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Health Care Survey of DoD Beneficiaries:

FY2010 Adult Sampling Report

August 2009

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Executive Summary

The Health Care Survey of DoD Beneficiaries (HCSDB) is a quarterly survey of active duty military personnel, retirees, and their family members. The HCSDB measures beneficiaries’ health care status as well as their access to, use of, and satisfaction with care in the military health system (MHS). The HCSDB, was fielded annually from 1995 to 2000 and has been fielded quarterly since the first quarter of 2001. The FY2010 Adult HCSDB sample design is same as the 2009 design. In cooperation with TRICARE Management Activity (TMA) staff, we selected five subpopulations important to data users and policymakers: (1) beneficiaries enrolled with a military primary care manager (PCM) or active duty beneficiaries; (2) beneficiaries who use Managed Care Support Contractors; (3) beneficiaries who use TRICARE Standard/Extra; (4) beneficiaries enrolled in TRICARE Reserve Select; (5) beneficiaries age 65 or older. Along with geographic area, these five subpopulations form the foundation of the stratification scheme. As in years past we continue to use a permanent random number sample selection method. This report documents the procedures Mathematica Policy Research, Inc. (Mathematica) used to design and select the sample of adult beneficiaries for the first quarterly survey of FY2010. Subsequent quarterly surveys in FY2010 will essentially follow the same design.

The FY2010 Adult HCSDB has a stratified sample design with 51,000 adult beneficiaries selected each quarter. The sample selection process involved five steps: (1) construction of the sampling frame and definition of sampling strata; (2) allocation of the sample to strata to satisfy the study’s precision goals; (3) selection of the survey sample using a permanent random number sample selection algorithm; (4) creation of the sampling weights, which reflect the probability of selection; and (5) verification of results to ensure that sampling was implemented as specified.

The FY2010 Adult HCSDB sample design’s major features are:

* The sampling frame consisted of the roughly 7.4 million beneficiaries 18 or older or all the active duty regardless of their age that were eligible for military health care benefits as of June 30, 2009. The sampling frame consists of beneficiaries living both in the U.S. and abroad.
* We first stratified the sampling frame by five analytic groups, as described above. Each group was further stratified by a combination of geographic area[[1]](#footnote-2) and enrollment/beneficiary group.[[2]](#footnote-3)
* The precision goal for the adult survey estimates was expressed in terms of half-lengths of 95 percent confidence intervals for a percentage of size 50. Each quarter the survey should yield estimates with precision levels of 6 percentage points for: beneficiaries enrolled with a military PCM by TNEX region; beneficiaries enrolled to Managed Care Support Contractors by TNEX region; and beneficiaries 65 or older by TNEX region. Combining four quarters of the Quarterly Beneficiary Survey should yield estimates with precision levels of 6 percentage points for the following subpopulations: beneficiaries enrolled to key MTFs, and TRICARE Reserve Select enrollees. Combining four quarters of data should yield estimates with precision levels of 5 percentage points for Standard/Extra users by beneficiary group.
* At the time of the Q1FY2010 sampling, we used the unweighted response rates from Q3FY2009 as the expected response rates for FY2010. They are 18 percent for active duty beneficiaries; 21 percent for active duty family members enrolled in Civilian PCM; 19 percent for active duty family members enrolled in Military PCM; 14 percent for active duty family members not enrolled in Prime; 45 percent for retirees and their family members younger than 65 enrolled in Civilian PCM; 43 percent for retirees and their family members younger than 65 enrolled in Military PCM; 38 percent for retirees and family members younger than 65 not enrolled in Prime; 73 percent for retirees and their family members age 65 or older; and 30 percent for the TRICARE Reserve Select (TRS). If the response rates obtained are equal to or better than the response rates of the third quarter of 2009 HCSDB response rates, we expect to attain the precision requirements under the budgetary sample size of 51,000.
* We continue to use a permanent random number sample selection algorithm to ensure that beneficiaries will not be selected for more than one quarterly survey in FY2010.

Chapter

1

Introduction

The Health Care Survey of Department of Defense Beneficiaries (HCSDB) is a quarterly survey of active duty military personnel, retirees, and their family members eligible for care under the military health system (MHS). The HCDSB measures the health status of MHS beneficiaries as well as their access to, use of, and satisfaction with care. The first HCSDB was conducted in 1995, and the survey was fielded annually until 2000. From 2001 on, the HCSDB has consisted of four independent, cross-sectional quarterly surveys, which are combined into an annual dataset at the end of the year. In 2010, the annual data set combined the four quarters of the fiscal year 2010.

In FY2010 Adult HCSDB sample design, in cooperation with TRICARE Management Activity (TMA) staff, we selected five subpopulations important to data users and policy makers: (1) beneficiaries enrolled with a military PCM or active duty beneficiaries; (2) beneficiaries who use Managed Care Support Contractors (MCSC); (3) beneficiaries who use Standard/Extra; (4) beneficiaries enrolled in TRICARE Reserve Select; (5) beneficiaries age 65 or older. These five subpopulations form the stratification scheme’s foundation. Each subpopulation except (4) above was further stratified by geographic area, enrollment, and beneficiary group. Subsequently, as in years past, we continue to use a permanent random number sample selection method (for further discussion, please see chapter 5).

This report documents the procedures Mathematica Policy Research, Inc. (Mathematica) used to design and select the sample of adult beneficiaries for the first quarterly survey of FY2010. Subsequent quarterly surveys in FY2010will essentially follow the same design. Chapter 2 explains how Mathematica used a population data file of all MHS beneficiaries to develop the sampling frame. Chapter 3 explains how the sampling frame was stratified before the sample was selected. Chapter 4 describes how the sample sizes were derived to meet the precision requirements specified for the survey estimates. In Chapter 5, we present the permanent random number sample selection procedure used to draw the sample. We also describe the creation of the sampling weights, which reflect the probability of selection, and we summarize the checking procedures designed to ensure that sampling was implemented as specified.

The appendices include tables and SAS programs that provide detailed information about the Adult quarterly survey sample selection. Appendix A lists Defense Enrollment Eligibility Reporting System (DEERS) variables provided by TRICARE Management Activity (TMA). Appendix B contains a detailed table of facilities for which beneficiaries with a military PCM were assigned a catchment area as the geographic area. Appendix C includes population, sample, and weighted sample counts tabulated for all sampling strata as part of the sample verification process. Appendix C also includes population, sample, and weighted sample counts for two analytic domains, service and enrollment and beneficiary group. Appendix D includes all variables delivered to Synovate, the data collection contractor, after the sample was selected. Appendix E contains all SAS programs used for the FY2010quarterly survey sample design and sample selection. Appendix F includes all technical arguments and related formulas used to determine the sample sizes. Appendix G includes a chart describing the stratification scheme.

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Chapter

2

Construction of the Sampling Frame

To select a sample that represents the target population, a sampling frame that lists all members of that population must first be created. The quarterly survey sampling frame was based on a population data file provided by TMA and constructed as follows:

* An extract of the Defense Enrollment Eligibility Reporting System (DEERS) data file that includes all eligible beneficiaries on the reference date of June 30, 2009 was used to construct the sampling frame.
* The sampling frame was constructed by excluding beneficiaries under the age of 18 who are not active duty from the DEERS extract data file and constructing additional variables required for sampling purposes.

# A. Specifications For the Deers Extract File

The first step in building the frame was to prepare specifications that TMA could use to create the population data file. The variables were based on data from DEERS. The sampling frame is an extract of this DEERS file. The file contained data for 9 million DoD health care beneficiaries (adults and children) as of June 30, 2009, including information needed for sample selection and address and locator information for mailing the survey questionnaires. The variables in the extract file are listed in Appendix A.

Because we planned to use in-house Statistical Analysis Software (SAS) programs for sampling, we converted the extract file to a SAS data set. Starting from Quarter 4 FY2007, the constructed variable SSNSMPL, which contains confidential data[[3]](#footnote-4), is no longer available. Instead, beneficiaries in the population data file are uniquely identified by the variable PTNT\_ID, which is the identifier that is used to represent the person within the Department of Defense Electronic Data Interchange. We created an internal Mathematica identification variable (MPRID) by randomly and uniquely assigning values to all adult beneficiaries in the extract file. For historical purposes, we retained a crosswalk file that includes PTNT\_ID, and MPRID. The crosswalk file allows us to link frame records to the DEERS database to get address information after sample selection. Appendix E includes the SAS programs we used to check the DEERS variables we requested, create the crosswalk file, and transform the data set to a SAS data set.

To safeguard the security of the DEERS extract file, we used the procedures outlined in the following sources: *The Guide to Understanding Configuration Management in Trusted Systems (Orange Book)*, DoD 5200.28, Appendix III to OMB Circular Number A-130-Security of Federal Automated Information Resources, the Computer Security Act of 1987, and the Privacy Act of 1974. We also maintained a secure data storage facility and a C2-compliant local area network, and we set up chain-of-custody procedures. The original extract was returned to TMA four weeks after we received the data.

# B. Determining Eligibles for the Sampling Frame

The quarterly survey sampling frame was constructed by using the DEERS extract file described above and only retaining all active duty regardless of their age and those cases that were 18 years of age or older on the reference date (that is, June 30, 2009 for the first quarterly survey of 2010). In other words, the quarterly survey sampling frame includes individuals who meet the following characteristics:

* All active duty regardless of their age or 18 years of age or older on the reference date and living in the United States or abroad
* Eligible for military health care benefits

Beneficiaries whose ages were missing from the DEERS file were included in the quarterly survey sampling frame if not (PNTYPCD ='D' AND MBRRELCD in ('C','D','E')), that is, if the beneficiary was not a dependent child of a sponsor. Such cases represented less than 1.0 percent of the more than 9 million (adult and child) records in the sampling frame. Because they are all classified as sponsors, spouses of a sponsor, parents of a sponsor, or in-laws of a sponsor, it is safe to assume that they were 18 or older at the time of sampling.

The sample was selected from this quarterly survey sampling frame of eligible adult beneficiaries after the constructed variables were added. Constructed variables are described below.

# C. Constructing Additional Variables Required for Sampling

Because the sample design for the quarterly survey is a stratified design, variables for stratification had to be included in the sampling frame. Strata are defined by a combination of analytic group, geographic area, and enrollment and beneficiary group. (The stratification procedure is described in Chapter 3.) Some sampling variables had to be created using the information from the DEERS extract files. These variables appear below, along with the input DEERS variables used to construct them.

* **MPRID (nonconfidential identification number)**. This variable corresponds uniquely to PTNT\_ID so that units in the frame can be linked back to information from the extract file.
* **GROUP (Analysis group of interest)**. This variable carries an extension of 0, 1, 2, 3, and 6 which denotes the following groups: 0 = beneficiaries enrolled in TRICARE Reserve Select; 1 = beneficiaries younger than 65 enrolled in Prime with a military PCM and all the active duty beneficiaries; 2 = beneficiaries younger than 65 enrolled in Prime with a civilian PCM; 3 = Non-enrollees younger than 65; 6= beneficiaries age 65 or older. This variable was created from DEERS variables ACV, PATCAT, PCM, and DAGEQY. The definitions of the sampling variable GROUP for GROUP=2 and 3 are different from the subpopulations (2) and (3) listed on Page 1 in Chapter 1, because as we will mention later in Chapter 4, the sample frame does not indicate whether a beneficiry uses a MCSC or Standard/Extra.
* **COM\_GEO (geographic area).** For beneficiaries with a military PCM (GROUP = 1), the geographic area is either the enrollment DMIS\_ID for a specific MTF (TRICARE Management Activity (TMA) provided Mathematica a list of DMIS\_ID for 113 reporting MTFs) or their corresponding TNEX region. There are four TNEX regions: North, South, West, and Overseas. For the other 3 groups (GROUP = 2, 3, and 6), the geographic area is set to the TNEX region (TNEXREG). Fro GROUP=0, we did not stratify by geographic area.
* **ENBGSMPL (enrollment status and beneficiary group of a beneficiary).** This variable was defined as a combination of beneficiary and enrollment groups. This variable carries an extension of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11, which denotes the following groups: 1 = active duty; 2 = active duty family members enrolled in Prime with a civilian PCM; 3 = active duty family members enrolled in Prime with a military PCM; 4 = active duty family members not enrolled in Prime; 5 = retirees and their family members younger than 65 enrolled in Prime with a civilian PCM; 6 = retirees and their family members younger than 65 enrolled in Prime with a military PCM; 7 = retirees and their family members younger than 65 not enrolled in Prime; 8 = retirees and their family members age 65 or older enrolled in Senior Prime with a civilian PCM; 9 = retirees and their family members age 65 or older enrolled in Senior Prime with a military PCM; and 10 = retirees and their family members age 65 or older not enrolled in Senior Prime; and 11 = beneficiaries enrolled in TRICARE Reserve Select. Retirees whose age was missing were classified as not enrolled in TRICARE Prime. This variable was created from DEERS variables PATCAT, PNTYPCD, PNLCATCD, PCM, DAGEQY, and ACV.
* **EBSMPL (enrollment status and beneficiary group of a beneficiary as one of the stratification variables).** The value of this variable is the same as the value of ENBGSMPL for GROUP = 0, 1, 2, and 3. For GROUP =6, we do not differentiate the enrollment and beneficiary group, and EBSMPL takes the value of 99.

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Chapter

3

Construction of Sampling Strata

The quarterly survey sample was independently selected within strata. We stratified the quarterly survey sample into no overlapping subpopulations for three reasons:

* 1. We want data with known precision for certain analytic domains.
  2. Response rates differ markedly for different beneficiary groups. For example, active duty beneficiaries historically respond at rate considerably lower than retirees.
  3. Stratification may increase precision in the estimates of characteristics of the whole MHS population. By stratifying the population, we can create homogeneous subpopulations. If each stratum is homogeneous, a precise estimate of any stratum mean can be obtained from a small sample in that stratum. These estimates can then be combined into a precise estimate for the whole population.

We constructed the strata taking into consideration the first two of the three reasons above. Key analytic domains are constructed based on enrollment and beneficiary group characteristics. In addition, we believe that TRICARE Prime enrollment type, beneficiary group, and geographic area correlate with many of the survey variables.

Therefore, we defined the strata by a combination of analytic group, geographic area, and enrollment and beneficiary group. This chapter describes how we constructed the strata.

# A. Stratification Variables

The quarterly survey sampling frame included three stratification variables: (1) analytic group (GROUP), (2) geographic area (COM\_GEO), and (3) enrollment and beneficiary group (EBSMPL).

## 1. Analytic Group

The analytic group (GROUP) defines five subpopulations within which we want survey data with known precision. These groups include beneficiaries under 65 and enrolled in Prime with a military PCM or active duty beneficiaries, beneficiaries under 65 and enrolled in Prime with a civilian PCM, beneficiaries under age 65 not enrolled in Prime, beneficiaries enrolled in TRICARE Reserve Select, beneficiaries age 65 or older. These five subpopulations were selected in cooperation with TMA staff in order to meet the needs of data users and policymakers.

## 2. TRICARE Prime Enrollment Status and Beneficiary Type

The enrollment status and beneficiary type stratification variable, ENBGSMPL, was developed as follows. First, enrollment status was determined by dividing the target population into four enrollment groups: (1) enrolled in TRICARE Prime with a military PCM, (2) enrolled in TRICARE Prime with a civilian PCM, (3) enrolled in TRICRE Reserve Select, and (4) not enrolled in TRICARE Prime. Enrollment status was determined using the DEERS variable for the PCM code and the Alternate Care Value (ACV). Following the definition of PCM values, all beneficiaries with PCM = MTF (military PCM) or PCM = CIV (civilian PCM) are enrolled in Prime. All beneficiaries with PCM = blank are not enrolled in Prime. All beneficiaries with ACV = R are enrolled in TRICARE Reserve Select. We then created EBSMPL, which is equal to the value of ENBGSMPL for GROUP = 0, 1, 2, and 3. However, for GROUP =6, this variable does not differentiate the enrollment and beneficiary group, and EBSMPL takes on the value of 99

Next, beneficiaries were separated into four groups: (1) active duty, (2) active duty family members, (3) retirees and their family members younger than 65, and (4) retirees and their family members age 65 or older. We used DEERS variable PATCAT to identify each beneficiary group. All beneficiaries with PATCAT = ACTDTY are active duty; all beneficiaries with PATCAT = DEPACT are active duty family members. Those beneficiaries with PATCAT = NADD<65 are retirees and their family members younger than 65; and those beneficiaries with PATCAT = NADD65+ are retirees and their family members age 65 or older. No beneficiaries in quarter one were missing beneficiary group assignment (PATCAT). Details are in the SAS code in Appendix E.

All active duty are in their own enrollment and beneficiary group. Active duty beneficiaries who are not enrolled in TRICARE Reserve Select are grouped together because they are regarded as being enrolled in TRICARE Prime.

## 3. Geographic Area

The definition of geographic area depends on the beneficiary's analytic group. For beneficiaries younger than 65 enrolled in Prime with a military PCM and all the active duty beneficiaries (GROUP = 1), the geographic area was defined as the Military Treatment Facility (MTF) with financial responsibility for the beneficiary. For all other beneficiaries (GROUP = 0, 2, 3, 6), the geographic area was defined as the TNEX region where the beneficiary lived. For enrollees with a military PCM, the value of ENRID defines their geographic area except when the Defense Medical Information System (DMIS) Identifier (ID) to which a person is enrolled to (ENRID) corresponds to an inactive facility, a facility whose purpose is only administration, or when the ENRID is assigned because a beneficiary is at sea. See Appendix B for a full list of these facilities. In these cases, we used the derived geographic catchment area (DCATCH).

# B. Collapsing STRATA

Because the populations of some strata were too small, appropriate collapsing was made accordingly. Specifically, the “Overseas” TNEX region in GROUP = 6 is collapsed with the largest TNEX region within the same GROUP. In addition, we collapsed across the EBSMPL for some geographic areas. We also collapsed the civilian enrollees under 65 who lived overseas with the military enrollees under 65 who lived overseas.

# C. Stratification Results

The stratification scheme resulted in 354 strata (STRATUM), which can be uniquely specified using three variables: GROUP, GEOSMPL (collapsed version of geographic area COM\_GEO), and EBSMPL, the collapsed version of ENBGSMPL (enrollment status and beneficiary group). The sampling frame contains these variables as well as other variables used in developing the final collapsed strata.

The final step before selecting the sample was to generate stratum-level population counts to allocate the sample to meet predetermined precision rules for various domains. The following chapter discusses sample size allocation.

Chapter

4

Sample Sizes

The total sample size for the quarterly survey was determined based on the sample size appropriate for each analytic domain. Analytic domains are usually larger than a single stratum, usually a group of sampling strata. Therefore, we specified precision requirements for these analytic domains. In addition, an optimum allocation was made to strata to reduce sampling errors of survey estimates. In this chapter, we present the procedures used for the quarterly survey sample size allocations, including the requirements, expected proportions, response rates, and how the sample sizes were finally determined.

# A. Precision Requirements

Stratum-level sample sizes were determined based on precision requirements, expected proportions, and expected response rates. These requirements were defined to ensure adequate precision for constructing 95 percent confidence intervals for proportion estimates. The survey estimates the proportion of beneficiaries with certain attributes for particular domains of interest. When the sample size is large enough and the proportion is near neither zero nor one, we can assume that estimated proportions will follow approximate normal distributions according to the Central Limit Theorem (Skinner, Holt, and Smith 1989, Sukasih and Jang 2005). The resulting 100(1-α) percent confidence interval for a proportion of interest *P* is based on the standard formula:

(4.1) 

where *p* is an estimate of *P*,  is the 100(1-α/2)th percentile point from the standard normal distribution with a mean of zero and a standard deviation of one, *V*(*p*) is the variance of the estimate, and HL is the half-length of the two-sided 95 percent confidence interval, or .

For the quarterly survey, precision requirements specified that the *HL* of the 95 percent confidence interval in (4.1) for a given estimate should be less than or equal to a specified value. Because the maximum *HL* value occurs for *P* = 0.5, the precision requirements for the *HLs* were set for *P* values of 0.5, which helped to ensure that *HLs* for all estimates would be less than or equal to the specified values.

Similar to FY2009, the FY2010sample design specifies precision for a number of important analytic domains. These precision levels vary by domain. Moreover, some precision requirements are specified as quarterly confidence intervals and others are specified as annual (combining four quarters) confidence intervals. Combining four quarters of the quarterly survey should yield MTF level estimates with precision of 6 percentage points. Moreover, combining four quarters should yield precision levels of 6 percentage points for TRICARE Reserve Select estimates. Each quarter the quarterly survey should yield MTF enrolled by TNEX region estimates with precision of 6 percentage points and beneficiaries 65 or older by TNEX region with precision of 6 percentage points.

By creating strata for beneficiaries enrolled with a civilian PCM and beneficiaries not enrolled, we plan to achieve our desired precision levels for beneficiaries who use Managed Care Support Contractors and beneficiaries who use Standard/Extra, respectively. Each quarter should yield MCSC by TNEX region estimates with precision of 6 percentage points. Combining four quarters should yield Standard/Extra users by beneficiary group by TNEX region estimates with precision of 5 percentage points.

# B. Expected Proportion

The sample frame does not indicate whether a beneficiary uses a MCSC or Standard/Extra. Therefore, after calculating the number of eligible respondents needed to achieve the precision requirements, we inflated the resulting sample sizes to account for the expected proportion of MCSC users among those enrolled with a civilian PCM and Standard/Extra users among nonenrollees younger than 65. Seventy-three percent of active duty family members enrolled in Prime with civilian PCM younger than 65 and 92 percent of retirees and their family members enrolled in Prime with civilian PCM younger than 65 are expected to be users of MCSC; 45.5 percent of nonenrolled active duty family members younger than 65 and 27.5 percent of nonenrolled retirees and their family members younger than 65 are expected to be Standard/Extra users. To calculate the sample size to account for the expected proportion, we adjusted the sample allocation by the inverse of the expected proportion.

# C. Response Rates

After calculating the number of eligible respondents needed to achieve the precision requirements and the expected proportion, we inflated the resulting sample sizes to account for survey nonresponse. The unweighted response rates from Q3FY2009 were used to approximate the expected quarterly survey response rates in FY2010. Because response rates were known to vary substantially across enrollment and beneficiary groups, we projected different response rates for each group: 18 percent for active duty beneficiaries; 21 percent for active duty family members enrolled in Civilian PCM; 19 percent for active duty family members enrolled in Military PCM; 14 percent for active duty family members not enrolled in Prime; 45percent for retirees and their family members younger than 65 enrolled in Civilian PCM; 43 percent for retirees and their family members younger than 65 enrolled in Military PCM; 38 percent for retirees and family members younger than 65 not enrolled in Prime; 73 percent for retirees and their family members age 65 or older; and 30 percent for the TRICARE Reserve Select (TRS). To calculate the final sample size, we adjusted the sample allocation by the inverse of the anticipated response rate.

# D. Sample Size Computation

In this section, we describe the key algorithms used to determine sample sizes and summarize how each precision requirement affected the total sample size. The technical presentation in Appendix F is the basis for the sample sizes we developed to meet the survey precision requirements. Appendix E includes the in-house SAS programs we used in determining sample sizes.

The first step was allocating eligible respondents to each stratum corresponding to a stratum-level precision requirement.[[4]](#footnote-5) Next, we allocated the initial sample sizes needed to achieve the precision requirements for each domain created by age, enrollment type, beneficiary group, and geographic area (see Section A above for details on domain-specific precision requirements). We needed values for stratum-level population size (POPSIZE) and domain-specific population size (DSUM1). The summation in the formula occurs over all strata within the domain *d*. Input values needed to calculate sample size for domain *d* for (F.7) and (F.8) in Appendix F were:

*  : POPSIZE for stratum *h*
* : DSUM1 is the population size of domain *d* over all strata
* for all geographic areas
* *B* = precision requirement for domains

The optimal domain-level sample sizes were calculated using (F.9) in Appendix F for all domains. Here, , , and are the same as defined above, and the summation in the formula occurs over all strata within domain *d*. The output is denoted by . With the optimal domain-level sample sizes, , stratum-level sample sizes were also optimally allocated for all strata. Input values for (F.11) in Appendix F are the same as defined for (F.9) above. The resulting sample sizes at this step are denoted as .

After finalizing strata sample sizes for eligible respondents, we incorporated the expected proportion and then the expected response rates to obtain the final sample sizes. We used the unweighted response rates from the third quarters of 2009 HCSDB response rates for beneficiary groups as the expected response rates *R; R* = 0.18, 0.21, 0.19, 0.14, 0.45, 0.43 0.38, 0.73, and 0.30 for enrollment and beneficiary group 1 (AD), 2 (ADFM-CIV), 3 (ADFM-MTF), 4 (ADFM-NE), 5 (RET<65-CIV), 6 (RET<65-MTF), 7 (RET<65-NE), 8 (RET65+), and 9 (TRICARE- TRS), respectively. The final sample sizes were then calculated as:



where *nh* denotes the sample size in stratum *h* and *Rh* denotes the expected response rate in stratum *h.* Once we attained the required precision goals, we optimally allocated the overall sample of 51,000 beneficiaries.

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Chapter

5

Selecting the Sample

The quarterly survey sampling was independently performed within the strata (see Chapter 3) based on the sample size allocation (see Chapter 4). Within each stratum, beneficiaries were sorted by a random number that was permanently assigned to a frame unit. After beneficiaries were sorted, we sampled them using a permanent random number (PRN) technique (Ohlsson 1995). This technique permanently associates a random number with each beneficiary and avoids overlap between samples for different quarterly surveys in the same year and across years.

Beneficiaries were sampled at varying rates depending on the sampling stratum. The algorithm used to draw the sample automatically selected beneficiaries to yield the predetermined stratum sample size. In this chapter we describe the PRN selection procedure, and how we checked the sample to evaluate the selection procedure. Appendix E contains the SAS program for the quarterly survey sample selection.

# A. PRN Selection Procedure

Our sample selection process was based on a stratified sample design and predetermined stratum sample sizes. The population was stratified by the cross of the three stratifying variables; small cells were collapsed as discussed in Chapter 3. Independent samples were drawn from each stratum separately.

## 1. Assignment of the Permanent Random Number

When we first implemented the PRN selection method for the 2001 HCSDB, each beneficiary in the sampling frame was permanently assigned a random number drawn independently from the uniform distribution on the interval (0,1). These PRNs, permanent for beneficiaries who stayed on the frame, were used for every subsequent sample selection. The frame has been updated for each quarter. Beneficiaries who became ineligible were removed from the list along with their PRNs. Beneficiaries who became eligible and were added to the frame will be assigned a unique PRN. Prior to selecting the sample for the FY2010 HCSDB, the newly eligible beneficiaries were added to the ordered list of PRNs. .

## 2. Partitioning the Frame into the Four Zones

For the quarterly surveys in FY2010, overlap among the four quarterly samples, as well as overlap with the FY2009 HCSDB, had to be kept to a minimum. This was achieved by partitioning the sampling frame into four zones before drawing the first quarterly sample:

* Zone 1 for all beneficiaries with 0.75 ≤ PRN < 1.
* Zone 2 for all beneficiaries with 0≤ PRN < 0.25.
* Zone 3 for all beneficiaries with 0.25 ≤ PRN < 0.5.
* Zone 4 for all beneficiaries with 0.5 ≤ PRN <0.75.

Zone 1 was used for the sample for the first quarterly survey. Before the selection, we checked that this zone had enough beneficiaries in each stratum to meet the sample size requirements for the survey.

Using the stratum sample size *nh* for each stratum (*h* = 1, …, 354), we used a PRN sample selection method. Sample selection was independent and essentially identical across sampling strata. The following describes the sample selection procedure for one stratum.

Recall that each zone was stratified according to the procedures outlined in Chapter 3 and that within each stratum, the PRNs are arranged in descending order. The starting point for Zone 1, *ai*, was equal to 1 for quarter 1. This starting point was chosen to minimize the overlap with quarter 1 FY2009 Therefore, for stratum *h*, the sample consists of the first *nh* beneficiaries with a random number less than 1, where *nh* is the predetermined stratum sample size. This procedure was repeated for every stratum. We wrote a custom program for the sample selection (Appendix E).

## 3. Overlap Between the 2008 and 2009 Samples and the 2010 Sample

The PRN method provides the means to reduce overlap between year 2009 and year 2010 of the quarterly survey. By selecting varying starting points for the different quarters we minimized the potential overlap. However, the starting point is usually determined following pattern across four quarters within a year. We had an overlap of 768 cases between Q1FY2010 and Q1FY2009, and did not have any overlap between Q1 FY2010 and Q1 FY2008.

Out of 768 overlapped cases with a year ago, about half of them are Active Duty family member, nonenrolled, and overseas. This is due to the oversampling of this group. So to reduce the magnitude of the overlap, we will collapse this group with the retirees, nonenrolled, and overseas starting from Q2FY2010. In addition, a new starting point will be chosen so that minimizing overlap with one year ago.

# B. Sampling Weight

The last step in sample selection was to compute the base sampling weight (BWT) for each record. We constructed the sampling weight on the basis of the sample design, which used differential probabilities of selection across strata. Established precision requirements determined the sample sizes. The sampling weights, which reflect these unequal sampling rates across strata, were defined as the inverse of the beneficiary’s selection probability, or BWT*hi* = *Nh/nh*, where BWT*hi* is the sampling weight for the *i*th sampled beneficiary from the *h*th stratum, *Nh* is the total number of beneficiaries in the *h*th stratum, and *nh* is the number of sampled beneficiaries from stratum *h*. The sum of the sampling weights over selections from the *h*th stratum equals the total population size of the *h*th stratum or *Nh*.

# C. Checks for the Selected Sample

After drawing the sample, we evaluated the selection procedure by checking sample sizes for all strata. Appendix C contains these frequency tables:

* The number of sampled records for each stratum (STRATUM)
* The weighted count of sampled records for STRATUM, where the weight is equal to BWTh , where *h* = stratum
* The number of frame records for each stratum
* The number of sampled records for each branch of service (SVCCD)
* The weighted count of sampled records for SVCCD
* The number of frame records for SVCCD

The sample counts after selection must be the same as the predetermined sample sizes for each stratum. Also, the weighted sample counts must be the same as the population counts for each stratum. For non-sampling variables such as SVCCD and EBG\_COM, sample count distributions were checked against the corresponding population distributions to ensure that no operational errors occurred and that the sample appeared to be reasonably balanced. Because the sampling rates used in the selection process varied, the weighted distributions do not exactly match the population distributions.

After completing the sample checks, we attached the data elements that will be used in the survey mailing and operations to each record in the sample extract file. The file was then sent to Synovate. All variables in the sample extract file are specified in Appendix D.

# D. Sample for Experiment

From time to time, TMA may propose an experiment with the goal to improve HCSDB data collection. HCSDB sample may be used as experiment samples. Based on our past experiment, sending prenotice email to Active Duties with email addresses has proven to increase response rate among this group of beneficiaries. In FY2010, we plan to draw random samples for other experiments to increase response rate by sending prenotice email to the other groups of beneficiaries (family members, etc) with email address in the database. In addition, we can also test whether sending reminder more than once will increare response rate as well.

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Appendix A  
  
Deers Variables Requested by MATHEMATICA

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DEERS VARIABLES

| **Variable** | **Explanation** |
| --- | --- |
|  | Beneficiary’s family sequence number |
|  | Age of beneficiary in years, representing the difference between the date-of-birth and the date of the reference date |
|  | Beneficiary’s date of birth |
|  | Beneficiary’s record type |
|  | Beneficiary’s marital status |
|  | Beneficiary’s race/ethnicity |
|  | Beneficiary’s sex |
|  | Beneficiary’s Medicare flag |
|  | Beneficiary’s primary care manager code |
|  | Beneficiary’s provider code |
|  | Beneficiary’s alternative care value |
|  | Beneficiary’s enrolled DMIS |
|  | Beneficiary’s first name |
|  | Beneficiary’s last name |
|  | Beneficiary’s generation |
|  | Beneficiary’s residential address - line 1 |
|  | Beneficiary’s residential address - line 2 |
|  | Beneficiary’s residential address - line 3 |
|  | Beneficiary’s residential address – city |
|  | Beneficiary’s residential address – state |
|  | Beneficiary’s residential address – zip |
|  | Beneficiary’s residential address – zip extension |
|  | Beneficiary’s residential address flag - 0 if no res. Address available, 1  If there is a residential address |
|  | Beneficiary’s residence address—region |
|  | Beneficiary’s residence address - DMIS code |
|  | Beneficiary’s residence phone number |
|  | Beneficiary Type coded as one of these four groups: (1) active duty; (2) active duty dependents; (3) Retirees and their dependents less than 65; or (4) Retirees and their dependents 65 and over |
|  | Beneficiary’s prime enrollment status as one of these three cases: (1)  enrolled as a military Primary Care Organization such as hospital or  clinic; (2) enrolled as a civilian Primary Care Organization; and (3) not  enrolled |
|  | Beneficiary’s senior prime enrollment status coded as (1) Senior Prime  enrollee; or (2) Nonenrollee |
|  | Beneficiary’s Catchment area from the consolidation of (i) the list of MTFs for Prime enrollees with military Primary Care Organization;  (ii) the list of catchment areas for Prime enrollees with a civilian  Primary Care Organization; and (iii) the list of service areas for non-  enrollees |
|  | Beneficiary’s TRICARE region based on the constructed Catchment  area assignment |
|  | Beneficiary’s TNEX region based on the newly defined TNEX organization |
|  | Person/Patient ID |
|  | Primary Record Identifier/Flag |
|  | Sponsor’s duty status |
|  | Sponsor’ group code |
|  | Sponsor’s marital status |
| **Variable** | **Explanation** |
|  | Sponsor’s pay grade |
|  | Sponsor’s race/ethnicity |
|  | Sponsor’s rank abbreviation |
|  | Sponsor’s service |
|  | Sponsor’s total dependents counted |
|  | Sponsor’ total active federal months of service |
|  | Medical privileges of sponsor |
|  | Sponsor’s eligible dependents counted |
|  | Number of dependents reported for sponsor |
|  | Sex of the sponsor |
|  | Age of the sponsor |
|  | Sponsor first name |
|  | Sponsor last name |
|  | Sponsor generation name |
|  | Sponsor’s unit address -street 1 |
|  | Sponsor’s unit address -street 2 |
|  | Sponsor’s unit address -street 3 |
|  | Sponsor’s unit address – city |
|  | Sponsor’s unit address -state/with asterisks to distinguish foreign vs.  domestic addresses |
|  | Sponsor’s unit address – zip |
|  | Sponsor’s unit address – zip extension |
|  | Sponsor’s unit address flag - 0 if no unit address available, 1 if there is  a unit address |
|  | Sponsor’s unit—region |
|  | Sponsor’s unit address - dmis code |
|  | Sponsor’s residential address – line 1 |
|  | Sponsor’s residential address – line 2 |
|  | Sponsor’s residential address – line 3 |
|  | Sponsor’s residential address – city |
|  | Sponsor’s residential address – state |
|  | Sponsor’s residential address – zip |
|  | Sponsor’s residential address – zip extension |
|  | Sponsor’s residential address flag - 0 if no res. address available, 1 if  there is a residential address |
|  | Sponsor’s residence phone number |
|  | Sponsor’s pay category |
|  | Dependent SSN |
|  | Dependent’s relationship to sponsor |
|  | Dependent first name |
|  | Dependent last name |
|  | Dependent generation name |

Appendix B  
  
Q1 2010 Tables for Enrollees With a Military PCM and  
Geographic Area Equal to Catchment Area

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Table B.1  
  
Enrollees with a Military PCM and Geographic Area Equal to Catchment Area

| **ASSIGN** | **DMIS\_ID** | **DMIS\_FAC** |
| --- | --- | --- |
| **MANAGED CARE CONTRACTOR** | 6901 | MANAGED CARE CNTRCTR-REGION 01 |
|  | 6902 | MANAGED CARE CNTRCTR-REGION 02 |
|  | 6903 | MANAGED CARE CNTRCTR-REGION 03 |
|  | 6904 | MANAGED CARE CNTRCTR-REGION 04 |
|  | 6905 | MANAGED CARE CNTRCTR-REGION 05 |
|  | 6906 | MANAGED CARE CNTRCTR-REGION 06 |
|  | 6907 | MANAGED CARE CNTRCTR-REGION 07 |
|  | 6908 | MANAGED CARE CNTRCTR-REGION 08 |
|  | 6909 | MANAGED CARE CNTRCTR-REGION 09 |
|  | 6910 | MANAGED CARE CNTRCTR-REGION 10 |
|  | 6911 | MANAGED CARE CNTRCTR-REGION 11 |
|  | 6912 | MANAGED CARE CNTRCTR-REGION 12 |
|  | 6913 | MANAGED CARE CNTRCTR-REGION 13 |
|  | 6914 | MANAGED CARE CNTRCTR-REGION 14 |
|  | 6915 | MANAGED CARE CNTRCTR-REGION 15 |
|  | 6916 | MANAGED CARE CNTRCTR-REGION AK |
|  | 6917 | MANAGED CARE CNTRCTR-REGION 17 |
|  | 6918 | MANAGED CARE CNTRCTR-REGION 18 |
|  | 6919 | MANAGED CARE CNTRCTR-REGION 19 |
|  | 8001 | 88TH MED GROUP-TSC PCM |
|  | 8002 | SCOTT MED CENTER TSC-PCM |
|  | 8003 | NAV HOSP GREAT LAKES TSC-PCM |
|  | 8004 | BLANCHFIELD ARMY HOSP TSC-PCM |
|  | 8005 | IRELAND ACH-KNOX TSC-PCM |
|  | 8006 | PORTSMOUTH VA-MCS-PCM |
|  | 8007 | CAMP LEJEUNE-MCS-PCM |
|  | 8008 | SEYMOUR JOHNSON AFB-MCS-PCM |
|  | 8009 | FT BRAGG-MCS-PCM |
|  | 8010 | 779TH MED GRP ANDREWS TSC-PCM |
|  | 8011 | 87TH MED GRP MCGUIRE TSC-PCM |
|  | 8012 | 66TH MED GRP HANSCOM TSC-PCM |
|  | 8013 | 436TH MED GRP DOVER TSC-PCM |
| **MANAGED CARE CONTRACTOR, CONT.** | 8014 | WALTER REED AMC TSC-PCM |
|  | 8015 | KELLER ACH TSC-PCM |
|  | 8016 | GUTHRIE AHC-FT. DRUM TSC-PCM |
|  | 8017 | NNMC BETHESDA TSC-PCM |
|  | 8018 | NAVAMBCARECEN GROTON TSC-PCM |
|  | 8019 | CHANUTE AFB(RANTOUL) TSC-PCM |
|  | 8020 | FT BENJAMIN HARRISON TSC-PCM |
|  | 8021 | GRISSOM AFB(PERU) TSC-PCM |
|  | 8022 | KI SAWYER AFB(GWINN) TSC-PCM |
|  | 8023 | WURTSMITH AFB(OSCODA) TSC-PCM |
|  | 8024 | AKRON/CANTON TSC-PCM |
|  | 8025 | CHICAGO/GARY TSC-PCM |
|  | 8026 | CINCINNATI TSC-PCM |
|  | 8027 | CLEVELAND TSC-PCM |
|  | 8028 | COLUMBUS TSC-PCM |
|  | 8029 | DETROIT TSC-PCM |
|  | 8030 | LANGLEY AFB TSC-PCM |
|  | 8031 | NH CHERRY POINT TSC-PCM |
|  | 8032 | FORT LEE TSC-PCM |
|  | 8033 | FORT EUSTIS TSC-PCM |
|  | 8034 | MILWAUKEE TSC-PCM |
|  | 8035 | ST LOUIS TSC-PCM |
|  | 8036 | YOUNGSTOWN TSC-PCM |
| **INACTIVE** | 0002 | NOBLE AHC-FT. MCCLELLAN |
|  | 0012 | 97th STRAT HOSP-EAKER |
|  | 0041 | BMC KEY WEST |
|  | 0044 | 31st MED GRP-HOMESTEAD |
|  | 0082 | WALSON ACH-FT. DIX |
|  | 0111 | 64th MED GRP-REESE |
|  | 0213 | NMCL LONG BEACH |
|  | 0235 | 750th MED SQUAD-ONIZUKA AS |
|  | 0250 | 77th MED GRP-MCCLELLAN |
|  | 0449 | 24th MED GRP-HOWARD |
|  | 0585 | 10 SPEC FORCES-FT. CARSON |
| **INACTIVE, CONT.** | 0626 | 52nd MED GRP-BITBURG |
|  | 5208 | USUHS |
| **AT SEA** | 3031 | USS JOHN F KENNEDY (CV67) |
|  | 3032 | USS NIMITZ (CVN68) |
|  | 3033 | USS EISENHOWER (CVN69) |
|  | 3034 | USS T ROOSEVELT (CVN71) |
|  | 3035 | USS ABRAHAM LINCOLN (CVN72) |
|  | 3036 | USS JOHN STENNIS (CVN74) |
|  | 3037 | USS MT WHITNEY (LCC20) |
|  | 3038 | USS TARAWA (LHA1) |
|  | 3039 | USS SAIPAN (LHA2) |
|  | 3040 | USS NASSAU (LHA4) |
|  | 3041 | USS PELELIU (LHA5) |
|  | 3042 | USS WASP (LHD1) |
|  | 3043 | USS ESSEX (LHD2) |
|  | 3044 | USS KEARSARGE (LHD3) |
|  | 3045 | USS BOXER (LHD4) |
|  | 3046 | USS BATAAN (LHD5) |
|  | 3047 | USS AUSTIN (LPD4) |
|  | 3048 | USS OGDEN (LPD5) |
|  | 3049 | USS DULUTH (LPD6) |
|  | 3050 | USS CLEVELAND (LPD7) |
|  | 3051 | USS DUBUQUE (LPD8) |
|  | 3052 | USS DENVER (LPD9) |
|  | 3053 | USS JUNEAU (LPD10) |
|  | 3054 | USS SHREVEPORT (LPD12) |
|  | 3055 | USS NASHVILLE (LPD13) |
|  | 3056 | USS TREMTOM (LPD14) |
|  | 3057 | USS PONCE (LPD15) |
| **ADMINISTRATIVE PURPOSES** | 1976 | BMC CAMP MARGUARITA |
|  | 1977 | BMC CAMP LAS FLORES |
|  | 1978 | BMC CAMP LAS PULGAS |
|  | 1979 | BMC CAMP HORNO |
|  | 1980 | BMC CAMP SAN MATEO |
| **ADMINISTRATIVE PURPOSES, CONT.** | 6301 | OP FORCES-NH CAMP PENDLETON |
|  | 6302 | OP FORCES-NH LEMOORE |
|  | 6303 | OP FORCES-NMC SAN DIEGO |
|  | 6304 | OP FORCES-NH TWENTY-NINE PALM |
|  | 6305 | OP FORCES-NBHC GROTON |
|  | 6306 | OP FORCES-NH PENSACOLA |
|  | 6307 | OP FORCES-NH JACKSONVILLE |
|  | 6308 | OP FORCES-NH GREAT LAKES |
|  | 6309 | OP FORCES-NNMC BETHESDA |
|  | 6310 | OP FORCES-NMCL PAXTUXENT |
|  | 6311 | OP FORCES-NH CAMP LEJEUNE |
|  | 6312 | OP FORCES-NH CHERRY POINT |
|  | 6313 | OP FORCES-NACC NEWPORT |
|  | 6314 | OP FORCES-NH CHARLESTON |
|  | 6315 | OP FORCES-NH BEAUFORT |
|  | 6316 | OP FORCES-NH CORPUS CHRISTI |
|  | 6317 | OP FORCES-NMC PORTSMOUTH |
|  | 6318 | OP FORCES-NH BREMERTON |
|  | 6319 | OP FORCES-NH OAK HARBOR |
|  | 6320 | OP FORCES-NMCL PEARL HARBOR |
|  | 6321 | OP FORCES-NMCL ANNAPOLIS |
|  | 6322 | OP FORCES-NBHC PORTSMOUTH |
|  | 6323 | OP FORCES-NMCL QUANTICO |
|  | 6501 | TRICARE SRVC AREA (PORTSMOUTH) |
|  | 6502 | SAN ANTONIO SRVC AREA (LACKLAN |
|  | 6503 | SAN FRANCISCO SRVC AREA (TRAVI |
|  | 6504 | SOUTH CA SRVC AREA (SAN DIEGO) |
|  | 6505 | COLORADO SRVC AREA (CARSON) |
|  | 6506 | FT STEWART/BEAUFORT SRVC AREA |
|  | 6507 | NORTH CAROLINA SERVICE AREA |
|  | 6508 | SOUTH CAROLINA SERVICE AREA |
|  | 6509 | DELAWARE VALLEY SRVC AREA |
|  | 6510 | WASHINGTON SRVC AREA |
|  | 6511 | HAWAII TRICARE CATCHMENT AREA |
| **ADMINISTRATIVE PURPOSES, CONT.** | 6512 | CALIFORNIA/HAWAII ENROLLMENT |
|  | 6700 | TRICARE EUROPE-SEMBACH AB |
|  | 6701 | ARAXOS |
|  | 6702 | MEDICAL AID STATION GLONS |
|  | 6703 | MED AID STATION KLEIN BROGEL |
|  | 6704 | 401 EABG/SG-TUZLA AB |
|  | 6705 | 525 EABS/SG-YUGOSLAVIA |
|  | 6706 | AMERICAN FORCES ISTRES AB |
|  | 6707 | MED AID STATION BUECHEL |
|  | 6708 | MED AID STATION KALKAR |
|  | 6709 | 12 SWS/SG (AFSPC)-THULE AB |
|  | 6710 | 406 EABG/SG-TASZAR AB |
|  | 6711 | 31 MUNSS-GHEDI AB |
|  | 6712 | 426 ABS/SG-STAVENGER |
|  | 6713 | 763 EXP AS-MUSCAT |
|  | 6714 | DET 4 18 SPSS (SPACECOM)-MORON |
|  | 6715 | DET 2 45TH LG AFSPC-AA AIR FLD |
|  | 6716 | USDAO SCOTLAND |
|  | 6717 | 21SW DET AFSPC-RAF FYLINGDALES |
|  | 6718 | AFSPC UNIT-OAKHANGER |
|  | 6719 | USDAO KABUL |
|  | 6720 | WESTERN EUROPE |
|  | 6721 | EASTERN EUROPE |
|  | 6722 | NORTHERN AFRICA |
|  | 6723 | SOUTHERN AFRICA |
|  | 6724 | CENTCOM |
|  | 6725 | USDAO VIENNA |
|  | 6726 | USDAO BAKU |
|  | 6727 | USDAO MINSK |
|  | 6728 | USDAO BRUSSELS |
|  | 6729 | USDAO BENIN-PORTO-NOVO |
|  | 6730 | USDAO SARAJEVO |
|  | 6731 | USODC GABORONE |
|  | 6732 | USDAO SOFIA |
| **ADMINISTRATIVE PURPOSES, CONT.** | 6733 | USDAO OUAGADOUGOU |
|  | 6734 | AM EMB BUJUMBURA |
|  | 6735 | USDAO YAOUNDE |
|  | 6736 | USDAO PRAIA |
|  | 6737 | AM EMB BANGUI |
|  | 6738 | USDAO N'DJAMENA |
|  | 6739 | USDAO BRAZZAVILLE |
|  | 6740 | USDAO ABIDJAN |
|  | 6741 | USDAO ZAGREB |
|  | 6742 | USDAO NICOSIA |
|  | 6743 | USDAO PRAGUE |
|  | 6744 | USDAO KINSHASA |
|  | 6745 | USDAO COPENHAGEN |
|  | 6746 | USDAO DJIBOUTI |
|  | 6747 | USDAO CAIRO |
|  | 6748 | USDAO MALABO |
|  | 6749 | USDAO ASMARA |
|  | 6750 | USDAO TALLINN |
|  | 6751 | USDAO ADDIS ABABA |
|  | 6752 | USDAO HELSINKI |
|  | 6753 | USDAO PARIS |
|  | 6754 | AM EMB LIBREVILLE |
|  | 6755 | AM EMB BANJUL |
|  | 6756 | USDAO TBILISI |
|  | 6757 | USDAO BERLIN |
|  | 6758 | USDAO ACCRA |
|  | 6759 | USODC ATHENS |
|  | 6760 | JOINT CMND S CENTRAL-LARISSA |
|  | 6761 | USDAO CONAKRY |
|  | 6762 | USDAO BISSAU |
|  | 6763 | USDAO VATICAN CITY |
|  | 6764 | USDAO BUDAPEST |
|  | 6765 | USDAO REYKJAVIK |
|  | 6766 | USDAO TEHRAN |
| **ADMINISTRATIVE PURPOSES, CONT.** | 6767 | USDAO BAGHDAD |
|  | 6768 | USDAO DUBLIN |
|  | 6769 | USDAO TEL AVIV |
|  | 6770 | USODC ROME |
|  | 6771 | USDAO AMMAN |
|  | 6772 | AM EMB ALMATY |
|  | 6773 | USDAO NAIROBI |
|  | 6774 | USDLO KUWAIT CITY |
|  | 6775 | USDAO BISHKEK |
|  | 6776 | USDAO RIGA |
|  | 6777 | USDAO BEIRUT |
|  | 6778 | USDAO MASERU |
|  | 6779 | USDAO MONROVIA |
|  | 6780 | USDAO TRIPOLI |
|  | 6781 | USDAO VADUZ |
|  | 6782 | USDAO VILNIUS |
|  | 6783 | USDAO LUXEMBOURG |
|  | 6784 | USDAO CAMP ABLE SENTRY-SKOPJE |
|  | 6785 | USDAO LILONGWE |
|  | 6786 | USDAO BAMAKO |
|  | 6787 | USDAO VALETTA |
|  | 6788 | USDAO NOUAKCHOTT |
|  | 6789 | USDAO CHISINAU |
|  | 6790 | USDAO MONTE CARLO |
|  | 6791 | USDAO RABAT |
|  | 6792 | USDAO MAPUTO |
|  | 6793 | USDAO WINDHOEK |
|  | 6794 | USDAO THE HAGUE |
|  | 6795 | AF RHEINDAHLEM |
|  | 6796 | US AID STATION VOLKEL |
|  | 6797 | AM EMB NIAMEY |
|  | 6798 | USDAO LAGOS |
|  | 6799 | USDAO OSLO |
|  | 6800 | USDAO MUSCAT |
| **ADMINISTRATIVE PURPOSES, CONT.** | 6801 | USDAO ISLAMABAD |
|  | 6802 | USDAO WARSAW |
|  | 6803 | CINCSOUTHLAND-LISBON |
|  | 6804 | USDAO LISBON |
|  | 6805 | USDAO DOHA |
|  | 6806 | USDAO BUCHAREST |
|  | 6807 | USDAO MOSCOW |
|  | 6808 | USDAO KIGALI |
|  | 6809 | USDAO SAN MARINO |
|  | 6810 | USDAO DAKAR |
|  | 6811 | USDAO PRISTINA |
|  | 6812 | USDAO VICTORIA |
|  | 6813 | USDAO FREETOWN |
|  | 6814 | USDAO BRATISLAVA |
|  | 6815 | USDAO LJUBLJANA |
|  | 6816 | USDAO MOGADISHU |
|  | 6817 | USDAO PRETORIA |
|  | 6818 | JOINT COMMND SOUTHWEST-GRANADA |
|  | 6819 | USDAO MADRID |
|  | 6820 | USDAO KHARTOUM |
|  | 6821 | USDAO MBABANE |
|  | 6822 | USDAO STOCKHOLM |
|  | 6823 | USDAO BERN |
|  | 6824 | US MSN SPL LSN DET-GENEVA |
|  | 6825 | USDAO DAMASCUS |
|  | 6826 | USDAO DUSHANBE |
|  | 6827 | USDAO DAR ES SALAAM |
|  | 6828 | USDAO LOME |
|  | 6829 | USDAO TUNIS |
|  | 6830 | USDAO TURKMENISTAN |
|  | 6831 | USDAO ABU DHABI |
|  | 6832 | USDAO KAMPALA |
|  | 6833 | USDAO KIEV |
|  | 6834 | USDAO TASHKENT |
| **ADMINISTRATIVE PURPOSES, CONT.** | 6835 | USDAO SANAA |
|  | 6836 | USDAO LUSAKA |
|  | 6837 | USDAO HARARE |
|  | 6838 | MARINE SEC BATT NICOSIA |
|  | 6839 | USOMC-CAIRO |
|  | 6840 | US NAVAL FORCES-CAIRO |
|  | 6841 | NAMRU |
|  | 6842 | USMC GUARD-BREMERHAVEN |
|  | 6843 | USMC SEC BATTALION JERUSALEM |
|  | 6844 | USMC NAIROBI |
|  | 6845 | USOMC KUWAIT |
|  | 6846 | USMC ROTTERDAM |
|  | 6847 | USOMC MUSCAT |
|  | 6848 | USMC KARACHI |
|  | 6849 | USMC LAHORE |
|  | 6850 | USMC PESHAWAR |
|  | 6851 | USMC KRAKOW |
|  | 6852 | USMC ST PETERSBURG |
|  | 6853 | USMC YEKATERINBURG |
|  | 6854 | USMC SEC JEDDAH |
|  | 6855 | USMC CAPETOWN |
|  | 6856 | MARINE SEC GRD DET-GENEVA |
|  | 6857 | US SUPPORT UNIT MANAMA |
|  | 6858 | FAROE ISLAND |
|  | 6859 | KARUP |
|  | 6860 | BASSAS DA INDIA |
|  | 6861 | ILE EUROPA |
|  | 6862 | ST. PIERRE & MIQUELON |
|  | 6863 | US DET BONN |
|  | 6864 | KIGAH |
|  | 6865 | BOUVET ISLAND |
|  | 6866 | SVALBARD |
|  | 6867 | P3 DET CMD MASIRAH ISLAND |
|  | 6868 | PRINCE SULTAN AIR BASE |
| **ADMINISTRATIVE PURPOSES, CONT.** | 6869 | HOFUF |
|  | 6870 | JUBAIL |
|  | 6871 | KHAMIS |
|  | 6872 | TABUK |
|  | 6873 | RIYADAH |
|  | 6874 | IZMIR |
|  | 6875 | USMC ISTANBUL |
|  | 6876 | UNITED ARAB EMIRATES |
|  | 6877 | GIBRALTAR |
|  | 6878 | GUERNSEY |
|  | 6879 | ISLE OF MAN |
|  | 6880 | JERSEY |
|  | 6881 | ST. HELENA |
|  | 6991 | ACTIVE DUTY ARMY |
|  | 6992 | ACTIVE DUTY NAVY |
|  | 6993 | ACTIVE DUTY USAF |
|  | 6994 | ACTIVE DUTY NON-DOD |
|  | 7166 | 528th SPPT BAT (SPEC OP)-BRAGG |
|  | 7167 | HQ-USASOC-FT. BRAGG |
|  | 7168 | HQ-1st SFG (AIRBORNE)-LEWIS |
|  | 7169 | 1st SFG (1st BATTLION)-OKINAWA |
|  | 7170 | 1st SFG (2nd BATTALION)-LEWIS |
|  | 7171 | 1st SFG (3rd BATTALION)-LEWIS |
|  | 7172 | HQ-3rd SFG (AIRBORNE)-BRAGG |
|  | 7173 | 3rd SFG (1st BATTALION)-BRAGG |
|  | 7174 | 3rd SFG (2nd BATTALION)-BRAGG |
|  | 7175 | 3rd SFG (3rd BATTALION)-BRAGG |
|  | 7176 | HQ 5th SFG (AIRBORNE)-CAMPBELL |
|  | 7177 | 5th SFG (1st BATTALION)-CAMPBL |
|  | 7178 | 5th SFG (2nd BATTALION)-CAMPBL |
|  | 7179 | 5th SFG (3rd BATTALION)-CAMPBL |
|  | 7180 | HQ 7th SFG (AIRBORNE)-BRAGG |
|  | 7181 | 7th SFG (1st BATTALION)-BRAGG |
|  | 7182 | 7th SFG (2nd BATTALION)-BRAGG |
| **ADMINISTRATIVE PURPOSES, CONT.** | 7183 | 7th SFG (3rd BATTALION)-BRAGG |
|  | 7184 | HQ 160th SPEC OPS AV REG-CAMPB |
|  | 7185 | 160th SOAR (1ST BATTLN)-CAMPBL |
|  | 7186 | 160th SOAR (2nd BATTLN)-CAMPBL |
|  | 7187 | 160th SOAR (3rd BATTLN)-STEWRT |
|  | 7188 | HQ 75th RANGER REG-BENNING |
|  | 7189 | 75th RNGR REG (1st BATTLN)-STE |
|  | 7190 | 75th RNGR REG (2nd BATTLN)-LEW |
|  | 7191 | 75th RNGR REG (3rd BATTLN)-BEN |
|  | 7192 | 10th SFG (1st BATTLN)-STUTTGAR |
|  | 7193 | 10th SFG (2nd BATTLN)-CARSON |
|  | 7194 | 10th SFG (3rd BATTLN)-CARSON |
|  | 7195 | HQ-USA SPL OP SPPT CMD SOSCOM |

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Appendix C  
  
Q1 2010 Tables for Sampling Check

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Table C.1: Selected Sample Dataset By Zone and  
Minimum Permanent Random Number Selected

|  |  |  | Frame | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| STRATUM | Frame Size | Sample Size | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Minimum PRN |
| 0999911 | 75203 | 223 | 18674 | 18716 | 18805 | 19008 | 0.99728 |
| 1000101 | 1447 | 62 | 346 | 347 | 375 | 379 | 0.95028 |
| 1000103 | 1365 | 56 | 341 | 339 | 337 | 348 | 0.95513 |
| 1000106 | 4871 | 87 | 1198 | 1272 | 1136 | 1265 | 0.98244 |
| 1000301 | 6031 | 146 | 1516 | 1547 | 1456 | 1512 | 0.97752 |
| 1000303 | 3116 | 72 | 760 | 785 | 766 | 805 | 0.97785 |
| 1000306 | 4352 | 45 | 1080 | 1096 | 1079 | 1097 | 0.99028 |
| 1000401 | 3626 | 100 | 892 | 923 | 880 | 931 | 0.97159 |
| 1000403 | 2539 | 67 | 636 | 631 | 616 | 656 | 0.97418 |
| 1000406 | 5729 | 66 | 1479 | 1479 | 1398 | 1373 | 0.98764 |
| 1000501 | 13944 | 221 | 3616 | 3413 | 3466 | 3449 | 0.98536 |
| 1000503 | 3290 | 56 | 844 | 814 | 816 | 816 | 0.98263 |
| 1000506 | 2025 | 25 | 512 | 500 | 517 | 496 | 0.99036 |
| 1000601 | 7637 | 110 | 1947 | 1842 | 1912 | 1936 | 0.98758 |
| 1000603 | 7391 | 101 | 1801 | 1899 | 1863 | 1828 | 0.98739 |
| 1000606 | 7834 | 47 | 1911 | 1960 | 2056 | 1907 | 0.99327 |
| 1000801 | 4663 | 150 | 1171 | 1146 | 1157 | 1189 | 0.96634 |
| 1000803 | 2494 | 76 | 613 | 630 | 621 | 630 | 0.96392 |
| 1000806 | 3002 | 41 | 732 | 737 | 762 | 771 | 0.98761 |
| 1000901 | 6406 | 105 | 1547 | 1620 | 1667 | 1572 | 0.98225 |
| 1000903 | 3781 | 59 | 900 | 986 | 951 | 944 | 0.98339 |
| 1000906 | 9891 | 68 | 2440 | 2436 | 2490 | 2525 | 0.99176 |
| 1001001 | 7688 | 149 | 1983 | 1833 | 1948 | 1924 | 0.97910 |
| 1001003 | 3863 | 71 | 943 | 996 | 976 | 948 | 0.98165 |
| 1001006 | 5351 | 44 | 1366 | 1367 | 1291 | 1327 | 0.99048 |
| 1001301 | 7050 | 186 | 1768 | 1779 | 1733 | 1770 | 0.97267 |
| 1001303 | 2399 | 60 | 593 | 631 | 570 | 605 | 0.97318 |
| 1001306 | 2937 | 33 | 720 | 756 | 742 | 719 | 0.98785 |
| 1001401 | 14416 | 151 | 3613 | 3619 | 3684 | 3500 | 0.98903 |
| 1001403 | 4554 | 57 | 1128 | 1169 | 1117 | 1140 | 0.98832 |
| 1001406 | 11476 | 51 | 2917 | 2821 | 2895 | 2843 | 0.99615 |
| 1001801 | 2922 | 162 | 724 | 727 | 739 | 732 | 0.93822 |
| 1001803 | 1436 | 76 | 340 | 387 | 363 | 346 | 0.93550 |
| 1001806 | 1511 | 36 | 366 | 391 | 357 | 397 | 0.96876 |
| 1001901 | 2086 | 122 | 526 | 508 | 535 | 517 | 0.94217 |
| 1001903 | 1112 | 62 | 278 | 285 | 270 | 279 | 0.94198 |
| 1001906 | 2392 | 59 | 602 | 598 | 570 | 622 | 0.97123 |
| 1002401 | 42970 | 217 | 10698 | 10720 | 10657 | 10895 | 0.99441 |
| 1002403 | 11796 | 57 | 2933 | 2858 | 3009 | 2996 | 0.99439 |
| 1002406 | 7437 | 25 | 1910 | 1817 | 1879 | 1831 | 0.99661 |
| 1002601 | 1760 | 100 | 421 | 485 | 423 | 431 | 0.94079 |
| 1002603 | 2100 | 113 | 526 | 534 | 556 | 484 | 0.95156 |
| 1002606 | 1867 | 45 | 429 | 504 | 475 | 459 | 0.98155 |
| 1002801 | 8389 | 192 | 2150 | 2104 | 2037 | 2098 | 0.97783 |
| 1002803 | 3347 | 73 | 804 | 882 | 833 | 828 | 0.97782 |
| 1002806 | 2538 | 25 | 638 | 631 | 655 | 614 | 0.99056 |
| 1002901 | 51506 | 218 | 12884 | 13003 | 12916 | 12703 | 0.99560 |
| 1002903 | 8747 | 57 | 2200 | 2206 | 2143 | 2198 | 0.99113 |
| 1002906 | 11238 | 25 | 2832 | 2778 | 2847 | 2781 | 0.99748 |
| 1003001 | 14147 | 217 | 3461 | 3544 | 3521 | 3621 | 0.98428 |
| 1003003 | 3972 | 58 | 990 | 992 | 1043 | 947 | 0.98440 |
| 1003006 | 2316 | 25 | 580 | 556 | 580 | 600 | 0.98798 |
| 1003201 | 22643 | 177 | 5706 | 5712 | 5626 | 5599 | 0.99196 |
| 1003203 | 9978 | 74 | 2438 | 2502 | 2526 | 2512 | 0.99362 |
| 1003206 | 9421 | 31 | 2394 | 2358 | 2353 | 2316 | 0.99646 |
| 1003301 | 6974 | 115 | 1780 | 1674 | 1755 | 1765 | 0.98287 |
| 1003303 | 2542 | 56 | 650 | 640 | 606 | 646 | 0.97986 |
| 1003306 | 9647 | 67 | 2437 | 2464 | 2397 | 2349 | 0.99401 |
| 1003701 | 16404 | 212 | 4131 | 4018 | 4060 | 4195 | 0.98644 |
| 1003703 | 1433 | 56 | 356 | 344 | 390 | 343 | 0.95112 |
| 1003706 | 6561 | 36 | 1689 | 1644 | 1667 | 1561 | 0.99417 |
| 1003801 | 25303 | 198 | 6290 | 6264 | 6343 | 6406 | 0.99159 |
| 1003803 | 6897 | 57 | 1773 | 1730 | 1658 | 1736 | 0.99241 |
| 1003806 | 9128 | 30 | 2257 | 2228 | 2288 | 2355 | 0.99765 |
| 1003901 | 22824 | 175 | 5636 | 5856 | 5592 | 5740 | 0.99113 |
| 1003903 | 8936 | 65 | 2236 | 2235 | 2159 | 2306 | 0.99295 |
| 1003906 | 11076 | 36 | 2815 | 2737 | 2743 | 2781 | 0.99621 |
| 1004201 | 9018 | 126 | 2175 | 2287 | 2259 | 2297 | 0.98716 |
| 1004203 | 4091 | 57 | 1056 | 1021 | 1021 | 993 | 0.98812 |
| 1004206 | 10240 | 60 | 2542 | 2584 | 2555 | 2559 | 0.99408 |
| 1004301 | 4049 | 118 | 1053 | 975 | 1010 | 1011 | 0.97056 |
| 1004303 | 2238 | 62 | 565 | 572 | 561 | 540 | 0.97439 |
| 1004306 | 4919 | 60 | 1231 | 1301 | 1207 | 1180 | 0.98741 |
| 1004501 | 8444 | 120 | 2013 | 2120 | 2159 | 2152 | 0.98437 |
| 1004503 | 3368 | 57 | 835 | 854 | 826 | 853 | 0.98636 |
| 1004506 | 10637 | 64 | 2659 | 2683 | 2581 | 2714 | 0.99331 |
| 1004601 | 2465 | 73 | 637 | 597 | 634 | 597 | 0.96972 |
| 1004603 | 1584 | 56 | 392 | 410 | 416 | 366 | 0.95592 |
| 1004606 | 6735 | 83 | 1689 | 1705 | 1646 | 1695 | 0.98601 |
| 1004701 | 21101 | 171 | 5270 | 5182 | 5247 | 5402 | 0.99132 |
| 1004703 | 5702 | 57 | 1425 | 1411 | 1442 | 1424 | 0.99056 |
| 1004706 | 12532 | 43 | 3145 | 3046 | 3168 | 3173 | 0.99716 |
| 1004801 | 23140 | 179 | 5878 | 5902 | 5674 | 5686 | 0.99212 |
| 1004803 | 8246 | 61 | 2013 | 2082 | 2103 | 2048 | 0.99270 |
| 1004806 | 11085 | 36 | 2716 | 2766 | 2855 | 2748 | 0.99606 |
| 1004901 | 26334 | 203 | 6663 | 6672 | 6484 | 6515 | 0.99341 |
| 1004903 | 7735 | 57 | 1921 | 1939 | 1976 | 1899 | 0.99263 |
| 1004906 | 8567 | 28 | 2105 | 2149 | 2225 | 2088 | 0.99657 |
| 1005101 | 5229 | 128 | 1308 | 1377 | 1272 | 1272 | 0.97452 |
| 1005103 | 2330 | 56 | 569 | 623 | 559 | 579 | 0.97961 |
| 1005106 | 5778 | 59 | 1438 | 1457 | 1461 | 1422 | 0.98923 |
| 1005201 | 35330 | 204 | 8837 | 8789 | 8834 | 8870 | 0.99396 |
| 1005203 | 12495 | 69 | 3129 | 3087 | 3092 | 3187 | 0.99410 |
| 1005206 | 6558 | 25 | 1613 | 1623 | 1674 | 1648 | 0.99616 |
| 1005301 | 4403 | 174 | 1079 | 1145 | 1112 | 1067 | 0.96150 |
| 1005303 | 1829 | 69 | 456 | 471 | 425 | 477 | 0.96121 |
| 1005306 | 2058 | 34 | 491 | 513 | 515 | 539 | 0.98436 |
| 1005501 | 6389 | 124 | 1537 | 1657 | 1663 | 1532 | 0.98135 |
| 1005503 | 3897 | 72 | 1006 | 943 | 966 | 982 | 0.98150 |
| 1005506 | 6561 | 54 | 1637 | 1672 | 1619 | 1633 | 0.99094 |
| 1005601 | 4877 | 139 | 1231 | 1225 | 1203 | 1218 | 0.97319 |
| 1005603 | 2477 | 67 | 594 | 619 | 610 | 654 | 0.97042 |
| 1005606 | 4148 | 50 | 1053 | 1038 | 1036 | 1021 | 0.98753 |
| 1005701 | 17589 | 201 | 4323 | 4482 | 4414 | 4370 | 0.98828 |
| 1005703 | 6450 | 70 | 1561 | 1662 | 1614 | 1613 | 0.98725 |
| 1005706 | 3582 | 25 | 902 | 929 | 874 | 877 | 0.99471 |
| 1005801 | 5098 | 132 | 1292 | 1261 | 1261 | 1284 | 0.97617 |
| 1005803 | 2923 | 72 | 746 | 715 | 741 | 721 | 0.97477 |
| 1005806 | 4665 | 51 | 1216 | 1160 | 1160 | 1129 | 0.98788 |
| 1006001 | 34365 | 200 | 8730 | 8582 | 8678 | 8375 | 0.99386 |
| 1006003 | 12827 | 71 | 3223 | 3244 | 3196 | 3164 | 0.99426 |
| 1006006 | 6739 | 25 | 1724 | 1669 | 1672 | 1674 | 0.99627 |
| 1006101 | 14150 | 172 | 3520 | 3585 | 3499 | 3546 | 0.98654 |
| 1006103 | 4491 | 57 | 1080 | 1118 | 1164 | 1129 | 0.98468 |
| 1006106 | 7978 | 41 | 2009 | 2031 | 1980 | 1958 | 0.99349 |
| 1006201 | 5674 | 150 | 1366 | 1470 | 1393 | 1445 | 0.97376 |
| 1006203 | 2770 | 70 | 715 | 653 | 694 | 708 | 0.97894 |
| 1006206 | 3911 | 44 | 944 | 989 | 1010 | 968 | 0.99013 |
| 1006401 | 9488 | 191 | 2408 | 2322 | 2414 | 2344 | 0.98219 |
| 1006403 | 3849 | 74 | 1003 | 989 | 931 | 926 | 0.98309 |
| 1006406 | 2643 | 25 | 711 | 692 | 620 | 620 | 0.99379 |
| 1006601 | 8505 | 146 | 2155 | 2139 | 2091 | 2120 | 0.98319 |
| 1006603 | 3552 | 58 | 893 | 896 | 877 | 886 | 0.98591 |
| 1006606 | 7083 | 51 | 1784 | 1776 | 1781 | 1742 | 0.99342 |
| 1006701 | 18414 | 185 | 4638 | 4578 | 4601 | 4597 | 0.98957 |
| 1006703 | 5252 | 57 | 1296 | 1316 | 1354 | 1286 | 0.98657 |
| 1006706 | 8412 | 36 | 2097 | 2105 | 2126 | 2084 | 0.99487 |
| 1006801 | 2712 | 137 | 706 | 715 | 632 | 659 | 0.95146 |
| 1006803 | 1604 | 77 | 390 | 384 | 388 | 442 | 0.94989 |
| 1006806 | 2156 | 46 | 572 | 545 | 503 | 536 | 0.98083 |
| 1006901 | 15279 | 149 | 3879 | 3768 | 3812 | 3820 | 0.99020 |
| 1006903 | 6661 | 62 | 1620 | 1604 | 1770 | 1667 | 0.99071 |
| 1006906 | 11662 | 48 | 2865 | 2931 | 2973 | 2893 | 0.99604 |
| 1007301 | 10381 | 155 | 2642 | 2586 | 2531 | 2622 | 0.98415 |
| 1007303 | 3066 | 56 | 750 | 793 | 775 | 748 | 0.97781 |
| 1007306 | 7806 | 49 | 1956 | 1974 | 1911 | 1965 | 0.99300 |
| 1007401 | 1728 | 147 | 462 | 423 | 423 | 420 | 0.91518 |
| 1007403 | 2082 | 168 | 539 | 504 | 503 | 536 | 0.91960 |
| 1007501 | 13607 | 194 | 3508 | 3319 | 3433 | 3347 | 0.98492 |
| 1007503 | 4020 | 57 | 1009 | 975 | 1002 | 1034 | 0.98440 |
| 1007506 | 5231 | 32 | 1301 | 1298 | 1323 | 1309 | 0.99425 |
| 1007601 | 3427 | 145 | 856 | 864 | 831 | 876 | 0.95262 |
| 1007603 | 1802 | 72 | 461 | 493 | 429 | 419 | 0.96535 |
| 1007606 | 2514 | 45 | 643 | 603 | 662 | 606 | 0.98279 |
| 1007701 | 3433 | 159 | 852 | 886 | 823 | 872 | 0.94879 |
| 1007703 | 1570 | 69 | 389 | 392 | 404 | 385 | 0.95554 |
| 1007706 | 2044 | 40 | 526 | 507 | 511 | 500 | 0.97503 |
| 1007801 | 6875 | 120 | 1682 | 1713 | 1757 | 1723 | 0.98231 |
| 1007803 | 3882 | 65 | 952 | 923 | 982 | 1025 | 0.98090 |
| 1007806 | 7998 | 59 | 2027 | 2004 | 1971 | 1996 | 0.99394 |
| 1007901 | 11111 | 120 | 2874 | 2770 | 2697 | 2770 | 0.98943 |
| 1007903 | 5458 | 57 | 1406 | 1353 | 1303 | 1396 | 0.98912 |
| 1007906 | 13851 | 63 | 3352 | 3436 | 3463 | 3600 | 0.99550 |
| 1008301 | 4400 | 107 | 1111 | 1085 | 1074 | 1130 | 0.97546 |
| 1008303 | 2471 | 57 | 606 | 619 | 643 | 603 | 0.97340 |
| 1008306 | 6625 | 68 | 1654 | 1688 | 1631 | 1652 | 0.99035 |
| 1008601 | 16011 | 227 | 4016 | 3955 | 4018 | 4022 | 0.98603 |
| 1008603 | 2114 | 56 | 510 | 518 | 589 | 497 | 0.97782 |
| 1008606 | 2933 | 25 | 736 | 729 | 732 | 736 | 0.99239 |
| 1008901 | 56764 | 207 | 14237 | 14153 | 14288 | 14086 | 0.99617 |
| 1008903 | 22063 | 76 | 5555 | 5588 | 5438 | 5482 | 0.99678 |
| 1008906 | 7208 | 25 | 1848 | 1816 | 1776 | 1768 | 0.99643 |
| 1009101 | 48462 | 239 | 12105 | 11950 | 12029 | 12378 | 0.99538 |
| 1009103 | 7903 | 57 | 1946 | 1992 | 1970 | 1995 | 0.99207 |
| 1009106 | 4160 | 25 | 1000 | 1069 | 1014 | 1077 | 0.99425 |
| 1009201 | 3075 | 93 | 754 | 764 | 765 | 792 | 0.96850 |
| 1009203 | 4157 | 118 | 1080 | 998 | 1047 | 1032 | 0.97272 |
| 1009206 | 3664 | 46 | 959 | 943 | 865 | 897 | 0.98968 |
| 1009401 | 4867 | 189 | 1192 | 1181 | 1265 | 1229 | 0.96418 |
| 1009403 | 2038 | 75 | 528 | 490 | 547 | 473 | 0.96460 |
| 1009406 | 1282 | 25 | 295 | 333 | 327 | 327 | 0.97871 |
| 1009501 | 7026 | 97 | 1768 | 1762 | 1724 | 1772 | 0.98686 |
| 1009503 | 3744 | 57 | 953 | 902 | 975 | 914 | 0.98568 |
| 1009506 | 12646 | 73 | 3155 | 3178 | 3145 | 3168 | 0.99499 |
| 1009601 | 8384 | 163 | 2150 | 2114 | 2062 | 2058 | 0.98012 |
| 1009603 | 3509 | 65 | 883 | 863 | 883 | 880 | 0.98092 |
| 1009606 | 5014 | 41 | 1226 | 1209 | 1244 | 1335 | 0.99271 |
| 1009801 | 14251 | 197 | 3560 | 3572 | 3575 | 3544 | 0.98556 |
| 1009803 | 5202 | 69 | 1359 | 1315 | 1297 | 1231 | 0.98807 |
| 1009806 | 3888 | 25 | 998 | 911 | 983 | 996 | 0.99301 |
| 1010001 | 12276 | 190 | 3045 | 3137 | 3079 | 3015 | 0.98191 |
| 1010003 | 4915 | 72 | 1224 | 1182 | 1281 | 1228 | 0.98704 |
| 1010006 | 4039 | 27 | 969 | 1057 | 1038 | 975 | 0.99357 |
| 1010101 | 5218 | 177 | 1309 | 1303 | 1326 | 1280 | 0.96301 |
| 1010103 | 2033 | 66 | 483 | 500 | 517 | 533 | 0.96828 |
| 1010106 | 2399 | 34 | 628 | 633 | 535 | 603 | 0.98594 |
| 1010301 | 8016 | 210 | 2028 | 2001 | 2021 | 1966 | 0.97443 |
| 1010303 | 2222 | 56 | 541 | 540 | 561 | 580 | 0.97812 |
| 1010306 | 1946 | 25 | 476 | 476 | 461 | 533 | 0.98426 |
| 1010401 | 9597 | 209 | 2400 | 2402 | 2407 | 2388 | 0.97616 |
| 1010403 | 2739 | 57 | 688 | 687 | 663 | 701 | 0.97815 |
| 1010406 | 2371 | 25 | 585 | 586 | 591 | 609 | 0.98779 |
| 1010501 | 11950 | 182 | 3019 | 2959 | 2937 | 3035 | 0.98496 |
| 1010503 | 3988 | 58 | 993 | 959 | 1040 | 996 | 0.98677 |
| 1010506 | 5656 | 36 | 1393 | 1397 | 1436 | 1430 | 0.99504 |
| 1010801 | 22674 | 179 | 5681 | 5588 | 5700 | 5705 | 0.99241 |
| 1010803 | 9978 | 75 | 2559 | 2491 | 2431 | 2497 | 0.99122 |
| 1010806 | 8908 | 30 | 2212 | 2215 | 2220 | 2261 | 0.99530 |
| 1010901 | 11383 | 115 | 2840 | 2909 | 2864 | 2770 | 0.98980 |
| 1010903 | 6037 | 58 | 1507 | 1518 | 1527 | 1485 | 0.99179 |
| 1010906 | 15144 | 64 | 3805 | 3754 | 3749 | 3836 | 0.99548 |
| 1011001 | 61104 | 226 | 15325 | 15303 | 15240 | 15236 | 0.99667 |
| 1011003 | 14488 | 57 | 3551 | 3723 | 3602 | 3612 | 0.99652 |
| 1011006 | 7574 | 25 | 1874 | 1857 | 1869 | 1974 | 0.99721 |
| 1011201 | 4993 | 196 | 1264 | 1216 | 1247 | 1266 | 0.95942 |
| 1011203 | 1273 | 56 | 310 | 325 | 322 | 316 | 0.96093 |
| 1011206 | 1841 | 31 | 435 | 460 | 452 | 494 | 0.98072 |
| 1011301 | 2907 | 115 | 723 | 753 | 706 | 725 | 0.95984 |
| 1011303 | 2048 | 77 | 524 | 509 | 497 | 518 | 0.95890 |
| 1011306 | 3349 | 56 | 879 | 798 | 814 | 858 | 0.98367 |
| 1011801 | 6916 | 188 | 1734 | 1700 | 1749 | 1733 | 0.97306 |
| 1011803 | 2283 | 59 | 574 | 541 | 598 | 570 | 0.97301 |
| 1011806 | 2866 | 33 | 735 | 686 | 742 | 703 | 0.98880 |
| 1011901 | 5484 | 139 | 1382 | 1341 | 1366 | 1395 | 0.97429 |
| 1011903 | 3004 | 72 | 746 | 794 | 715 | 749 | 0.97304 |
| 1011906 | 4484 | 48 | 1090 | 1069 | 1149 | 1176 | 0.99280 |
| 1012001 | 10539 | 151 | 2638 | 2600 | 2691 | 2610 | 0.98651 |
| 1012003 | 5979 | 81 | 1515 | 1488 | 1537 | 1439 | 0.98678 |
| 1012006 | 6393 | 39 | 1564 | 1606 | 1603 | 1620 | 0.99419 |
| 1012101 | 8183 | 142 | 2064 | 2046 | 2025 | 2048 | 0.98337 |
| 1012103 | 4621 | 76 | 1167 | 1133 | 1151 | 1170 | 0.98444 |
| 1012106 | 6174 | 45 | 1553 | 1543 | 1562 | 1516 | 0.99424 |
| 1012201 | 6017 | 139 | 1549 | 1486 | 1478 | 1504 | 0.97821 |
| 1012203 | 3039 | 67 | 711 | 798 | 783 | 747 | 0.97374 |
| 1012206 | 5133 | 50 | 1277 | 1259 | 1304 | 1293 | 0.99142 |
| 1012301 | 16791 | 95 | 4222 | 4206 | 4182 | 4181 | 0.99485 |
| 1012303 | 14938 | 80 | 3705 | 3781 | 3738 | 3714 | 0.99391 |
| 1012306 | 26407 | 63 | 6589 | 6607 | 6612 | 6599 | 0.99750 |
| 1012401 | 58688 | 219 | 14591 | 14676 | 14774 | 14647 | 0.99632 |
| 1012403 | 13222 | 57 | 3264 | 3249 | 3359 | 3350 | 0.99621 |
| 1012406 | 9656 | 25 | 2440 | 2453 | 2393 | 2370 | 0.99771 |
| 1012501 | 43942 | 179 | 10893 | 11058 | 11008 | 10983 | 0.99586 |
| 1012503 | 16285 | 63 | 4048 | 4023 | 4112 | 4102 | 0.99591 |
| 1012506 | 20281 | 35 | 5085 | 5087 | 5032 | 5077 | 0.99812 |
| 1012601 | 12385 | 138 | 3217 | 3086 | 3076 | 3006 | 0.98895 |
| 1012603 | 7331 | 78 | 1837 | 1777 | 1839 | 1878 | 0.98849 |
| 1012606 | 9695 | 46 | 2436 | 2471 | 2420 | 2368 | 0.99531 |
| 1012701 | 7918 | 176 | 1969 | 2040 | 1900 | 2009 | 0.97987 |
| 1012703 | 3473 | 74 | 876 | 859 | 845 | 893 | 0.97741 |
| 1012706 | 3320 | 31 | 867 | 812 | 845 | 796 | 0.98992 |
| 1012801 | 3246 | 125 | 817 | 846 | 770 | 813 | 0.95749 |
| 1012803 | 1706 | 62 | 390 | 453 | 432 | 431 | 0.96103 |
| 1012806 | 3578 | 58 | 874 | 955 | 913 | 836 | 0.98695 |
| 1012901 | 3517 | 182 | 891 | 850 | 903 | 873 | 0.95075 |
| 1012903 | 1589 | 78 | 374 | 409 | 423 | 383 | 0.94592 |
| 1012906 | 1195 | 26 | 308 | 311 | 267 | 309 | 0.98462 |
| 1013101 | 5379 | 204 | 1298 | 1369 | 1366 | 1346 | 0.96179 |
| 1013103 | 3217 | 116 | 815 | 782 | 799 | 821 | 0.96643 |
| 1023101 | 6787 | 198 | 1739 | 1719 | 1642 | 1687 | 0.97377 |
| 1023103 | 2653 | 73 | 675 | 643 | 674 | 661 | 0.97431 |
| 1023106 | 1320 | 25 | 327 | 324 | 337 | 332 | 0.98448 |
| 1024801 | 3355 | 179 | 847 | 838 | 810 | 860 | 0.94410 |
| 1024803 | 2739 | 139 | 672 | 698 | 667 | 702 | 0.94590 |
| 1025201 | 6828 | 132 | 1737 | 1745 | 1695 | 1651 | 0.97922 |
| 1025203 | 3548 | 65 | 844 | 916 | 908 | 880 | 0.98312 |
| 1025206 | 6609 | 54 | 1606 | 1701 | 1744 | 1558 | 0.99157 |
| 1028001 | 9158 | 153 | 2234 | 2329 | 2324 | 2271 | 0.98549 |
| 1028003 | 7724 | 122 | 1933 | 1912 | 1975 | 1904 | 0.98549 |
| 1028006 | 1876 | 25 | 499 | 469 | 463 | 445 | 0.98377 |
| 1030601 | 6362 | 233 | 1552 | 1648 | 1574 | 1588 | 0.96468 |
| 1030603 | 2549 | 89 | 614 | 601 | 659 | 675 | 0.96418 |
| 1031001 | 2827 | 173 | 673 | 745 | 704 | 705 | 0.93996 |
| 1031003 | 1103 | 64 | 260 | 283 | 285 | 275 | 0.95035 |
| 1031006 | 1380 | 36 | 351 | 330 | 363 | 336 | 0.96667 |
| 1033001 | 19495 | 238 | 5030 | 4789 | 4729 | 4947 | 0.98760 |
| 1033003 | 4573 | 57 | 1141 | 1103 | 1191 | 1138 | 0.98777 |
| 1033006 | 1476 | 25 | 358 | 363 | 366 | 389 | 0.98561 |
| 1036401 | 2533 | 156 | 660 | 619 | 604 | 650 | 0.94082 |
| 1036403 | 1147 | 67 | 287 | 296 | 305 | 259 | 0.94408 |
| 1036406 | 1597 | 42 | 406 | 383 | 393 | 415 | 0.97640 |
| 1036601 | 3835 | 82 | 988 | 939 | 928 | 980 | 0.97614 |
| 1036603 | 3123 | 63 | 790 | 752 | 774 | 807 | 0.97998 |
| 1036606 | 8488 | 76 | 2055 | 2137 | 2139 | 2157 | 0.99126 |
| 1037801 | 4465 | 105 | 1088 | 1106 | 1143 | 1128 | 0.97368 |
| 1037803 | 5978 | 134 | 1445 | 1517 | 1464 | 1552 | 0.97740 |
| 1037806 | 3456 | 35 | 857 | 900 | 837 | 862 | 0.98915 |
| 1038501 | 9127 | 192 | 2273 | 2310 | 2259 | 2285 | 0.97776 |
| 1038503 | 3143 | 63 | 780 | 814 | 838 | 711 | 0.98477 |
| 1038506 | 3300 | 29 | 835 | 812 | 849 | 804 | 0.99032 |
| 1038701 | 4307 | 148 | 1111 | 1070 | 1102 | 1024 | 0.96668 |
| 1038703 | 2733 | 89 | 703 | 656 | 714 | 660 | 0.97142 |
| 1038706 | 2466 | 36 | 609 | 604 | 657 | 596 | 0.98830 |
| 1040501 | 2749 | 108 | 721 | 657 | 713 | 658 | 0.96673 |
| 1040503 | 3639 | 135 | 922 | 910 | 895 | 912 | 0.96305 |
| 1040506 | 1940 | 32 | 476 | 455 | 482 | 527 | 0.98579 |
| 1040701 | 3749 | 136 | 930 | 930 | 935 | 954 | 0.95827 |
| 1040703 | 2022 | 70 | 509 | 500 | 474 | 539 | 0.97088 |
| 1040706 | 3261 | 50 | 818 | 795 | 830 | 818 | 0.98097 |
| 1050801 | 15185 | 298 | 3783 | 3771 | 3730 | 3901 | 0.97920 |
| 1050803 | 859 | 56 | 225 | 210 | 213 | 211 | 0.92698 |
| 1060601 | 9755 | 182 | 2427 | 2433 | 2450 | 2445 | 0.98101 |
| 1060603 | 4702 | 84 | 1207 | 1134 | 1150 | 1211 | 0.98232 |
| 1060606 | 2608 | 25 | 638 | 696 | 643 | 631 | 0.98948 |
| 1060701 | 17575 | 196 | 4333 | 4494 | 4395 | 4353 | 0.98858 |
| 1060703 | 6846 | 73 | 1706 | 1680 | 1746 | 1714 | 0.98974 |
| 1060706 | 3905 | 25 | 999 | 993 | 954 | 959 | 0.99375 |
| 1060901 | 21118 | 233 | 5268 | 5240 | 5319 | 5291 | 0.98917 |
| 1060903 | 8647 | 91 | 2185 | 2204 | 2079 | 2179 | 0.99080 |
| 1061201 | 17368 | 279 | 4353 | 4310 | 4293 | 4412 | 0.98443 |
| 1061203 | 2060 | 56 | 539 | 508 | 513 | 500 | 0.96468 |
| 1062001 | 4228 | 153 | 1066 | 1017 | 1092 | 1053 | 0.96140 |
| 1062003 | 2046 | 71 | 545 | 515 | 522 | 464 | 0.96313 |
| 1062006 | 2749 | 42 | 657 | 724 | 709 | 659 | 0.98226 |
| 1062101 | 14479 | 256 | 3604 | 3632 | 3598 | 3645 | 0.98195 |
| 1062103 | 4017 | 68 | 1010 | 977 | 991 | 1039 | 0.98371 |
| 1062201 | 19331 | 257 | 4823 | 4806 | 4821 | 4881 | 0.98606 |
| 1062203 | 5368 | 68 | 1278 | 1396 | 1356 | 1338 | 0.98855 |
| 1063301 | 9725 | 191 | 2409 | 2442 | 2486 | 2388 | 0.98056 |
| 1063303 | 4452 | 83 | 1144 | 1070 | 1159 | 1079 | 0.98008 |
| 1063306 | 1722 | 25 | 434 | 409 | 429 | 450 | 0.98571 |
| 1080401 | 8183 | 215 | 2054 | 2028 | 2080 | 2021 | 0.97345 |
| 1080403 | 4290 | 107 | 1078 | 1051 | 1052 | 1109 | 0.97640 |
| 1080501 | 5481 | 205 | 1401 | 1314 | 1367 | 1399 | 0.96162 |
| 1080503 | 3238 | 115 | 804 | 802 | 805 | 827 | 0.96381 |
| 1080601 | 9529 | 214 | 2405 | 2425 | 2369 | 2330 | 0.97697 |
| 1080603 | 5027 | 107 | 1222 | 1236 | 1256 | 1313 | 0.97716 |
| 1135001 | 17863 | 137 | 4425 | 4521 | 4440 | 4477 | 0.99181 |
| 1135003 | 7113 | 57 | 1825 | 1758 | 1735 | 1795 | 0.99253 |
| 1135006 | 17436 | 56 | 4340 | 4395 | 4335 | 4366 | 0.99673 |
| 1621503 | 2277 | 76 | 552 | 573 | 575 | 577 | 0.97166 |
| 1621506 | 7051 | 104 | 1730 | 1756 | 1718 | 1847 | 0.98420 |
| 1713901 | 7985 | 199 | 2002 | 2001 | 1952 | 2030 | 0.97564 |
| 1713903 | 2817 | 67 | 687 | 727 | 713 | 690 | 0.97458 |
| 1713906 | 2182 | 25 | 546 | 536 | 530 | 570 | 0.99070 |
| 1900101 | 144231 | 1305 | 36011 | 36157 | 35963 | 36100 | 0.99121 |
| 1900103 | 9832 | 85 | 2392 | 2429 | 2545 | 2466 | 0.99160 |
| 1900106 | 9483 | 36 | 2439 | 2342 | 2392 | 2310 | 0.99568 |
| 1900201 | 87849 | 1292 | 21789 | 22165 | 22020 | 21875 | 0.98486 |
| 1900203 | 6281 | 88 | 1529 | 1605 | 1580 | 1567 | 0.98552 |
| 1900206 | 6396 | 40 | 1613 | 1656 | 1636 | 1491 | 0.99429 |
| 1900301 | 104948 | 1158 | 26213 | 26143 | 26441 | 26151 | 0.98876 |
| 1900303 | 14684 | 154 | 3572 | 3670 | 3712 | 3730 | 0.98908 |
| 1900306 | 14498 | 67 | 3566 | 3617 | 3695 | 3620 | 0.99591 |
| 1900401 | 67643 | 1224 | 17064 | 16818 | 16913 | 16848 | 0.98235 |
| 1900403 | 11698 | 201 | 2989 | 2988 | 2877 | 2844 | 0.98327 |
| 1900406 | 1531 | 25 | 376 | 370 | 380 | 405 | 0.98250 |
| 2900102 | 90339 | 513 | 22610 | 22617 | 22573 | 22539 | 0.99422 |
| 2900105 | 216001 | 454 | 53850 | 53865 | 54042 | 54244 | 0.99798 |
| 2900202 | 86593 | 388 | 21689 | 21633 | 21645 | 21626 | 0.99579 |
| 2900205 | 301817 | 501 | 75524 | 75307 | 75436 | 75550 | 0.99844 |
| 2900302 | 70749 | 546 | 17592 | 17606 | 17761 | 17790 | 0.99271 |
| 2900305 | 154718 | 442 | 38726 | 38751 | 38528 | 38713 | 0.99723 |
| 2900405 | 3926 | 604 | 949 | 978 | 1005 | 994 | 0.84143 |
| 3900104 | 84519 | 1506 | 21108 | 21117 | 21129 | 21165 | 0.98239 |
| 3900107 | 524678 | 919 | 131763 | 131436 | 131140 | 130339 | 0.99817 |
| 3900204 | 56019 | 1506 | 13858 | 14036 | 13978 | 14147 | 0.97279 |
| 3900207 | 410830 | 919 | 102529 | 102677 | 103308 | 102316 | 0.99779 |
| 3900304 | 54516 | 1506 | 13585 | 13667 | 13634 | 13630 | 0.97192 |
| 3900307 | 366351 | 919 | 91445 | 91565 | 91984 | 91357 | 0.99748 |
| 3900404 | 13033 | 1497 | 3227 | 3242 | 3282 | 3282 | 0.88415 |
| 3900407 | 46023 | 918 | 11556 | 11649 | 11463 | 11355 | 0.98004 |
| 6900199 | 583591 | 366 | 146383 | 145108 | 146433 | 145667 | 0.99942 |
| 6900299 | 733218 | 382 | 183678 | 183439 | 182707 | 183394 | 0.99947 |
| 6900399 | 595903 | 366 | 149165 | 149542 | 148599 | 148597 | 0.99936 |

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Table C.2: Unweighted Sample Counts, Weighted Sample Counts,  
and Frame Counts by Stratum

| STRATUM | Sample Size | Weight Sample | Frame Size |
| --- | --- | --- | --- |
| 0999911 | 223 | 75203 | 75203 |
| 1000101 | 62 | 1447 | 1447 |
| 1000103 | 56 | 1365 | 1365 |
| 1000106 | 87 | 4871 | 4871 |
| 1000301 | 146 | 6031 | 6031 |
| 1000303 | 72 | 3116 | 3116 |
| 1000306 | 45 | 4352 | 4352 |
| 1000401 | 100 | 3626 | 3626 |
| 1000403 | 67 | 2539 | 2539 |
| 1000406 | 66 | 5729 | 5729 |
| 1000501 | 221 | 13944 | 13944 |
| 1000503 | 56 | 3290 | 3290 |
| 1000506 | 25 | 2025 | 2025 |
| 1000601 | 110 | 7637 | 7637 |
| 1000603 | 101 | 7391 | 7391 |
| 1000606 | 47 | 7834 | 7834 |
| 1000801 | 150 | 4663 | 4663 |
| 1000803 | 76 | 2494 | 2494 |
| 1000806 | 41 | 3002 | 3002 |
| 1000901 | 105 | 6406 | 6406 |
| 1000903 | 59 | 3781 | 3781 |
| 1000906 | 68 | 9891 | 9891 |
| 1001001 | 149 | 7688 | 7688 |
| 1001003 | 71 | 3863 | 3863 |
| 1001006 | 44 | 5351 | 5351 |
| 1001301 | 186 | 7050 | 7050 |
| 1001303 | 60 | 2399 | 2399 |
| 1001306 | 33 | 2937 | 2937 |
| 1001401 | 151 | 14416 | 14416 |
| 1001403 | 57 | 4554 | 4554 |
| 1001406 | 51 | 11476 | 11476 |
| 1001801 | 162 | 2922 | 2922 |
| 1001803 | 76 | 1436 | 1436 |
| 1001806 | 36 | 1511 | 1511 |
| 1001901 | 122 | 2086 | 2086 |
| 1001903 | 62 | 1112 | 1112 |
| 1001906 | 59 | 2392 | 2392 |
| 1002401 | 217 | 42970 | 42970 |
| 1002403 | 57 | 11796 | 11796 |
| 1002406 | 25 | 7437 | 7437 |
| 1002601 | 100 | 1760 | 1760 |
| 1002603 | 113 | 2100 | 2100 |
| 1002606 | 45 | 1867 | 1867 |
| 1002801 | 192 | 8389 | 8389 |
| 1002803 | 73 | 3347 | 3347 |
| 1002806 | 25 | 2538 | 2538 |
| 1002901 | 218 | 51506 | 51506 |
| 1002903 | 57 | 8747 | 8747 |
| 1002906 | 25 | 11238 | 11238 |
| 1003001 | 217 | 14147 | 14147 |
| 1003003 | 58 | 3972 | 3972 |
| 1003006 | 25 | 2316 | 2316 |
| 1003201 | 177 | 22643 | 22643 |
| 1003203 | 74 | 9978 | 9978 |
| 1003206 | 31 | 9421 | 9421 |
| 1003301 | 115 | 6974 | 6974 |
| 1003303 | 56 | 2542 | 2542 |
| 1003306 | 67 | 9647 | 9647 |
| 1003701 | 212 | 16404 | 16404 |
| 1003703 | 56 | 1433 | 1433 |
| 1003706 | 36 | 6561 | 6561 |
| 1003801 | 198 | 25303 | 25303 |
| 1003803 | 57 | 6897 | 6897 |
| 1003806 | 30 | 9128 | 9128 |
| 1003901 | 175 | 22824 | 22824 |
| 1003903 | 65 | 8936 | 8936 |
| 1003906 | 36 | 11076 | 11076 |
| 1004201 | 126 | 9018 | 9018 |
| 1004203 | 57 | 4091 | 4091 |
| 1004206 | 60 | 10240 | 10240 |
| 1004301 | 118 | 4049 | 4049 |
| 1004303 | 62 | 2238 | 2238 |
| 1004306 | 60 | 4919 | 4919 |
| 1004501 | 120 | 8444 | 8444 |
| 1004503 | 57 | 3368 | 3368 |
| 1004506 | 64 | 10637 | 10637 |
| 1004601 | 73 | 2465 | 2465 |
| 1004603 | 56 | 1584 | 1584 |
| 1004606 | 83 | 6735 | 6735 |
| 1004701 | 171 | 21101 | 21101 |
| 1004703 | 57 | 5702 | 5702 |
| 1004706 | 43 | 12532 | 12532 |
| 1004801 | 179 | 23140 | 23140 |
| 1004803 | 61 | 8246 | 8246 |
| 1004806 | 36 | 11085 | 11085 |
| 1004901 | 203 | 26334 | 26334 |
| 1004903 | 57 | 7735 | 7735 |
| 1004906 | 28 | 8567 | 8567 |
| 1005101 | 128 | 5229 | 5229 |
| 1005103 | 56 | 2330 | 2330 |
| 1005106 | 59 | 5778 | 5778 |
| 1005201 | 204 | 35330 | 35330 |
| 1005203 | 69 | 12495 | 12495 |
| 1005206 | 25 | 6558 | 6558 |
| 1005301 | 174 | 4403 | 4403 |
| 1005303 | 69 | 1829 | 1829 |
| 1005306 | 34 | 2058 | 2058 |
| 1005501 | 124 | 6389 | 6389 |
| 1005503 | 72 | 3897 | 3897 |
| 1005506 | 54 | 6561 | 6561 |
| 1005601 | 139 | 4877 | 4877 |
| 1005603 | 67 | 2477 | 2477 |
| 1005606 | 50 | 4148 | 4148 |
| 1005701 | 201 | 17589 | 17589 |
| 1005703 | 70 | 6450 | 6450 |
| 1005706 | 25 | 3582 | 3582 |
| 1005801 | 132 | 5098 | 5098 |
| 1005803 | 72 | 2923 | 2923 |
| 1005806 | 51 | 4665 | 4665 |
| 1006001 | 200 | 34365 | 34365 |
| 1006003 | 71 | 12827 | 12827 |
| 1006006 | 25 | 6739 | 6739 |
| 1006101 | 172 | 14150 | 14150 |
| 1006103 | 57 | 4491 | 4491 |
| 1006106 | 41 | 7978 | 7978 |
| 1006201 | 150 | 5674 | 5674 |
| 1006203 | 70 | 2770 | 2770 |
| 1006206 | 44 | 3911 | 3911 |
| 1006401 | 191 | 9488 | 9488 |
| 1006403 | 74 | 3849 | 3849 |
| 1006406 | 25 | 2643 | 2643 |
| 1006601 | 146 | 8505 | 8505 |
| 1006603 | 58 | 3552 | 3552 |
| 1006606 | 51 | 7083 | 7083 |
| 1006701 | 185 | 18414 | 18414 |
| 1006703 | 57 | 5252 | 5252 |
| 1006706 | 36 | 8412 | 8412 |
| 1006801 | 137 | 2712 | 2712 |
| 1006803 | 77 | 1604 | 1604 |
| 1006806 | 46 | 2156 | 2156 |
| 1006901 | 149 | 15279 | 15279 |
| 1006903 | 62 | 6661 | 6661 |
| 1006906 | 48 | 11662 | 11662 |
| 1007301 | 155 | 10381 | 10381 |
| 1007303 | 56 | 3066 | 3066 |
| 1007306 | 49 | 7806 | 7806 |
| 1007401 | 147 | 1728 | 1728 |
| 1007403 | 168 | 2082 | 2082 |
| 1007501 | 194 | 13607 | 13607 |
| 1007503 | 57 | 4020 | 4020 |
| 1007506 | 32 | 5231 | 5231 |
| 1007601 | 145 | 3427 | 3427 |
| 1007603 | 72 | 1802 | 1802 |
| 1007606 | 45 | 2514 | 2514 |
| 1007701 | 159 | 3433 | 3433 |
| 1007703 | 69 | 1570 | 1570 |
| 1007706 | 40 | 2044 | 2044 |
| 1007801 | 120 | 6875 | 6875 |
| 1007803 | 65 | 3882 | 3882 |
| 1007806 | 59 | 7998 | 7998 |
| 1007901 | 120 | 11111 | 11111 |
| 1007903 | 57 | 5458 | 5458 |
| 1007906 | 63 | 13851 | 13851 |
| 1008301 | 107 | 4400 | 4400 |
| 1008303 | 57 | 2471 | 2471 |
| 1008306 | 68 | 6625 | 6625 |
| 1008601 | 227 | 16011 | 16011 |
| 1008603 | 56 | 2114 | 2114 |
| 1008606 | 25 | 2933 | 2933 |
| 1008901 | 207 | 56764 | 56764 |
| 1008903 | 76 | 22063 | 22063 |
| 1008906 | 25 | 7208 | 7208 |
| 1009101 | 239 | 48462 | 48462 |
| 1009103 | 57 | 7903 | 7903 |
| 1009106 | 25 | 4160 | 4160 |
| 1009201 | 93 | 3075 | 3075 |
| 1009203 | 118 | 4157 | 4157 |
| 1009206 | 46 | 3664 | 3664 |
| 1009401 | 189 | 4867 | 4867 |
| 1009403 | 75 | 2038 | 2038 |
| 1009406 | 25 | 1282 | 1282 |
| 1009501 | 97 | 7026 | 7026 |
| 1009503 | 57 | 3744 | 3744 |
| 1009506 | 73 | 12646 | 12646 |
| 1009601 | 163 | 8384 | 8384 |
| 1009603 | 65 | 3509 | 3509 |
| 1009606 | 41 | 5014 | 5014 |
| 1009801 | 197 | 14251 | 14251 |
| 1009803 | 69 | 5202 | 5202 |
| 1009806 | 25 | 3888 | 3888 |
| 1010001 | 190 | 12276 | 12276 |
| 1010003 | 72 | 4915 | 4915 |
| 1010006 | 27 | 4039 | 4039 |
| 1010101 | 177 | 5218 | 5218 |
| 1010103 | 66 | 2033 | 2033 |
| 1010106 | 34 | 2399 | 2399 |
| 1010301 | 210 | 8016 | 8016 |
| 1010303 | 56 | 2222 | 2222 |
| 1010306 | 25 | 1946 | 1946 |
| 1010401 | 209 | 9597 | 9597 |
| 1010403 | 57 | 2739 | 2739 |
| 1010406 | 25 | 2371 | 2371 |
| 1010501 | 182 | 11950 | 11950 |
| 1010503 | 58 | 3988 | 3988 |
| 1010506 | 36 | 5656 | 5656 |
| 1010801 | 179 | 22674 | 22674 |
| 1010803 | 75 | 9978 | 9978 |
| 1010806 | 30 | 8908 | 8908 |
| 1010901 | 115 | 11383 | 11383 |
| 1010903 | 58 | 6037 | 6037 |
| 1010906 | 64 | 15144 | 15144 |
| 1011001 | 226 | 61104 | 61104 |
| 1011003 | 57 | 14488 | 14488 |
| 1011006 | 25 | 7574 | 7574 |
| 1011201 | 196 | 4993 | 4993 |
| 1011203 | 56 | 1273 | 1273 |
| 1011206 | 31 | 1841 | 1841 |
| 1011301 | 115 | 2907 | 2907 |
| 1011303 | 77 | 2048 | 2048 |
| 1011306 | 56 | 3349 | 3349 |
| 1011801 | 188 | 6916 | 6916 |
| 1011803 | 59 | 2283 | 2283 |
| 1011806 | 33 | 2866 | 2866 |
| 1011901 | 139 | 5484 | 5484 |
| 1011903 | 72 | 3004 | 3004 |
| 1011906 | 48 | 4484 | 4484 |
| 1012001 | 151 | 10539 | 10539 |
| 1012003 | 81 | 5979 | 5979 |
| 1012006 | 39 | 6393 | 6393 |
| 1012101 | 142 | 8183 | 8183 |
| 1012103 | 76 | 4621 | 4621 |
| 1012106 | 45 | 6174 | 6174 |
| 1012201 | 139 | 6017 | 6017 |
| 1012203 | 67 | 3039 | 3039 |
| 1012206 | 50 | 5133 | 5133 |
| 1012301 | 95 | 16791 | 16791 |
| 1012303 | 80 | 14938 | 14938 |
| 1012306 | 63 | 26407 | 26407 |
| 1012401 | 219 | 58688 | 58688 |
| 1012403 | 57 | 13222 | 13222 |
| 1012406 | 25 | 9656 | 9656 |
| 1012501 | 179 | 43942 | 43942 |
| 1012503 | 63 | 16285 | 16285 |
| 1012506 | 35 | 20281 | 20281 |
| 1012601 | 138 | 12385 | 12385 |
| 1012603 | 78 | 7331 | 7331 |
| 1012606 | 46 | 9695 | 9695 |
| 1012701 | 176 | 7918 | 7918 |
| 1012703 | 74 | 3473 | 3473 |
| 1012706 | 31 | 3320 | 3320 |
| 1012801 | 125 | 3246 | 3246 |
| 1012803 | 62 | 1706 | 1706 |
| 1012806 | 58 | 3578 | 3578 |
| 1012901 | 182 | 3517 | 3517 |
| 1012903 | 78 | 1589 | 1589 |
| 1012906 | 26 | 1195 | 1195 |
| 1013101 | 204 | 5379 | 5379 |
| 1013103 | 116 | 3217 | 3217 |
| 1023101 | 198 | 6787 | 6787 |
| 1023103 | 73 | 2653 | 2653 |
| 1023106 | 25 | 1320 | 1320 |
| 1024801 | 179 | 3355 | 3355 |
| 1024803 | 139 | 2739 | 2739 |
| 1025201 | 132 | 6828 | 6828 |
| 1025203 | 65 | 3548 | 3548 |
| 1025206 | 54 | 6609 | 6609 |
| 1028001 | 153 | 9158 | 9158 |
| 1028003 | 122 | 7724 | 7724 |
| 1028006 | 25 | 1876 | 1876 |
| 1030601 | 233 | 6362 | 6362 |
| 1030603 | 89 | 2549 | 2549 |
| 1031001 | 173 | 2827 | 2827 |
| 1031003 | 64 | 1103 | 1103 |
| 1031006 | 36 | 1380 | 1380 |
| 1033001 | 238 | 19495 | 19495 |
| 1033003 | 57 | 4573 | 4573 |
| 1033006 | 25 | 1476 | 1476 |
| 1036401 | 156 | 2533 | 2533 |
| 1036403 | 67 | 1147 | 1147 |
| 1036406 | 42 | 1597 | 1597 |
| 1036601 | 82 | 3835 | 3835 |
| 1036603 | 63 | 3123 | 3123 |
| 1036606 | 76 | 8488 | 8488 |
| 1037801 | 105 | 4465 | 4465 |
| 1037803 | 134 | 5978 | 5978 |
| 1037806 | 35 | 3456 | 3456 |
| 1038501 | 192 | 9127 | 9127 |
| 1038503 | 63 | 3143 | 3143 |
| 1038506 | 29 | 3300 | 3300 |
| 1038701 | 148 | 4307 | 4307 |
| 1038703 | 89 | 2733 | 2733 |
| 1038706 | 36 | 2466 | 2466 |
| 1040501 | 108 | 2749 | 2749 |
| 1040503 | 135 | 3639 | 3639 |
| 1040506 | 32 | 1940 | 1940 |
| 1040701 | 136 | 3749 | 3749 |
| 1040703 | 70 | 2022 | 2022 |
| 1040706 | 50 | 3261 | 3261 |
| 1050801 | 298 | 15185 | 15185 |
| 1050803 | 56 | 859 | 859 |
| 1060601 | 182 | 9755 | 9755 |
| 1060603 | 84 | 4702 | 4702 |
| 1060606 | 25 | 2608 | 2608 |
| 1060701 | 196 | 17575 | 17575 |
| 1060703 | 73 | 6846 | 6846 |
| 1060706 | 25 | 3905 | 3905 |
| 1060901 | 233 | 21118 | 21118 |
| 1060903 | 91 | 8647 | 8647 |
| 1061201 | 279 | 17368 | 17368 |
| 1061203 | 56 | 2060 | 2060 |
| 1062001 | 153 | 4228 | 4228 |
| 1062003 | 71 | 2046 | 2046 |
| 1062006 | 42 | 2749 | 2749 |
| 1062101 | 256 | 14479 | 14479 |
| 1062103 | 68 | 4017 | 4017 |
| 1062201 | 257 | 19331 | 19331 |
| 1062203 | 68 | 5368 | 5368 |
| 1063301 | 191 | 9725 | 9725 |
| 1063303 | 83 | 4452 | 4452 |
| 1063306 | 25 | 1722 | 1722 |
| 1080401 | 215 | 8183 | 8183 |
| 1080403 | 107 | 4290 | 4290 |
| 1080501 | 205 | 5481 | 5481 |
| 1080503 | 115 | 3238 | 3238 |
| 1080601 | 214 | 9529 | 9529 |
| 1080603 | 107 | 5027 | 5027 |
| 1135001 | 137 | 17863 | 17863 |
| 1135003 | 57 | 7113 | 7113 |
| 1135006 | 56 | 17436 | 17436 |
| 1621503 | 76 | 2277 | 2277 |
| 1621506 | 104 | 7051 | 7051 |
| 1713901 | 199 | 7985 | 7985 |
| 1713903 | 67 | 2817 | 2817 |
| 1713906 | 25 | 2182 | 2182 |
| 1900101 | 1305 | 144231 | 144231 |
| 1900103 | 85 | 9832 | 9832 |
| 1900106 | 36 | 9483 | 9483 |
| 1900201 | 1292 | 87849 | 87849 |
| 1900203 | 88 | 6281 | 6281 |
| 1900206 | 40 | 6396 | 6396 |
| 1900301 | 1158 | 104948 | 104948 |
| 1900303 | 154 | 14684 | 14684 |
| 1900306 | 67 | 14498 | 14498 |
| 1900401 | 1224 | 67643 | 67643 |
| 1900403 | 201 | 11698 | 11698 |
| 1900406 | 25 | 1531 | 1531 |
| 2900102 | 513 | 90339 | 90339 |
| 2900105 | 454 | 216001 | 216001 |
| 2900202 | 388 | 86593 | 86593 |
| 2900205 | 501 | 301817 | 301817 |
| 2900302 | 546 | 70749 | 70749 |
| 2900305 | 442 | 154718 | 154718 |
| 2900405 | 604 | 3926 | 3926 |
| 3900104 | 1506 | 84519 | 84519 |
| 3900107 | 919 | 524678 | 524678 |
| 3900204 | 1506 | 56019 | 56019 |
| 3900207 | 919 | 410830 | 410830 |
| 3900304 | 1506 | 54516 | 54516 |
| 3900307 | 919 | 366351 | 366351 |
| 3900404 | 1497 | 13033 | 13033 |
| 3900407 | 918 | 46023 | 46023 |
| 6900199 | 366 | 583591 | 583591 |
| 6900299 | 382 | 733218 | 733218 |
| 6900399 | 366 | 595903 | 595903 |

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Table C.3: Unweighted Sample Counts, Weighted Sample Counts,  
and Frame Counts for Branch of Service

|  |  |  |  |
| --- | --- | --- | --- |
| SVCCD | Unweighted Sample Count | Weighted Sample Count | Frame Count |
| A: Army | 19044 | 2876719.32 | 2926208 |
| C: Coast guard | 1079 | 157852.39 | 155799 |
| D: Office of the Sec Def | 1 | 337.23 | 485 |
| F: Air Force | 15626 | 2142471.33 | 2104128 |
| H: Public Health Service | 187 | 29630.19 | 22141 |
| M: Marine Corps | 4417 | 591039.04 | 578683 |
| N: Navy | 10633 | 1650834.02 | 1662355 |
| O: NOAA | 13 | 2138.47 | 1219 |
| X: Not Applicable | 0 | 0.00 | 4 |

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Table C.4: Unweighted Sample Counts, Weighted Sample Counts, and Frame Counts  
for Enrollee/Beneficiary Group( ENBGSMPL)

|  |  |  |  |
| --- | --- | --- | --- |
| ENBGSMPL | Unweighted Sample Count | Weighted Sample Count | Frame Count |
| 01: active duty | 23569 | 1793867.00 | 1793930 |
| 02: active duty family member, prime, civilian pcm | 1929 | 250814.00 | 250852 |
| 03: active duty family member, prime, military pcm | 8257 | 553508.33 | 553906 |
| 04: active duty family member, nonenrollee | 6021 | 218696.07 | 211444 |
| 05: retired or family member or retiree, less than 65, civilian pcm | 1519 | 673329.00 | 673411 |
| 06: retired or family member of retiree, less than 65, military pcm | 4699 | 635619.67 | 635862 |
| 07: retired or family member of retiree, less than 65, military pcm | 3675 | 1347882.00 | 1347882 |
| 08: retired or family member of retiree, 65 or older, civilian pcm | 18 | 29810.48 | 36841 |
| 09: retired or family member of retiree, 65 or older, military pcm | 85 | 144710.43 | 137324 |
| 10: retired or family member of retiree, 65 or older, nonenrollee | 1005 | 1727582.02 | 1734367 |
| 11: TRICARE Reserve Select enrollee | 223 | 75203.00 | 75203 |

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Table C.5: Unweighted Sample Counts, Weighted Sample Counts, and Frame Counts  
for Enrollee/Beneficiary Group (EBSMPL)

|  |  |  |  |
| --- | --- | --- | --- |
| EBSMPL | Unweighted Sample Count | Weighted Sample Count | Frame Count |
| 01: active duty | 23569 | 1793867 | 1793867 |
| 02: active duty family member, prime, civilian pcm | 1447 | 247681 | 247681 |
| 03: active duty family member, prime, military pcm | 8593 | 561876 | 561876 |
| 04: active duty family member, nonenrollee | 6015 | 208087 | 208087 |
| 05: retired or family member of retiree, less than 65, civilian pcm | 2001 | 676462 | 676462 |
| 06: retired or family member of retiree, less than 65, military pcm | 4363 | 627252 | 627252 |
| 07: retired or family member of retiree, less than 65, nonenrollee | 3675 | 1347882 | 1347882 |
| 11: TRICARE Reserve Select (TRS) enrollee | 223 | 75203 | 75203 |
| 99: 65 and older and not active duty and not enrolled in TRS | 1114 | 1912712 | 1912712 |

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Appendix D  
  
Q1 2010 Variables Delivered to Synovate

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LIST OF VARIABLES IN THE DATA SET DELIVERED TO SYNOVATE (FORM A - SAMPLA02.SD2)

| # | Variable | Type | Length | Label | Values | Source |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | ACV | Char | 1 | Alternate Care Value | A = Active Duty Prime enrollee D = TRICARE Senior Prime enrollee E = TRICARE Prime enrollee G = TRICARE Plus (CHAMPUS Eligible) L = TRICARE Plus (non-CHAMPUS Eligible) U = Enrolled to Uniformed Services Family Health Plan (formerly USTFs) Blank = Not enrolled in TRICARE Prime or USFHP | DEERS |
| 2 | C\_ADDR1 | Char | 40 | CHCS Mailing Address Line 1 |  | CHCS |
| 3 | C\_ADDR2 | Char | 40 | CHCS Mailing Address Line 2 |  | CHCS |
| 4 | C\_ADDR3 | Char | 40 | CHCS Mailing Address Line 3 |  | CHCS |
| 5 | C\_CITY | Char | 20 | CHCS City |  | CHCS |
| 6 | C\_HMFON | Char | 14 | CHCS Home Telephone Number |  | CHCS |
| 7 | C\_NAME1 | Char | 20 | CHCS First Name |  | CHCS |
| 8 | C\_NAME2 | Char | 26 | CHCS Last Name |  | CHCS |
| 9 | C\_STATE | Char | 2 | CHCS State |  | CHCS |
| 10 | C\_UPDT | Char | 8 | CHCS Last Update Date |  | CHCS |
| 11 | C\_ZIP | Char | 5 | CHCS Zip Code |  | CHCS |
| 12 | DAGEQY | Char | 3 | Beneficiary Age at time of Deers Extract | 18 or older, Blank as missing | DEERS |
| 13 | DBENCAT | Char | 3 | Beneficiary Category | ACT = Active Duty DA = Dependent of Active Duty GRD = Guard/Reserve DGR = Dependent of Guard/Reserve RET = Retiree DR = Dependent of Retiree DS = Survivor OTH = Other Z = Unknown | DEERS |
| 14 | DCATCH | Char | 4 | Catchment Area at Time of Extract |  | DEERS |
| 15 | DHSRGN | Char | 2 | Health Service Region | 01 - Northeast 02 - Mid-Atlantic 03 - Southeast 04 - Gulf South 05 - Heartland 06 - Southwest 07 - Central 08 - Central 09 - Southern California 10 - Golden Gate 11 - Northwest  12 - Hawaii AK - Alaska 13 - Europe 14 - Pacific 15 - Latin America/Canada XX/ZZ - Unknown | DEERS |
| 16 | DMDCSPON | Char | 10 | DMDC Sponsor EDI PN |  | DEERS |
| 17 | DMEDELG | Char | 1 | Medical Privilege Code | 1 - Direct Care Only 2 - Direct Care and CHAMPUS 4 - Transitional Direct Care Only 5 - Transitional Direct Care and CHAMPUS 6 - Transitional Direct Care and Medicare 7 - Direct Care and Medicare 8 - Other C - No Direct Care but CHAMPUS Eligible U - USTF Enrollee |  |
| 18 | DPRISM | Char | 4 | PRISM (20 mile) clinic service area |  | DEERS |
| 19 | DSPONSVC | Char | 1 | Derived Sponsor Branch of Service | A = Army C = Coast Guard F = Air Force M = Marine Corps N = Navy V = Navy Afloat X = Other Z = Unknown | DEERS |
| 20 | D\_UPDT | Char | 8 | DEERS Last Update Date |  | DEERS |
| 21 | ENBGSMPL | Num | 3 | Beneficiary/Enrollment Group | 01-Active Duty (AD) 02-AD family member, prime, civilian pcm 03-AD family member, prime, military pcm 04-AD family member, nonenrollee 05-Ret/fam. mem. retiree, <65, civilian pcm 06-Ret/fam. mem. retiree, <65, military pcm 07-Ret/fam. mem. retiree, <65, nonenrollee 08-Ret/fam. mem. retiree, >65, civilian pcm 09-Ret/fam. mem. retiree, >65, military pcm 10-Ret/fam. mem. retiree, >65, nonenrollee 11-TRICARE Reserve Select | MPR |
| 22 | ENRID | Char | 4 | Enrollment DMISID |  | DEERS |
| 23 | FLAG | Num | 1 | Experiment Indicator | 0 = Non-Experiment Group 1 = Experiment Group 1 2 = Experiment Group 2 | MPR |
| 24 | HADDFLG | Char | 1 | Residential Address - FLAG | 0 = No address line1 1 = Address line1 present | DEERS |
| 25 | MACITYNM | Char | 20 | Residential Address - City |  | DEERS |
| 26 | MACTRYCD | Char | 2 | Residential Address, Country |  | DEERS |
| 27 | MALN1TX | Char | 40 | Residential Address - Line1 |  | DEERS |
| 28 | MALN2TX | Char | 40 | Residential Address - Line2 |  | DEERS |
| 29 | MAPRZIP | Char | 5 | Residential Address - ZIP |  | DEERS |
| 30 | MAPRZIPX | Char | 4 | Residential Address - ZIPX |  | DEERS |
| 31 | MASTCD | Char | 2 | Residential Address - State |  | DEERS |
| 32 | MBRRELCD | Char | 1 | Member Relationship Code | A = Self B = Spouse C = Child or stepchild D = Ward (not court ordered) E = Ward (court ordered) F = Dependent parent, stepparent, parent-in-law, or stepparent-in-law G = Surviving spouse H = Former spouse (20/20/20) I = Former spouse (20/20/15) J = Former spouse (10/20/10) K = Former spouse (transitional assistance (composite)) | DEERS |
| 33 | MEDTYPE | Char | 1 | Medicare Eligibility | A - Medicare A Only B - Medicare B Only C - Medicare A and B N - No Medicare eligibility |  |
| 34 | MPRID | Char | 8 | Unique Mathematica Identifier |  | MPR |
| 35 | MRTLSTAT | Char | 1 | Marital Status | A = Annulled D = Divorced I = Interlocutory decree L = Legally separated M = Married N = Never married S = Single / Not married [nonstandard] W = Widow or widower Z = Unknown | DEERS |
| 36 | NHFF | Num | 8 | NHFF - Stratum Sample Size |  | MPR |
| 37 | PATCAT | Char | 7 | Aggregated Beneficiary Category | ACTDTY = Active Duty and Guard/Reserve (no age cut). DEPACT = Dependent of Active Duty & Guard/Reserve (no age cut). NADD<65 = Retiree, Dependent of Retiree, Survivor, & Other under the age of 65. NADD65+ = Retiree, Dependent of Retiree, Survivor, & Other 65 years of age and older. UNKNOWN = Unknown (Derived Beneficiary Category equal to Z) | DEERS |
| 38 | PAYPLNCD | Char | 5 | Pay Plan Code |  | DEERS |
| 39 | PCM | Char | 3 | Enrolled to a Military or Civilian PCM - recoded so IF ACV = 'Z' THEN PCM = ' '; ELSE IF ('6900' < ENRID < '6999' OR '7900' < ENRID < '7999' OR '8000' < ENRID < '8099' OR '0180' <= ENRID <= '0199') THEN PCM='CIV'; ELSE PCM='MTF'; | CIV = DMIS values of ‘8000’ to ‘8050’, or ‘6900’ to ‘6916’, or ‘7900’ to ‘7916’, or ‘0190’ to ‘0199’ (these last codes are USFHP enrollees). MTF = All other enrollment DMIS Codes. Blank = Not enrolled to TRICARE Prime or USFHP | DEERS |
| 40 | PGCD | Char | 2 | Pay Grade | 00 = Unknown 00 – ZZ (not WW) = Used when pay plan is civil service 01 = Used when pay plan is cadet 01 – 05 = Used when pay plan is warrant officer 01 – 09 = Used when pay plan is enlisted 01 – 11 = Used when pay plan is officer | DEERS |
| 41 | PN1STNM | Char | 20 | Beneficiary First Name |  | DEERS |
| 42 | PNBRTHDT | Char | 8 | Beneficiary Date of Birth |  | DEERS |
| 43 | PNCDNCY | Char | 4 | Beneficiary Generation |  | DEERS |
| 44 | PNID | Char | 9 | Beneficiary/Dependent SSN |  | DEERS |
| 45 | PNLCATCD | Char | 1 | Personnel Category Code (Duty Status) | A = Active duty B = Presidential Appointee C = DoD civil service D = Disabled American veteran E = DoD contractor F = Former member H = Medal of Honor I = Other Government Agency Employee J = Academy student K = Non-appropriated fund DOD employee L = Lighthouse service M = Non-government Agency Personnel N = National Guard O = Other Government Agency Contractor Q = Reserve retiree R = Retired military T = Foreign military U = Foreign national employee V = Reserve W = DOD beneficiary based on prior sponsor’s eligibility | DEERS |
| 46 | PNLSTNM | Char | 26 | Beneficiary Last Name |  | DEERS |
| 47 | PNSEXCD | Char | 1 | Beneficiary Sex | F = Female M = Male Z = Unknown | DEERS |
| 48 | PNTYPCD | Char | 1 | Beneficiary Type Code | B = Both sponsor and dependent (i.e., the person has a joint marriage spouse) D = Dependent O = Other (e.g., someone who collapses in front of a military hospital and is treated at the hospital) S = Sponsor X = Prior sponsor (e.g., a sponsor who has been archived) Y = Prior dependent (e.g., a dependent who has been archived) | DEERS |
| 49 | PRN | Num | 8 | Permanent Random Number |  | MPR |
| 50 | PRRECFLG | Char | 1 | Primary Record Identifier/Flag | 1 = Primary Record | DEERS |
| 51 | PTNT\_ID | Char | 10 | Unique Patient ID |  | DEERS |
| 52 | RACEETHN | Char | 1 | Sponsor's Race/Ethnicity | A = American Indian or Alaskan Native B = Asian or Pacific islander C = Black (not Hispanic) D = White (not Hispanic) E = Hispanic X = Other Z = Unknown | DEERS |
| 53 | RANKCD | Char | 6 | Rank Code | See RANKCD.DOC for list of values | DEERS |
| 54 | SADDFLG | Char | 1 | Sponsor Address - FLAG | 0 = No address line1 1 = Address line1 present | DEERS |
| 55 | SPCITYNM | Char | 20 | Sponsor Address - City |  | DEERS |
| 56 | SPCTRYCD | Char | 2 | Sponsor Address, Country |  | DEERS |
| 57 | SPDUPID | Char | 1 | Family Sequence Number | 1 = First occurrence of an SSN 2 = Second occurrence of an SSN 3 = Third occurrence of an SSN 4 = Fourth occurrence of an SSN | DEERS |
| 58 | SPLN1TX | Char | 40 | Sponsor Address - Line1 |  | DEERS |
| 59 | SPLN2TX | Char | 40 | Sponsor Address - Line2 |  | DEERS |
| 60 | SPONSSN | Char | 9 | Sponsor Social Security Number |  | DEERS |
| 61 | SPPRZIP | Char | 5 | Sponsor Residential Address - ZIP |  | DEERS |
| 62 | SPPRZIPX | Char | 4 | Sponsor Address - ZIPX |  | DEERS |
| 63 | SPSTCD | Char | 2 | Sponsor Residential Address - State |  | DEERS |
| 64 | SPTNUMCD | Char | 14 | Sponsor Phone Number |  | DEERS |
| 65 | STRATUM | Char | 7 | Stratum |  | MPR |
| 66 | SVCCD | Char | 1 | Branch of Service | A = Army N = Navy M = Marine Corps F = Air Force C = Coast Guard D = Office of the Secretary of Defense H = The Commissioned Corps of the PHS O = The Commissioned Corps of the NOAA 1 = Foreign Army 2 = Foreign Navy 3 = Foreign Marine Corps 4 = Foreign Air Force X = Not applicable | DEERS |
| 67 | TNEXREG | Char | 1 | Next Generation of Contracts Region | N = North (MHS Regions 1,2,5) S = South (MHS Regions 3,4,6) W = West (MHS Regions 7,8,9,10,11,12,AK) O = Other (MHS Regions 13,14,15,16 ) | DEERS |
| 68 | TNUMCD | Char | 14 | Residence Telephone Number |  | DEERS |
| 69 | UADDFLG | Char | 1 | Unit Address - FLAG | 0 = No address line1 1 = Address line1 present | DEERS |
| 70 | UICADD1 | Char | 30 | Unit Address - Line1 |  | DEERS |
| 71 | UICADD2 | Char | 30 | Unit Address - Line2 |  | DEERS |
| 72 | UICCITY | Char | 30 | Unit Address - City |  | DEERS |
| 73 | UICST | Char | 2 | Unit Address - State |  | DEERS |
| 74 | UICZIP | Char | 5 | Unit Address - ZIP |  | DEERS |
| 75 | ULOCDMIS | Char | 4 | Unit Address - DMIS Code |  | DEERS |
| 76 | ULOCGRN | Char | 2 | Unit Address - Region |  | DEERS |

Appendix E  
  
Q1 2010 SAS Code for Sample Frame Construction  
and Sample Selection

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DEERS.SAS

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\*

\* PROGRAM: DEERS.SAS

\* TASK: DOD Health Care Survey, Sampling (6407-275 temporary Ad-hoc task number)

\* PURPOSE: Convert the DEER file into SAS data files.

\* (Split DEERS raw datasets into smaller parts for CDs and convert in SAS data format)

\*

\* WRITTEN: 10/18/2000 BY KEITH RATHBUN

\*

\* MODIFIED: 1) 04/22/2002 BY KEITH RATHBUN, Removed TSPSITE from FREQs.

\* 2) 10/10/2003 BY DAWN FERRAGAMO, Added TNEXREG to FREQS.

\* 3) 07/02/2004 BY KEITH RATHBUN, Added Primary Record

\* Identifier/Flag (PRRECFLG) and removed reference to

\* PNARSNCD.

\* 4) 01/07/2005 BY REGINA GRAMSS, Removed codes for TNEXREG

\* since they were included in the file.

\* 5) 06/29/2005 BY REGINA GRAMSS, changed libname to rerun

\* for child data.

\* 6) 10/07/2005 BY KEITH RATHBUN, Updated for Q1 2006 processing.

\* 7) 01/24/2006 BY KEITH RATHBUN, Updated for Q2 2006 processing.

\* Recode PCM = ' ' when ACV = 'Z'.

\* 8) 01/14/2006 BY KEITH RATHBUN, Added PCM\*ACV\*ENRID crosstab

\* to check for potential PCM problems.

\* 9) 07/12/2006 BY KEITH RATHBUN, Modified to split one file into

\* four parts. One big file is provided on DVD now.

\* 10) 10/19/2006 BY SKY ANDRECHECK. Changed output names to DEERS instead

\* of old contractor name (STI)

\* 11) 04/26/2007 H Xu.

\* 12) 04/29/2008 SABRINA RAHMAN for Q4FY2008

\* 12) 07/31/2008 SABRINA RAHMAN for Q1FY2009

\* 13) 10/20/2008 SABRINA RAHMAN for Q2FY2009

\* 14) 01/22/2009 SABRINA RAHMAN for Q3FY2009 Child Sampling

\* 15) 04/27/2009 SABRINA RAHMAN for Q4FY2009 Adult Sampling

\* 16) 07/15/2009 SABRINA RAHMAN for Q1FY2010 Adult Sampling

\* INPUTS:

\*

\* 1) Name Varies - RAW DEERS Population Extract File

\*

\* OUTPUTS:

\*

\* 1) DEERS001.sas7bdat - Q1FY2010 DEERS Population Extract File (Part 1)

\* 2) DEERS002.sas7bdat - Q1FY2010 DEERS Population Extract File (Part 2)

\* 3) DEERS003.sas7bdat - Q1FY2010 DEERS Population Extract File (Part 3)

\* 4) DEERS004.sas7bdat - Q1FY2010 DEERS Population Extract File (Part 4)

\*

\* INCLUDES:

\*

\* 1) LAYOUT.SAS - Input STEP For Raw Data From STI

\*

\* NOTES:

\*

\* 1) As of 07/12/2006 the DEERS PITE file is provided by STI on DVD.

\* This raw file is converted into 4 SAS datasets for more

\* efficient subsequent processing.

\*

\* 2) Under the new contract (8860), the suvey year was changed

\* to be based on the year the survey is administered (2002)

\* as opposed to the questioning reference frame (2001). This program

\* references folders named according to the new convention [i.e.

\* the survey administration year (2002 for project 8860)].

\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

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

%LET QUARTER=Q1FY2010;

LIBNAME OUT "K:\&QUARTER.";

FILENAME IN "K:\&QUARTER.\jul09a.txt"; /\*jul09a.txt Q1FY2010\*/

%let pathlayout=L:\Q1FY2010\Programs\Sampling;

PROC FORMAT;

VALUE $ADDFMT ' ' = 'missing'

OTHER = 'nonmissing';

RUN;

DATA OUT.DEERS001 OUT.DEERS002 OUT.DEERS003 OUT.DEERS004;

INFILE IN LRECL=99999 RECFM=V MISSOVER;

/\*%INCLUDE "LAYOUT.SAS";\*/

%INCLUDE "&pathlayout.\LAYOUT.SAS";

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Begining in Q3 2005 the variable PCM had different values than in previous data.

\* Reformat PCM values to values we had before so the data is consistent with

\* previous DEERS extracts.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

IF PCM = 'M' THEN PCM = 'MTF';

ELSE IF PCM = 'C' THEN PCM = 'CIV';

IF ACV = 'Z' THEN PCM = ' ';

IF \_N\_ LE 2250000 THEN OUTPUT OUT.DEERS001;

ELSE IF \_N\_ LE 4500000 THEN OUTPUT OUT.DEERS002;

ELSE IF \_N\_ LE 6750000 THEN OUTPUT OUT.DEERS003;

ELSE OUTPUT OUT.DEERS004;

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* PRINTIT - MACRO PARAMETERS:

\* 1) PNUM = SAS output file suffix

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%MACRO PRINTIT(PNUM=);

TITLE1 "DOD Health Care Survey, Sampling (6401-902)";

TITLE2 "PROGRAM: DEERS.SAS";

TITLE3 "OUTPUT: DEERS&PNUM.sas7bdat";

PROC CONTENTS DATA=OUT.DEERS&PNUM; RUN;

PROC FREQ DATA=OUT.DEERS&PNUM;

TABLES

PCM\*ACV\*ENRID

TNEXREG

PRRECFLG

PNTYPCD

MRTLSTAT

PNSEXCD

MDCABRSN

PNLCATCD

SVCCD

PAYPLNCD

PGCD

MBRRELCD

RANKCD

ULOCGRN

ULOCDMIS

RACEETHN

DCATCH

DMEDELG

DAGEQY

DBENCAT

DPRISM

DHSRGN

DSPONSVC

MEDTYPE

ENRID

ACV

PCM

PATCAT

/MISSING LIST;

RUN;

PROC FREQ DATA=OUT.DEERS&PNUM;

TABLES C\_ADDR1 C\_ADDR2 C\_ADDR3 C\_CITY C\_STATE C\_ZIP

MALN1TX MALN2TX MACITYNM MASTCD MACTRYCD MAPRZIP MAPRZIPX

UICADD1 UICADD2 UICCITY UICST UICZIP

SPLN1TX SPLN2TX SPCITYNM SPSTCD SPCTRYCD SPPRZIP SPPRZIPX

/MISSING LIST;

FORMAT C\_ADDR1 C\_ADDR2 C\_ADDR3 C\_CITY C\_STATE C\_ZIP

MALN1TX MALN2TX MACITYNM MASTCD MACTRYCD MAPRZIP MAPRZIPX

UICADD1 UICADD2 UICCITY UICST UICZIP

SPLN1TX SPLN2TX SPCITYNM SPSTCD SPCTRYCD SPPRZIP SPPRZIPX $ADDFMT.;

RUN;

%MEND PRINTIT;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* END PRINTIT MACRO

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%PRINTIT(PNUM=001);

%PRINTIT(PNUM=002);

%PRINTIT(PNUM=003);

%PRINTIT(PNUM=004);

\*-----------------------------------END-----------------------------;

LAYOUT.SAS

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*

\* PROGRAM: LAYOUT.SAS

\* TASK: DOD Health Care Survey, Sampling (6244-200)

\* PURPOSE: INPUT step for the DEERS Extract file from contractor

\*

\* WRITTEN: 10/18/2000 BY KEITH RATHBUN

\*

\* MODIFIED: 1) 04/22/2002 BY KEITH RATHBUN, Removed TSPSITE from layout.

\* 2) 10/10/2003 BY DAWN FERRAGAMO, ADDED TNEXREG TO LAYOUT.

\* 3) 04/09/2004 BY KEITH RATHBUN, ADDED PTNT\_ID TO LAYOUT.

\* 4) 06/29/2004 BY KEITH RATHBUN, Removed PNARSNCD, PNMIDNM,

\* SPTNUMCD, and TNUMCD from LAYOUT since they are no longer

\* available on the STI-provided DEERS extract. Added

\* Primary Record Identifier/Flag (PRRECFLG) to the layout.

\* 5) 01/07/2005 BY REGINA GRAMSS, added back in TNUMCD & SPTNUMCD

\* in LAYOUT and Labels.

\* 6) 06/29/2004 BY REGINA GRAMSS, changed LABEL in DAGEQY to use

\* file ref. date 10 JUNE 2005

\* 7) 01/29/2007 BY SKY ANDRECHECK, Added variable "DMDCSPON"

\* 8) 04/26/2007 by H Xu.

\* Changed LEGDDSCD to filler3, and ssnsmpl is not created,

\* since LEGDDSCD is not no longer provided.

\* 9) 08/01/2007 by H Xu.

\* Added CHCS addresses variables

\* 10)08/05/2008 Sabrina R. changed LABEL in DAGEQY to use file ref. date June 30, 2008

\* 12)10/20/2008 Sabrina R. Q2FY2009 (Reference Date- Sep 30,2008-change every quarter)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Input RAW data (ignore delimiters!)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

INPUT

@1 SPONSSN $CHAR9.

@11 SPDUPID $CHAR1.

@13 PNTYPCD $CHAR1.

@15 PNID $CHAR9.

@25 PNBRTHDT $CHAR8.

@34 MRTLSTAT $CHAR1.

@36 PNSEXCD $CHAR1.

@38 FILLER1 $CHAR2. /\* KRR - DELETED PNARSNCD 06/29/2004 \*/

@41 MDCABRSN $CHAR1.

@43 MDCAEFDT $CHAR8.

@52 MDCAEXDT $CHAR8.

@61 FILLER3 $CHAR2. /\*HX - DELETED LEGDDSCD 04/26/2007\*/

@64 PNLCATCD $CHAR1.

@66 SVCCD $CHAR1.

@68 PAYPLNCD $CHAR5.

@74 PGCD $CHAR2.

@77 MBRRELCD $CHAR1.

@79 MALN1TX $CHAR40.

@120 MALN2TX $CHAR40.

@161 MACITYNM $CHAR20.

@182 MASTCD $CHAR2.

@185 MACTRYCD $CHAR2.

@188 MAPRZIP $CHAR5.

@194 MAPRZIPX $CHAR4.

@199 HADDFLG $CHAR1.

@201 TNUMCD $CHAR14. /\* RSG - ADDED BACK IN TNUMCD 01/07/2005 \*/

@216 PNLSTNM $CHAR26.

@243 PN1STNM $CHAR20.

@264 FILLER2 $CHAR20. /\* KRR - DELETED PNMIDNM 06/29/2004 \*/

@285 PNCDNCY $CHAR4.

@290 RANKCD $CHAR6.

@297 ULOCGRN $CHAR2.

@300 ULOCDMIS $CHAR4.

@305 RACEETHN $CHAR1.

@307 DCATCH $CHAR4.

@312 DMEDELG $CHAR1.

@314 DAGEQY $CHAR3.

@318 DBENCAT $CHAR3.

@322 DPRISM $CHAR4.

@327 DHSRGN $CHAR2.

@330 DSPONSVC $CHAR1.

@332 MEDTYPE $CHAR1.

@334 UICADD1 $CHAR30.

@365 UICADD2 $CHAR30.

@396 UICCITY $CHAR30.

@427 UICST $CHAR2.

@430 UICZIP $CHAR5.

@436 UADDFLG $CHAR1.

@438 SPLN1TX $CHAR40.

@479 SPLN2TX $CHAR40.

@520 SPCITYNM $CHAR20.

@541 SPSTCD $CHAR2.

@544 SPCTRYCD $CHAR2.

@547 SPPRZIP $CHAR5.

@553 SPPRZIPX $CHAR4.

@558 SADDFLG $CHAR1.

@560 SPTNUMCD $CHAR14. /\* RSG - ADDED BACK IN SPTNUMCD 01/07/2005 \*/

@575 ENRID $CHAR4.

@580 ACV $CHAR1.

@582 PCM $CHAR3.

@586 PATCAT $CHAR7.

@594 TNEXREG $CHAR1.

@596 PTNT\_ID $CHAR10.

@607 PRRECFLG $CHAR1. /\* KRR - ADDED PRRECFLG 06/30/2004 \*/

@609 DMDCSPON $CHAR10. /\* HXu - The following 11 variables are added on 08/01/2007 \*/

@620 D\_UPDT $CHAR8.

@629 C\_ADDR1 $CHAR40.

@670 C\_ADDR2 $CHAR40.

@711 C\_ADDR3 $CHAR40.

@752 C\_CITY $CHAR20.

@773 C\_HMFON $CHAR14.

@788 C\_NAME1 $CHAR20.

@809 C\_NAME2 $CHAR26.

@836 C\_STATE $CHAR2.

@839 C\_UPDT $CHAR8.

@848 C\_ZIP $CHAR5.

;

DROP FILLER1-FILLER3;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* LABEL variables

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

LABEL

SPONSSN = "Sponsor SSN"

SPDUPID = "Family Sequence Number"

PNTYPCD = "Person Type Code"

PNID = "Person SSN"

PNBRTHDT = "Person Birth Date"

MRTLSTAT = "Marital Status"

PNSEXCD = "Person Gender"

MDCABRSN = "Medicare A Begin Reason Code"

MDCAEFDT = "Medicare A Effective Date"

MDCAEXDT = "Medicare A Expiration Date"

PNLCATCD = "Personnel Category Code (Duty Status)"

SVCCD = "Branch of Service"

PAYPLNCD = "Pay Plan Code"

PGCD = "Pay Grade"

MBRRELCD = "Member Relationship Code"

MALN1TX = "Residential Address, Line 1"

MALN2TX = "Residential Address, Line 2"

MACITYNM = "Residential Address, City"

MASTCD = "Residential Address, State"

MACTRYCD = "Residential Address, Country"

MAPRZIP = "Residential Address, ZIP Code"

MAPRZIPX = "Residential Address, ZIP Code Extension"

HADDFLG = "Residential Address Flag"

TNUMCD = "Residence Telephone Number"

PNLSTNM = "Person Last Name"

PN1STNM = "Person First Name"

PNCDNCY = "Person Generation (Cadency)"

RANKCD = "Rank Code"

ULOCGRN = "Unit Region"

ULOCDMIS = "Unit DMISID"

RACEETHN = "Race/Ethnic Code"

DCATCH = "Catchment Area"

DMEDELG = "Medical Privlege Code"

DAGEQY = "Age (As of June 30, 2009)" /\*For Q1FY2010\*/

DBENCAT = "Beneficiary Category"

DPRISM = "PRISM (20 mile) clinic service area"

DHSRGN = "Health Service Region"

DSPONSVC = "Derived Sponsor Branch of Service"

MEDTYPE = "Medicare Type"

UICADD1 = "Unit Address, Line 1"

UICADD2 = "Unit Address, Line 2"

UICCITY = "Unit Address, City"

UICST = "Unit Address, State"

UICZIP = "Unit Address, ZIP Code"

UADDFLG = "Unit Address Flag"

SPLN1TX = "Sponsor Address, Line 1"

SPLN2TX = "Sponsor Address, Line 2"

SPCITYNM = "Sponsor Address, City"

SPSTCD = "Sponsor Address, State"

SPCTRYCD = "Sponsor Address, Country"

SPPRZIP = "Sponsor Address, ZIP Code"

SPPRZIPX = "Sponsor Address, ZIP Code Extension"

SADDFLG = "Sponsor Address Flag"

SPTNUMCD = "Sponsor Telephone Number"

ENRID = "Enrollment DMISID"

ACV = "Alternate Care Value"

PCM = "Primary Manager Code (CIV or MIL)"

PATCAT = "Aggregated Beneficiary Category"

TNEXREG = "Beneficiary's TNEX Region"

PTNT\_ID = "unique Patient ID"

PRRECFLG = "Primary Record Identifier/Flag"

DMDCSPON = "DMDC Sponsor EDI PN"

D\_UPDT = "DEERS LAST UPDATE DATE"

C\_ADDR1 = "CHCS MAILING ADDRESS LINE 1"

C\_ADDR2 = "CHCS MAILING ADDRESS LINE 2"

C\_ADDR3 = "CHCS MAILING ADDRESS LINE 3"

C\_CITY = "CHCS CITY"

C\_HMFON = "CHCS HOME TELEPHONE NUMBER"

C\_NAME1 = "CHCS FIRST NAME"

C\_NAME2 = "CHCS LAST NAME"

C\_STATE = "CHCS STATE"

C\_UPDT = "CHCS LAST UPDATE DATE"

C\_ZIP = "CHCS ZIP CODE"

;

RECODER.SAS

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* PROGRAM: RECODER.SAS

\* TASK: DOD Health Care Survey, Sampling (6407-275 temporary Ad-hoc task number)

\* PURPOSE: Randomly/Proportionally Assign Missing Region

\* WRITTEN: SKY A.

\* INPUT : DEERS001-DEERS004

\* OUTPUT : DEERS001-DEERS004

\* Updated: Sabrina R. for Q2FY2009 Sampling

\* Sabrina R. for Q4FY2009 Sampling

Background of Recorder SAS:

--------------------------

DHSRGN (Geographical Region of Military Health Region) and TNEXRGN

(Military Health Service Region) should be consistent. In some cases,

we had missing region (DHSRGN=16). System, put those cases with 'Oconus'.

01/08: We noticed problem with our Geographic Assignment.

\* None of the global remote people should be under PCM='MTF'

\* It looks like the PCM='CIV' variable is not correctly defined for overseas beneficiaries.

\* The global remote folks (acv in (B,F)) to civilian pcm, some DMISIDs are not supposed to be CIV

Please see the old emailin :

L:\Q1FY2010\Programs\Sampling\FW: check the oversea beneficiries who use the civilian providers for q3fy2008

for detail

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

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

%LET QUARTER=Q1FY2010;

LIBNAME IN "K:\&QUARTER.";

LIBNAME OUT "K:\&QUARTER.";

TITLE1 "DOD Health Care Survey, Sampling (6401-902)";

TITLE2 "PROGRAM: RECODER.SAS";

TITLE3 "OUTPUT: DEERS001-DEERS004";

DATA deers;

SET IN.deers001 IN.deers002 IN.deers003 IN.deers004;

TNEXREG\_OLD=TNEXREG;

Run;

\*Amang suggested to add from Q1FY2010;

Title4 ' Checks Freq in DEERS Data before Changing TNEXREG';

Title5 ' (Checks for Amang) ';

Proc Freq data=deers;

tables TNEXREG\_OLD\*MASTCD\*DHSRGN/LIST MISSING;

tables TNEXREG\_OLD\*DHSRGN\*ACV\*PCM/LIST MISSING;

RUN;

DATA deers;

\*SET IN.deers001 IN.deers002 IN.deers003 IN.deers004;

SET deers;

\*TNEXREG\_OLD=TNEXREG;

IF DHSRGN='16' and MASTCD IN ('CA','OR','WA','ID','MT','CO','ND','SD'

'MN','IA','MO','NE','KS','WY','AZ','NM','UT','NV','HI','AK') then TNEXREG='W';

ELSE IF DHSRGN='16' and MASTCD IN ('TX','OK','AR','LA','TN','AL','MS','GA','SC','FL') then TNEXREG='S';

ELSE IF DHSRGN='16' and MASTCD IN ('WI','IL','MI','IN','KY','OH','WV','PA','VA','NC'

'DC','MD','DE','NJ','NY','CT','RI','MA','VT','NH','ME') then TNEXREG='N';

ELSE IF DHSRGN='16' and MASTCD NOT IN ('99','XX','US',' ') THEN TNEXREG='O';

ELSE IF DHSRGN='16' and MACTRYCD NOT IN (' ','US','XX') then TNEXREG='O';

ELSE IF DHSRGN='16' then TNEXREG=' ';

/\*moves those in western Texas to West region\*/

ZIP\_TEMP=MAPRZIP;

if ZIP\_TEMP>'79770' AND MASTCD='TX' and DHSRGN='16' then TNEXREG='W';

IF ACV = 'Z' THEN PCM = ' ';

ELSE IF ('6900' < ENRID <= '6919' OR

'7900' < ENRID <= '7919' OR

'8000' < ENRID < '8090' OR

'0190' <= ENRID <= '0199' OR

ACV IN ('B','F') )

THEN PCM='CIV';

ELSE PCM='MTF';

randomnum=uniform(4353623);

if ACV='R' then grp\_temp=0;

else if PATCAT='ACTDTY' or (dageqy<65 and PCM='MTF') then grp\_temp=1;

else if dageqy<65 and pcm='CIV' then grp\_temp=2;

else if dageqy<65 and pcm=' ' then grp\_temp=3;

else if dageqy>=65 and ACV in ('L', 'G') then grp\_temp=4;

else grp\_temp=5;

run;

/\*check Texas recode \*/

Title4 'Checks Texas recode';

proc freq data=deers;

table zip\_temp\*tnexreg /list missing;

where mastcd='TX' and DHSRGN='16';

run;

Title4 "Freq of TNEXREG where grp\_temp=0 and tnexreg~=' '";

proc freq data=deers;

table tnexreg/ out=counts0;

where grp\_temp=0 and tnexreg~=' ';

run;

proc transpose data=counts0 out=counts0;

id tnexreg;

run;

data counts0;

set counts0;

if \_name\_='COUNT' then delete;

grp\_temp=0;

north=N/100;

oconus=(N+O)/100;

south=(N+O+S)/100;

run;

Title4 "Freq of TNEXREG where grp\_temp=1 and tnexreg~=' '";

proc freq data=deers;

table tnexreg/ out=counts1;

where grp\_temp=1 and tnexreg~=' ';

run;

proc transpose data=counts1 out=counts1;

id tnexreg;

run;

data counts1;

set counts1;

if \_name\_='COUNT' then delete;

grp\_temp=1;

north=N/100;

oconus=(N+O)/100;

south=(N+O+S)/100;

run;

Title4 "Freq of TNEXREG where grp\_temp=2 and tnexreg~=' '";

proc freq data=deers;

table tnexreg/ out=counts2;

where grp\_temp=2 and tnexreg~=' ';

run;

proc transpose data=counts2 out=counts2;

id tnexreg;

run;

data counts2;

set counts2;

if \_name\_='COUNT' then delete;

grp\_temp=2;

north=N/100;

oconus=(N+O)/100;

south=(N+O+S)/100;

run;

Title4 "Freq of TNEXREG where grp\_temp=3 and tnexreg~=' '";

proc freq data=deers;

table tnexreg/ out=counts3;

where grp\_temp=3 and tnexreg~=' ';

run;

proc transpose data=counts3 out=counts3;

id tnexreg;

run;

data counts3;

set counts3;

if \_name\_='COUNT' then delete;

grp\_temp=3;

north=N/100;

oconus=(N+O)/100;

south=(N+O+S)/100;

run;

Title4 "Freq of TNEXREG where grp\_temp=4 and tnexreg~=' '";

proc freq data=deers;

table tnexreg/ out=counts4;

where grp\_temp=4 and tnexreg~=' ';

run;

proc transpose data=counts4 out=counts4;

id tnexreg;

run;

data counts4;

set counts4;

if \_name\_='COUNT' then delete;

grp\_temp=4;

north=N/100;

oconus=(N+O)/100;

south=(N+O+S)/100;

run;

Title4 "Freq of TNEXREG where grp\_temp=5 and tnexreg~=' '";

proc freq data=deers;

table tnexreg/ out=counts5;

where grp\_temp=5 and tnexreg~=' ';

run;

proc transpose data=counts5 out=counts5;

id tnexreg;

run;

data counts5;

set counts5;

if \_name\_='COUNT' then delete;

grp\_temp=5;

north=N/100;

oconus=(N+O)/100;

south=(N+O+S)/100;

run;

data counts (keep=grp\_temp north oconus south);

set counts0 counts1 counts2 counts3 counts4 counts5;

run;

data deers1;

set deers;

where tnexreg=' ';

run;

data deers2;

set deers;

where tnexreg~=' ';

run;

proc sort data=deers1;

by grp\_temp;

where tnexreg=' ';

run;

proc sort data=counts;

by grp\_temp;

run;

data deers1;

merge deers1 (in=A) counts (in=B);

by grp\_temp;

if A and B;

if randomnum<north then tnexreg='N';

else if randomnum<oconus then tnexreg='O';

else if randomnum<south then tnexreg='S';

else tnexreg='W';

run;

title4 'FREQ of those not yet assigned a TNEX';

proc freq data=deers1;

table mastcd\*mactrycd\*tnexreg /list missing;

run;

data deers;

set deers1 deers2;

run;

proc sort data=deers;

by ptnt\_id;

run;

data OUT.DEERS001 OUT.DEERS002 OUT.DEERS003 OUT.DEERS004;

set deers;

IF \_N\_ LE 2250000 THEN OUTPUT OUT.DEERS001;

ELSE IF \_N\_ LE 4500000 THEN OUTPUT OUT.DEERS002;

ELSE IF \_N\_ LE 6750000 THEN OUTPUT OUT.DEERS003;

ELSE OUTPUT OUT.DEERS004;

run;

title4 'FREQ of FINAL DEERS 001-004';

title5 " where DHSRGN = '16' ";

proc freq data=deers;

table mastcd\*mactrycd\*tnexreg/list missing;

where dhsrgn='16';

run;

/\*check overall recode \*/

title4 ' Checks Overall Recode: ';

title5 ' Cross Freq of OLD and NEW TNEXREG ';

proc freq data=deers;

table tnexreg\_old \* tnexreg /list missing;

run;

XWALK.SAS

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* PROGRAM: XWALK.SAS

\* TASK: 2010 DOD Health Care Survey, Adult Sampling (6407-275 temporary Ad-hoc task number)

\*

\* PURPOSE: Build SAS extract/cross-walk file for the DOD sample

\* and assign permanent random numbers (PRN).

\*

\* WRITTEN: 01/17/2001 BY KEITH RATHBUN

\*

\* MODIFIED:

\* 1) 02/08/2001 BY KEITH RATHBUN for Q3 processing. Also, added

\* specific family exclusion criteria as include file.

\* 2) 07/09/2001 BY KEITH RATHBUN for Q4 processing. Removed Q3-specific

\* processing.

\* 3) 10/09/2001 BY KEITH RATHBUN for Q1 2002 processing.

\* 4) 01/22/2002 BY KEITH RATHBUN for Q2 2002 processing.

\* 5) 04/10/2002 BY KEITH RATHBUN for Q3 2002 processing.

\* 6) 07/03/2002 BY KEITH RATHBUN for Q4 2002 processing.

\* 7) 10/14/2002 BY KEITH RATHBUN for Q1 2003 processing.

\* 8) 01/14/2003 BY KEITH RATHBUN for Q2 2003 processing.

\* 9) 04/10/2003 BY KEITH RATHBUN for Q3 2003 processing.

\* 10) 07/10/2003 BY KEITH RATHBUN for Q4 2003 processing.

\* 11) 10/10/2003 BY DAWN FERRAGAMO for Q1 2004 processing.

\* 12) 01/13/2004 BY KEITH RATHBUN for Q2 2004 processing.

\* 13) 06/29/2004 BY KEITH RATHBUN for q4 2004 processing.

\* Added PTNT\_ID to XWALK file.

\* 14) 10/06/2004 BY KEITH RATHBUN for Q1 2005 processing.

\* 15) 07/13/2005 BY REGINA GRAMSS for Q4 2005 processing: point to use

\* STI files (1-4) from Q3 that was used for Child resampling.

\* 16) 07/19/2005 BY REGINA GRAMSS for Q4 2005 processing: exclude ptnt\_id

\* that are in death file (received from STI 7/19/2005).

\* 17) 10/14/2005 BY KEITH RATHBUN for Q1 2006 processing: Removed code

\* relating to death file provided in previous quarter.

\* 18) 11/09/2005 BY REGINA GRAMSS for Q1 2006 - needed to add in KATRINA hit

\* areas that was left out of the original frame file sent in Oct 2005.

\* KATRINA file was created in LAYOUT\_KATRINA.SAS, producing STI005.SD2 file.

\* 19) 01/23/2006 BY KEITH RATHBUN for Q2 2006 processing.

\* 20) 04/14/2006 BY KEITH RATHBUN for Q4FY2006 processing.

\* Added COMPRESS=YES option.

\* 21) 10/18/2006 BY SKY ANDRECHECK for Q2 2007 processing. Changed input files to

\* DEERS instead of old contractor name (STI).

\* 22) 05/04/2007 By H Xu for Q4FY2007 sampling.

\* Since legddscd is no longer available, we will use PTNT\_ID alone as merging ID in xwalk.

\* Q3 xwalk will be deduped by ptnt\_id, and eligibility indicators E1-E26 will be consolidated.

\* 23) 07/23/2007 for q1fy2008 sampling.

\* From q1FY2008, put all active duty in the adult sample regardless of their age.

\* 24) 12/06/2007 By Keith Rathbun for Collateral Access Analysis project. Added

\* survey to keep track of which new records are added for which survey.

\* 25) 05/02/2007 By S. Rahman for Q4FY2008 sampling (Adult).

\* 26) 07/31/2008 By S. Rahman for Q1FY2009 sampling (Adult).

\* 27) 07/31/2008 By S. Rahman for Q1FY2009 sampling (Adult).

\* 28) 10/31/2008 By S. Rahman for Q2FY2009 sampling (Adult). (6401-902)

\* 29) 03/30/2009 By Keith Rathbun for Q4FY2009 sampling (Adult).

\*

\* INPUTS:

\* 1) DEERS001.sas7bdat - DEERS Population SAS data set (Part 1)

\* 2) DEERS002.sas7bdat - DEERS Population SAS data set (Part 2)

\* 3) DEERS003.sas7bdat - DEERS Population SAS data set (Part 3)

\* 4) DEERS004.sas7bdat - DEERS Population SAS data set (Part 4)

\* 5) XWALK.sas7bdat - Previous DEERS Population XWALK SAS data set

\*

\* OUTPUTS:

\* 1) XWALK.sas7bdat - Current DEERS Population XWALK SAS data set

\* 2) SEED.sas7bdat - DEERS Random SEED SAS data set

\*

\* INCLUDES:

\* 1) EXCLUDE.SAS - Exclude specific family by SPONSSN and PTNT\_ID.

\*

\* NOTES:

\* 1) Under the new contract (8860), the suvey year was changed

\* to be based on the year the survey is administered (2002)

\* as opposed to the questioning reference frame (2001). This program

\* references folders named according to the new convention [i.e.

\* the survey administration year (2002 for project 8860)].

\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

LIBNAME IN1 V8 'K:\Q4FY2009'; \* Previous XWALK;

LIBNAME IN2 'K:\Q1FY2010'; \* Current Contractor DEERS Files;

LIBNAME OUT 'K:\Q1FY2010'; \* Current Output;

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

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Set period number as global variable.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%LET PD = 36; \* Q1FY2010 <Incrase by 1 every quarter> ;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Set survey as global variable.

\* Change to HCSDB or CollateralAccess.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%LET SURVEY = HCSDB;

TITLE1 "Generate XWALK file from DOD DEERS Population Extract File";

TITLE2 "Program Name: XWALK.SAS";

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Assign random SEED as global variable. This will later be used as the

\* starting point for random numbering.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA OUT.SEED;

SEED = INT(RANUNI(0)\*1000000+1);

CALL SYMPUT("SEED",SEED);

PUT "Random SEED assigned for generating the permanent radom numbers: " SEED;

RUN;

TITLE3 "Random SEED assigned for generating the permanent radom numbers: SEED.sas7bdat";

PROC PRINT; RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Assign LASTID from previous XWALK file as global variable. This will later

\* be used as the starting point for assigning new MPRIDs.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA \_NULL\_;

SET IN1.XWALK END=FINISHED;

LENGTH MPRIDX 8; RETAIN MPRIDX;

IF MPRID > MPRIDX THEN MPRIDX = MPRID;

IF FINISHED THEN CALL SYMPUT("LASTID",MPRIDX);

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Get PTNT\_ID from current quarter tape file.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%MACRO SORTIT(NUM=);

PROC SORT DATA=IN2.DEERS&NUM (KEEP=SPONSSN PNTYPCD PATCAT DBENCAT MBRRELCD DAGEQY PNBRTHDT PTNT\_ID) OUT=DEERS&NUM;

BY PTNT\_ID;

RUN;

%MEND SORTIT;

%SORTIT(NUM=001);

%SORTIT(NUM=002);

%SORTIT(NUM=003);

%SORTIT(NUM=004);

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Remove children (<18) prior to assigning permanent random number (PRN).

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA PID\_Q;

SET DEERS001

DEERS002

DEERS003

DEERS004

;

BY PTNT\_ID;

IF (PATCAT = 'ACTDTY') OR DAGEQY GE "018" OR (DAGEQY = " " AND NOT (PNTYPCD ='D' AND MBRRELCD in ('C','D','E')) );

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Update EXCLUDE.SAS if contractor failed to remove all duplicates.

\* Exclude specific families from survey.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%INCLUDE "EXCLUDE.SAS";

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Combine Qn PTNT\_ID with previous XWALK, keeping only the

\* new eligibles (PID\_NEW).

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA PID\_NEW OLDXWALK;

MERGE PID\_Q(IN=IN1 KEEP=PTNT\_ID) IN1.XWALK(IN=IN2);

BY PTNT\_ID;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Assign eligibility indicator for new eligibles.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

LENGTH E&PD $1;

IF IN1 THEN E&PD = "Y";

ELSE IF IN2 THEN E&PD = "N";

LENGTH SURVEY $25; \* KRR Added SURVEY 12/06/2007;

IF IN1 AND NOT IN2 THEN DO;

SURVEY = "&SURVEY";

OUTPUT PID\_NEW;

END;

IF IN2 THEN OUTPUT OLDXWALK;

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Assign PRN for all new eligibles.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA NEWXWALK (KEEP=MPRID PRN PTNT\_ID E&PD SURVEY);

SET PID\_NEW;

LENGTH MPRID $8;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Assign PRN for new eligibles.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

PRN = RANUNI(&SEED);

LABEL PRN = "Permanent Random Number";

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Assign MPRID starting with previous XWALKs LASTID+1.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

IF \_N\_ = 1 THEN MPRIDX = %EVAL(&LASTID+1);

ELSE MPRIDX + 1; RETAIN MPRIDX;

MPRID = PUT(MPRIDX,Z8.);

RUN;

%MACRO XWALK;

DATA OUT.XWALK;

SET NEWXWALK OLDXWALK;

BY PTNT\_ID;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Recode missing values to Not eligible.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%DO I = 1 %TO &PD;

IF E&I = " " THEN E&I = "N";

LABEL E&I = "Eligibility indicator for period = &I";

%END;

RUN;

%MEND XWALK;

%XWALK;

TITLE3 "XWALK file: XWALK.sas7bdat";

PROC CONTENTS; RUN;

PROC FREQ; \* Most recent 2-year crosstab;

TABLES SURVEY E1-E&PD E29\*E30\*E31\*E32\*E33\*E34\*E35\*E36 /MISSING LIST;

RUN;

DUPCHECK.SAS

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*

\* PROGRAM: DUPCHECK.SAS

\* TASK: DOD Health Care Survey, Sampling (6407-275 temporary Ad-hoc task number)

\* PURPOSE: Check cross-walk file for duplicate permanent random numbers (PRN).

\*

\* WRITTEN: 01/19/2001 BY KEITH RATHBUN

\*

\* MODIFIED: 1) 04/10/2002 BY KEITH RATHBUN, Added duplicate checking and

\* notes for Child Population XWALK checking.

\* 2) 01/29/2008 BY KEITH RATHBUN, Removed printing of duplicates.

3) 04/30/2008 bY SABRINA RAHMAN, duplicate checking in PRN

\* 4) 10/31/2008 By S. Rahman for Q2FY2009 Sampling (Adult) (6401-902)

\* 4) 07/15/2009 By S. Rahman for Q1FY2010 Sampling (Adult)

\*

\* INPUTS:

\* 1) XWALK.sas7bdat - DEERS Adult Population XWALK SAS data set

\* 2) XWALKC.SD2 - DEERS Child Population XWALK SAS data set

\*

\* OUTPUTS: None

\*

\* NOTES:

\* 1) Since the XWALK.SAS program is run each quarter to append new eligibles

\* to the previous quarters XWALK.SD2, this program needs to be run just

\* to be sure that duplicate PRNs have not been created. It is highly

\* unlikely that the XWALK.SAS program will generate duplicate PRNs;

\* however, we must be sure that there are in fact no duplicates.

\* 2) Since the XWALKC.SAS program is run each year to append new eligibles

\* to the previous years XWALKC.SD2, this program needs to be run just

\* to be sure that duplicate PRNs have not been created. It is highly

\* unlikely that the XWALKC.SAS program will generate duplicate PRNs;

\* however, we must be sure that there are in fact no duplicates.

\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%LET QUARTER=Q1FY2010;

LIBNAME IN "K:\&QUARTER.";

OPTIONS PS=79 LS=132 COMPRESS=NO NOCENTER;

TITLE1 "Check cross-walk file for duplicate permanent random numbers (PRN).";

TITLE2 "Program Name: DUPCHECK.SAS";

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Check for duplicate PRNs. If duplicates are found, then the XWALK.SAS

\* and/or XWALKC.SAS programs will need to be rerun until this program

\* detects no duplicates.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

PROC SORT DATA=IN.XWALK OUT=DUPCHECK NODUPKEY; BY PRN; RUN;

/\* PROC SORT DATA=IN.XWALKC OUT=DUPCHECK NODUPKEY; BY PRN; RUN; \*/

EXTRACT.SAS

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*

\* PROGRAM: EXTRACT.SAS

\* TASK: DOD Health Care Survey, Sampling (6407-275 temporary Ad-hoc task number)

\* PURPOSE: Build SAS extract file for the DOD sample

\*

\* WRITTEN: 10/19/2000 BY KEITH RATHBUN

\*

\* MODIFIED:

\* 1) 01/18/2001 BY KEITH RATHBUN - Small changes for Q2 processing.

\* Removed sorting of XWALK and EXTRACT files by MPRID.

\* 2) 02/08/2001 BY KEITH RATHBUN - Small changes for Q3 processing.

\* Added specific family exclusion criteria as include file.

\* 3) 07/09/2001 BY KEITH RATHBUN for Q4 processing.

\* 4) 10/09/2001 BY KEITH RATHBUN for Q1 2002 processing.

\* 5) 01/22/2002 BY KEITH RATHBUN for Q2 2002 processing.

\* 6) 04/23/2002 BY KEITH RATHBUN for Q3 2002 processing and removed TSPSITE.

\* 7) 07/22/2002 BY KEITH RATHBUN for Q4 2002 processing.

\* 8) 10/14/2002 BY KEITH RATHBUN for Q1 2003 processing.

\* 9) 01/14/2003 BY KEITH RATHBUN for Q2 2003 processing. Added address

\* flags (SADDFLG, HADDFLG, UADDFLG) and zip code (MAPRZIP) to

\* the extract file.

\* 10) 04/10/2003 BY KEITH RATHBUN for Q3 2003 processing.

\* 11) 07/10/2003 BY KEITH RATHBUN for Q4 2003 processing.

\* 12) 10/10/2003 BY DAWN FERRAGAMO added TNEXREG for Q1 2004.

\* 13) 01/13/2004 BY KEITH RATHBUN for Q2 2004 processing.

\* 14) 06/29/2004 BY KEITH RATHBUN for Q4 2004 processing.

\* Added PTNT\_ID, PRRECFLG, PNBRTHDT, PN1STNM, PNLSTNM, and PNID

\* to extract file. Removed PNARSNCD from extract

\* file since it is no longer being provided by STI.

\* 15) 10/06/2004 BY KEITH RATHBUN for Q1 2005 processing.

\* 16) 01/13/2005 BY REGINA GRAMSS add codes to construct PATCAT values for

\* inactive guard DBENCAT values. This should be removed for next

\* quarter since STI will take care of it for Q3 2005.

\* 17) 01/19/2005 BY REGINA GRAMSS added codes to replace ENRID and ACV

\* field with new values sent by STI. This was done to remedy

\* several thousand missing values found in ENRID. This code should

\* only be done this quarter and should not have to be run in Q3.

\* 18) 07/12/2005 BY REGINA GRAMSS used STI files from Q3 2005 Child resampling.

\* 19) 07/21/2005 BY REGINA GRAMSS saved original PCM value as PCM\_OLD, then

\* reassign PCM according to ACV and ENRID.

\* 20) 07/12/2005 BY KEITH RATHBUN for Q1 2006 processing.

\* 21) 10/17/2005 BY REGINA GRAMSS changed Civilian ENRID codes according to

\* DEERS DICTIONARY.

\* 22) 11/09/2005 BY REGINA GRAMSS, added in Katrina supplement file (STI005.SD2)

\* and also create flag to indicate which records were from the supplement file.

\* This should only be done for this quarter. Additionally, use original frame

\* file with extension "A" in the name - these are files where the duplicates/overlap

\* records (records in both original frame and Katrina files) were eliminated.

\* Again, this should only be done for this quarter.

\* 23) 01/23/2006 BY KEITH RATHBUN for Q2 2006 processing: Removed Katrina-related

\* code and PCM recode. PCM was corrected by STI for Q2 2006.

\* 24) 10/18/2006 BY SKY ANDRECHECK for Q2 2007 processing. Changed input files to

\* DEERS instead of old contractor name (STI).

\* 25) 05/07/2007 By H Xu for Q4FY2007 sampling.

\* Used PTNT\_ID as merging ID. Also output extract file to the restircited folder

\* 26) 07/23/2007 for q1fy2008 sampling.

\* From q1FY2008, put all active duty in the adult sample regardless of their age.

\* 27) 12/06/2007 By KEITH RATHBUN for Collateral Analysis task (6401): Added

\* DPRISM and MAPRZIPX variables to the extract.

\* 28) 12/10/2007 By KEITH RATHBUN for Q3FY2008. Moved IFs for PTNT\_ID deletions

\* into the EXCLUDE.SAS program.

\* 29) 10/22/2008 By S. Rahman for Q2FY2009 sampling (Adult). (6401-902)

\* 29) 10/22/2008 By S. Rahman for Q4FY2009 sampling (Adult). (6401-902)

\*

\* INPUTS:

\* 1) DEERS001.sas7bdat - DEERS Population SAS data set (Part 1)

\* 2) DEERS002.sas7bdat - DEERS Population SAS data set (Part 2)

\* 3) DEERS003.sas7bdat - DEERS Population SAS data set (Part 3)

\* 4) DEERS004.sas7bdat - DEERS Population SAS data set (Part 4)

\* 5) XWALK.sas7bdat - DEERS Population XWALK SAS data set (sorted by PTNT\_ID)

\*

\* OUTPUTS:

\* 1) EXTRACT.sas7bdat - DEERS Population EXTRACT SAS data set (complete - sorted by PTNT\_ID)

\*

\* INCLUDES:

\* 1) EXCLUDE.SAS - Exclude specific family by SPONSSN and PTNT\_ID.

\*

\* NOTES:

\* 1) Under the new contract (8860), the suvey year was changed

\* to be based on the year the survey is administered (2002)

\* as opposed to the questioning reference frame (2001). This program

\* references folders named according to the new convention [i.e.

\* the survey administration year (2002 for project 8860)].

\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%LET QUARTER=Q1FY2010;

LIBNAME IN "K:\&QUARTER."; /\*DEERS001-DEERS004, xwalk\*/

LIBNAME OUT "K:\&QUARTER."; /\*EXTRACT\*/

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER mergenoby=error;

%LET PD = 36; \* <Increment by 1 every quarter> 36 FOR Q1FY2010;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Extract key sampling variables.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%MACRO SORTIT(NUM=);

PROC SORT DATA=IN.DEERS&NUM

(KEEP=SPONSSN PNTYPCD MRTLSTAT PNSEXCD

MDCABRSN MDCAEFDT MDCAEXDT DPRISM

PNLCATCD SVCCD PAYPLNCD

PGCD MBRRELCD RANKCD ULOCGRN

ULOCDMIS RACEETHN DCATCH DMEDELG

DAGEQY DBENCAT DPRISM DHSRGN

DSPONSVC MEDTYPE ENRID ACV

PCM PATCAT SADDFLG HADDFLG

UADDFLG MAPRZIP MAPRZIPX TNEXREG PTNT\_ID

PNBRTHDT PN1STNM PNLSTNM PNID PRRECFLG)

OUT=DEERS&NUM;

BY PTNT\_ID;

RUN;

%MEND SORTIT;

%SORTIT(NUM=001);

%SORTIT(NUM=002);

%SORTIT(NUM=003);

%SORTIT(NUM=004);

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Remove children (<18) and exclude specific families.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA EXTRACT;

SET DEERS001

DEERS002

DEERS003

DEERS004;

BY PTNT\_ID;

IF (PATCAT = 'ACTDTY') OR DAGEQY GE "018" OR (DAGEQY = " " AND NOT (PNTYPCD ='D' AND MBRRELCD in ('C','D','E')) );

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Add code to EXCLUDE.SAS if contractor failed to remove all duplicates.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%INCLUDE "EXCLUDE.SAS";

RUN;

DATA OUT.EXTRACT;

MERGE IN.XWALK(IN=IN1) EXTRACT(IN=IN2);

BY PTNT\_ID;

IF IN1 AND IN2;

RUN;

TITLE1 "Build SAS EXTRACT file for the DOD sample";

TITLE2 "Program Name: EXTRACT.SAS";

TITLE3 "CONTENTS of extract file";

PROC CONTENTS DATA=OUT.EXTRACT; RUN;

TITLE3 "FREQS of key variables - DEERS adult population extract: EXTRACT.sas7bdat";

PROC FREQ DATA=OUT.EXTRACT;

TABLES

E1-E&PD.

E20\*E21\*E22\*E23\*E24\*E25\*E26\*E27\*E28\*E29\*E30\*E31\*E32\*E33\*E34\*E35\*E36

/\*E36 for Q1FY2010\*/

TNEXREG

PRRECFLG

PNTYPCD

MRTLSTAT

PNSEXCD

MDCABRSN

PNLCATCD

SVCCD

PAYPLNCD

PGCD

MBRRELCD

RANKCD

ULOCGRN

ULOCDMIS

RACEETHN

DCATCH

DMEDELG

DAGEQY

DBENCAT

DPRISM

DHSRGN

DSPONSVC

MEDTYPE

ENRID

ACV

PCM

PATCAT

SADDFLG

HADDFLG

UADDFLG

DPRISM

PCM\*ACV\*ENRID

/MISSING LIST;

RUN;

**FRAMEA\_PRELIM.SAS**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\* Project: 2009 Health Care Survey of DoD Beneficiaries - Adult

\*\*\* Purpose: Create the sampling frame for the adult survey.

\*\*\* Program: L:\Q4FY2009\Programs\Sampling\framea\_prelim.sas

\*\*\*

\*\*\* Inputs: extract.sd2: Extracted DoD data set used to create the adult sampling frame.

\*\*\* tma.sas7bdat: DMIS information

\*\*\* frame.inc: Include file

\*\*\*

\*\*\* Outputs: framea\_Prelim.sd7 : Preliminary adult sampling frame created from the extracted DoD data set.

\*\*\* TMA2.sd2

\*\*\*

\*\*\* Written: Haixia Xu on 08/15/2006

\*\*\* Modified:10/22/2008 By S. Rahman for Q2FY2009 sampling (Adult). (6401-902)

\*\*\*

\*\*\* Note: 1)The stratification is changed in Q1FY2007.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

options ls=132 ps=79 compress=yes nocenter;\* mprint mlogic symbolgen;

%LET QUARTER=Q1FY2010;

\*Listdmis: Need to check if there is any updated file available;

libname in1 v8 "K:\&QUARTER."; /\* Extract.sas7bdat\*/

libname in2 v8 "L:\&QUARTER.\Data\Afinal"; /\* TMA.sas7bdat, Listdmis.sas7bdat \*/

libname out v8 "L:\&QUARTER.\Data\Afinal"; /\* Framea\_prelim.sas7bdat\*/

%let folder=L:\&QUARTER.\Programs\Sampling;

title1 "Program: FRAMEA\_PRELIM.SAS";

title2 "Purpose: Construct Adult Sampling Frame, FRAMEA.SD2";

title3 "From the 2010 Quarterly DOD Extract File, EXTRACT.SD2";

proc format;

value $FMTage ' '='Missing'

'001'-'064' ='<65'

'065'-high ='>=65'

other='other';

value FMTprn 0 - 0.25 = '[0,0.25]'

0.25 <- 0.50 = '(0.25-0.50]'

0.50 <- 0.75 = '(0.50-0.75]'

0.75 <- 1 = '(0.75-1.00]';

run;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Check some variables in the extract file

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

data frame;

set in1.extract

(keep=mprid prn enrid dcatch pcm patcat dageqy acv pntypcd pnlcatcd pnsexcd svccd TNEXREG PRRECFLG);

run;

title4 "Freq of PRRECFLG in the frame";

proc freq data=frame;

tables PRRECFLG/ missing list;

run;

title4 "Freq of dageqy patcat\*pcm patcat\*pcm\*acv patcat\*dageqy pcm\*patcat\*dageqy\*acv";

proc freq data=frame;

tables dageqy patcat\*pcm patcat\*pcm\*acv patcat\*dageqy pcm\*patcat\*dageqy\*acv/missing list;

format dageqy $FMTage.;

run;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Assign com\_geo

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

data TMA (keep = geocell d\_par d\_fac d\_instal d\_health d\_dmis servaff);

set in2.TMA;

rename facility\_type\_code=d\_fac installation\_name=d\_instal dmis\_facility\_name=d\_dmis facility\_service\_code=servaff ;

length d\_par $4.;

d\_par = DMIS\_PARENT\_ID;

length geocell $4.;

geocell = DMIS\_ID;

length d\_health $2.;

d\_health = HEALTH\_SERVICE\_REGION;

run;

title4 "Freq of servaff, d\_fac in TMA spreadsheet";

proc freq data=TMA;

tables servaff d\_fac/missing list;

run;

proc sort nodupkey data=TMA;

by geocell;

run;

%include "&folder.\frame.inc";

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Create the reporting MTFs

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

\*listdmis is from Eric. It contains the reporting MTFs;

title4 "Contents of listdmis.sd2";

proc contents data=in2.listdmis; run;

title4 "Freq of dmis";

proc freq data=in2.listdmis;

tables dmis/missing list;

run;

data listdmis;

set in2.listdmis(keep=dmis);

com\_geo=put(dmis, z4.);

run;

title4 "Freq of com\_geo\*dmis";

proc freq data=listdmis;

table com\_geo\*dmis/missing list;

run;

proc sort data=listdmis; by com\_geo; run;

proc sort data=t\_frame; by com\_geo; run;

data merged both only1 only2 problem;

merge t\_frame(in=A) listdmis(in=B);

by com\_geo;

R\_MTF=0;

if A and B then R\_MTF=1;

if A then output merged;

if A and B then output both;

else if A and not B then output only1;

else if B and not A then output only2;

else output problem;

run;

title4 "dmis in the reporting MTF list, but not in the frame";

proc print data=only2;

var com\_geo;

run;

title4 "List of reporting MTFs in the merged frame";

proc freq data=merged;

tables com\_geo/missing list;

where R\_MTF=1;

run;

title4 "Check R\_MTF";

proc freq data=merged;

tables R\_MTF/missing list;

run;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Create enbgsmpl

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

data merged;

set merged;

select (patcat);

when ('ACTDTY') enbgsmpl='01';

when ('DEPACT') do;

select (pcm);

when ('CIV') enbgsmpl='02';

when ('MTF') enbgsmpl='03';

when (' ') enbgsmpl='04';

otherwise enbgsmpl='c';

end;

end;

when ('NADD<65') do;

select (pcm);

when ('CIV') enbgsmpl='05';

when ('MTF') enbgsmpl='06';

when (' ') enbgsmpl='07';

otherwise enbgsmpl='d';

end;

end;

when ('NADD65+') do;

select (pcm);

when ('CIV') enbgsmpl='08';

when ('MTF') enbgsmpl='09';

when (' ') enbgsmpl='10';

otherwise enbgsmpl='e';

end;

end;

when ('UNKNOWN') do;

if pntypcd='S' then do;

if pnlcatcd in ('A','J','N','V') then enbgsmpl='01';

else if dageqy = ' ' then enbgsmpl='f';

else if dageqy <= '064' then do;

select (pcm);

when ('CIV') enbgsmpl='05';

when ('MTF') enbgsmpl='06';

when (' ') enbgsmpl='07';

otherwise enbgsmpl='g';

end;

end;

else if dageqy > '064' then do;

select (pcm);

when ('CIV') enbgsmpl='08';

when ('MTF') enbgsmpl='09';

when (' ') enbgsmpl='10';

otherwise enbgsmpl='h';

end;

end;

end;

else if pntypcd='D' then do;

if pnlcatcd in ('A','J','N','V') then do;

select (pcm);

when ('CIV') enbgsmpl='02';

when ('MTF') enbgsmpl='03';

when (' ') enbgsmpl='04';

otherwise enbgsmpl='i';

end;

end;

else if dageqy = ' ' then enbgsmpl='j';

else if dageqy <= '064' then do;

select (pcm);

when ('CIV') enbgsmpl='05';

when ('MTF') enbgsmpl='06';

when (' ') enbgsmpl='07';

otherwise enbgsmpl='k';

end;

end;

else if dageqy > '064' then do;

select (pcm);

when ('CIV') enbgsmpl='08';

when ('MTF') enbgsmpl='09';

when (' ') enbgsmpl='10';

otherwise enbgsmpl='l';

end;

end;

end;

else enbgsmpl='m';

end;

otherwise enbgsmpl='n';

end;

if acv ='R' then enbgsmpl='11';

run;

title4 "Check enbgsmpl construction";

proc freq data=merged;

tables patcat enbgsmpl\*patcat\*pcm\*acv /missing list;

run;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Create stratum

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

data merged;

set merged;

length group $1 stratum $7;

if acv='R' or NOT ( (PATCAT='ACTDTY' or (dageqy<'065' and PCM='MTF')) and R\_MTF=1 ) then do;

if TNEXREG='N' then com\_geo='9001';

else if TNEXREG='S' then com\_geo='9002';

else if TNEXREG='W' then com\_geo='9003';

else if TNEXREG='O' then com\_geo='9004';

end;

if acv ='R' then do; /\*TRICRAE Reserve Select\*/

group='0';

stratum=group||com\_geo||enbgsmpl;

end;

else if PATCAT='ACTDTY' or (dageqy<'065' and PCM='MTF') then do; /\*MTF enrolled, <65\*/

group='1';

stratum=group||com\_geo||enbgsmpl;

end;

else if dageqy<'065' and PCM='CIV' then do; /\*CIV enrolled, <65\*/

group='2';

stratum=group||com\_geo||enbgsmpl;

end;

else if dageqy<'065' and PCM=' ' then do; /\*non-enrolled, <65\*/

group='3';

stratum=group||com\_geo||enbgsmpl;

end;

else if dageqy >='065' then do;

if ACV in ('L', 'G') then do; /\*TRICARE-plus, >65\*/

group='4';

stratum=group||com\_geo||'99';

end;

else do; /\*All other(Nonenrolled), >65\*/

group='5';

stratum=group||com\_geo||'99';

end;

end;

run;

title4 "Check com\_geo";

proc freq data=merged;

tables com\_geo\*R\_MTF\*tnexreg\*patcat\*dageqy\*pcm /missing list;

format dageqy $FMTage.;

run;

title4 "Checking";

proc freq data=merged;

tables group

group\*enbgsmpl

group\*acv\*patcat\*dageqy\*pcm

stratum\*group\*com\_geo\*enbgsmpl/missing list;

format dageqy $FMTage.;

run;

title4 "TRICARE Reserve Select";

proc freq data=merged;

where group='0';

tables group\*stratum\*TNEXREG\*enbgsmpl/missing list;

run;

title4 "MTF-enrolled, <65 ";

proc freq data=merged;

where group='1';

tables group\*R\_MTF\*stratum\*com\_geo\*enbgsmpl\*TNEXREG/missing list;

run;

title4 "CIV-enrolled, <65 ";

proc freq data=merged;

where group='2';

tables group\*stratum\*TNEXREG\*enbgsmpl/missing list;

run;

title4 "non-enrolled, <65 ";

proc freq data=merged;

where group='3' ;

tables group\*stratum\*TNEXREG\*enbgsmpl/missing list;

run;

title4 "TRICARE-plus, >65 ";

proc freq data=merged;

where group='4' ;

tables group\*stratum\*acv\*TNEXREG/missing list;

run;

title4 "The other(nonenrolled), >65 ";

proc freq data=merged;

where group='5' ;

tables group\*stratum\*acv\*TNEXREG\*enbgsmpl/missing list;

run;

\*Switch the zone definition to be consisitent with the fiscal year;

data out.framea\_prelim;

set merged;

if 0.75 < prn <= 1 then do;

zone1=1;

zone=1;

end;

else if 0.00 <= prn <= 0.25 then do;

zone2=1;

zone=2;

end;

else if 0.25 < prn <= 0.50 then do;

zone3=1;

zone=3;

end;

else if 0.50 < prn <= 0.75 then do;

zone4=1;

zone=4;

end;

run;

title4 "Check zone assignment";

proc freq data=out.framea\_prelim;

tables zone\*zone1\*zone2\*zone3\*zone4\*prn/missing list;

format prn FMTprn.;

run;

title4 "Contents for the Frame";

proc contents data = out.framea\_prelim;

run;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* The End \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

**FRAME.INC**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\* Project: Health Care Survey of DoD Beneficiaries - Quarterly/Annual Adult Dataset

\*\*\* Program: Frame.inc -- include file used in adjwt.sas and cacsmpl.sas

\*\*\* Purpose: Geographic collapsements from q4 framea to be run on all quarters

\*\*\*

\*\*\* Modified: 1) 01/07/2003 by Esther M Friedman

\*\*\* 2) 01/15/2003 by Keith Rathbun: Moved collapsement parts of the

\*\*\* CACSMPL.SAS program into this include file.

\*\*\* 3) 01/28/03 by Esther Friedman: additional collapsements for q2 2003

\*\*\* 4) 11/11/2004 by Haixia Xu: Made 9 Navy sites stand alone. Collapsed 9 Air Force sites.

\*\*\* Cleaned the codes by removing the commented codes

\*\*\* 5)04/26/2005 by Haixia Xu for Q3, 2005 sampling

\*\*\* Added a macro assigngeocell.sas and assigncom\_geo to assign the needed assignments automatically

\*\*\* 6)01/23/2006 by X.Lin for q2,2006 sampling.

\*\*\*

\*\*\* 1) Com\_geo = Cacsmpl

\*\*\* 2) This include file was originally used in adjwt.sas. It was adapted with macro

\*\*\* to accomodate the reprocessing of the 2000.

\*\*\* 3) Beginning with q2 2003, this include file has been run in framea.sas

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

/\*\*\*NOTE added on 05/06/2005 by Haixia Xu: In q3, 2005 sampling, Nancy, Sonya, and I decided on the following assignments in frame.inc:

1) For PCM ='MTF' and d\_fac in (ADMIN, DENTAL, INACT, SHIP, TSCPCM), servaff= T, and enrid=' ',

we assign geocell=dcatch.

2) For PCM ='MTF' and d\_fac in (ADMIN, INACT, SHIP, TSCPCM), we assign com\_geo=geocell.

All others: PCM='MTF' and d\_fac=DENTAL, servaff=T, and enrid=' ', we assign com\_geo=d\_par.

We haven't found why we assigned com\_geo=geocell only for those with PCM ='MTF' and d\_fac in (ADMIN, INACT, SHIP, TSCPCM),

We'll try to find out the reason behind that, and do something accordingly from q1,2006. \*\*\*/

/\*\*\*NOTE added on 05/11/2005 by Haixia Xu: After we used the macros for the assignments as described above,

we found there is one small cacsmpl=6992 which we need to collapse(see the old\_framea01\_chk.lst).

When Sonya and I tried to figure out how to collpase 6992, we noticed that in frame.inc in the previous quarters,

we actually put 6992 in the administrative assignments, so we decided that we will put both the old assignments and the macros in frame.inc so we

can catch those special cells as many as possible. I think the macros should come before the old assignments \*\*\*/

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

\*\*\* Define the macros: assigngeocell, assigncom\_geo \*\*\*;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

\*\*\*Macro assigngeocell does the assignments describe in NOTE 1) above;

%macro assigngeocell;

%do i = 1 %to &loopnum.;

%let category\_name=%scan(&category\_list., &i.);

%let var\_name=%scan(&var\_list., 1);

%if &i. = &loopnum. %then %do;

%let var\_name=%scan(&var\_list., 2);

%end;

title4 "Freq of &var\_name.\*geocell for cases with &var\_name.=&category\_name.";

proc freq data=TMA NOPRINT;

where &var\_name.="&category\_name.";

tables &var\_name.\*geocell/missing list out=&category\_name.;

run;

data &category\_name.(keep=&var\_name. dmis\_id);

set &category\_name.;

rename geocell=dmis\_id; /\*rename geocell as dmis\_id \*/

run;

data \_null\_;

set &category\_name.;

%if &i. = 1 %then %do; /\*open a new file\*/

file "&listout..inc" LRECL=9999 RECFM=v;

%end;

%else %do; /\*modify the existing file \*/

file "&listout..inc" LRECL=9999 RECFM=v mod;

%end;

if \_N\_=1 then do;

if &var\_name.='ADMIN' then do;

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

put "\*\*\* Administration assignment \*\*\*;";

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

end;

else if &var\_name. ='DENTAL' then do;

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

put "\*\*\* Dental assignment \*\*\*;";

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

end;

else if &var\_name. ='INACT' then do;

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

put "\*\*\* Inactive assignment \*\*\*;";

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

end;

else if &var\_name. ='SHIP' then do;

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

put "\*\*\* On board ship assignment \*\*\*;";

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

end;

else if &var\_name. ='TSCPCM' then do;

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

put "\*\*\* Managed care contractor assignment \*\*\*;";

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

end;

else if &var\_name. ='T' then do;

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

put "\*\*\* Uniformed Services Family Health Plan assignment \*\*\*;";

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

end;

if &i. = 1 then do;

put "if enrid = '" dmis\_id +(-1) "' then &fromvar.=&tovar.;";

end;

else do;

put "else if enrid = '" dmis\_id +(-1)"' then &fromvar.=&tovar.;";

end;

end;

else do;

put "else if enrid = '" dmis\_id +(-1)"' then &fromvar.=&tovar.;";

end;

run; /\*end of the data-set step \*/

%end; /\*end of do loop\*/

%mend assigngeocell;

\*\*\*Macro assigncom\_geo does the assignments describe in NOTE 2) above;

%macro assigncom\_geo;

%do i = 1 %to &loopnum.;

%let category\_name=%scan(&category\_list., &i.);

%let var\_name=%scan(&var\_list., 1);

title4 "Freq of &var\_name.\*geocell for cases with &var\_name.=&category\_name.";

proc freq data=TMA NOPRINT;

where &var\_name.="&category\_name.";

tables &var\_name.\*geocell/missing list out=&category\_name.;

run;

data &category\_name.(keep=&var\_name. dmis\_id);

set &category\_name.;

rename geocell=dmis\_id; /\*rename geocell as dmis\_id \*/

run;

data \_null\_;

set &category\_name.;

%if &i. = 1 %then %do; /\*open a new file\*/

file "&listout..inc" LRECL=9999 RECFM=v;

%end;

%else %do; /\*modify the existing file \*/

file "&listout..inc" LRECL=9999 RECFM=v mod;

%end;

if \_N\_=1 then do;

if &var\_name.='ADMIN' then do;

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

put "\*\*\* Administration assignment \*\*\*;";

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

end;

else if &var\_name. ='INACT' then do;

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

put "\*\*\* Inactive assignment \*\*\*;";

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

end;

else if &var\_name. ='SHIP' then do;

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

put "\*\*\* On board ship assignment \*\*\*;";

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

end;

else if &var\_name. ='TSCPCM' then do;

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

put "\*\*\* Managed care contractor assignment \*\*\*;";

put "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;";

end;

if &i. = 1 then do;

put "if enrid = '" dmis\_id +(-1)"' then &fromvar.=&tovar.;";

end;

else do;

put "else if enrid = '" dmis\_id +(-1)"' then &fromvar.=&tovar.;";

end;

end;

else do;

put "else if enrid = '" dmis\_id +(-1)"' then &fromvar.=&tovar.;";

end;

run; /\*end of the data-set step \*/

%end; /\*end of do loop\*/

%mend assigncom\_geo;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

\*\*\* Invoke the macro assigngeocell \*\*\*;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%let category\_list = ADMIN DENTAL INACT SHIP TSCPCM T;

%let var\_list = d\_fac servaff;

%let loopnum =6;

%let listout = &folder.\assigngeocell;

%let fromvar=geocell;

%let tovar=dcatch;

%assigngeocell;

DATA FRAME;

SET FRAME;

if pcm='MTF' then do;

/\* Use the list produced by the macro \*/

%include "&listout..inc" ;

/\* all the old assignments from frame.inc for q2, 2005 \*/

else if ('1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or

('6991' <= enrid <= '6994') or ('6501' <=enrid <='6512') or

('7166' <= enrid <= '7195') or ( '6700' <= enrid <= '6881' ) or enrid='0000'

then geocell=dcatch; \*administrative assignment 1976-1980 added q4 2002, 6700-6881 added q1 2004,

0000 added q1,2005;

else if ('8001' <= enrid <= '8036') or ('6901' <= enrid <= '6919')

then geocell = dcatch; \*Managed care contractor assignment, added in q1 2005; \*8001-8036 added q2 2005;

else if ('3031' <= enrid <= '3057')

then geocell = dcatch; \*\*\*On board ship\*\*\*;

else if enrid in ('0002', '0041', '0044', '0082', '0111', '0213', '0235', '0585', '5208', '0250',

'0449', '0626', '0012')

then geocell = dcatch; \*\*\*Inactive\*\*\*; \*0626 added q2 2003, 0012 added q4 2003,

0041, 0044, 0082, 0111, 0213, 0235, 0585 added q2 2005;

else if enrid = ' ' then geocell = dcatch; \*\*\*enrolled, but missing ENRID, added q2 2005\*\*\*;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

else if ('0190' <= enrid <='0199') then geocell = dcatch;\*\*BYDON;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

else geocell = enrid;

end;

else if patcat='ACTDTY' then geocell=dcatch; /\*Added in q1fy2007, Put the rest of ACTDTY in their dcatch for sampling purpose\*/

else geocell=dcatch;

RUN;

proc sort data=frame;

by geocell;

run;

data frame2 both fr\_only fy\_only;

merge frame (in=infr) TMA (in=infy);

by geocell;

if infr=1 then output frame2;

if infr=1 and infy=1 then output both;

else if infr=1 and infy=0 then output fr\_only;

else if infr=0 and infy=1 then output fy\_only;

run;

title4 "The records in framea but not in TMA spreadsheet";

proc print data=fr\_only;

run;

title4 "Freq of PCM\*d\_fac in the frame - Everybody";

proc freq data=frame2;

tables pcm\*d\_fac/missing list;

run;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

\*\*\* Invoke the macro assigncom\_geo \*\*\*;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%let category\_list = ADMIN INACT SHIP TSCPCM;

%let var\_list = d\_fac;

%let loopnum =4;

%let listout = &folder.\assigncom\_geo;

%let fromvar=com\_geo;

%let tovar=geocell;

%assigncom\_geo;

data t\_frame ;

set frame2;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

com\_geo=geocell;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

if pcm='MTF' then do;

/\* Use the list produced by the macro \*/

%include "&listout..inc" ;

/\* all the old assignments from frame.inc for q2, 2005 \*/

else if ('1976' <= enrid <= '1980') or ('6301' <= enrid <= '6323') or

('6991' <= enrid <= '6994') or ('6501' <= enrid <= '6512') or

('7166' <= enrid <= '7195') or ('6700' <= enrid <= '6881') or enrid='0000'

then com\_geo = geocell; \*Administrative assignment--1976-1980 added q4 2002. 0000 added q1,2005;

else if ('8001' <= enrid <= '8036') or ('6901' <= enrid <= '6919')

then com\_geo = geocell; \*Managed care contractor assignment, added in q1, 2005;\*8001-8036 added q2 2005;

else if ('3031' <= enrid <= '3057')

then com\_geo = geocell; \*\*\*On board ship\*\*\*;

else if enrid in ('0002', '0041', '0044', '0082', '0111', '0213', '0235', '0585', '5208', '0250',

'0449', '0626', '0012')

then com\_geo = geocell; \*\*\*Inactive\*\*\*; \*'0626' added q2 2003, 0012 added q4 2003,

0041, 0044, 0082, 0111, 0213, 0235, 0585 added q2 2005;

else com\_geo = d\_par;

end;

else if patcat='ACTDTY' then com\_geo=d\_par;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

\*\*\*Made the following 9 Navy sites stand alone in q1,2005: \*\*\*;

\*\*\*'0026','0068','0231','0378','0387','0405','0407','0508','6215'\*\*\*;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

/\*NOTE in q1fy2007: All thest 9 sites are in listdmis.sd2 that Eric provides, which makes sense\*/

if geocell in ('0026','0068','0231','0378','0387','0405','0407','0508','6215') then com\_geo=geocell;

RUN;

title4 "Everybody";

proc freq data=t\_frame;

tables com\_geo\*geocell/missing list;

run;

title4 "pcm='MTF' ";

proc freq data=t\_frame;

tables com\_geo\*geocell\*d\_par/missing list;

where pcm='MTF';

run;

title4 "Check the beneficiaries with enrid =' '";

proc freq data=t\_frame ;

tables pcm\*pnlcatcd/missing list;

where enrid=' ' ;

run;

\*\*\*\*\*\*\*\*\*\*\*\*\*\* The end \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

**FRAMEA.SAS**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*

\*\*\* Project: 2009 Health Care Survey of DoD Beneficiaries - Adult

\*\*\*

\*\*\* Purpose: Collapse the small stratum, and finalize the frame

\*\*\* Program: L:\Q4FY2009\Programs\Sampling\framea.sas,

\*\*\* Input: framea\_prelim.sas7bdat

\*\*\* Output: framea.sas7bdat

\*\*\*

\*\*\* Notes: None

\*\*\* MODIFIED: Nov 7,2008 Q2FY2009 Sampling

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

\*\*\* Set up options. \*\*\*;

options ls=132 ps=79 compress=yes nocenter noxwait;

%let quarter=Q1FY2010;

\*\*\* Set up the titles. \*\*\*;

title1 'Program: FRAMEA.sas';

title2 'Collapse the small stratum, and finalize the frame';

\*\*\* Set up the input and output paths. \*\*\*;

libname in v8 "L:\&QUARTER.\Data\Afinal"; /\*framea\_prelim.sas7bdat\*/

libname out v8 "L:\&QUARTER.\Data\Afinal"; /\*framea.sas7bdat\*/

data framea;

set in.framea\_prelim;

stratumo=stratum;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

COLLAPSE

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

\*FIX COLLAPSEMENT (THIS PART DO NOT CHANGE QUARTER TO QUATER ;

/\*Note: Collapse these cells to attempt to raise sample size\*/

/\*Note: Tom indicated he wanted to drop TRS regional estimates -

so we could do one MHS-wide stratum for TRS,

instead of regional.\*/

/\*Note: Tom also said that he did not think we need to keep TRICARE Plus

separate from other 65+, so we could collapse all 65+ together,

with same objective as current nonenrolled 65+. \*/

/\*Note: For the beneficiaries 65+, we don't separate sample TRICARE Plus enrollees\*/;

if stratumo in ('4900199','5900199') then stratum='6900199';

if stratumo in ('4900299','5900299') then stratum='6900299';

if stratumo in ('4900399','5900399') then stratum='6900399';

if stratumo in ('4900499','5900499') then stratum='6900299';

/\*Note: We don't stratify TRICARE Reserve Select(TRS) enrollees by TNEX region,

instead, we just had all TRS enrollees in one stratum.\*/

if stratumo in ('0900111','0900211','0900311','0900411') then stratum='0999911';

/\*Added in q3fy2009. AS per Nancy's email below:

From: Nancy Clusen

Sent: Thursday, November 13, 2008 12:46 PM

To: Eric Schone; Keith Rathbun

Cc: Amang Sukasih; Haixia Xu

Subject: FW: checking dmid=1350

Hello,

37th Medical Group Lackland Air Force Base DMIS ID 1350 first appears in the frame in Q2.

The facility type is Clinic, but it also is its own Parent facility.

As you can from Haixia email below, most of the beneficiaries enrolled to 1350 in Q2

were enrolled with the 59th Medical Wing-Lackland DMIS ID 117 in Q1.

Should we combine 117 and 1350 for the purposes of reporting?

\*/

if substr(stratumo,2,4) = '0117' then substr(stratum,2,4)='1350';

run;

title3 "Check stratum after Permanent Cell Collapse";

proc freq data=framea;

tables stratum\*stratumo /missing list;

run;

title3 "Check stratum";

proc freq data=framea noprint;

tables stratum\*stratumo /missing list;

tables stratum/out=freqcnt missing list;

run;

title4 "Small stratum with count <1000";

proc print data=freqcnt;

var stratum count;

where count<1000;

run;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CHECK FOR SMALL CELL (Q1FY2010)

(Each quarter, comment out this collapsement part and run program

to see if we have same/new small cell.

Do the necessary collapsement if necessary)

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

\*Small stratum with count <1000

Obs stratum COUNT

138 1007403 746

250 1013106 813

256 1024806 877

264 1030603 898

294 1050803 447

295 1050806 412

304 1060906 762

307 1061206 185

313 1062106 13

316 1062206 456

322 1080406 843

325 1080506 709

328 1080606 553

332 1621501 63

357 2900405 875;

data framea;

set framea /\*(drop=stratumo)\*/;

/\*stratumo=stratum;\*/

\*Note: small cell collapsement (check every quarter) - have in Q4FY09;

if stratumo in ('1007403','1007406') then stratum='1007403';

else if stratumo='1013106' then stratum='1013103';

else if stratumo in ('1050803','1050806') then stratum='1050803';

else if stratumo='1061206' then stratum='1061203';

else if stratumo='1062106' then stratum='1062103';

else if stratumo='1062206' then stratum='1062203';

else if stratumo='1080406' then stratum='1080403';

else if stratumo='1080506' then stratum='1080503';

else if stratumo='1080606' then stratum='1080603';

\*Note : Cell 1621501 is so small because it is a special clinic in California

\*located far away from the base used mostly by family members : have in Q4FY09;

else if stratumo in ('1621501','1621503') then stratum='1621503';

\* NEW COLLAPSEMENT : Q1FY2010 (same as q4fy2009);

\* ---------------------------------------------------;

/\*Q1FY2010 (same as q4fy2009, q2fy2009):

we are collapsing 2900405 with 2900402 because,we don't have enought sample to draw;\*/

else if stratumo='2900402' then stratum='2900405'; /\* XXXXXX \*/

\*Q1FY2010 (same as q4fy2009);

else if stratumo in ('1030603', '1030606') then stratum='1030603';

\*Q1FY2010 (same as q4fy2009);

else if stratumo='1060906' then stratum='1060903';

/\*NEW FOR Q1FY2010\*/

else if stratumo='1024806' then stratum='1024803';

else if stratumo in ('2900402','2900405') then stratum='2900405'; /\* question: why we write this again? isn't it the same as XXXXXX above?\*/

group=substr(stratum,1,1);

run;

title3 'Check the Stratum Collapsements';

proc freq data=framea;

tables stratum\*stratumo/missing list;

run;

title3 'CROSS FREQ: Stratum\*Group';

proc freq data=framea;

table stratum\*group/list missing;

run;

title3 'Checks the small stratum again after collapsements';

proc freq data=framea NOPRINT;

tables stratum /out=chksmallsize missing list;

run;

title3 "Checks the small stratum again after collapsements - Shouldn't have any";

proc print data=chksmallsize;

where count <1000;

var stratum count;

run;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Construction of Geosmpl, Ebsmpl and Grop\_Geo from Stratum

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

data out.framea;

set framea(drop=stratumo);

geosmpl=substr(stratum, 2, 4);

ebsmpl=substr(stratum, 6, 2);

grp\_geo=substr(stratum, 1, 5);

run;

title3 "Check the construction of geosmpl, ebsmpl, grp\_geo";

proc freq data=out.framea;

tables stratum\*geosmpl/missing list;

tables stratum\*ebsmpl /missing list;

tables stratum\*grp\_geo/missing list;

run;

TITLE3 "CROSS FREQ: Check the ebsmpl";

proc freq data=out.framea;

tables group\*enbgsmpl\*ebsmpl/missing list;

run;

Title3 "CROSS FREQ : (where, enbgsmpl ~= ebsmpl): ";

Title4 " Note: the (ENBGSMPL ne EBSMPL) are because of two things";

Title5 " - Collapsment of Strata, ";

Title6 " - In Group 4 and 5 EBSMPL is always 99 ";

proc freq data=out.framea;

tables stratum\*enbgsmpl\*ebsmpl/missing list;

where enbgsmpl ne ebsmpl ;

run;

title3 'Freq of group grp\_geo stratum in the final frame';

proc freq data=out.framea;

tables group /missing list;

tables grp\_geo/missing list;

tables stratum/missing list;

run;

title3 'Freq of stratum\*zone in the final frame';

proc freq data=out.framea;

tables stratum\*zone/missing list;

run;

title3 'Contents of framea.sd2';

proc contents data=out.framea;

run;

/\*\*\*\*\*\*\*\*The End \*\*\*\*\*\*\*\*\*/

**COUNTA.SAS**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*

\*\*\* Project: 2009 Health Care Survey of DoD Beneficiaries - Adult

\*\*\*

\*\*\* Purpose: Produce the population counts for different domains

\*\*\* Program: L:\Q2FY2009\Programs\Sampling\counta.sas

\*\*\* Input: framea.sas7bdat

\*\*\* Output: counta.sas7bdat

\*\*\* Written: Haixia Xu on 8/17/2006

\*\*\* Notes: None

\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

options ls=132 ps=79 compress=yes nocenter noxwait obs=max;

\*Update Marcro Variable Quarter with current Quarter;

%LET QUARTER=Q1FY2010;

libname in v8 "L:\&QUARTER.\Data\Afinal"; /\*framea.sas7bdat\*/

libname out v8 "L:\&QUARTER.\Data\Afinal"; /\*counta.sas7bdat\*/

TITLE1 "Produce cell counts - Form A";

TITLE2 "Program Name: COUNTA.SAS";

\*\*\* Create a couple of macro variables for the program. \*\*\*;

%let indata=in.framea;

%let dsn = framea;

%let by\_vars = stratum grp\_geo geosmpl ebsmpl group ;

data &dsn.;

set &indata.(keep=&by\_vars. prn);

run;

TITLE3 "FREQS of the frame";

PROC FREQ DATA=&dsn.;

TABLES &by\_vars./MISSING LIST;

RUN;

\*\*\* Get the total number of observations. \*\*\*;

proc means data=&dsn.;

var prn;

output out=total n=total;

run;

data total;

set total (keep=total);

run;

\*\*\* Sort the frame. \*\*\*;

PROC SORT DATA=&dsn. OUT=&dsn.;

BY &by\_vars.;

RUN;

\*\*\* Set up the table for the counts that will follow. \*\*\*;

PROC MEANS DATA=&dsn. NOPRINT;

BY &by\_vars.;

VAR prn;

OUTPUT

OUT=T0(KEEP=&by\_vars.)

N=DUMMY;

RUN;

proc print data=T0;run;

PROC FREQ DATA=&dsn. NOPRINT;

TABLES stratum

/MISSING LIST OUT=T1(RENAME=(COUNT=PSUM0)

KEEP=COUNT stratum) NOPERCENT NOCUM NOPRINT;

RUN;

PROC FREQ DATA=&dsn. NOPRINT;

TABLES grp\_geo

/MISSING LIST OUT=T2(RENAME=(COUNT=PSUM1)

KEEP=COUNT grp\_geo) NOPERCENT NOCUM NOPRINT;

RUN;

PROC FREQ DATA=&dsn. NOPRINT;

TABLES geosmpl

/MISSING LIST OUT=T3(RENAME=(COUNT=PSUM2)

KEEP=COUNT geosmpl) NOPERCENT NOCUM NOPRINT;

RUN;

PROC FREQ DATA=&dsn. NOPRINT;

TABLES ebsmpl

/MISSING LIST OUT=T4(RENAME=(COUNT=PSUM3)

KEEP=COUNT ebsmpl) NOPERCENT NOCUM NOPRINT;

RUN;

PROC FREQ DATA=&dsn. NOPRINT;

TABLES group

/MISSING LIST OUT=T5(RENAME=(COUNT=PSUM4)

KEEP=COUNT group) NOPERCENT NOCUM NOPRINT;

RUN;

\*\*\* Merge the tables together. \*\*\*;

PROC SORT DATA=T0; BY stratum; RUN;

DATA T0;

MERGE T0 T1;

BY stratum;

RUN;

PROC SORT DATA=T0; BY grp\_geo; RUN;

DATA T0;

MERGE T0 T2;

BY grp\_geo;

RUN;

PROC SORT DATA=T0; BY geosmpl; RUN;

DATA T0;

MERGE T0 T3;

BY geosmpl;

RUN;

PROC SORT DATA=T0; BY ebsmpl; RUN;

DATA T0;

MERGE T0 T4;

BY ebsmpl;

RUN;

PROC SORT DATA=T0; BY group; RUN;

DATA T0;

MERGE T0 T5;

BY group;

LABEL PSUM0 = 'PSUM0 - Stratum Count'

PSUM1 = 'PSUM1 - grp\_geo Count'

PSUM2 = 'PSUM2 - geosmpl Count'

PSUM3 = 'PSUM3 - ebsmpl Count'

PSUM4 = 'PSUM4 - group Count'

;

RUN;

data t0;

if \_n\_=1 then set total;

set t0;

label total = 'TOTAL - Population';

run;

\*\*\* Section to do some checking. \*\*\*;

proc sort data=t0 out=t0;

by group grp\_geo geosmpl ebsmpl stratum;

run;

PROC PRINT data=t0;

var stratum grp\_geo geosmpl ebsmpl group psum0-psum4 total;

sum psum0;

RUN;

\*\*\* Write the count data set to a permanent SAS data set. \*\*\*;

data out.counta;

set T0;

run;

TITLE3 "CONTENTS of COUNTA.SD2";

PROC CONTENTS data=out.counta; RUN;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Checking

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

TITLE3 "Check grp\_geo sum: psum1";

proc freq data=T0;

tables grp\_geo\*psum1/missing list;

run;

proc sort data=T0 out=cntgrp\_geo nodupkey;

by grp\_geo psum1;

run;

proc print data=cntgrp\_geo;

var grp\_geo psum1;

sum psum1;

run;

TITLE3 "Check geosmpl sum: psum2";

proc freq data=T0;

tables geosmpl\*psum2/missing list;

run;

proc sort data=T0 out=cntgeosmpl nodupkey;

by geosmpl psum2;

run;

proc print data=cntgeosmpl;

var geosmpl psum2;

sum psum2;

run;

TITLE3 "Check ebsmpl sum: psum3";

proc freq data=T0;

tables ebsmpl\*psum3/missing list;

run;

proc sort data=T0 out=cntebsmpl nodupkey;

by ebsmpl psum3;

run;

proc print data=cntebsmpl;

var ebsmpl psum3;

sum psum3;

run;

TITLE3 "Check group sum: psum4";

proc freq data=T0;

tables group\*psum4/missing list;

run;

proc sort data=T0 out=cntgroup nodupkey;

by group psum4;

run;

proc print data=cntgroup;

var group psum4;

sum psum4;

run;

/\*\*\*\*\*\*\* The End \*\*\*\*\*\*\*/

**SAMSIZEA.SAS**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Project: Q4FY2009 Health Care Survey of DoD Beneficiaries - Adult

\* Project Number: 6401

\* Task Number: 902

\*

\* PROGRAM: L:\Q1FY2010\Programs\Sampling\SAMSIZEA.SAS

\* Purpose: Sample size determination for the FY2009 Quarterly HCSDB

\*

\* Programmer: Don Jang

\* Updated: 1)08/16/2006 X.Lin for Q1,FY2007 sampling according to new samping scheme

2)05/01/2008 Sabrina Rahman for Q4FY2008 Adult Sampling

3)08/06/2009 Sabrina Rahman for Q1FY2009 Adult Sampling

\* 4)10/22/2008 By S. Rahman for Q2FY2009 sampling (Adult). (6401-902)

5)04/29/2009 By S. Rahman for Q4FY2009 sampling (Adult). (6401-902)

\* INPUTS: POPULATION COUNTS (COUNTA.SD2)

\* OUTPUTS: FINAL SAMPLE SIZES (SAMSIZEA.SD2)

\* Notes : 1)This program was rerun after take the sample. the date is later than the following

programs.

\* 2)Sample more cases from dmisid=0100 to make the annual reporting for MTF=NAVAL HLTH CLINIC NEW ENGLAND

\* 3)IMPORTANT! remove the line with coment: /\*This line needs to be removed from Q1FY2008!!!!\*/

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*;

/\* NHFF is equal to sample size by stratum

NHF\_2, NHF, NHZERO are intermediate variables used to construct NHFF

\*/

\*Update Marcro Variable Quarter with current Quarter;

%LET QUARTER=Q1FY2010;

libname in v8 "L:\&QUARTER.\Data\AFinal";

libname out v8 "L:\&QUARTER.\Data\AFinal";

OPTIONS PS=79 LS=132 NOCENTER mlogic symbolgen;

%LET P = 0.5; \*\*\* PRODUCE THE MOST CONSERVATIVE SAMPLE SIZES \*\*\*\*;

%LET Z = 1.96; \*\*\* 97.5th PERCENTILE FOR Z-DIST \*\*\*\*\*\*\*\*\*;

%LET SSQUARE = &P\*(1-&P); \*\*\* FORMULA FOR VARIANCE OF P \*\*\*\*\*\*\*\*\*\*\*\*\*\*;

/\*------------------------------------------------------------------------

Create the macro variables to be used in main part of the program

-------------------------------------------------------------------------\*/

/\*Create three macro variables:

largestreg - the largest TNEX region in group=6

largestcnt - the frame count for the largest TNEX region in group=6

oversecnt - the frmae count for the oversea TNEX region in group=6

\*/

data temp1;

set in.framea\_prelim(keep=stratum group);

where group in ('4', '5');

tempvar=substr(stratum, 2, 6);

run;

proc freq data=temp1;

tables tempvar\*group/missing list out=temp2;

run;

proc transpose data=temp2 out=temp3;

by tempvar;

id group;

var count;

run;

data temp3;

set temp3;

\_6=\_4+\_5;

run;

data temp3;

set temp3 end=finished;

retain largestreg largestcnt ;

if \_6>largestcnt then do;

largestreg=compress(substr(tempvar,1,4));

largestcnt=\_6;

end;

if finished then do;

call symput("largestreg", largestreg);

call symput("largestcnt", largestcnt);

end;

if tempvar="900499" then

call symput("overseacnt", \_6);

run;

title3 "Check the construction of macro variables";

proc print data=temp3;run;

%put The largest TNEX region in group=6: &largestreg.;

%put The count for the largest TNEX region in group=6: &largestcnt.;

%put The count for the oversea TNEX region in group=6: &overseacnt.;

/\*------------------------------------------------------------------------

Assign precision

-------------------------------------------------------------------------\*/

%let pre1=0.12;/\*each geosmpl domain precision for TRICARE reserve selected,and over65/TRICARE-Plus\*/

%let pre2=0.06;/\*each geosmpl domain precision for over65/non-enrollees and under65/CIV-enrollees \*/

%let pre3=0.10;/\*stratum precision for under65,non-enrollees \*/

%let pre4=0.127537555; /\*geosmpl domain precision for MTF enrollee group\*/ /\*q1fy2010\*/

/\*%let pre4=0.144135; /\*geosmpl domain precision for MTF enrollee group\*/ /\*q4fy2009\*/

/\*%let pre4=0.1439; /\*geosmpl domain precision for MTF enrollee group\*/ /\*q3fy2009\*/

/\* %let pre4=0.1445606; /\*geosmpl domain precision for MTF enrollee group\*/ /\*q1fy2009\*/

/\*------------------------------------------------------------------------

MACRO: CALCULATE NUMERICAL PORTIONS OF VARIANCES GIVEN SAMPLE SIZES

-------------------------------------------------------------------------\*/

TITLE1 "SAMPLE SIZE DETERMINATION FOR THE 2009 DOD Quarterly FORM A SURVEY OF HEALTH BENEFICIARIES";

TITLE2 "PROGRAM: SAMSIZEA.SAS";

%MACRO VAR(DAT,DOMAIN,POPSIZE,NH,ODAT);

DATA VARA;

SET &DAT;BY &DOMAIN;

VH=&POPSIZE\*\*2\*((&POPSIZE-&NH)/(&POPSIZE-1))\*&SSQUARE/&NH;

RUN;

PROC MEANS DATA=VARA NOPRINT;

VAR VH;BY &DOMAIN;

OUTPUT OUT=&ODAT SUM=VSUM;

RUN;

%MEND VAR;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* TO DETERMINE OPTIMAL STRATUM SIZES GIVEN PREDETERMINED VARIANCE

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%MACRO OPTALLO(DAT,DOMAIN,POPSIZE,V0,ODAT);

/\*----------------------------------------------------------

TO CALCULATE PARTIAL SUMS OF REMAINING DOMAIN SIZES

NOTE: THIS SUM can be DIFFERENT FROM THE DOMAIN TOTAL !!!

-------------------------------------------------------------\*/

DATA &DAT;SET &DAT;

DEN = (&POPSIZE/DSUM&ITE)\*\*2/(&POPSIZE-1);

COM = &POPSIZE\*SQRT(&POPSIZE/(&POPSIZE-1));

NUM = COM/DSUM&ITE;

RUN;

PROC MEANS DATA=&DAT NOPRINT;

VAR NUM DEN COM;BY &DOMAIN;

OUTPUT OUT=DSIZEA SUM=NUMS DENS COMS;

RUN;

DATA &ODAT;

MERGE &DAT DSIZEA;BY &DOMAIN;

ND=(&SSQUARE\*NUMS\*\*2)/(&V0+&SSQUARE\*DENS);

NHO=ND\*COM/COMS;

DROP ND NUM DEN COM NUMS DENS COMS;

RUN;

%MEND OPTALLO;

/\*----------------------------------------------------------------

TO RETREIVE THE NUMBER OF OBSERVATIONS IN A SAS DATA SET

------------------------------------------------------------------\*/

%MACRO NUMOBS(DSN);

%GLOBAL NUM;/\* THIS MACRO CONTAINS THE NUMBER OF OBS IN THE DATA\*/

DATA \_NULL\_;

IF 0 THEN SET &DSN NOBS=COUNT;

CALL SYMPUT('NUM',LEFT(PUT(COUNT,8.)));

STOP;

RUN;

%MEND NUMOBS;

/\*----------------------------------------------------------------

ITERATE UNTIL THE REMAINING DOMAINS HAVE NHO GREATER THAN

THE PREVIOUS SAMPLE SIZES

-----------------------------------------------------------------\*/

%MACRO ITERATE;

%OPTALLO(STE,DOM&ITE,POPSIZE,VSTAR,OSTAT);

DATA FIN&I STE;

SET OSTAT;

IF NHF < NHO THEN FIN = FIN +1;

IF FIN=&I then output FIN&I;

IF FIN = &I + 1 then output STE;

RUN;

%VAR(FIN&I,DOM&ITE,POPSIZE,NHF,SUMMARY);

DATA STE;

MERGE STE (IN=A) SUMMARY ;BY DOM&ITE;

IF A;

IF VSUM=. THEN VSUM=0;\*\*\*\*SHOULD EXIST!!!;

VSTAR= VSTAR - VSUM/DSUM&ITE\*\*2;

DROP VSUM;

RUN;

%MEND ITERATE;

/\*--------------------------------------------------------------------

MAIN PART OF THE PROGRAM: 'ITE' INDICATES THE LEVEL OF DOMAINS

---------------------------------------------------------------------\*/

%MACRO MPART(ITE);

PROC SORT data=indata;BY DOM&ITE;RUN;

%VAR(INDATA,DOM&ITE,POPSIZE,NHF,SUMMARY);

DATA CHKVAR;\*\*\*TO COMPARE THE VARIANCE TO THE PRECISION REQUIREMENT;

MERGE SUMMARY INDATA;BY DOM&ITE;

FIN=1;

MARGIN=SQRT((VSUM/DSUM&ITE\*\*2)\*1.96\*\*2)/HL&ITE;

IF MARGIN > 1 THEN FIN=FIN+1;

DROP VSUM MARGIN; /\* SHOULD DROP 'VSUM'VARIABLE HERE !!! \*/

RUN;

\*\*\*DATA SET INCLUDING STRATA HAVING FINAL SAMPLE SIZE AT THIS STEP\*\*\*;

DATA FIN1 STE;

SET CHKVAR;BY DOM&ITE;

VSTAR=(HL&ITE/1.96)\*\*2;

IF FIN=1 then output FIN1;

IF FIN=2 then output STE;

RUN;

%NUMOBS(STE);

%LET I = 1;

%IF &NUM=0 %THEN %GOTO FDSN;

/\*-----------------------------------------------------------------------------

ITERATE MACRO TO UPDATE SAMPLE SIZES TO MEET THE PRECISION REQUIREMENTS

THIS PART NEEDS TO BE REFINED TO ALLOW TO STOP THE PROGRAM WHENEVER NEEDED

--------------------------------------------------------------------------------\*/

%DO %UNTIL(&NUM = 0);

%LET I = %EVAL(&I +1);

%ITERATE;

%NUMOBS(FIN&I);

%END;

/\*--------------------------------------------------------------------------

GIVE THE REMAINING DOMAINS OPTIMAL SAMPLE SIZES

----------------------------------------------------------------------------\*/

%LET I = %EVAL(&I +1);

DATA FIN&I;SET STE;

NHF = NHO;

RUN;

/\*---------------------------------------------------------------------------

COMBINE THE DATASETS INTO ONE

-----------------------------------------------------------------------------\*/

%FDSN:

DATA STEP9;

SET FIN1;

%DO J=2 %TO &I;

DATA STEP9;

SET STEP9 FIN&J;

RUN;

%END;

%MEND MPART;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* START THE MAIN PROGRAM:

---------------------------------------------------------------------------;

DATA INDATA;

SET in.counta;

DOM0 = STRATUM;

DOM1 = grp\_geo;/\*group and geosmpl combination\*/

DOM2 = ebsmpl; /\*only response rate for this domain\*/

DOM3 = 1;

POPSIZE = PSUM0;

DSUM1 = PSUM1;

DSUM2 = PSUM3;

DSUM3 = TOTAL;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* PRECISION REQUIREMENTS FOR SITE-LEVEL ESTIMATES W.R.T. THE NUMBER OF BGs

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

the quarterly stratum precision is 0.12 for TRICARE reserve selected('09001','09002','09003','09004')

and 65 or older, TRICARE-Plus('49001','49002','49003','49004')

According to oversea collapsement, the precision changed for the one oversea goes to.

Those are geo level domains'precision too

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

if grp\_geo in ('09999') then do;

HLA0=&pre1.;

HL1=&pre1.;

end;

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

The quarterly stratum precision is 0.06 for 65 or older, Non-enrollees('59001','59002','59003','59004').

According to oversea collapsement, the precision changed for the one oversea goes to.

Those are geo level domains' precision too

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

else if group='6' and grp\_geo ^= compress("6"||"&largestreg.") then do;

HLA0=&pre2.;

HL1=&pre2.;

end;

else if grp\_geo = compress("6"||"&largestreg.") then do;

HLA0=&pre2./sqrt(1+&overseacnt./&largestcnt.);

HL1=&pre2./sqrt(1+&overseacnt./&largestcnt.);

end;

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

The quarterly stratum precision is 0.10 for under 65, Non-enrollees('39001','39002','39003','39004')

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

else if grp\_geo in ('39001','39002','39003','39004') then do;

HLA0=&pre3.;

HL1=&pre3.;

end;

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

For other strata(Under 65, MTF and CIV enrollees), assign a small precision to start with

small initial stratum sample size since there are no quarterly stratum precision requirement

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

else do;

HLA0=0.30;

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

For precision is 0.06 for geo level domain, 0.12 for those specific 106 MTF

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

if grp\_geo in ('19001','19002','19003','19004','29001','29002','29003','29004') then HL1=&pre2.;

/\*NOTE:

The part below is to sample more cases in for MTF=NAVAL HLTH CLINIC NEW ENGLAND, which has dmisid=0100.

Since when we check Q4FY2007, we found that this facility wasn't sampled alone starting from Q2FY2007.

The reason is that starting from Q2FY2007, 0100 is the reporting MTF for '0035','0100','0299','0321','0328').

These 5 IDs used to have their parentID 6223 in Q1FY2007.\*/

else HL1=&pre4.;

end;

\*HL2 = 0.05; \*\* FOR ebsmpl \*\*\*\*\*\*\*\*\*\*\*;

\*HL3 = 0.02; \*\* FOR AS A WHOLE \*\*\*\*\*;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* SET INITIAL SAMPLE SIZES under stratum precision

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

NUM=&Z\*\*2\*&SSQUARE/HLA0\*\*2;

NHZERO=NUM/(1+(NUM-1)/POPSIZE);

NHF = NHZERO;

DROP NUM PSUM0 PSUM1 PSUM2 TOTAL;

RUN;

\*--------------------------------------------------------------------------\*\*\*

\* ADJUST INITIAL SAMPLE SIZE TO SATISFY THE DOM&ITE PRECISION REQUIREMENT

----------------------------------------------------------------------------\*;

%MPART(1);

\*\*--------------------------------------------------------------------------

\* CREATE STATUS&ITE SO THAT FIN VALUES CAN REFLECT ITE TOO

----------------------------------------------------------------------------\*;

DATA INDATA;SET STEP9;

STATUS1=10+FIN;

NHF1=NHF;

DROP FIN;

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* ACCOUNT FOR OVERALL PRECISION REQUIREMENT

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA FINAL;SET INDATA;

VH=POPSIZE\*\*2\*((POPSIZE-NHF)/(POPSIZE-1))\*&SSQUARE/NHF;

RUN;

\*---------------------------------------------------------------------------

CHECK IF THE FINAL SAMPLE SIZES MEET ALL PRECISION REQUIREMENTS

----------------------------------------------------------------------------;

PROC SORT DATA=FINAL;BY DOM1;RUN;

PROC MEANS NOPRINT DATA=FINAL;VAR VH;BY DOM1;

OUTPUT OUT=FDATA1 SUM=V1;

RUN;

DATA FINAL;MERGE FINAL FDATA1;BY DOM1;run;

PROC SORT DATA=FINAL;BY DOM2;RUN;

PROC MEANS DATA=FINAL NOPRINT;VAR VH;BY DOM2;

OUTPUT OUT=FDATA2 SUM=V2;

RUN;

DATA FINAL;MERGE FINAL FDATA2;BY DOM2;run;

PROC SORT data=final;BY DOM3;RUN;

PROC MEANS DATA=FINAL NOPRINT;VAR VH;BY DOM3;

OUTPUT OUT=FDATA3 SUM=V3;

RUN;

DATA FINAL;MERGE FINAL FDATA3;BY DOM3;run;

DATA FINAL;IF \_N\_ = 1 THEN SET FDATA3;

SET FINAL;

P0=SQRT(((POPSIZE-NHF)/(POPSIZE-1))\*&SSQUARE/NHF)\*1.96;

P1=SQRT((V1/DSUM1\*\*2)\*1.96\*\*2);

P2=SQRT((V2/DSUM2\*\*2)\*1.96\*\*2);

P3=SQRT((V3/DSUM3\*\*2)\*1.96\*\*2);

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* ACCOUNT FOR EXPECTED ESTIMATION

\* 1)for CIV enrollees,80% of the sample is expected to be users of Managed Care Support Contractors,

73% and 92% for ADFM and Retirees respectively.

\* 2)for under65, nonenrollees,1/3 of the sample is expected to be Standard Extra Users,

45.5% and 27.5% for ADFM and Retirees respectively.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA EST;

SET FINAL;

if grp\_geo in ('29001','29002','29003','29004') then do;

if DOM2='02' then NHF\_2=NHF/0.73;

else if DOM2='05' then NHF\_2=NHF/0.92;

end;

else if grp\_geo in ('39001','39002','39003','39004') then do;

if DOM2='04' then NHF\_2=NHF/0.455;

else if DOM2='07' then NHF\_2=NHF/0.275;

end;

else NHF\_2=NHF;

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Q1FY2010 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* ACCOUNT FOR EXPECTED RESPONSE RATES

\* Using unweighted Response Rate from 3rd Quarter of FY2009 for Q1FY2010

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA RESP;

SET EST;

IF DOM2='01' THEN NHFF=INT(NHF\_2/0.18)+1;

IF DOM2='02' THEN NHFF=INT(NHF\_2/0.21)+1;

IF DOM2='03' THEN NHFF=INT(NHF\_2/0.19)+1;

IF DOM2='04' THEN NHFF=INT(NHF\_2/0.14)+1;

IF DOM2='05' THEN NHFF=INT(NHF\_2/0.45)+1;

IF DOM2='06' THEN NHFF=INT(NHF\_2/0.43)+1;

IF DOM2='07' THEN NHFF=INT(NHF\_2/0.38)+1;

IF DOM2='11' THEN NHFF=INT(NHF\_2/0.30)+1;

IF DOM2='99' THEN NHFF=INT(NHF\_2/0.73)+1;

RUN;

DATA LAST;SET RESP;

nhf = int(nhf)+1;

nhf\_2 = int(nhf\_2)+1;

nhff = min(nhff, popsize);

nhzero = int(nhzero)+1;

BWT00 = POPSIZE/NHFF;

PROC SORT data=LAST;BY DOM0;run;

PROC MEANS DATA=LAST min max mean n sum;VAR NHZERO nhf NHF\_2 NHFF BWT00;RUN;

PROC PRINT DATA=LAST;VAR DOM0 P0 DOM1 P1 DOM2 P2 DOM3 P3 POPSIZE NHFF bwt00;

sum nhff bwt00;

RUN;

proc means sum;

class dom1;

var popsize nhff;

proc means sum;

class dom2;

var popsize nhff;

proc means sum;

var nhff;

proc sort data=last;by stratum;run;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* CREATE THE DATA SET CONTAINING THE FINAL SAMPLE SIZES

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA out.samsizea;

SET LAST;

KEEP STRATUM POPSIZE NHFF BWT00 dom2;

run;

Proc print data=out.samsizea;

where NHFF<20;

TITLE3 "Check for Sample Size less than 20";

run;

**SAMPLA01.SAS**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* \*

\* PROGRAM: L:\Q1FY2010\Programs\Sampling\SAMPLA01.SAS \*

\* TASK: 2009 DOD ADULT Health Care Survey, Quarterly Sampling \*

\* PURPOSE: Draw Sampling Frame for 2009 Quarterly DOD Survey Form A \*

\* \*

\* PROGRAMMER: Darryl V. Creel \*

\* UPDATED: Esther Friedman \*

\* 2)11/15/2004 by Haixia Xu for q1,2005 sampling

\* 3)5/12/2004 by Haixia Xu for q3,2005 sampling

\* 4)01/23/2006 by X.Lin for q2 2006 sampling

\* 5)04/18/2006 by H. Xu for Q4FY2006 sampling

\* 6)08/17/2005 by H. Xu for q1fy2007 sampling

\* 7)05/01/2008 by Sabrina Rahman for Q4FY2008

\* 8)08/06/2008 by S. Rahman for Q1FY2009 Adult Sampling

\* 9)10/22/2008 By S. Rahman for Q2FY2009 sampling (Adult). (6401-902)

\* 10)04/30/2009 By S. Rahman for Q4FY2009 Sampling (Adult). (6401-902)

\*

\* INPUTS: FRAMEA.sas7bdat - Frame for 2009 Quarterly DOD Survey \*

\* SAMSIZEA.sas7bdat - Sample Sizes by Stratum for 2009 Quarterly DOD Survey \*

\*

\* OUTPUTS: SAMPLA01.sas7bdat - Sampling Frame for 2009 Quarterly DOD Survey \*

\* \*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

options ls=132 ps=79 nocenter compress=yes;

title1 'Construct the Sample, SAMPLA01.sas7bdat';

title2 'From the 2009 Quarterly DOD Files, FRAMEA and SAMSIZEA';

title3 'Program: SAMPLA01.SAS';

\*Update Marcro Variable Quarter with current Quarter;

%LET QUARTER=Q1FY2010;

\*\*\* Set up the input and output paths. \*\*\*;

libname in v8 "L:\&QUARTER.\Data\AFinal";

libname out v8 "L:\&QUARTER.\Data\AFinal";

proc contents data=in.samsizea;

run;

\*\*\* Sort the data sets by stratum. \*\*\*;

proc sort data=in.framea out=framea;

by stratum;

run;

proc sort data=in.samsizea(keep=stratum nhff popsize) out=samsizea;

by stratum;

run;

\*\*\* Keep this in to check the match of the data sets. \*\*\*;

\*\*\* Create the f\_framea data set to draw the sample. \*\*\*;

data both fr\_only s\_only problem;

merge framea (in=infr) samsizea (in=ins);

by stratum;

if infr=1 and ins=1 then output both;

else if infr=1 and ins=0 then output fr\_only;

else if infr=0 and ins=1 then output s\_only;

else output problem;

run;

\*\*\* Sort f\_framea by stratum and permanent random number, prn. \*\*\*;

/\* Q4FY2009 : ZONE4=1, PRN<0.75, Descending \*/

/\* Q1FY2010 : ZONE4= , PRN< , \*/

proc sort data=both out=r\_framea;

where zone1=1 and prn<=1; \*Q1Fy2010;

by stratum descending prn;

run;

\*\*\* Draw the sample from the r\_framea file. \*\*\*;

\*\*\* Create a variable called count to keep track of the number \*\*\*;

\*\*\* drawn is less than or equal to the sample size for each stratum. \*\*\*;

\*\*\*;

\*\*\* Since the data set was sorted in descending order by permanent \*\*\*;

\*\*\* random number, we have the sample size of the largest permanent \*\*\*;

\*\*\* random numbers from each stratum. \*\*\*;

\*\*\* Create the sample data set. \*\*\*;

data out.sample;

set r\_framea;

by stratum;

retain count;

if first.stratum = 1 then count = 1;

else count = count + 1;

if count <= nhff then output out.sample;

run;

\*\*\*\*\* Check the distribution of permanent random numbers. \*\*\*\*\*;

proc sort data=out.sample out=sample;

by stratum;

run;

proc means data=sample noprint;

by stratum;

var prn;

output out=m\_prn(keep=stratum min\_prn) min=min\_prn;

run;

proc means data=sample noprint;

by stratum;

id popsize nhff;

var zone1 zone2 zone3 zone4;

output out=sampdiag(drop=\_type\_ \_freq\_)

sum(zone1 zone2 zone3 zone4 )=

s\_zone1 s\_zone2 s\_zone3 s\_zone4;

run;

proc sort data=m\_prn;

by stratum;

run;

proc sort data=sampdiag;

by stratum;

run;

data zone\_tab;

merge sampdiag(in=A) m\_prn(in=B);

by stratum;

if A and B;

diff =s\_zone1-nhff; \*For Q1FY2010, zone1=1;

run;

title5 'Information for the Zones';

proc print data=zone\_tab;

sum popsize nhff s\_zone1 s\_zone2 s\_zone3 s\_zone4 diff;

run;

proc univariate data=zone\_tab;

var diff;

run;

\* Added by Amang 2/6/07: comparing # cases, min and max prn, in the zone (population) and in the sample ;

proc sort data=r\_framea;

by stratum;

run;

proc sort data=out.sample out=sample;

by stratum;

run;

proc means data=r\_framea noprint;

by stratum ;

var prn ;

output out=f n=size\_pop min=min\_prn\_pop max=max\_prn\_pop ;

run ;

proc means data=sample noprint;

by stratum ;

var prn ;

output out=s n=size\_samp min=min\_prn\_samp max=max\_prn\_samp ;

run ;

data fs ;

merge f s ;

by stratum ;

run ;

proc print data=fs ;

var stratum size\_pop size\_samp min\_prn\_pop max\_prn\_samp max\_prn\_pop ;

run ;

/\*

\*\*\*\*\* Q2FY2009\*\*\*\*\*;

proc print data=fs ;

var stratum size\_pop size\_samp min\_prn\_pop min\_prn\_samp max\_prn\_pop max\_prn\_samp ;

sum size\_pop size\_samp;

run ;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

\*/

title5 'Potential Problem Strata, POPSIZE < 1000';

proc print data=zone\_tab noobs;

where popsize < 1000;

sum popsize nhff s\_zone1 s\_zone2 s\_zone3 s\_zone4;

run;

title5 'Information about PRNs';

proc univariate data = out.sample;

var prn;

run;

\*\*\*\*\* Create the \*internal\* sampling file. \*\*\*\*\*;

data in.sampla;

set in.sample (drop =count popsize zone zone1-zone4);

label /\*cacsmpl = 'Catchment Area'\*/

geosmpl = 'Geographic Area'

group='Stratification group'

grp\_geo = 'group||geosmpl'

enbgsmpl = 'Enrollee/Beneficiary Group'

/\*ebg\_com = 'Enrollee/Beneficiary Group Prime Combined'\*/

ebsmpl = 'Enrollee/Beneficiary Group Collapsed'

nhff = 'Stratum Sample Size'

stratum = 'Stratum';

run;

\*\*\*\*\* Create the \*client\* sampling file. \*\*\*\*\*;

data in.sampla01 (keep = mprid stratum /\*cacsmpl\*/ enbgsmpl /\*ebg\_com\*/ nhff PRRECFLG);

set in.sampla;

run;

proc contents data=in.sampla01;

run;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Checking the sample

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

title5 'STRATUM Variable: Frame';

proc freq data=in.framea noprint;

table STRATUM / list missing out=denom(rename=(count=frmcnt percent=framepct));

run;

title5 'STRATUM Variable: Sample';

proc freq data=in.sample noprint;

table STRATUM / list missing out=numer(rename=(count=samcnt percent=samplpct));

run;

data bwt;

merge numer(in=A) denom(in=B);

by STRATUM;

if A and B;

sam\_rat=samcnt/frmcnt;

bwt=frmcnt/samcnt;

run;

title5 'Sample, frame info, and Sampling Ratio for STRATUM';

proc print data=bwt;

sum samcnt frmcnt framepct samplpct;

run;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End of checking the sample

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

/\*\*\*\*\*\*\*\*\*The End\*\*\*\*\*\*\*\*\*/

**BWT.SAS**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*

\* PROGRAM: F:\Q2FY2009\Programs\Sampling\BWT.SAS

\* TASK: 2009 DoD Health Care Survey, Quarterly Sampling

\* PURPOSE: Construct Sampling Weight for 2009 Quarterly DoD Survey Form A

\*

\* INPUTS: FRAMEA.sas7bdat - Frame for (2009) Quarterly DoD Survey

\* SAMPLA.sas7bdat - Internal Sample file for (2009) Quarterly DoD Survey

\*

\* OUTPUTS: BWT.SD2 - Sampling Weight for 2009 Quarterly DOD Survey Form A

\*

\* Updated: 1)Haixia Xu on 11/18/2004 for q1, 2005 sampling

\* 2)Haixia Xu on 05/12/2004 for q3, 2005 sampling

\* 3)X.Lin on 01/23/2006 for Q2,2006 sampling

\* 4)H. Xu on 4/8/2006 for Q4FY2006 sampling

\* 4)H. Xu on 8/18/2006 for Q1FY2007 sampling

\* 5)Sabrina Rahman on 05/06/2008 for Q4FY2008 sampling

\* 6)Sabrina Rahman on 07/31/2008 for Q1FY2009 sampling

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

options ls=132 ps=79 nocenter compress=yes ;

title1 'Construct the Sampling Weight, BWT.sas7bdat';

title2 'from the 2009 Quarterly DoD Files, FRAMEA..sas7bdat and SAMPLA..sas7bdat';

title3 'Program: BWT.SAS by Esther Friedman';

\*Update Marcro Variable Quarter with current Quarter;

%let quarter=Q1FY2010;

libname in v8 "L:\&quarter.\Data\AFinal";

libname out v8 "L:\&quarter.\Data\AFinal";

libname inv8 v8 "L:\&quarter.\Data\AFinal";

%include "L:\&QUARTER.\Programs\Sampling\design\_effects\_unequal\_weights.sas";

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Calculate the bwt

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

title5 'Information from the Frame';

proc freq data=in.framea noprint;

table stratum / list missing out=frame(keep = stratum count rename = (count = Fcnt\_str) );

run;

title5 'Information from the Sample';

proc freq data=in.sampla noprint;

table stratum / list missing out=sample(keep = stratum count rename = (count = Scnt\_str) );

run;

proc sort data=frame;

by stratum;

run;

proc sort data=sample;

by stratum;

run;

data weight;

merge frame sample;

by stratum;

bwt = Fcnt\_str/ Scnt\_str;

run;

title5 'Information for the Sampling Weight';

proc print data=weight;

var stratum Fcnt\_str Scnt\_str bwt;

sum Fcnt\_str Scnt\_str;

run;

\*\*\*Append the bwt to the sample;

data wt;

set weight (keep = stratum bwt);

run;

proc sort data=wt;

by stratum;

run;

proc sort data=in.sampla out=sample;

by stratum;

run;

data bwt wonly sonly problem;

merge wt (in=inw) sample (in=ins);

by stratum;

if pnsexcd = "M" then sexsmpl = 1;

else if pnsexcd = "F" then sexsmpl = 2;

else if pnsexcd in ("Z"," ") then sexsmpl = 1;

else sexsmpl = 3;

if svccd = "A" then svcsmpl = 1;

else if svccd = "N" then svcsmpl = 2;

else if svccd = "M" then svcsmpl = 3;

else if svccd = "F" then svcsmpl = 4;

else if svccd = "C" then svcsmpl = 5;

else svcsmpl = 6;

if inw = 1 and ins = 1 then output bwt;

else if inw = 1 and ins = 0 then output wonly;

else if inw = 0 and ins = 1 then output sonly;

else output problem;

run;

title5 'Check the Constructed Variables';

proc freq data=bwt;

tables pnsexcd\*sexsmpl svccd\*svcsmpl / list missing;

run;

title5 'Information for the Sampling Weight';

proc univariate data=bwt normal plot;

var bwt;

run;

\* Added by Amang 2/6/07: comparing weights across strata ;

proc sort data=bwt ;

by stratum ;

run ;

proc means data=bwt noprint ;

by stratum ;

var bwt ;

output out=w n=sampsize min=min\_bwt max=max\_bwt mean=mean\_bwt ;

run ;

proc print data=w ;

var stratum sampsize min\_bwt max\_bwt mean\_bwt ;

run ;

\*\*\*\*\*\*;

data inv8.bwt;

set bwt;

geosmpl=substr(stratum,2,4);

ebsmpl=substr(stratum,6,2);

label bwt = 'Sampling Weight';

run;

title5 'Checks for BWT Data Set';

proc means data=inv8.bwt n sum;

var bwt;

run;

title5 'Contents of the Sampling Weight Data Set';

proc contents data=inv8.bwt;

run;

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Check the bwt

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;

%macro checkvar(input\_data, sorting\_variable, weighting\_variable);

data framea;

set in.framea;

geosmpl=substr(stratum,2,4);

ebsmpl=substr(stratum,6,2);

run;

title5 'Freq of &sorting\_variable. from the Frame';

proc freq data=framea noprint;

table &sorting\_variable.

/ list missing out=frame(keep = &sorting\_variable. count rename = (count = pop) );

run;

proc means data=&input\_data. n sum noprint;

class &sorting\_variable.;

var &weighting\_variable.;

output out=bwtchk n = sampcnt sum = bwtsum;

run;

data bwtchk;

set bwtchk;

where \_type\_ = 1;

run;

proc sort data=bwtchk;

by &sorting\_variable.;

run;

data finalchk;

merge bwtchk frame;

by &sorting\_variable.;

diff = pop - bwtsum;

run;

title5 "Final Checks for the Sampling Weight by &sorting\_variable.";

proc print data=finalchk;

var &sorting\_variable. sampcnt bwtsum pop diff;

sum sampcnt bwtsum pop diff;

run;

proc univariate data=finalchk;

var diff;

run;

%mend checkvar;

%checkvar(inv8.bwt, stratum, bwt);

%checkvar(inv8.bwt, group, bwt);

%checkvar(inv8.bwt, geosmpl, bwt);

%checkvar(inv8.bwt, ebsmpl, bwt);

%checkvar(inv8.bwt, enbgsmpl, bwt);

%checkvar(inv8.bwt, grp\_geo, bwt);

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

\*\*\* Calculate the Design Effects \*\*\*;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%design\_effects\_unequal\_weights ( inv8.bwt, stratum, bwt, deff\_overall, deff\_stratum );

%design\_effects\_unequal\_weights ( inv8.bwt, group, bwt, deff\_overall, deff\_group );

%design\_effects\_unequal\_weights ( inv8.bwt, geosmpl, bwt, deff\_overall, deff\_geosmpl );

%design\_effects\_unequal\_weights ( inv8.bwt, ebsmpl, bwt, deff\_overall, deff\_ebsmpl);

%design\_effects\_unequal\_weights ( inv8.bwt, enbgsmpl, bwt, deff\_overall, deff\_enbgsmpl);

%design\_effects\_unequal\_weights ( inv8.bwt, grp\_geo, bwt, deff\_overall, deff\_grp\_geo );

%design\_effects\_unequal\_weights ( inv8.bwt, tnexreg, bwt, deff\_overall, deff\_tnexreg );

%design\_effects\_unequal\_weights ( inv8.bwt, patcat, bwt, deff\_overall, deff\_patcat );

%design\_effects\_unequal\_weights ( inv8.bwt, servaff, bwt, deff\_overall, deff\_servaff );

proc print data = deff\_overall;

title5 "design effect overall";

run;

proc print data= deff\_stratum;

title5 "design effect by stratum";

run;

proc print data= deff\_group;

title5 "design effect by group";

run;

proc print data= deff\_geosmpl;

title5 "design effect by geosmpl";

run;

proc print data= deff\_ebsmpl;

title5 "design effect by ebsmpl";

run;

proc print data= deff\_enbgsmpl;

title5 "design effect by enbgsmpl";

run;

proc print data= deff\_grp\_geo;

title5 "design effect by geosmpl";

run;

proc print data= deff\_tnexreg;

title5 "design effect by TNEXREG";

run;

proc print data= deff\_patcat;

title5 "design effect by PATCAT";

run;

proc print data= deff\_servaff;

title5 "design effect by SERVAFF";

run;

\*\*\*\*\*\*\*\*\*\*\*\*\* The End \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

**DESIGN\_EFFECTS\_UNEQUAL\_WEIGHTS.INC**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Name:

design\_effects\_unequal\_weights

Purpose:

Calculate the design effects due to unequal weights. Creates two data sets.

One data set contains the overall design effect and the information used to

calculate the design effect. The other data set contains the design effects

for each category of the analysis variable and the information used to

calculate these design effects. In the two data sets, the additional

information refers to the number of observations, the sum of the squared

weights, and the sum of the weights squared.

Programmer:

Darryl V. Creel

Parameters:

There are five:

(1) in\_data\_set - The input data set.

(2) analysis\_variable - The analysis variable contains the categories

by which the design effects are calculated.

(3) weight\_variable - The weight variable.

(4) out\_overall\_data\_set - Name of the data set that contains the

overall design effect.

(5) out\_data\_set - Name of the output data set that contains the

design effects for each category of the analysis

variable.

Output:

There are two data sets:

(1) A data set that contains the overall design effect and the

information used to calculte the overall design effect. It

includes observations that have a missing value for the analysis

variable. This data set is named by the out\_overall\_data\_set

parameter.

(2) A data set that contains the design effects for each category

of the analysis variable and the information used to calculate

these design effects. There is one observation for each category

of the analysis variable, including a missing category, if there

are missing values for the analysis variable. This data set is

named by the out\_data\_set parameter.

Side Effects:

None

Notes:

(1) Use with SAS V8.

(2) Do NOT use the following variable names as parameters:

(a) \_weight\_variables

(b) \_overall\_design\_effect

(c) \_design\_effect.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%macro design\_effects\_unequal\_weights

( in\_data\_set,

analysis\_variable,

weight\_variable,

out\_overall\_data\_set,

out\_data\_set );

data \_weight\_variables;

set &in\_data\_set. ( keep = &analysis\_variable. &weight\_variable. );

&weight\_variable.\_sq = &weight\_variable. \* &weight\_variable.;

run;

proc means data = \_weight\_variables missing noprint;

var &weight\_variable. &weight\_variable.\_sq;

output out = \_overall\_design\_effect

sum ( &weight\_variable. &weight\_variable.\_sq ) =

sum\_&weight\_variable. sum\_&weight\_variable.\_sq;

run;

data &out\_overall\_data\_set.;

set \_overall\_design\_effect ( drop = \_type\_ );

design\_effect = ( \_freq\_ \* sum\_&weight\_variable.\_sq ) / ( sum\_&weight\_variable. \* sum\_&weight\_variable. );

run;

proc sort data = \_weight\_variables;

by &analysis\_variable.;

run;

proc means data = \_weight\_variables missing noprint;

var &weight\_variable. &weight\_variable.\_sq;

by &analysis\_variable;

output out = \_design\_effect

sum ( &weight\_variable. &weight\_variable.\_sq ) =

sum\_&weight\_variable. sum\_&weight\_variable.\_sq;

run;

data &out\_data\_set.;

set \_design\_effect ( drop = \_type\_ );

design\_effect = ( \_freq\_ \* sum\_&weight\_variable.\_sq ) / ( sum\_&weight\_variable. \* sum\_&weight\_variable. );

run;

proc datasets;

delete \_weight\_variables \_overall\_design\_effect \_design\_effect;

run;

%mend design\_effects\_unequal\_weights;

**Sampla02.sas**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*

\* PROGRAM: SAMPLA02.SAS

\* TASK: DOD Health Care Survey, Sampling (old 6401-902)

\* Task#: 6407-275 "Client Communications" (ad-hoc task number until others become available)

\* PURPOSE: Attach DEERS variables to FORM A Sample, Step 2

\*

\* WRITTEN: 10/23/2000 BY KEITH RATHBUN

\*

\* MODIFIED: 1) 06/29/2004 BY KEITH RATHBUN, Removed references to PNARSNCD,

\* PNMIDNM, SPTNUMCD, and TNUMCD since they are no longer

\* available on the STI-provided DEERS extract. Added

\* PTNT\_ID to sorting and mergeing to utilize the revised

\* XWALK file.

\* 2) 08/01/2005 BY REGINA GRAMSS, Reassigned PCM value based on

\* ACV code - to mimic what was done in EXTRACT.SAS. This was

\* done specifically for Q4 2005, should check with STI to

\* see if this should be repeated for subsequent quarters.

\* 3) 11/15/2005 BY REGINA GRAMSS, updated PCM value assignment

\* to reflect changes in EXTRACT.SAS. Added STI005.SD2 (ONLY

\* FOR THIS QUARTER) to include the Katrina supplement file.

\* 4) 10/18/2006 BY SKY ANDRECHECK for Q2 2007 processing. Changed input files to

\* DEERS instead of old contractor name (STI).

\* 5) 02/18/2008 BY KEITH RATHBUN, dropped unnecessary sampling variables.

\* 6) 05/06/2008 by Sabrina Rahman for Q4FY2008 (Adult Sampling)

\* 7) 08/07/2008 by Sabrina Rahman for Q1FY2009 (Adult Sampling)

\* 8) 10/22/2008 By S. Rahman for Q2FY2009 sampling (Adult). (6401-902)

\* 9) 04/30/2009 By S. Rahman for Q4FY2009 sampling (Adult). (6401-902)

\* INPUTS:

\* 1) SAMPLA01.sas7bdat - DOD FORM A Sample from SIS

\* 2) XWALK.sas7bdat

\* 3) DOD DEERS Extract File

\* a) DEERS001.sas7bdat - DEERS Population Extract File (Part 1)

\* b) DEERS002.sas7bdat - DEERS Population Extract File (Part 2)

\* c) DEERS003.sas7bdat - DEERS Population Extract File (Part 3)

\* d) DEERS004.sas7bdat - DEERS Population Extract File (Part 4)

\*

\* OUTPUTS:

\* 1) SAMPLA02.sas7bdat - DOD FORM A Sample combined with DEERS extract

\* 2) Sampla02\_AD\_email.xls - All active duty file to be sent to DMDC by Rich for email address

\*

\* INCLUDES: None

\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

%LET QUARTER=Q1FY2010;

LIBNAME INr V8 "K:\&QUARTER."; /\* DEERS001-DEERS004.sas7bdat, xwalk.sas7bdat \*/

LIBNAME IN V8 "L:\&QUARTER.\DATA\AFINAL"; /\* sampla01.sas7dat \*/

LIBNAME OUT V8 "K:\&QUARTER."; /\* sampla02.sas7dat \*/

OPTIONS LS=132 PS=79 NOCENTER COMPRESS=YES MERGENOBY=ERROR;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Attach PTNT\_ID variable and keep only the sampled records.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

PROC SORT DATA=INr.XWALK OUT=XWALK; BY MPRID; RUN;

PROC SORT DATA=IN.SAMPLA01 OUT=SAMPLA01; BY MPRID; RUN;

DATA SAMPLA02;

MERGE XWALK(IN=IN1) SAMPLA01(IN=IN2);

BY MPRID;

IF IN1 AND IN2;

RUN;

PROC SORT DATA=SAMPLA02; BY PTNT\_ID; RUN;

%MACRO PROCESS(DSN=);

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* COMBINE each part (1-4) of the address/extract information file with

\* sample file information. DROP sampling variables (already on the file).

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

PROC SORT DATA=INr.&DSN

(DROP=MDCABRSN MDCAEFDT MDCAEXDT)

OUT=TEMP;

BY PTNT\_ID;

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* MERGE the DEERS extract file information with the Form A Sample by PTNT\_ID.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA &DSN;

MERGE TEMP(IN=IN1) SAMPLA02(IN=IN2);

BY PTNT\_ID;

IF IN1 AND IN2;

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* DELETE temporary dataset to conserve disk space.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

PROC DATASETS; DELETE TEMP; RUN;

%MEND PROCESS;

%PROCESS(DSN=DEERS001);

%PROCESS(DSN=DEERS002);

%PROCESS(DSN=DEERS003);

%PROCESS(DSN=DEERS004);

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* STACK the combined DEERS extract/sample file information into one dataset.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA SAMPLA02;

SET DEERS001 DEERS002 DEERS003 DEERS004;

BY PTNT\_ID;

\* 02/18/2008 - KRR added the following to clean up the file;

DROP SURVEY TNEXREG\_OLD ZIP\_TEMP grp\_temp north oconus randomnum south;

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* SORT the combined DEERS extract/sample file information by PTNT\_ID

\* to check for duplicates.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

PROC SORT DATA=SAMPLA02 NODUPKEY; by PTNT\_ID; RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* SORT the combined DEERS extract/sample file information by MPRID.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

\*note: need to update E\* for each quarter, Q1FY2010=E36;

PROC SORT DATA=SAMPLA02 OUT=OUT.SAMPLA02 (DROP = E1-E36); BY MPRID; RUN;

TITLE1 "DOD Health Care Survey Sampling ";

TITLE2 "PROGRAM: SAMPLA02.SAS, OUTPUT: SAMPLA02.sas7bdat";

PROC CONTENTS; RUN;

PROC FREQ DATA=OUT.SAMPLA02

(DROP=

DMDCSPON

PTNT\_ID

MALN1TX

MALN2TX

MACITYNM

MAPRZIP

MAPRZIPX

TNUMCD

MPRID

PN1STNM

PNBRTHDT

PNID

PNLSTNM

PRN

SPCITYNM

SPLN1TX

SPLN2TX

SPONSSN

SPPRZIP

SPPRZIPX

SPTNUMCD

UICADD1

UICADD2

UICCITY

UICZIP

D\_UPDT

C\_ADDR1

C\_ADDR2

C\_ADDR3

C\_CITY

C\_HMFON

C\_NAME1

C\_NAME2

C\_STATE

C\_UPDT

C\_ZIP

);

TABLES \_ALL\_ /MISSING LIST;

RUN;

/\*Output all active duty to an excel with sponssn attached.

This will be sent to Rich, who will send it to DMDC for the email address\*/

proc freq data=OUT.sampla02;

tables patcat/missing list;

run;

LIBNAME outxls excel "K:\&quarter.\Sampla02\_AD\_email.xls";

data outxls.hcsdb09q4(drop=patcat);

set OUT.sampla02(keep=sponssn mprid patcat rename=sponssn=ID);

where patcat='ACTDTY';

run;

libname outxls clear ;

**Sampla02\_1.sas**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*

\*\*\* Project: 2010 Health Care Survey of DoD Beneficiaries - Adult

\*\*\*

\*\*\* Purpose: Draw a stratified SRS of 10,000 subsample -

\*\*\* 10,000 will be porportionally allocated across the sampling stratum

\*\*\* Program: L:\Q1FY2010\Programs\Sampling\sampla02\_1.sas,

\*\*\* Input: sampla02.sas7bdat - 51,000 sample

\*\*\* Output: sampla02.sas7bdat with one extra variable EXPERIMT 51,000 sample

\*\*\* Notes:

Randomly draw 10,000 cases proportionally across STRATA

(this is the same as previous experimental sample)

from 51,000 HCSDB sample, and give them flag EXPERIMT=1.

Then randomly draw another 10,000 cases proportionally across

STRATA from the remaining 41,000 cases, and give them flag EXPERIMT=2.

Please label the variable EXPERIMT="Experimental Group".

Produce freq for variables EBSMPL\* EXPERIMT.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

options ls=132 ps=79 compress=yes nocenter noxwait;

title1 'Program: sampla02\_1.sas';

title2 'Purpose: Draw a stratified SRS of 10,000 subsample';

libname in v8 "K:\Q1FY2010"; /\*sampla02.sas7bdat\*/

libname out v8 "K:\Q1FY2010";

\*\*\*\*\* PART A \*\*\*\*;

\* Drawing 10,000 from 51,000;

TITLE1 'PART A: Drawing 10,000 from 51,000';

Title2 '\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_';

proc freq data=in.sampla02 noprint;

tables stratum/out=temp missing list;

run;

data temp;

set temp;

subsampsize1=10000\*percent/100;

subsampsize=round(10000\*percent/100);

run;

title3 'Check the proportionally allocation';

proc print data=temp;

sum subsampsize1 subsampsize;

run;

data temp;

set temp;

if stratum in ('1003203', '1006403', '1012703', '1012801', '1012701') then subsampsize=subsampsize-1;

run;

title3 'Check the proportionally allocation again';

proc print data=temp;

sum subsampsize1 subsampsize;

run;

data sampla02;

set in.sampla02;

randnum=ranuni(253829);

run;

proc sort data=sampla02;

by stratum randnum;

run;

data merged;

merge sampla02(in=A drop=randnum) temp(in=B keep=stratum subsampsize);

by stratum;

if A and B;

run;

\*output data;

data sampla02e(drop=subsampsize) sampla02ne(drop=subsampsize);

set merged;

by stratum;

if first.stratum then count=0;

count+1;

if count<=subsampsize then output sampla02e;

else output sampla02ne;

run;

data sampla02e;

set sampla02e;

EXPERIMT=1;

run;

\*\*\*\*\* PART B \*\*\*\*;

\*DRAW 10,000 FROM out.sampla02ne;

TITLE1 'PART B: Drawing 10,000 from 41,000';

Title2 '\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_';

proc freq data=sampla02ne noprint;

tables stratum/out=temp missing list;

run;

data temp;

set temp;

subsampsize1=10000\*percent/100;

subsampsize=round(10000\*percent/100);

run;

title3 'Check the proportionally allocation';

proc print data=temp;

sum subsampsize1 subsampsize;

run;

data temp;

set temp;

if stratum in ('1062201', '1621506', '2900102', '1008901', '1007301', '1036401') then subsampsize=subsampsize+1;

run;

title3 'Check the proportionally allocation again';

proc print data=temp;

sum subsampsize1 subsampsize;

run;

data sampla02ne;

set sampla02ne;

randnum=ranuni(253839);

run;

proc sort data=sampla02ne;

by stratum randnum;

run;

data merged\_2;

merge sampla02ne(in=A drop=randnum) temp(in=B keep=stratum subsampsize);

by stratum;

if A and B;

run;

\*output data;

data sampla02e\_2(drop=subsampsize) sampla02ne\_2(drop=subsampsize);

set merged\_2;

by stratum;

if first.stratum then count2=0;

count2+1;

if count2<=subsampsize then output sampla02e\_2;

else output sampla02ne\_2;

run;

data sampla02e\_2;

set sampla02e\_2;

EXPERIMT=2;

Label EXPERIMT = 'Experimental Group';

run;

data sampla02ne\_2;

set sampla02ne\_2;

EXPERIMT=3;

Label EXPERIMT = 'Experimental Group';

run;

/\*

Title1 'Proc contents: checking for unnecessary variables to drop';

proc contents data=in.sampla02 ; run;

proc contents data=sampla02e; run;

proc contents data=sampla02e\_2; run;

proc contents data=sampla02ne\_2; run;

\*/

data sampla02e (drop=count);

set sampla02e;

run;

data sampla02e\_2 (drop=count count2);

set sampla02e\_2;

run;

data sampla02ne\_2 (drop=count count2);

set sampla02ne\_2;

run;

Title1 'Proc contents: again after dropping unnecessary variables';

proc contents data=sampla02e; run;

proc contents data=sampla02e\_2; run;

proc contents data=sampla02ne\_2; run;

proc sort data=sampla02e; by mprid; run;

proc sort data=sampla02e\_2; by mprid; run;

proc sort data=sampla02ne\_2; by mprid; run;

data fullsample;

merge sampla02e sampla02e\_2 sampla02ne\_2;

by mprid;

run;

/\*

PROC FREQ DATA=fullsample

(DROP=

DMDCSPON

PTNT\_ID

MALN1TX

MALN2TX

MACITYNM

MAPRZIP

MAPRZIPX

TNUMCD

MPRID

PN1STNM

PNBRTHDT

PNID

PNLSTNM

PRN

SPCITYNM

SPLN1TX

SPLN2TX

SPONSSN

SPPRZIP

SPPRZIPX

SPTNUMCD

UICADD1

UICADD2

UICCITY

UICZIP

D\_UPDT

C\_ADDR1

C\_ADDR2

C\_ADDR3

C\_CITY

C\_HMFON

C\_NAME1

C\_NAME2

C\_STATE

C\_UPDT

C\_ZIP

);

TABLES \_ALL\_ /MISSING LIST;

RUN;

\*/

\*Checking;

title1 'Proc freq of Experimt and Patcat\*Experimt';

proc freq data=Fullsample;

tables EXPERIMT patcat\*EXPERIMT/missing list;

run;

\*WRITING FINEL FILE;

\*=====================;

DATA OUT.SAMPLA02;

SET FULLSAMPLE;

RUN;

TITLE1 'Proc Contents of Final Data';

proc contents data=OUT.SAMPLA02;

Run;

**Sampla03.sas**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*

\* PROGRAM: SAMPLA03.SAS

\* TASK: DOD Health Care Survey, Sampling (6401-902)

\* PURPOSE: Add email addresses to sample and create a list of MPRIDs

\* for Active Duty people with at least 1 email address

\* for Synovate.

\*

\* WRITTEN: 11/20/2008 BY KEITH RATHBUN

\*

\* MODIFIED:

\*

\* 1) 02/13/2009 BY KEITH RATHBUN, Updated for Q3FY2009 sample. This program

\* was called SAMPLA04.SAS in Q2FY2009. The old SAMPLA03.SAS was not needed

\* this quarter and will not be needed in the future since there will only

\* be one version, CAHPS V4, of the questionnaire.

\* 2) 05/18/2009 BY KEITH RATHBUN, Updated for Q4FY2009 sample.

\* 3) 08/14/2009 BY KEITH RATHBUN, Updated for Q1FY2010 sample.

\* Removed code related to email3 processing.

\*

\* INPUTS:

\* 1) SAMPLA02.sas7bdat - Q1FY2010 HSCSDB Adult Sample

\* 2) AD\_EMAIL2.sas7bdat - Email Address List (from Altarum)

\*

\* OUTPUTS:

\* 1) SAMPLA03\_1.sas7bdat - Q1FY2010 HSCSDB Adult Sample

\* (MPRIDs for only those with Email Addresses - For Synovate)

\* 2) SAMPLA03\_2.sas7bdat - Q1FY2010 HSCSDB Adult Sample

\* (Entire sample with all variables - For MPR)

\*

\* INCLUDES: None

\*

\* NOTES:

\* 1) Input SAS file was created by SAMPLA02.SAS. Email

\* address list was provided by Altarum.

\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

LIBNAME IN "K:\Q1FY2010";

LIBNAME OUT "K:\Q1FY2010";

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

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Create HAS\_EMAIL flag from match indictor and rename PNID.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

DATA EMAILADRS;

SET IN.AD\_EMAIL2(RENAME=(PNID=SPONSSN));

LENGTH HAS\_EMAIL $3;

IF MATCH = "Y" THEN HAS\_EMAIL = "YES";

ELSE IF MATCH = "N" THEN HAS\_EMAIL = "NO";

LABEL HAS\_EMAIL = "Is EMail Address Available?";

LABEL EMAIL1 = "EMAIL Address 1";

LABEL EMAIL2 = "EMAIL Address 2";

DROP MATCH;

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Verify that there are no duplicate MPRIDs.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

PROC SORT DATA=EMAILADRS NODUPKEY; BY MPRID; RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Combine the entire sample (SAMPLA02.sas7bdat) with the EMAILADRS file.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

PROC SORT DATA=IN.SAMPLA02 OUT=SAMPLA02; BY MPRID; RUN;

DATA OUT.SAMPLA03\_1(KEEP=MPRID) OUT.SAMPLA03\_2;

MERGE SAMPLA02(IN=IN1) EMAILADRS(IN=IN2);

BY MPRID;

LENGTH IN\_EMAIL $3;

LENGTH ERROR $3;

IF IN2 THEN IN\_EMAIL = "YES";

ELSE DO;

IN\_EMAIL = "NO";

HAS\_EMAIL = "N/A";

END;

IF IN2 AND NOT IN1 THEN ERROR = "YES";

ELSE ERROR = "NO";

VALID\_EMAIL\_COUNT = 0;

EMAIL1\_INVALID\_COUNT = 0;

EMAIL2\_INVALID\_COUNT = 0;

IF EMAIL1 NE " " THEN DO;

AMPER1 = INDEX(EMAIL1,"@"); DROP AMPER1;

\* Valid emails cannot begin or end with @;

IF AMPER1 IN (1,0) OR SUBSTR(EMAIL1,AMPER1+1) = " " THEN EMAIL1\_INVALID\_COUNT = EMAIL1\_INVALID\_COUNT + 1;

ELSE VALID\_EMAIL\_COUNT = VALID\_EMAIL\_COUNT + 1;

END;

IF EMAIL2 NE " " THEN DO;

AMPER2 = INDEX(EMAIL2,"@"); DROP AMPER2;

\* Valid emails cannot begin or end with @;

IF AMPER2 IN (1,0) OR SUBSTR(EMAIL2,AMPER2+1) = " " THEN EMAIL2\_INVALID\_COUNT = EMAIL2\_INVALID\_COUNT + 1;

ELSE VALID\_EMAIL\_COUNT = VALID\_EMAIL\_COUNT + 1;

END;

LABEL VALID\_EMAIL\_COUNT = "Number of Valid Email Addresses";

LABEL EMAIL1\_INVALID\_COUNT = "Number of Invalid Email1 Addresses";

LABEL EMAIL2\_INVALID\_COUNT = "Number of Invalid Email2 Addresses";

LABEL IN\_EMAIL = "In DMDC-Provided EMail Address File?";

LABEL ERROR = "Data Error?";

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Keep only those with valid email addresses for Synovate's MPRID list.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

IF HAS\_EMAIL = "YES" AND VALID\_EMAIL\_COUNT GT 0 THEN OUTPUT OUT.SAMPLA03\_1;

IF IN1 THEN OUTPUT OUT.SAMPLA03\_2;

RUN;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Make sure there are no duplicate MPRIDs in the list being provided to

\* Synovate.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

PROC SORT DATA=OUT.SAMPLA03\_1 OUT=TEMP NODUPKEY; BY MPRID; RUN;

TITLE1 "PROGRAM: SAMPLA03.SAS, By Keith Rathbun";

TITLE2 "DOD Health Care Survey, Sampling (6401-902)";

TITLE3 "PURPOSE: Add email addresses to sample and create a list of MPRIDs";

TITLE4 " for Active Duty people with at least 1 email address for Synovate.";

TITLE5 "CONTENTS of SAMPLA03\_2.sas7bdat";

PROC CONTENTS DATA=OUT.SAMPLA03\_2; RUN;

TITLE5 "FREQ of SAMPLA03\_2.sas7bdat";

PROC FREQ DATA=OUT.SAMPLA03\_2;

TABLES ERROR PATCAT IN\_EMAIL HAS\_EMAIL PATCAT\*IN\_EMAIL\*HAS\_EMAIL

HAS\_EMAIL\*VALID\_EMAIL\_COUNT\*EMAIL1\_INVALID\_COUNT\*EMAIL2\_INVALID\_COUNT

/MISSING LIST;

RUN;

TITLE5 "CONTENTS of SAMPLA03\_1.sas7bdat";

PROC CONTENTS DATA=OUT.SAMPLA03\_1; RUN;

Appendix F  
  
Technical Background in Determining the Sample Sizes

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Technical Background for the Algorithm

To attain the required half length *HL* for confidence intervals, the required sample size *n* was obtained while incorporating finite population correction factors that recognized variable sampling rates across sampling strata.

For a simple random sample (SRS) of size *n* from a finite population of size *N*, the variance of a sample proportion *p* is:

(F.1) 

where *P* denotes the population proportion. Because the expected sample sizes for all strata for the FY2010 HCSDB survey are sufficiently large, the standard formula (4.1) in Chapter 4 can be used in constructing the confidence interval of *P*. Let *B* denote the required half-length interval for *P*. Using formula (F.1) for the simple random sample variance of *p*, the precision requirement *B* can be represented by the following equation:

(F.2) 

Consequently, the sample size to attain the precision requirement *B* can be determined by solving equation F.2 with respect to *n* as follows:

(F.3) 

This formula was used as the first step in determining initial sample sizes for all strata in the 2007 HCSDB.

Note from formula (F.3), sample sizes vary according to values of the proportion *P*. As the value of *P* becomes closer to 0.5, *n* becomes larger. Because proportions of interest for this survey could have values ranging from zero to one, the resulting sample sizes lie within a wide range of values with the largest value associated with *P*=0.5. For sample size determination, we used a proportion value of *P*=0.5, which ensures that the sample size will be large enough to meet or exceed the predetermined precision requirement for all proportions to be estimated.

Since the sample size is being defined to construct a 95 percent interval for P = 0.5 with a half-length interval less than or equal to B,  can be replaced with  which is 1.96. Formula (F.3) can then be specified as the following:

(F.4) 

where .9604 was obtained from  with *P* = 0.5. The formula (F.4) can then be applied to determine the sample size to achieve *B* in estimating stratum-level estimates.

Recall that the 2010 HCSDB employs a stratified sample design. Since we wish to estimate the proportion of beneficiaries from domain *d* having a certain characteristic. An estimate of the proportion  can be obtained as the weighted sum of stratum-level proportion estimates:

(F.5) ,

where  is the population size of domain *d* for stratum *h*,  is the sum of  over all strata, and  is the estimated proportion for the *h*-th stratum. Since the sampling is independent across strata, the variance of estimated proportion  is the sum of stratum-level variances:

(F.6) 

where  is the sample size in stratum *h* and  is the stratum-level proportion for stratum *h*. Like the single stratum case, all stratum-level proportions are assumed with 0.5, and thus the formula (F.6) can be reduced to the following:

(F.7) 

The minimum sample size satisfying the requirements for a predetermined half-length interval  is:

(F.8) 

With the same specifications above, formula (F.8) can be specified as:

(F.9) ,

where  = (.5)(.5) = 0.25 for all *h* and  = 3.8416.

The stratum sample size is based on the following optimal stratum sample sizes:

(F.10) 

Likewise, this formula becomes

(F.11) 

After the stratum size for eligible respondents was finally determined, an anticipated response rate *R* was incorporated to get the final stratum sample size[[5]](#footnote-6):

(F.12) 

We used the unweighted response rates from the third quarter of 2009HCSDB response rates for beneficiary groups as the expected response rates R.

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Appendix G  
  
Stratification Scheme

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1. The geographic areas include military treatment facilities (MTFs) for enrollees with certain military PCMs, TNEX regions for all others enrolled with a military treatment facility (MTF), and TNEX regions for all other beneficiaries. [↑](#footnote-ref-2)
2. Types of TRICARE Prime enrollment status and beneficiary groups include: (1) active duty; (2) active duty family members enrolled in Prime with a civilian PCM; (3) active duty family members enrolled in Prime with a military PCM; (4) active duty family members not enrolled in Prime; (5) retirees and their family members younger than 65 enrolled in Prime with a civilian PCM; (6) retirees and their family members younger than 65 enrolled in Prime with a military PCM; (7) retirees and their family members younger than 65 not enrolled in Prime; (8) retirees and their family members age 65 or older enrolled in Senior Prime with a civilian PCM; (9) retirees and their family members age 65 or older enrolled in Senior Prime with a military PCM; and (10) retirees and their family members age 65 or older not enrolled in Senior Prime;and (11) beneficiaries enrolled in TRICARE Reserve Select. [↑](#footnote-ref-3)
3. SSNSMPL is formed by three DEERS variables: the nine-digit Social Security number (SPONSSN), the one-digit family sequence number (SPDUPID), and the two-digit DEERS dependent suffix (LEGDDSCD). [↑](#footnote-ref-4)
4. A stratum-level precision requirement was set to obtain initial stratum level sample sizes necessary for our in-house sample size determination program. [↑](#footnote-ref-5)
5. For some strata we also inflated the sample size by the exptected proportion of valid respondents in certain analytic domains. [↑](#footnote-ref-6)