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Health Care Survey of DoD Beneficiaries:

2006 Adult Sampling Report

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Contents

Chapter		Page
	Executive Summary	vii
1	Introduction	1
2	Construction of the Sampling Frame	3
	A. Requesting the Deers Extract File	3
	B. Determining Eligibles for the Sampling Frame	4
	C. Constructing the Variables Required for Sampling	4
3	Construction of Sampling Strata	7
	A. Stratification Variables	7
	1. TRICARE Prime Enrollment Status and Beneficiary Type	7
	2. Geographic Area	8
	B. COLLAPSING STRATA	8
	C. Stratification Results	9
4	Sample Sizes	11
	A. Precision Requirements	11
	B. Response Rates	11
	C. Sample Size Computation	12
5	Selecting the Sample	15
	A. PRN Selection Procedure	15
	1. Assignment of the Permanent Random Number	15
	2. Partitioning the Frame into the Four Zones	15
	3. Overlap Between the 2004 and 2005 QBS Samples and the 2006 QBS Sample	16
	B. SAMPLING WEIGHT	16
	C. CHECKS FOR THE SELECTED SAMPLE	16
	References	19

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Appendices

Page

A DEERS VARIABLES REQUESTED BY MPR A-1

B Q1 2006 TABLES FOR ENROLLEES WITH A MILITARY PCM AND GEOGRAPHIC AREA EQUAL TO CATCHMENT AREA B-1

C Q1 2006 TABLE FOR COLLAPSING RULES C-1

D Q1 2006 TABLES FOR SAMPLING CHECK D-1

E Q1 2006 VARIABLES DELIVERED TO SYNOVATE E-1

F Q1 2006 SAS CODE FOR SAMPLE FRAME CONSTRUCTION AND SAMPLE SELECTION F-1

1. CONSTRUCT EXTRACT AND CROSSWALK FILES
   - STI.SAS F-1
   - LAYOUT.SAS F-4
   - XWALK.SAS F-7
   - DUPCHECK.SAS F-11
   - EXTRACT.SAS F-12

2. CONSTRUCT Q2 ADULT SAMPLE FRAME
   - FRAMEA01.SAS F-15
   - FRAME.INC F-20
   - FRAMEA_CHK.SAS F-24
   - EBCOLL01.SAS F-28
   - COUNTA.SAS F-32

3. CONSTRUCT Q2 ADULT SAMPLE
   - SAMSIZEA.SAS F-35
   - SAMPLA01.SAS F-42
   - BWT.SAS F-48
   - DESIGN_EFFECTS_UNEQUAL_WEIGHTS.INC F-53

G TECHNICAL BACKGROUND IN DETERMINING THE SAMPLE SIZES G-1

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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 2006 Adult HCSDB sample design is similar to the 2005 design. We continued to use a permanent random number sample selection method. As in the 2005 sample, beneficiaries residing outside of a MTF catchment area are grouped into one of four TRICARE TNEX regions. This report documents the procedures used to design and select the sample of adult beneficiaries for the 2006 Adult HCSDB.

The 2006 Adult HCSDB has a complex stratified sample design with 50,000 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 sample for the survey 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 2006 Adult HCSDB sample design's major features are:

- The sampling frame consisted of the roughly 7.2 million beneficiaries 18 or older who were eligible for military health care benefits as of September 12, 2005. The sampling frame consists of beneficiaries living both in the U.S. and abroad.

- The strata were based on the cross of six types of TRICARE Prime enrollment beneficiary groups by geographic area. Types of TRICARE Prime enrollment status and beneficiary groups include (1) active duty, (2) active duty family members enrolled in Prime, (3) active duty family members not enrolled in Prime, (4) retirees and their family members younger than 65 enrolled in Prime, (5) retirees and their family members younger than 65 not enrolled in Prime, and (6) retirees and their family members age 65 or older. The geographic areas include military treatment facilities (MTFs) for enrollees with a military primary care manager (PCM), catchment areas for enrollees with a civilian PCM, and service areas for nonenrollees.

- The goal for the precision of the adult survey estimates was expressed in terms of half-lengths of 95 percent confidence intervals for a percentage of size 50. Combining four quarters of the Quarterly Beneficiary Surveys should yield catchment-area-level estimates with precision levels of 5 percentage points. The four out-of-catchment areas, one for each TNEX region, should also achieve this level of precision.

- Stratification based on a simple combination of the two stratifying variables produces too many strata because of the large number of geographic sites defined by catchment areas, service areas, and MTFs depending on the enrollment status. Because the population in many of these strata is small, we collapsed them to reduce the total number of strata for the 2006 survey to 452.

- Based on the 2005 results, response rates for the 2006 survey are expected to be 17.5 percent for active duty beneficiaries; 29 percent for active duty family members enrolled in Prime; 25 percent for active duty family members not enrolled in Prime; 53 percent for retirees and their family members younger than 65 enrolled in Prime; 42.5 percent for retirees and family members younger than 65 not enrolled in Prime; and 72 percent for retirees and their family members age 65 or older.

- Given the 2005 HCSDB response rates, we expect to attain the precision requirements under the budgetary sample size of 50,000.

- A permanent random number sample selection algorithm was used to ensure that a beneficiary would not be selected for more than one quarterly survey in 2006. As a result of the selection algorithm, no beneficiaries were selected two years in a row.

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 care 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 calendar year. The 2006 HCSDB is similar in design to the 2005 survey, and continues to use a permanent random number sample selection method to minimize overlap among the samples (for further discussion, please see chapter 5). We continue to refer to the quarterly surveys as the Quarterly Beneficiary Surveys (QBSs).

This report documents the procedures Mathematica Policy Research, Inc. (MPR) used to design and select the sample of adult beneficiaries for the first QBS of 2006. Subsequent QBSs in 2006 will essentially follow the same design. Chapter II explains how MPR used a population data file of all MHS beneficiaries to develop the sampling frame. Chapter III explains how the sampling frame was stratified before the sample was selected. Chapter IV describes how the sample sizes were derived to meet the precision requirements specified for the survey estimates. In Chapter V, 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 quarterly Adult HCSDB 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 primary care manager (PCM) were assigned a catchment area as the geographic area. Appendix C contains detailed tables summarizing the counts of beneficiaries by collapsed strata and by strata that have not been collapsed so that readers can understand the collapsing rules. Appendix D includes population, sample, and weighted sample counts tabulated for all sampling strata as part of the sample verification process. Appendix D also includes population, sample, and weighted sample counts for two analytic domains, service and enrollment and beneficiary group. Appendix E includes all variables delivered to Synovate, the data collection contractor, after the sample was selected. Appendix F contains all SAS programs used for the 2006 quarterly sample design and sample selection. Appendix G includes all technical arguments and related formula in determining the sample sizes.

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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 QBS 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 included all eligible beneficiaries on the reference date of September 12, 2005 was requested to use in constructing the sampling frame.
- The sampling frame was constructed by excluding beneficiaries under the age of 18 from the DEERS extract data file and constructing additional variables required for sampling purposes.
- Population counts were calculated for potential stratification cells defined by the cross-classification of geographic area, beneficiary type, and enrollment status.

A. REQUESTING 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 September 12, 2005, 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. Beneficiaries in the population data file can be uniquely identified by a constructed variable SSNSMPL, which contains confidential data[1] and PTNT_ID, which is the identifier that is used to represent the person within the Department of Defense Electronic Data Interchange. We created a nonconfidential identification variable (MPRID) by randomly and uniquely assigning values to all adult beneficiaries in the extract file. The SAS-converted extract data file incorporates MPRID as the identification variable and excludes SSNSMPL. For historical purposes, we retained a crosswalk file that includes SSNSMPL, 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 F includes the SAS programs we used to check the DEERS variables we requested, to create the crosswalk file, and to 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*

[1] 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).

(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 QBS sampling frame was constructed by using the DEERS extract file described above and only retaining those cases that were 18 years of age or older on September 12, 2005. In other words, the QBS sampling frame includes individuals who meet the following characteristics:

- 18 years of age or older on September 12, 2005 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 QBS sampling frame if LEGDDSCD = 20, 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. They are all classified as sponsors, spouses of a sponsor, parents of a sponsor, or in-laws of a sponsor, which suggests that they were 18 or older at the time of sampling.

The sample was selected from this QBS 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 QBS is a stratified design, variables for stratification had to be included in the sampling frame. Strata are defined by combinations of enrollment status, geographic area, and beneficiary group. (The stratification procedure is described in Chapter III.) For sampling purposes, some 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 SSNSMPL and PTNT_ID so that units in the frame can be linked back to information from the extract file.

- **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, and 10 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. Retirees with missing ages were classified as not enrolled in TRICARE Prime. This variable was created from DEERS variables PATCAT, PNTYPCD, PNLCATCD, PCM, and DAGEQY.

- **EBG_COM (enrollment status and beneficiary group of a beneficiary with enrollment status as either enrolled or not enrolled)**. This variable was constructed from ENBGSMPL. This variable carries an extension of 1, 2, 3, 4, 5, or 6, which denotes the following groups: 1 = active duty; 2 = active duty family member enrolled in Prime; 3 = active duty family member not enrolled in Prime; 4 = retirees and their family members who are younger than 65 and enrolled in Prime; 5 = retirees and their family members who are younger than 65 and not enrolled in Prime; and 6 = retirees and their family members age 65 and over. This is the enrollment beneficiary variable used in sampling.

- **GEOCELL (geographic area).** For military PCM enrollees, MTF identification numbers were used to assign the beneficiaries to geographic areas. However, in four situations the geographic area for military PCM enrollees was set to the catchment area identification number: (1) MTF used for administration purposes only, (2) MTF is associated with a managed care contractor (3) MTF assigned to beneficiaries at sea, and (4) MTF is an inactive facility (see Appendix B). For civilian PCM and not-enrolled groups, catchment area identification numbers were used to assign beneficiaries to geographic areas. This variable was created from DEERS variables ENRID, DCATCH, and PCM.

- **CACSMPL (geographic area variable**). This variable was constructed from GEOCELL according to the collapsing rules described in Chapter III. This is the geographic variable used in sampling.

Once the sampling frame was created, we developed a file containing population counts for uncollapsed strata. This file was used to determine collapsing rules with minimum sampling stratum sizes.

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Chapter
3

Construction of Sampling Strata

The QBS sample was independently selected within strata defined by a combination of enrollment status and beneficiary type within a geographic area. This chapter describes the initial construction of sampling strata for the QBS, the collapsing of initial strata to form larger strata (as necessary), and results of the stratification.

A. STRATIFICATION VARIABLES

The QBS sampling frame included two stratification variables: (1) TRICARE Prime enrollment status combined with beneficiary group and (2) geographic area defined according to the beneficiary's address or the location of the military health care facility where the beneficiary was enrolled.

1. TRICARE Prime Enrollment Status and Beneficiary Type

The combined enrollment status and beneficiary type stratification variable, EBG_COM, was developed as follows. First, enrollment status was determined by dividing the target population into two enrollment groups: (1) enrolled in TRICARE Prime and (2) not enrolled in TRICARE Prime. Enrollment status was determined using the DEERS variable for the primary care manager code (PCM). Following the definition of PCM values, all beneficiaries with PCM = MTF or PCM = CIV (civilian PCM) are enrolled in Prime. All beneficiaries with PCM = blank are not enrolled in Prime.

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 F.

The final combined enrollment status and beneficiary type variable EBG_COM has six groups: (1) active duty, (2) active duty family members enrolled in Prime, (3) active duty family members not enrolled in Prime, (4) retirees and their family members younger than 65 enrolled in Prime, (5) retirees and their family members younger than 65 not enrolled in Prime, and (6) retirees and their family members age 65 or older.

All active duty and retirees and their family members age 65 or older are in their own enrollment and beneficiary group. Active duty beneficiaries are grouped together because they are regarded as being enrolled in TRICARE Prime. Retirees and their family members age 65 and over are grouped together because they are regarded as not being enrolled in TRICARE Prime.

2. Geographic Area

The definition of geographic area depends on the beneficiary's enrollment status. For beneficiaries enrolled in TRICARE Prime with a military PCM, the geographic area was defined as the Military Treatment Facility (MTF) with financial responsibility for the beneficiary. For beneficiaries enrolled in TRICARE Prime with a civilian PCM, the geographic area was defined as the catchment area where the beneficiary lived. For nonenrolled beneficiaries, the geographic area was defined as the service area where the beneficiary lived.

For enrollees with a military PCM, the value of ENRID defines their geographic area except when the 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, and for enrollees with a civilian PCM and nonenrollees, we used the derived geographic catchment area (DCATCH).

B. COLLAPSING STRATA

We developed a collapsing scheme to combine geographic areas based on the 1998 HCSDB sample design and the improved scheme in the 1999 HCSDB (Cox et al. 1998; Jang and Satake 1999). The 1999 collapsing rule made the geographic areas more compatible with catchment areas on which we are reporting. Further refinements in the collapsing scheme for the 2006 HCSDB resulted in 452 final strata. In the QBS, we collapsed the initial geographic areas to get 107 final "collapsed" catchment areas for the first quarter of 2006. The collapsing rules were determined in collaboration with TMA's staff. In general, the collapsing rules were as follows:

- With the exception of some large clinics, all "child" clinic Defense Medical Information System (DMIS) identifications were combined with their "parent" DMIS.
- Noncatchment areas were combined within TNEX regions to create a combined noncatchment area for each of the four TNEX regions (CACSMPL= 9901–9904).[2]
- Most stand-alone clinics with few beneficiaries were combined with a nearby MTF using the list of MTFs within 200 miles. A few were combined with a MTF within 750 miles
- All clinics for beneficiaries serving in the Coast Guard were combined with a MTF within the same state or neighboring state.
- Certain MTFs that were previously collapsed (before 2005) are now uncollapsed. The DMIS ID values for these uncollapsed sites are 0387, 0508, 0378, 6215, 0405, 0231, 0407, 0068, 0026, 0337 and 0122.
- Nine Air Force MTFs that were previously separate strata (before 2005) were collapsed to accommodate the uncollapsed MTFs. The DMIS ID values for these sites are 0090, 0059, 0013, 0638, 0008, 0045, 0036, 0043, 0805 and 0326. In addition, DMIS_ID values 0093 and 0094 were collapsed with DMIS ID 0129.

Appendix C shows the collapsed catchment areas and the population size in each.

After collapsing geographic areas as described above, the populations of some strata were still too small. Therefore, we collapsed across EBG_COM, the variable that defines enrollment and

[2] CACSMPL is a geographic stratification variable. See Chapter II for a detailed definition.

beneficiary group, to create strata with at least 1,000 beneficiaries. We first collapsed across enrollment group combining Prime enrollees with nonenrollees. If the stratum was still too small, we collapsed across beneficiary group combining retirees younger than 65 with retirees age 65 or older or combining retirees younger than 65 with active duty family members

For out-of-catchment areas (CACSMPL= 9901–9904) we consolidated within TNEX regions for the purposes of sampling. We created four groups as follows:

- Group 1 consists of noncatchment areas from the North TNEX region
- Group 2 consists of noncatchment areas from the South TNEX region
- Group 3 consists of noncatchment areas from the West TNEX region
- Group 4 consists of noncatchment areas from the Other TNEX region

C. STRATIFICATION RESULTS

The collapsing rules resulted in 452 strata (STRATUM), which can be uniquely specified using two variables: EBSMPL, the collapsed version of EBG_COM (enrollment status and beneficiary group), and CACSMPL (geographic area). 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.

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Chapter
4

Sample Sizes

The total sample size for the QBS was determined based on the sample size appropriate for each stratum. Because the strata are also important analytic domains, this strategy ensures that samples drawn from each stratum will be large enough to meet precision requirements. In addition, stratification with approximately optimum allocation to strata can be effective in reducing sampling errors of survey estimates. In this chapter, we present the procedures used for sample size allocation for the QBS, including the requirements, response rates, and how the sample sizes were finally determined.

A. PRECISION REQUIREMENTS

Precision requirements and expected response rates were the basis for determining stratum-level sample sizes. These requirements were defined to ensure adequate precision for constructing 95 percent confidence intervals. The QBS estimates the proportion of beneficiaries with certain attributes for particular domains of interest. When the sample size is large enough, we can assume that estimated proportions will follow approximate normal distributions according to the Central Limit Theorem (Skinner, Holt, and Smith 1989). The resulting 100(1-α) percent confidence interval for a proportion of interest *P* is based on the standard formula:

(IV.1)
$$p \pm z_{1-\alpha/2}\sqrt{V(p)} = p \pm HL$$

where *p* is an estimate of *P*, $z_{1-\alpha/2}$ 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 $HL = z_{0.975}\sqrt{V(p)}$.

For the QBS, precision requirements specified that the *HL* of the 95 percent confidence interval in (IV.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. This helped to ensure that *HLs* for all estimates would be less than or equal to the specified values. Combining four quarters of the QBS should yield catchment-area-level estimates with precision levels of 5 percentage points. However, as response is not constant among catchment areas, final precision levels may vary among catchment areas. These precision requirements apply to the four noncatchment areas strata, as well.

B. RESPONSE RATES

After calculating the number of eligible respondents needed to achieve the precision requirements, we inflated the resulting sample sizes to account for survey nonresponse. Average response rates from the 2005 Adult HCSDB were used to approximate the expected QBS response rates.

Because response rates were known to vary substantially across enrollment and beneficiary groups, we projected different response rates for each group: 17.5 percent for active duty beneficiaries; 29 percent for active duty family members enrolled in Prime; 25 percent for active duty family members not enrolled in Prime; 53 percent for retirees and their family members younger than 65 enrolled in Prime; 42.5 percent for retirees and family members younger than 65 not enrolled in Prime; and 72 percent for retirees and their family members age 65 or older. To calculate the final sample size, we adjusted the sample allocation by the inverse of the anticipated response rate.

C. 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 G is the basis for the sample sizes we developed to meet the QBS precision requirements. Appendix F includes the in-house SAS programs we used in determining sample sizes.

The first step was allocating 20 eligible respondents to each stratum, which corresponds to a precision level of 22 percentage points. Next, we allocated the initial sample sizes needed to achieve the precision requirements for each catchment area. The precision levels for catchment areas are 10 percentage points for quarterly level estimates and 5 percentage points for annual estimates. Therefore, 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* geographic areas. Input values needed to calculate sample size for domain *d* for (G.7) and (G.8) in Appendix G were:

- N_h : POPSIZE for stratum *h*
- $N_d = \sum_{h=1}^{H} N_{dh}$: DSUM1 is the population size of domain *d* over all strata
- $V_{d,o} = B_d^2 / 3.8416$ for all geographic areas
- *B* = 0.10 for all catchment areas

The optimal geographic-area-level sample sizes were calculated using (G.9) in Appendix G for all geographic areas. Here, N_d, N_h, and $V_{d,0}$ are the same as defined above, and the summation in the formula occurs over all strata within domain *d*. The output is denoted by n_d. With the optimal geographic-area-level sample sizes, n_d, stratum-level sample sizes were also optimally allocated for all strata. Input values for (G.11) in Appendix G are the same as defined for (G.9) above. The resulting sample sizes at this step are denoted as n_h^{opt}.

After finalizing strata sample sizes for eligible respondents, we incorporated the expected response rates to obtain the final sample sizes. We used the 2004 HCSDB response rates for beneficiary groups as the expected response rates *R; R* = 0.175, 0.29, 0.25, 0.53, 0.425, and 0.72 for enrollment and beneficiary group 1 (AD), 2 (ADFM-ENR), 3 (ADFM-NE), 4 (RET<65-ENR), 5 (RET<65-NE), and 6 (RET65+), respectively. The final sample sizes were then calculated as:

$$n_{h,F} = \frac{n_h}{R_h}$$

where n_h denotes the sample size in stratum h and R_h denotes the expected response rate in stratum h. Once we attained the required precision goals, we optimally allocated the overall sample of 50,000 beneficiaries.

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Chapter
5

Selecting the Sample

The QBS sampling was independently performed within the strata (see Chapter III) based on the sample size allocation (see Chapter IV). Within each stratum, beneficiaries were sorted by a random number. 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. Here, we describe the PRN selection procedure, and how we checked the sample to evaluate the selection procedure. Appendix F contains the SAS program for the QBS 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 two stratifying variables; small cells were collapsed as discussed in Chapter III. 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 2006 HCSDB, the newly eligible beneficiaries were added to the ordered list of PRNs. The frame of beneficiaries was then sorted in ascending order of the PRN—that is, from smallest to largest PRN.

2. Partitioning the Frame into the Four Zones

For the quarterly surveys in 2006, overlap among the four quarterly samples, as well as overlap with the 2005 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 $0 \leq PRN < 0.25$.
- Zone 2 for all beneficiaries with $0.25 \leq PRN < 0.5$.

- Zone 3 for all beneficiaries with $0.5 \leq PRN < 0.75$.

- Zone 4 for all beneficiaries with $0.75 \leq PRN < 1$.

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

Using the stratum sample size n_h for each stratum (h = 1,…, 452), 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 III and that within each stratum, the PRNs are arranged in descending order. The starting point for Zone 1, a_i, was equal to 0.25 for quarter 1. This starting point was chosen to minimize the overlap with quarter 1, 2005. Therefore, for stratum h, the sample consists of the first n_h beneficiaries with a random number less than 0.25, where n_h is the predetermined stratum sample size. This procedure was repeated for every stratum. We wrote a custom program for the sample selection (Appendix F).

3. Overlap Between the 2004 and 2005 QBS Samples and the 2006 QBS Sample

The PRN method provides the means to reduce overlap between year five and year six of the quarterly survey. By selecting varying starting points for the different quarters we minimized the potential overlap. In fact, we did not have any overlap between any of PRNs in the 2006 and 2005 datasets. We did, however, have an overlap of eight cases between quarter 1, 2006 and quarter 1, 2004. However, this level of overlap is very small and according to the research of Creel et al. (2002) we do not expect any negative effects on response due to the overlap.

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 $BWT_{hi} = N_h/n_h$, where BWT_{hi} is the sampling weight for the i^{th} sampled beneficiary from the h^{th} stratum, N_h is the total number of beneficiaries in the h^{th} stratum, and n_h 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 N_h.

C. CHECKS FOR THE SELECTED SAMPLE

After drawing the sample, we evaluated the selection procedure by checking sample sizes for all strata. Appendix D 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 BWT_h, 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 frequency of sampled records for each enrollment beneficiary group (EBG_COM)
- The weighted count of sampled records for EBG_COM
- The number of frame records for EBG_COM

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 analytic domains 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 E.

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APPENDIX A

DEERS VARIABLES REQUESTED BY MPR

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DEERS VARIABLES

Variable	Explanation
B.1.	Beneficiary's family sequence number
B.2.	Beneficiary's DEERS dependent suffix
B.3.	Age of beneficiary in years, representing the difference between the date-of-birth and the date of the reference date
B.4.	Beneficiary's date of birth
B.5.	Beneficiary's record type
B.6.	Beneficiary's marital status
B.7.	Beneficiary's race/ethnicity
B.8.	Beneficiary's sex
B.9.	Beneficiary's Medicare flag
B.10.	Beneficiary's primary care manager code
B.11.	Beneficiary's provider code
B.12.	Beneficiary's alternative care value
B.13.	Beneficiary's enrolled DMIS
B.14.	Beneficiary's first name
B.15.	Beneficiary's last name
B.16.	Beneficiary's generation
B.17.	Beneficiary's residential address - line 1
B.18.	Beneficiary's residential address - line 2
B.19.	Beneficiary's residential address - line 3
B.20.	Beneficiary's residential address – city
B.21.	Beneficiary's residential address – state
B.22.	Beneficiary's residential address – zip
B.23.	Beneficiary's residential address – zip extension
B.24.	Beneficiary's residential address flag - 0 if no res. Address available, 1 If there is a residential address
B.25.	Beneficiary's residence address—region
B.26.	Beneficiary's residence address - DMIS code
B.27.	Beneficiary's residence phone number
B.28.	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
B.29.	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
B.30.	Beneficiary's senior prime enrollment status coded as (1) Senior Prime enrollee; or (2) Nonenrollee
B.31.	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
B.32.	Beneficiary's TRICARE region based on the constructed Catchment area assignment
B.33.	Beneficiary's TNEX region based on the newly defined TNEX organization
B.34.	Person/Patient ID
B.35.	Primary Record Identifier/Flag
S.1.	Sponsor's social security number
S.2.	Sponsor's duty status
S.3.	Sponsor' group code
S.4.	Sponsor's marital status

Variable	Explanation
S.5.	Sponsor's pay grade
S.6.	Sponsor's race/ethnicity
S.7.	Sponsor's rank abbreviation
S.8.	Sponsor's service
S.9.	Sponsor's total dependents counted
S.10.	Sponsor' total active federal months of service
S.11.	Medical privileges of sponsor
S.12.	Sponsor's eligible dependents counted
S.13.	Number of dependents reported for sponsor
S.14.	Sex of the sponsor
S.15.	Age of the sponsor
S.16.	Sponsor first name
S.17.	Sponsor last name
S.18.	Sponsor generation name
S.19.	Sponsor's unit address -street 1
S.20.	Sponsor's unit address -street 2
S.21.	Sponsor's unit address -street 3
S.22.	Sponsor's unit address – city
S.23.	Sponsor's unit address -state/with asterisks to distinguish foreign vs. domestic addresses
S.24.	Sponsor's unit address – zip
S.25.	Sponsor's unit address – zip extension
S.26.	Sponsor's unit address flag - 0 if no unit address available, 1 if there is a unit address
S.27.	Sponsor's unit—region
S.28.	Sponsor's unit address - dmis code
S.29.	Sponsor's residential address – line 1
S.30.	Sponsor's residential address – line 2
S.31.	Sponsor's residential address – line 3
S.32.	Sponsor's residential address – city
S.33.	Sponsor's residential address – state
S.34.	Sponsor's residential address – zip
S.35.	Sponsor's residential address – zip extension
S.36.	Sponsor's residential address flag - 0 if no res. address available, 1 if there is a residential address
S.37.	Sponsor's residence phone number
S.38.	Sponsor's pay category
D.1.	Dependent SSN
D.2.	Dependent's relationship to sponsor
D.3.	Dependent first name
D.4.	Dependent last name
D.5.	Dependent generation name

APPENDIX B

Q1 2006 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	74TH 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	89TH MED GRP ANDREWS TSC-PCM
	8011	305TH MED GRP MCQUIRE TSC-PCM
	8012	66TH MED GRP HANSCOM TSC-PCM
	8013	436TH MED GRP DOVER TSC-PCM
	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

ASSIGN	DMIS_ID	DMIS_FAC
MANAGED CARE CONTRACTOR, CONT.	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
	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)

ASSIGN	DMIS_ID	DMIS_FAC
AT SEA, CONT.	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	0000	
	1976	BMC CAMP MARGUARITA
	1977	BMC CAMP LAS FLORES
	1978	BMC CAMP LAS PULGAS
	1979	BMC CAMP HORNO
	1980	BMC CAMP SAN MATEO
	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-NACC 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

ASSIGN	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	6321	OP FORCES-NMCL ANNAPOLIS
	6322	OP FORCES-NACC 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
	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

ASSIGN	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	6726	USDAO BAKU
	6727	USDAO MINSK
	6728	USDAO BRUSSELS
	6729	USDAO BENIN-PORTO-NOVO
	6730	USDAO SARAJEVO
	6731	USODC GABORONE
	6732	USDAO SOFIA
	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

ASSIGN	DMIS_ID	DMIS_FAC
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
	6801	USDAO ISLAMABAD
	6802	USDAO WARSAW
	6803	CINCSOUTHLAND-LISBON
	6804	USDAO LISBON
	6805	USDAO DOHA
	6806	USDAO BUCHAREST
	6807	USDAO MOSCOW

ASSIGN	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	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
	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

ASSIGN	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	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
	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

ASSIGN	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	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
	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 2006 TABLE FOR COLLAPSING RULES

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Table C: Collapsing Rules for Geographic Areas (GEOCELL) for the 2006 HCSDB

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0001	0001	REDSTONE ARSENAL	1462	1377	0	5083	0	93	8015
0001	0074	COLUMBUS AFB	1693	857	0	1348	0	192	4090
0001	0416	MOBILE	1024	0	0	0	0	0	1024
0003	0003	FT. RUCKER	4504	2886	0	4023	0	332	11745
0004	0004	MAXWELL AFB	4134	3029	0	5061	0	9	12233
0005	0005	FT. WAINWRIGHT	5166	2542	233	1669	1148	569	11327
0005	0130	KODIAK	941	0	0	1	0	0	942
0005	0203	EIELSON AFB	3018	1637	0	603	0	13	5271
0005	0204	FT. RICHARDSON	4032	0	0	5	0	0	4037
0005	0417	KETCHIKAN	480	0	0	0	0	0	480
0005	7044	JUNEAU	281	0	0	0	0	0	281
0005	7047	SITKA	232	0	0	0	0	0	232
0006	0006	ELMENDORF AFB	8321	6447	606	6804	3938	3172	29288
0008	0008	FT. HUACHUCA	4410	2601	0	4710	0	330	12051
0009	0009	LUKE AFB	8092	5410	1440	15836	14885	24934	70597
0010	0010	DAVIS MONTHAN AFB	7493	4299	0	7360	0	1089	20241
0014	0014	TRAVIS AFB	11706	6429	1440	15641	12564	27053	74833
0014	0015	BEALE AFB	3519	1575	0	1369	0	215	6678
0014	0287	HICKAM AFB	5322	2853	0	1494	0	78	9747
0014	0418	ALAMEDA	1762	0	0	2	0	0	1764
0014	0419	PETALUMA	1469	0	0	1	0	0	1470
0014	7083	HUMBOLDT BAY	225	0	0	1	0	0	226
0019	0018	VANDENBERG AFB	3096	1666	0	1517	0	318	6597
0019	0019	EDWARDS AFB	3205	1740	0	1905	0	104	6954
0019	0248	LOS ANGELES AFS	3770	1566	0	1208	0	19	6563
0024	0024	CAMP PENDLETON	31451	11667	2637	10276	12633	20549	89213
0024	0208	CAMP PENDLETON	1383	4	0	10	0	0	1397

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0024	0209	BARSTOW	248	0	0	3	0	0	251
0024	0210	CAMP PENDLETON	1203	754	0	180	0	0	2137
0024	0217	POINT MUGU	37	0	0	0	0	0	37
0024	0269	YUMA	712	1545	0	1137	0	2	3396
0024	0415	PICKLE MEADOWS	3	0	0	0	0	0	3
0024	1657	CAMP PENDLETON	561	0	0	2	0	0	563
0024	1659	CAMP PENDLETON	500	355	0	38	0	0	893
0024	1974	CAMP PENDLETON	68	0	0	0	0	0	68
0024	1975	CAMP PENDLETON	49	0	0	0	0	0	49
0024	6216	CAMP PENDLETON	47	2648	0	2199	0	199	5093
0026	0026	PORT HUENEME	2628	2531	0	1645	0	6	6810
0028	0028	LEMOORE	7681	3877	653	3584	3145	4263	23203
0028	0319	FALLON	1063	539	0	760	0	2	2364
0029	0029	SAN DIEGO	50906	10298	4760	15109	24650	34450	140173
0029	0230	SAN DIEGO	1547	0	0	46	0	0	1593
0029	0232	SAN DIEGO	1751	1785	0	1103	0	1	4640
0029	0233	CORONADO	1573	0	0	5	0	0	1578
0029	0239	EL CENTRO	399	111	0	128	0	0	638
0029	0414	SAN DIEGO	135	0	0	0	0	0	135
0029	0701	SAN DIEGO	5360	0	0	22	0	0	5382
0029	6207	SAN DIEGO	89	4809	0	4706	0	15	9619
0029	7046	SAN PEDRO	455	0	0	0	0	0	455
0030	0030	TWENTYNINE PALMS	10702	3106	295	1895	1253	2718	19969
0030	0212	CHINA LAKE	831	416	0	586	0	7	1840
0032	0032	FT. CARSON	1521	8212	1101	9591	5227	7801	33453
0032	1526	PUEBLO	32	0	0	0	0	0	32
0032	7293	FT. CARSON	7159	0	0	16	0	0	7175
0032	7300	FT. CARSON	11117	0	0	17	0	0	11134

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0033	0033	USAF ACADEMY	7768	3243	828	11455	8555	10133	41982
0037	0037	WASHINGTON DC	6157	2722	2115	10099	11116	15317	47526
0037	0256	PENTAGON	9015	6	0	30	0	0	9051
0037	0420	WASHINGTON DC	1804	1	0	6	0	0	1811
0037	7298	ARLINGTON ANNEX	1488	0	0	5	0	0	1493
0038	0038	PENSACOLA	6241	4508	899	12119	10178	14632	48577
0038	0107	MILLINGTON	2542	1091	0	438	0	0	4071
0038	0260	PENSACOLA	1742	0	0	1	0	0	1743
0038	0261	MILTON	1725	500	0	703	0	1	2929
0038	0262	PENSACOLA	1210	0	0	2	0	0	1212
0038	0265	PANAMA CITY	544	119	0	0	0	0	663
0038	0297	NEW ORLEANS	503	156	0	181	0	0	840
0038	0316	GULFPORT	1320	274	0	249	0	0	1843
0038	0317	MERIDIAN	1201	292	0	354	0	0	1847
0038	0422	CLEARWATER	1058	0	0	1	0	0	1059
0038	0436	NEW ORLEANS	1813	547	0	415	0	1	2776
0038	0513	PENSACOLA	971	0	0	0	0	0	971
0038	0654	PASCAGOULA	1018	234	0	167	0	0	1419
0038	1990	NEW ORLEANS	1417	0	0	1	0	0	1418
0039	0039	JACKSONVILLE	16062	9565	2672	22137	21894	20155	92485
0039	0050	MOODY AFB	4059	1824	0	1856	0	54	7793
0039	0266	JACKSONVILLE	3850	0	0	1	0	0	3851
0039	0275	ALBANY	654	345	0	6	0	0	1005
0039	0276	ATHENS	632	174	0	9	0	1	816
0039	0277	ATLANTA	1543	1	0	1	0	0	1545
0039	0337	KINGS BAY	2822	1994	0	1281	0	1	6098
0039	0421	AIR STATION MIAMI	488	0	0	0	0	0	488
0039	0517	KEY WEST	1765	692	0	6	0	0	2463

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0039	7048	MIAMI BEACH	692	0	0	1	0	0	693
0042	0042	EGLIN AFB	9372	5880	987	12511	11438	12979	53167
0042	7079	ARNOLD AFB	1	0	0	0	0	0	1
0043	0043	TYNDALL AFB	4627	2160	0	4477	0	448	11712
0045	0045	MACDILL AFB	9834	6415	1469	21774	17833	32920	90245
0045	7139	HURLBURT FIELD	7625	2888	0	1695	0	114	12322
0046	0046	PATRICK AFB	2844	1833	0	7121	0	1944	13742
0047	0047	FT. GORDON	2903	4981	758	12176	6395	9318	36531
0047	0273	FT. MCPHERSON	4170	549	0	3110	0	167	7996
0047	1550	FT. GORDON	5055	1	0	1	0	0	5057
0047	7197	FT. GORDON	5019	0	0	2	0	0	5021
0047	7239	FT GORDON	1697	298	0	147	0	0	2142
0047	8924	FT. BUCHANAN	1911	2	0	7	0	0	1920
0048	0048	FT. BENNING	8969	6916	1074	10412	6676	9898	43945
0048	1316	FT. BENNING	5169	456	0	359	0	14	5998
0048	1551	FT. BENNING	4947	0	0	2	0	0	4949
0048	1552	FT. BENNING	1398	0	0	1	0	0	1399
0048	1560	LAWSON AFB	3	0	0	0	0	0	3
0048	1939	FT. BENNING	10	0	0	0	0	0	10
0049	0049	FT. STEWART	2636	6474	1651	6166	6165	4333	27425
0049	0272	HUNTER AB	5176	2537	0	2572	0	353	10638
0049	1562	FT. STEWART	230	0	0	0	0	0	230
0049	1563	FT. STEWART	171	0	0	0	0	0	171
0049	1564	FT. STEWART	187	1	0	0	0	0	188
0049	7443	FT. STEWART	14174	126	0	157	0	26	14483
0049	7444	FT. STEWART	22	0	0	0	0	0	22
0049	7445	FT. STEWART	4201	1	0	1	0	0	4203
0051	0051	ROBINS AFB	6284	3577	0	5572	0	81	15514

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0052	0052	FT. SHAFTER	18958	6033	3605	4838	10755	11800	55989
0052	0437	SCHOFIELD BARRACKS	2058	5342	0	896	0	276	8572
0052	0534	SCHOFIELD BARRACKS	12467	0	0	11	0	0	12478
0052	7043	HONOLULU	932	0	0	2	0	0	934
0053	0053	MOUNTAIN HOME AFB	4354	2047	114	2327	723	977	10542
0055	0055	SCOTT AFB	9177	5511	1154	11784	10216	9557	47399
0056	0056	GREAT LAKES	17357	4329	1881	4967	9239	8160	45933
0056	0427	TRAVERSE CITY	118	0	0	0	0	0	118
0056	1660	GREAT LAKES	938	0	0	0	0	0	938
0056	1959	GREAT LAKES	1681	0	0	1	0	0	1682
0057	0057	FT. RILEY	3251	5005	724	3685	2631	2252	17548
0057	7289	FORT RILEY	8412	0	0	5	0	0	8417
0058	0058	FT. LEAVENWORTH	3533	2472	0	3911	0	5	9921
0058	0076	WHITEMAN AFB	3563	1919	0	2269	0	244	7995
0058	7297	KANSAS CITY	757	292	0	430	0	0	1479
0060	0060	FT. CAMPBELL	2641	14967	1371	10516	6842	5578	41915
0060	1506	FT. CAMPBELL	6810	0	0	4	0	0	6814
0060	7307	FT CAMPBELL	21041	2	0	23	0	0	21066
0061	0061	FT. KNOX	11244	5144	1154	9375	9038	8880	44835
0061	0290	ROCK ISLAND ARSENAL	142	0	0	3	0	0	145
0061	0313	SELFRIDGE AB	1224	0	0	4	0	0	1228
0061	1237	FT. MCCOY	3856	0	0	5	0	0	3861
0062	0062	BARKSDALE AFB	6504	3177	0	3737	0	83	13501
0064	0064	FT. POLK	9125	4016	505	3427	1588	2260	20921
0064	0423	NEW ORLEANS	658	0	0	2	0	0	660
0066	0036	DOVER AFB	4738	2258	0	3969	0	1058	12023
0066	0066	ANDREWS AFB	7899	5443	1265	11569	11988	11388	49552
0066	0326	MCGUIRE AFB	7859	3084	0	2055	0	93	13091

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0066	0413	BOLLING AFB	5657	1640	0	1354	0	96	8747
0066	0428	CAPE MAY	797	0	0	0	0	0	797
0067	0067	BETHESDA	11842	5793	2121	12490	17209	17761	67216
0067	0301	INDIAN HEAD	619	284	0	485	0	2	1390
0067	0322	COLTS NECK	617	42	0	30	0	0	689
0067	0347	HATBORO	2327	3	0	6	0	0	2336
0067	0348	MECHANICSBURG	301	1	0	3	0	0	305
0067	0386	DAHLGREN	945	348	0	701	0	5	1999
0067	0401	LAKEHURST	397	26	0	98	0	0	521
0067	0404	BMC SUGAR GROVE	185	0	0	1	0	0	186
0067	0424	BALTIMORE	567	0	0	0	0	0	567
0067	0522	ANDREWS AFB	748	0	0	0	0	0	748
0067	0703	WASHINGTON DC	2775	2	0	8	0	0	2785
0068	0068	PATUXENT RIVER	3655	2028	0	2429	0	7	8119
0069	0069	FT. MEADE	8221	3866	0	3877	0	1207	17171
0069	0306	ANNAPOLIS	2024	1200	0	1754	0	6	4984
0069	0308	ABERDEEN PROVING GROUND	2078	1645	0	1839	0	1	5563
0069	0309	FT. DETRICK	1665	913	0	903	0	2	3483
0069	0352	CARLISLE BARRACKS	1932	1541	0	3488	0	1158	8119
0069	0525	ANNAPOLIS	5757	0	0	0	0	0	5757
0069	0545	EDGEWOOD	314	4	0	39	0	0	357
0073	0073	KEESLER AFB	10270	5112	772	9453	4741	9981	40329
0075	0075	FT. LEONARD WOOD	10656	3791	409	5402	1922	2969	25149
0078	0059	MCCONNELL AFB	3329	1971	0	2746	0	383	8429
0078	0078	OFFUTT AFB	8564	4821	880	8689	7269	6645	36868
0078	0338	VANCE AFB	1397	700	0	832	0	109	3038
0079	0079	NELLIS AFB	9063	5491	754	13722	14527	15578	59135
0083	0083	KIRTLAND AFB	4827	2883	0	6252	0	15	13977

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0083	0085	CANNON AFB	3347	1694	0	1521	0	161	6723
0086	0081	FT. MONMOUTH	1285	915	0	1676	0	1163	5039
0086	0086	WEST POINT	3971	2362	1739	2199	5562	7321	23154
0086	1815	WEST POINT	4857	0	0	0	0	0	4857
0086	5196	ACTIVITIES NEW YORK	479	0	0	1	0	0	480
0086	7154	FT. DIX	9280	1	0	1	0	0	9282
0089	0089	FT. BRAGG	11680	6826	2816	11012	17090	10830	60254
0089	0335	POPE AFB	5404	2279	0	2137	0	188	10008
0089	0430	ELIZABETH CITY	792	0	0	0	0	0	792
0089	7143	FT. BRAGG	14104	5168	0	64	0	1	19337
0089	7286	FT. BRAGG-NC	6849	3055	0	4810	0	1008	15722
0089	7294	FORT BRAGG	14545	7304	0	2284	0	2674	26807
0091	0091	CAMP LEJEUNE	38815	13813	1444	7483	5987	4526	72068
0091	0333	CAMP LEJEUNE	451	1	0	0	0	0	452
0091	1662	CAMP LEJEUNE	231	0	0	0	0	0	231
0091	1663	CAMP LEJEUNE	518	0	0	1	0	0	519
0091	1664	CAMP LEJEUNE	152	0	0	2	0	0	154
0091	1992	CAMP LEJEUNE	1458	0	0	12	0	0	1470
0091	1994	CAMP LEJEUNE	1	0	0	0	0	0	1
0091	1995	CAMP LEJEUNE	60	0	0	0	0	0	60
0091	6205	CAMP LEJEUNE	4	0	0	0	0	0	4
0092	0092	CHERRY POINT	9353	4310	479	3806	3186	3611	24745
0095	0095	WRIGHT-PATTERSON AFB	8352	4846	1018	13416	7906	10660	46198
0096	0013	LITTLE ROCK AFB	6640	2644	0	3253	0	142	12679
0096	0096	TINKER AFB	8866	3968	0	6320	0	112	19266
0098	0097	ALTUS AFB	1551	917	0	1221	0	55	3744
0098	0098	FT. SILL	12814	6247	562	6607	3502	5406	35138
0101	0101	SHAW AFB	5637	2756	0	3128	0	340	11861

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0103	0103	CHARLESTON	2400	1621	1281	6209	10673	10601	32785
0103	0356	CHARLESTON AFB	4916	2041	0	2263	0	129	9349
0103	0511	GOOSE CREEK	7847	1636	0	1451	0	3	10937
0104	0104	BEAUFORT	8902	3125	378	2803	2052	3571	20831
0104	0358	PARRIS ISLAND	2094	0	0	1	0	0	2095
0104	0360	BEAUFORT	581	0	0	0	0	0	581
0105	0105	FT. JACKSON	11701	4012	1306	9859	9012	12359	48249
0108	0084	HOLLOMAN AFB	3397	1637	0	2404	0	750	8188
0108	0108	FT. BLISS	2198	1391	1185	8789	5973	10000	29536
0108	0327	WHITE SANDS MISSILE RANGE	365	166	0	233	0	0	764
0108	1617	FT. BLISS	10982	5704	0	29	0	0	16715
0109	0109	FT. SAM HOUSTON	9481	5855	1498	21489	9723	22167	70213
0109	0363	BROOKS CITY-BASE	20	1	0	3	0	0	24
0109	7082	GALVESTON	674	0	0	0	0	0	674
0110	0110	FT. HOOD	3924	8478	2542	14162	13011	10240	52357
0110	1592	FT. HOOD	18367	0	0	11	0	0	18378
0110	1597	FT. HOOD	2858	0	0	2	0	0	2860
0110	1599	FT. HOOD	3413	0	0	2	0	0	3415
0110	1601	FT. HOOD	3501	0	0	0	0	0	3501
0110	6014	FT HOOD	8558	8373	0	3315	0	2	20248
0110	7236	FORT HOOD	14430	4265	0	1204	0	1	19900
0112	0112	DYESS AFB	5111	2207	0	2422	0	381	10121
0112	0364	GOODFELLOW AFB	2712	1299	0	1327	0	178	5516
0113	0113	SHEPPARD AFB	3943	2581	0	3239	0	1455	11218
0117	0114	LAUGHLIN AFB	1452	659	0	951	0	476	3538
0117	0117	LACKLAND AFB	20281	7791	871	18524	7007	18452	72926
0118	0118	CORPUS CHRISTI	2960	1564	0	2826	0	10	7360
0118	0369	KINGSVILLE	900	283	0	496	0	0	1679

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0118	0370	FORT WORTH	2575	1	0	8	0	0	2584
0118	0656	INGLESIDE	1228	746	0	409	0	1	2384
0119	0077	MALMSTROM AFB	3854	1920	0	1730	0	149	7653
0119	0119	HILL AFB	6085	3237	0	4420	0	435	14177
0120	0090	SEYMOUR JOHNSON AFB	4620	2633	0	2676	0	196	10125
0120	0120	LANGLEY AFB	9571	6182	956	7901	8160	6245	39015
0120	0432	PORTSMOUTH	886	1	0	3	0	0	890
0120	0433	YORKTOWN	438	0	0	1	0	0	439
0121	0121	FT. EUSTIS	6987	5907	1453	8190	9403	8192	40132
0121	0372	FT. MONROE	958	681	0	532	0	45	2216
0121	0464	FT. STORY	518	0	0	0	0	0	518
0122	0122	FT. LEE	4383	2619	0	4462	0	223	11687
0123	0123	FT. BELVOIR	8960	6604	2869	11658	27028	13063	70182
0123	0390	FT. MYER	2764	1430	0	2197	0	3158	9549
0123	6200	FAIRFAX	1197	2957	0	6900	0	2642	13696
0123	6201	WOODBRIDGE	1428	3904	0	9879	0	2027	17238
0124	0124	PORTSMOUTH	38719	11424	9783	13095	40356	25227	138604
0124	0380	PORTSMOUTH	433	0	0	1	0	0	434
0124	0381	YORKTOWN	799	661	0	219	0	0	1679
0124	0382	VIRGINIA BEACH	3945	0	0	8	0	0	3953
0124	0519	CHESAPEAKE	610	506	0	538	0	0	1654
0124	6214	NORFOLK	107	4647	0	4162	0	6	8922
0124	6221		88	3967	0	4098	0	4	8157
0125	0125	FT. LEWIS	12800	13024	2748	21244	17560	25128	92504
0125	0247	MONTEREY	5611	90	0	16	0	0	5717
0125	0395	MCCHORD AFB	4754	2252	0	3360	0	444	10810
0125	0431	ASTORIA	548	0	0	0	0	0	548
0125	0434	PORT ANGELES	333	0	0	3	0	0	336

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0125	1646	FT. LEWIS	13176	13	0	7	0	0	13196
0125	1649	FT. LEWIS	4233	867	0	16	0	0	5116
0126	0126	BREMERTON	7153	5580	809	9572	5786	5798	34698
0126	0397	KEYPORT	4	0	0	0	0	0	4
0126	0398	BREMERTON	534	0	0	0	0	0	534
0126	0435	SEATTLE	1367	0	0	0	0	0	1367
0126	1656	SILVERDALE	3217	972	0	3	0	0	4192
0126	7138	EVERETT	1353	2053	0	249	0	0	3655
0127	0127	OAK HARBOR	8888	3921	393	3578	2059	2784	21623
0128	0128	FAIRCHILD AFB	3541	1997	0	3921	0	493	9952
0128	7045	NORTH BEND	297	0	0	0	0	0	297
0129	0093	GRAND FORKS AFB	2714	1310	0	1139	0	84	5247
0129	0094	MINOT AFB	4838	2181	0	1136	0	152	8307
0129	0106	ELLSWORTH AFB	3414	1833	0	2711	0	4	7962
0129	0129	F.E. WARREN AFB	3606	1887	0	1777	0	157	7427
0129	7200	BUCKLEY AFB	3415	1000	0	30	0	0	4445
0131	0131	FT. IRWIN	6333	2476	230	994	678	511	11222
0131	0206	YUMA PROVING GROUND	144	3	0	3	0	0	150
0231	0231	CORONADO	5625	1626	0	828	0	309	8388
0252	0252	PETERSON AFB	6969	3493	0	5633	0	3	16098
0280	0280	PEARL HARBOR	6614	5420	0	1672	0	4	13710
0280	0284	WAHIAWA	522	0	0	0	0	0	522
0280	0285	KANEOHE	1321	2652	0	426	0	0	4399
0280	1987	CAMP H.M. SMITH	1078	0	0	0	0	0	1078
0321	0310	HANSCOM AFB	3161	1580	0	1522	0	136	6399
0321	0425	CAPE COD	760	0	0	0	0	0	760
0321	0426	BOSTON	766	0	0	0	0	0	766
0330	0330	FT. DRUM	500	5926	0	1486	0	128	8040

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0330	7113	FT. DRUM	17540	0	0	10	0	0	17550
0366	0366	RANDOLPH AFB	4409	3487	0	8204	0	398	16498
0378	0378	NORFOLK	4946	6048	0	4090	0	19	15103
0385	0385	QUANTICO	5676	5161	0	4477	0	5	15319
0385	1670	QUANTICO	672	0	0	8	0	0	680
0385	1671	QUANTICO	2229	0	0	13	0	0	2242
0387	0387	VIRGINIA BEACH	10303	4379	0	2512	0	7	17201
0405	0405	MAYPORT	3104	3721	0	2013	0	3	8841
0407	0407	SAN DIEGO	3747	2823	0	2499	0	994	10063
0508	0508	NORFOLK	14762	1071	0	547	0	1	16381
0606	0606	HEIDELBERG	4440	2090	685	1270	1923	586	10994
0606	1003	MANNHEIM	2859	1571	0	380	0	61	4871
0606	1135	FRIEDBERG	2560	385	0	41	0	18	3004
0606	1144	BABENHAUSEN	859	307	0	29	0	17	1212
0606	1145	BUEDINGEN	703	236	0	13	0	12	964
0606	7152	SANDHOFEN	1379	0	0	0	0	0	1379
0606	8987	HEIDELBERG	2784	1456	0	736	0	100	5076
0606	8995	HANAU	3264	1358	0	301	0	100	5023
0606	8996	BUTZBACH	1508	845	0	100	0	37	2490
0606	8998	DARMSTADT	2927	943	0	303	0	86	4259
0607	0607	LANDSTUHL	2795	1722	560	1649	1124	605	8455
0607	0611	VICENZA	3304	1004	0	280	0	62	4650
0607	0614	SHAPE	1036	620	0	58	0	11	1725
0607	1126	LUDWIGSBURG	5101	1708	0	160	0	13	6982
0607	1128	KAISERSLAUTERN	1761	287	0	151	0	11	2210
0607	1147	WIESBADEN	3684	1489	0	557	0	149	5879
0607	1154	LIVORNO	330	142	0	118	0	70	660
0607	8977	BRUSSELS	281	187	0	104	0	23	595

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0607	8992	DEXHEIM	907	188	0	39	0	13	1147
0609	0609	WUERZBURG	1845	1356	673	343	1830	263	6310
0609	0808	AVIANO AB	4284	1666	73	219	150	84	6476
0609	1013	BAMBERG	2690	1088	0	81	0	26	3885
0609	1014	ILLESHEIM	1079	393	0	21	0	1	1494
0609	1015	KATTERBACH	1997	740	0	66	0	25	2828
0609	1016	GRAFENWOEHR	1074	459	0	136	0	16	1685
0609	1017	VILSECK	2593	910	0	148	0	15	3666
0609	1019	HOHENFELS/AMBERG	1628	791	0	109	0	5	2533
0609	1124	SCHWEINFURT	4069	1379	0	111	0	22	5581
0609	1127	KITZINGEN	2577	605	0	35	0	8	3225
0609	1235	GIEBELSTADT	1438	346	0	5	0	2	1791
0612	0612	SEOUL	912	1417	393	135	2024	219	5100
0612	1156	CAMP STANLEY	1976	121	0	3	0	0	2100
0612	1157	TONGDUCHON	8222	549	0	28	0	3	8802
0612	8903	PYONGTAEK	4049	284	0	45	0	0	4378
0612	8907	TAEGU	1693	269	0	71	0	5	2038
0612	8910	PUSAN	400	57	0	2	0	1	460
0612	8912	UIJONGBU	2548	96	0	9	0	3	2656
0612	8913	KOREA	1047	83	0	14	0	1	1145
0612	8916	SEOUL	6061	7	0	16	0	0	6084
0612	8917	WONGJU	745	26	0	0	0	0	771
0617	0617	NAPLES	1197	1270	125	7	432	114	3145
0617	0618	ROTA	2665	831	83	8	395	152	4134
0617	0623	KEFLAVIK	1803	545	37	4	70	7	2466
0617	0624	NAS SIGONELLA	2997	979	95	5	154	14	4244
0617	0629	LAJES FLD	986	376	11	23	50	14	1460
0617	0635	INCIRLIK AB	1607	511	23	155	77	35	2408

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0617	0825	IZMIR	12	0	0	0	0	0	12
0617	0855	LA MADDALENA	902	408	0	0	0	0	1310
0617	0858	SOUDA BAY	614	11	0	0	0	0	625
0617	0874	GAETA	686	147	0	1	0	0	834
0617	1153	CAPODICHINO	1874	62	0	1	0	0	1937
0617	1170	BAHRAIN	3170	53	0	6	0	0	3229
0617	1179	RAF ST MAWGAN NEWQUA	308	95	0	0	0	0	403
0617	8931	LONDON	584	257	0	3	0	0	844
0620	0615	GUANTANAMO BAY	925	169	20	11	87	1	1213
0620	0620	AGANA	1720	1507	411	1841	1257	1008	7744
0620	0802	ANDERSEN AFB	2561	1086	0	296	0	48	3991
0620	0871	NAVSTA	2800	542	0	176	0	45	3563
0620	5197	BASE SAN JUAN	392	0	0	0	0	0	392
0620	7042	BORINQUEN	261	153	0	3	0	0	417
0621	0621	OKINAWA	5245	2076	589	25	758	141	8834
0621	0861	FUTENMA	2791	0	0	1	0	0	2792
0621	0862	CAMP FOSTER	4723	33	0	5	0	0	4761
0621	1269	OKINAWA	1379	578	0	1	0	0	1958
0621	7032	OKINAWA	1674	1136	0	0	0	0	2810
0621	7033	OKINAWA	2247	0	0	4	0	0	2251
0621	7107	OKINAWA	585	0	0	2	0	0	587
0622	0622	YOKOSUKA	9049	2762	514	525	573	134	13557
0622	0625	MCAS IWAKUNI	2909	626	0	35	0	5	3575
0622	0852	SASEBO	3251	555	0	14	0	7	3827
0622	0853	ATSUGI	3678	946	0	27	0	3	4654
0622	7288	BRANCH MEDICAL ANNEX HARIO SASEBO J	0	253	0	0	0	0	253
0622	8938	YOKOHAMA	31	85	0	6	0	0	122
0622	8939	CHINHAE	201	26	0	0	0	0	227

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0633	0633	RAF LAKENHEATH	8828	3993	229	1196	699	548	15493
0633	0653	RAF CROUGHTON	564	303	0	219	0	109	1195
0633	0814	RAF UPWOOD	919	460	0	340	0	42	1761
0633	7234		508	221	0	1	0	0	730
0633	7235		5	0	0	0	0	0	5
0640	0610	CAMP ZAMA	795	417	0	195	0	49	1456
0640	0637	KUNSAN AB	3051	18	16	6	100	8	3199
0640	0638	OSAN AB	6982	534	147	19	1039	85	8806
0640	0639	MISAWA	4346	1882	135	134	140	36	6673
0640	0640	YOKOTA AB	3567	1781	171	396	401	147	6463
0804	0804	KADENA AB	7927	3976	0	656	0	52	12611
0806	0799	GEILENKIRCHEN AB	1036	643	0	265	0	18	1962
0806	0805	SPANGDAHLEM AB	4509	1942	99	474	182	150	7356
0806	0806	RAMSTEIN AB	9591	4448	0	563	0	46	14648
6215	6215	SAN DIEGO	80	4625	0	5933	0	19	10657
6223	0034	NEW LONDON	1793	0	0	1	0	0	1794
6223	0035	GROTON	3664	3260	0	2072	0	2	8998
6223	0100	NEWPORT	4461	1832	0	1837	0	5	8135
6223	0299	BRUNSWICK	2181	896	0	423	0	0	3500
6223	0321	PORTSMOUTH	1984	474	0	312	0	0	2770
6223	0328	SARATOGA SPRINGS	3072	0	0	15	0	0	3087
9901	0781		323	240	236	551	2042	1545	4937
9901	0782		3015	862	1402	1578	7759	7501	22117
9901	0783		67	366	286	910	2412	1625	5666
9901	0789		145	124	170	165	1231	848	2683
9901	0907	CONNECTICUT	5314	528	1661	949	9383	9495	27330
9901	0908	DELAWARE	531	284	741	589	5875	5459	13479
9901	0914	ILLINOIS	3810	2018	2595	2830	15941	13514	40708

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
9901	0915	INDIANA	6405	3096	3343	5450	22228	16876	57398
9901	0918	KENTUCKY	2125	1568	1781	3992	11593	11166	32225
9901	0920	MAINE	3790	1993	1295	8014	7566	11319	33977
9901	0921	MARYLAND	1284	593	1121	3373	7885	7532	21788
9901	0922	MASSACHUSETTS	2890	1545	2477	4288	14114	23526	48840
9901	0923	MICHIGAN	5220	3731	3744	5980	28637	20531	67843
9901	0930	NEW HAMPSHIRE	1171	617	1061	3571	6759	9291	22470
9901	0931	NEW JERSEY	4403	2012	2808	3367	15406	20373	48369
9901	0933	NEW YORK	9502	4978	6655	3684	32516	28008	85343
9901	0934	NORTH CAROLINA	4934	3832	3774	11634	38485	38862	101521
9901	0936	OHIO	8292	4016	4249	8663	26305	23351	74876
9901	0939	PENNSYLVANIA	10748	4801	7260	6868	42895	42208	114780
9901	0940	RHODE ISLAND	1432	112	1050	640	3923	6404	13561
9901	0946	VERMONT	1919	669	764	738	3121	3470	10681
9901	0950	WISCONSIN	5866	2631	2414	2969	16221	14933	45034
9901	0995	NORTHERN VIRGINIA	487	405	421	865	5468	4986	12632
9901	0996	SOUTHERN VIRGINIA	4180	1382	2314	3526	18553	19224	49179
9902	0787		11	37	49	122	383	514	1116
9902	0901	ALABAMA	7698	3085	5111	10138	38204	41892	106128
9902	0904	ARKANSAS	5329	2397	2991	7294	17621	25488	61120
9902	0911	GEORGIA	6217	8005	5531	22546	45279	43275	130853
9902	0925	MISSISSIPPI	6712	2890	3332	5162	11263	15430	44789
9902	0937	OKLAHOMA	3044	2677	2312	7642	18457	25085	59217
9902	0941	SOUTH CAROLINA	1987	1370	1895	5281	14577	19478	44588
9902	0943	TENNESSEE	7876	4455	4436	15073	31969	36392	100201
9902	0987	EASTERN FLORIDA	3872	6320	3945	27503	53989	88394	184023
9902	0988	WESTERN FLORIDA	688	1134	549	2967	6991	8905	21234
9902	0989	EASTERN LOUISIANA	3138	2767	1788	4756	7824	8986	29259

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
9902	0990	WESTERN LOUISIANA	2085	1284	1801	2869	9308	14797	32144
9902	0993	EASTERN TEXAS	12845	14326	8780	38471	73260	98344	246026
9903	0784		4221	1653	2604	2894	21243	20924	53539
9903	0785		2039	596	1318	2621	15625	23040	45239
9903	0786		2652	283	224	604	1425	1955	7143
9903	0788		4165	1551	1497	362	9899	7815	25289
9903	0902	ALASKA	814	1357	209	20	2289	1005	5694
9903	0906	COLORADO	1296	1594	1269	7742	16133	20558	48592
9903	0912	HAWAII	343	372	267	692	1538	2102	5314
9903	0917	KANSAS	3542	1142	2438	1409	13930	14480	36941
9903	0924	MINNESOTA	8946	2367	2377	438	18232	14588	46948
9903	0927	MONTANA	1770	884	929	34	8220	6148	17985
9903	0928	NEBRASKA	1760	580	744	172	4142	3938	11336
9903	0929	NEVADA	1084	634	498	1976	5248	6831	16271
9903	0932	NEW MEXICO	1379	770	1414	2065	12950	16450	35028
9903	0935	NORTH DAKOTA	1374	571	641	320	4249	2349	9504
9903	0938	OREGON	4248	2939	1232	6894	16542	22609	54464
9903	0942	SOUTH DAKOTA	1625	558	805	131	5740	4571	13430
9903	0945	UTAH	3445	1969	1940	1975	11723	11041	32093
9903	0948	WASHINGTON	5845	2802	2267	10630	19787	26514	67845
9903	0951	WYOMING	847	249	517	344	4015	3263	9235
9903	0973	NORTHERN IDAHO	209	198	136	607	1650	1928	4728
9903	0974	SOUTHERN IDAHO	2444	1493	1114	1892	7788	7109	21840
9903	0985	NORTHERN CALIFORNIA	3877	5389	3070	11944	25923	54177	104380
9903	0986	SOUTHERN CALIFORNIA	9662	5942	5674	12972	31782	51562	117594
9903	0994	WESTERN TEXAS	0	7	17	3	75	78	180
9904	0953	PUERTO RICO	1958	1561	3059	45	9583	10645	26851
9904	0957	GERMANY	416	217	805	77	2357	475	4347

CACSMPL	GEOCELL	D_INSTAL	Active Duty	Active Duty Family Member		Retiree & Family Member < 65		Retiree & Family Member ≥65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
9904	0958	GREECE	58	41	7	0	116	71	293
9904	0959	ICELAND	38	30	3	0	2	0	73
9904	0960	ITALY	462	97	150	5	477	133	1324
9904	0961	JAPAN	237	19	262	11	643	107	1279
9904	0963	PHILIPPINES	1	0	5	5	703	189	903
9904	0964	PORTUGAL	29	12	1	0	6	3	51
9904	0965	KOREA	40	13	50	17	686	59	865
9904	0966	SPAIN	207	91	8	4	206	114	630
9904	0967	TURKEY	260	86	17	2	146	30	541
9904	0968	UNITED KINGDOM	91	21	84	8	718	122	1044
9904	0969	CANADA	176	125	4	0	6	0	311
9904	0970	OTHER CARIBBEAN	152	43	2	5	49	5	256
9904	0971	CENTRAL AMERICA	656	88	31	6	893	376	2050
9904	0972	SOUTH AMERICA	392	172	13	3	161	42	783
9904	0975		417	123	83	1	335	217	1176
9904	0976	AFRICA	263	99	6	4	109	9	490
9904	0977	MIDEAST	1736	68	50	11	427	27	2319
9904	0978	SOUTHEAST ASIA	63	2	20	4	336	104	529
9904	0979	BELGIUM	159	30	47	5	326	35	602
9904	0982	OTHER EUROPE	363	295	22	14	282	60	1036
9904	0983	OTHER PACIFIC	1328	724	123	6	788	199	3168
9904	0999	UNKNOWN LOCATION	10055	180	2119	4471	35132	36249	88206
9904	6897	OTHER EUROPE NON TGRO	369	142	0	0	0	0	511
9904	6898	OTHER PACIFIC NON TGRO	314	13	0	0	0	0	327

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APPENDIX D

Q1 2006 TABLES FOR SAMPLING CHECK

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Table D.1: Selected Sample Dataset By Zone and
Maximum Permanent Random Number Selected

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0000101	4179	168	1039	1043	1056	1041	0.249359418
0000102	2234	68	586	561	546	541	0.249885664
0000104	6716	89	1716	1597	1697	1706	0.249913654
0000301	4504	209	1122	1103	1131	1148	0.249285423
0000302	2886	81	710	712	751	713	0.249624902
0000304	4355	67	1080	1058	1079	1138	0.249802928
0000401	4134	185	1037	1007	1034	1056	0.249688777
0000402	3029	82	761	771	762	735	0.249183959
0000404	5070	75	1294	1290	1209	1277	0.249817224
0000501	14150	292	3481	3497	3592	3580	0.249956
0000502	4412	69	1092	1088	1087	1145	0.24975163
0000504	2278	38	590	547	555	586	0.248540286
0000505	1730	47	448	432	422	428	0.249924748
0000601	8321	156	2104	2145	1979	2093	0.249978248
0000602	7053	80	1758	1760	1747	1788	0.249980567
0000604	6804	42	1777	1714	1642	1671	0.249973042
0000605	3938	47	1006	999	994	939	0.249976644
0000606	3172	28	785	777	787	823	0.24968766
0000801	4410	200	1161	1083	1096	1070	0.249979657
0000802	2601	71	645	682	673	601	0.249860882
0000804	5040	76	1224	1212	1319	1285	0.249913856
0000901	8092	114	1996	2056	2048	1992	0.249776923
0000902	6850	69	1692	1687	1695	1776	0.249941848
0000904	15836	46	3919	4014	3939	3964	0.249950133
0000905	14885	54	3659	3769	3754	3703	0.249944758
0000906	24934	53	6322	6196	6149	6267	0.24995809
0001001	7493	194	1861	1856	1920	1856	0.249719485
0001002	4299	69	1080	1108	1015	1096	0.249863758
0001004	7360	63	1838	1782	1864	1876	0.249993039
0001006	1089	28	274	285	267	263	0.245639508
0001401	24003	286	6174	5881	5853	6095	0.249956751
0001402	12297	89	3149	3039	3066	3043	0.24994066
0001404	18508	73	4592	4731	4544	4641	0.24994467
0001405	12564	62	3195	3156	3097	3116	0.249998924
0001406	27346	80	6837	6760	6868	6881	0.249992429
0001901	10071	274	2494	2570	2502	2505	0.249975642
0001902	4972	82	1225	1315	1203	1229	0.249717773

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0001904	5071	46	1268	1301	1263	1239	0.249958903
0002401	36262	389	9156	8975	9076	9055	0.249976857
0002402	16973	110	4181	4228	4325	4239	0.249905669
0002403	2637	79	631	711	639	656	0.249578373
0002404	13845	50	3457	3466	3491	3431	0.249997978
0002405	12633	56	3178	3222	3089	3144	0.249984685
0002406	20750	55	5163	5132	5248	5207	0.249924134
0002601	2628	209	698	639	645	646	0.24878328
0002602	2531	122	611	654	640	626	0.249565843
0002604	1651	44	449	412	416	374	0.249821419
0002801	8744	139	2254	2136	2170	2184	0.249683068
0002802	5069	69	1278	1236	1309	1246	0.249422987
0002804	4344	38	1056	1139	1057	1092	0.249781238
0002805	3145	47	784	810	772	779	0.249335174
0002806	4265	28	1030	1096	1060	1079	0.249717183
0002901	62215	419	15640	15659	15385	15531	0.249995688
0002902	17003	70	4276	4208	4185	4334	0.249931737
0002903	4760	80	1197	1181	1164	1218	0.24977515
0002904	21119	47	5262	5272	5230	5355	0.249915782
0002905	24650	69	6154	6231	6077	6188	0.249946943
0002906	34466	57	8683	8607	8571	8605	0.24999069
0003001	11533	242	2831	2900	2943	2859	0.249949559
0003002	3817	69	939	970	946	962	0.249777629
0003004	3734	38	919	935	962	918	0.249919382
0003006	2725	28	717	688	660	660	0.249611192
0003201	19829	192	4970	4915	4960	4984	0.249980328
0003202	9313	69	2345	2334	2323	2311	0.24992321
0003204	9624	38	2426	2375	2366	2457	0.249990495
0003205	5227	47	1307	1313	1306	1301	0.249908638
0003206	7801	28	1894	2028	1948	1931	0.249976337
0003301	7768	114	1986	1955	1914	1913	0.249926927
0003302	4071	69	1028	1026	964	1053	0.249818763
0003304	11455	52	2872	2887	2817	2879	0.24998037
0003305	8555	48	2176	2076	2177	2126	0.249924005
0003306	10133	34	2564	2550	2484	2535	0.249962392
0003701	18464	194	4533	4661	4564	4706	0.249958504
0003702	2729	68	675	710	656	688	0.249400241
0003703	2115	79	539	530	530	516	0.249957812
0003704	10140	38	2523	2561	2513	2543	0.249886491

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0003705	11116	48	2759	2737	2788	2832	0.249921339
0003706	15317	39	3850	3784	3832	3851	0.249906471
0003801	23305	206	5684	5879	5926	5816	0.249946834
0003802	8620	69	2152	2117	2142	2209	0.249575606
0003804	14631	43	3636	3598	3766	3631	0.249954093
0003805	10178	47	2477	2500	2571	2630	0.249886047
0003806	14634	32	3698	3696	3617	3623	0.249972732
0003901	32567	308	8183	8037	8183	8164	0.249985104
0003902	14595	84	3680	3603	3725	3587	0.249886944
0003903	2672	79	671	658	629	714	0.249992408
0003904	25298	79	6309	6293	6274	6422	0.249993402
0003905	21894	86	5539	5516	5387	5452	0.249985633
0003906	20211	47	4948	5174	5163	4926	0.24996124
0004201	9373	114	2353	2325	2370	2325	0.249932245
0004202	6867	69	1692	1701	1740	1734	0.249879016
0004204	12511	45	3149	3161	3126	3075	0.249911188
0004205	11438	51	2870	2829	2858	2881	0.249968687
0004206	12979	34	3244	3251	3199	3285	0.249985795
0004301	4627	211	1151	1138	1163	1175	0.249606506
0004302	2160	68	567	514	521	558	0.249875284
0004304	4925	74	1273	1248	1222	1182	0.249957704
0004501	17459	192	4318	4328	4435	4378	0.24992149
0004502	10772	72	2817	2610	2696	2649	0.249980833
0004504	23469	86	5982	5708	5996	5783	0.249982346
0004505	17833	81	4490	4554	4425	4364	0.249960791
0004506	33034	89	8208	8218	8341	8267	0.249992123
0004601	2844	113	687	765	688	704	0.249531702
0004602	1833	68	434	467	469	463	0.24912931
0004604	7121	80	1834	1741	1753	1793	0.249829853
0004606	1944	28	472	481	461	530	0.249289988
0004701	20755	212	5275	5109	5234	5137	0.249906772
0004702	6589	69	1661	1551	1715	1662	0.249336051
0004704	15443	53	3817	3832	3955	3839	0.249974974
0004705	6395	47	1579	1637	1566	1613	0.249803218
0004706	9485	28	2370	2360	2327	2428	0.249938251
0004801	20496	230	5153	5083	5108	5152	0.249986616
0004802	8446	69	2160	2116	2043	2127	0.249766316
0004804	10774	40	2670	2737	2662	2705	0.24998991
0004805	6676	47	1702	1693	1676	1605	0.249973631

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0004806	9912	28	2522	2453	2450	2487	0.249985195
0004901	26797	251	6680	6826	6620	6671	0.249984227
0004902	9139	69	2246	2287	2313	2293	0.249973048
0004903	1651	79	411	422	409	409	0.248642091
0004904	8896	38	2178	2309	2194	2215	0.249781099
0004905	6165	47	1511	1578	1554	1522	0.249938498
0004906	4712	28	1131	1213	1208	1160	0.249016687
0005101	6284	221	1600	1596	1601	1487	0.249943986
0005102	3577	76	948	861	889	879	0.249842596
0005104	5653	66	1433	1466	1379	1375	0.24973493
0005201	34415	232	8618	8698	8521	8578	0.249999425
0005202	11375	69	2847	2798	2835	2895	0.249948125
0005203	3605	79	895	930	889	891	0.249988796
0005204	5747	38	1431	1413	1470	1433	0.249622333
0005205	10755	47	2756	2739	2620	2640	0.249897672
0005206	12076	28	3020	3014	3039	3003	0.249993063
0005301	4354	213	1102	1092	1119	1041	0.249921286
0005302	2161	68	553	539	538	531	0.248983919
0005304	2327	38	588	554	627	558	0.249370884
0005305	1700	47	403	428	446	423	0.249755621
0005501	9177	114	2386	2281	2252	2258	0.249916657
0005502	6665	69	1663	1630	1676	1696	0.249953653
0005504	11784	48	3008	2895	2909	2972	0.249966754
0005505	10216	52	2546	2579	2551	2540	0.249995683
0005506	9557	29	2338	2391	2431	2397	0.24995109
0005601	20094	189	4939	5099	5076	4980	0.249980398
0005602	4329	69	1079	1061	1105	1084	0.249887958
0005603	1881	79	505	483	441	452	0.248400202
0005604	4968	38	1221	1264	1285	1198	0.249858784
0005605	9239	47	2335	2312	2251	2341	0.249756117
0005606	8160	28	2022	1982	2099	2057	0.249758789
0005701	11663	191	2921	2901	2931	2910	0.249981458
0005702	5729	69	1499	1478	1377	1375	0.24958169
0005704	3690	38	955	896	937	902	0.249950315
0005705	2631	47	693	635	661	642	0.249256487
0005706	2252	28	541	541	577	593	0.249786091
0005801	7853	222	1930	2066	1896	1961	0.249952039
0005802	4683	80	1145	1170	1182	1186	0.249831837
0005804	6859	64	1694	1717	1659	1789	0.249823637

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0006001	30492	259	7653	7523	7586	7730	0.249995422
0006002	16340	84	4081	4100	4043	4116	0.249853351
0006004	10543	38	2645	2656	2610	2632	0.249998769
0006005	6842	47	1731	1651	1712	1748	0.249974952
0006006	5578	28	1476	1382	1375	1345	0.249989845
0006101	16466	172	4125	4040	4116	4185	0.249946069
0006102	6298	69	1571	1608	1595	1524	0.249948907
0006104	9387	38	2405	2316	2302	2364	0.249900279
0006105	9038	47	2273	2239	2234	2292	0.249975931
0006106	8880	28	2288	2272	2109	2211	0.249936405
0006201	6504	263	1610	1620	1636	1638	0.249992562
0006202	3177	78	777	780	828	792	0.24969574
0006204	3820	51	982	986	958	894	0.249391187
0006401	9783	232	2401	2537	2377	2468	0.249957962
0006402	4521	69	1201	1153	1058	1109	0.249405365
0006404	5017	40	1256	1260	1218	1283	0.249910242
0006406	2260	28	576	557	568	559	0.249789438
0006601	26950	202	6778	6756	6683	6733	0.249994061
0006602	13690	69	3459	3422	3419	3390	0.249966719
0006604	18947	47	4761	4714	4705	4767	0.249928016
0006605	11988	47	2954	3062	3025	2947	0.249969505
0006606	12635	28	3029	3219	3230	3157	0.249982034
0006701	21323	170	5282	5314	5222	5505	0.249984269
0006702	6499	69	1590	1627	1641	1641	0.249774778
0006703	2121	79	511	529	532	549	0.249923731
0006704	13822	38	3422	3455	3461	3484	0.249911791
0006705	17209	57	4343	4320	4277	4269	0.249917022
0006706	17768	35	4426	4422	4402	4518	0.249910109
0006801	3655	245	913	960	883	899	0.249925187
0006802	2028	82	489	518	514	507	0.249953111
0006804	2436	54	602	606	585	643	0.249913632
0006901	21991	283	5527	5500	5537	5427	0.249988497
0006902	9169	72	2236	2330	2328	2275	0.249588452
0006904	11900	51	3003	3011	3018	2868	0.249953048
0006906	2374	28	590	601	590	593	0.249915253
0007301	10270	141	2570	2512	2575	2613	0.249854302
0007302	5884	69	1434	1427	1492	1531	0.249824104
0007304	9453	43	2372	2305	2359	2417	0.249860247
0007305	4741	47	1193	1225	1145	1178	0.249785508

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0007306	9981	34	2534	2481	2505	2461	0.249931798
0007501	10656	180	2791	2686	2594	2585	0.249981387
0007502	4200	69	1043	1049	1055	1053	0.249633339
0007504	5402	38	1388	1364	1320	1330	0.249717965
0007505	1922	47	484	508	453	477	0.248143482
0007506	2969	28	723	795	718	733	0.249596279
0007801	13290	147	3317	3424	3208	3341	0.249872897
0007802	8372	69	2093	2149	2084	2046	0.24998567
0007804	12267	45	3054	3050	3030	3133	0.249730891
0007805	7269	47	1853	1713	1870	1833	0.249709407
0007806	7137	28	1795	1767	1772	1803	0.249971106
0007901	9063	114	2269	2271	2232	2291	0.24975651
0007902	6245	69	1555	1582	1460	1648	0.249934184
0007904	13722	49	3441	3411	3570	3300	0.249878981
0007905	14527	64	3672	3619	3614	3622	0.249971008
0007906	15578	41	3861	3929	3874	3914	0.249944347
0008301	8174	216	1934	2087	2081	2072	0.249977992
0008302	4577	73	1161	1146	1166	1104	0.249822982
0008304	7949	70	2033	1949	1954	2013	0.24980276
0008601	19872	213	4864	5023	5032	4953	0.249925286
0008602	3278	69	836	844	809	789	0.249000971
0008603	1739	79	409	486	425	419	0.248859172
0008604	3877	38	956	1002	947	972	0.247609195
0008605	5562	47	1442	1348	1344	1428	0.249789128
0008606	8484	28	2082	2101	2148	2153	0.249978101
0008901	53374	446	13303	13484	13317	13270	0.249970858
0008902	24632	124	6158	6229	6070	6175	0.249963337
0008903	2816	79	694	708	691	723	0.249947886
0008904	20307	56	5137	4995	5029	5146	0.249967456
0008905	17090	59	4344	4242	4338	4166	0.249868011
0008906	14701	30	3510	3724	3701	3766	0.249882445
0009101	41690	311	10341	10440	10609	10300	0.249988632
0009102	13814	69	3395	3447	3464	3508	0.249980606
0009103	1444	79	387	340	378	339	0.249904539
0009104	7498	38	1881	1860	1914	1843	0.249987062
0009105	5987	47	1517	1506	1476	1488	0.249989335
0009106	4526	28	1134	1158	1128	1106	0.249951718
0009201	9353	151	2361	2369	2351	2272	0.249915654
0009202	4789	69	1213	1221	1185	1170	0.249778203

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0009204	3806	38	979	872	980	975	0.249689262
0009205	3186	47	779	804	816	787	0.249791516
0009206	3611	28	852	921	914	924	0.249909327
0009501	8352	114	2145	2083	2055	2069	0.249905756
0009502	5864	69	1515	1451	1487	1411	0.249933372
0009504	13416	53	3365	3420	3283	3348	0.249768292
0009505	7906	47	1977	1935	1997	1997	0.249854585
0009506	10660	31	2691	2735	2615	2619	0.249880755
0009601	15506	295	3853	3782	3933	3938	0.249895511
0009602	6612	76	1660	1705	1640	1607	0.249956047
0009604	9827	62	2489	2445	2480	2413	0.249766444
0009801	14365	197	3633	3635	3506	3591	0.249989702
0009802	7726	69	1925	1972	1897	1932	0.249958761
0009804	7828	38	1913	1947	1962	2006	0.249983531
0009805	3502	47	935	860	846	861	0.249576048
0009806	5461	28	1354	1350	1384	1373	0.2499503
0010101	5637	259	1437	1385	1398	1417	0.249806862
0010102	2756	77	719	700	690	647	0.249555965
0010104	3468	53	876	837	879	876	0.249791945
0010301	15163	164	3879	3776	3721	3787	0.249967617
0010302	6579	69	1627	1662	1605	1685	0.249731004
0010304	9923	38	2435	2513	2514	2461	0.249953
0010305	10673	48	2609	2675	2724	2665	0.249986718
0010306	10733	29	2668	2661	2690	2714	0.249846681
0010401	11577	197	2875	2874	2930	2898	0.2499293
0010402	3503	69	883	872	877	871	0.249314232
0010404	2804	38	706	704	688	706	0.249977786
0010405	2052	47	529	500	485	538	0.249749719
0010406	3571	28	885	869	913	904	0.249970719
0010501	11701	139	2956	2958	2872	2915	0.249983119
0010502	5318	69	1298	1347	1341	1332	0.249646053
0010504	9859	39	2430	2471	2451	2507	0.249807757
0010505	9012	47	2242	2275	2215	2280	0.24988511
0010506	12359	36	3105	3046	3095	3113	0.249988867
0010801	16942	199	4202	4285	4241	4214	0.24993445
0010802	10083	72	2554	2474	2522	2533	0.249854185
0010804	11455	45	2902	2833	2853	2867	0.249964606
0010805	5973	47	1504	1491	1469	1509	0.249683179
0010806	10750	31	2695	2741	2663	2651	0.249923706

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0010901	10175	114	2566	2575	2528	2506	0.249855463
0010902	7354	69	1798	1882	1838	1836	0.249860698
0010904	21492	60	5262	5368	5452	5410	0.249972923
0010905	9723	47	2367	2469	2447	2440	0.249947457
0010906	22167	46	5511	5651	5581	5424	0.249994742
0011001	55051	498	13779	13829	13769	13674	0.24999574
0011002	21116	116	5195	5324	5275	5322	0.24997449
0011003	2542	79	602	669	660	611	0.249398027
0011004	18696	56	4712	4614	4727	4643	0.24996777
0011005	13011	49	3191	3256	3363	3201	0.24996448
0011006	10243	28	2582	2515	2579	2567	0.249905795
0011201	7823	273	1977	2039	1961	1846	0.249943287
0011202	3506	74	857	917	815	917	0.249768241
0011204	4308	50	1069	1062	1102	1075	0.249785474
0011301	3943	182	979	1022	951	991	0.249585044
0011302	2581	72	659	641	629	652	0.249889382
0011304	3239	50	779	806	853	801	0.249867501
0011306	1455	28	361	361	341	392	0.249967388
0011701	21733	176	5512	5325	5597	5299	0.249963145
0011702	9321	69	2352	2256	2377	2336	0.249831036
0011704	19475	52	4830	4929	4853	4863	0.249952123
0011705	7007	47	1781	1758	1741	1727	0.2499185
0011706	18928	38	4664	4834	4675	4755	0.249949603
0011801	7663	292	1888	1885	1947	1943	0.249873893
0011802	2594	68	658	645	654	637	0.249888049
0011804	3750	48	907	949	906	988	0.249921
0011901	9939	249	2536	2472	2475	2456	0.249702047
0011902	5157	78	1269	1282	1255	1351	0.249998355
0011904	6734	56	1655	1655	1742	1682	0.249999373
0012001	15515	169	3848	3850	3962	3855	0.249995268
0012002	9772	69	2443	2385	2461	2483	0.249846968
0012004	10581	39	2694	2614	2595	2678	0.24986434
0012005	8160	47	2033	2070	2023	2034	0.249773349
0012006	6441	28	1639	1562	1601	1639	0.249824864
0012101	8463	120	2060	2141	2108	2154	0.249982376
0012102	8041	69	1985	2117	1979	1960	0.249958712
0012104	8722	41	2167	2210	2165	2180	0.249901289
0012105	9403	55	2353	2345	2348	2357	0.249981139
0012106	8237	29	2019	2061	2089	2068	0.249950532

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0012201	4383	205	1083	1095	1091	1114	0.249722298
0012202	2619	74	697	672	660	590	0.249977174
0012204	4685	73	1172	1181	1154	1178	0.249618662
0012301	14349	144	3560	3644	3571	3574	0.249950784
0012302	14895	90	3771	3747	3703	3674	0.249775834
0012303	2869	79	733	734	657	745	0.249540525
0012304	30634	102	7651	7717	7620	7646	0.249928367
0012305	27028	112	6647	6760	6676	6945	0.249983784
0012306	20890	51	5299	5200	5157	5234	0.249910299
0012401	44701	301	11284	11133	11078	11206	0.249946692
0012402	21205	87	5268	5309	5381	5247	0.249951432
0012403	9783	80	2490	2402	2413	2478	0.24986414
0012404	22121	50	5607	5504	5553	5457	0.24990471
0012405	40356	112	10145	10083	10112	10016	0.249962335
0012406	25237	42	6384	6190	6282	6381	0.249924143
0012501	41455	359	10295	10407	10438	10315	0.249977635
0012502	16246	85	3991	4127	4096	4032	0.249993941
0012503	2748	79	658	691	712	687	0.249972587
0012504	24646	71	6180	6138	6244	6084	0.24995359
0012505	17560	63	4452	4507	4253	4348	0.249987448
0012506	25572	54	6315	6366	6331	6560	0.249990202
0012601	13628	169	3464	3390	3401	3373	0.249955928
0012602	9414	71	2354	2358	2323	2379	0.249984008
0012604	9824	41	2505	2482	2447	2390	0.249989052
0012605	5786	47	1458	1431	1474	1423	0.249473087
0012606	5798	28	1400	1415	1482	1501	0.249920702
0012701	8888	168	2204	2172	2266	2246	0.249764553
0012702	4314	69	1084	1095	1089	1046	0.24983302
0012704	3578	38	853	889	903	933	0.249995045
0012705	2059	47	479	536	516	528	0.249810946
0012706	2784	28	719	684	653	728	0.249187275
0012801	3838	201	975	962	939	962	0.24950992
0012802	1997	68	511	510	490	486	0.249607223
0012804	4414	77	1152	1126	1050	1086	0.249697745
0012901	17987	327	4470	4615	4472	4430	0.249976495
0012902	8211	90	2101	2050	2039	2021	0.249884789
0012904	7190	44	1856	1767	1807	1760	0.249832006
0013101	6477	306	1571	1677	1568	1661	0.249576764
0013102	2709	77	677	659	688	685	0.249734648

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0013105	2186	47	491	535	546	614	0.249168973
0023101	5625	335	1399	1357	1406	1463	0.249907981
0023102	1626	68	403	397	403	423	0.249764373
0023104	1137	37	273	283	271	310	0.249222841
0025201	6969	237	1749	1798	1717	1705	0.249969732
0025202	3493	72	903	866	849	875	0.249914941
0025204	5636	64	1498	1439	1368	1331	0.249932192
0028001	9535	250	2422	2432	2363	2318	0.249934831
0028002	8072	128	2046	2034	2014	1978	0.249850349
0028004	2102	38	519	532	513	538	0.248450445
0032101	4687	319	1205	1197	1121	1164	0.249890734
0032102	1580	68	406	381	410	383	0.249986943
0032104	1658	38	403	434	398	423	0.249193726
0033001	18040	369	4573	4525	4466	4476	0.249963114
0033002	5926	73	1473	1478	1503	1472	0.249848629
0033004	1624	38	428	365	427	404	0.249892112
0036601	4409	146	1086	1088	1101	1134	0.249855433
0036602	3487	70	840	861	886	900	0.249990078
0036604	8602	94	2159	2139	2183	2121	0.249778231
0037801	4946	179	1220	1184	1273	1269	0.249565567
0037802	6048	132	1590	1479	1463	1516	0.249799274
0037804	4109	49	1028	1021	995	1065	0.249937193
0038501	8577	257	2216	2093	2136	2132	0.249977979
0038502	5161	94	1312	1294	1234	1321	0.249903394
0038504	4503	45	1117	1148	1093	1145	0.249924009
0038701	10303	312	2618	2547	2543	2595	0.249866244
0038702	4379	80	1103	1113	1145	1018	0.249976422
0038704	2519	38	631	673	599	616	0.24997132
0040501	3104	191	733	808	804	759	0.249926778
0040502	3721	138	933	900	946	942	0.249591792
0040504	2016	41	513	498	524	481	0.247892267
0040701	3747	192	968	911	925	943	0.249855914
0040702	2823	88	705	681	732	705	0.249948307
0040704	2499	43	576	666	647	610	0.249838546
0040706	994	28	217	251	254	272	0.249870426
0050801	14762	466	3723	3609	3765	3665	0.24998942
0050802	1619	68	411	410	389	409	0.248968318
0060601	23283	325	5874	5723	5866	5820	0.24999934
0060602	9876	84	2440	2444	2465	2527	0.249895021

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0060604	3173	38	819	783	777	794	0.249747878
0060605	2940	47	773	734	713	720	0.248916175
0060701	19199	326	4798	4873	4632	4896	0.249999142
0060702	7907	81	1961	1895	1997	2054	0.249666784
0060704	3116	38	792	789	778	757	0.249857008
0060705	2081	47	496	544	531	510	0.249211963
0060901	25274	370	6230	6346	6385	6313	0.249981095
0060902	10479	93	2586	2620	2661	2612	0.249965191
0060905	3721	47	970	929	903	919	0.249940739
0061201	27653	451	6855	6922	6968	6908	0.249929313
0061202	3302	69	832	846	779	845	0.249841089
0061205	2579	47	672	624	616	667	0.249406589
0061701	19405	416	4856	4824	4875	4850	0.249881168
0061702	5919	77	1468	1545	1433	1473	0.249589632
0061705	1727	47	434	416	416	461	0.249435442
0062001	8659	221	2191	2229	2073	2166	0.249950162
0062002	3888	69	942	955	996	995	0.249763626
0062004	2327	38	611	597	555	564	0.249991248
0062005	1344	47	324	320	343	357	0.249243174
0062006	1102	28	233	264	287	318	0.249653441
0062101	18644	425	4664	4672	4743	4565	0.249887519
0062102	5349	74	1349	1298	1350	1352	0.24984738
0062201	19119	384	4772	4792	4825	4730	0.249984175
0062202	5767	70	1393	1439	1486	1449	0.249871196
0062204	1329	37	357	362	317	293	0.249786644
0063301	10824	297	2668	2716	2728	2712	0.249951828
0063302	5206	86	1281	1333	1287	1305	0.249965325
0063305	3154	47	796	770	802	786	0.249896573
0064001	18741	353	4660	4606	4691	4784	0.249930947
0064002	5101	69	1238	1279	1276	1308	0.249874915
0064005	2755	47	670	686	681	718	0.249836245
0080401	7927	343	1922	1985	2000	2020	0.249946991
0080402	4684	123	1203	1153	1172	1156	0.249600054
0080601	15136	329	3763	3832	3672	3869	0.249984465
0080602	7132	94	1770	1813	1838	1711	0.249984232
0080604	1698	38	449	416	412	421	0.249956295
0621502	4705	145	1151	1205	1156	1193	0.249980036
0621504	5952	101	1432	1454	1532	1534	0.2499756
0622301	17155	360	4266	4288	4255	4346	0.249901818

STRATUM	FRAME SIZE	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
			ZONE1	ZONE2	ZONE3	ZONE4	
0622302	6462	82	1599	1598	1565	1700	0.249483327
0622304	4667	38	1199	1201	1112	1155	0.249595142
0990101	87853	315	22005	21760	21975	22113	0.249998495
0990102	42403	92	10390	10685	10659	10669	0.249950999
0990103	53622	373	13519	13344	13356	13403	0.24999741
0990104	85194	101	21034	21449	21300	21411	0.249997418
0990105	346318	511	86348	86835	85987	87148	0.249993439
0990106	342047	298	85106	85685	85487	85769	0.249987996
0990201	61502	199	15257	15424	15368	15453	0.24999922
0990202	50747	99	12746	12651	12614	12736	0.249984861
0990203	42520	296	10672	10586	10790	10472	0.249973391
0990204	149824	160	37648	37392	37519	37265	0.249989552
0990205	329125	438	82196	82478	82055	82396	0.249999865
0990206	426980	336	106828	106350	106816	106986	0.249991866
0990301	67587	294	16892	17080	16868	16747	0.249994652
0990302	35900	94	8969	9072	8974	8885	0.249997061
0990303	33201	231	8317	8325	8275	8284	0.249974848
0990304	68741	99	17122	17008	17307	17304	0.249975383
0990305	260148	465	64824	65073	65257	64994	0.249973717
0990306	325035	343	81353	81054	81387	81241	0.249999791
0990401	20240	493	4985	5076	5126	5053	0.249989835
0990402	4292	69	1058	1091	1075	1068	0.24999477
0990403	6971	119	1712	1821	1756	1682	0.249726012
0990405	59191	594	14962	14661	14769	14799	0.249971006
0990406	49271	292	12218	12427	12394	12232	0.249992399

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

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0000101	168	4179	4179
0000102	68	2234	2234
0000104	89	6716	6716
0000301	209	4504	4504
0000302	81	2886	2886
0000304	67	4355	4355
0000401	185	4134	4134
0000402	82	3029	3029
0000404	75	5070	5070
0000501	292	14150	14150
0000502	69	4412	4412
0000504	38	2278	2278
0000505	47	1730	1730
0000601	156	8321	8321
0000602	80	7053	7053
0000604	42	6804	6804
0000605	47	3938	3938
0000606	28	3172	3172
0000801	200	4410	4410
0000802	71	2601	2601
0000804	76	5040	5040
0000901	114	8092	8092
0000902	69	6850	6850
0000904	46	15836	15836
0000905	54	14885	14885
0000906	53	24934	24934
0001001	194	7493	7493
0001002	69	4299	4299
0001004	63	7360	7360
0001006	28	1089	1089
0001401	286	24003	24003
0001402	89	12297	12297
0001404	73	18508	18508
0001405	62	12564	12564
0001406	80	27346	27346
0001901	274	10071	10071
0001902	82	4972	4972
0001904	46	5071	5071

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0002401	389	36262	36262
0002402	110	16973	16973
0002403	79	2637	2637
0002404	50	13845	13845
0002405	56	12633	12633
0002406	55	20750	20750
0002601	209	2628	2628
0002602	122	2531	2531
0002604	44	1651	1651
0002801	139	8744	8744
0002802	69	5069	5069
0002804	38	4344	4344
0002805	47	3145	3145
0002806	28	4265	4265
0002901	419	62215	62215
0002902	70	17003	17003
0002903	80	4760	4760
0002904	47	21119	21119
0002905	69	24650	24650
0002906	57	34466	34466
0003001	242	11533	11533
0003002	69	3817	3817
0003004	38	3734	3734
0003006	28	2725	2725
0003201	192	19829	19829
0003202	69	9313	9313
0003204	38	9624	9624
0003205	47	5227	5227
0003206	28	7801	7801
0003301	114	7768	7768
0003302	69	4071	4071
0003304	52	11455	11455
0003305	48	8555	8555
0003306	34	10133	10133
0003701	194	18464	18464
0003702	68	2729	2729
0003703	79	2115	2115
0003704	38	10140	10140
0003705	48	11116	11116
0003706	39	15317	15317

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0003801	206	23305	23305
0003802	69	8620	8620
0003804	43	14631	14631
0003805	47	10178	10178
0003806	32	14634	14634
0003901	308	32567	32567
0003902	84	14595	14595
0003903	79	2672	2672
0003904	79	25298	25298
0003905	86	21894	21894
0003906	47	20211	20211
0004201	114	9373	9373
0004202	69	6867	6867
0004204	45	12511	12511
0004205	51	11438	11438
0004206	34	12979	12979
0004301	211	4627	4627
0004302	68	2160	2160
0004304	74	4925	4925
0004501	192	17459	17459
0004502	72	10772	10772
0004504	86	23469	23469
0004505	81	17833	17833
0004506	89	33034	33034
0004601	113	2844	2844
0004602	68	1833	1833
0004604	80	7121	7121
0004606	28	1944	1944
0004701	212	20755	20755
0004702	69	6589	6589
0004704	53	15443	15443
0004705	47	6395	6395
0004706	28	9485	9485
0004801	230	20496	20496
0004802	69	8446	8446
0004804	40	10774	10774
0004805	47	6676	6676
0004806	28	9912	9912
0004901	251	26797	26797
0004902	69	9139	9139

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0004903	79	1651	1651
0004904	38	8896	8896
0004905	47	6165	6165
0004906	28	4712	4712
0005101	221	6284	6284
0005102	76	3577	3577
0005104	66	5653	5653
0005201	232	34415	34415
0005202	69	11375	11375
0005203	79	3605	3605
0005204	38	5747	5747
0005205	47	10755	10755
0005206	28	12076	12076
0005301	213	4354	4354
0005302	68	2161	2161
0005304	38	2327	2327
0005305	47	1700	1700
0005501	114	9177	9177
0005502	69	6665	6665
0005504	48	11784	11784
0005505	52	10216	10216
0005506	29	9557	9557
0005601	189	20094	20094
0005602	69	4329	4329
0005603	79	1881	1881
0005604	38	4968	4968
0005605	47	9239	9239
0005606	28	8160	8160
0005701	191	11663	11663
0005702	69	5729	5729
0005704	38	3690	3690
0005705	47	2631	2631
0005706	28	2252	2252
0005801	222	7853	7853
0005802	80	4683	4683
0005804	64	6859	6859
0006001	259	30492	30492
0006002	84	16340	16340
0006004	38	10543	10543
0006005	47	6842	6842

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0006006	28	5578	5578
0006101	172	16466	16466
0006102	69	6298	6298
0006104	38	9387	9387
0006105	47	9038	9038
0006106	28	8880	8880
0006201	263	6504	6504
0006202	78	3177	3177
0006204	51	3820	3820
0006401	232	9783	9783
0006402	69	4521	4521
0006404	40	5017	5017
0006406	28	2260	2260
0006601	202	26950	26950
0006602	69	13690	13690
0006604	47	18947	18947
0006605	47	11988	11988
0006606	28	12635	12635
0006701	170	21323	21323
0006702	69	6499	6499
0006703	79	2121	2121
0006704	38	13822	13822
0006705	57	17209	17209
0006706	35	17768	17768
0006801	245	3655	3655
0006802	82	2028	2028
0006804	54	2436	2436
0006901	283	21991	21991
0006902	72	9169	9169
0006904	51	11900	11900
0006906	28	2374	2374
0007301	141	10270	10270
0007302	69	5884	5884
0007304	43	9453	9453
0007305	47	4741	4741
0007306	34	9981	9981
0007501	180	10656	10656
0007502	69	4200	4200
0007504	38	5402	5402
0007505	47	1922	1922

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0007506	28	2969	2969
0007801	147	13290	13290
0007802	69	8372	8372
0007804	45	12267	12267
0007805	47	7269	7269
0007806	28	7137	7137
0007901	114	9063	9063
0007902	69	6245	6245
0007904	49	13722	13722
0007905	64	14527	14527
0007906	41	15578	15578
0008301	216	8174	8174
0008302	73	4577	4577
0008304	70	7949	7949
0008601	213	19872	19872
0008602	69	3278	3278
0008603	79	1739	1739
0008604	38	3877	3877
0008605	47	5562	5562
0008606	28	8484	8484
0008901	446	53374	53374
0008902	124	24632	24632
0008903	79	2816	2816
0008904	56	20307	20307
0008905	59	17090	17090
0008906	30	14701	14701
0009101	311	41690	41690
0009102	69	13814	13814
0009103	79	1444	1444
0009104	38	7498	7498
0009105	47	5987	5987
0009106	28	4526	4526
0009201	151	9353	9353
0009202	69	4789	4789
0009204	38	3806	3806
0009205	47	3186	3186
0009206	28	3611	3611
0009501	114	8352	8352
0009502	69	5864	5864
0009504	53	13416	13416

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0009505	47	7906	7906
0009506	31	10660	10660
0009601	295	15506	15506
0009602	76	6612	6612
0009604	62	9827	9827
0009801	197	14365	14365
0009802	69	7726	7726
0009804	38	7828	7828
0009805	47	3502	3502
0009806	28	5461	5461
0010101	259	5637	5637
0010102	77	2756	2756
0010104	53	3468	3468
0010301	164	15163	15163
0010302	69	6579	6579
0010304	38	9923	9923
0010305	48	10673	10673
0010306	29	10733	10733
0010401	197	11577	11577
0010402	69	3503	3503
0010404	38	2804	2804
0010405	47	2052	2052
0010406	28	3571	3571
0010501	139	11701	11701
0010502	69	5318	5318
0010504	39	9859	9859
0010505	47	9012	9012
0010506	36	12359	12359
0010801	199	16942	16942
0010802	72	10083	10083
0010804	45	11455	11455
0010805	47	5973	5973
0010806	31	10750	10750
0010901	114	10175	10175
0010902	69	7354	7354
0010904	60	21492	21492
0010905	47	9723	9723
0010906	46	22167	22167
0011001	498	55051	55051
0011002	116	21116	21116

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0011003	79	2542	2542
0011004	56	18696	18696
0011005	49	13011	13011
0011006	28	10243	10243
0011201	273	7823	7823
0011202	74	3506	3506
0011204	50	4308	4308
0011301	182	3943	3943
0011302	72	2581	2581
0011304	50	3239	3239
0011306	28	1455	1455
0011701	176	21733	21733
0011702	69	9321	9321
0011704	52	19475	19475
0011705	47	7007	7007
0011706	38	18928	18928
0011801	292	7663	7663
0011802	68	2594	2594
0011804	48	3750	3750
0011901	249	9939	9939
0011902	78	5157	5157
0011904	56	6734	6734
0012001	169	15515	15515
0012002	69	9772	9772
0012004	39	10581	10581
0012005	47	8160	8160
0012006	28	6441	6441
0012101	120	8463	8463
0012102	69	8041	8041
0012104	41	8722	8722
0012105	55	9403	9403
0012106	29	8237	8237
0012201	205	4383	4383
0012202	74	2619	2619
0012204	73	4685	4685
0012301	144	14349	14349
0012302	90	14895	14895
0012303	79	2869	2869
0012304	102	30634	30634
0012305	112	27028	27028

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0012306	51	20890	20890
0012401	301	44701	44701
0012402	87	21205	21205
0012403	80	9783	9783
0012404	50	22121	22121
0012405	112	40356	40356
0012406	42	25237	25237
0012501	359	41455	41455
0012502	85	16246	16246
0012503	79	2748	2748
0012504	71	24646	24646
0012505	63	17560	17560
0012506	54	25572	25572
0012601	169	13628	13628
0012602	71	9414	9414
0012604	41	9824	9824
0012605	47	5786	5786
0012606	28	5798	5798
0012701	168	8888	8888
0012702	69	4314	4314
0012704	38	3578	3578
0012705	47	2059	2059
0012706	28	2784	2784
0012801	201	3838	3838
0012802	68	1997	1997
0012804	77	4414	4414
0012901	327	17987	17987
0012902	90	8211	8211
0012904	44	7190	7190
0013101	306	6477	6477
0013102	77	2709	2709
0013105	47	2186	2186
0023101	335	5625	5625
0023102	68	1626	1626
0023104	37	1137	1137
0025201	237	6969	6969
0025202	72	3493	3493
0025204	64	5636	5636
0028001	250	9535	9535
0028002	128	8072	8072

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0028004	38	2102	2102
0032101	319	4687	4687
0032102	68	1580	1580
0032104	38	1658	1658
0033001	369	18040	18040
0033002	73	5926	5926
0033004	38	1624	1624
0036601	146	4409	4409
0036602	70	3487	3487
0036604	94	8602	8602
0037801	179	4946	4946
0037802	132	6048	6048
0037804	49	4109	4109
0038501	257	8577	8577
0038502	94	5161	5161
0038504	45	4503	4503
0038701	312	10303	10303
0038702	80	4379	4379
0038704	38	2519	2519
0040501	191	3104	3104
0040502	138	3721	3721
0040504	41	2016	2016
0040701	192	3747	3747
0040702	88	2823	2823
0040704	43	2499	2499
0040706	28	994	994
0050801	466	14762	14762
0050802	68	1619	1619
0060601	325	23283	23283
0060602	84	9876	9876
0060604	38	3173	3173
0060605	47	2940	2940
0060701	326	19199	19199
0060702	81	7907	7907
0060704	38	3116	3116
0060705	47	2081	2081
0060901	370	25274	25274
0060902	93	10479	10479
0060905	47	3721	3721
0061201	451	27653	27653

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0061202	69	3302	3302
0061205	47	2579	2579
0061701	416	19405	19405
0061702	77	5919	5919
0061705	47	1727	1727
0062001	221	8659	8659
0062002	69	3888	3888
0062004	38	2327	2327
0062005	47	1344	1344
0062006	28	1102	1102
0062101	425	18644	18644
0062102	74	5349	5349
0062201	384	19119	19119
0062202	70	5767	5767
0062204	37	1329	1329
0063301	297	10824	10824
0063302	86	5206	5206
0063305	47	3154	3154
0064001	353	18741	18741
0064002	69	5101	5101
0064005	47	2755	2755
0080401	343	7927	7927
0080402	123	4684	4684
0080601	329	15136	15136
0080602	94	7132	7132
0080604	38	1698	1698
0621502	145	4705	4705
0621504	101	5952	5952
0622301	360	17155	17155
0622302	82	6462	6462
0622304	38	4667	4667
0990101	315	87853	87853
0990102	92	42403	42403
0990103	373	53622	53622
0990104	101	85194	85194
0990105	511	346318	346318
0990106	298	342047	342047
0990201	199	61502	61502
0990202	99	50747	50747
0990203	296	42520	42520

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0990204	160	149824	149824
0990205	438	329125	329125
0990206	336	426980	426980
0990301	294	67587	67587
0990302	94	35900	35900
0990303	231	33201	33201
0990304	99	68741	68741
0990305	465	260148	260148
0990306	343	325035	325035
0990401	493	20240	20240
0990402	69	4292	4292
0990403	119	6971	6971
0990405	594	59191	59191
0990406	292	49271	49271

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

SVCCD	Unweighted Sample Count	Weighted Sample Count	Frame Count
	0	0	2
A	17677	2727288.973000	2696563
C	961	138269.795700	145325
D	0	0	105
F	14853	2053760.211000	2097045
H	118	15332.224330	20849
M	4365	535831.001800	538487
N	12016	1694836.921000	1667687
O	10	1893.873329	1144
X	0	0	6

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

EBG_COM	Unweighted Sample Count	Weighted Sample Count	Frame Count
01	25914	1780025.3450	1780008
02	7968	782393.9286	783073
03	2608	220707.1235	220090
04	5177	1114672.1820	1113247
05	4901	1502759.4000	1503638
06	3432	1766655.0210	1767157

APPENDIX E

Q1 2006 VARIABLES DELIVERED TO SYNOVATE

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APPENDIX E: LIST OF VARIABLES IN THE DATA SET DELIVERED TO STI (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	CACSMPL	Char	4	Catchment Area Sampling Variable		MPR
3	DAGEQY	Char	3	Beneficiary Age at time of Deers Extract	18 or older, Blank as missing	DEERS
4	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
5	DCATCH	Char	4	Catchment Area at Time of Extract		DEERS
6	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
7	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	
8	DPRISM	Char	4	PRISM (20 mile) clinic service area		DEERS

#	Variable	Type	Length	Label	Values	Source
9	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
10	E1	Char	1	Eligibility Indicator - Period 1	Y = Yes, DEERS Eligible Period 1 N = No, Not DEERS Eligible Period 1	MPR
11	E2	Char	1	Eligibility Indicator - Period 2	Y = Yes, DEERS Eligible Period 2 N = No, Not DEERS Eligible Period 2	MPR
12	E3	Char	1	Eligibility Indicator - Period 3	Y = Yes, DEERS Eligible Period 3 N = No, Not DEERS Eligible Period 3	MPR
13	E4	Char	1	Eligibility Indicator - Period 4	Y = Yes, DEERS Eligible Period 4 N = No, Not DEERS Eligible Period 4	MPR
14	E5	Char	1	Eligibility Indicator - Period 5	Y = Yes, DEERS Eligible Period 5 N = No, Not DEERS Eligible Period 5	MPR
15	E6	Char	1	Eligibility Indicator - Period 6	Y = Yes, DEERS Eligible Period 6 N = No, Not DEERS Eligible Period 6	MPR
16	E7	Char	1	Eligibility Indicator - Period 7	Y = Yes, DEERS Eligible Period 7 N = No, Not DEERS Eligible Period 7	MPR
17	E8	Char	1	Eligibility Indicator - Period 8	Y = Yes, DEERS Eligible Period 8 N = No, Not DEERS Eligible Period 8	MPR
18	E9	Char	1	Eligibility Indicator - Period 9	Y = Yes, DEERS Eligible Period 9 N = No, Not DEERS Eligible Period 9	MPR
19	E10	Char	1	Eligibility Indicator - Period 10	Y = Yes, DEERS Eligible Period 10 N = No, Not DEERS Eligible Period 10	MPR
20	E11	Char	1	Eligibility Indicator - Period 11	Y = Yes, DEERS Eligible Period 11 N = No, Not DEERS Eligible Period 11	MPR
21	E12	Char	1	Eligibility Indicator - Period 12	Y = Yes, DEERS Eligible Period 12 N = No, Not DEERS Eligible Period 12	MPR
22	E13	Char	1	Eligibility Indicator - Period 13	Y = Yes, DEERS Eligible Period 13 N = No, Not DEERS Eligible Period 13	MPR
23	E14	Char	1	Eligibility Indicator - Period 14	Y = Yes, DEERS Eligible Period 14 N = No, Not DEERS Eligible Period 14	MPR
24	E15	Char	1	Eligibility Indicator - Period 15	Y = Yes, DEERS Eligible Period 15 N = No, Not DEERS Eligible Period 15	MPR
25	E16	Char	1	Eligibility Indicator - Period 16	Y = Yes, DEERS Eligible Period 16 N = No, Not DEERS Eligible Period 16	MPR
26	E17	Char	1	Eligibility Indicator - Period 17	Y = Yes, DEERS Eligible Period 17 N = No, Not DEERS Eligible Period 17	MPR
27	E18	Char	1	Eligibility Indicator - Period 18	Y = Yes, DEERS Eligible Period 18 N = No, Not DEERS Eligible Period 18	MPR
28	E19	Char	1	Eligibility Indicator - Period 19	Y = Yes, DEERS Eligible Period 19 N = No, Not DEERS Eligible Period 19	MPR
29	E20	Char	1	Eligibility Indicator - Period 20	Y = Yes, DEERS Eligible Period 20 N = No, Not DEERS Eligible Period 20	MPR
30	E21	Char	1	Eligibility Indicator - Period 21	Y = Yes, DEERS Eligible Period 21 N = No, Not DEERS Eligible Period 21	MPR
31	E22	Char	1	Eligibility Indicator - Period 22	Y = Yes, DEERS Eligible Period 22 N = No, Not DEERS Eligible Period 22	MPR

#	Variable	Type	Length	Label	Values	Source
32	EBG_COM	Num	2	Enrollee/Beneficiary Group Prime Combine	01-Active Duty (AD) 02-AD family member, prime enrollee 03-AD family member, nonenrollee 04-Ret/fam. mem. retiree, <65, prime enrollee 05-Ret/fam. mem. retiree, <65, nonenrollee 06-Ret/fam. Mem. retiree, >65	MPR
33	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	MPR
34	ENRID	Char	4	Enrollment DMISID		DEERS
35	HADDFLG	Num	1	Residential Address - FLAG	0 = No address line1 1 = Address line1 present	DEERS
36	LEGDDSCD	Char	2	DEERS Dependent Suffix	01-19 = Dependent child 20 = Sponsor 30-39 = Spouse of sponsor 40-44 = Mother of sponsor 45-49 = Father of sponsor 50-54 = Mother-in-law of sponsor 55-59 = Father-in-law of sponsor 60-69 = Other dependents 70-74 = Unknown by DEERS 75 = Pseudo DDS unknown by contractor 98 = Service secretary designee	DEERS
37	MACITYNM	Char	20	Residential Address - City		DEERS
38	MACTRYCD	Char	2	Residential Address, Country		DEERS
39	MALN1TX	Char	40	Residential Address - Line1		DEERS
40	MALN2TX	Char	40	Residential Address - Line2		DEERS
41	MAPRZIP	Char	5	Residential Address - ZIP		DEERS
42	MAPRZIPX	Char	4	Residential Address - ZIPX		DEERS
43	MASTCD	Char	2	Residential Address - State		DEERS
44	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

#	Variable	Type	Length	Label	Values	Source
45	MEDTYPE	Char	1	Medicare Eligibility	A - Medicare A Only B - Medicare B Only C - Medicare A and B N - No Medicare eligibility	
46	MPRID	Char	8	Unique MPR Identifier		MPR
47	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
48	NHFF	Num	8	NHFF - Stratum Sample Size		MPR
49	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
50	PAYPLNCD	Char	5	Pay Plan Code		DEERS
51	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
52	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
53	PN1STNM	Char	20	Beneficiary First Name		DEERS
54	PNBRTHDT	Char	8	Beneficiary Date of Birth		DEERS
55	PNCDNCY	Char	4	Beneficiary Generation		DEERS
56	PNID	Char	9	Beneficiary/Dependent SSN		DEERS

#	Variable	Type	Length	Label	Values	Source
57	PNLCATCD	Char	5	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
58	PNLSTNM	Char	26	Beneficiary Last Name		DEERS
59	PNSEXCD	Char	1	Beneficiary Sex	F = Female M = Male Z = Unknown	DEERS
60	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
61	PRN	Num	8	Permanent Random Number		MPR
62	PRRECFLG	Char	1	Primary Record Identifier/Flag	1 = Primary Record	DEERS
63	PTNT_ID	Char	10	Unique Patient ID		DEERS
64	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
65	RANKCD	Char	6	Rank Code	See RANKCD.DOC for list of values	DEERS
66	SADDFLG	Num	1	Sponsor Address - FLAG	0 = No address line1 1 = Address line1 present	DEERS
67	SPCITYNM	Char	20	Sponsor Address - City		DEERS
68	SPCTRYCD	Char	2	Sponsor Address, Country		DEERS

#	Variable	Type	Length	Label	Values	Source
69	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
70	SPLN1TX	Char	40	Sponsor Address - Line1		DEERS
71	SPLN2TX	Char	40	Sponsor Address - Line2		DEERS
72	SPONSSN	Char	9	Sponsor Social Security Number		DEERS
73	SPPRZIP	Char	5	Sponsor Residential Address - ZIP		DEERS
74	SPPRZIPX	Char	4	Sponsor Address - ZIPX		DEERS
75	SPSTCD	Char	2	Sponsor Residential Address - State		DEERS
76	SPTNUMCD	Char	14	Sponsor Phone Number		DEERS
77	SSNSMPL	Char	12	SPONSSN || SPDUPID || LEGDDSCD SSN Sampling Variable		MPR
78	STRATUM	Char	7	Stratum		MPR
79	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
80	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
81	TNUMCD	Char	14	Residence Telephone Number		DEERS
82	UADDFLG	Num	1	Unit Address - FLAG	0 = No address line1 1 = Address line1 present	DEERS
83	UICADD1	Char	30	Unit Address - Line1		DEERS
84	UICADD2	Char	30	Unit Address - Line2		DEERS
85	UICCITY	Char	30	Unit Address - City		DEERS
86	UICST	Char	2	Unit Address - State		DEERS
87	UICZIP	Char	5	Unit Address - ZIP		DEERS
88	ULOCDMIS	Char	4	Unit Address - DMIS Code		DEERS
89	ULOCGRN	Char	2	Unit Address - Region		DEERS

APPENDIX F

Q1 2006 SAS CODE FOR SAMPLE FRAME CONSTRUCTION AND SAMPLE SELECTION

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STI.SAS

```
*************************************************************************
*
* PROGRAM: STI.SAS
* TASK:    DOD Health Care Survey, Sampling (6077-210/220)
* PURPOSE: Split STI2006 raw datasets into smaller parts for CDs and
*          convert entire dataset into SAS/SD2 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.
*
* INPUTS:
*
* 1) STI2006.001 - RAW 2006 Q1 DEERS Population Extract File (Tape Part 1)
* 2) STI2006.002 - RAW 2006 Q1 DEERS Population Extract File (Tape Part 2)
*
* OUTPUTS:
*
* 1) STI001.SD2 - 2006 Q1 DEERS Population Extract File (CD Part 1)
* 2) STI002.SD2 - 2006 Q1 DEERS Population Extract File (CD Part 2)
* 3) STI003.SD2 - 2006 Q1 DEERS Population Extract File (CD Part 3)
* 4) STI004.SD2 - 2006 Q1 DEERS Population Extract File (CD Part 4)
*
* INCLUDES:
*
* 1) LAYOUT.SAS - Input STEP For Raw Data From STI
*
* NOTES:
*
* 1) The tape file sent by STI exceeded 4 GB in size.  The tape software
*    crashed the computer at the 4 GB unload point.  In order to successfully
*    unload this file, I split the tape file into two parts (STI2006.001
*    and STI2006.002).
* 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)].
*
*************************************************************************;
LIBNAME OUT V612 "..\..\DATA\AFINAL";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*************************************************************************
* PROCESS - MACRO PARAMETERS:
* 1) INUM  = Raw Input file extension
* 2) ONUM1 = SAS Output file 1 suffix
* 3) ONUM2 = SAS Output file 2 suffix
```

```
*************************************************************************;
%MACRO PROCESS(INUM=,ONUM1=,ONUM2=);

FILENAME  IN  "..\..\DATA\AFINAL\STI2006.&INUM";

DATA OUT.STI&ONUM1 OUT.STI&ONUM2;
   INFILE IN LRECL=99999 RECFM=V MISSOVER;
   %INCLUDE "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 _N_ LE 2500000 THEN OUTPUT OUT.STI&ONUM1;
   ELSE OUTPUT OUT.STI&ONUM2;
RUN;

%MEND PROCESS;
************************************************************************
* END PROCESS MACRO
************************************************************************;

%PROCESS(INUM=001,ONUM1=001,ONUM2=002);
%PROCESS(INUM=002,ONUM1=003,ONUM2=004);

************************************************************************
* PRINTIT - MACRO PARAMETERS:
* 1) PNUM = SAS output file suffix
************************************************************************;
%MACRO PRINTIT(PNUM=);

TITLE1 "DOD Health Care Survey, Sampling (6077-210/220)";
TITLE2 "PROGRAM: STI.SAS, RUN BY: Keith Rathbun, October 2005";
TITLE3 "OUTPUT: STI&PNUM..SD2";

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

PROC FREQ DATA=OUT.STI&PNUM;
   TABLES
      TNEXREG
      PRRECFLG
      PNTYPCD
      MRTLSTAT
      PNSEXCD
      MDCABRSN
      LEGDDSCD
      PNLCATCD
      SVCCD
      PAYPLNCD
      PGCD
      MBRRELCD
      RANKCD
      ULOCGRN
```

```
      ULOCDMIS
      RACEETHN
      DCATCH
      DMEDELG
      DAGEQY
      DBENCAT
      DPRISM
      DHSRGN
      DSPONSVC
      MEDTYPE
      ENRID
      ACV
      PCM
      PATCAT
   /MISSING LIST;
RUN;
%MEND PRINTIT;
*******************************************************************************
* END PRINTIT MACRO
*******************************************************************************;

%PRINTIT(PNUM=001);
%PRINTIT(PNUM=002);
%PRINTIT(PNUM=003);
%PRINTIT(PNUM=004);
```

LAYOUT.SAS

```
*******************************************************************************
*
* PROGRAM:  LAYOUT.SAS
* TASK:     DOD Health Care Survey, Sampling (6077-210/220)
* PURPOSE:  INPUT step for the 2004 DEERS Extract file from STI
*
* 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
*
*******************************************************************************
*******************************************************************************
* 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     LEGDDSCD   $CHAR2.
   @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 */
 ;
DROP FILLER1-FILLER2;
*********************************************************************
* Construct SSNSMPL as SPONSSN & SPDUPID & LEGDDSCD
*********************************************************************;
LENGTH SSNSMPL $12;
SSNSMPL = SPONSSN || SPDUPID || LEGDDSCD ;

*********************************************************************
* LABEL variables
*********************************************************************;
LABEL
    SSNSMPL  =   "SSNSMPL - SPONSSN & SPDUPID & LEGDDSCD"
    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"
    LEGDDSCD =   "DDS Code"
    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 12 September 2005)"
    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"
;
```

XWALK.SAS

```
*************************************************************************
*
* PROGRAM:  XWALK.SAS
* TASK:     DOD Health Care Survey, Adult Sampling (6077-210)
* 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.
*
* INPUTS:
* 1) STI001.SD2 - 2006 Q1 DEERS Population SSN SAS data set (Part 1)
* 2) STI002.SD2 - 2006 Q1 DEERS Population SSN SAS data set (Part 2)
* 3) STI003.SD2 - 2006 Q1 DEERS Population SSN SAS data set (Part 3)
* 4) STI004.SD2 - 2006 Q1 DEERS Population SSN SAS data set (Part 4)
* 5) XWALK.SD2  - 2005 Q4 DEERS Population XWALK SAS data set
* 6) STI005.SD2 - 2006 Q1 DEERS Population SSN SAS data set (KATRINA DATA)
*
* OUTPUTS:
* 1) XWALK.SD2 - 2006 Q1 DEERS Population XWALK SAS data set
* 2) SEED.SD2  - 2006 Q1 DEERS Random SEED SAS data set
*
* INCLUDES:
* 1) EXCLUDE.SAS - Exclude specific family by SPONSSN.
*
* 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 V612  '..\..\..\Q4_2005\DATA\AFINAL'; * Previous XWALK;
LIBNAME  IN2 V612  '..\..\DATA\AFINAL';            * Current STI Tape Files;
LIBNAME  OUT V612  '..\..\DATA\AFINAL';            * Current Output;
OPTIONS PS=79 LS=132 COMPRESS=NO NOCENTER;

*******************************************************************************
* Set period number as global variable.
*******************************************************************************;
%LET PD = 21; * Increment by 1 every quarter;

*******************************************************************************
* Set up MACRO to exclude specific families from survey.
*******************************************************************************;
%INCLUDE "EXCLUDE.SAS";

TITLE1 "Generate XWALK file from 2006 Q1 DOD DEERS Population Extract File";
TITLE2 "Program Name: XWALK.SAS, Written by Keith Rathbun, October 2005";

*******************************************************************************
* 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.SD2";
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 SSNSMPLs from current quarter tape file.
*******************************************************************************;
%MACRO SORTIT(NUM=);
   PROC   SORT   DATA=IN2.STI&NUM   (KEEP=SSNSMPL   LEGDDSCD   DAGEQY   PTNT_ID)
OUT=STI&NUM;
       BY SSNSMPL PTNT_ID;
   RUN;
%MEND SORTIT;
```

```
/*11/11/2005 RSG - filename with extension "A" is only to be used for this
  quarter and should be changed back (eliminate "A") for next quarter*/
%SORTIT(NUM=001);
%SORTIT(NUM=002);
%SORTIT(NUM=003);
%SORTIT(NUM=004);
/*11/09/2005 - RSG ADD IN KATRINA DATA - THIS SHOULD ONLY NEED TO BE DONE FOR
THIS
  QUARTER*/
%SORTIT(NUM=005);

*************************************************************************
* Remove children (<18) prior to assigning permanent random number (PRN).
*************************************************************************;
DATA SSN_Q(KEEP=SSNSMPL PTNT_ID);
/*11/11/2005 RSG - THESE FILE NAMES WITH EXTENSION "A" IS FOR THIS QUARTER
ONLY*/
   SET STI001
       STI002
       STI003
       STI004
/*11/09/2005 - RSG ADD IN KATRINA DATA - THIS SHOULD ONLY NEED TO BE DONE FOR
THIS
  QUARTER*/
       STI005
      ;
   BY SSNSMPL PTNT_ID;
   IF DAGEQY GE "018" OR (DAGEQY = " " AND LEGDDSCD GE "20");
   ************************************************************************
   * Add code here if STI failed to remove all duplicates.
   ************************************************************************;
   ************************************************************************
   * Exclude specific families from survey.
   ************************************************************************;
   &EXCLUDE;
RUN;

*************************************************************************
* Combine Qn SSNSMPLs with previous XWALK (SSN_OLD) keeping only the
* new eligibles (SSN_NEW).
*************************************************************************;
DATA SSN_NEW OLDXWALK;
   MERGE SSN_Q(IN=IN1 KEEP=SSNSMPL PTNT_ID) IN1.XWALK(IN=IN2);
   BY SSNSMPL PTNT_ID;

   ************************************************************************
   * Assign eligibility indicator for new eligibles.
   ************************************************************************;
   LENGTH E&PD $1;
   IF IN1 AND IN2 THEN E&PD = "Y";
   ELSE IF IN1    THEN E&PD = "Y";
   ELSE IF IN2    THEN E&PD = "N";
   LABEL E&PD = "Eligibility indicator for period = &PD";

   IF IN1 AND NOT IN2 THEN OUTPUT SSN_NEW;
   IF IN2 THEN OUTPUT OLDXWALK;
```

```
RUN;

*******************************************************************************
* Assign PRN for all new eligibles.
*******************************************************************************;
DATA NEWXWALK (KEEP=MPRID SSNSMPL PRN PTNT_ID E&PD);
   SET SSN_NEW;
   LENGTH MPRID  $8;
   ******************************************************************************
   * Assign eligibility indicator for new eligibles.
   ******************************************************************************;
   LENGTH E&PD   $1;
   E&PD = "Y";
   LABEL E&PD = "Eligibility indicator for period = &PD";
   ******************************************************************************
   * 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 SSNSMPL PTNT_ID;
   ******************************************************************************
   * Recode missing values to Not eligible.
   ******************************************************************************;
   %DO I = 1 %TO &PD;
       IF E&I = " " THEN E&I = "N";
   %END;
RUN;
%MEND XWALK;
%XWALK;

TITLE3 "XWALK file: XWALK.SD2";
PROC CONTENTS; RUN;

PROC FREQ;
   TABLES                                                                E1-E&PD
E1*E2*E3*E4*E5*E6*E7*E8*E9*E10*E11*E12*E13*E14*E15*E16*E17*E18*E19*E20*E21
/MISSING LIST;
RUN;
```

DUPCHECK.SAS

```
*************************************************************************
*
* PROGRAM:  DUPCHECK.SAS
* TASK:     DOD Health Care Survey, Sampling (6077-210/220)
*  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) 10/08/2004 BY KEITH RATHBUN, Added printing of duplicates.
*              Need this information to manually update XWALK program if
*              these duplicates are not the same people.
*
* INPUTS:
* 1) XWALK.SD2  - 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.
*
*************************************************************************;
LIBNAME  IN1 V612 "..\..\DATA\Afinal";

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

TITLE1 "Check cross-walk file for duplicate permanent random numbers (PRN).";
TITLE2 "Program Name: DUPCHECK.SAS, Written by Keith Rathbun, January 2005.";

************************************************************************
* 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=IN1.XWALK  OUT=DUPCHECK; BY PRN; RUN;
/*PROC SORT DATA=IN2.XWALKC  OUT=DUPCHECK; BY PRN; RUN;*/


DATA DUPCHECK;
   SET DUPCHECK;
   BY PRN;
   IF NOT (FIRST.PRN AND LAST.PRN) THEN OUTPUT;
RUN;
PROC PRINT; RUN;
```

```
/* PROC SORT DATA=IN2.XWALKC OUT=DUPCHECK NODUPKEY; BY PRN; RUN; */
```

EXTRACT.SAS

```
*************************************************************************
*
* PROGRAM:  EXTRACT.SAS
* TASK:     DOD Health Care Survey, Sampling (6077-210)
* 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.
*
```

```
* INPUTS:
* 1) STI001A.SD2 - 2006 Q1 DEERS Population SSN SAS data set (Part 1)
* 2) STI002A.SD2 - 2006 Q1 DEERS Population SSN SAS data set (Part 2)
* 3) STI003A.SD2 - 2006 Q1 DEERS Population SSN SAS data set (Part 3)
* 4) STI004A.SD2 - 2006 Q1 DEERS Population SSN SAS data set (Part 4)
* 5) XWALK.SD2  - DEERS Population XWALK SAS data set (sorted by SSNSMPL)
*  6)  STI005.SD2  -  2006  Q1  DEERS  Population  SSN  SAS  data  set  (Katrina
supplement)
*
* OUTPUTS:
* 1) EXTRACT.SD2 - DEERS Population EXTRACT SAS data set (complete - sorted by
SSNSMPL)
*
* INCLUDES:
* 1) EXCLUDE.SAS - Exclude specific family by SPONSSN.
*
* 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  IN  V612 "..\..\DATA\AFINAL";
LIBNAME  OUT V612 "..\..\DATA\AFINAL";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*************************************************************************
* Set up MACRO to exclude specific families from survey.
*************************************************************************;
%INCLUDE "EXCLUDE.SAS";

*************************************************************************
* Extract key sampling variables.
*************************************************************************;
%MACRO SORTIT(NUM=);
   PROC SORT DATA=IN.STI&NUM
             (KEEP=SSNSMPL  PNTYPCD  MRTLSTAT  PNSEXCD
                   MDCABRSN MDCAEFDT MDCAEXDT
                   LEGDDSCD 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  TNEXREG   PTNT_ID
                   PNBRTHDT PN1STNM  PNLSTNM   PNID    PRRECFLG)
               OUT=STI&NUM;
        BY SSNSMPL PTNT_ID;
   RUN;
%MEND SORTIT;

/*11/11/2005 RSG - USE "A" FILES WITH KATRINA OVERLAP RECORDS DELETED - ONLY
  FOR THIS QUARTER!*/
%SORTIT(NUM=001);
```

```
%SORTIT(NUM=002);
%SORTIT(NUM=003);
%SORTIT(NUM=004);
/* 11/09/2005 RSG - ADD IN KATRINA SUPPLEMENT DATA - SHOULD ONLY BE DONE FOR
THIS
   MONTH */
%SORTIT(NUM=005);

*************************************************************************
* Remove children (<18) and exclude specific families.
*************************************************************************;
DATA EXTRACT;
/*11/11/2005 RSG - USE "A" FILES WITH KATRINA OVERLAP RECORDS DELETED - ONLY
  FOR THIS QUARTER!*/
   SET STI001
       STI002
       STI003
       STI004
/* 11/09/2005 RSG - ADD IN KATRINA SUPPLEMENT DATA - SHOULD ONLY BE DONE FOR
THIS
   MONTH.  CREATE FLAG TO INDICATE WHICH ARE KATRINA SUPPLEMENT DATA */
       STI005 (IN=A)
   ;

   IF A THEN KATRINA=1;
   ELSE KATRINA=0;

   BY SSNSMPL PTNT_ID;
   IF DAGEQY GE "018" OR (DAGEQY = " " AND LEGDDSCD GE "20");
   ************************************************************************
   * Add code here if STI failed to remove all duplicates.
   ************************************************************************;
   IF      PTNT_ID = "1253575073" THEN DELETE;
   ELSE IF PTNT_ID = "1069107172" THEN DELETE;
   ELSE IF PTNT_ID = "1174853882" THEN DELETE;
   ELSE IF PTNT_ID = "1028949312" THEN DELETE;
   ELSE IF PTNT_ID = "1102719030" THEN DELETE;
   ELSE IF PTNT_ID = "1235356151" THEN DELETE;
   ELSE IF PTNT_ID = "1046403998" THEN DELETE;
   ELSE IF PTNT_ID = "1176930566" THEN DELETE;
   ELSE IF PTNT_ID = "1151948436" THEN DELETE;
   ELSE IF PTNT_ID = "1045747120" THEN DELETE;

   ************************************************************************
   * Following duplicate was found when Katrina supplement was merged in
   * with the original frame file - this duplicate pair had the same
   * ptnt_id so I am deleting it based on PTNT_ID AND DBENCAT.  11/10/2005 RSG
   ************************************************************************;
/*   IF PTNT_ID = "1115001554" AND DBENCAT = 'IDG' THEN DELETE;*/

   ************************************************************************
   * Exclude specific families from survey.
   ************************************************************************;
   &EXCLUDE;

   ************************************************************************
   * Remove dead people that slipped past STI's data extraction checking.
```

```
   ************************************************************************;
   IF PTNT_ID IN ("1053388686","1055517688") THEN DELETE;
RUN;

DATA OUT.EXTRACT;
   MERGE IN.XWALK(IN=IN1) EXTRACT(IN=IN2);
   BY SSNSMPL PTNT_ID;
   IF IN1 AND IN2;
   DROP SSNSMPL;
   LENGTH PCM_OLD $3.;

   PCM_OLD=PCM;

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

   ELSE IF ('6900' < ENRID <= '6919' OR
       '7900' < ENRID <= '7919' OR
       '8000' < ENRID < '8090' OR
       '0190' <= ENRID <= '0199')
       THEN PCM='CIV';

   ELSE PCM='MTF';


RUN;

TITLE1 "Build SAS EXTRACT file for the DOD sample";
TITLE2 "Program Name: EXTRACT.SAS, Written by Keith Rathbun, October 2005";

TITLE3 "CONTENTS of extract file";
PROC CONTENTS DATA=OUT.EXTRACT; RUN;

TITLE3 "FREQS of key variables - 2006 Q1 DEERS adult population extract:
EXTRACT.SD2";
PROC FREQ DATA=OUT.EXTRACT;
   TABLES
      E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E13 E14 E15 E16 E17 E18 E19 E20
E21
      E1*E2*E3*E4*E5*E6*E7*E8*E9*E10*E11*E12
      E13*E14*E15*E16*E17*E18*E19*E20*E21
      TNEXREG
      PRRECFLG
      PNTYPCD
      MRTLSTAT
      PNSEXCD
      MDCABRSN
      LEGDDSCD
      PNLCATCD
      SVCCD
      PAYPLNCD
      PGCD
      MBRRELCD
      RANKCD
      ULOCGRN
      ULOCDMIS
      RACEETHN
      DCATCH
```

```
      DMEDELG
      DAGEQY
      DBENCAT
      DPRISM
      DHSRGN
      DSPONSVC
      MEDTYPE
      ENRID
      ACV
      PCM
      PATCAT
      SADDFLG
      HADDFLG
      UADDFLG
/* 11/09/2005 RSG - ADD KATRINA JUST TO MAKE SURE OF COUNTS */
      KATRINA
  /MISSING LIST;
RUN;
```

FRAMEA01.SAS

```
*************************************************************************
*** Project: 2005 Health Care Survey of DoD Beneficiaries - Adult
*** Purpose: Create the sampling frame for the adult survey.
***
*** Program: F:\Q3_2005\Programs\Sampling\framea01.sas
***
*** Inputs:   extract.sd2: Extracted DoD data set used to create the adult
sampling frame.
***          TMA.sd2:     DMIS information
***          frame.inc:   Include file
***
*** Outputs: framea.sd2 : Adult sampling frame created from the extracted DoD
data set.
***          TMA2.sd2
***
*** Updated: 1)Esther M Friedman 10/20/03
***          2)Haixia Xu 01/23/2004 for Q2, 2004 sampling
***          3)Haixia Xu 04/14/2004 for Q3, 2004 sampling
***          4)Haixia Xu 07/13/2004 for Q4, 2004 sampling
***          5)Haixia Xu 11/08/2004 for Q1, 2005 sampling
***          6)Nancy Clusen 01/12/2005 for Q2, 2005 sampling
***          7)Haixia Xu 04/29/2005 for Q3, 2005 sampling
***          8)Regina Gramss 10/27/2005 for Q1, 2006 sampling
*** Note:  None
*************************************************************************;

*** Set up options. ***;
options ls=132 ps=79 compress=yes nocenter mprint mlogic symbolgen;

*** Set up the input and output paths. ***;
libname in   v6  "..\..\Data\AFinal"; /* extract.sd2 */
libname inv6 v6  "..\..\Data\AFinal"; /* TMA.sd2 */
libname out  v6  "..\..\Data\AFinal"; /* framea.sd2, TMA2.sd2 */

*** Set up the titles. ***;
title1 'Construct Adult Sampling Frame, FRAMEA.SD2';
title2 'from the 2005 Quarterly DOD Extract File, EXTRACT.SD2';
title3 'Program: FRAMEA01.SAS by Esther M Friedman';


%MACRO PROCESS(TMA,TMA2,outdata);

data frame;
set in.extract;
run;

***Added by haixia on 07/15/04 for Q4, 2004;
title5 'Freq of PRRECFLG in the frame';
proc freq data=frame;
tables PRRECFLG/ missing list;
run;

*************************************************************************
****
* Added q2 2003, Don and Keith created a template to be used each quarter;
* The code below and the include file construct cacsmpl
* and collapse historically small catchment areas;
```

```
*************************************************************************
*****;
data &TMA. (keep = geocell d_par d_fac d_instal d_health d_dmis servaff);
   set inv6.&TMA.;
   ***Extract the facility service code variable(servaff) starting with the
November 2004TMA spreadsheet in Q1,2005;
   rename facilit1=d_fac installa=d_instal dmis_fac=d_dmis facility=servaff ;
   length d_par $4.;
   d_par = DMIS_PAR;
   length geocell $4.;
   geocell = DMIS_ID;
   length d_health $2.;
   d_health = HEALTH_S;
run;

title5 "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 "frame.inc" /source2;

*************************************************************************
***;
***  Construct  the  enrollment  crossed  with  beneficiary  category  variable.
***;
***                                  '01'        -        active        duty
***;
***          '02'   -   active   duty   family   member,   prime,   civilian   pcm
***;
***          '03'   -   active   duty   family   member,   prime,   military   pcm
***;
***              '04'    -    active    duty    family    member,    nonenrollee
***;
***    '05' - retired or family member of retiree, less than 65, civilian pcm
***;
***    '06' - retired or family member of retiree, less than 65, military pcm
***;
***    '07' - retired or family member of retiree, less than 65, nonenrollee
***;
***    '08' - retired or family member of retiree, 65 or older, civilian pcm
***;
***    '09' - retired or family member of retiree, 65 or older, military pcm
***;
***     '10' - retired or family member of retiree, 65 or older, nonenrollee
***;
*************************************************************************
***;
data &outdata;
  set &outdata;
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+’)enbgsmpl = ’10’;
   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 enbgsmpl=’10’;
         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=’h’;
            end;
            end;
            else if dageqy = ’ ’ then enbgsmpl=’i’;
            else if dageqy <= ’064’ then
               do;
               select (pcm);
                  when (’CIV’) enbgsmpl=’05’;
                  when (’MTF’) enbgsmpl=’06’;
                  when (’ ’)   enbgsmpl=’07’;
                  otherwise    enbgsmpl=’j’;
               end;
               end;
            else if dageqy > ’064’ then enbgsmpl=’10’;
```

```
        end;
      else enbgsmpl='e';
   end;
   otherwise enbgsmpl='b';
end;

*************************************************************************
****;
***     Create enrollment and beneficiary groups with Prime enrollees with
***;
***          military  PCM  and  civilian  PCM  combined  into  one  group
***;
***    Also, one enrollment and benficiary group for beneficiaries 65 or older
***;
***                    This     variable     will     have     6     levels
***;
***
***;
***                                  '01'        -        active        duty
***;
***            '02'   -   active   duty   family   member,   prime   enrollee
***;
***              '03'   -   active   duty   family   member,   nonenrollee
***;
***      '04' - retired or family member of retiree, less than 65, prime
enrollee***;
***     '05' - retired or family member of retiree, less than 65, nonenrollee
***;
***         '06'  -  retired  or  family  member  of  retiree,  65  or  older
***;
*************************************************************************
****;

SELECT (enbgsmpl);
   WHEN ('01') EBG_COM = '01';
   WHEN ('02') EBG_COM = '02';
   WHEN ('03') EBG_COM = '02';
   WHEN ('04') EBG_COM = '03';
   WHEN ('05') EBG_COM = '04';
   WHEN ('06') EBG_COM = '04';
   WHEN ('07') EBG_COM = '05';
   WHEN ('08') EBG_COM = '06';
   WHEN ('09') EBG_COM = '06';
   WHEN ('10') EBG_COM = '06';
END;

*************************************************************;
*** Create stratification variable (pre_str), _not_ used for ***;
*** sampling, but rather used to further collapse strata     ***;
*** in enbgcoll.sas                                          ***;
*************************************************************;
if cacsmpl='9999' then pre_str='0'||'9904'||ebg_com; *added q1 2004, put 9999
in OCONUS stratum;
   else pre_str='0'||cacsmpl||ebg_com;

*** Create the enbg variables used for checking. ***;
```

```
array  ebgcom  (7)  ebgcom01  ebgcom02  ebgcom03  ebgcom04  ebgcom05  ebgcom06
ebgcom07;
do i = 1 to 7;
   ebgcom(i)=0;
end;
select (ebg_com);
   when (’01’) ebgcom01=1;
   when (’02’) ebgcom02=1;
   when (’03’) ebgcom03=1;
   when (’04’) ebgcom04=1;
   when (’05’) ebgcom05=1;
   when (’06’) ebgcom06=1;
   otherwise ebgcom07=1;
end;
array a_zone(5) zone1 zone2 zone3 zone4 zone5;
do j = 1 to 5;
   a_zone(j)=0;
end;
select;
   when (0.00 <= prn <= 0.25)
      do;
      zone1=1;
      zone=1;
      end;
   when (0.25 <  prn <= 0.50)
      do;
      zone2=1;
      zone=2;
      end;
   when (0.50 <  prn <= 0.75)
      do;
      zone3=1;
      zone=3;
      end;
   when (0.75 <  prn <= 1.00)
      do;
      zone4=1;
      zone=4;
      end;
   otherwise
      do;
      zone5=1;
      zone=5;
      end;
end;
run;

data out.framea;
  set &outdata;
run;

data out.&TMA2;
  set &TMA;
run;

title5 ’Information for the Frame’;
proc contents data = out.framea;
```

```
run;

%MEND process;
%PROCESS(TMA,TMA_REV, t_framea);

* Note: checks were moved to framea01_chk.sas due to SAS memory constraints;
* Please run checks program right after this one;

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

    title5     "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 "F:\Q1_2006\Programs\Sampling\&listout..inc" LRECL=9999 RECFM=v;
     %end;
      %else %do; /*modify the existing file */
        file  "F:\Q1_2006\Programs\Sampling\&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);

    title5     "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 "F:\Q1_2006\Programs\Sampling\&listout..inc" LRECL=9999 RECFM=v;
     %end;
      %else %do; /*modify the existing file */
```

```
        file  "F:\Q1_2006\Programs\Sampling\&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 = 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 "F:\Q1_2006\Programs\Sampling\&listout..inc" /source2;

      /* 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 geocell=dcatch;

RUN;

title5 "Check the correctness of the assignments of geocell";
proc freq data=frame;
tables enrid*geocell*dcatch/missing list;
where pcm='MTF';
run;

proc sort data=frame;
   by geocell;
run;

data frame2 fr_only fy_only;
   merge frame (in=infr) &TMA (in=infy);
   by geocell;
if infr=1 and infy=1 then output frame2;
else if infr=1 and infy=0 then output fr_only;
else if infr=0 and infy=1 then output fy_only;
```

```
run;

title5 "The records in framea but not in TMA spreadsheet";
proc print data=fr_only;
run;


title5 "Freq of PCM*d_fac in the frame";
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 = assigncom_geo;
%let fromvar=com_geo;
%let tovar=geocell;

%assigncom_geo;

data &outdata ;
   set frame2;
   *************************;
   com_geo=geocell;
   *************************;

   if pcm='MTF' then do;

      /* Use the list produced by the macro */

      %include "F:\Q1_2006\Programs\Sampling\&listout..inc" / source2;

      /* 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;

   ****************************************************************;
   ***Made the following 9 Navy sites stand alone in q1,2005:       ***;
   ***'0026','0068','0231','0378','0387','0405','0407','0508','6215'***;
   ****************************************************************;

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

   ************************************************;
   *** Collapsing small areas with nearest facility ***;
   ************************************************;

   ********************************************************************;
   *** Collapsed the following 9 Air force sites to achieve the sample ***;
   *** size of 50000 due to making 9 Navy sites stand alone in q1,2005:***;
   *** '0013','0036','0059','0090','0287','0326','0638','0805','7139'. ***;
   ********************************************************************;

   if      com_geo in ('0074','0416')        then com_geo='0001';
   else if com_geo in ('0203','0130','0417',
                       '7044','7047')        then com_geo='0005';
   else if com_geo in ('0418','0419','7083',
                       '0015','0287')         then com_geo='0014'; *0287 added
in q1,2005 by Haixia;
   else if com_geo in ('0018','0248')        then com_geo='0019';
   else if com_geo in ('7046')                   then com_geo='0029'; *By emf
added q4 2003;
   else if com_geo in ('0420')               then com_geo='0037';
   else if com_geo in ('0422')               then com_geo='0038';
   else if com_geo in ('0421','7048','0050') then com_geo='0039';
   else if com_geo in ('7139')               then com_geo='0045';
   else if com_geo in ('7043')               then com_geo='0052';
   else if com_geo in ('0427')                   then com_geo='0056'; *By emf
added q3 2003;
   else if com_geo in ('0076')               then com_geo='0058';
   else if com_geo in ('0423')               then com_geo='0064';
   else if com_geo in ('0413','0428','0326',
                       '0036')                 then com_geo='0066'; *Taken out
0068, added 0036, 0326 in q1,2005 by Haixia;
   else if com_geo in ('0424')               then com_geo='0067';
   else if com_geo in ('0306')               then com_geo='0069';
   else if com_geo in ('0338', '0059')       then com_geo='0078'; *changed in
q1,2005;
   else if com_geo in ('0085')               then com_geo='0083';
   else if com_geo in ('0081','5196')            then com_geo='0086'; *By emf
added q1 2003;
   else if com_geo in ('0430','0335','7143') then com_geo='0089';
   else if com_geo in ('0013')               then com_geo='0096'; *0013 added
in q1,2005 by Haixia;
   else if com_geo in ('0097')               then com_geo='0098';
   else if com_geo in ('0356')               then com_geo='0103';
```

```
   else if com_geo in ('0084')               then com_geo='0108';
   else if com_geo in ('0363','7082','1587') then com_geo='0109';
   else if com_geo in ('0364')               then com_geo='0112';
   else if com_geo in ('0114')               then com_geo='0117';
   else if com_geo in ('0077')               then com_geo='0119';
   else if com_geo in ('0432','0433','0090') then com_geo='0120'; *Added 0090
in q1,2005 by Haixia;
  *else if com_geo in ('0122')               then com_geo='0121'; *Uncollapse
0122(KENNER AHC-FT. LEE)
                                                                  to make it
a seperate cacsmpl in q1,2005 by Haixia;
   else if com_geo in ('0431','0434','0395',
                       '1646')               then com_geo='0125';
   else if com_geo in ('0435')               then com_geo='0126';
   else if com_geo in ('7045')               then com_geo='0128';
   else if com_geo in ('0106','7200','0093',
                       '0094')                then com_geo='0129'; *Changed in
q1,2005 by Haixia;
  *Collapse 0093,0094 with an Air Force site in the west TNEX region, 0129,
instead of the south TNEX region, 0096;
   else if com_geo in ('0310','0425','0426') then com_geo='0321';
   else if com_geo in ('0808')               then com_geo='0609';
   else if com_geo in ('0618','0623','0629',
                       '0624','0635','0825') then com_geo='0617';
   else if com_geo in ('0802', '0616','0615',
                       '7042','5197')         then com_geo='0620'; *0616 added
in q3,2004 by Haixia;
   else if com_geo in ('8931')               then com_geo='0633';
   else if com_geo in ('0610','0639','0637',
                       '0638')                then com_geo='0640'; *changed in
q1,2005;
   else if com_geo in ('0805','8982')         then com_geo='0806'; *0805 added
in q1,2005 by Haixia;
   else if com_geo in ('0034','0035','0100') then com_geo='6223'; *changed emf
q1 2004;

   *** added on 01/27/2004 by Haixia Xu to collapse small cells
       for the facility type of TGRO into out of catchment area;

       if d_fac='NONCAT' or d_fac='TGRO' or d_fac="TPR" then do;
          if d_health in ('01','02','05','17') then com_geo='9901';
             else if d_health in ('03','04','06','18') then com_geo='9902';
             else  if  d_health  in  ('07','08','09','10','11','12','19')  then
com_geo='9903';
             else if d_health in ('00','13','14','15') then com_geo='9904';
      end;

*************************************************************************
****;
    ***d_fac="TPR" and d_health = '17', '18', '19' were added above for Q4,
2004,  ***;
    ***since we got the new regions 17(North T_NEX),18(South T_NEX),19(West
T_NEX).***;

*************************************************************************
****;
```

```
   *** If the facility is unknown then set com_geo indicates unknown facility
***;
   *** ’0999’ added 03/15 to account for id 6992;
   if com_geo in (’9900’, ’0999’, ’0998’,’ ’) then com_geo=’9904’;

   rename com_geo = cacsmpl;

RUN;


title5 "Check the correctness of the assignments of cacsmpl";
proc freq data=&outdata.;
tables cacsmpl*geocell*d_par/missing list;
where pcm=’MTF’;
run;


***Check any ENRIDs going into 9904.
Sometimes com_geo is missing and cases get put here that really shouldn’t go
here;

title5 "Check the cell cacsmpl=9904";
proc freq data=&outdata ;
tables pcm*enrid*dcatch*d_fac*d_health/missing list;
where cacsmpl=’9904’ ;
run;


title5 "Check the beneficiaries with enrid =’ ’";
proc freq data=&outdata ;
tables pcm*pnlcatcd/missing list;
where enrid=’ ’ ;
run;

************** The end ***************;
```

FRAMEA01_CHK.SAS

```
*************************************************************************
***
*** Project:  2005 Health Care Survey of DoD Beneficiaries - Adult
***
*** Purpose: Checks for framea01 program
*** Program: F:\Q3_2005\Programs\Sampling\framea01_chk.sas,
***
*** Updated: 1)Haixia Xu on 01/26/2004 for Q2, 2004 sampling
***          2)Haixia Xu on 04/14/2004 for Q3, 2004 sampling
***          3)Haixia Xu on 07/07/2004 for Q4, 2004 sampling
***          4)Haixia Xu on 11/08/2004 for Q1, 2005 sampling
***          5)Nancy Clusen on 01/14/2005 for Q2, 2005 sampling
***          6)Haixia Xu on 04/26/2005 for Q3, 2005 sampling
*** Notes: None
***
*************************************************************************;

*** Set up options. ***;
options ls=132 ps=79 compress=yes nocenter;

*** Set up the titles. ***;
title1 'Adult Sampling Frame Checks';
title2 'Program: FRAMEA01_chk.SAS by Esther M Friedman';

*** Set up the input and output paths. ***;
libname in  v6 "..\..\Data\AFinal";
libname out v6 "..\..\Data\AFinal";


*Note:  This program contains the checks for the framea01.sas program.
*Checks were moved into a separate program due to SAS memory constraints.

************************************;
*** This section is for checking. ***;
*** Sum the enbgsampl categories. ***;
************************************;

data framea;
set in.framea;
run;

proc sort data=framea;
by cacsmpl;
run;

proc means data=framea noprint;
by cacsmpl;
var ebgcom01 ebgcom02 ebgcom03 ebgcom04 ebgcom05 ebgcom06 ebgcom07;
output out=out.s_framea
       sum(ebgcom01 ebgcom02 ebgcom03 ebgcom04 ebgcom05 ebgcom06 ebgcom07) =
       s_enbg01 s_enbg02 s_enbg03 s_enbg04 s_enbg05 s_enbg06 s_enbg07;
run;

data out.s_framea;
set in.s_framea;
str_cnt=s_enbg01+s_enbg02+s_enbg03+s_enbg04+s_enbg05+s_enbg06+s_enbg07;
run;
```

```
proc sort data=in.s_framea out=out.s_framea /*tagsort*/;
by descending str_cnt;
run;

data out.s_framea (keep=cacsmpl str_rnk);
set in.s_framea;
str_rnk=_n_;
run;

proc sort data=framea out=framea /*tagsort*/;
by cacsmpl d_par geocell;
run;

proc means data=framea noprint;
by cacsmpl d_par geocell;
var ebgcom01 ebgcom02 ebgcom03 ebgcom04 ebgcom05 ebgcom06 ebgcom07;
output out=out.c_framea
       sum(ebgcom01 ebgcom02 ebgcom03 ebgcom04 ebgcom05 ebgcom06 ebgcom07) =
       s_enbg01 s_enbg02 s_enbg03 s_enbg04 s_enbg05 s_enbg06 s_enbg07;
run;

data out.c_framea;
set in.c_framea;
dmis_cnt=s_enbg01+s_enbg02+s_enbg03+s_enbg04+s_enbg05+s_enbg06;
run;

proc sort data=in.s_framea out=out.s_framea /*tagsort*/;
by cacsmpl;
run;

proc sort data=in.c_framea out=out.c_framea /*tagsort*/;
by cacsmpl;
run;

data out.b_framea;
merge in.c_framea in.s_framea;
by cacsmpl;
run;

proc sort data=in.b_framea out=out.b_framea /*tagsort*/;
by cacsmpl d_par geocell;
run;

*** Excel spreadsheets for Nancy. ***;

proc sort data=in.TMA_REV /*tagsort*/;
by geocell;
run;

proc sort data=in.b_framea /*tagsort*/;
by geocell;
run;

data out.excel;
merge in.TMA_REV(in=infy) in.b_framea (in=inb);
by geocell;
```

```
if infy=1 and inb=1;
run;

proc sort data=in.excel /*tagsort*/;
by cacsmpl;
run;

data in.excel01;
set in.excel;
by cacsmpl;
if first.cacsmpl then output in.excel01;
run;

proc means data=in.excel noprint;
by cacsmpl;
var s_enbg01 s_enbg02 s_enbg03 s_enbg04 s_enbg05 s_enbg06 s_enbg07;
output out=out.a_excel
       sum(s_enbg01 s_enbg02 s_enbg03 s_enbg04 s_enbg05 s_enbg06 s_enbg07) =
       smenbg01 smenbg02 smenbg03 smenbg04 smenbg05 smenbg06 smenbg07;
run;

data out.a_excel;
set in.a_excel;
dmis_cnt=smenbg01+smenbg02+smenbg03+smenbg04+smenbg05+smenbg06;
run;

proc sort data=in.a_excel out=in.a_excel /*tagsort*/;
by cacsmpl;
run;

proc sort data=in.excel01;
by cacsmpl;
run;

data out.excel2 (drop = s_enbg01 s_enbg02 s_enbg03 s_enbg04 s_enbg05 s_enbg06
s_enbg07);
merge in.excel01 (in=inex1) in.a_excel (in=inex2);
by cacsmpl;
run;

proc sort data = in.excel2 out = out.excel2 /*tagsort*/;
by cacsmpl;
run;

proc freq data=framea;
tables  ebg_com*enbgsmpl*patcat*pcm  cacsmpl*zone  cacsmpl*geocell  enrid/  list
missing;
run;

***Freq to find small strata***;
proc freq data=framea;
tables cacsmpl/missing list;
run;

***Check the small cells in excel2.
Added in q3, 2004 by Haixia Xu;
Proc print data=out.excel2;
```

```
where DMIS_CNT<6000;
TITLE3 "Check for small CACSMPL counts <6000";
Run;


*************** The End ******************;
```

EBCOLL01.SAS

```
*************************************************************************
*** Project: 2005 Health Care Survey of DoD Beneficiaries - Adult
*** Purpose: Enrollee-Beneficiary Group Collapsing
*** Programmer: Esther M Friedman
***
*** Program: F:\Q3_2005\Programs\Sampling\ebcoll01.sas,
***          Collapses the strata on the frame.
***
*** Inputs:  F:\Q3_2005\data\afinal\framea.sd2
***          The adult sampling frame.
***
*** Outputs: F:\Q3_2005\data\afinal\framea.sd2
***          The collapsed adult sampling frame.
***
*** Updated: 1) Haixia Xu on 04/15/2004 for Q3,2004 sampling
***          2) Haixia Xu on 07/07/2004 for Q4,2004 sampling
***          3) Haixia Xu on 11/08/2004 for Q1,2005 sampling
***          4) Nancy Clusen on 1/27/2005 for Q2, 2005 sampling
***          5) Haixia Xu on 5/12/2005 for Q3, 2005 sampling
*************************************************************************;

*** Set up the options. ***;
options ls=132 ps=79 compress=yes nocenter nonumber mprint mlogic symbolgen;

*** Set up the titles. ***;
title1 'Modify Sampling Frame, FRAMEA.SD2';
title2 'From the 2005 Quarterly DOD FRAMEA File, FRAMEA.SD2';
title3 'Program: ebcoll01.SAS';

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

libname in  v6  "..\..\Data\AFinal";
libname out v6  "..\..\Data\AFinal";

***Add this comment in q1, 2005;
* In q1 of each year, we uncollapse the cells made in previous year;

*** Remove TREG from the keep statement, since in Q2 we didn't create this
variable in framea.sd2;
*** Keep the variable PRRECFLG in sampla01.sd2 for Q4, 2004;
***  Extracted  the  facility  service  code  variable(d_svc)  from  the  TMA
spreadsheet in Q1,2005 in framea01.sas.
so keep this variable d_svc in framea.sd2 for q1, 2005;

data framea;
set in.framea( keep = pre_str prn cacsmpl ebg_com enbgsmpl zone dageqy
                      mprid  zone1  zone2  zone3  zone4  zone5  geocell  pnsexcd
svccd
                      geocell d_par d_fac d_instal d_health servaff TNEXREG
PRRECFLG);

if cacsmpl in ('0508','0621','0804') then do;
      if ebg_com in ('02','03','04','05','06') then ebsmpl = '02';
      else ebsmpl = ebg_com;
      end;
else if
```

```
      cacsmpl   in   ('0131','0609','0612','0617','0633','0640','9904')   and
ebg_com = '04' then ebsmpl = '05';

***added 0032, 0038, 0073, 0078, 0120, 0126, 0607, 0609, 0640 Q2 2005;
***added 0009, 0014, 0042, 0045, 0048, 0055, 0060, 0061, 0066, 0095, 0103,
0105, 0108, 0109, 0121 on q3,2005;
else if
      cacsmpl in ('0003','0005','0006','0009','0014','0028','0030',
                  '0032','0033','0038','0042','0045','0047','0048',
                  '0053','0055','0057','0060','0061','0064','0066',
                  '0073','0075','0078','0079','0092','0095','0098',
                  '0103','0104','0105','0108','0109','0113','0117',
                  '0120','0126','0121','0127','0131','0607','0609',
                  '0612','0617','0620','0622','0633','0640','0606',
                  '0806') and ebg_com = '03' then ebsmpl = '02';
*0030, 0064 added on q3, 2005;
else if
      cacsmpl  in  ('0030','0064','0622','0806')  and  ebg_com  in  ('05')  then
ebsmpl = '04';
else if cacsmpl ='6215' and ebg_com='01' then ebsmpl='02';
else ebsmpl=ebg_com;

***added 0003 Q2 2005;
if ebg_com='06' then do;
   if cacsmpl in ('0001','0004','0003','0008','0019','0026','0043',
                  '0051','0058','0062','0068',
                  '0083','0096','0101','0112','0118',
                  '0119','0122','0128','0129','0231','0252','0280',
                  '0321','0330','0366','0378','0385',
                  '0387','0405','0622','0806','6215','6223',
                  '7286','7294') then ebsmpl = '04';
   else if
      cacsmpl in ('0005','0053','0131','0606','0607','0609','0612',
                  '0617','0633','0640') then ebsmpl = '05';

end;

stratum = '0'||cacsmpl||ebsmpl;

*** Create the enbg variables used for checking. ***;

array enbgs (7) enbgs01 enbgs02 enbgs03 enbgs04 enbgs05 enbgs06 enbgs07;
do i = 1 to 7;
   enbgs(i)=0;
end;
select (ebsmpl);
   when ('01') enbgs01=1;
   when ('02') enbgs02=1;
   when ('03') enbgs03=1;
   when ('04') enbgs04=1;
   when ('05') enbgs05=1;
   when ('06') enbgs06=1;
   otherwise enbgs07=1;
end;

run;
```

```
title5 "Checking the coding of the collapsements";
proc freq data=framea;
tables cacsmpl*ebsmpl*ebg_com/missing list;
run;


title5 'Information for the Frame';

********create substr variable for checking;
data framea;
set framea;
geosmpl=substr(stratum,2,4);
run;

proc contents data = framea;
run;

***********************************;
***                             ***;
*** This section is for checking. ***;
***                             ***;
*** Sum the enbgsampl categories. ***;
***                             ***;
***********************************;

proc sort data=framea ;
   by geosmpl;
run;

proc means data=framea noprint;
by geosmpl;
var enbgs01 enbgs02 enbgs03 enbgs04 enbgs05 enbgs06 enbgs07;
output out=out.s_framea
       sum(enbgs01 enbgs02 enbgs03 enbgs04 enbgs05 enbgs06 enbgs07) =
       s_enbg01 s_enbg02 s_enbg03 s_enbg04 s_enbg05 s_enbg06 s_enbg07;
run;

data s_framea;
   set out.s_framea;
   str_cnt=s_enbg01+s_enbg02+s_enbg03+s_enbg04+s_enbg05+s_enbg06;
run;

proc sort data=s_framea ;
   by descending str_cnt;
run;

data s_framea (keep=geosmpl str_rnk );
   set s_framea;
   str_rnk=_n_;
run;

proc sort data=framea ;
by geosmpl;
run;

proc means data=framea noprint;
by geosmpl;
```

```
var enbgs01 enbgs02 enbgs03 enbgs04 enbgs05 enbgs06 enbgs07;
output out=out.c_framea
       sum(enbgs01 enbgs02 enbgs03 enbgs04 enbgs05 enbgs06 enbgs07) =
       s_enbg01 s_enbg02 s_enbg03 s_enbg04 s_enbg05 s_enbg06 s_enbg07;
run;

data c_framea;
   set out.c_framea;
   dmis_cnt=s_enbg01+s_enbg02+s_enbg03+s_enbg04+s_enbg05+s_enbg06;
run;

proc sort data=s_framea ;
   by geosmpl;
run;

proc sort data=c_framea ;
  by geosmpl;
run;

data out.excel3;
   merge c_framea s_framea;
   by geosmpl;
run;

**Check the small EBG_COM cells. Added in q3,2004 by Haixia upon esther's
request;
Proc print data=out.excel3;
where   0<S_ENBG01<1000   or   0<S_ENBG02<1000   or   0<S_ENBG03<1000      or
0<S_ENBG04<1000 or 0<S_ENBG05<1000 or 0<S_ENBG06<1000 ;
TITLE3 "Check for small EBG_COM counts <1000";
Run;

title3 'Program: ebcoll01.SAS';
proc freq data=framea;
  tables ebsmpl*ebg_com stratum*zone cacsmpl*geosmpl / list missing;
run;

**check stratum changes for out of catchment areas;
proc freq data=framea;
  tables geosmpl*cacsmpl*stratum /list missing;
run;

**CREATE OUTPUT DATASETS;

data out.framea;
  set framea;
run;

data out.s_framea;
  set s_framea;
run;

data out.c_framea;
  set c_framea;
run;

*************** The End ******************;
```

COUNTA.SAS

```
*************************************************************************
*** Project: 2005 Health Care Survey of DoD Beneficiaries - Adult
***
*** Purpose: Produce population cell counts by STRATUM, STRSMPL, new_enbg,
***          and TOTAL for 2005 DOD Quarterly survey Form A Sampling Frame.
***
***          STRATUM, STRSMPL, new_enbg, TOTAL counts for 2005 DOD Quarterly
***           survey (Form A Sampling frame)
***           Where PSUM0 = STRATUM Count
***                 PSUM1 = GEOSMPL Count
***                 PSUM2 = EBSMPL Count
***                 TOTAL = Total Population
***
*** Program: F:\Q3_2005\Programs\Sampling\counta.sas,
***          Produces the population cell counts.
***
*** Inputs:  F:\Q3_2005\Data\AFinal\framea.sd2
***          Extracted DoD data set used to create the adult sampling frame.
***
*** Outputs: F:\Q3_2005\Data\AFinal\counta.sd2
***          Adult sampling frame created from the extracted DoD data set.
***
*** Notes: None
***
*** Updated: 1)Haixia Xu on 01/28/2004 for Q2, 2004 sampling
***          2)Haixia Xu on 04/16/2004 for Q3, 2004 sampling
***          3)Haixia Xu on 07/22/2004 for Q4, 2004 sampling
***          4)Haixia Xu on 11/08/2004 for Q1, 2005 sampling
***          5)Nancy Clusen on 1/27/2005 for Q2, 2005 sampling
***          6)Haixia Xu on 05/12/2005 for Q3, 2005 sampling
*************************************************************************;

*** Set up the path names. ***;
libname in  v6 "..\..\Data\AFinal";
libname out v6 "..\..\Data\AFinal";

*** Set up the options. ***;
OPTIONS PS = 79 LS = 132 COMPRESS = YES NOCENTER ;

*** Set up the titles. ***;
TITLE1 "Produce cell counts - Form A";
TITLE2 "Program Name: COUNTA.SAS";

*** Create a couple of macro variables for the program. ***;
%let dsn = framea;
%let by_vars = stratum geosmpl ebsmpl;

data framea (keep = stratum geosmpl ebsmpl ebg_com prn dageqy);
  set out.framea;
run;

TITLE3 "FREQS of sample FRAMEA.SD2";

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 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 geosmpl
  /MISSING LIST OUT=T2(RENAME=(COUNT=PSUM1)
                KEEP=COUNT geosmpl) NOPERCENT NOCUM NOPRINT;
RUN;

PROC FREQ DATA=&dsn. NOPRINT;
   TABLES ebsmpl
  /MISSING LIST OUT=T3(RENAME=(COUNT=PSUM2)
                KEEP=COUNT ebsmpl) 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 geosmpl; RUN;
DATA T0;
   MERGE T0 T2;
```

```
   BY geosmpl;
RUN;

PROC SORT DATA=T0; BY ebsmpl; RUN;
DATA T0;
   MERGE T0 T3;
   BY ebsmpl;
   LABEL PSUM0 = 'PSUM0 - Stratum Count'
         PSUM1 = 'PSUM1 - geosmpl Count'
         PSUM2 = 'PSUM2 - ebsmpl 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 geosmpl ebsmpl stratum;
run;

TITLE3 "CONTENTS of COUNTA.SD2";
PROC CONTENTS; RUN;

PROC PRINT data=t0;;
  var stratum geosmpl ebsmpl psum0-psum2 total;
  sum psum0;
RUN;

*** Write the count data set to a permanent SAS data set. ***;

data out.counta;
  set T0;
run;
```

SAMSIZEA.SAS

```
*************************************************************************
***
* Project:        2005 Health Care Survey of DoD Beneficiaries - Adult
* Project Number: 6077
* Task Number:    210
*
* PROGRAM:    F:\Q3_2005\Programs\Sampling\SAMSIZEA.SAS
* Purpose:    Sample size determination for the 2005 Quarterly HCSDB
*
* Programmer: Don Jang
* Updated:     1)04/16/2004 Esther Friedman -- Automated univar so no longer
run UNIVAR.SAS
*             2)11/01/2004 Haixia Xu for Q1, 2005 sampling
*             3)1/27/2005 Nancy Clusen for Q2 2005 sampling -- Changed libname
paths
*             4)5/12/2005 Haixia Xu for Q3 2005 sampling
* INPUTS:     POPULATION COUNTS (COUNTA.SD2)
* OUTPUTS:    FINAL SAMPLE SIZES (SAMSIZEA.SD2)
*************************************************************************
****
*;

libname in v6  "..\..\Data\AFinal";
libname out v6 "..\..\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 HLA0 = .22; ***HALF LENGTH = 22 PERCENT FOR EACH STRATUM*****;
%LET SSQUARE = &P*(1-&P); ***FORMULA FOR VARIANCE OF P***********;

/*-------------------------------------------------------------------------
        MACRO:  CALCULATE NUMERICAL PORTIONS OF VARIANCES GIVEN SAMPLE SIZES
-------------------------------------------------------------------------*/
%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;

*************************************************************************
*       GET PERCENTILES FOR PRECISION REQUIREMENTS:
-------------------------------------------------------------------------;
data out.countb;
   set in.counta;
   by geosmpl;
   if first.geosmpl then output out.countb;
run;

proc univariate data=out.countb;
   var psum1;
   where geosmpl not in ('9901', '9902', '9903', '9904');
   output out= univout pctlpre= pop_ pctlpts= 50, 75, 90;
run;

Data univout;
  Set univout;
  M=1;
Run;

DATA COUNTA;
  SET IN.COUNTA;
  M=1;
RUN;

DATA INDATA;
  MERGE UNIVOUT COUNTA;
  BY M;
RUN;

*************************************************************************
*       START THE MAIN PROGRAM:
-------------------------------------------------------------------------;
DATA INDATA;
        SET INDATA;
TITLE1 "SAMPLE SIZE DETERMINATION FOR THE 2005 DOD Quarterly FORM A SURVEY OF
HEALTH BENEFICIARIES";
TITLE2 "PROGRAM: SAMSIZEA.SAS";
        DOM0 = STRATUM;
        DOM1 = geosmpl;
        DOM2 = ebsmpl;
        DOM3 = 1;
        POPSIZE = PSUM0;
        DSUM1 = PSUM1;
        DSUM2 = PSUM2;
        DSUM3 = TOTAL;

***********************************************
*       SET INITIAL SAMPLE SIZES
***********************************************;
        NUM=&Z**2*&SSQUARE/&HLA0**2;
        NHZERO=NUM/(1+(NUM-1)/POPSIZE);
        NHF = NHZERO;
*************************************************************************
**
```

```
*        PRECISION REQUIREMENTS FOR SITE-LEVEL ESTIMATES W.R.T. THE NUMBER OF
BGs
-----------------------------------------------------
************************;
        if dom1 in (’9901’, ’9902’, ’9903’, ’9904’) then HL1 = 0.04; *Q1 2004
added precision requirement for OCONUS OOC;
                **greater precision for out-of-catchment areas;
        else if dom1 not in (’9901’, ’9902’, ’9903’, ’9904’) then do;
           if psum1<=pop_50 then HL1 = 0.10; **50th percentile or less;
           else if psum1<=pop_75 then HL1 =0.095;   **between 50th and 75th
percentile;
           else if psum1<=pop_90 then HL1 =0.09;   **between 75th and 90th
percentile;
           else if psum1 >pop_90 then HL1 =0.069710; **greater than 90th
percentile;
        end;
        else HL1 = 0.10;
                **greater precision for large catchment areas, excluding out-
of-catchment areas;
        HL2 = 0.05;  ** FOR ebsmpl   **********;
        HL3 = 0.02;  ** FOR AS A WHOLE *****;
        DROP M pop_50 pop_75 pop_90 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 enbgsmpl PRECISION REQUIREMENT
*********************************************************;

%MPART(2)
DATA INDATA;SET STEP9;
        STATUS2=20+FIN;
        NHF2=NHF;
DROP FIN;
RUN;

*********************************************************
*       ACCOUNT FOR OVERALL PRECISION REQUIREMENT
*********************************************************;

%mpart(3)
```

```
DATA FINAL;SET STEP9;
        STATUS3=30+FIN;
        NHF3=NHF;
        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 RESPONSE RATES
*  NOTE THAT THIS SECTION IS CHANGED Q1 of EACH YEAR
*****************************************************;
DATA RESP;
        SET FINAL;
                IF DOM2=1 THEN NHFF=INT(NHF/0.175)+1;
                IF DOM2=2 THEN NHFF=INT(NHF/0.29)+1;
                IF DOM2=3 THEN NHFF=INT(NHF/0.25)+1;
                IF DOM2=4 THEN NHFF=INT(NHF/0.53)+1;
                IF DOM2=5 THEN NHFF=INT(NHF/0.425)+1;
                IF DOM2=6 THEN NHFF=INT(NHF/0.72)+1;
RUN;

DATA LAST;SET RESP;
        nhf = int(nhf)+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 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:              F:\Q3_2005\Programs\Sampling\SAMPLA01.SAS
*
*   TASK:           2005   DOD   Health   Care   Survey,   Quarterly   Sampling
*
*  PURPOSE:  Draw  Sampling  Frame  for  2005  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                      *
*
*
*   INPUTS:      FRAMEA.SD2   -   Frame   for   2005   Quarterly   DOD   Survey
*
*              SAMSIZEA.SD2 - Sample Sizes by Stratum for 2005 Quarterly DOD
Survey *

*
* OUTPUTS: SAMPLA01.SD2 - Sampling Frame for 2005 Quarterly DOD Survey Form A
*
*
*
*
*
*******************************************************************************
***;

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


title1 'Construct the Sample, SAMPLA01.SD2';
title2 'from the 2005 Quarterly DOD Files, FRAMEA.SD2 and SAMSIZEA.SD2';
title3 'Program: SAMPLA01.SAS';

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

libname in  v6 "..\..\Data\AFinal";
libname out v6 "..\..\Data\AFinal";

*** Sort the data sets by stratum. ***;

data framea;
set in.framea;
run;

proc sort data=framea;
by stratum;
run;
```

```
proc sort data=in.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 in.f_framea in.fr_only in.s_only;
merge framea (in=infr) in.samsizea (in=ins);
by stratum;
if infr=1 and ins=1 then output in.f_framea;
else if infr=1 and ins=0 then output in.fr_only;
else if infr=0 and ins=1 then output in.s_only;
run;

*** Sort f_framea by stratum and permanent random number, prn. ***;

proc sort data=in.f_framea out=in.r_framea;
where zone1=1 and prn<=0.25;
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 in.sample;
set in.r_framea;
by stratum;
retain count;
if first.stratum = 1 then count = 1;
else count = count + 1;
if count <= nhff then output in.sample;
run;

***** Check the distribution of permanent random numbers. *****;


proc sort data=in.sample out=out.sample;
by stratum;
run;

proc means data=in.sample noprint;
by stratum;
var prn;
output out=m_prn min=min_prn;
run;

data m_prn;
set m_prn (keep=stratum min_prn);
run;
```

```
proc means data=in.sample noprint;
by stratum;
id popsize nhff;
var zone1 zone2 zone3 zone4 zone5;
output out=sampdiag
       sum(zone1 zone2 zone3 zone4 zone5)=
       s_zone1 s_zone2 s_zone3 s_zone4 s_zone5;
run;

data sampdiag;
set sampdiag (drop=_type_ _freq_);
run;

proc sort data=m_prn out=m_prn;
by stratum;
run;

proc sort data=sampdiag out=sampdiag;
by stratum;
run;

data in.zone_tab;
merge sampdiag m_prn;
by stratum;
run;

data in.zone_tab;
set in.zone_tab;
diff =s_zone1-nhff;
run;

title5 'Information for the Zones';
proc print data=in.zone_tab;
sum popsize nhff s_zone1 s_zone2 s_zone3 s_zone4 s_zone5 diff;
run;

proc univariate data=in.zone_tab;
var diff;
run;

title5 'Potential Problem Strata, POPSIZE < 1000';
proc print data=in.zone_tab noobs;
where popsize < 1000;
sum popsize nhff s_zone1 s_zone2 s_zone3 s_zone4 s_zone5;
run;

*EBG_COM;
title5 'Original ebsmpl Variable: Frame';
proc freq data=in.framea noprint;
table ebg_com / list missing out=denom;
run;

data denom (rename=(count=denom percent=framepct));
set denom;
run;
```

```
title5 ’Original ebg_com Variable: Sample’;
proc freq data=in.sample noprint;
table ebg_com / list missing out=numer;
run;

data numer (rename=(count=numer percent=samplpct));
set numer;
run;

proc sort data=denom;
by ebg_com;
run;

proc sort data=numer;
by ebg_com;
run;

data in.rat_enbg;
merge numer denom;
by ebg_com;
sam_rat=numer/denom;
run;

title5 ’Sample, frame info, and Sampling Ratio for Original EBG_COM’;
proc print data=in.rat_enbg;
sum numer denom framepct samplpct;
run;

***Added q3,2004 by Haixia Xu upon Amang’s request;
*CACSMPL;
title5 ’CACSMPL Variable: Frame’;
proc freq data=in.framea noprint;
table CACSMPL / list missing out=denom;
run;

data denom (rename=(count=denom percent=framepct));
set denom;
run;

title5 ’CACSMPL Variable: Sample’;
proc freq data=in.sample noprint;
table CACSMPL / list missing out=numer;
run;

data numer (rename=(count=numer percent=samplpct));
set numer;
run;

proc sort data=denom;
by CACSMPL;
run;

proc sort data=numer;
by CACSMPL;
run;

data in.rat_cac;
```

```
merge numer denom;
by CACSMPL;
sam_rat=numer/denom;
run;

title5 'Sample, frame info, and Sampling Ratio for CACSMPL';
proc print data=in.rat_cac;
sum numer denom framepct samplpct;
run;

***STRATUM;
title5 'STRATUM Variable: Frame';
proc freq data=in.framea noprint;
table STRATUM / list missing out=denom;
run;

data denom (rename=(count=denom percent=framepct));
set denom ;
run;

title5 'STRATUM Variable: Sample';
proc freq data=in.sample noprint;
table STRATUM / list missing out=numer;
run;

data numer (rename=(count=numer percent=samplpct));
set numer ;
run;

proc sort data=denom;
by STRATUM;
run;

proc sort data=numer;
by STRATUM;
run;

data in.rat_str;
merge numer denom;
by STRATUM;
sam_rat=numer/denom;
run;

title5 'Sample, frame info, and Sampling Ratio for STRATUM';
proc print data=in.rat_str;
sum numer denom framepct samplpct;
run;

title5 'Information about PRNs';
proc univariate data = in.sample;
var prn;
run;

*********************************************;
***** Create the *internal* sampling file. *****;
*********************************************;
```

```
data in.sampla;
set in.sample (drop = bwt00 count dom2 enbgs01-enbgs07 I popsize pre_str zone
zone1-zone5);
label cacsmpl  = ’Catchment Area’
     geosmpl  = ’Geographic Area’
      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;

proc contents data=in.sampla01;
run;
```

BWT.SAS

```
*******************************************************************************
***
*
* PROGRAM: F:\Q3_2005\Programs\Sampling\BWT.SAS
* TASK:    2005 DoD Health Care Survey, Quarterly Sampling
* PURPOSE: Construct Sampling Weight for 2005 Quarterly DoD Survey Form A
*
*
* INPUTS:  FRAMEA.SD2 - Frame for 2005 Quarterly DoD Survey
*          SAMPLA.SD2 - Internal Sample file for 2005 Quarterly DoD Survey
*
* OUTPUTS: BWT.SD2 - Sampling Weight for 2005 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
*
*******************************************************************************
***;

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

title1 'Construct the Sampling Weight, BWT.SD2';
title2 'from the 2005 Quarterly DoD Files, FRAMEA.SD2 and SAMPLA.SD2';
title3 'Program: BWT.SAS by Esther Friedman';

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

libname in   v6 "..\..\Data\AFinal";
libname out  v6 "..\..\Data\AFinal";
libname inv8 v8 "..\..\Data\AFinal";

*** include the design effects macro.;

%include "design_effects_unequal_weights.sas";

data sampla;
set in.sampla;
run;

***** Create the numerator and denominator for the sampling weight. *****;

title5 'Information from the Frame';
proc freq data=in.framea noprint;
table stratum / list missing out=frame;
run;

data frame (rename = (count = Fcnt_str));
set frame (keep = stratum count);
run;

title5 'Information from the Sample';
proc freq data=sampla noprint;
table stratum / list missing out=sample;
run;

data sample (rename = (count = Scnt_str));
set sample (keep = stratum count);
```

```
run;

***** Merge the data sets and construct the sampling weight. *****;

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 sampling weight to the SAMPLA.SD2 file. *****;

data wt;
set weight (keep = stratum bwt);
run;

proc sort data=wt out=wt;
by stratum;
run;

proc sort data=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;

data inv8.bwt;
set bwt;
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;


***Modified on 07/13/04 by Haixia Xu for q4, 2004
to check the variables EBG_COM, ENBGSMPL , and CACSMPL
in the way we did with the variable STRATUM in the previous quarters;

%macro checkvar(input_data, sorting_variable, weighting_variable);

title5 'Freq of &sorting_variable. from the Frame';
proc freq data=in.framea noprint;
table &sorting_variable. / list missing out=frame;
run;

data frame (rename = (count = numer));
set frame (keep = &sorting_variable. count);
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;

proc sort data=frame;
by &sorting_variable.;
run;

data finalchk;
merge bwtchk frame(rename = (numer = pop));
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;

%mend checkvar;

%checkvar(inv8.bwt, stratum, bwt);
proc univariate data=finalchk;
var diff;
run;

%checkvar(inv8.bwt, ebg_com, bwt);
%checkvar(inv8.bwt, enbgsmpl, bwt);
%checkvar(inv8.bwt, cacsmpl, bwt);

proc univariate data=finalchk;
var diff;
run;


***********************************;
*** Calculate the Design Effects ***;
*** added 04/15/02               ***;
***********************************;
%design_effects_unequal_weights  (  inv8.bwt,  ebg_com,  bwt,  deff_overall,
deff_ebg );
%design_effects_unequal_weights  (  inv8.bwt,  enbgsmpl,  bwt,  deff_overall,
deff_enbg );
%design_effects_unequal_weights  (  inv8.bwt,  cacsmpl,  bwt,  deff_overall,
deff_cac );
%design_effects_unequal_weights  (  inv8.bwt,  tnexreg,  bwt,  deff_overall,
deff_tnexreg );

proc print data = deff_overall;
title5 "design effect overall";
run;

proc print data= deff_ebg;
title5 "design effect by ebg_com";
run;

proc print data= deff_enbg;
title5 "design effect by enbgsmpl";
```

```
run;

proc print data= deff_cac;
title5 "design effect by cacsmpl";
run;

proc print data= deff_tnexreg;
title5 "design effect by TNEXREG";
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;
```

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APPENDIX G

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 that the geographic areas and beneficiary and enrollment groups had variable population sizes.

For a simple random sample (SRS) of size *n* from a finite population of size *N*, the variance of a sample proportion *p* is:

(G.1)
$$V_{SRS}(p) = \frac{P(1-P)}{n}\left(\frac{N-n}{N-1}\right)$$

where *P* denotes the population proportion. Because the expected sample sizes for all strata for the 2006 HCSDB survey are sufficiently large, the standard formula (IV.1) in Chapter IV can be used in constructing the confidence interval of *P*. Let *B* denote the required half-length interval for *P*. Using formula (G.1) for the simple random sample variance of *p*, the precision requirement *B* can represented by the following equation:

(G.2)
$$B = z_{1-\alpha/2}\sqrt{\frac{P(1-P)}{n}\left(\frac{N-n}{N-1}\right)}$$

Consequently, the sample size to attain the precision requirement *B* can be determined by solving equation G.2 with respect to *n* as follows:

(G.3)
$$n = \frac{\dfrac{z^2_{1-\alpha/2}\ [P(1-P)]}{B^2}}{1+\dfrac{1}{N}\left(\dfrac{z^2_{1-\alpha/2}\ [P(1-P)]}{B^2}\right)}$$

This formula was used as the first step in determining initial sample sizes for all strata in the 2006 HCSDB.

Note from formula (G.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, $z_{1-\alpha/2}$ can be replaced with $z_{.975}$ which is 1.96. Formula (G.3) can then be specified as the following:

(G.4)
$$n = \frac{\frac{.9604}{B^2}}{1 + \frac{1}{N}\left(\frac{.9604}{B^2}\right)}$$

where .9604 was obtained from $z_{.975}\,P(1-P)$ with P = 0.5. The formula (G.4) can then be applied to determine the sample size to achieve B in estimating stratum-level estimates.

Recall that the 2006 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 P_d can be obtained as the weighted sum of stratum-level proportion estimates:

(G.5)
$$p_d = \sum_{h=1}^{H} \frac{N_{dh}}{N_d}\, p_{dh},$$

where N_{dh} is the population size of domain d for stratum h, N_d is the sum of N_{dh} over all strata, and p_{dh} is the estimated proportion for the h-th stratum. Since the sampling is independent across strata, the variance of estimated proportion p_d is the sum of stratum-level variances:

(G.6)
$$V_d = \sum_{h \in d}\left(\frac{N_h}{N_d}\right)^2\left(\frac{N_h - n_h}{N_h - 1}\right)\frac{P_h(1-P_h)}{n_h}$$

where n_h is the sample size in stratum h and P_h 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 (G.6) can be reduced to the following:

(G.7)
$$V_d = \sum_{h \in d}\left(\frac{N_h}{N_d}\right)^2\left(\frac{N_h - n_h}{N_h - 1}\right)\frac{.25}{n_h}$$

The minimum sample size satisfying the requirements for a predetermined half-length interval B_d is:

(G.8)
$$n_d = \frac{\left(\sum_{h \in d}\frac{N_h}{N_d}\sqrt{\frac{N_h}{N_h - 1}}\sqrt{P_h(1-P_h)}\right)^2}{\frac{B_d^2}{z_{1-\alpha/2}^2} + \sum_{h \in d}\frac{N_h^2}{N_d^2}\left(\frac{1}{N_h - 1}\right)P_h(1-P_h)}$$

With the same specifications above, formula (G.8) can be specified as:

(G.9)
$$n = \frac{.25\left(\sum_{h\in d}\frac{N_h}{N_d}\sqrt{\frac{N_h}{N_h - 1}}\right)^2}{\frac{B_d^2}{3.8416} + .25\sum_{h\in d}\frac{N_h^2}{N_d^2}\frac{1}{N_h - 1}},$$

where $P_h(1 - P_h)$ = (.5)(.5) = 0.25 for all *h* and $z^2_{.975}$ = 3.8416.

The domain sample size n_d in (G.9) is based on the following optimal stratum sample sizes:

(G.10)
$$n_h = n_d \frac{N_h\sqrt{\frac{N_h}{N_h - 1}}\sqrt{P_h(1 - P_h)}}{\sum_{h\in d}N_h\sqrt{\frac{N_h}{N_h - 1}}\sqrt{P_h(1-P_h)}}$$

Likewise, this formula becomes

(G.11)
$$n_h = n_d \frac{N_h\sqrt{\frac{N_h}{N_h - 1}}}{\sum_{h\in d}N_h\sqrt{\frac{N_h}{N_h - 1}}}$$

After the stratum size for eligible respondents was finally determined, an anticipated response rate *R* was incorporated to get the final stratum sample size:

(G.12)
$$n_{h,F} = \frac{n_h}{R}$$

We used the 2005 HCSDB response rates for beneficiary groups as the expected response rates R; R = 0.175, 0.29, 0.25, 0.53, 0.425, and 0.72 for enrollment and beneficiary group 1 (AD), 2 (ADFM-ENR), 3 (ADFM-NE), 4 (RET<65-ENR), 5 (RET<65-NE), and 6 (RET65+), respectively.