN XDEMOSTE= 6;
     ELSE IF       SRAGE_R >=65 AND CACSMPL= 0073          THEN XDEMOSTE= 7;
     ELSE IF 18 <= SRAGE_R < 65 AND CACSMPL= 0073          THEN XDEMOSTE= 8;
     ELSE IF       SRAGE_R >=65 AND CACSMPL= 0029          THEN XDEMOSTE= 9;
     ELSE IF 18 <= SRAGE_R < 65 AND CACSMPL= 0029          THEN XDEMOSTE=10;
     ELSE IF       SRAGE_R >=65 AND CACSMPL= 0125          THEN XDEMOSTE=11;
     ELSE IF 18 <= SRAGE_R < 65 AND CACSMPL= 0125          THEN XDEMOSTE=12;
     ELSE IF       SRAGE_R >=65 AND CACSMPL= 0036          THEN XDEMOSTE=13;
     ELSE IF 18 <= SRAGE_R < 65 AND CACSMPL= 0036          THEN XDEMOSTE=14;
     /* balance domestic MHS age 65 and over */
     ELSE IF       SRAGE_R >=65 AND
                  (XREGION NOT IN (13, 14, 15, .))         THEN XDEMOSTE=15;
     /* balance domestic MHS under age 65 */
     ELSE IF 18 <= SRAGE_R < 65 AND
                  (XREGION NOT IN (13, 14, 15, .))         THEN XDEMOSTE=16;
     /*  ALL OTHER RESPONDENTS  */
     ELSE XDEMOSTE=.;


  /*Create a new variable called XDEMO for chart 2.3*/
 /* Combine under 65 with age 65 and over for each site July 7, 1999 */
     IF       XDEMOSTE IN ( 1, 2) THEN XDEMO = 1;    /* San Antonio      */
      ELSE IF XDEMOSTE IN ( 3, 4) THEN XDEMO = 2;    /* TexOma           */
      ELSE IF XDEMOSTE IN ( 5, 6) THEN XDEMO = 3;    /* Colorado Springs */
      ELSE IF XDEMOSTE IN ( 7, 8) THEN XDEMO = 4;    /* Keesler          */
      ELSE IF XDEMOSTE IN ( 9,10) THEN XDEMO = 5;    /* San Diego        */
      ELSE IF XDEMOSTE IN (11,12) THEN XDEMO = 6;    /* Fort Lewis       */
      ELSE IF XDEMOSTE IN (13,14) THEN XDEMO = 7;    /* Dover            */
      ELSE IF XDEMOSTE IN (15,16) THEN XDEMO = 8;    /* Balance Domestic */
```

```
/* CREATE DEMOGRAPHIC VARIABLES */

/* DEDUC--POST SECONDARY EDUCATION */
   IF SREDD =1 THEN DEDUC = 1;  /* YES */
      ELSE IF SREDE =1 THEN DEDUC = 1;  /* YES */
      ELSE IF SREDF =1 THEN DEDUC = 1;  /* YES */
      ELSE IF SREDA =1 THEN DEDUC = 2;  /*NO */
      ELSE IF SREDB =1 THEN DEDUC = 2;  /*NO */
      ELSE IF SREDC =1 THEN DEDUC = 2; /*NO */

/* DAGE --AGE 65 AND OVER */
   IF SRAGE_R >=65 THEN DAGE=1 ;/* YES */
      ELSE IF 18<= SRAGE_R < 65 THEN DAGE=2 ;  /* NO  */

/* DINCOM1-- ANNUAL INCOME LESS THAN $20,000 */
   IF H98113 = 1 THEN DINCOM1 = 1; /* YES */
      ELSE IF H98113 IN (2,3,4,5) THEN DINCOM1 = 2 ;  /* NO */


/*CREATE UTILZATION VARIABLES */

/* KIPMIL1--STAYED 1 OR MORE NIGHTS IN A MTF */
   IF H98002_R=1 THEN KIPMIL1 = 1;  /* Yes */
      ELSE IF H98002_R =2 OR H98001_R = 2 THEN KIPMIL1 = 2; /*  No */

/*KIPMIL4-- STAYED 4 OR MORE NIGHTS IN A MILITARY FACILITY */
  IF KIPMIL1 =1 THEN DO;
     IF H98003_R >=4 THEN KIPMIL4 =1; /* YES */
     ELSE KIPMIL4 =2; /* NO */
  END;

/*KOPMIL1-- 1 OR MORE OUTPATIENT VISITS TO MILITARY FACILITY*/
  IF H98006_R=1 THEN KOPMIL1 =1; /* YES */
     ELSE IF H98006_R =2 OR H98001_R = 2 THEN KOPMIL1=2;  /* NO */

/*KOPMIL5-- 5 OR MORE OUTPATIENT VISITS TO MILITARY FACILITY*/
  IF KOPMIL1 =1 THEN DO;
     IF H98007_R >=5 THEN KOPMIL5 =1; /* YES */
     ELSE KOPMIL5=2;  /* NO */
  END;

/*KPRESC12--HAVE 12 OR MORE CIVILIAN PRESCRIPTIONS FILLED AT MIL PHARMACY*/
  IF H98014 =4 THEN KPRESC12 =1;   /* YES */
     ELSE IF H98014 IN (1,2,3) OR H98001_R = 2 THEN KPRESC12 =2; /* NO  */


/* CREATE HEALTH INSURANCE VARIABLES */

/* KCOST_2--OUT-OF-POCKET COSTS GREATER THAN $200 */
   IF H98049BR > 200 THEN KCOST_2=1;   /* YES */
      ELSE IF 0 <= H98049BR <=  200 THEN KCOST_2=2;  /* NO  */

****Is beneficiary covered by civilian insurance****;
IF H98047A = 1 OR H98047B = 1 OR H98047C  = 1 THEN KCIVINS = 1; /* YES */
ELSE KCIVINS = 2;  /* NO */

***Is beneficiary covered by Medigap or other supplemental insurance****;
```

```
IF H98045BR = 1 OR H98045CR = 1 THEN KMEDIGAP = 1;  /* YES */
ELSE IF H98045BR =2 AND H98045CR = 2 THEN KMEDIGAP = 2;    /* NO */


RUN;

   PROC FREQ DATA=CONSVAR4;
      TABLES XDEMOSTE XDEMO DEDUC DAGE DINCOM1 KIPMIL1
             KIPMIL4 KOPMIL1
             KOPMIL5 KPRESC12 KCOST_2 KCIVINS KMEDIGAP /MISSING LIST;
      TITLE2 'ONE WAY FREQUENCIES ON SUBVENTION VARIABLES';
      RUN;

PROC FORMAT ;
  VALUE AGE
  18 - 64 = '18 - 64'
  65-HIGH = '65 & up'
  .O      = "Out of range err"
  ;
  VALUE N5F
    5-HIGH = '5 & up'
    ;
  VALUE N4F
    4-HIGH = '4 & up'
    ;
  VALUE N200F
     0-200 = ' 0-$200'
     201-HIGH = 'More than $200'
    ;

RUN;

 PROC FREQ DATA=CONSVAR4;
     TABLES
     SRAGE_R*XDEMOSTE
     SRAGE_R*XDEMOSTE*XDEMO
     SREDD*SREDE*SREDF*DEDUC
     SRAGE_R*DAGE
     H98113*DINCOM1
     H98001_R*H98002_R*KIPMIL1
     H98003_R*KIPMIL1*KIPMIL4
     H98001_R*H98006_R*KOPMIL1
     H98007_R*KOPMIL1*KOPMIL5
     H98001_R*H98014*KPRESC12
     H98049BR*KCOST_2
     H98047A*H98047B*H98047C*KCIVINS
     H98045BR*H98045CR*KMEDIGAP
     /MISSING LIST;
     FORMAT SRAGE_R AGE.  H98007_R  N5F.
       H98003_R N4F.  H98049BR N200F.;
  TITLE2 'CROSSTABS ON ALL SUBVENTION VARIABLES';
  RUN;

PROC CONTENTS DATA=IN.CONSVAR4;
RUN;
```

11. FINAL MERGE AND CREATION OF FINAL DATA FILE

```
*****************************************************************************
**

* PROGRAM:   MERGE.SAS

* WRITTEN:   1/28/99 BY KELLY WHITE
* PURPOSE:   TO MERGE FINAL FILES TOGETHER AND REORDER BY VARIABLE TYPE
*            To reorder variables within the record use a
*             LENGTH statement before the SET statement.
*             Make sure that MPRID is the first variable in the
*             record followed by:
*                           1)  other sampling variables
*                           2)  DEERS variables
*                           3)  Post-stratification vars
*                           4)  questionnaire responses
*                           5)  DRC variables
*                           6)  recoded questionnaire responses
*                           7)  coding scheme flags
*                           8)  constructed variables
*                           9)  weights  (NOT AVAILABLE FOR PRELIMINARY DATA)
* INPUT:     J:\8574\DATA1998\FINAL\HCS98A_4.SD2
* OUTPUT:    J:\8574\DATA1998\FINAL\HCS98A_5.SD2
*****************************************************************************
**
*;
LIBNAME IN 'J:\8574\DATA1998\FINAL';
LIBNAME LIBRARY 'J:\8574\DATA1998\FINAL\FMTLIB';
OPTIONS PS=75 LS=111 ERRORS=2;

PROC SORT DATA=IN.CONSVAR3 OUT=CONSVAR3;
  BY MPRID;
  RUN;

PROC SORT DATA=IN.CONSVAR4 OUT=CONSVAR4;
  BY MPRID;
  RUN;

PROC SORT DATA=IN.CONSVAR2 OUT=CONSVAR2;
  BY MPRID;
  RUN;

PROC SORT DATA=IN.HCS98A_4 OUT=HCS98A;
  BY MPRID;
  RUN;

DATA HCS98A_5( DROP= GRID3--GRIDDATE BLKREAS SCSINEL FLAG_FIN PG RANK
                     RANKABB RADRREG UADRREG) ;
   MERGE HCS98A(in=hcsdb) CONSVAR2 CONSVAR3 CONSVAR4 IN.FINAL02A;
   BY MPRID;
   if hcsdb;
   if H98043_R >12 then H98043_R = .O;

 RUN;
```

```
****4/2/99 dwe, inserting code done by Portia to reorder
   file into variable groups****;
DATA in.HCS98A_5;

  LENGTH

      MPRID       $ 8         /* ID                 */
      BFGROUP       4         /* sampling variable */
      MPCSMPL       4         /* sampling variable */
      SVCSMPL       4         /* sampling variable */
      AGESMPL       4         /* sampling variable */
      SEXSMPL       4         /* sampling variable */
      CELL          4         /* sampling variable */
      STESMPL       8         /* sampling variable */
      BGCSMPL       8         /* sampling variable */
      STRATUM       8         /* sampling variable */
      AGE_N         8         /* sampling variable */
      TOTSIZE       8         /* sampling variable */
      NHFF          8         /* sampling variable */
      SAMRTE        8         /* sampling variable */
      BWT98         8         /* sampling variable */
      ENLSMPL       3         /* sampling variable */

      PRVCDE      $ 3         /* DEERS variable    */
      ENR_DMIS    $ 4         /* DEERS variable    */
      ELGCDE      $ 1         /* DEERS variable    */
      MSTATUS     $ 1         /* DEERS variable    */
      RACE        $ 1         /* DEERS variable    */
      RECTYP      $ 1         /* DEERS variable    */
      SEX         $ 1         /* DEERS variable    */
      STATUS      $ 1         /* DEERS variable    */
      SVC         $ 1         /* DEERS variable    */
      GROUP       $ 1         /* DEERS variable    */
      SSEX        $ 1         /* DEERS variable    */
      SAGE        $ 3         /* DEERS variable    */
      UDMIS       $ 4         /* DEERS variable    */
      RADRDMIS    $ 4         /* DEERS variable    */
      DOB           3         /* DEERS variable    */

      ELGCDEP     $ 1         /* post-stratification variable    */
      BFGROUPP      8         /* post-stratification variable    */
      ENLSMPLP      8         /* post-stratification variable    */
      CELLP         8         /* post-stratification variable    */
      CACSMPL       8         /* post-stratification variable    */
      POSTCELL     $ 25       /* post-stratification variable    */

      H98ELGA       4         /* questionnaire     */
      H98ELGB       4         /* questionnaire     */
      H98001        4         /* questionnaire     */
      H98002        4         /* questionnaire     */
      H98003        4         /* questionnaire     */
      H98004        4         /* questionnaire     */
      H98005A       4         /* questionnaire     */
      H98005B       4         /* questionnaire     */
      H98006        4         /* questionnaire     */
      H98007        4         /* questionnaire     */
      H98008        4         /* questionnaire     */
```

```
H98009A       4         /* questionnaire     */
H98009B       4         /* questionnaire     */
H98010        4         /* questionnaire     */
H98011        4         /* questionnaire     */
H98012        4         /* questionnaire     */
H98013A       4         /* questionnaire     */
H98013B       4         /* questionnaire     */
H98014        4         /* questionnaire     */
H98015        4         /* questionnaire     */
H98016        4         /* questionnaire     */
H98017A       4         /* questionnaire     */
H98017B       4         /* questionnaire     */
H98018        4         /* questionnaire     */
H98019        4         /* questionnaire     */
H98020        4         /* questionnaire     */
H98021        4         /* questionnaire     */
H98022        4         /* questionnaire     */
H98023        4         /* questionnaire     */
H98024        4         /* questionnaire     */
H98025        4         /* questionnaire     */
SRSEX         4         /* questionnaire     */
H98027        4         /* questionnaire     */
H98028        4         /* questionnaire     */
H98029A       4         /* questionnaire     */
H98029B       4         /* questionnaire     */
H98029C       4         /* questionnaire     */
H98030        4         /* questionnaire     */
H98031        4         /* questionnaire     */
H98032        4         /* questionnaire     */
H98033A       4         /* questionnaire     */
H98033B       4         /* questionnaire     */
H98033C       4         /* questionnaire     */
H98033D       4         /* questionnaire     */
H98033E       4         /* questionnaire     */
H98033F       4         /* questionnaire     */
H98033G       4         /* questionnaire     */
H98033H       4         /* questionnaire     */
H98033I       4         /* questionnaire     */
H98033J       4         /* questionnaire     */
H98034A       4         /* questionnaire     */
H98034B       4         /* questionnaire     */
H98034C       4         /* questionnaire     */
H98034D       4         /* questionnaire     */
H98034E       4         /* questionnaire     */
H98034F       4         /* questionnaire     */
H98034G       4         /* questionnaire     */
H98034H       4         /* questionnaire     */
H98034I       4         /* questionnaire     */
H98034J       4         /* questionnaire     */
H98034K       4         /* questionnaire     */
H98034L       4         /* questionnaire     */
H98035        4         /* questionnaire     */
H98036        4         /* questionnaire     */
H98037        4         /* questionnaire     */
H98038        4         /* questionnaire     */
H98039        4         /* questionnaire     */
H98040        4         /* questionnaire     */
```

```
H98041A       4         /* questionnaire     */
H98041B       4         /* questionnaire     */
H98041C       4         /* questionnaire     */
H98041D       4         /* questionnaire     */
H98041E       4         /* questionnaire     */
H98042        4         /* questionnaire     */
H98043        4         /* questionnaire     */
H98044        4         /* questionnaire     */
H98045A       4         /* questionnaire     */
H98045B       4         /* questionnaire     */
H98045C       4         /* questionnaire     */
H98045D       4         /* questionnaire     */
H98046        4         /* questionnaire     */
H98047A       4         /* questionnaire     */
H98047B       4         /* questionnaire     */
H98047C       4         /* questionnaire     */
H98047D       4         /* questionnaire     */
H98047E       4         /* questionnaire     */
H98047F       4         /* questionnaire     */
H98047G       4         /* questionnaire     */
H98048        4         /* questionnaire     */
H98049A       4         /* questionnaire     */
H98049B       5         /* questionnaire     */
H98050        4         /* questionnaire     */
H98051        4         /* questionnaire     */
H98052        4         /* questionnaire     */
H98053        4         /* questionnaire     */
H98054        4         /* questionnaire     */
H98055        4         /* questionnaire     */
H98056        4         /* questionnaire     */
H98057        4         /* questionnaire     */
H98058        4         /* questionnaire     */
H98059        4         /* questionnaire     */
H98060        4         /* questionnaire     */
H98061        4         /* questionnaire     */
H98062        4         /* questionnaire     */
H98063        4         /* questionnaire     */
H98064        4         /* questionnaire     */
H98065        4         /* questionnaire     */
H98066        4         /* questionnaire     */
H98067        4         /* questionnaire     */
H98068        4         /* questionnaire     */
H98069A       4         /* questionnaire     */
H98069B       4         /* questionnaire     */
H98070        4         /* questionnaire     */
H98071        4         /* questionnaire     */
H98072        4         /* questionnaire     */
H98073        4         /* questionnaire     */
H98074        4         /* questionnaire     */
H98075        4         /* questionnaire     */
H98076A       4         /* questionnaire     */
H98076B       4         /* questionnaire     */
H98077A       4         /* questionnaire     */
H98077B       4         /* questionnaire     */
H98078        4         /* questionnaire     */
H98079        4         /* questionnaire     */
H98080        4         /* questionnaire     */
```

```
H98081        4         /* questionnaire     */
H98082        4         /* questionnaire     */
H98083        4         /* questionnaire     */
H98084        4         /* questionnaire     */
H98085        4         /* questionnaire     */
H98086        4         /* questionnaire     */
H98087        4         /* questionnaire     */
H98088        4         /* questionnaire     */
H98089        4         /* questionnaire     */
H98090        4         /* questionnaire     */
H98091        4         /* questionnaire     */
H98092        4         /* questionnaire     */
H98093        4         /* questionnaire     */
H98094        4         /* questionnaire     */
H98095        4         /* questionnaire     */
H98096        4         /* questionnaire     */
H98097        4         /* questionnaire     */
H98098        4         /* questionnaire     */
H98099A       4         /* questionnaire     */
H98099B       4         /* questionnaire     */
H98100A       4         /* questionnaire     */
H98100B       4         /* questionnaire     */
H98100C       4         /* questionnaire     */
H98100D       4         /* questionnaire     */
H98100E       4         /* questionnaire     */
H98100F       4         /* questionnaire     */
H98100G       4         /* questionnaire     */
H98100H       4         /* questionnaire     */
H98100I       4         /* questionnaire     */
H98100J       4         /* questionnaire     */
H98100K       4         /* questionnaire     */
H98100L       4         /* questionnaire     */
H98100M       4         /* questionnaire     */
H98100N       4         /* questionnaire     */
H98100O       4         /* questionnaire     */
H98100P       4         /* questionnaire     */
H98100Q       4         /* questionnaire     */
H98100R       4         /* questionnaire     */
H98100S       4         /* questionnaire     */
H98101        4         /* questionnaire     */
H98102        4         /* questionnaire     */
H98103A       4         /* questionnaire     */
H98103B       4         /* questionnaire     */
H98104A       4         /* questionnaire     */
H98104B       4         /* questionnaire     */
H98104C       4         /* questionnaire     */
H98104D       4         /* questionnaire     */
H98104E       4         /* questionnaire     */
H98104F       4         /* questionnaire     */
H98104G       4         /* questionnaire     */
H98104H       4         /* questionnaire     */
H98104I       4         /* questionnaire     */
H98104J       4         /* questionnaire     */
H98104K       4         /* questionnaire     */
H98104L       4         /* questionnaire     */
H98104M       4         /* questionnaire     */
H98104N       4         /* questionnaire     */
```

```
H98104O       4         /* questionnaire     */
H98104P       4         /* questionnaire     */
H98104Q       4         /* questionnaire     */
H98104R       4         /* questionnaire     */
H98104S       4         /* questionnaire     */
H98105        4         /* questionnaire     */
H98106A       4         /* questionnaire     */
H98106B       4         /* questionnaire     */
H98107A       4         /* questionnaire     */
H98107B       4         /* questionnaire     */
H98108A       4         /* questionnaire     */
H98108B       4         /* questionnaire     */
H98109        4         /* questionnaire     */
H98110A       4         /* questionnaire     */
H98110B       4         /* questionnaire     */
H98110C       4         /* questionnaire     */
H98111        4         /* questionnaire     */
H98112        4         /* questionnaire     */
H98113        4         /* questionnaire     */
SRMARST       4         /* questionnaire     */
SRAGE         4         /* questionnaire     */
SREDA         4         /* questionnaire     */
SREDB         4         /* questionnaire     */
SREDC         4         /* questionnaire     */
SREDD         4         /* questionnaire     */
SREDE         4         /* questionnaire     */
SREDF         4         /* questionnaire     */
SRRACEA       4         /* questionnaire     */
SRRACEB       4         /* questionnaire     */
SRRACEC       4         /* questionnaire     */
SRRACED       4         /* questionnaire     */
SRRACEE       4         /* questionnaire     */
SRRACEF       4         /* questionnaire     */
H98118A       4         /* questionnaire     */
H98118B       4         /* questionnaire     */
H98119        4         /* questionnaire     */
SRMO          4         /* questionnaire     */
SRDAY         4         /* questionnaire     */
SRYEAR        4         /* questionnaire     */

ARVDATE       5         /* DRC variable      */
BATCH         4         /* DRC variable      */
SERIAL        5         /* DRC variable      */
SCANDATE      5         /* DRC variable      */
LITHO         6         /* DRC variable      */
INRECNO       6         /* DRC variable      */
MAILTYP       4         /* DRC variable      */
MAILING       4         /* DRC variable      */
DUPRET        4         /* DRC variable      */
DUPRET2       4         /* DRC variable      */
REFUSE        4         /* DRC variable      */
MISC          4         /* DRC variable      */
FLAG_DUP      4         /* DRC variable      */
RETCOUNT      4         /* DRC variable      */
RETPROC       4         /* DRC variable      */

SRDATE        4         /* recoded var       */
```

```
SRAGE_R       3          /* recoded var       */
SREDHIGH      3          /* recoded var       */
H98001_R      3          /* recoded var       */
H98002_R      3          /* recoded var       */
H98003_R      3          /* recoded var       */
H98004_R      3          /* recoded var       */
H98005AR      3          /* recoded var       */
H98005BR      3          /* recoded var       */
H98006_R      3          /* recoded var       */
H98007_R      3          /* recoded var       */
H98008_R      3          /* recoded var       */
H98009AR      3          /* recoded var       */
H98009BR      3          /* recoded var       */
H98010_R      3          /* recoded var       */
H98011_R      3          /* recoded var       */
H98012_R      3          /* recoded var       */
H98013AR      3          /* recoded var       */
H98013BR      3          /* recoded var       */
H98021_R      3          /* recoded var       */
H98022_R      3          /* recoded var       */
H98023_R      3          /* recoded var       */
H98024_R      3          /* recoded var       */
XSEXA         3          /* recoded var       */
H98027_R      3          /* recoded var       */
H98028_R      3          /* recoded var       */
H98029AR      3          /* recoded var       */
H98029BR      3          /* recoded var       */
H98029CR      3          /* recoded var       */
H98030_R      3          /* recoded var       */
H98031_R      3          /* recoded var       */
H98035_R      3          /* recoded var       */
H98036_R      3          /* recoded var       */
H98037_R      3          /* recoded var       */
H98038_R      3          /* recoded var       */
H98039_R      3          /* recoded var       */
H98040_R      3          /* recoded var       */
H98042_R      3          /* recoded var       */
H98043_R      3          /* recoded var       */
H98044_R      3          /* recoded var       */
H98045AR      3          /* recoded var       */
H98045BR      3          /* recoded var       */
H98045CR      3          /* recoded var       */
H98045DR      3          /* recoded var       */
H98046_R      3          /* recoded var       */
H98049AR      3          /* recoded var       */
H98049BR      3          /* recoded var       */
H98051_R      3          /* recoded var       */
H98052_R      3          /* recoded var       */
H98053_R      3          /* recoded var       */
H98054_R      3          /* recoded var       */
H98055_R      3          /* recoded var       */
H98056_R      3          /* recoded var       */
H98057_R      3          /* recoded var       */
H98058_R      3          /* recoded var       */
H98059_R      3          /* recoded var       */
H98060_R      3          /* recoded var       */
H98061_R      3          /* recoded var       */
```

```
H98065_R      3          /* recoded var       */
H98066_R      3          /* recoded var       */
H98067_R      3          /* recoded var       */
H98068_R      3          /* recoded var       */
H98069AR      3          /* recoded var       */
H98069BR      3          /* recoded var       */
H98070_R      3          /* recoded var       */
H98074_R      3          /* recoded var       */
H98075_R      3          /* recoded var       */
H98077AR      3          /* recoded var       */
H98077BR      3          /* recoded var       */
H98078_R      3          /* recoded var       */
H98079_R      3          /* recoded var       */
H98080_R      3          /* recoded var       */
H98081_R      3          /* recoded var       */
H98082_R      3          /* recoded var       */
H98083_R      3          /* recoded var       */
H98084_R      3          /* recoded var       */
H98085_R      3          /* recoded var       */
H98086_R      3          /* recoded var       */
H98087_R      3          /* recoded var       */
H98088_R      3          /* recoded var       */
H98089_R      3          /* recoded var       */
H98090_R      3          /* recoded var       */
H98091_R      3          /* recoded var       */
H98092_R      3          /* recoded var       */
H98093_R      3          /* recoded var       */
H98094_R      3          /* recoded var       */
H98095_R      3          /* recoded var       */
H98097_R      3          /* recoded var       */
H98101_R      3          /* recoded var       */
H98118AR      3          /* recoded var       */
H98118BR      3          /* recoded var       */

N4            3          /* CS flag variable     */
N5            3          /* CS flag variable     */
N6            3          /* CS flag variable     */
N7            3          /* CS flag variable     */
N8            3          /* CS flag variable     */
N9            3          /* CS flag variable     */
N10           3          /* CS flag variable     */
N11           3          /* CS flag variable     */
N12A          3          /* CS flag variable     */
N12B          3          /* CS flag variable     */
N12C          3          /* CS flag variable     */
N13           3          /* CS flag variable     */
N14           3          /* CS flag variable     */
N15           3          /* CS flag variable     */
N16           3          /* CS flag variable     */
N17           3          /* CS flag variable     */
N18           3          /* CS flag variable     */
N19           3          /* CS flag variable     */
N20           3          /* CS flag variable     */
N21           3          /* CS flag variable     */
N22           3          /* CS flag variable     */
N23           3          /* CS flag variable     */
N24           3          /* CS flag variable     */
```

```
N25          3        /* CS flag variable     */
N26          3        /* CS flag variable     */
N27          3        /* CS flag variable     */
N28          3        /* CS flag variable     */
N29          3        /* CS flag variable     */
N30          3        /* CS flag variable     */
N31          3        /* CS flag variable     */
N32          3        /* CS flag variable     */
N33          3        /* CS flag variable     */
N34          3        /* CS flag variable     */
N35          3        /* CS flag variable     */
N36          3        /* CS flag variable     */
N37          3        /* CS flag variable     */
N38A         3        /* CS flag variable     */
N38B         3        /* CS flag variable     */
N38C         3        /* CS flag variable     */
N38D         3        /* CS flag variable     */
N38E         3        /* CS flag variable     */
N38F         3        /* CS flag variable     */
N38G         3        /* CS flag variable     */
N38H         3        /* CS flag variable     */
N38I         3        /* CS flag variable     */
N38J         3        /* CS flag variable     */
N38K         3        /* CS flag variable     */
N38L         3        /* CS flag variable     */
N38M         3        /* CS flag variable     */

MISS_9       3        /* CS Count             */
MISS_8       3        /* CS Count             */
MISS_7       3        /* CS Count             */
MISS_6       3        /* CS Count             */
MISS_4       3        /* CS Count             */
MISS_1       3        /* CS Count             */
MISS_TOT     3        /* CS Count             */

XENRLLMT     3        /* constructed       */
XENR_PCM     3        /* constructed       */
XINS_COV     3        /* constructed       */
XQENROLL     3        /* constructed       */
XREGION      3        /* constructed       */
XBNFGRP      3        /* constructed       */
KMIL98       3        /* constructed       */
KCIV98       3        /* constructed       */

KENRINTN     3        /* constructed       */
KDISENRL     3        /* constructed       */
KNOWLG98     3        /* constructed       */
KMILWAT1     3        /* constructed       */
KCIVWAT1     3        /* constructed       */
KMILOFFC     3        /* constructed       */
KCIVOFFC     3        /* constructed       */
KBGPRB1      3        /* constructed       */

KBGPRB2      3        /* constructed       */
KMILEMER     3        /* constructed       */
KCIVEMER     3        /* constructed       */
KTOTEMER     3        /* constructed       */
```

```
KMILOP98      3          /* constructed       */
KCIVOP98      3          /* constructed       */
KTOTOP98      3          /* constructed       */
KPRSCPTN      3          /* constructed       */

HP_PRNTL      3          /* constructed       */
HP_MAMOG      3          /* constructed       */
HP_PAP        3          /* constructed       */
HP_BP         3          /* constructed       */
HP_FLU        3          /* constructed       */
HP_PROS       3          /* constructed       */

SF12PCS      8           /* constructed       */
SF12MCS      8           /* constructed       */

KMID_H        3          /* constructed       */
KMID_MH       3          /* constructed       */
XDEMOSTE      3          /* constructed       */
XDEMO         3          /* constructed       */
DEDUC         3          /* constructed       */
DAGE          3          /* constructed       */
DINCOM1       3          /* constructed       */
KIPMIL1       3          /* constructed       */

KIPMIL4       3          /* constructed       */
KOPMIL1       3          /* constructed       */
KOPMIL5       3          /* constructed       */
KPRESC12      3          /* constructed       */
KCOST_2       3          /* constructed       */
KCIVINS       3          /* constructed       */
KMEDIGAP      3          /* constructed       */

WRWT98     8             /* weights           */
WRWT1      8             /* weights           */
WRWT2      8             /* weights           */
WRWT3      8             /* weights           */
WRWT4      8             /* weights           */
WRWT5      8             /* weights           */
WRWT6      8             /* weights           */
WRWT7      8             /* weights           */
WRWT8      8             /* weights           */
WRWT9      8             /* weights           */
WRWT10     8             /* weights           */
WRWT11     8             /* weights           */
WRWT12     8             /* weights           */
WRWT13     8             /* weights           */
WRWT14     8             /* weights           */
WRWT15     8             /* weights           */
WRWT16     8             /* weights           */
WRWT17     8             /* weights           */
WRWT18     8             /* weights           */
WRWT19     8             /* weights           */
WRWT20     8             /* weights           */
WRWT21     8             /* weights           */
WRWT22     8             /* weights           */
WRWT23     8             /* weights           */
WRWT24     8             /* weights           */
```

```
    WRWT25     8            /* weights          */
    WRWT26     8            /* weights          */
    WRWT27     8            /* weights          */
    WRWT28     8            /* weights          */
    WRWT29     8            /* weights          */
    WRWT30     8            /* weights          */
    WRWT31     8            /* weights          */
    WRWT32     8            /* weights          */
    WRWT33     8            /* weights          */
    WRWT34     8            /* weights          */
    WRWT35     8            /* weights          */
    WRWT36     8            /* weights          */
    WRWT37     8            /* weights          */
    WRWT38     8            /* weights          */
    WRWT39     8            /* weights          */
    WRWT40     8            /* weights          */
   ;

  SET  HCS98A_5 ;
  RUN;

PROC CONTENTS DATA=IN.HCS98A_5 POSITION;
title  'Final HCSDB for 1998, ordered by variable type';
RUN;
```

12. SIGNIFICANCE TESTING

```
*************************************************************

*  program:   REGLSIGF.SAS

*  purpose:   to do significance tests for Regional Report
*  written by Daisy Ewell
*  from specs given by Donsig Jang
*  date 5/11/99
*  input: j:\8574\data1998\prelim\hcsa98_5.sd2
*************************************************************
*;
options ps=79 ls=132 mlogic mprint ;
libname in 'j:\8574\data1998\final';
libname library  'j:\8574\data1998\final\fmtlib';
title 'Significance tests for Regional Report';


***SORT FILE BY STRATUM****;
PROC SORT DATA=in.HCS98A_5(keep=xregion xenr_pcm xins_cov xenrllmt
    h98052_r h98073 h98074_r h98096 kbgprb1 kbgprb2 wrwt98 stratum)
    out=hcs98a;
BY STRATUM;
RUN;

*************************************************************
chart 2.1
*************************************************************;
%let numcols = 5;
%let indepvar = xenr_pcm;
%let depvar = H98052_R;
%let depbin = 0;   /* Enter 1 if binary or 0 if not  */
%let pop = 0;     /* enter 0 if all, 1 for MTF, 2 for CTF
     (use 1 or 2 for chart 2.2 only) */
%let region = 1;
%let excl = Region1.xls;

data chartdom chartall;
set hcs98a;

if xregion = . then delete;

***for chart 2.2 need to limit the population first to military
   and next to civilian - as most used facility  ***;
if (&pop = 1 and h98074_r = 1) or (&pop = 2 and h98074_r = 2) or &pop = 0;

***make xregion = 7 to xregion = 8 for tables  ***;
if xregion = 7 then xregion = 8;

***if the dependent variable is binary, make 0/1 rather than 1/2***;
if &depbin = 1 and &depvar = 2 then &depvar = 0;
output chartall;
if xregion in (13, 14, 15) then return;
output chartdom;
```

```
run;
/*
proc freq data=chartdom;
tables col1*col2*col3*col4*col5 / list missing;
run;
*/
***calculate values for domestic population****;
title2 'Domestic Only';
proc descript data=chartdom DESIGN=STRWR /*NOPRINT*/;
 WEIGHT   WRWT98;         ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST STRATUM / missunit;
 VAR  &depvar;                 ******  VARIABLES TO BE ESTIMATED**;
/* TABLES &indepvar;
 SUBGROUP &indepvar;
 LEVELS &numcols;*/
 print / style=nchs;
OUTPUT  / TABLECELL=DEFAULT FILENAME=conus;
RUN;

proc print data=conus;
run;

***calculate values for region****;
title2 "Region &region Only";
proc descript data=chartall DESIGN=STRWR /*NOPRINT*/;
 WEIGHT   WRWT98;         ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST STRATUM / missunit;
 subpopn xregion = &region;
 VAR  &depvar;                 ******  VARIABLES TO BE ESTIMATED**;
 TABLES &indepvar;
 SUBGROUP &indepvar;
 LEVELS &numcols;
 print /style=nchs;
OUTPUT  / TABLECELL=DEFAULT FILENAME=regDAT;
RUN;

proc print data=regdat;
run;

data sigflags(keep=col1-col&numcols limit);
if _n_ = 1 then do;
  set conus(rename=(wsum=dom_wsum mean=dom_mean semean=dom_se));
  put dom_wsum= dom_mean= dom_se=;
end;
retain ncol 0 dom_wsum dom_mean dom_se col1-col&numcols;
set regdat(rename=(wsum=col_wsum mean=col_mean semean=col_se)) end=last;
if &indepvar > 0;
put col_wsum= col_mean= col_se=;
ncol + 1;
array columns col1-col&numcols;
***determine variance of difference****;
***there is no covariance term if a foreign region****;
if &region in (13, 14, 15) then vardif = col_se**2 + dom_se**2;
else vardif = (1 - 2*col_wsum/dom_wsum)*(col_se**2) + dom_se**2;
sedif = sqrt(vardif);
***significance test****;
testval = (col_mean - dom_mean) / sedif;
```

```
put vardif= sedif= testval= ncol=;
if testval >= 1.96 then columns(ncol) = 1;   /*  arrow goes up  */
else if testval <= -1.96 then columns(ncol) = 2;   /* arrow goes down   */
else columns(ncol) = 0;    /*  no significance  */
if last then do;
  if &pop = 0 then limit = 'all';
  else if &pop = 1 then limit = 'MTF';
  else if &pop = 2 then limit = 'CTF';
  output;
end;
run;

proc print data=sigflags;
title2 "Significance test results for &depvar * &indepvar ";
title3 " for Region &region";
run;

FILENAME RAW1 DDE "EXCEL|[&EXCL]SATISFACTION!R8C5:R8C10";

DATA _null_;
   SET SIGFLAGS;
   FILE RAW1 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5;
RUN;



***************************************************************
*  program:   REGLSIG4.SAS
*  purpose:   to do significance tests for Regional Report
*     only chart 4.4 which compares to comparable domestic column
*     rather than overall domestic mean
*  written by Daisy Ewell
*  from specs given by Donsig Jang
*  date 5/11/99
*  input: j:\8574\data1998\prelim\hcsa98_5.sd2
***************************************************************
*;
options ps=79 ls=132 mlogic mprint ;
libname in 'j:\8574\data1998\final';
libname library  'j:\8574\data1998\final\fmtlib';
title 'Significance tests for Regional Report';


***SORT FILE BY STRATUM****;
PROC SORT DATA=in.HCS98A_5(keep=xregion xins_cov
    kbgprb2 wrwt98 stratum) out=hcs98a;
BY STRATUM;
RUN;

***************************************************************
chart 4.4:  regional report KBGPRB2*XINS_COV
***************************************************************;
%let numcols = 5;
%let indepvar = xins_cov;
%let depvar = kbgprb2;
```

```
%let depbin = 1;   /* Enter 1 if binary or 0 if not  */
%let region = 1;
%let excl = Region1.xls;

data chartdom chartall;
set hcs98a;

if xregion = . then delete;
***make xregion = 7 to xregion = 8 for tables  ***;
if xregion = 7 then xregion = 8;

***if the dependent variable is binary, make 0/1 rather than 1/2***;
if &depbin = 1 and &depvar = 2 then &depvar = 0;
output chartall;
if xregion in (13, 14, 15) then return;
output chartdom;
run;
/*
proc freq data=chartdom;
tables col1*col2*col3*col4*col5 / list missing;
run;
*/
***calculate values for domestic population****;
title2 'Domestic Only';
proc descript data=chartdom DESIGN=STRWR /*NOPRINT*/;
 WEIGHT   WRWT98;         ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST STRATUM / missunit;
 VAR  &depvar;                 ******  VARIABLES TO BE ESTIMATED**;
 TABLES &indepvar;
 SUBGROUP &indepvar;
 LEVELS &numcols;
 print / style=nchs;
OUTPUT  / TABLECELL=DEFAULT FILENAME=conus;
RUN;

proc print data=conus;
run;

***calculate values for region****;
title2 "Region &region Only";
proc descript data=chartall DESIGN=STRWR /*NOPRINT*/;
 WEIGHT   WRWT98;         ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST STRATUM / missunit;
 subpopn xregion = &region;
 VAR  &depvar;                 ******  VARIABLES TO BE ESTIMATED**;
 TABLES &indepvar;
 SUBGROUP &indepvar;
 LEVELS &numcols;
 print /style=nchs;
OUTPUT  / TABLECELL=DEFAULT FILENAME=regDAT;
RUN;

proc print data=regdat;
run;

data sigflags(keep=col1-col&numcols);
set conus(rename=(wsum=dom_wsum mean=dom_mean semean=dom_se));
```

```
set regdat(rename=(wsum=col_wsum mean=col_mean semean=col_se)) end=last;
retain ncol col1-col&numcols 0 ;
if &indepvar > 0;
put dom_wsum= dom_mean= dom_se=;
put col_wsum= col_mean= col_se=;
ncol + 1;
array columns col1-col&numcols;
***determine variance of difference****;
***there is no covariance term if a foreign region****;
if &region in (13, 14, 15) then vardif = col_se**2 + dom_se**2;
else vardif = (1 - 2*col_wsum/dom_wsum)*(col_se**2) + dom_se**2;
sedif = sqrt(vardif);
***significance test****;
testval = (col_mean - dom_mean) / sedif;
put vardif= sedif= testval= ncol=;
if testval >= 1.96 then columns(ncol) = 1;   /*  arrow goes up  */
else if testval <= -1.96 then columns(ncol) = 2;   /* arrow goes down   */
else columns(ncol) = 0;    /*  no significance  */
if last then output;
run;

proc print data=sigflags;
title2 "Significance test results for &depvar * &indepvar ";
title3 " for Region &region";
run;


FILENAME RAW1 DDE "EXCEL|[&EXCL]ACCESS!R124C5:R124C10";

DATA _null_;
   SET SIGFLAGS;
   FILE RAW1 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5;
RUN;



*************************************************************

*  program:   NATLSIGT.SAS
*  purpose:   driver program to do significance tests for National Report
*  written by Miki Satake
*************************************************************
*;

%LET PATH = C:\Projects\8574\National Report\Saspgm\; /* location of SAS pgms
*/
%LET EXCL = NationalTemplate.xls;                           /* Excel file name
*/

options ps=79 ls=132 mlogic mprint ;
libname in 'j:\8574\data1998\final';
libname library  'j:\8574\data1998\final\fmtlib';

***SORT FILE BY STRATUM****;
PROC SORT DATA=in.HCS98A_5(keep=xregion xenr_pcm xins_cov h98096 xenrllmt
    h98052_r h98073 h98074_r kbgprb1 kbgprb2 bwt98 stratum) out=hcs98a;
```

```
BY STRATUM;
RUN;

*****************************************************************
chart 2.1:  national report H98052_R*XENR_PCM
*****************************************************************;
title 'NR Regressions for significance tests: Chart 2.1';
%let numcols = 5;
%let indepvar = xenr_pcm;
%let depvar = H98052_R;
%let depbin = 0;   /* Enter 1 if binary or 0 if not  */
%let pop = 0;     /* enter 0 if all, 1 for MTF, 2 for CTF (use 1 or 2 for chart
2.2 only) */
%include "&PATH.Natlsigf.SAS";

FILENAME RAW1 DDE "EXCEL|[&EXCL]Satisfaction!R8C8:R8C12";

DATA _null_;
   SET SIGFLAGS;
   FILE RAW1 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5;
   RUN;

****************************************************************
chart 2.2:  national report H98096*XENRLLMT, MTF only
****************************************************************;
title 'NR Regressions for significance tests: Chart 2.2 (MTF)';
%let numcols = 4;
%let indepvar = xenrllmt;
%let depvar = H98096;
%let depbin = 0;   /* Enter 1 if binary or 0 if not  */
%let pop = 1;     /* enter 0 if all, 1 for MTF, 2 for CTF (use 1 or 2 for chart
2.2 only) */
%include "&PATH.Natlsigf.SAS";

FILENAME RAW2 DDE "EXCEL|[&EXCL]Satisfaction!R49C8:R49C11";

DATA _null_;
   SET SIGFLAGS;
   FILE RAW2 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5;
   RUN;


*****************************************************************
chart 2.2:  national report H98096*XENRLLMT, CTF only
*****************************************************************;
title 'NR Regressions for significance tests: Chart 2.2 (CTF)';
%let numcols = 4;
%let indepvar = xenrllmt;
%let depvar = H98096;
%let depbin = 0;   /* Enter 1 if binary or 0 if not  */
%let pop = 2;     /* enter 0 if all, 1 for MTF, 2 for CTF (use 1 or 2 for chart
2.2 only) */
%include "&PATH.Natlsigf.SAS";
```

```
FILENAME RAW3 DDE "EXCEL|[&EXCL]Satisfaction!R49C14:R49C17";

DATA _null_;
   SET SIGFLAGS;
   FILE RAW3 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5;
   RUN;

*****************************************************************
chart 3.1:  national report H98073*XINS_COV
*****************************************************************;
title 'NR Regressions for significance tests: Chart 3.1';
%let numcols = 5;
%let indepvar = xins_cov;
%let depvar = H98073;
%let depbin = 0;   /* Enter 1 if binary or 0 if not  */
%let pop = 0;     /* enter 0 if all, 1 for MTF, 2 for CTF (use 1 or 2 for chart
2.2 only) */
%include "&PATH.Natlsigf.SAS";

FILENAME RAW4 DDE "EXCEL|[&EXCL]Knowledge!R8C8:R8C12";

DATA _null_;
   SET SIGFLAGS;
   FILE RAW4 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5;
   RUN;

*****************************************************************
chart 4.3:  national report KBGPRB1*XINS_COV
*****************************************************************;
title 'NR Regressions for significance tests: Chart 4.3';
%let numcols = 5;
%let indepvar = XINS_COV;
%let depvar = KBGPRB1;
%let depbin = 1;   /* Enter 1 if binary or 0 if not  */
%let pop = 0;     /* enter 0 if all, 1 for MTF, 2 for CTF (use 1 or 2 for chart
2.2 only) */
%include "&PATH.Natlsigf.SAS";

FILENAME RAW6 DDE "EXCEL|[&EXCL]Access!R84C8:R84C12";

DATA _null_;
   SET SIGFLAGS;
   FILE RAW6 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5;
   RUN;

*****************************************************************
chart 4.4:  national report KBGPRB2*XINS_COV
*****************************************************************;
title 'NR Regressions for significance tests: Chart 4.4';
%let numcols = 5;
%let indepvar = XINS_COV;
%let depvar = KBGPRB2;
%let depbin = 1;   /* Enter 1 if binary or 0 if not  */
```

```
%let pop = 0;     /* enter 0 if all, 1 for MTF, 2 for CTF (use 1 or 2 for chart
2.2 only) */
%include "&PATH.Natlsigf.SAS";


FILENAME RAW7 DDE "EXCEL|[&EXCL]Access!R129C8:R129C12";

DATA _null_;
   SET SIGFLAGS;
   FILE RAW7 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5;
   RUN;


*************************************************************

*  program:   NATLSIGF.SAS

*  purpose:   to do significance tests for National Report

*  written by Daisy Ewell

*  from specs given by Donsig Jang
*  date 5/11/99
*  input: j:\8574\data1998\final\hcsa98_5.sd2
*************************************************************
*;

data chartdom(drop=i) chartall(drop=col1-col&numcols i);
set hcs98a;

if xregion = . then delete;

***for chart 2.2 need to limit the population first to military
   and next to civilian - as most used facility  ***;
if (&pop = 1 and h98074_r = 1) or (&pop = 2 and h98074_r = 2) or &pop = 0;

***make xregion = 7 to xregion = 8 for tables  ***;
if xregion = 7 then xregion = 8;

***if the dependent variable is binary, make 0/1 rather than 1/2***;
if &depbin = 1 and &depvar = 2 then &depvar = 0;
output chartall;
if xregion in (13, 14, 15) then return;

***domestic only***;
****create dummy variables for independent variable****;
array dummy col1 - col&numcols;
do i = 1 to &numcols;
   dummy(i) = 2;
end;
if &indepvar ne . then dummy(&indepvar) = 1;
else do;
  do i = 1 to &numcols;
   dummy(i) = .;
  end;
end;
```

```
output chartdom;
run;
/*
proc freq data=chartdom;
tables col1*col2*col3*col4*col5 / list missing;
run;
*/
***calculate values for domestic population****;
title2 'Domestic Only';
proc descript data=chartdom DESIGN=STRWR /*NOPRINT*/;
 WEIGHT   BWT98;         ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST STRATUM / missunit;
 VAR  &depvar;                 ******  VARIABLES TO BE ESTIMATED**;
 print / style=nchs;
OUTPUT  / TABLECELL=DEFAULT FILENAME=conus;
RUN;

proc print data=conus;
run;

***calculate values for each column for entire population****;
title2 'All Regions';
proc descript data=chartall DESIGN=STRWR /*NOPRINT*/;
 WEIGHT   BWT98;         ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST STRATUM / missunit;
 VAR  &depvar;                 ******  VARIABLES TO BE ESTIMATED**;
 TABLES &indepvar;
 SUBGROUP &indepvar;
 LEVELS &numcols;
 print /style=nchs;
OUTPUT  / TABLECELL=DEFAULT FILENAME=allDAT;
RUN;

proc print data=alldat;
run;

***calculate values for each column of domestic population****;
**** using dummy variables****;
%macro getvals;
%do i = 1 %to &numcols;
title2 "Domestic Only - Column &i Dummy";
proc descript data=chartdom DESIGN=STRWR /*NOPRINT*/;
 WEIGHT   BWT98;         ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST STRATUM / missunit;
 VAR  &depvar;                 ******  VARIABLES TO BE ESTIMATED**;
 TABLES col&i;
 SUBGROUP col&i;
 LEVELS 2;
 print /meancov=all style=nchs;
OUTPUT  / meancov=all /*TABLECELL=DEFAULT*/ FILENAME=colsDAT&i;
RUN;

proc print data=colsdat&i;
run;

***save only necessary pieces, in one record***;
```

```
data valscol&i(keep=wsumdcol vardcol covdcol col_num);
set colsdat&i end=last;
retain wsumdcol vardcol covdcol;
if idnum = 2 and rownum = 2 then vardcol = b02;   /* variance  */
else if idnum = 2 and rownum = 3 then covdcol = b02;   /*  covariance  */
else if idnum = 6 then wsumdcol = b02;    /* weighted sum  */
if last then do;
  col_num = &i;
  output;
end;
run;
proc print data=valscol&i;
run;
%end;

***now put all records in one dataset***;
data valscol;
%setstmts;
run;
proc print data=valscol;
title2 'Domestic - dummy values for columns';
%mend getvals;

****macro to create one dataset with a record for each column dummy***;
%MACRO setstmts;
  %do n = 1 %to &NUMCOLS;
        set valscol&n;
        output;
  %end;
%mend;

%getvals;

data sigflags(keep=col1-col&numcols limit);
if _n_ = 1 then do;
  set conus(rename=(wsum=dom_wsum mean=dom_mean semean=dom_se));
  put dom_wsum= dom_mean= dom_se=;
end;
retain ncol 0 dom_wsum dom_mean dom_se col1-col&numcols;
set alldat(rename=(wsum=col_wsum mean=col_mean semean=col_se)) end=last;
if &indepvar > 0;
set valscol;
put col_wsum= col_mean= col_se=;
put wsumdcol= vardcol= covdcol= col_num=;
ncol + 1;
if col_num ne ncol then put col_num= ncol=;
array columns col1-col&numcols;
***determine variance of difference****;
covdif = (wsumdcol*(dom_wsum - wsumdcol)*covdcol + (wsumdcol**2)*vardcol)
            / (col_wsum*dom_wsum);
vardif = dom_se**2 + col_se**2 - 2*covdif;
sedif = sqrt(vardif);
***significance test****;
testval = (col_mean - dom_mean) / sedif;
put covdif= vardif= sedif= testval= ncol=;
if testval >= 1.96 then columns(ncol) = 1;   /*  arrow goes up  */
else if testval <= -1.96 then columns(ncol) = 2;   /* arrow goes down   */
```

```
else columns(ncol) = 0;    /*  no significance  */
if last then do;
  if &pop = 0 then limit = 'all';
  else if &pop = 1 then limit = 'MTF';
  else if &pop = 2 then limit = 'CTF';
  output;
end;
run;

proc print data=sigflags;
title2 "Significance test results for &depvar * &indepvar ";
title3 "Population limit:  &pop";
run;
```

13. DEMOGRAPHIC ADJUSTMENTS

```
*************************************************************

*  program:  DEMOADJ5.SAS

*  purpose:   to do demographic adjustments for National & Regional
*    Reports - Chart 5
*  written by Daisy Ewell
*  from specs given by Myles Maxfield & Donsig Jang
*  date 3/25/99
*  input: j:\8574\data1998\final\hcsa98_5.sd2
*************************************************************
*;
options ps=79 ls=132 mlogic mprint ;
libname in 'j:\8574\data1998\final';
libname library  'j:\8574\data1998\final\fmtlib';
title 'Logistic Regression for Demographic Adjustments';
title2 'Chart 5 - 2.5';
title3 'Satisfaction with Military & Civilian Care by Region';

***SORT FILE BY STRATUM****;
PROC SORT DATA=in.HCS98A_5(keep=xregion kmil98 kciv98
     srage_r sf12pcs sf12mcs wrwt98 stratum) out=hcs98a;
where xregion ne .;
BY STRATUM;
RUN;

*************************************************************
chart 5:  regional & national report KMIL98*XREGION & KCIV98*XREGION
*************************************************************;
data chart;
set hcs98a;

****create dummy variables for region variable****;
if xregion = 7 then xregion = 8;
array dummy r1 - r16;
do n = 1 to 16;
   dummy(n) = 0;
end;
dummy(xregion) = 1;

***create dummy variable for CONUS regions****;
if xregion = . then conus  = .;
else if xregion in (13, 14, 15) then conus = 0;
else conus = 1;

***calculate dummy variables for age****;
a18_24 = 0;
a25_34 = 0;
a35_44 = 0;
a45_54 = 0;
a55_64 = 0;
a65_74 = 0;
a75_up = 0;
if 18 <= srage_r <= 24 then a18_24 = 1;
else if 25 <= srage_r <= 34 then a25_34 = 1;
```

```
else if 35 <= srage_r <= 44 then a35_44 = 1;
else if 45 <= srage_r <= 54 then a45_54 = 1;
else if 55 <= srage_r <= 64 then a55_64 = 1;
else if 65 <= srage_r <= 74 then a65_74 = 1;
else if srage_r > 74 then a75_up = 1;

***make dependent variables 0/1 rather than 1/2***;
if kmil98 = 2 then kmil98 = 0;
if kciv98 = 2 then kciv98 = 0;
run;

****do regressions to calculate betas****;
***note that we drop out 75 and up for military**;
 proc regress data=chart design=strwr;
 weight wrwt98;
 nest stratum /missunit;
 model kmil98 = r1 r2  r3  r4  r5  r6  r8
     r9  r10  r11  r12  r13  r14  r15  /*r16*/
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 /*a75_up*/ sf12pcs  sf12mcs;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=milbetas;
 run;

 proc print data=milbetas;
 title4 'Output File from Regression on KMIL98';
 run;

 proc regress data=chart design=strwr;
 weight wrwt98;
 nest stratum / missunit;
 model kciv98 = r1 r2  r3  r4  r5  r6  r8
     r9  r10  r11  r12  r13  r14  r15  /*r16*/
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=civbetas;
 run;

 proc print data=civbetas;
 title4 'Output File from Regression on KCIV98';
 run;

 proc regress data=chart design=strwr;
 weight wrwt98;
 nest stratum /missunit;
 model kmil98 = conus
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=conusmil;
 run;

 proc print data=conusmil;
 title4 'Output File from Regression on KMIL98 - Domestic';
 run;

 proc regress data=chart design=strwr;
 weight wrwt98;
 nest stratum /missunit;
```

```
 model kciv98 = conus
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=conusciv;
 run;

 proc print data=conusciv;
 title4 'Output File from Regression on KCIV98 - Domestic';
 run;

 ***calculate weighted means****;
 ****MILITARY****;
 proc means data=chart noprint;
 where kmil98 ge 0 and xregion ne .;
 weight wrwt98;
 var a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 output out=milmns mean=;
 title4 'Proc Means on KMIL98';
 run;
 proc print data=milmns;
 title4 'Output File from Proc MEANS for KMIL98';
 run;

 ****CIVILIAN****;
 proc means data=chart noprint;
 where kciv98 ge 0 and xregion ne .;
 weight wrwt98;
 var a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 output out=civmns mean=;
 title4 'Proc Means on KCIV98';
 run;
 proc print data=civmns;
 title4 'Output File from Proc MEANS for KCIV98';
 run;

 ***get sample size for all with military or civilian****;
 proc means data=chart noprint;
 where (kmil98 ge 0 or kciv98 ge 0) and xregion ne .;
 weight wrwt98;
 var r1 r2  r3  r4  r5  r6  r8  r9  r10  r11  r12  r16;
 output out=cntstot sum= ;
 title4  'Proc  Means  for  KCIV98  &  KMIL98  -  weighted  counts  for  each  CONUS
region';
 run;
 proc print data=cntstot;
 title5 'Output File';
 run;

 ***calculate adjusted means***;
 ****MILITARY****;
 data miladj(keep=amil_1-amil_6 amil_8-amil_16 sampsize);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs sf12mcs;
 if not lastmn then set milmns end=lastmn;

 ****read in military betas and store****;
if lastmn then do;
```

```
 set milbetas(in=mil) end=lastbeta;
 array betas beta1-beta23;
 array pvals pval1-pval23;
 retain beta1-beta23;
 retain pval1-pval23;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
 *put lastm= modelrhs=;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted means for each region****;
 array miladj amil_1-amil_6 amil_8-amil_16;
 ***calculate constant piece***;
  constant = betas(1) ;
  /* add in age & health status  */
     constant + betas(16)*a18_24;
     constant + betas(17)*a25_34;
     constant + betas(18)*a35_44;
     constant + betas(19)*a45_54;
     constant + betas(20)*a55_64;
     constant + betas(21)*a65_74;
     constant + betas(22)*sf12pcs;
     constant + betas(23)*sf12mcs;
 do i = 1 to 15;
 /*   start with constant  */
  miladj(i) = constant ;
 /*    then add in regional piece (for all regions but 16)  */
     if i < 15 then miladj(i) + betas(i+1);
 **multiply by 100 to make into percent***;
   miladj(i) = 100*miladj(i);
 end;

 ***read in sample size for CONUS regions ****;
    set cntstot(keep=_freq_ rename=_freq_=sampsize) ;

 output;
end;
run;

proc print data=miladj;
title4 'Adjusted Means for each Region for KMIL98 - Converted to Percent';
run;

 ****CIVILIAN****;
 data civadj(keep=aciv_1-aciv_6 aciv_8-aciv_16);
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs sf12mcs;
 ****first read in weighted means***;
 if not lastmn then set civmns end=lastmn;

 ****read in civilian betas and store****;
if lastmn then do;
 set civbetas(in=civ) end=lastbeta;
 array betas beta1-beta24;
 array pvals pval1-pval24;
 retain beta1-beta24;
```

```
 retain pval1-pval24;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted means for each region****;
 array civadj aciv_1-aciv_6 aciv_8-aciv_16;
 ***calculate constant piece***;
  constant = betas(1) ;
  /* add in age & health status  */
     constant + betas(16)*a18_24;
     constant + betas(17)*a25_34;
     constant + betas(18)*a35_44;
     constant + betas(19)*a45_54;
     constant + betas(20)*a55_64;
     constant + betas(21)*a65_74;
     constant + betas(22)*a75_up;
     constant + betas(23)*sf12pcs;
     constant + betas(24)*sf12mcs;
 do i = 1 to 15;
 /*   start with constant  */
  civadj(i) = constant ;
 /*    then add in regional piece (all but 16)  */
     if i < 15 then civadj(i) + betas(i+1);
 ****multiply by 100 to make into percent***;
     civadj(i) = 100*civadj(i);
 end;

 output;
end;
run;

proc print data=civadj;
title4 'Adjusted Means for each Region for KCIV98 - Converted to Percent';
run;

 ***calculate adjusted CONUS mean***;
 ****Military****;
 data conusmil(keep=conusmil);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs sf12mcs ;
 if not lastmn then set milmns end=lastmn;

 ****read in 1998 betas and store****;
if lastmn then do;
 set conusmil end=lastbeta;
 array betas beta1-beta11;
 array pvals pval1-pval11;
 retain beta1-beta11;
 retain pval1-pval11;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
```

```
 ****after reading in weighted means and all betas, calculate
     adjusted Conus mean****;
 ***calculate constant piece***;
  constant = betas(1) ;
 /*    then add in domestic piece  */
     constant + betas(2);
  /* add in age & health status */
     constant + betas(3)*a18_24;
     constant + betas(4)*a25_34;
     constant + betas(5)*a35_44;
     constant + betas(6)*a45_54;
     constant + betas(7)*a55_64;
     constant + betas(8)*a65_74;
     constant + betas(9)*a75_up;
     constant + betas(10)*sf12pcs;
     constant + betas(11)*sf12mcs;
 **multiply by 100 to make into percent***;
   conusmil = 100*constant;

 output;
end;
run;

 ****Civilian****;
 data conusciv(keep=conusciv);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs sf12mcs ;
 if not lastmn then set civmns end=lastmn;

 ****read in 1998 betas and store****;
if lastmn then do;
 set conusciv end=lastbeta;
 array betas beta1-beta11;
 array pvals pval1-pval11;
 retain beta1-beta11;
 retain pval1-pval11;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted Conus mean****;
 ***calculate constant piece***;
  constant = betas(1) ;
 /*    then add in domestic piece  */
     constant + betas(2);
  /* add in age & health status  */
     constant + betas(3)*a18_24;
     constant + betas(4)*a25_34;
     constant + betas(5)*a35_44;
     constant + betas(6)*a45_54;
     constant + betas(7)*a55_64;
     constant + betas(8)*a65_74;
     constant + betas(9)*a75_up;
     constant + betas(10)*sf12pcs;
     constant + betas(11)*sf12mcs;
```

```
 **multiply by 100 to make into percent***;
   conusciv = 100*constant;

 output;
end;
run;

data in.adjmns05;
set miladj ;
set conusmil;
set civadj;
set conusciv;
run;

proc print data=in.adjmns05;
title4 'Adjusted Means for each Region for KMIL98 and KCIV98 in Percent';
run;




*****************************************************************

*  program:  DEMOADJ7.SAS

*  purpose:   to do demographic adjustments for National & Regional Report

*      Chart 7 - Enrollees Rating of TRICARE Prime, by Region
*  written by Daisy Ewell
*  from specs given by Donsig Jang & Myles Maxfield
*  date 4/19/99
*  input: j:\8574\data1998\final\hcsa98_5.sd2
*****************************************************************
*;
options ps=79 ls=132 ;
libname in 'j:\8574\data1998\final';
libname library  'j:\8574\data1998\final\fmtlib';
title 'Regression for Demographic Adjustments';
title2 'Chart 7 - 3.2';
title3 'Enrollees Rating of TRICARE Prime, by Region';

***SORT FILE BY STRATUM****;
PROC SORT DATA=in.HCS98A_5(keep=xregion h98073 h98050
     srage_r sf12pcs sf12mcs wrwt98 stratum) out=hcs98a;
where xregion ne . and h98050 = 1;
BY STRATUM;
RUN;

*****************************************************************
chart 7:  regional & national report h98073*XREGION
*****************************************************************;
data chart98;
set hcs98a;
****create dummy variables for region variable****;
if xregion = 7 then xregion = 8;
array dummy r1 - r16;
do n = 1 to 16;
```

```
   dummy(n) = 0;
end;
dummy(xregion) = 1;

***create dummy variable for CONUS regions****;
if xregion = . then conus  = .;
else if xregion in (13, 14, 15) then conus = 0;
else conus = 1;

***calculate dummy variables for age****;
a18_24 = 0;
a25_34 = 0;
a35_44 = 0;
a45_54 = 0;
a55_64 = 0;
a65_74 = 0;
a75_up = 0;
if 18 <= srage_r <= 24 then a18_24 = 1;
else if 25 <= srage_r <= 34 then a25_34 = 1;
else if 35 <= srage_r <= 44 then a35_44 = 1;
else if 45 <= srage_r <= 54 then a45_54 = 1;
else if 55 <= srage_r <= 64 then a55_64 = 1;
else if 65 <= srage_r <= 74 then a65_74 = 1;
else if srage_r > 74 then a75_up = 1;

run;

****do regression to calculate betas****;
 proc regress data=chart98 design=strwr;
 weight wrwt98;
 nest stratum / missunit;
 model h98073 = r1 r2  r3  r4  r5  r6  r8
     r9  r10  r11  r12  r13  r14  r15  /*r16*/
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=betas1;
 run;

 proc print data=betas1;
 title4 'Output File from Regression on H98073';
 run;

 proc regress data=chart98 design=strwr;
 weight wrwt98;
 nest stratum /missunit;
 model h98073 = conus
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=betasc;
 run;

 proc print data=betasc;
 title4 'Output File from Regression on H98073 - Domestic';
 run;

 ***calculate weighted means****;
 proc means data=chart98 noprint;
```

```
 where h98073 ge 0 and xregion ne .;
 weight wrwt98;
 var a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 output out=mns98 mean= ;
 title4 'Proc Means for 1998';
 run;
 proc print data=mns98;
 title4 'Output File from Proc MEANS for 1998';
 run;

 ***calculate adjusted means***;
 data adjmns07(keep=ahp_1-ahp_6 ahp_8-ahp_16 sampsize);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 if not lastmn then set mns98(rename=_freq_=sampsize) end=lastmn;

 ****read in betas and store****;
if lastmn then do;
 set betas1(in=mil) end=lastbeta;
 array betas beta1-beta24;
 array pvals pval1-pval24;
 retain beta1-beta24;
 retain pval1-pval24;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted mean for each region ****;
 array adj1 ahp_1-ahp_6 ahp_8-ahp_16;
 ***calculate constant piece***;
  constant = betas(1) ;
  /* add in age & health status  */
     constant + betas(16)*a18_24;
     constant + betas(17)*a25_34;
     constant + betas(18)*a35_44;
     constant + betas(19)*a45_54;
     constant + betas(20)*a55_64;
     constant + betas(21)*a65_74;
     constant + betas(22)*a75_up;
     constant + betas(23)*sf12pcs;
     constant + betas(24)*sf12mcs;
 do i = 1 to 15;
 /*   start with constant  */
  adj1(i) = constant ;
 /*    then add in regional piece (for all regions but 16)  */
     if i < 15 then adj1(i) + betas(i+1);
 end;
 output;
end;
run;

proc print data=adjmns07;
title4 'Adjusted Means for each Region for H98073';
run;
```

```
 ***calculate adjusted CONUS mean***;
 data conus(keep=conus_mn);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs sf12mcs ;
 if not lastmn then set mns98 end=lastmn;

 ****read in 1998 betas and store****;
if lastmn then do;
 set betasc end=lastbeta;
 array betas beta1-beta11;
 array pvals pval1-pval11;
 retain beta1-beta11;
 retain pval1-pval11;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted Conus mean *****;
 ***calculate constant piece***;
     conus_mn = betas(1) ;
 ***then add in domestic piece***;
     conus_mn + betas(2);
  *** add in age & health status ***;
     conus_mn + betas(3)*a18_24;
     conus_mn + betas(4)*a25_34;
     conus_mn + betas(5)*a35_44;
     conus_mn + betas(6)*a45_54;
     conus_mn + betas(7)*a55_64;
     conus_mn + betas(8)*a65_74;
     conus_mn + betas(9)*a75_up;
     conus_mn + betas(10)*sf12pcs;
     conus_mn + betas(11)*sf12mcs;
 output;
end;
run;

proc print data=conus;
title4 'Adjusted CONUS Mean for H98073';
run;

data in.adjmns07;
set adjmns07;
set conus;
run;

proc print data=in.adjmns07;
title4 ' Adjusted Means for each Region for H98073';
run;




***************************************************************
*  program:  DEMADJ10.SAS
```

```
*  purpose:   to do demographic adjustments for National & Regional Report
*      Chart 10 - Beneficiaries Understanding of Prime by Region
*  written by Daisy Ewell
*  from specs given by Donsig Jang & Myles Maxfield
*  date 4/19/99
*  input: j:\8574\data1998\final\hcsa98_5.sd2
*  input:  J:8574\data1998\final\trend97.sd2
*****************************************************************
*;
options ps=79 ls=132 ;
libname in 'j:\8574\data1998\final';
libname library  'j:\8574\data1998\final\fmtlib';
title 'Regression for Demographic Adjustments';
title2 'Chart 10 - 3.3';
title3 'Beneficiaries Understanding of Prime by Region';

***SORT FILES BY STRATUM****;
PROC SORT DATA=in.HCS98A_5(keep=xregion knowlg98
     srage_r sf12pcs sf12mcs wrwt98 stratum) out=hcs98a;
where xregion ne .;
BY STRATUM;
RUN;

Proc sort data=in.trend97(keep=xregion knowlg97 srage_r sf12pcs
   sf12mcs wrwt97 stratum)  out=trend97;
where xregion ne .;
by stratum;
run;

*****************************************************************
chart 10:  regional & national report KNOWLG98*XREGION & KNOWLG97*XREGION
*****************************************************************;
data chart98;
set hcs98a;
****create dummy variables for region variable****;
if xregion = 7 then xregion = 8;
array dummy r1 - r16;
do n = 1 to 16;
   dummy(n) = 0;
end;
dummy(xregion) = 1;

***create dummy variable for CONUS regions****;
if xregion = . then conus  = .;
else if xregion in (13, 14, 15) then conus = 0;
else conus = 1;

***calculate dummy variables for age****;
a18_24 = 0;
a25_34 = 0;
a35_44 = 0;
a45_54 = 0;
a55_64 = 0;
a65_74 = 0;
a75_up = 0;
if 18 <= srage_r <= 24 then a18_24 = 1;
else if 25 <= srage_r <= 34 then a25_34 = 1;
```

```
else if 35 <= srage_r <= 44 then a35_44 = 1;
else if 45 <= srage_r <= 54 then a45_54 = 1;
else if 55 <= srage_r <= 64 then a55_64 = 1;
else if 65 <= srage_r <= 74 then a65_74 = 1;
else if srage_r > 74 then a75_up = 1;

***make dependent variables 0/1 rather than 1/2***;
if knowlg98 = 2 then knowlg98 = 0;
run;

data chart97;
set trend97;
****create dummy variables for region variable****;
if xregion = 7 then xregion = 8;
array dummy r1 - r16;
do n = 1 to 16;
   dummy(n) = 0;
end;
dummy(xregion) = 1;

***create dummy variable for CONUS regions****;
if xregion = . then conus  = .;
else if xregion in (13, 14, 15) then conus = 0;
else conus = 1;

***calculate dummy variables for age****;
a18_24 = 0;
a25_34 = 0;
a35_44 = 0;
a45_54 = 0;
a55_64 = 0;
a65_74 = 0;
a75_up = 0;
if 18 <= srage_r <= 24 then a18_24 = 1;
else if 25 <= srage_r <= 34 then a25_34 = 1;
else if 35 <= srage_r <= 44 then a35_44 = 1;
else if 45 <= srage_r <= 54 then a45_54 = 1;
else if 55 <= srage_r <= 64 then a55_64 = 1;
else if 65 <= srage_r <= 74 then a65_74 = 1;
else if srage_r > 74 then a75_up = 1;

***make dependent variables 0/1 rather than 1/2***;
if knowlg97 = 2 then knowlg97 = 0;
run;

****do regressions to calculate betas****;
 proc regress data=chart98 design=strwr;
 weight wrwt98;
 nest stratum /missunit;
 model knowlg98 = r1 r2  r3  r4  r5  r6  r8
     r9  r10  r11  r12  r13  r14  r15  /*r16*/
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=betas98;
 run;

 proc print data=betas98;
```

```
title4 'Output File from Regression on KNOWLG98';
run;

proc regress data=chart98 design=strwr;
weight wrwt98;
nest stratum /missunit;
model knowlg98 = conus
    a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
test satadjchi waldchi;
output beta sebeta p_beta/filename=conus98;
run;

proc print data=conus98;
title4 'Output File from Regression on KNOWLG98 - Domestic';
run;

proc regress data=chart97 design=strwr;
weight wrwt97;
nest stratum / missunit;
model knowlg97 = r1 r2  r3  r4  r5  r6  r8
    r9  r10  r11  r12  r13  r14  r15  /*r16*/
    a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
test satadjchi waldchi;
output beta sebeta p_beta/filename=betas97;
run;

proc print data=betas97;
title4 'Output File from Regression on KNOWLG97';
run;

proc regress data=chart97 design=strwr;
weight wrwt97;
nest stratum /missunit;
model knowlg97 = conus
    a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
test satadjchi waldchi;
output beta sebeta p_beta/filename=conus97;
run;

proc print data=conus97;
title4 'Output File from Regression on KNOWLG97 - Domestic';
run;

***calculate weighted means****;
****1998****;
proc means data=chart98 noprint;
where knowlg98 ge 0 and xregion ne .;
weight wrwt98;
var a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
output out=mns98 mean=;
title4 'Proc Means for 1998';
run;
proc print data=mns98;
title4 'Output File from Proc MEANS for 1998';
run;

****1997****;
```

```
 proc means data=chart97 noprint;
 where knowlg97 ge 0 and xregion ne .;
 weight wrwt97;
 var a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs  sf12mcs;
 output out=mns97 mean=;
 title4 'Proc Means for 1997';
 run;
 proc print data=mns97;
 title4 'Output File from Proc MEANS for 1997';
 run;

 ***calculate adjusted means***;
 ****1998****;
 data adj98(keep=a98_1-a98_6 a98_8-a98_16 sampsz98);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs
    sf12mcs sampsz98;
 if not lastmn then do;
    set mns98 end=lastmn;
    sampsz98 = _freq_;
 end;

 ****read in 1998 betas and store****;
if lastmn then do;
 set betas98(in=mil) end=lastbeta;
 array betas beta1-beta24;
 array pvals pval1-pval24;
 retain beta1-beta24;
 retain pval1-pval24;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted means for each region ****;
 array adj98 a98_1-a98_6 a98_8-a98_16;
 ***calculate constant piece***;
  constant = betas(1) ;
  /* add in age & health status  */
     constant + betas(16)*a18_24;
     constant + betas(17)*a25_34;
     constant + betas(18)*a35_44;
     constant + betas(19)*a45_54;
     constant + betas(20)*a55_64;
     constant + betas(21)*a65_74;
     constant + betas(22)*a75_up;
     constant + betas(23)*sf12pcs;
     constant + betas(24)*sf12mcs;
 do i = 1 to 15;
 /*   start with constant  */
  adj98(i) = constant ;
 /*    then add in regional piece (for all regions but 16)  */
     if i < 15 then adj98(i) + betas(i+1);
 **multiply by 100 to make into percent***;
   adj98(i) = 100*adj98(i);
 end;
```

```
 output;
end;
run;

proc print data=adj98;
title4 'Adjusted Means for each Region for KNOWLG98 - Converted to Percent';
run;

 ****1997****;
 data adj97(keep=a97_1-a97_6 a97_8-a97_16 sampsz97);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs
    sf12mcs sampsz97;
 if not lastmn then do;
    set mns97 end=lastmn;
    sampsz97 = _freq_;
 end;

 ****read in 1997 betas and store****;
if lastmn then do;
 set betas97 end=lastbeta;
 array betas beta1-beta24;
 array pvals pval1-pval24;
 retain beta1-beta24;
 retain pval1-pval24;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted means for each region ****;
 array adj97 a97_1-a97_6 a97_8-a97_16;
 ***calculate constant piece***;
  constant = betas(1) ;
  /* add in age & health status  */
     constant + betas(16)*a18_24;
     constant + betas(17)*a25_34;
     constant + betas(18)*a35_44;
     constant + betas(19)*a45_54;
     constant + betas(20)*a55_64;
     constant + betas(21)*a65_74;
     constant + betas(22)*a75_up;
     constant + betas(23)*sf12pcs;
     constant + betas(24)*sf12mcs;
 do i = 1 to 15;
 /*   start with constant  */
  adj97(i) = constant ;
 /*    then add in regional piece (all but 16)  */
     if i < 15 then adj97(i) + betas(i+1);
 ****multiply by 100 to make into percent***;
     adj97(i) = 100*adj97(i);
 end;

 output;
end;
```

```
run;

proc print data=adj97;
title4 'Adjusted Means for each Region for KNOWLG97 - Converted to Percent';
run;

 ***calculate adjusted CONUS mean***;
 ****1998****;
 data conus98(keep=conus_98);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs sf12mcs ;
 if not lastmn then set mns98 end=lastmn;

 ****read in 1998 betas and store****;
if lastmn then do;
 set conus98(in=mil) end=lastbeta;
 array betas beta1-beta11;
 array pvals pval1-pval11;
 retain beta1-beta11;
 retain pval1-pval11;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
    adjusted Conus mean****;
 ***calculate constant piece***;
  constant = betas(1) ;
 /*    then add in domestic piece  */
     constant + betas(2);
  /* add in age & health status  */
     constant + betas(3)*a18_24;
     constant + betas(4)*a25_34;
     constant + betas(5)*a35_44;
     constant + betas(6)*a45_54;
     constant + betas(7)*a55_64;
     constant + betas(8)*a65_74;
     constant + betas(9)*a75_up;
     constant + betas(10)*sf12pcs;
     constant + betas(11)*sf12mcs;
 **multiply by 100 to make into percent***;
   conus_98 = 100*constant;

 output;
end;
run;

proc print data=conus98;
title4 'Adjusted CONUS Mean for KNOWLG98 - Converted to Percent';
run;

 ****1997****;
 data conus97(keep=conus_97);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up sf12pcs sf12mcs ;
 if not lastmn then set mns97 end=lastmn;
```

```
 ****read in 1997 betas and store****;
if lastmn then do;
 set conus97 end=lastbeta;
 array betas beta1-beta11;
 array pvals pval1-pval11;
 retain beta1-beta11;
 retain pval1-pval11;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted CONUS mean ****;
 ***calculate constant piece***;
  constant = betas(1) ;
 /*    then add in domestic piece  */
     constant + betas(2);
  /* add in age & health status, when significant  */
     constant + betas(3)*a18_24;
     constant + betas(4)*a25_34;
     constant + betas(5)*a35_44;
     constant + betas(6)*a45_54;
     constant + betas(7)*a55_64;
     constant + betas(8)*a65_74;
     constant + betas(9)*a75_up;
     constant + betas(10)*sf12pcs;
     constant + betas(11)*sf12mcs;
 ****multiply by 100 to make into percent***;
     conus_97 = 100*constant;

 output;
end;
run;

proc print data=conus97;
title4 'Adjusted CONUS Mean for KNOWLG97 - Converted to Percent';
run;

data in.adjmns10;
set adj98 ;
set conus98;
set adj97;
set conus97;
run;

proc print data=in.adjmns10;
title4 'Adjusted Means for each Region for KNOWLG98 & KNOWLG97 in Percent';
run;
```

14. CHART AND TABLE PRODUCTION

```
*OPTIONS NOCENTER LS=124 PS=78 SOURCE SOURCE2;
OPTIONS CENTER LS=156 PS=85 SOURCE SOURCE2;
*********************************************************************;
* This program creates graphs + tables for the satisfaction section of ;
* the regional report.  This pgm creates a subset file which includes  ;
* all records but only those vars needed for satisfaction section.     ;
* Pgm then calls 5 other programs:                                     ;
*    1) Chart2x1.SAS outputs data for Chart 2.1 into Excel             ;
*    2) Chart2x2.SAS outputs data for Chart 2.2 into Excel             ;
*    3) Chart2x3.SAS outputs data for Chart 2.3 into Excel             ;
*    4) Chart2x4.SAS outputs data for Chart 2.4 into Excel             ;
*********************************************************************;
LIBNAME DATA   'J:\8574\DATA1998\FINAL';
LIBNAME LIBRARY 'J:\8574\DATA1998\FINAL\FMTLIB';
LIBNAME OUT     'C:\8574\REGION~1\REGION1';

%LET REGN   = 1;                                          /* macro variable for
region */
%LET DATA   = DATA.HCS98A_5;                             /* data file name with
path  */
%LET PATH   = C:\8574\REGION~1\REGION1\;                /* location of SAS pgms
*/
%LET WGHT    = WRWT98;                                       /* 1998 weight var
*/
%LET WGHT97 = WRWT97;                                        /* 1997 weight var
*/
%LET WGHT96 = WRWT96;                                        /* 1996 weight var
*/
%LET EXCL    = REGION1.XLS;                                  /* Excel file name
*/

DATA TEMP1;
   SET &DATA (KEEP= WRWT98 STRATUM XREGION H98052_R H98074_R  H98096
                    XENR_PCM XENRLLMT KMIL98 KCIV98 H98097_R H98101_R) ;

   LENGTH ONE 3;
   ONE=1;       /* this var will never have missing values */

   IF XREGION = 7 THEN XREGION = 8;

   RUN;

   PROC SORT DATA=TEMP1;
   BY STRATUM;
   RUN;

DATA DATA97;
   SET DATA.TREND97 (KEEP=WRWT97 KMIL97 KCIV97 XENRLLMT XREGION STRATUM);

   IF XREGION = 7 THEN XREGION = 8;

   RUN;

DATA DATA96;
```

```
   SET DATA.TREND96 (KEEP=WRWT96 KMIL96 KCIV96 XENRLLMT XREGION BGCSMPL
                     CACSMPL);

   IF XREGION = 7 THEN XREGION = 8;

   RUN;


TITLE  ">>> Region=&REGN, Regional Report CHART 2.1 <<<";
%include "&PATH.Chart2x1.SAS";

TITLE  ">>> Region=&REGN, Regional Report CHART 2.2 <<<";
%include "&PATH.Chart2x2.SAS";

TITLE  ">>> Region=&REGN, Regional Report CHART 2.3 <<<";
%include "&PATH.Chart2x3.SAS";

TITLE  ">>> Region=&REGN, Regional Report CHART 2.4 <<<";
%include "&PATH.Chart2x4.SAS";


*****************************************************************;

* This program outputs data for Chart 2.1 of the regional report ;

* into Excel                                                     ;
*****************************************************************;

DATA TEMP2;
   SET TEMP1;
                                          ************************;
   IF XREGION NE &REGN THEN DELETE;       * Include ONLY 1 region ;
                                          ************************;
   RUN;


***********************************;
* Sort data by STRATUM            ;
***********************************;

PROC SORT DATA=TEMP2;
   BY STRATUM;
   RUN;

****************************************;
* Calculate values for graphs - SUDAAN ;
****************************************;

PROC DESCRIPT DATA=TEMP2 DESIGN=STRWR NOPRINT;
   WEIGHT &WGHT;
   NEST STRATUM / missunit;
   VAR H98052_R;
   TABLES XENR_PCM;
   SUBGROUP XENR_PCM;
   LEVELS 5;
   OUTPUT MEAN SEMEAN DEFFMEAN/ TABLECELL=DEFAULT FILENAME=MNSDAT;
   RUN;
```

```
DATA MNSDAT;
     SET MNSDAT;
     IF NSUM < 20 OR WSUM < 200 OR ((SEMEAN/MEAN)*100) > 30 THEN MEAN =999;
     RUN;

   PROC PRINT DATA=MNSDAT;
   TITLE2 'CHECK PROC CROSSTAB DATA=MNSDAT';
   RUN;

/*REGION OVERALL*/
PROC DESCRIPT DATA=TEMP2 DESIGN=STRWR NOPRINT;
   WEIGHT &WGHT;
   NEST STRATUM / missunit;
   VAR H98052_R;
   OUTPUT MEAN SEMEAN DEFFMEAN/ TABLECELL=DEFAULT FILENAME=MNSREG;
   RUN;

DATA MNSREG;
     SET MNSREG;
     IF NSUM < 20 OR WSUM < 200 OR ((SEMEAN/MEAN)*100) > 30 THEN MEAN =999;
     RUN;

   PROC PRINT DATA=MNSREG;
   TITLE2 'CHECK PROC CROSSTAB DATA=MNSREG';
   RUN;

/*MHS OVERALL*/
PROC DESCRIPT DATA=TEMP1 DESIGN=STRWR NOPRINT;
   WEIGHT &WGHT;
   NEST STRATUM / missunit;
   SUBPOPN XREGION=1  or XREGION=2  or XREGION=3 or XREGION=4 or XREGION=5  or
           XREGION=6  or XREGION=7  or XREGION=8 or XREGION=9 or XREGION=10 or
           XREGION=11 or XREGION=12 or XREGION=16;
   VAR H98052_R;
   OUTPUT MEAN SEMEAN DEFFMEAN/ TABLECELL=DEFAULT FILENAME=MNSMHS;
   RUN;

   PROC PRINT DATA=MNSMHS;
   TITLE2 'CHECK PROC CROSSTAB DATA=MNSMHS';
   RUN;


************************;
* Prepare data for DDE  ;
************************;

DATA MNSDAT (KEEP=COL1-COL10);
   SET MNSDAT;
   IF XENR_PCM IN (1, 2, 3, 4, 5);
   RENAME PROCNUM=COL1 TABLENO=COL2 VARIABLE=COL3 XENR_PCM=COL4
          MEAN=COL5 SEMEAN=COL6 DEFFMEAN=COL7 NSUM=COL8 WSUM=COL9 TOTAL=COL10;
   RUN;

/*REGION OVERALL*/
DATA MNSREG (KEEP=COL1-COL10);
   SET MNSREG;
```

```
   TABLENO=00;
   COL4=99999;
   RENAME PROCNUM=COL1 TABLENO=COL2 VARIABLE=COL3
          MEAN=COL5 SEMEAN=COL6 DEFFMEAN=COL7 NSUM=COL8 WSUM=COL9 TOTAL=COL10;
   RUN;

/*MHS OVERALL*/
DATA MNSMHS (KEEP=COL1-COL10);
   SET MNSMHS;
   TABLENO=98;
   COL4=99999;
   RENAME PROCNUM=COL1 TABLENO=COL2 VARIABLE=COL3
          MEAN=COL5 SEMEAN=COL6 DEFFMEAN=COL7 NSUM=COL8 WSUM=COL9 TOTAL=COL10;
   RUN;

DATA MNSDAT;
   SET MNSREG MNSDAT MNSMHS;
   RUN;

   PROC PRINT DATA=MNSDAT;
   TITLE2 'CHECK RENAME';
   RUN;
   TITLE2;

****************************;
* Set up DDE link to Excel ;
****************************;

FILENAME RAW1 DDE "EXCEL|[&EXCL]2.1!R30C1:R130C10";

DATA _null_;
   SET MNSDAT;
   FILE RAW1 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7
'09'X COL8 '09'X COL9
   '09'X COL10;
   RUN;


*****************************************************************;

* This program outputs data for Chart 6.1 of the regional report ;
* into Excel                                                     ;
*****************************************************************;

DATA TEMP2;
   SET TEMP1;
                                    *********************;
   IF XREGION=. THEN DELETE;        * Delete no region   ;
                                    *********************;

   ********************************************************************;
   * Include ONLY females who are pregnant or who have been pregnant in ;
   * the past 12 months who are in 2nd or 3rd trimester                 ;
   ********************************************************************;

/* IF XSEXA NE 2    THEN DELETE;
```

```
   IF H98030_R NE 1 THEN DELETE; */
   IF HP_PRNTL = .  THEN DELETE;
   RUN;

**********************************;
* Sort data by STRATUM            ;
**********************************;

PROC SORT DATA=TEMP2;
   BY STRATUM;
   RUN;

****************************************;
* Calculate values for graphs - SUDAAN ;
****************************************;

PROC CROSSTAB DATA=TEMP2 DESIGN=STRWR NOPRINT;
   WEIGHT &WGHT;
   NEST STRATUM / missunit;
   SUBGROUP XREGION HP_PRNTL;
   LEVELS 16 2;
   TABLES XREGION*HP_PRNTL;
   OUTPUT NSUM WSUM TOTPER ROWPER SEROW SETOT SEWGT COLPER SECOL
      / TABLECELL=DEFAULT FILENAME=OUTDAT;
   RUN;

DATA OUTDAT;
  SET OUTDAT;
  BY XREGION HP_PRNTL;
  RETAIN _N _W ;
  IF HP_PRNTL = 0 THEN DO; _N=NSUM; _W=WSUM; END;
RUN;

DATA OUTDAT;
     SET OUTDAT;
     IF _N < 20 OR _W < 200 THEN ROWPER =999;
        ELSE IF ROWPER >= 10 AND ((SEROW/ROWPER)*100) > 30 THEN ROWPER =999;
     RUN;

   PROC PRINT DATA=OUTDAT;
   TITLE2 'CHECK PROC CROSSTAB DATA=OUTDAT';
   RUN;

/*MHS Overall*/
PROC CROSSTAB DATA=TEMP2 DESIGN=STRWR NOPRINT;
   WEIGHT &WGHT;
   NEST STRATUM / missunit;
   SUBPOPN XREGION=1  OR XREGION=2  OR XREGION=3 OR XREGION=4 OR XREGION=5  OR
           XREGION=6  OR XREGION=7  OR XREGION=8 OR XREGION=9 OR XREGION=10 OR
           XREGION=11 OR XREGION=12 OR XREGION=16;
   SUBGROUP HP_PRNTL;
   LEVELS 2;
   TABLES HP_PRNTL;
   OUTPUT NSUM WSUM TOTPER ROWPER SEROW SETOT SEWGT COLPER SECOL
      / TABLECELL=DEFAULT FILENAME=OUTMHS;
   RUN;
```

```
   PROC PRINT DATA=OUTMHS;
   TITLE2 'CHECK PROC CROSSTAB DATA=OUTMHS';
   RUN;

*****************************************************************************
*********;
*                Prepare                data                for                DDE
;
* Output only those who reported first prenatal care during first trimester
(HP_PRNTL=1) ;
*****************************************************************************
*********;

DATA OUTSS (KEEP=COL1-COL9);
   SET OUTDAT;
   RENAME PROCNUM=COL1 TABLENO=COL2 XREGION=COL3 HP_PRNTL=COL4
          NSUM=COL5 WSUM=COL6 TOTPER=COL7 ROWPER=COL8 SEROW=COL9;
   RUN;

DATA OUTDAT (KEEP=COL1-COL9);
   SET OUTDAT;
   IF HP_PRNTL=1;
   RENAME PROCNUM=COL1 TABLENO=COL2 XREGION=COL3 HP_PRNTL=COL4
          NSUM=COL5 WSUM=COL6 TOTPER=COL7 ROWPER=COL8 SEROW=COL9;
   RUN;

DATA OUTMHS (KEEP=COL1-COL9);
   SET OUTMHS;
   IF HP_PRNTL=1;
   TABLENO=98;
   COL3=99999;
   RENAME PROCNUM=COL1 TABLENO=COL2 HP_PRNTL=COL4
          NSUM=COL5 WSUM=COL6 TOTPER=COL7 ROWPER=COL8 SEROW=COL9;
   RUN;

DATA OUTDAT;
   SET OUTDAT OUTMHS;
   RUN;

   PROC PRINT DATA=OUTDAT;
   TITLE2 'CHECK RENAME';
   RUN;
   TITLE2;

***************************;
* Set up DDE link to Excel ;
***************************;

FILENAME RAW1 DDE "EXCEL|[&EXCL]6.1!R45C1:R145C9";

DATA _null_;
   SET OUTDAT;
   FILE RAW1 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7
'09'X COL8 '09'X COL9;
   RUN;
```

```
FILENAME RAW2 DDE "EXCEL|[&EXCL]6.1!R64C1:R64C9";

DATA _null_;
   SET OUTSS;
   FILE RAW2 notab LRECL=2503;
   PUT COL1 '09'X COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7
'09'X COL8 '09'X COL9;
   RUN;
```

APPENDIX L

SUDAAN CODE FOR VARIANCE ESTIMATION

```
*************************************************************
*  program:   SUDTEST.SAS
*  purpose:   to demonstrate SAS callable SUDAAN
*  written by Daisy Ewell and Donsig Jang
*  date 3/4/99
*  input: j:\8574\data1998\70recchk\hcsa98_3.sd2
*************************************************************
*;
options ps=79 ls=132;
libname in 'j:\8574\data1998\70recchk';
libname library  'j:\8574\data1998\70recchk\fmtlib';


***SORT FILE BY STRATUM****;
data hcs98a;
set in.hcs98a_3;
***make xregion = 7 to xregion = 8 for tables  ***;
if xregion = 7 then xregion = 8;
run;

PROC SORT DATA=HCS98A(keep=xregion h98054 h98003 bwt98 stratum);
BY STRATUM;
RUN;


*************************************************************
if you want to estimate means
*************************************************************;
title 'Output file from SUDAAN for estimating means';
title2 'Average Outpatient Days (Q03) by Region';

PROC DESCRIPT DATA=HCS98A DESIGN=STRWR NOPRINT;
 WEIGHT   BWT98;        ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST STRATUM / missunit;
VAR  H98003;                 ******  VARIABLES TO BE ESTIMATED**;
* SUBPOPN XREGION;               ******specify domains to be reported;
 TABLES XREGION;
 SUBGROUP XREGION;
 LEVELS 16;
 OUTPUT MEAN SEMEAN deffmean/ TABLECELL=DEFAULT FILENAME=mnsDAT;
 ***SEMEAN=standard error and deffmean=design effect**;
RUN;

proc print data=mnsdat;
run;

*************************************************************
if you want to estimate percentage
*************************************************************;
title 'Output file from SUDAAN for estimating percentages';
title2 'Size of problem seeing a specialist (Q54) by Region';
title3 'Population limited to those who needed to see a specialist';
TITLE4 'PROC CROSSTAB';
PROC CROSSTAB DATA=HCS98A DESIGN=STRWR NOPRINT;
 WEIGHT   BWT98;
 NEST STRATUM / missunit;
 SUBPOPN H98054=1 OR H98054=2 OR H98054=3;
```

```
 SUBGROUP H98054 XREGION;
 LEVELS 3 16;
 TABLES H98054*XREGION;              /*  DEP * INDEP */
 OUTPUT NSUM WSUM SEWGT COLPER SECOL
   / TABLECELL=DEFAULT FILENAME=OUTDAT;
RUN;

proc print data=outdat;
run;
```

APPENDIX M

VISUAL BASIC CODE FOR REPORT PRODUCTION

1. CHANGE REGION

```
VERSION 5.00
Begin {C62A69F0-16DC-11CE-9E98-00AA00574A4F} Change
   Caption         =   "Change Region"
   ClientHeight    =   3225
   ClientLeft      =   45
   ClientTop       =   330
   ClientWidth     =   4710
   OleObjectBlob   =   "Changenew.frx":0000
   StartUpPosition =   1  'CenterOwner
End
Attribute VB_Name = "Change"
Attribute VB_Creatable = False
Attribute VB_PredeclaredId = True
Attribute VB_Exposed = False

Private Sub CommandButton1_Click()

' This macro allows the user to input a region number or name
' and then changes all references in the Excel file to a specific
' region to the new region number or name.

' There are 2 cases in this macro, one for regions which are
' identified by number (1-12) and one for regions identified
' by name (Europe, Asia, and Latin America).


Select Case TextBox1.Text
Case "1", "2", "3", "4", "5", "6", "7/8", "9", "10", "11", "12"
Call Change.Hide
Sheets("Satisfaction").Select
    Range("A13").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A52").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A101").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A139").Select
```

```
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A3").Select
Sheets("2.1").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Average Ratings of Personal Doctor or Nurse in
Region " & TextBox1.Text & "," & Chr(10) & "by Enrollment Status"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A20").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("2.2").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Average  Ratings  of  Military  and  Civilian
Treatment  Facilities  in  Region  "  &  TextBox1.Text  &  ","  &  Chr(10)  &  "by
Enrollment Status"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("2.3").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Satisfaction with Military Care in Region " &
TextBox1.Text & ", 1996 - 1998"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
```

```
    Range("A14").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("2.4").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Satisfaction with Civilian Care in Region " &
TextBox1.Text & ", 1996 - 1998"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A14").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("Knowledge").Select
    Range("A51").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A3").Select
Sheets("3.1").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Intention to Enroll in or Disenroll from
Prime," & Chr(10) & "Non-Active Duty Beneficiaries in Region " &
TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A7").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
```

```
    Range("A19").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("3.2").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Average Ratings of Health Plan in Region " &
TextBox1.Text & Chr(10) & "by Type of Health Plan Used Most Often"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("Access").Select
    Range("A12").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A50").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A89").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A129").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
```

```
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A3").Select
Sheets("4.1").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Waiting Period for Well-Patient Visits in
Region " & TextBox1.Text & "," & Chr(10) & "by Enrollment Status and Type of
Facility"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("4.2").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Waiting More Than 30 Minutes in Doctor's Office
or Clinic in Region " & TextBox1.Text & "," & Chr(10) & "by Enrollment Status
and Type of Facility"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A17").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("4.3").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Problems Getting Referrals to Specialists in
Region " & TextBox1.Text & "," & Chr(10) & "by Type of Health Plan"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
```

```
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("4.4").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Problems Getting Necessary Care in Region " &
TextBox1.Text & "," & Chr(10) & "by Type of Health Plan"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("B5").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("Use").Select
    Range("A12").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A49").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A87").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A126").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
```

```
        .ColorIndex = xlAutomatic
    End With
    Range("A164").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A3").Select
Sheets("5.1").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Physical and Mental Health Status of MHS
Beneficiaries in Region " & TextBox1.Text & Chr(10) & "Relative to the U.S.
Population, by Enrollment Status"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("5.2").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Population with One or More Visits to a
Military or Civilian Emergency Room in Region " & TextBox1.Text & "," &
Chr(10) & "by Enrollment Status and Type of Facility"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("5.3").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Average Number of Outpatient Visits to a
Military Treatment Facility in Region " & TextBox1.Text & "," & Chr(10) & "by
Enrollment Status, 1996 - 1998"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
```

```
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A14").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("5.4").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Average Number of Outpatient Visits to a
Civilian Treatment Facility in Region " & TextBox1.Text & "," & Chr(10) & "by
Enrollment Status, 1996 - 1998"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A14").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("5.5").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Use of Military Pharmacies to Fill
Prescriptions Written" & Chr(10) & "by a Civilian Provider in Region " &
TextBox1.Text & ", by Type of Beneficiary"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A14").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("Preventive").Select
    Range("A107").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
```

```
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A146").Select
    ActiveCell.FormulaR1C1 = "Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A3").Select
Sheets("6.3").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Cervical  Cancer  Screening  in  Region  "  &
TextBox1.Text & "," & Chr(10) & "by Enrollment Status"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A20").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("6.4").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Hypertension  Screening  in  Past  2  Years  in
Region " & TextBox1.Text & "," & Chr(10) & "by Enrollment Status"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A20").Select
    ActiveCell.FormulaR1C1 = " Region " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("7.1").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Performance  Improvement  Plan  for  Region  "  &
TextBox1.Text
```

```
    With ActiveCell.Characters(Start:=1, Length:=41).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 8
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("SampleSizes").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Sample Sizes - Region " & TextBox1.Text
    Range("A1").Select
Sheets("Access").Select
    Range("A121").Select
MsgBox "Change region number in x-axis label in Chart 4.4."
Case "Europe", "Alaska", "Asia", "Latin America"
Call Change.Hide
Sheets("Satisfaction").Select
    Range("A13").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A52").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A101").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A139").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A3").Select
Sheets("2.1").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Average Ratings of Personal Doctor or Nurse in
" & TextBox1.Text & "," & Chr(10) & "by Enrollment Status"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
```

```
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A20").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("2.2").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Average  Ratings  of  Military  and  Civilian
Treatment Facilities in " & TextBox1.Text & "," & Chr(10) & "by Enrollment
Status"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("2.3").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Satisfaction  with  Military  Care  in  "  &
TextBox1.Text & ", 1996 - 1998"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A14").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("2.4").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Satisfaction  with  Civilian  Care  in  "  &
TextBox1.Text & ", 1996 - 1998"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
```

```
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A14").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("Knowledge").Select
    Range("A51").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A3").Select
Sheets("3.1").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Intention  to  Enroll  in  or  Disenroll  from
Prime," & Chr(10) & "Non-Active Duty Beneficiaries in " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A7").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A19").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("3.2").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Average  Ratings  of  Health  Plan  in  "  &
TextBox1.Text & Chr(10) & "by Type of Health Plan Used Most Often"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
```

```
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("Access").Select
    Range("A12").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A50").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A89").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A129").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A3").Select
Sheets("4.1").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Waiting Period for Well-Patient Visits in " &
TextBox1.Text & "," & Chr(10) & "by Enrollment Status and Type of Facility"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
```

```
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("4.2").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Waiting More Than 30 Minutes in Doctor's Office
or Clinic in " & TextBox1.Text & "," & Chr(10) & "by Enrollment Status and
Type of Facility"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A17").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("4.3").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Problems Getting Referrals to Specialists in "
& TextBox1.Text & "," & Chr(10) & "by Type of Health Plan"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("4.4").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Problems  Getting  Necessary  Care  in  "  &
TextBox1.Text & "," & Chr(10) & "by Type of Health Plan"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
```

```
    Range("B5").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("Use").Select
    Range("A12").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A49").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A87").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A126").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A164").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A3").Select
Sheets("5.1").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Physical and Mental Health Status of MHS
Beneficiaries in " & TextBox1.Text & Chr(10) & "Relative to the U.S.
Population, by Enrollment Status"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
```

```
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("5.2").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Population  with  One  or  More  Visits  to  a
Military or Civilian Emergency Room in " & TextBox1.Text & "," & Chr(10) &
"by Enrollment Status and Type of Facility"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A18").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("5.3").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1  =  "Average  Number  of  Outpatient  Visits  to  a
Military  Treatment  Facility  in  "  &  TextBox1.Text  &  "," & Chr(10) & "by
Enrollment Status, 1996 - 1998"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A14").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("5.4").Select
    Range("A2").Select
```

```
    ActiveCell.FormulaR1C1 = "Average Number of Outpatient Visits to a
Civilian Treatment Facility in " & TextBox1.Text & "," & Chr(10) & "by
Enrollment Status, 1996 - 1998"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A14").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("5.5").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Use of Military Pharmacies to Fill
Prescriptions Written" & Chr(10) & "by a Civilian Provider in " &
TextBox1.Text & ", by Type of Beneficiary"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A14").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("Preventive").Select
    Range("A107").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A146").Select
    ActiveCell.FormulaR1C1 = TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A3").Select
Sheets("6.3").Select
```

```
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Cervical Cancer Screening in " & TextBox1.Text
& "," & Chr(10) & "by Enrollment Status"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A20").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("6.4").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Hypertension Screening in Past 2 Years in " &
TextBox1.Text & "," & Chr(10) & "by Enrollment Status"
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A20").Select
    ActiveCell.FormulaR1C1 = " " & TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=16).Font
        .Name = "Arial"
        .FontStyle = "Regular"
        .Size = 10
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("7.1").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1   =   "Performance   Improvement   Plan   for   "   &
TextBox1.Text
    With ActiveCell.Characters(Start:=1, Length:=41).Font
        .Name = "Arial"
        .FontStyle = "Bold"
        .Size = 8
        .ColorIndex = xlAutomatic
    End With
    Range("A1").Select
Sheets("SampleSizes").Select
    Range("A2").Select
    ActiveCell.FormulaR1C1 = "Sample Sizes - " & TextBox1.Text
    Range("A1").Select
Sheets("Access").Select
    Range("A121").Select
MsgBox "Change region name in x-axis label in Chart 4.4."
End Select
End Sub
```

2. CREATE TABLE FILE

```
VERSION 5.00
Begin {C62A69F0-16DC-11CE-9E98-00AA00574A4F} TableFile
   Caption         =   "Create Table File"
   ClientHeight    =   3315
   ClientLeft      =   45
   ClientTop       =   330
   ClientWidth     =   4710
   OleObjectBlob   =   "TableFile.frx":0000
   StartUpPosition =   1  'CenterOwner
End
Attribute VB_Name = "TableFile"
Attribute VB_Creatable = False
Attribute VB_PredeclaredId = True
Attribute VB_Exposed = False

Private Sub CommandButton1_Click()

Select Case TextBox1.Text
Case "1", "2", "3", "4", "5", "6", "7/8", "9", "10", "11", "12", "13", "14",
"15", "16", "Alaska", "Europe", "Asia", "Latin America"
        Call copybook
Case Else
       MsgBox "Incorrect value for a region.  Please try again."
End Select

End Sub

Public Sub copybook()

' This macro removes all of the standard error tables from the Excel
' file and creates a new Excel file with only standard error tables.

' The macro also copies all of the values from the original tables
' and pastes the values into the tables in the new file.  The
' original tables contain links to the data on the worksheet, and
' this process eliminates the links.  Also, the area on each table
' worksheet which contains the data from SAS is removed from each
' new worksheet.

Dim newtech As Workbook
    Dim current As Workbook

    Set current = ActiveWorkbook
    Set newtech = Workbooks.Add

    Call TableFile.Hide
    current.Activate
    Sheets(Array("2.1", "2.2", "2.3", "2.4", "3.1", "3.2", "4.1", "4.2", _
        "4.3", "4.4", "5.1", "5.2", "5.3", "5.4", "5.5", _
        "6.1", "6.2", "6.3", "6.4", "6.5", "6.6", "7.1")).Select


    Sheets("2.1").Activate
```

```
Sheets(Array("2.1", "2.2", "2.3", "2.4", "3.1", "3.2", "4.1", "4.2", _
    "4.3", "4.4", "5.1", "5.2", "5.3", "5.4", "5.5", _
    "6.1", "6.2", "6.3", "6.4", "6.5", "6.6", "7.1")).Copy _
    Before:=newtech.Sheets(1)
ActiveWindow.ScrollWorkbookTabs Position:=xlFirst
Sheets("2.1").Select
Range("B8:B23").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("2.1").Select
Range("B8").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:J36").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("2.2").Select
Range("B8:C21").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("2.2").Select
Range("B8").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A40:J54").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("2.3").Select
Range("B6:D15").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("2.3").Select
Range("B6").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:I48").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("2.4").Select
Range("B6:D15").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("2.4").Select
Range("B6").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:I48").Select
```

```
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("3.1").Select
Range("B6:C29").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("3.1").Select
Range("B6").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A40:I50").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("3.2").Select
Range("B8:B19").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("3.2").Select
Range("B8").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:J36").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("4.1").Select
Range("B8:C19").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("4.1").Select
Range("B8").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:J42").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("4.2").Select
Range("B7:C18").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("4.2").Select
Range("B7").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:J42").Select
Selection.ClearContents
```

```
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("4.3").Select
Range("B8:B19").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("4.3").Select
Range("B8").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:I37").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("4.4").Select
Range("B8:C17).Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("4.4").Select
Range("B8").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A40:I53").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("5.1").Select
Range("B8:C21").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("5.1").Select
Range("B8").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:J43").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("5.2").Select
Range("B8:C21").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("5.2").Select
Range("B8").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:J42").Select
Selection.ClearContents
Range("A1").Select
```

```
current.Activate
Range("A1").Select
Sheets("5.3").Select
Range("B6:D17").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("5.3").Select
Range("B6").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:J47").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("5.4").Select
Range("B6:D17").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("5.4").Select
Range("B6").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:J47").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("5.5").Select
Range("B6:B17").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("5.5").Select
Range("B6").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A30:I37").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("6.1").Select
Range("B6:B37").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("6.1").Select
Range("B6").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A45:I64").Select
Selection.ClearContents
Range("A1").Select
current.Activate
```

```
Range("A1").Select
Sheets("6.2").Select
Range("B6:B37").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("6.2").Select
Range("B6").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A45:I64").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("6.3").Select
Range("B8:B23").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("6.3").Select
Range("B8").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A35:I43").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("6.4").Select
Range("B8:B23").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("6.4").Select
Range("B8").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A35:I43").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
Sheets("6.5").Select
Range("B6:B37").Select
Application.CutCopyMode = False
Selection.Copy
newtech.Activate
Sheets("6.5").Select
Range("B6").Select
Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
    False, Transpose:=False
Range("A45:I64").Select
Selection.ClearContents
Range("A1").Select
current.Activate
Range("A1").Select
```

```
    Sheets("6.6").Select
    Range("B6:B37").Select
    Application.CutCopyMode = False
    Selection.Copy
    newtech.Activate
    Sheets("6.6").Select
    Range("B6").Select
    Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
        False, Transpose:=False
    Range("A45:I64").Select
    Selection.ClearContents
    Range("A1").Select
    current.Activate
    Range("A1").Select
    Sheets("7.1").Select
    Range("B4:C24").Select
    Application.CutCopyMode = False
    Selection.Copy
    newtech.Activate
    Sheets("7.1").Select
    Range("B4").Select
    Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
        False, Transpose:=False
    Range("A1").Select
    current.Activate
    Range("A1").Select
    newtech.Activate

    Application.DisplayAlerts = False
    Sheets("Sheet1").Select
    ActiveWindow.SelectedSheets.Delete
    Sheets("Sheet2").Select
    ActiveWindow.SelectedSheets.Delete
    Sheets("Sheet3").Select
    ActiveWindow.SelectedSheets.Delete
    Application.DisplayAlerts = True

    Sheets("2.1").Select
    current.Activate
    Sheets("2.1").Select
MsgBox "Regional table file created."
End Sub
```

3. DEMOGRAPHIC ADJUSTMENTS

```
Attribute VB_Name = "DemoAdj"
Public Sub DemoAdjustment()

' This macro removes all of the demographically adjusted tables
' from the Excel file and creates a new Excel file with only
' demographically adjusted tables.

' The macro also copies all of the values from the original tables
' and pastes the values into the tables in the new file.  The
' original tables contain links to the data on the worksheet, and
' this process eliminates the links.  Also, the area on each table
```

```
' worksheet which contains the data from SAS is removed from each
' new worksheet.

Dim demoadj As Workbook
    Dim current As Workbook

    Set current = ActiveWorkbook
    Set demoadj = Workbooks.Add

    Call TableFile.Hide
    current.Activate
    Sheets(Array("2.5", "3.3", "3.4")).Select


    Sheets("2.5").Activate
    Sheets(Array("2.5", "3.3", "3.4")).Copy _
        Before:=demoadj.Sheets(1)
    ActiveWindow.ScrollWorkbookTabs Position:=xlFirst
    Sheets("2.5").Select
    Range("B6:C36").Select
    Application.CutCopyMode = False
    Selection.Copy
    demoadj.Activate
    Sheets("2.5").Select
    Range("B6").Select
    Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
        False, Transpose:=False
    Range("A46:P47").Select
    Selection.ClearContents
    Range("A1").Select
    current.Activate
    Range("A1").Select
    Sheets("3.3").Select
    Range("B6:B36").Select
    Application.CutCopyMode = False
    Selection.Copy
    demoadj.Activate
    Sheets("3.3").Select
    Range("B6").Select
    Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
        False, Transpose:=False
    Range("A46:P46").Select
    Selection.ClearContents
    Range("A1").Select
    current.Activate
    Range("A1").Select
    Sheets("3.4").Select
    Range("B6:C36").Select
    Application.CutCopyMode = False
    Selection.Copy
    demoadj.Activate
    Sheets("3.4").Select
    Range("B6").Select
    Selection.PasteSpecial Paste:=xlValues, Operation:=xlNone, SkipBlanks:= _
        False, Transpose:=False
    Range("A45:Q46").Select
    Selection.ClearContents
```

```
    Range("A1").Select
    current.Activate
    Range("A1").Select

    demoadj.Activate
    Application.DisplayAlerts = False
    Sheets("Sheet1").Select
    ActiveWindow.SelectedSheets.Delete
    Sheets("Sheet2").Select
    ActiveWindow.SelectedSheets.Delete
    Sheets("Sheet3").Select
    ActiveWindow.SelectedSheets.Delete
    Application.DisplayAlerts = True
    Sheets("2.5").Select
    current.Activate
    Sheets("2.5").Select
MsgBox "File of demographically adjusted tables created."
End Sub
```

4. SIGNIFICANCE TEST ARROWS

```
VERSION 1.0 CLASS
BEGIN
  MultiUse = -1  'True
END
Attribute VB_Name = "Sheet1"
Attribute VB_Creatable = False
Attribute VB_PredeclaredId = True
Attribute VB_Exposed = True
Private Sub CommandButton1_Click()

' This macro adds arrows to Chart 3.2.  The macro looks first at
' whether the significance test shows a value of 0, 1, or 2 for each
' bar in the chart.  If the value is 1, then an arrow is drawn above
' the bar pointing up.  If the value is 2, then an arrow is drawn
' above the bar pointing down.  If the value is 0, then no arrow is
' drawn and a message box appears stating that there is no
' significant difference for that bar.

   If Range("E46") = 1 Then
    ActiveSheet.ChartObjects("Chart 1030").Activate
    ActiveChart.ChartArea.Select
    ActiveChart.Shapes.AddLine(79.62, 94.6, 79.62, 134.98).Select
    Selection.ShapeRange.Line.EndArrowheadStyle = msoArrowheadTriangle
    Selection.ShapeRange.Line.EndArrowheadLength = msoArrowheadLengthMedium
    Selection.ShapeRange.Line.EndArrowheadWidth = msoArrowheadWidthMedium
    Selection.ShapeRange.Flip msoFlipVertical
    Selection.ShapeRange.LockAspectRatio = msoFalse
    Selection.ShapeRange.Height = 32.4
    Selection.ShapeRange.Width = 0#
    Selection.ShapeRange.Rotation = 0#
   Else:
   If Range("E46") = 2 Then
    ActiveSheet.ChartObjects("Chart 1030").Activate
    ActiveChart.ChartArea.Select
    ActiveChart.Shapes.AddLine(79.62, 94.6, 79.62, 134.98).Select
    Selection.ShapeRange.Line.EndArrowheadStyle = msoArrowheadTriangle
    Selection.ShapeRange.Line.EndArrowheadLength = msoArrowheadLengthMedium
    Selection.ShapeRange.Line.EndArrowheadWidth = msoArrowheadWidthMedium
    Selection.ShapeRange.LockAspectRatio = msoFalse
    Selection.ShapeRange.Height = 32.4
    Selection.ShapeRange.Width = 0#
    Selection.ShapeRange.Rotation = 0#
   Else: MsgBox "No significant difference from CONUS MHS: Active Duty."
   End If
   End If
   If Range("F46") = 1 Then
    ActiveSheet.ChartObjects("Chart 1030").Activate
    ActiveChart.ChartArea.Select
    ActiveChart.Shapes.AddLine(223.85, 66.91, 223.85, 101.52).Select
    Selection.ShapeRange.Line.EndArrowheadStyle = msoArrowheadTriangle
    Selection.ShapeRange.Line.EndArrowheadLength = msoArrowheadLengthMedium
    Selection.ShapeRange.Line.EndArrowheadWidth = msoArrowheadWidthMedium
    Selection.ShapeRange.Flip msoFlipVertical
    Selection.ShapeRange.LockAspectRatio = msoFalse
    Selection.ShapeRange.Height = 32.4
```

```
 Selection.ShapeRange.Width = 0#
 Selection.ShapeRange.Rotation = 0#
Else:
If Range("F46") = 2 Then
 ActiveSheet.ChartObjects("Chart 1030").Activate
 ActiveChart.ChartArea.Select
 ActiveChart.Shapes.AddLine(223.85, 66.91, 223.85, 101.52).Select
 Selection.ShapeRange.Line.EndArrowheadStyle = msoArrowheadTriangle
 Selection.ShapeRange.Line.EndArrowheadLength = msoArrowheadLengthMedium
 Selection.ShapeRange.Line.EndArrowheadWidth = msoArrowheadWidthMedium
 Selection.ShapeRange.LockAspectRatio = msoFalse
 Selection.ShapeRange.Height = 32.4
 Selection.ShapeRange.Width = 0#
 Selection.ShapeRange.Rotation = 0#
Else: MsgBox "No significant difference from CONUS MHS: Non-active Duty."
End If
End If
If Range("G46") = 1 Then
 ActiveSheet.ChartObjects("Chart 1030").Activate
 ActiveChart.ChartArea.Select
 ActiveChart.Shapes.AddLine(366.92, 77.29, 366.92, 114.21).Select
 Selection.ShapeRange.Line.EndArrowheadStyle = msoArrowheadTriangle
 Selection.ShapeRange.Line.EndArrowheadLength = msoArrowheadLengthMedium
 Selection.ShapeRange.Line.EndArrowheadWidth = msoArrowheadWidthMedium
 Selection.ShapeRange.Flip msoFlipVertical
 Selection.ShapeRange.LockAspectRatio = msoFalse
 Selection.ShapeRange.Height = 32.4
 Selection.ShapeRange.Width = 0#
 Selection.ShapeRange.Rotation = 0#
Else:
If Range("G46") = 2 Then
 ActiveSheet.ChartObjects("Chart 1030").Activate
 ActiveChart.ChartArea.Select
 ActiveChart.Shapes.AddLine(366.92, 77.29, 366.92, 114.21).Select
 Selection.ShapeRange.Line.EndArrowheadStyle = msoArrowheadTriangle
 Selection.ShapeRange.Line.EndArrowheadLength = msoArrowheadLengthMedium
 Selection.ShapeRange.Line.EndArrowheadWidth = msoArrowheadWidthMedium
 Selection.ShapeRange.LockAspectRatio = msoFalse
 Selection.ShapeRange.Height = 32.4
 Selection.ShapeRange.Width = 0#
 Selection.ShapeRange.Rotation = 0#
Else: MsgBox "No significant difference from CONUS MHS: Standard/Extra."
End If
End If
If Range("H46") = 1 Then
 ActiveSheet.ChartObjects("Chart 1030").Activate
 ActiveChart.ChartArea.Select
 ActiveChart.Shapes.AddLine(519.23, 27.69, 519.23, 65.76).Select
 Selection.ShapeRange.Line.EndArrowheadStyle = msoArrowheadTriangle
 Selection.ShapeRange.Line.EndArrowheadLength = msoArrowheadLengthMedium
 Selection.ShapeRange.Line.EndArrowheadWidth = msoArrowheadWidthMedium
 Selection.ShapeRange.Flip msoFlipVertical
 Selection.ShapeRange.LockAspectRatio = msoFalse
 Selection.ShapeRange.Height = 32.4
 Selection.ShapeRange.Width = 0#
 Selection.ShapeRange.Rotation = 0#
Else:
```

```
   If Range("H46") = 2 Then
    ActiveSheet.ChartObjects("Chart 1030").Activate
    ActiveChart.ChartArea.Select
    ActiveChart.Shapes.AddLine(519.23, 27.69, 519.23, 65.76).Select
    Selection.ShapeRange.Line.EndArrowheadStyle = msoArrowheadTriangle
    Selection.ShapeRange.Line.EndArrowheadLength = msoArrowheadLengthMedium
    Selection.ShapeRange.Line.EndArrowheadWidth = msoArrowheadWidthMedium
    Selection.ShapeRange.LockAspectRatio = msoFalse
    Selection.ShapeRange.Height = 32.4
    Selection.ShapeRange.Width = 0#
    Selection.ShapeRange.Rotation = 0#
   Else: MsgBox "No significant difference from CONUS MHS: Medicare."
   End If
   End If
   If Range("I46") = 1 Then
    ActiveSheet.ChartObjects("Chart 1030").Activate
    ActiveChart.ChartArea.Select
    ActiveChart.Shapes.AddLine(660#, 34.61, 660#, 69.22).Select
    Selection.ShapeRange.Line.EndArrowheadStyle = msoArrowheadTriangle
    Selection.ShapeRange.Line.EndArrowheadLength = msoArrowheadLengthMedium
    Selection.ShapeRange.Line.EndArrowheadWidth = msoArrowheadWidthMedium
    Selection.ShapeRange.Flip msoFlipVertical
    Selection.ShapeRange.LockAspectRatio = msoFalse
    Selection.ShapeRange.Height = 32.4
    Selection.ShapeRange.Width = 0#
    Selection.ShapeRange.Rotation = 0#
   Else:
   If Range("I46") = 2 Then
    ActiveSheet.ChartObjects("Chart 1030").Activate
    ActiveChart.ChartArea.Select
    ActiveChart.Shapes.AddLine(660#, 34.61, 660#, 69.22).Select
    Selection.ShapeRange.Line.EndArrowheadStyle = msoArrowheadTriangle
    Selection.ShapeRange.Line.EndArrowheadLength = msoArrowheadLengthMedium
    Selection.ShapeRange.Line.EndArrowheadWidth = msoArrowheadWidthMedium
    Selection.ShapeRange.LockAspectRatio = msoFalse
    Selection.ShapeRange.Height = 32.4
    Selection.ShapeRange.Width = 0#
    Selection.ShapeRange.Rotation = 0#
   Else: MsgBox "No significant difference from CONUS MHS: Other insurance."
   End If
   End If
   Range("E46").Select
    MsgBox "Arrows indicating significant differences have been added to Chart
3.2.  The next chart that tests for significance is Chart 4.3."
End Sub
```