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Health Care Survey of DoD Beneficiaries:

2004 Adult Sampling Report

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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 2004 Adult HCSDB sample design is similar to the 2003 design. We continued to use a permanent random number sample selection method. The major difference in this year's design is that the 2004 HCSDB has a larger sample size than the 2003 HCSDB, 50,000 sampled beneficiaries, as compared to 45,000 in 2003. Furthermore, a larger portion of the sample is allocated to oversees out-of-catchment areas. Lastly, beneficiaries residing outside of a military treatment facility (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 2003 Adult HCSDB.

The 2004 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 2004 Adult HCSDB sample design's major features are:

- The sampling frame consisted of the roughly 7.1 million beneficiaries 18 or older who were eligible for military health care benefits as of July 31, 2003. The sampling frame consists of beneficiaries living both in the US 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 sites is small, we collapsed them to reduce the total number of strata for the 2004 survey to 466.

- Based on the 2003 results, response rates for the 2004 survey are expected to be 19 percent for active duty beneficiaries; 31 percent for active duty family members enrolled in Prime; 21 percent for active duty family members not enrolled in Prime; 57 percent for retirees and their

family members younger than 65 enrolled in Prime; 46 percent for retirees and family members younger than 65 not enrolled in Prime; and 73 percent for retirees and their family members age 65 or older.

- Given the 2003 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 2004. 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 2004 HCSDB is similar in design to the 2003 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 2004. Subsequent QBSs in 2004 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 National Research Corporation (NRC), the data collection contractor, after the sample was selected. Appendix F contains all SAS programs used for the 2004 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:

- A data file was requested for sampling and data collection purposes.
- The sampling frame was constructed from the data file for the reference date of July 31, 2003.
- The variables required for sampling were constructed.
- 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 nearly 9 million DoD health care beneficiaries (adults and children) as of July 31, 2003, 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] We created a nonconfidential identification variable (MPRID) by randomly and uniquely assigning values from 1 to 7,104,137 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 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 (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,

[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).

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 included beneficiaries listed in the population data file if they were:

- 18 years of age or older on July 31, 2003 and living in the United States or abroad
- Eligible for military health care benefits

We received from TMA a data set that includes all eligible beneficiaries.

Beneficiaries whose ages were missing from the DEERS file were included in the adult sampling frame if LEGDDSCD = 20, that is, if the beneficiary was not a dependent child of a sponsor. Such cases are less than 1.0 percent of the more than nearly 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 sampling frame of eligible adult beneficiaries after the constructed variables were added. Constructed variables are described below.

C. CONSTRUCTING THE VARIABLES REQUIRED FOR SAMPLING

Because the QBS used a stratified sample design, variables for stratification had to be included in the sampling frame. Beneficiaries for the QBS were stratified 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 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 three 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 assigned to beneficiaries at sea, and (3) 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. One difference between this year's design and the 2003 design is that out-of-catchment areas are collapsed into four geographic areas defined by the TNEX region. Otherwise the design is identical to that implemented last year.

A. STRATIFICATION VARIABLES

The QBS sampling frame was stratified by two 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

We determined enrollment status by first 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.

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. Sixty-two beneficiaries in quarter one were missing beneficiary group assignment (PATCAT). For such cases, we assigned beneficiary group using PNTYPCD (person type), PNLCATCD (member category), age, and PCM, as we have in previous surveys. Details are in the SAS code in Appendix F.

The 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 beginning with the 1998 HCSDB sample design and improved the 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. We further refined the collapsing scheme for the 2004 HCSDB. These revisions resulted in 466 final strata. In the QBS, we collapsed the initial geographic areas to get 107 final "collapsed" catchment areas for the first quarter of 2004. The collapsing rules were determined in collaboration with TMA's staff. In general, the collapsing rules were as follows:

- With the exception of 12 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.

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

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

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

- Group 1 consists of noncatchment areas from the North TNEX region, composed of regions 1 (Northeast), 2 (Mid-Atlantic), and 5 (Heartland)

- Group 2 consists of noncatchment areas from the South TNEX region, composed of regions 3 (Southeast), 4 (Gulf South), and 6 (Southwest)

- Group 3 consists of noncatchment areas from the West TNEX region, composed of regions 7 (Central), 8 (Central), 9 (Southern California), 10 (Golden Gate), 11 (Northwest), 12 (Hawaii), and 16 (Alaska)

- Group 4 consists of noncatchment areas from the Other TNEX region, composed of regions 13 (Europe), 14 (Western Pacific), 15 (Latin America and Canada), and all unknown region.

C. STRATIFICATION RESULTS

The collapsing rules resulted in 466 strata (STRATUM), and 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 our 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:

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

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 standard deviation 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. This quarter is the first time that 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 2003 Adult HCSDB were used to approximate the expected QBS rates. Because response rates vary substantially across enrollment and beneficiary groups, we set different

response rates for each group: 19 percent for active duty beneficiaries; 31 percent for active duty family members enrolled in Prime; 21 percent for active duty family members not enrolled in Prime; 57 percent for retirees and their family members younger than 65 enrolled in Prime; 46 percent for retirees and family members younger than 65 not enrolled in Prime; and 73 percent for retirees and their family members age 65 or older. To calculate 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
- $N_d = \sum_{h \in d} N_h$: DSUM1
- $V_{d,o} = B_d^2 / 3.8416$ 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 2003 HCSDB response rates for beneficiary groups as the expected response rates *R; R* = 0.19, 0.31, 0.21, 0.57, 0.46, and 0.73 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:

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

Once we attained the required precision goals, we optimally allocated the overall sample of 50,000 beneficiaries.

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. Before sample selection for the 2004 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 2004, overlap among the four quarterly samples, as well as overlap with the 2003 HCSDB, had to be kept to a minimum. This can be 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 for the survey.

Using the stratum sample size n_h for each stratum (h = 1,…, 466), we used a PRN sample selection method. Sample selection was independent and essentially identical across sampling strata. Therefore, this section 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 ascending order. The starting point for Zone 1, a_i, was equal to 0.125 for quarter 1. This starting point was chosen to minimize the overlap with quarter 1, 2003. Therefore, for stratum h, the sample consists of the first n_h beneficiaries with a random number greater than 0.125, 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 2002 and 2003 QBS Samples and the 2004 QBS Sample

The PRN method provides the means to reduce overlap between year three and year four 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 2004 and 2003 datasets. We did, however, have an overlap of 98 cases between quarter 1, 2004 and quarter 1, 2002. All of the beneficiaries who were sampled in both 2002 and 2004 are active duty family members not enrolled in TRICARE, a small group of beneficiaries. However, 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 and selected the sample with 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 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 NRC. All variables in the sample extract file are specified in Appendix E.

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References

Cox, B.G., et al. "The 1998 Health Care Survey of DoD Beneficiaries: Form A Sample Design." Submitted to United HealthCare, 1998.

Creel, D., Jang, D, Kasprzyk, D.and Williams, T. (2002) "Permanent Random Number Technique to Minimize Response Burden in Repeated Surveys." *2002 Proceedings of the American Statistical Association, Survey Research Methods Section* [CD-ROM]. Alexandria, VA: American Statistical Association.

Jang, D.S. and M. Satake. "The 1999 Health Care Survey of DoD Beneficiaries: Adult Sample Design." Submitted to United HealthCare, 1999.

Ohlsson, E. "Coordination of Samples Using Permanent Random Numbers." In *Business Survey Methods* edited by B.G. Cox et al. New York: John Wiley & Sons, 1995.

Skinner, C.J., D. Holt, and T.M.F. Smith. *Analysis of Complex Surveys.* New York: John Wiley & Sons, 1989.

APPENDIX A

DEERS VARIABLES REQUESTED BY MPR

DEERS VARIABLES

Variables	lanation
PATCAT	Aggregated code based on Derived Beneficiary Category and Person Age Years Quantity.
ACV	Value that identifies TRICARE Prime enrollment type and USFHP enrollment. As identified on DEERS enrollment file, matched to DEERS PITE based on sponsor SSN and DEERS Dependent Suffix. 'D' was derived from same match of DEERS PITE to Iowa Foundation TRICARE Senior Prime enrollment file
LEGDDSCD	The code that represents the dependent of a sponsor.
DBENCAT	Derived codes based on family relationships and Member Category Code.
DCATCH	The code that represents a geographical catchment/non-catchment area. Assigned based on the Derived Location ZIP Code (which represents the residence ZIP code for non-sponsors and unit location of sponsor) and the Catchment Area Directory (CAD) in effect at the time of the extract.
DHSRGN	The code that represents a geographical region (Health Service Region) of the military health system. Assigned based on the Derived Location Catchment Area DMIS Code and the Catchment Area Directory in effect at the time of the extract.
DPRISM	The code that represents a geographical PRISM service area that is similar in concept to the inpatient catchment area except this is based on a 20-mile service area. Assigned based on the Derived Location ZIP Code (which represents the residence ZIP code for non-sponsor and unit ZIP location of sponsor) and the PRISM service area directory in effect at the time of the extract.
DMEDELG	Derived field that describes a person's entitlement to receive MHS benefits.
DSPONSVC	The code that represents an aggregated sponsor branch of service based on Service Branch Classification Code, General Location Code, and Derived Beneficiary Category. General Location Code and Derived Beneficiary Category are only used to distinguish between Navy and Navy Afloat.
MRTLSTAT	The code that represents the marital status of the sponsor.
MDCABRSN	The code that represents the reason that the person's period of Medicare Part A eligibility began.
MDCAEFDT	The date when the person's Medicare Part A became effective.
MDCAEXDT	The date when the person's Medicare Part A expired or is expected to expire.
MEDTYPE	A derived code that represents a person's Medicare Eligibility based on the Medicare A & B fields found on the DEERS PITE.
MBRRELCD	The code that represents how DoDI 1000.13 views relationships between a person and another person in a family. For example, a person is a child or stepchild of another person. (This attribute is similar to person association reason code.)
PGCD	The code that represents the level of pay. (The combination of pay plan code and pay grade code represents the sponsor's pay category.)
PAYPLNCD	The code that represents the type of pay category. (The combination of pay plan code and pay grade code represents the sponsor's pay category.)
DAGEQY	The age of the person in years, calculated based on person birth date and the extract date. If birth date is blank, age value is blank.

Variables	lanation
PNARSNCD	The code that represents the underlying basis of an association of one person to another person. For example, a person is a child of another person. (This attribute is similar to member relationship code.)
PNBRTHDT	The date when a human being was born.
PNCDNCY	The cadency name (e.g., Sr, Jr, III) of the person.
PN1STNM	The first name of the person.
PNID	The identifier that represents a human being. This attribute will usually contain the person's Social Security Number.
PNLSTNM	The last name of the person.
PNMIDNM	The middle name of the person.
PNSEXCD	The code that represents a classification of a person according to the reproductive functions.
PNTYPCD	The code that represents a specific kind of person.
PNLCATCD	The code that represents how the DoD personnel and/or finance center views the sponsor based on accountability and reporting strengths. (This attribute is similar to member category code.)
PCM	The code represents whether the beneficiary is enrolled to a Military or Civilian PCM, based on the TRICARE Prime & USFHP Enrollment DMIS Code.
RACEETHN	The code represents a nonscientific division of the population based on assumed primordial biological properties combined with a segment population that possesses common characteristics and/or cultural heritage.
RANKCD	The code that represents the sponsor's rank.
MACITYNM	The name of the city of the person's residential address.
MACTRYCD	The code that represents the country of the person's residential address. The valid values also include dependencies and areas of special sovereignty.
HADDFLG	Flag that indicates presence of a residential address.
MALN1TX	The number and street of the person's residential address.
MALN2TX	The text that is supplemental to the number and street of the person's residential address–for example, the apartment number.
MASTCD	The code that represents the state of the person's residential address. Note: The values also include the District of Columbia and outlying areas of the United States.
MAPRZIP	The ZIP identifier of the person's residential address.
MAPRZIPX	The extension to the residential address postal region ZIP identifier.
SVCCD	The code that represents the branch classification of Service with which the sponsor is affiliated. As coded on the DEERS PITE.
SPCITYNM	The name of the city of the sponsor's residential address.
SPCTRYCD	The code that represents the country of the sponsor's residential address. The valid values also include dependencies and areas of special sovereignty.
SADDFLG	Flag that indicates presence of a sponsor's residential address.
SPLN1TX	The number and street of the sponsor's residential address.
SPLN2TX	The text that is supplemental to the number and street of the sponsor's residential address–for example, the apartment number.
SPSTCD	The code that represents the state of the sponsor's residential address. Note: The values also include the District of Columbia and outlying areas of the United States.
SPPRZIP	The ZIP identifier of the sponsor's residential address.

SPPRZIPX	The extension to the sponsor's residential address postal region ZIP identifier.
SPDUPID	The code that represents whether this is the first, second, third (and so on) occurrence of this sponsor person identifier in DEERS.
SPONSSN	The identifier that represents a person who is a sponsor. This attribute will usually contain the sponsor's Social Security Number.
SPTNUMCD	The telephone number of the person's sponsor.
TNUMCD	The telephone number of the person.
ENRID	The code that represents the DMIS ID a person is enrolled to. For all ACV values except 'D', this is from DEERS enrollment file. 'D' is from the Iowa Foundation TRICARE Senior Prime enrollment file. Both files were matched to the DEERS PITE based on sponsor SSN and DEERS Dependent Suffix.
UICCITY	The name of the city of the sponsor's unit address.
UADDFLG	Flag that indicates presence of a sponsor's unit address.
UICADD1	The number and street of the sponsor's unit address.
UICADD2	The text that is supplemental to the number and street of the sponsor's unit address.
UICST	The code that represents the state of the sponsor's unit address.
UICZIP	The ZIP identifier of the sponsor's unit address.
ULOCDMIS	The code that represents the DMIS code of the person's unit location.
ULOCRGN	The code that represents a geographical region (Health Service Region) of the military health system for this unit location.
TNEXREG	TNEX region based on the newly defined TNEX organization

APPENDIX B

Q1 2004 TABLES FOR ENROLLEES WITH A MILITARY PCM AND GEOGRAPHIC AREA EQUAL TO CATCHMENT AREA

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

	DMIS ID	DMIS FACILITY NAME
INACTIVE	0002	NOBLE AHC-FT. MCCLELLAN
	0250	77th MED GRP-MCCLELLAN
	0449	24th MED GRP-HOWARD
	0626	52nd MED GRP-BITBURG
	5208	USUHS
AT SEA	3031	USS JOHN F KENNEDY (CV67)
	3032	USS NIMITZ (CVN68)
	3033	USS EISENHOWER (CVN69)
	3034	USS T ROOSEVELT (CVN71)
	3035	USS ABRAHAM LINCOLN (CVN72)
	3036	USS JOHN STENNIS (CVN74)
	3037	USS MT WHITNEY (LCC20)
	3038	USS TARAWA (LHA1)
	3039	USS SAIPAN (LHA2)
	3040	USS NASSAU (LHA4)
	3041	USS PELELIU (LHA5)
	3042	USS WASP (LHD1)
	3043	USS ESSEX (LHD2)
	3044	USS KEARSARGE (LHD3)
	3045	USS BOXER (LHD4)
	3046	USS BATAAN (LHD5)
	3047	USS AUSTIN (LPD4)
	3048	USS OGDEN (LPD5)
	3049	USS DULUTH (LPD6)
	3050	USS CLEVELAMD (LPD7)
	3051	USS DUBUQUE (LPD8)
	3052	USS DENVER (LPD9)
	3053	USS JUNEAU (LPD10)
	3054	USS SHREVEPORT (LPD12)
	3055	USS NASHVILLE (LPD13)
	3056	USS TREMTOM (LPD14)
	3057	USS PONCE (LPD15)
ADMINISTRATIVE PURPOSES	1976	BMC CAMP MARGUARITA
	1977	BMC CAMP LAS FLORES
	1978	BMC CAMP LAS PULGAS
	1979	BMC CAMP HORNO
	1980	BMC CAMP SAN MATEO
	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

	DMIS ID	DMIS FACILITY NAME
ADMINISTRATIVE PURPOSES, CONT.	6313	OP FORCES-NACC NEWPORT
	6314	OP FORCES-NH CHARLESTON
	6315	OP FORCES-NH BEAUFORT
	6316	OP FORCES-NH CORPUS CHRISTI
	6317	OP FORCES-NMC PORTSMOUTH
	6318	OP FORCES-NH BREMERTON
	6319	OP FORCES-NH OAK HARBOR
	6320	OP FORCES-NMCL PEARL HARBOR
	6321	OP FORCES-NMCL ANNAPOLIS
	6322	OP FORCES-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	MEDICAL 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	DET418SPSS (SPACECOM)-MORON
	6715	DET 2 45TH LG AFSPC-AA AIR FLD
	6716	USDAO SCOTLAND
	6717	21SWDETAFSPC-RAF FYLINGDALES
	6718	AFSPC UNIT-OAKHANGER
	6719	USDAO KABUL
	6720	USDAO TIRANA
	6721	USDAO ALGIERS
	6722	AM EMB ANDORRA
	6723	USDAO LUANDA
	6724	USDAO YEREVAN
	6725	USDAO VIENNA
	6726	USDAO BAKU

	DMIS ID	DMIS FACILITY NAME
ADMINISTRATIVE PURPOSES, CONT.	6727	USDAO MINSK
	6728	USDAO BRUSSELS
	6729	USDAO BENIN-PORTO-NOVO
	6730	USDAO SARAJEVO
	6731	USODC GABORONE
	6732	USDAO SOFIA
	6733	USDAO OUAGADOUGOU

APPENDIX C

Q1 2004 TABLE FOR COLLAPSING RULES

Table C: Collapsing Rules for Geographic Areas (GEOCELL) for the 2004 HCSDB

CACSMPL	GEOCELL		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	1,388	1,366	0	5,142	0	74	7,970
	0074	COLUMBUS AFB	1,634	884	0	1,354	0	109	3,981
	0416	MOBILE	733	0	0	0	0	0	733
0003	0003	FT. RUCKER	4,388	3,166	939	3,854	6,874	6,155	25,376
0004	0004	MAXWELL AFB	4,281	3,203	0	4,438	0	231	12,153
0005	0005	FT. WAINWRIGHT	4,499	2,424	294	1,374	1,199	513	10,303
	0130	KODIAK	996	0	0	3	0	0	999
	0203	EIELSON AFB	3,170	1,698	0	528	0	11	5,407
	0204	FT. RICHARDSON	2,401	0	0	5	0	0	2,406
	0417	KETCHIKAN	383	0	0	0	0	0	383
	7044	JUNEAU	282	0	0	1	0	0	283
	7047	SITKA	206	0	0	1	0	0	207
0006	0006	ELMENDORF AFB	8,067	5,932	666	6,344	4,121	2,890	28,020
0008	0008	FT. HUACHUCA	3,989	2,604	0	4,201	0	371	11,165
0009	0009	LUKE AFB	8,677	5,283	1,595	14,476	16,393	24,522	70,946
0010	0010	DAVIS MONTHAN AFB	7,303	4,260	0	6,047	0	868	18,478
0013	0013	LITTLE ROCK AFB	5,898	2,968	0	3,425	0	104	12,395
0014	0014	TRAVIS AFB	12,125	6,672	1,748	16,638	14,272	27,081	78,536
	0015	BEALE AFB	3,429	1,576	0	1,212	0	184	6,401
	0418	ALAMEDA	1,501	0	0	4	0	1	1,506
	0419	PETALUMA	1,152	0	0	0	0	0	1,152
	7083	HUMBOLDT BAY	179	0	0	0	0	0	179
0019	0018	VANDENBERG AFB	3,353	1,719	0	1,599	0	335	7,006
	0019	EDWARDS AFB	3,302	1,875	0	1,747	0	158	7,082
	0248	LOS ANGELES AFS	3,360	1,496	0	1,440	0	27	6,323
0024	0024	CAMP PENDLETON	30,875	11,097	3,072	9,207	12,638	20,760	87,649
	0026	PORT HUENEME	3,352	2,659	0	1,739	0	6	7,756
	0208	CAMP PENDLETON	3,435	1	0	6	0	0	3,442
	0209	BARSTOW	324	29	0	65	0	2	420
	0210	CAMP PENDLETON	765	684	0	161	0	0	1,610
	0269	YUMA	864	1,845	0	1,153	0	1	3,863
	1657	CAMP PENDLETON	1,555	1	0	11	0	0	1,567
	1659	CAMP PENDLETON	412	284	0	29	0	0	725
	6216	CAMP PENDLETON	0	2,791	0	2,386	0	162	5,339

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65		Retiree & Family Member ≥ 65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0028	0028	LEMOORE	5,944	3,568	550	3,406	3,058	3,787	20,313
	0319	FALLON	1,285	516	0	826	0	2	2,629
0029	0029	SAN DIEGO	47,819	11,874	6,084	15,740	27,868	35,091	144,476
	0230	SAN DIEGO	1,443	0	0	3	0	0	1,446
	0231	CORONADO	5,419	1,151	0	401	0	341	7,312
	0232	SAN DIEGO	2,579	1,920	0	761	0	1	5,261
	0233	CORONADO	2,944	0	0	24	0	0	2,968
	0234	SAN DIEGO	2	0	0	1	0	0	3
	0239	EL CENTRO	417	122	0	134	0	1	674
	0407	SAN DIEGO	2,527	1,782	0	1,377	0	1,056	6,742
	0414	SAN DIEGO	171	1	0	0	0	0	172
	0701	SAN DIEGO	6,192	1	0	31	0	0	6,224
	6207	SAN DIEGO	2	5,344	0	4,280	0	14	9,640
	6215	SAN DIEGO	3	4,736	0	6,161	0	29	10,929
	7046	SAN PEDRO	406	0	0	0	0	0	406
0030	0030	TWENTYNINE PALMS	11,525	3,059	353	1,715	1,228	2,772	20,652
	0212	CHINA LAKE	627	411	0	533	0	5	1,576
0032	0032	FT. CARSON	2,262	8,082	1,104	9,222	5,304	7,591	33,565
	1526	PUEBLO	62	1	0	13	0	0	76
	7293	FT. CARSON	10,670	0	0	12	0	0	10,682
	7300	FT. CARSON	7,607	0	0	46	0	0	7,653
0033	0033	USAF ACADEMY	7,590	3,319	774	9,882	9,273	9,424	40,262
0036	0036	DOVER AFB	5,124	2,283	0	3,343	0	1,129	11,879
0037	0037	WASHINGTON DC	6,539	2,359	2,673	6,505	12,047	15,713	45,836
	0256	PENTAGON	9,174	17	0	62	0	0	9,253
	0420	WASHINGTON DC	1,004	2	0	4	0	0	1,010
	7298	ARLINGTON ANNEX	1,514	2	0	13	0	0	1,529
0038	0038	PENSACOLA	7,572	4,893	1,143	10,681	11,864	13,898	50,051
	0107	MILLINGTON	2,361	1,252	0	413	0	0	4,026
	0260	PENSACOLA	1,907	0	0	16	0	0	1,923
	0261	MILTON	2,021	597	0	645	0	0	3,263
	0262	PENSACOLA	1,321	0	0	11	0	0	1,332
	0265	PANAMA CITY	445	280	0	301	0	0	1,026
	0297	NEW ORLEANS	557	746	0	543	0	0	1,846
	0316	GULFPORT	2,404	334	0	272	0	0	3,010

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65		Retiree & Family Member ≥ 65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
	0317	MERIDIAN	1,196	418	0	401	0	0	2,015
	0422	CLEARWATER	1,090	0	0	1	0	0	1,091
	0436	NEW ORLEANS	1,308	512	0	379	0	0	2,199
	0513	PENSACOLA	1,267	0	0	6	0	0	1,273
	0654	PASCAGOULA	566	410	0	198	0	0	1,174
	1990	NEW ORLEANS	1,575	1	0	12	0	0	1,588
0039	0039	JACKSONVILLE	18,078	9,746	3,267	18,150	24,114	19,137	92,492
	0050	MOODY AFB	4,224	1,955	0	2,171	0	97	8,447
	0266	JACKSONVILLE	4,241	4	0	22	0	0	4,267
	0275	ALBANY	662	314	0	512	0	1	1,489
	0276	ATHENS	676	141	0	203	0	0	1,020
	0277	ATLANTA	1,079	0	0	11	0	0	1,090
	0337	KINGS BAY	2,417	2,133	0	1,625	0	5	6,180
	0405	MAYPORT	3,292	3,596	0	1,983	0	7	8,878
	0421	AIR STATION MIAMI	428	0	0	3	0	0	431
	0517	KEY WEST	1,666	706	0	600	0	2	2,974
	7048	MIAMI BEACH	513	0	0	1	0	0	514
0042	0042	EGLIN AFB	10,008	6,218	1,201	10,506	12,651	12,698	53,282
0043	0043	TYNDALL AFB	4,245	2,491	0	4,696	0	459	11,891
0045	0045	MACDILL AFB	9,898	6,119	1,625	19,037	19,777	32,942	89,398
0046	0046	PATRICK AFB	2,826	2,039	0	6,514	0	1,948	13,327
0047	0047	FT. GORDON	4,917	4,976	1,062	11,284	7,367	8,797	38,403
	0273	FT. MCPHERSON	3,799	1,150	0	3,552	0	74	8,575
	1550	FT. GORDON	1,970	1	0	6	0	0	1,977
	7197	FT. GORDON	5,788	0	0	13	0	0	5,801
	7239	FT GORDON	1,561	513	0	25	0	0	2,099
	8924	FT. BUCHANAN	1,366	1,161	0	24	0	0	2,551
0048	0048	FT. BENNING	12,595	6,270	1,362	9,127	7,321	9,871	46,546
	1316	FT. BENNING	5,281	1,271	0	718	0	27	7,297
	1551	FT. BENNING	4,864	0	0	13	0	0	4,877
	1552	FT. BENNING	1,446	0	0	2	0	0	1,448
	1560	LAWSON AFB	6	11	0	6	0	0	23
	1939	FT. BENNING	17	0	0	0	0	0	17
0049	0049	FT. STEWART	14,280	7,212	1,823	5,141	6,055	4,003	38,514
	0272	HUNTER AB	5,097	2,600	0	2,129	0	307	10,133

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65		Retiree & Family Member ≥ 65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
	1562	FT. STEWART	4,252	140	0	84	0	27	4,503
	1563	FT. STEWART	4,013	105	0	60	0	6	4,184
	1564	FT. STEWART	4,439	105	0	69	0	10	4,623
0051	0051	ROBINS AFB	6,274	3,487	0	4,527	0	83	14,371
0052	0052	FT. SHAFTER	16,528	5,621	2,807	4,091	9,310	11,507	49,864
	0437	SCHOFIELD BARRACKS	2,131	5,404	0	756	0	291	8,582
	0534	SCHOFIELD BARRACKS	11,556	0	0	8	0	0	11,564
	7043	HONOLULU	896	0	0	3	0	1	900
0053	0053	MOUNTAIN HOME AFB	4,429	2,170	122	2,373	799	916	10,809
0055	0055	SCOTT AFB	9,615	5,640	1,335	9,865	11,528	9,364	47,347
0056	0056	GREAT LAKES	19,688	4,426	1,974	3,857	9,969	8,131	48,045
	0427	TRAVERSE CITY	1	0	0	0	0	0	1
	1660	GREAT LAKES	954	1	0	4	0	0	959
	1959	GREAT LAKES	2,564	2	0	24	0	0	2,590
0057	0057	FT. RILEY	7,007	5,470	659	3,587	2,353	2,163	21,239
	7289	FORT RILEY	8,252	0	0	5	0	0	8,257
0058	0058	FT. LEAVENWORTH	3,687	2,780	0	3,269	0	8	9,744
	0076	WHITEMAN AFB	4,018	1,987	0	2,243	0	176	8,424
	7297	KANSAS CITY	675	350	0	488	0	0	1,513
0059	0059	MCCONNELL AFB	3,557	2,092	0	2,513	0	298	8,460
	0338	VANCE AFB	1,392	745	0	764	0	36	2,937
0060	0060	FT. CAMPBELL	2,614	13,156	1,454	8,388	7,718	5,157	38,487
	1506	FT. CAMPBELL	5,956	1	0	11	0	0	5,968
	1508	FT. CAMPBELL	2	0	0	0	0	0	2
	7307	FT CAMPBELL	21,332	3	0	82	0	0	21,417
0061	0061	FT. KNOX	14,241	4,895	1,262	7,750	9,909	8,586	46,643
	0290	ROCK ISLAND ARSENAL	106	0	0	2	0	0	108
	0313	SELFRIDGE AB	1,129	0	0	5	0	0	1,134
	1237	FT. MCCOY	8,448	2	0	24	0	0	8,474
0062	0062	BARKSDALE AFB	5,881	3,090	0	3,533	0	100	12,604
0064	0064	FT. POLK	9,655	4,143	448	3,322	1,503	2,111	21,182
	0423	NEW ORLEANS	471	2	0	4	0	0	477
0066	0066	ANDREWS AFB	9,440	6,106	1,736	9,985	13,493	10,965	51,725
	0068	PATUXENT RIVER	3,421	2,039	0	2,809	0	12	8,281
	0413	BOLLING AFB	5,478	1,746	0	1,254	0	91	8,569

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65		Retiree & Family Member ≥ 65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
0067	0067	BETHESDA	15,833	5,819	2,690	10,237	17,737	17,510	69,826
	0301	INDIAN HEAD	582	270	0	417	0	3	1,272
	0322	COLTS NECK	779	157	0	38	0	1	975
	0347	HATBORO	2,221	4	0	18	0	0	2,243
	0348	MECHANICSBURG	340	3	0	1	0	0	344
	0384	ARLINGTON	2	0	0	0	0	0	2
	0386	DAHLGREN	1,479	350	0	583	0	4	2,416
	0401	LAKEHURST	353	117	0	150	0	0	620
	0404	BMC SUGAR GROVE	164	1	0	3	0	0	168
	0424	BALTIMORE	576	2	0	0	0	0	578
	0522	ANDREWS AFB	774	1	0	5	0	1	781
	0703	WASHINGTON DC	2,826	2	0	13	0	0	2,841
	7278	SOUTH COLTS NECK	8	0	0	0	0	0	8
0069	0069	FT. MEADE	7,734	4,048	0	3,751	0	1,274	16,807
	0306	ANNAPOLIS	1,587	1,222	0	1,693	0	12	4,514
	0308	ABERDEEN PROVING GROUND	2,514	1,484	0	1,350	0	3	5,351
	0309	FT. DETRICK	2,000	1,006	0	1,081	0	1	4,088
	0352	CARLISLE BARRACKS	2,023	1,312	0	2,596	0	1,441	7,372
	0525	ANNAPOLIS	4,496	0	0	3	0	0	4,499
	0545	EDGEWOOD	219	2	0	6	0	0	227
0073	0073	KEESLER AFB	12,425	5,281	919	8,510	5,730	9,404	42,269
0075	0075	FT. LEONARD WOOD	12,310	3,618	399	5,115	1,941	2,825	26,208
0078	0078	OFFUTT AFB	8,402	4,904	887	7,830	7,726	6,178	35,927
0079	0079	NELLIS AFB	8,957	5,343	891	12,570	15,558	15,034	58,353
0083	0083	KIRTLAND AFB	4,552	3,074	0	6,338	0	14	13,978
	0085	CANNON AFB	3,628	1,762	0	1,539	0	168	7,097
0086	0081	FT. MONMOUTH	1,204	758	0	1,079	0	830	3,871
	0086	WEST POINT	4,397	2,029	1,776	1,916	5,746	7,511	23,375
	1815	WEST POINT	4,068	0	0	0	0	0	4,068
	7154	FT. DIX	1	0	0	1	0	0	2
	8544	HANSCOM AFB	1	0	0	0	0	0	1
0089	0089	FT. BRAGG	11,744	5,977	3,076	10,077	18,378	10,029	59,281
	0335	POPE AFB	5,321	2,299	0	1,635	0	158	9,413
	0430	ELIZABETH CITY	644	0	0	3	0	0	647
	7143	FT. BRAGG	15,062	5,663	0	63	0	0	20,788

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65		Retiree & Family Member ≥ 65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
	7286	FT. BRAGG-NC	7,079	3,193	0	2,004	0	799	13,075
	7294	FORT BRAGG	13,189	7,280	0	2,558	0	2,778	25,805
0090	0090	SEYMOUR JOHNSON AFB	4,729	2,552	0	3,316	0	184	10,781
0091	0091	CAMP LEJEUNE	27,394	13,352	2,028	6,227	6,688	4,261	59,950
	0333	CAMP LEJEUNE	177	2	0	1	0	0	180
	1662	CAMP LEJEUNE	312	0	0	2	0	0	314
	1663	CAMP LEJEUNE	605	0	0	2	0	0	607
	1664	CAMP LEJEUNE	183	0	0	1	0	0	184
	1992	CAMP LEJEUNE	1,579	0	0	6	0	0	1,585
	1994	CAMP LEJEUNE	2	0	0	0	0	0	2
	1995	CAMP LEJEUNE	7	0	0	0	0	0	7
0092	0092	CHERRY POINT	9,187	4,366	579	3,323	3,636	3,498	24,589
0095	0095	WRIGHT-PATTERSON AFB	7,848	4,798	1,104	12,167	8,754	10,318	44,989
0096	0093	GRAND FORKS AFB	2,928	1,393	0	1,078	0	53	5,452
	0094	MINOT AFB	4,952	2,219	0	1,023	0	138	8,332
	0096	TINKER AFB	8,633	4,118	0	5,995	0	144	18,890
0098	0097	ALTUS AFB	1,613	1,026	0	1,520	0	127	4,286
	0098	FT. SILL	14,130	6,164	682	6,054	4,103	5,296	36,429
0101	0101	SHAW AFB	6,265	2,944	362	3,657	3,549	3,718	20,495
0103	0103	CHARLESTON	2,203	1,465	1,543	3,923	11,967	10,002	31,103
	0356	CHARLESTON AFB	5,062	2,033	0	2,860	0	131	10,086
	0511	GOOSE CREEK	7,546	1,544	0	2,351	0	5	11,446
0104	0104	BEAUFORT	7,672	3,289	465	2,487	2,190	3,475	19,578
	0358	PARRIS ISLAND	1,997	1	0	4	0	0	2,002
	0360	BEAUFORT	621	0	0	1	0	0	622
0105	0105	FT. JACKSON	12,132	3,655	1,100	8,617	8,408	10,181	44,093
0108	0084	HOLLOMAN AFB	3,727	1,888	0	2,430	0	686	8,731
	0108	FT. BLISS	3,075	1,494	1,075	8,723	6,304	10,291	30,962
	0327	WHITE SANDS MISSILE RANGE	475	222	0	258	0	0	955
	1617	FT. BLISS	11,133	5,032	0	117	0	0	16,282
0109	0109	FT. SAM HOUSTON	8,486	5,660	1,583	16,580	11,527	21,958	65,794
	0363	BROOKS CITY-BASE	1,122	376	0	1,083	0	110	2,691
	1587	FT. SAM HOUSTON	0	0	0	1	0	0	1
0110	0110	FT. HOOD	5,170	9,479	2,803	12,510	11,741	9,317	51,020

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65		Retiree & Family Member ≥ 65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
	1592	FT. HOOD	15,400	9	0	15	0	0	15,424
	1597	FT. HOOD	3,234	0	0	3	0	0	3,237
	1599	FT. HOOD	2,763	1	0	3	0	0	2,767
	1601	FT. HOOD	3,003	0	0	3	0	0	3,006
	6014	FT HOOD	7,566	7,319	0	1,687	0	3	16,575
	6209	FT. HOOD	0	0	0	1	0	0	1
	7236	FORT HOOD	12,698	3,972	0	1,266	0	3	17,939
0112	0112	DYESS AFB	5,379	2,798	0	2,695	0	325	11,197
	0364	GOODFELLOW AFB	2,794	1,229	0	1,174	0	152	5,349
0113	0113	SHEPPARD AFB	8,414	2,843	317	3,179	1,980	3,335	20,068
0117	0114	LAUGHLIN AFB	1,504	627	0	980	0	150	3,261
	0117	LACKLAND AFB	23,488	7,472	1,266	18,130	8,104	17,700	76,160
0118	0118	CORPUS CHRISTI	2,284	2,186	0	3,186	0	16	7,672
	0369	KINGSVILLE	751	304	0	651	0	0	1,706
	0370	FORT WORTH	2,376	1	0	17	0	0	2,394
	0656	INGLESIDE	993	982	0	462	0	1	2,438
0119	0077	MALMSTROM AFB	3,687	1,891	0	1,558	0	93	7,229
	0119	HILL AFB	5,816	3,403	0	3,840	0	391	13,450
0120	0120	LANGLEY AFB	12,304	7,365	1,051	5,981	8,989	5,977	41,667
	0432	PORTSMOUTH	961	1	0	5	0	0	967
	0433	YORKTOWN	331	0	0	2	0	0	333
0121	0121	FT. EUSTIS	8,181	5,736	1,616	7,366	10,212	7,874	40,985
	0122	FT. LEE	3,532	2,402	0	3,600	0	136	9,670
	0372	FT. MONROE	890	598	0	706	0	48	2,242
	0464	FT. STORY	699	0	0	0	0	0	699
0123	0123	FT. BELVOIR	9,583	6,232	3,497	7,323	29,220	12,130	67,985
	0390	FT. MYER	3,152	1,375	0	2,371	0	3,319	10,217
	6200	FAIRFAX	1,124	2,966	0	6,944	0	2,703	13,737
	6201	WOODBRIDGE	1,672	4,159	0	9,336	0	1,993	17,160
0124	0124	PORTSMOUTH	50,584	10,454	11,326	7,152	43,102	24,538	147,156
	0378	NORFOLK	4,936	6,228	0	4,094	0	22	15,280
	0380	PORTSMOUTH	4	0	0	0	0	0	4
	0381	YORKTOWN	727	210	0	76	0	0	1,013
	0382	VIRGINIA BEACH	1,641	0	0	6	0	0	1,647
	0387	VIRGINIA BEACH	9,704	3,607	0	2,275	0	8	15,594

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65			TOTAL
			Active Duty	PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE	Retiree & Family Member ≥ 65	
	0508	NORFOLK	13,879	1,897	0	680	0	1	16,457
	0519	CHESAPEAKE	492	450	0	493	0	0	1,435
	6214	NORFOLK	3	4,743	0	3,761	0	4	8,511
	6221	TRICARE OUTPATIENT CHESAPEAKE	1	3,875	0	3,879	0	3	7,758
0125	0125	FT. LEWIS	15,350	12,264	2,614	19,749	18,830	24,381	93,188
	0247	MONTEREY	5,861	31	0	8	0	0	5,900
	0395	MCCHORD AFB	4,134	2,072	0	3,464	0	536	10,206
	0431	ASTORIA	559	0	0	0	0	0	559
	0434	PORT ANGELES	333	0	0	1	0	0	334
	1646	FT. LEWIS	9,276	0	0	15	0	0	9,291
	1649	FT. LEWIS	4,246	484	0	17	0	0	4,747
0126	0126	BREMERTON	9,174	5,981	867	9,000	5,985	5,369	36,376
	0398	BREMERTON	332	0	0	1	0	0	333
	0435	SEATTLE	1,275	1	0	1	0	0	1,277
	1656	SILVERDALE	2,752	1,121	0	31	0	0	3,904
	7138	EVERETT	1,043	1,820	0	175	0	0	3,038
0127	0127	OAK HARBOR	8,479	3,857	407	3,532	2,240	2,676	21,191
0128	0128	FAIRCHILD AFB	3,716	2,099	0	4,169	0	620	10,604
	7045	NORTH BEND	346	0	0	0	0	0	346
0129	0106	ELLSWORTH AFB	3,731	1,973	0	2,528	0	5	8,237
	0129	F.E. WARREN AFB	3,534	1,856	0	1,551	0	125	7,066
	7200	BUCKLEY AFB	3,439	32	0	13	0	0	3,484
0131	0131	FT. IRWIN	4,666	2,251	277	820	590	523	9,127
	0206	YUMA PROVING GROUND	157	34	0	11	0	0	202
0252	0252	PETERSON AFB	6,317	3,431	0	4,988	0	112	14,848
0280	0280	PEARL HARBOR	6,247	5,397	0	1,851	0	5	13,500
	0281	BARBERS POINT	0	0	0	1	0	0	1
	0284	WAHIAWA	544	0	0	4	0	0	548
	0285	KANEOHE	1,122	2,760	0	492	0	1	4,375
	1987	CAMP H.M. SMITH	490	0	0	1	0	0	491
0287	0287	HICKAM AFB	4,795	2,887	0	1,337	0	54	9,073
0321	0310	HANSCOM AFB	3,064	1,547	0	1,217	0	142	5,970
	0425	CAPE COD	909	0	0	20	0	1	930
	0426	BOSTON	798	2	0	0	0	0	800
0326	0326	MCGUIRE AFB	13,863	3,045	0	2,000	0	343	19,251

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65		Retiree & Family Member ≥ 65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
	0428	CAPE MAY	709	0	0	1	0	0	710
0330	0330	FT. DRUM	291	4,715	0	1,123	0	109	6,238
	7113	FT. DRUM	15,692	6	0	27	0	0	15,725
0366	0366	RANDOLPH AFB	4,652	3,345	0	7,948	0	310	16,255
0385	0385	QUANTICO	5,537	4,854	0	5,045	0	7	15,443
	1670	QUANTICO	914	0	0	4	0	0	918
	1671	QUANTICO	2,097	2	0	3	0	0	2,102
0606	0606	HEIDELBERG	4,323	2,042	766	956	2,085	516	10,688
	1003	MANNHEIM	2,975	1,672	0	297	0	40	4,984
	1135	FRIEDBERG	2,314	382	0	40	0	11	2,747
	1144	BABENHAUSEN	959	359	0	19	0	15	1,352
	1145	BUEDINGEN	831	332	0	25	0	11	1,199
	7152	SANDHOFEN	1,323	0	0	1	0	0	1,324
	8987	HEIDELBERG	2,347	1,373	0	447	0	72	4,239
	8995	HANAU	3,588	1,502	0	201	0	54	5,345
	8996	BUTZBACH	1,433	984	0	77	0	30	2,524
	8998	DARMSTADT	2,544	843	0	244	0	57	3,688
0607	0607	LANDSTUHL	2,875	1,767	566	1,317	1,168	490	8,183
	0611	VICENZA	3,011	1,068	0	193	0	54	4,326
	0614	SHAPE	1,194	728	0	51	0	10	1,983
	1126	LUDWIGSBURG	5,159	1,879	0	91	0	13	7,142
	1128	KAISERSLAUTERN	1,659	257	0	106	0	11	2,033
	1147	WIESBADEN	4,006	1,702	0	396	0	112	6,216
	1154	LIVORNO	325	151	0	127	0	71	674
	8977	BRUSSELS	254	173	0	21	0	10	458
	8992	DEXHEIM	882	211	0	40	0	11	1,144
0609	0609	WUERZBURG	2,796	1,555	688	196	1,014	235	6,484
	0808	AVIANO AB	4,326	1,660	72	164	163	66	6,451
	1013	BAMBERG	2,643	1,181	0	24	0	7	3,855
	1014	ILLESHEIM	822	381	0	5	0	0	1,208
	1015	KATTERBACH	2,403	962	0	22	0	9	3,396
	1016	GRAFENWOEHR	1,008	460	0	50	0	11	1,529
	1017	VILSECK	3,702	1,287	0	110	0	6	5,105
	1019	HOHENFELS/AMBERG	1,558	777	0	81	0	3	2,419
	1124	SCHWEINFURT	4,775	1,744	0	52	0	7	6,578

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65			TOTAL
			Active Duty	PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE	Retiree & Family Member ≥ 65	
	1127	KITZINGEN	3,198	893	0	22	0	6	4,119
	1235	GIEBELSTADT	1,453	410	0	8	0	0	1,871
0612	0612	SEOUL	1,295	1,138	382	110	1,715	170	4,810
	1156	CAMP STANLEY	2,876	60	0	2	0	0	2,938
	1157	TONGDUCHON	9,796	233	0	15	0	1	10,045
	1158	MUNSAN	2,782	31	0	1	0	1	2,815
	8903	PYONGTAEK	4,284	74	0	17	0	0	4,375
	8907	TAEGU	1,321	183	0	83	0	4	1,591
	8910	PUSAN	473	41	0	2	0	1	517
	8912	UIJONGBU	2,586	65	0	12	0	0	2,663
	8913	KOREA	1,266	66	0	9	0	1	1,342
	8916	SEOUL	6,242	17	0	14	0	0	6,273
	8917	WONGJU	803	10	0	0	0	0	813
	8921	CHUN CHON	708	13	0	0	0	0	721
0616	0615	GUANTANAMO BAY	699	178	23	3	64	2	969
	0616	CEIBA	2,575	989	904	6	1,883	1,370	7,727
	5197	BASE SAN JUAN	383	0	0	0	0	0	383
	7042	BORINQUEN	245	0	0	1	0	0	246
0617	0617	NAPLES	1,405	1,196	163	6	379	98	3,247
	0618	ROTA	2,479	1,090	85	12	360	133	4,159
	0623	KEFLAVIK	1,956	719	35	12	54	4	2,780
	0624	NAS SIGONELLA	3,025	1,150	88	17	126	12	4,418
	0629	LAJES FLD	1,029	438	19	12	56	13	1,567
	0635	INCIRLIK AB	1,627	520	33	121	89	29	2,419
	0825	IZMIR	161	36	0	5	0	1	203
	0855	LA MADDALENA	771	371	0	5	0	0	1,147
	0858	SOUDA BAY	523	7	0	2	0	0	532
	0874	GAETA	1,002	334	0	1	0	0	1,337
	1153	CAPODICHINO	2,054	230	0	2	0	0	2,286
	1170	BAHRAIN	2,097	277	0	11	0	0	2,385
0620	0620	AGANA	2,126	924	467	18	3,170	936	7,641
	0802	ANDERSEN AFB	2,380	996	0	201	0	36	3,613
	0871	NAVSTA	1,366	513	0	3	0	0	1,882
	0872	NAVCAMS WESTPAC	5	1	0	0	0	0	6
0621	0621	OKINAWA	4,288	1,578	613	9	674	121	7,283

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65		Retiree & Family Member ≥ 65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
	0861	FUTENMA	3,062	0	0	3	0	0	3,065
	0862	CAMP FOSTER	4,917	635	0	6	0	0	5,558
	1269	OKINAWA	2,163	656	0	9	0	0	2,828
	7032	OKINAWA	1,725	1,014	0	1	0	0	2,740
	7033	OKINAWA	2,982	0	0	4	0	0	2,986
	7107	OKINAWA	988	0	0	0	0	0	988
0622	0622	YOKOSUKA	11,261	2,422	829	31	792	97	15,432
	0625	MCAS IWAKUNI	2,448	632	0	8	0	0	3,088
	0852	SASEBO	3,624	674	0	4	0	0	4,302
	0853	ATSUGI	3,526	1,060	0	6	0	0	4,592
	7288	BRANCH MEDICAL ANNEX HARIO SASEBO J	0	274	0	0	0	0	274
	8938	YOKOHAMA	40	116	0	0	0	0	156
	8939	CHINHAE	204	28	0	1	0	0	233
0633	0633	RAF LAKENHEATH	8,519	3,826	132	890	666	416	14,449
	0653	RAF CROUGHTON	530	286	0	221	0	91	1,128
	0814	RAF UPWOOD	919	473	0	297	0	38	1,727
	1179	RAF ST MAWGAN NEWQUA	325	119	0	0	0	0	444
	7234	MENWITH HILL MEDICAL CENTER	505	218	0	5	0	0	728
	7235	426ST ABS MED AID STATION	65	41	0	0	0	0	106
	8931	LONDON	806	447	0	18	0	11	1,282
0638	0637	KUNSAN AB	3,074	19	19	3	78	7	3,200
	0638	OSAN AB	7,849	636	163	378	650	87	9,763
0640	0610	CAMP ZAMA	872	479	0	222	0	61	1,634
	0639	MISAWA	4,522	1,845	184	87	138	35	6,811
	0640	YOKOTA AB	3,996	1,908	232	298	411	150	6,995
0804	0804	KADENA AB	7,980	3,838	0	376	0	35	12,229
0805	0799	GEILENKIRCHEN AB	1,106	693	0	191	0	10	2,000
	0805	SPANGDAHLEM AB	4,390	1,883	126	436	174	133	7,142
0806	0800	RHEIN MAIN AB	762	380	0	130	0	45	1,317
	0806	RAMSTEIN AB	9,526	4,546	0	542	0	36	14,650
	8982	BAD AIBLING	342	109	0	4	0	1	456
6223	0034	NEW LONDON	1,526	3	0	6	0	0	1,535
	0035	GROTON	3,188	3,175	0	2,224	0	3	8,590
	0100	NEWPORT	3,900	1,813	0	2,050	0	7	7,770

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65		Retiree & Family Member ≥ 65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
	0299	BRUNSWICK	4,119	875	0	481	0	0	5,475
	0321	PORTSMOUTH	1,528	365	0	381	0	0	2,274
	0328	BALLSTON SPA	3,167	0	0	0	0	0	3,167
7139	7139	HURLBURT FIELD	7,754	2,799	0	1,833	0	103	12,489
9901	0781	NORTHEAST WEST VIRGINIA	320	160	355	307	2,027	1,452	4,621
	0782	WESTERN WEST VIRGINIA	3,115	868	1,665	1,113	8,161	7,055	21,977
	0783	EASTERN MISSOURI-ST LOUIS AREA	96	292	267	595	2,654	1,432	5,336
	0789	IOWA-QUAD CITIES AREA	96	95	277	34	1,291	792	2,585
	0907	CONNECTICUT	5,954	372	2,185	311	10,044	9,437	28,303
	0908	DELAWARE	713	221	1,028	411	6,462	5,106	13,941
	0914	ILLINOIS	3,011	1,635	2,478	1,856	16,533	13,125	38,638
	0915	INDIANA	5,964	2,863	3,049	3,691	24,057	16,087	55,711
	0918	KENTUCKY	1,441	1,391	1,487	2,744	12,926	10,439	30,428
	0920	MAINE	2,782	1,760	1,219	7,051	8,556	10,671	32,039
	0921	MARYLAND	2,014	405	1,414	2,542	8,233	7,326	21,934
	0922	MASSACHUSETTS	4,420	1,432	3,571	3,368	15,931	23,727	52,449
	0923	MICHIGAN	5,047	3,182	3,517	3,935	30,023	19,567	65,271
	0930	NEW HAMPSHIRE	887	438	825	3,000	7,715	9,036	21,901
	0931	NEW JERSEY	5,464	1,418	3,338	2,915	17,181	20,767	51,083
	0933	NEW YORK	10,019	4,097	6,968	2,626	33,603	27,626	84,939
	0934	NORTH CAROLINA	5,326	3,238	3,957	7,131	41,759	36,745	98,156
	0936	OHIO	6,521	3,651	3,949	6,802	27,915	22,441	71,279
	0939	PENNSYLVANIA	8,679	3,847	7,117	4,398	45,496	40,822	110,359
	0940	RHODE ISLAND	1,128	127	940	215	4,450	6,481	13,341
	0946	VERMONT	831	355	415	397	3,449	3,311	8,758
	0950	WISCONSIN	3,688	2,084	2,313	1,945	16,888	14,243	41,161
	0995	NORTHERN VIRGINIA	535	239	506	317	5,519	4,699	11,815
	0996	SOUTHERN VIRGINIA	3,675	1,271	2,121	2,402	20,129	18,463	48,061
9902	0787	GEORGIA-FORMER NOBLE CATCHMENT	12	29	36	106	430	515	1,128
	0901	ALABAMA	5,817	2,711	4,623	7,347	36,214	34,634	91,346
	0904	ARKANSAS	2,689	1,545	2,070	5,568	20,112	24,476	56,460
	0911	GEORGIA	8,912	6,604	6,202	14,167	50,269	41,062	127,216
	0925	MISSISSIPPI	4,113	1,852	2,996	3,664	12,984	14,729	40,338
	0937	OKLAHOMA	4,079	2,467	2,805	5,660	21,337	24,003	60,351

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65			TOTAL
			Active Duty	PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE	Retiree & Family Member ≥ 65	
	0941	SOUTH CAROLINA	1,574	1,081	1,690	3,660	14,431	16,857	39,293
	0943	TENNESSEE	4,924	3,104	3,620	11,585	36,000	34,140	93,373
	0987	EASTERN FLORIDA	4,491	5,693	4,998	21,978	59,920	87,754	184,834
	0988	WESTERN FLORIDA	927	547	704	1,619	7,509	8,247	19,553
	0989	EASTERN LOUISIANA	4,936	2,093	1,849	3,835	8,535	8,900	30,148
	0990	WESTERN LOUISIANA	2,859	875	1,732	2,570	10,558	14,494	33,088
	0993	EASTERN TEXAS	12,859	9,534	8,713	31,251	80,216	93,596	236,169
9903	0784	WESTERN MISSOURI	3,296	1,269	3,076	2,002	22,375	19,987	52,005
	0785	ARIZONA-EXCLUDING YUMA AREA	2,219	383	1,593	2,280	16,287	22,107	44,869
	0786	YUMA ARIZONA AREA	2,653	92	264	325	1,518	1,861	6,713
	0788	IOWA-EXCLUDING QUAD CITIES AREA	2,819	1,469	1,616	78	9,869	7,375	23,226
	0902	ALASKA	683	1,067	316	8	2,381	931	5,386
	0906	COLORADO	1,884	2,414	1,637	6,950	18,078	20,250	51,213
	0912	HAWAII	299	222	98	694	1,574	1,992	4,879
	0917	KANSAS	2,551	904	2,105	1,073	15,120	13,958	35,711
	0924	MINNESOTA	5,501	2,164	2,571	81	18,088	13,865	42,270
	0927	MONTANA	1,113	403	873	23	8,191	5,683	16,286
	0928	NEBRASKA	895	403	719	111	4,161	3,820	10,109
	0929	NEVADA	813	534	488	1,407	5,602	6,455	15,299
	0932	NEW MEXICO	1,580	320	1,688	956	13,889	16,013	34,446
	0935	NORTH DAKOTA	913	545	778	384	4,057	2,165	8,842
	0938	OREGON	3,436	2,422	1,481	5,968	17,878	21,766	52,951
	0942	SOUTH DAKOTA	1,231	711	771	51	5,627	4,153	12,544
	0945	UTAH	3,397	1,569	2,133	1,402	12,808	10,392	31,701
	0948	WASHINGTON	5,454	2,253	2,076	8,796	21,512	25,321	65,412
	0951	WYOMING	571	173	390	315	4,252	3,046	8,747
	0973	NORTHERN IDAHO	118	115	107	390	1,733	1,741	4,204
	0974	SOUTHERN IDAHO	1,064	776	741	1,188	8,271	6,465	18,505
	0985	NORTHERN CALIFORNIA	4,090	5,134	3,451	12,129	29,925	56,592	111,321
	0986	SOUTHERN CALIFORNIA	8,387	5,398	5,900	12,918	34,741	53,398	120,742
	0994	WESTERN TEXAS	3	4	7	3	101	74	192
9904	0953	PUERTO RICO	3,346	590	4,101	18	7,430	8,867	24,352
	0957	GERMANY	1,068	197	841	19	2,268	448	4,841
	0958	GREECE	128	41	35	1	133	64	402
	0959	ICELAND	0	1	0	0	0	0	1

CACSMPL	GEOCELL		Active Duty	Active Duty Family Member		Retiree & Family Member <65		Retiree & Family Member ≥ 65	TOTAL
				PRIME	NON-ENROLLEE	PRIME	NON-ENROLLEE		
	0960	ITALY	840	74	111	4	440	103	1,572
	0961	JAPAN	334	11	301	4	613	83	1,346
	0963	PHILIPPINES	1	0	0	0	436	94	531
	0964	PORTUGAL	52	31	0	0	5	4	92
	0965	KOREA	57	5	63	9	574	47	755
	0966	SPAIN	113	71	9	0	201	113	507
	0967	TURKEY	67	51	13	1	160	32	324
	0968	UNITED KINGDOM	217	33	166	14	897	124	1,451
	0969	CANADA	169	100	3	0	2	1	275
	0970	OTHER CARIBBEAN	136	37	3	2	44	9	231
	0971	CENTRAL AMERICA	596	114	29	6	839	328	1,912
	0972	SOUTH AMERICA	393	172	6	5	143	34	753
	0975	U.S. VIRGIN ISLANDS	253	119	46	3	284	184	889
	0976	AFRICA	167	83	16	3	120	6	395
	0977	MIDEAST	705	78	72	9	471	30	1,365
	0978	SOUTHEAST ASIA	43	1	20	5	309	89	467
	0979	BELGIUM	191	47	64	1	355	36	694
	0982	OTHER EUROPE	507	244	36	8	288	54	1,137
	0983	OTHER PACIFIC	1,680	534	48	5	864	185	3,316
	0999	UNKNOWN LOCATION	53,617	136	2,669	347	19,622	16,002	92,393

APPENDIX D

Q1 2004 TABLES FOR SAMPLING CHECK

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

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0000101	145	953	911	971	920	0.1604
0000102	64	590	589	573	498	0.1505
0000104	86	1,719	1,605	1,671	1,684	0.1378
0000301	104	1,055	1,089	1,082	1,162	0.1514
0000302	64	1,030	1,021	1,009	1,045	0.1385
0000304	35	975	951	940	988	0.1371
0000305	46	1,722	1,739	1,683	1,730	0.1331
0000306	28	1,514	1,452	1,586	1,603	0.1289
0000401	177	1,094	1,047	1,091	1,049	0.1702
0000402	82	756	807	803	837	0.1547
0000404	65	1,180	1,189	1,113	1,187	0.1398
0000501	263	2,972	3,006	3,032	2,927	0.1470
0000502	64	1,123	1,095	1,088	1,110	0.1412
0000504	35	522	453	453	484	0.1444
0000505	43	461	425	419	418	0.1478
0000601	167	2,014	2,067	1,962	2,024	0.1469
0000602	84	1,615	1,630	1,697	1,656	0.1385
0000604	44	1,658	1,593	1,526	1,567	0.1306
0000605	43	1,043	1,019	1,050	1,009	0.1350
0000606	28	730	720	716	724	0.1346
0000801	180	990	1,013	972	1,014	0.1662
0000802	72	653	655	646	650	0.1585
0000804	69	1,115	1,102	1,189	1,166	0.1440
0000901	105	2,121	2,114	2,226	2,216	0.1362
0000902	64	1,286	1,325	1,320	1,352	0.1371
0000903	94	407	382	381	425	0.1821
0000904	44	3,568	3,723	3,619	3,566	0.1279
0000905	61	4,091	4,083	4,173	4,046	0.1293
0000906	58	6,189	6,072	6,043	6,218	0.1275
0001001	199	1,823	1,863	1,847	1,770	0.1553
0001002	72	1,065	1,090	1,070	1,035	0.1411
0001004	63	1,722	1,706	1,732	1,755	0.1337
0001301	239	1,511	1,432	1,504	1,451	0.1658
0001302	74	746	746	738	738	0.1472
0001304	48	883	906	891	849	0.1383
0001401	184	4,630	4,637	4,458	4,661	0.1352
0001402	64	2,010	2,027	2,143	2,068	0.1333
0001403	94	456	409	463	420	0.1820
0001404	60	4,439	4,500	4,392	4,523	0.1279
0001405	59	3,593	3,591	3,528	3,560	0.1296
0001406	71	6,796	6,732	6,881	6,857	0.1278

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0001901	247	2,428	2,514	2,532	2,541	0.1515
0001902	77	1,331	1,297	1,273	1,189	0.1393
0001904	44	1,278	1,392	1,311	1,325	0.1325
0002401	329	10,345	10,390	10,505	10,342	0.1324
0002402	94	4,781	4,807	4,929	4,874	0.1312
0002403	94	787	790	759	736	0.1553
0002404	39	3,731	3,669	3,650	3,707	0.1276
0002405	44	3,216	3,087	3,167	3,168	0.1277
0002406	43	5,173	5,177	5,342	5,239	0.1273
0002801	120	1,814	1,807	1,719	1,889	0.1425
0002802	64	1,187	1,130	1,199	1,118	0.1405
0002804	35	1,018	1,122	1,018	1,074	0.1339
0002805	43	788	768	743	759	0.1388
0002806	28	905	969	931	984	0.1320
0002901	318	17,657	17,345	17,477	17,445	0.1295
0002902	75	6,559	6,652	6,838	6,882	0.1275
0002903	95	1,497	1,521	1,529	1,537	0.1399
0002904	44	7,125	7,232	7,230	7,326	0.1267
0002905	53	6,922	7,036	6,844	7,066	0.1269
0002906	44	9,213	9,073	9,131	9,116	0.1261
0003001	211	3,050	3,070	3,045	2,987	0.1426
0003002	64	957	956	970	940	0.1424
0003004	35	566	567	589	526	0.1438
0003005	43	309	307	324	288	0.1637
0003006	27	706	699	693	679	0.1342
0003201	208	5,178	5,174	5,122	5,127	0.1345
0003202	64	2,004	1,991	2,076	2,012	0.1318
0003203	93	263	293	277	271	0.2071
0003204	35	2,340	2,285	2,311	2,357	0.1290
0003205	43	1,329	1,335	1,329	1,311	0.1343
0003206	28	1,821	1,966	1,889	1,915	0.1286
0003301	113	1,927	1,924	1,817	1,922	0.1398
0003302	64	1,050	1,026	995	1,022	0.1413
0003304	49	2,467	2,522	2,376	2,517	0.1307
0003305	57	2,346	2,251	2,375	2,301	0.1296
0003306	37	2,393	2,335	2,335	2,361	0.1292
0003601	199	1,284	1,297	1,243	1,300	0.1654
0003602	64	600	538	544	601	0.1493
0003604	44	834	875	810	824	0.1389
0003606	27	272	287	304	266	0.1537
0003701	199	4,610	4,579	4,476	4,566	0.1369
0003702	64	585	584	609	602	0.1503
0003703	94	673	653	684	663	0.1639
0003704	35	1,573	1,664	1,691	1,656	0.1301
0003705	55	2,967	3,025	3,007	3,048	0.1301

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0003706	45	3,943	3,906	3,893	3,971	0.1279
0003801	227	6,327	6,343	6,573	6,347	0.1334
0003802	64	2,389	2,310	2,359	2,385	0.1317
0003803	93	276	285	281	301	0.2096
0003804	41	3,451	3,461	3,556	3,411	0.1282
0003805	44	2,889	2,957	2,959	3,059	0.1282
0003806	33	3,548	3,444	3,449	3,457	0.1272
0003901	261	9,131	9,337	9,411	9,397	0.1328
0003902	80	4,631	4,583	4,663	4,718	0.1298
0003903	94	826	787	835	819	0.1497
0003904	59	6,314	6,307	6,236	6,424	0.1276
0003905	70	6,090	6,087	5,990	5,947	0.1278
0003906	35	4,709	4,904	4,909	4,727	0.1270
0004201	110	2,520	2,470	2,507	2,511	0.1359
0004202	64	1,523	1,563	1,562	1,570	0.1320
0004203	94	289	300	303	309	0.2126
0004204	39	2,675	2,669	2,597	2,565	0.1283
0004205	58	3,134	3,175	3,127	3,215	0.1293
0004206	37	3,177	3,139	3,167	3,215	0.1281
0004301	180	1,093	1,035	1,059	1,058	0.1632
0004302	65	662	598	597	634	0.1482
0004304	73	1,317	1,301	1,280	1,257	0.1413
0004501	105	2,422	2,450	2,568	2,458	0.1359
0004502	64	1,566	1,550	1,480	1,523	0.1346
0004503	94	408	370	407	440	0.1773
0004504	62	4,855	4,768	4,772	4,642	0.1289
0004505	79	4,957	5,056	4,894	4,870	0.1292
0004506	83	8,283	8,245	8,273	8,141	0.1269
0004601	104	659	750	714	703	0.1713
0004602	64	499	529	508	503	0.1584
0004604	101	2,134	2,099	2,096	2,133	0.1357
0004701	220	4,859	4,865	4,822	4,855	0.1363
0004702	64	2,246	2,216	2,249	2,152	0.1316
0004704	57	3,695	3,762	3,771	3,676	0.1274
0004705	44	1,842	1,846	1,776	1,903	0.1317
0004706	28	2,252	2,197	2,166	2,256	0.1290
0004801	259	6,014	6,052	6,043	6,100	0.1358
0004802	64	1,916	1,862	1,881	1,893	0.1364
0004803	94	322	348	354	338	0.1955
0004804	36	2,428	2,456	2,486	2,496	0.1284
0004805	44	1,887	1,825	1,844	1,765	0.1302
0004806	28	2,531	2,434	2,468	2,465	0.1276
0004901	303	7,985	8,115	7,876	8,105	0.1353
0004902	64	2,488	2,509	2,491	2,674	0.1318
0004903	94	474	435	484	430	0.1667

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0004904	35	1,873	1,951	1,812	1,847	0.1290
0004905	44	1,471	1,577	1,513	1,494	0.1313
0004906	28	1,063	1,102	1,110	1,078	0.1337
0005101	220	1,542	1,595	1,615	1,522	0.1592
0005102	75	917	882	832	856	0.1494
0005104	54	1,218	1,193	1,124	1,075	0.1360
0005201	272	7,813	7,781	7,712	7,805	0.1333
0005202	64	2,741	2,793	2,733	2,758	0.1304
0005203	94	676	713	698	720	0.1599
0005204	35	1,210	1,199	1,212	1,237	0.1340
0005205	44	2,426	2,290	2,283	2,311	0.1302
0005206	28	2,924	2,974	2,947	2,954	0.1286
0005301	196	1,107	1,088	1,132	1,102	0.1722
0005302	64	595	531	586	580	0.1507
0005304	35	582	576	641	574	0.1370
0005305	43	421	438	458	398	0.1488
0005501	119	2,408	2,364	2,400	2,443	0.1362
0005502	64	1,433	1,387	1,403	1,417	0.1362
0005503	94	336	307	338	354	0.2002
0005504	41	2,460	2,447	2,463	2,495	0.1289
0005505	59	2,875	2,849	2,856	2,948	0.1293
0005506	31	2,327	2,327	2,375	2,335	0.1284
0005601	233	5,758	5,800	5,861	5,788	0.1354
0005602	64	1,068	1,086	1,162	1,113	0.1393
0005603	94	509	499	490	476	0.1773
0005604	35	972	1,017	956	940	0.1336
0005605	44	2,499	2,442	2,470	2,558	0.1301
0005606	28	2,042	1,972	2,109	2,008	0.1277
0005701	278	3,795	3,890	3,834	3,740	0.1439
0005702	69	1,534	1,520	1,550	1,525	0.1341
0005704	35	893	917	920	862	0.1357
0005705	43	584	554	624	591	0.1367
0005706	27	528	507	556	572	0.1382
0005801	215	2,055	2,115	2,100	2,110	0.1494
0005802	81	1,271	1,273	1,269	1,304	0.1407
0005804	53	1,475	1,556	1,551	1,602	0.1334
0005901	218	1,224	1,284	1,226	1,215	0.1659
0005902	77	715	703	725	694	0.1506
0005904	53	877	900	938	896	0.1385
0006001	276	7,582	7,442	7,445	7,435	0.1344
0006002	75	3,342	3,232	3,317	3,269	0.1310
0006003	94	334	355	383	382	0.1887
0006004	35	2,112	2,144	2,114	2,111	0.1300
0006005	44	1,948	1,894	1,918	1,958	0.1304
0006006	28	1,348	1,266	1,300	1,243	0.1311

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0006101	219	5,969	5,931	5,991	6,033	0.1341
0006102	64	1,176	1,213	1,254	1,254	0.1363
0006103	94	339	297	300	326	0.1894
0006104	35	1,988	1,967	1,873	1,953	0.1300
0006105	44	2,487	2,478	2,441	2,503	0.1278
0006106	28	2,191	2,181	2,050	2,164	0.1282
0006201	235	1,467	1,463	1,477	1,474	0.1657
0006202	76	765	745	826	754	0.1482
0006204	49	977	915	893	848	0.1393
0006401	184	2,459	2,559	2,590	2,518	0.1424
0006402	64	1,260	1,126	1,096	1,111	0.1376
0006404	35	851	836	772	867	0.1345
0006405	43	389	389	342	383	0.1528
0006406	27	542	496	551	522	0.1394
0006601	182	4,609	4,655	4,555	4,520	0.1348
0006602	64	2,476	2,494	2,419	2,502	0.1318
0006603	94	430	446	432	428	0.1743
0006604	47	3,495	3,520	3,437	3,596	0.1279
0006605	56	3,353	3,411	3,400	3,329	0.1295
0006606	29	2,651	2,806	2,807	2,804	0.1277
0006701	202	6,499	6,438	6,415	6,585	0.1321
0006702	64	1,698	1,667	1,690	1,671	0.1355
0006703	94	693	627	648	722	0.1542
0006704	35	2,857	2,839	2,883	2,886	0.1277
0006705	57	4,485	4,406	4,465	4,381	0.1273
0006706	36	4,369	4,359	4,366	4,425	0.1271
0006901	299	5,134	5,179	5,135	5,125	0.1405
0006902	81	2,229	2,259	2,321	2,265	0.1367
0006904	64	3,315	3,273	3,359	3,264	0.1292
0007301	173	3,084	3,113	3,163	3,065	0.1374
0007302	64	1,545	1,498	1,589	1,568	0.1361
0007304	40	2,108	2,109	2,129	2,164	0.1295
0007305	43	1,465	1,446	1,411	1,408	0.1316
0007306	34	2,372	2,319	2,387	2,326	0.1293
0007501	180	3,067	3,091	3,076	3,076	0.1398
0007502	64	1,014	990	1,020	993	0.1421
0007504	35	1,325	1,297	1,221	1,272	0.1315
0007505	43	476	475	474	516	0.1532
0007506	28	686	768	672	699	0.1364
0007801	145	2,117	2,070	2,117	2,098	0.1415
0007802	64	1,434	1,412	1,438	1,507	0.1380
0007804	45	1,923	1,953	1,962	1,992	0.1312
0007805	55	1,972	1,862	1,925	1,967	0.1338
0007806	28	1,555	1,547	1,540	1,536	0.1297
0007901	105	2,222	2,260	2,285	2,190	0.1363

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0007902	64	1,553	1,598	1,498	1,585	0.1346
0007904	49	3,142	3,114	3,252	3,062	0.1290
0007905	75	3,910	3,869	3,875	3,904	0.1308
0007906	46	3,796	3,776	3,717	3,745	0.1285
0008301	196	2,026	2,050	2,017	2,087	0.1507
0008302	71	1,186	1,237	1,181	1,232	0.1376
0008304	65	2,033	1,938	2,006	2,082	0.1332
0008601	164	2,344	2,378	2,455	2,494	0.1420
0008602	64	707	700	715	665	0.1443
0008603	94	440	420	478	438	0.1748
0008604	35	756	736	769	735	0.1383
0008605	43	1,451	1,380	1,392	1,523	0.1319
0008606	37	2,055	2,081	2,062	2,143	0.1284
0008901	364	13,165	13,234	13,419	13,221	0.1322
0008902	103	6,102	6,140	6,017	6,153	0.1293
0008903	94	745	782	791	758	0.1564
0008904	38	4,122	4,007	4,051	4,160	0.1266
0008905	52	4,620	4,592	4,669	4,497	0.1278
0008906	28	3,262	3,479	3,511	3,512	0.1274
0009001	220	1,196	1,170	1,166	1,197	0.1684
0009002	73	635	595	647	675	0.1587
0009004	55	885	905	828	882	0.1410
0009101	285	7,393	7,593	7,643	7,630	0.1349
0009102	77	3,290	3,390	3,324	3,350	0.1307
0009103	94	534	486	495	513	0.1679
0009104	35	1,531	1,541	1,587	1,580	0.1323
0009105	44	1,674	1,687	1,703	1,624	0.1329
0009106	28	1,093	1,115	1,033	1,020	0.1291
0009201	138	2,378	2,279	2,301	2,229	0.1387
0009202	64	1,245	1,248	1,250	1,202	0.1358
0009204	35	826	752	859	886	0.1332
0009205	43	933	896	924	883	0.1379
0009206	28	845	894	861	898	0.1369
0009501	106	1,975	1,924	1,963	1,986	0.1383
0009502	64	1,475	1,476	1,495	1,456	0.1357
0009504	55	3,071	3,044	2,986	3,066	0.1294
0009505	49	2,151	2,208	2,230	2,165	0.1305
0009506	36	2,607	2,657	2,516	2,538	0.1289
0009601	315	4,124	4,141	4,138	4,110	0.1429
0009602	91	1,956	1,993	1,882	1,899	0.1350
0009604	54	2,146	2,075	2,110	2,100	0.1320
0009801	222	3,978	4,012	3,882	3,871	0.1391
0009802	68	1,910	2,001	1,901	2,060	0.1324
0009804	36	1,866	1,861	1,903	1,944	0.1295
0009805	43	1,055	1,053	1,001	994	0.1336

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0009806	28	1,332	1,329	1,374	1,388	0.1297
0010101	114	1,590	1,541	1,578	1,556	0.1421
0010102	64	822	845	827	812	0.1398
0010104	35	943	871	901	942	0.1336
0010105	43	857	904	860	928	0.1383
0010106	28	884	939	929	966	0.1328
0010301	162	3,783	3,632	3,734	3,662	0.1350
0010302	64	1,266	1,254	1,238	1,284	0.1388
0010303	94	380	401	359	403	0.1780
0010304	35	2,282	2,298	2,323	2,231	0.1289
0010305	54	2,937	2,973	2,998	3,059	0.1299
0010306	29	2,523	2,513	2,553	2,549	0.1286
0010401	171	2,562	2,538	2,620	2,570	0.1412
0010402	64	945	974	913	923	0.1421
0010404	35	619	614	637	622	0.1396
0010405	43	575	528	529	558	0.1408
0010406	28	843	842	894	896	0.1335
0010501	165	3,009	3,009	3,040	3,074	0.1379
0010502	64	1,204	1,173	1,208	1,170	0.1382
0010504	39	2,098	2,199	2,171	2,149	0.1288
0010505	48	2,081	2,128	2,067	2,132	0.1308
0010506	36	2,548	2,516	2,565	2,552	0.1288
0010801	214	4,531	4,680	4,630	4,569	0.1367
0010802	64	2,166	2,070	2,172	2,228	0.1322
0010803	93	247	265	271	292	0.2264
0010804	45	2,919	2,867	2,850	2,892	0.1274
0010805	44	1,587	1,602	1,570	1,545	0.1335
0010806	34	2,752	2,769	2,747	2,709	0.1278
0010901	105	2,421	2,351	2,442	2,394	0.1375
0010902	64	1,513	1,543	1,506	1,474	0.1359
0010903	94	403	354	420	406	0.1811
0010904	56	4,340	4,463	4,470	4,391	0.1277
0010905	45	2,800	2,885	2,951	2,891	0.1281
0010906	54	5,440	5,628	5,534	5,466	0.1273
0011001	389	12,530	12,354	12,346	12,604	0.1326
0011002	100	5,222	5,270	5,112	5,176	0.1294
0011003	94	658	741	714	690	0.1551
0011004	41	3,824	3,882	3,918	3,864	0.1274
0011005	44	2,998	2,906	2,979	2,858	0.1285
0011006	28	2,343	2,291	2,340	2,349	0.1275
0011201	249	2,043	2,073	2,056	2,001	0.1546
0011202	75	990	994	978	1,065	0.1449
0011204	45	1,060	1,096	1,097	1,093	0.1366
0011301	154	2,064	2,124	2,095	2,131	0.1440
0011302	64	821	764	768	807	0.1445

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0011304	35	726	807	854	792	0.1368
0011305	43	487	469	503	521	0.1497
0011306	28	848	810	809	868	0.1319
0011701	205	6,272	6,158	6,426	6,136	0.1325
0011702	64	2,369	2,358	2,348	2,290	0.1318
0011704	53	4,745	4,891	4,759	4,715	0.1274
0011705	44	2,067	1,987	2,040	2,010	0.1308
0011706	39	4,397	4,507	4,409	4,537	0.1272
0011801	227	1,600	1,615	1,609	1,580	0.1589
0011802	76	823	852	898	900	0.1478
0011804	52	1,088	1,112	1,028	1,105	0.1356
0011901	232	2,467	2,343	2,351	2,342	0.1486
0011902	79	1,318	1,331	1,286	1,359	0.1399
0011904	48	1,442	1,410	1,520	1,510	0.1334
0012001	176	3,403	3,407	3,376	3,410	0.1372
0012002	64	1,824	1,873	1,850	1,819	0.1344
0012003	93	257	277	271	246	0.2200
0012004	35	1,513	1,502	1,478	1,495	0.1306
0012005	48	2,280	2,226	2,226	2,257	0.1293
0012006	28	1,516	1,434	1,503	1,524	0.1298
0012101	145	3,325	3,374	3,280	3,323	0.1367
0012102	64	2,149	2,234	2,219	2,134	0.1340
0012103	94	385	421	412	398	0.1873
0012104	43	2,898	2,913	2,914	2,947	0.1292
0012105	46	2,581	2,517	2,520	2,594	0.1292
0012106	28	1,951	1,979	2,062	2,066	0.1291
0012301	127	3,837	3,917	3,888	3,889	0.1335
0012302	74	3,780	3,686	3,530	3,736	0.1303
0012303	94	870	862	864	901	0.1508
0012304	71	6,439	6,486	6,563	6,486	0.1276
0012305	99	7,230	7,272	7,239	7,479	0.1288
0012306	43	5,133	5,032	4,937	5,043	0.1272
0012401	331	20,690	20,510	20,396	20,375	0.1288
0012402	78	7,991	7,835	7,855	7,783	0.1282
0012403	95	2,898	2,770	2,857	2,801	0.1332
0012404	35	5,700	5,575	5,594	5,547	0.1262
0012405	72	10,786	10,848	10,793	10,675	0.1267
0012406	28	6,120	6,058	6,142	6,256	0.1260
0012501	287	9,905	9,929	10,099	9,826	0.1312
0012502	66	3,620	3,719	3,732	3,780	0.1288
0012503	94	628	684	642	660	0.1699
0012504	56	5,865	5,871	5,814	5,704	0.1266
0012505	57	4,767	4,749	4,657	4,657	0.1283
0012506	47	6,128	6,167	6,214	6,408	0.1270
0012601	187	3,710	3,559	3,663	3,644	0.1380

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0012602	77	2,402	2,476	2,482	2,430	0.1328
0012604	40	2,334	2,332	2,312	2,230	0.1284
0012605	44	1,473	1,481	1,484	1,547	0.1319
0012606	28	1,306	1,313	1,345	1,405	0.1288
0012701	150	2,160	2,086	2,138	2,095	0.1430
0012702	64	1,085	1,040	1,057	1,082	0.1393
0012704	35	821	887	913	911	0.1365
0012705	43	538	580	550	572	0.1433
0012706	27	713	649	614	700	0.1338
0012801	183	1,073	989	1,004	996	0.1674
0012802	64	501	536	522	540	0.1595
0012804	72	1,205	1,179	1,183	1,222	0.1407
0012901	287	2,653	2,739	2,665	2,647	0.1519
0012902	64	963	956	995	947	0.1405
0012904	38	1,076	1,061	1,065	1,020	0.1361
0013101	259	1,179	1,267	1,151	1,226	0.1729
0013102	85	630	624	661	647	0.1557
0013105	44	417	487	488	552	0.1554
0025201	214	1,562	1,608	1,611	1,536	0.1588
0025202	72	860	825	871	875	0.1456
0025204	58	1,326	1,336	1,220	1,218	0.1355
0028001	212	2,106	2,131	2,073	2,093	0.1501
0028002	126	2,074	2,036	2,055	1,992	0.1406
0028004	35	592	582	591	590	0.1385
0028701	253	1,223	1,225	1,133	1,214	0.1795
0028702	94	717	687	765	718	0.1559
0028704	35	346	400	318	327	0.1504
0032101	296	1,227	1,198	1,160	1,186	0.1836
0032102	64	388	368	402	391	0.1632
0032104	35	325	387	319	349	0.1569
0032601	327	3,729	3,699	3,596	3,548	0.1450
0032602	64	734	773	779	759	0.1474
0032604	35	569	585	612	578	0.1377
0033001	367	3,983	4,060	4,020	3,920	0.1473
0033002	84	1,511	1,431	1,517	1,521	0.1372
0036601	144	1,167	1,184	1,143	1,158	0.1543
0036602	64	813	813	821	898	0.1470
0036604	86	2,080	2,070	2,095	2,013	0.1355
0038501	233	2,216	2,034	2,165	2,133	0.1509
0038502	82	1,249	1,184	1,172	1,251	0.1407
0038504	46	1,240	1,298	1,209	1,312	0.1343
0060601	360	5,732	5,509	5,715	5,681	0.1411
0060602	100	2,489	2,598	2,607	2,561	0.1354
0060605	43	1,316	1,270	1,297	1,315	0.1344
0060701	364	4,890	4,893	4,793	4,789	0.1417

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0060702	98	2,131	2,088	2,125	2,158	0.1344
0060705	43	1,067	1,079	1,095	1,051	0.1355
0060901	400	7,205	7,127	7,137	7,215	0.1397
0060902	104	3,019	3,061	2,991	2,999	0.1345
0060905	43	592	561	537	571	0.1427
0061201	508	8,579	8,560	8,631	8,662	0.1407
0061202	64	568	588	572	585	0.1568
0061205	43	544	529	554	531	0.1396
0061601	198	974	996	989	943	0.1797
0061602	65	517	524	506	547	0.1589
0061605	43	512	466	494	485	0.1486
0061606	27	332	336	347	357	0.1496
0061701	331	4,506	4,600	4,475	4,548	0.1442
0061702	76	1,700	1,767	1,640	1,684	0.1357
0061705	43	397	390	377	396	0.1471
0062001	225	1,448	1,457	1,502	1,470	0.1614
0062002	68	725	668	776	732	0.1487
0062005	69	1,059	1,104	1,067	1,134	0.1415
0062101	399	5,040	5,023	4,995	5,067	0.1443
0062102	65	1,337	1,292	1,377	1,317	0.1380
0062201	449	5,438	5,184	5,211	5,270	0.1456
0062202	68	1,305	1,317	1,310	1,274	0.1384
0062203	94	431	466	429	442	0.1766
0063301	281	2,875	2,888	2,958	2,948	0.1497
0063302	82	1,355	1,377	1,419	1,391	0.1426
0063305	43	655	652	659	687	0.1398
0063801	405	2,707	2,783	2,717	2,716	0.1619
0063805	43	537	506	487	510	0.1484
0064001	290	2,331	2,407	2,373	2,279	0.1557
0064002	88	1,185	1,189	1,123	1,151	0.1439
0064005	43	319	367	359	357	0.1625
0080401	328	2,003	1,954	2,034	1,989	0.1640
0080402	107	1,080	1,051	1,066	1,052	0.1468
0080501	301	1,437	1,329	1,314	1,416	0.1790
0080502	123	922	948	870	906	0.1590
0080601	326	2,643	2,668	2,639	2,680	0.1548
0080602	109	1,433	1,449	1,452	1,459	0.1437
0622301	376	4,463	4,306	4,296	4,363	0.1454
0622302	83	1,565	1,531	1,555	1,580	0.1354
0622304	38	1,302	1,307	1,258	1,285	0.1302
0713901	312	2,002	1,971	1,876	1,905	0.1645
0713902	117	1,173	1,153	1,187	1,222	0.1511
0990101	277	20,391	20,626	20,402	20,307	0.1285
0990102	74	8,795	8,873	8,888	8,885	0.1270
0990103	329	13,797	13,643	13,819	13,702	0.1315

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0990104	68	14,921	15,145	15,070	14,970	0.1261
0990105	518	92,600	92,942	92,320	93,140	0.1264
0990106	292	82,432	82,843	82,632	82,943	0.1259
0990201	182	14,510	14,556	14,554	14,572	0.1287
0990202	73	9,427	9,616	9,521	9,571	0.1268
0990203	252	10,527	10,566	10,644	10,301	0.1312
0990204	118	28,412	28,128	28,257	28,213	0.1260
0990205	462	89,592	89,625	89,573	89,725	0.1262
0990206	328	100,866	100,733	100,843	100,965	0.1257
0990301	224	13,772	13,996	13,737	13,465	0.1289
0990302	77	7,806	7,752	7,579	7,607	0.1276
0990303	209	8,640	8,680	8,918	8,641	0.1313
0990304	81	14,846	14,793	15,006	14,887	0.1261
0990305	467	69,359	69,619	69,389	69,671	0.1267
0990306	338	79,890	79,589	80,122	79,809	0.1261
0990401	1,442	16,263	16,208	16,200	16,009	0.1464
0990402	64	715	696	724	635	0.1514
0990403	175	2,170	2,198	2,167	2,117	0.1438
0990405	341	9,247	9,136	9,360	9,219	0.1357
0990406	157	6,659	6,752	6,772	6,754	0.1309

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

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0000101	145	3,755	3,755
0000102	64	2,250	2,250
0000104	86	6,679	6,679
0000301	104	4,388	4,388
0000302	64	4,105	4,105
0000304	35	3,854	3,854
0000305	46	6,874	6,874
0000306	28	6,155	6,155
0000401	177	4,281	4,281
0000402	82	3,203	3,203
0000404	65	4,669	4,669
0000501	263	11,937	11,937
0000502	64	4,416	4,416
0000504	35	1,912	1,912
0000505	43	1,723	1,723
0000601	167	8,067	8,067
0000602	84	6,598	6,598
0000604	44	6,344	6,344
0000605	43	4,121	4,121
0000606	28	2,890	2,890
0000801	180	3,989	3,989
0000802	72	2,604	2,604
0000804	69	4,572	4,572
0000901	105	8,677	8,677
0000902	64	5,283	5,283
0000903	94	1,595	1,595
0000904	44	14,476	14,476
0000905	61	16,393	16,393
0000906	58	24,522	24,522
0001001	199	7,303	7,303
0001002	72	4,260	4,260
0001004	63	6,915	6,915
0001301	239	5,898	5,898
0001302	74	2,968	2,968
0001304	48	3,529	3,529
0001401	184	18,386	18,386
0001402	64	8,248	8,248
0001403	94	1,748	1,748
0001404	60	17,854	17,854
0001405	59	14,272	14,272
0001406	71	27,266	27,266

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0001901	247	10,015	10,015
0001902	77	5,090	5,090
0001904	44	5,306	5,306
0002401	329	41,582	41,582
0002402	94	19,391	19,391
0002403	94	3,072	3,072
0002404	39	14,757	14,757
0002405	44	12,638	12,638
0002406	43	20,931	20,931
0002801	120	7,229	7,229
0002802	64	4,634	4,634
0002804	35	4,232	4,232
0002805	43	3,058	3,058
0002806	28	3,789	3,789
0002901	318	69,924	69,924
0002902	75	26,931	26,931
0002903	95	6,084	6,084
0002904	44	28,913	28,913
0002905	53	27,868	27,868
0002906	44	36,533	36,533
0003001	211	12,152	12,152
0003002	64	3,823	3,823
0003004	35	2,248	2,248
0003005	43	1,228	1,228
0003006	27	2,777	2,777
0003201	208	20,601	20,601
0003202	64	8,083	8,083
0003203	93	1,104	1,104
0003204	35	9,293	9,293
0003205	43	5,304	5,304
0003206	28	7,591	7,591
0003301	113	7,590	7,590
0003302	64	4,093	4,093
0003304	49	9,882	9,882
0003305	57	9,273	9,273
0003306	37	9,424	9,424
0003601	199	5,124	5,124
0003602	64	2,283	2,283
0003604	44	3,343	3,343
0003606	27	1,129	1,129
0003701	199	18,231	18,231
0003702	64	2,380	2,380
0003703	94	2,673	2,673

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0003704	35	6,584	6,584
0003705	55	12,047	12,047
0003706	45	15,713	15,713
0003801	227	25,590	25,590
0003802	64	9,443	9,443
0003803	93	1,143	1,143
0003804	41	13,879	13,879
0003805	44	11,864	11,864
0003806	33	13,898	13,898
0003901	261	37,276	37,276
0003902	80	18,595	18,595
0003903	94	3,267	3,267
0003904	59	25,281	25,281
0003905	70	24,114	24,114
0003906	35	19,249	19,249
0004201	110	10,008	10,008
0004202	64	6,218	6,218
0004203	94	1,201	1,201
0004204	39	10,506	10,506
0004205	58	12,651	12,651
0004206	37	12,698	12,698
0004301	180	4,245	4,245
0004302	65	2,491	2,491
0004304	73	5,155	5,155
0004501	105	9,898	9,898
0004502	64	6,119	6,119
0004503	94	1,625	1,625
0004504	62	19,037	19,037
0004505	79	19,777	19,777
0004506	83	32,942	32,942
0004601	104	2,826	2,826
0004602	64	2,039	2,039
0004604	101	8,462	8,462
0004701	220	19,401	19,401
0004702	64	8,863	8,863
0004704	57	14,904	14,904
0004705	44	7,367	7,367
0004706	28	8,871	8,871
0004801	259	24,209	24,209
0004802	64	7,552	7,552
0004803	94	1,362	1,362
0004804	36	9,866	9,866
0004805	44	7,321	7,321

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0004806	28	9,898	9,898
0004901	303	32,081	32,081
0004902	64	10,162	10,162
0004903	94	1,823	1,823
0004904	35	7,483	7,483
0004905	44	6,055	6,055
0004906	28	4,353	4,353
0005101	220	6,274	6,274
0005102	75	3,487	3,487
0005104	54	4,610	4,610
0005201	272	31,111	31,111
0005202	64	11,025	11,025
0005203	94	2,807	2,807
0005204	35	4,858	4,858
0005205	44	9,310	9,310
0005206	28	11,799	11,799
0005301	196	4,429	4,429
0005302	64	2,292	2,292
0005304	35	2,373	2,373
0005305	43	1,715	1,715
0005501	119	9,615	9,615
0005502	64	5,640	5,640
0005503	94	1,335	1,335
0005504	41	9,865	9,865
0005505	59	11,528	11,528
0005506	31	9,364	9,364
0005601	233	23,207	23,207
0005602	64	4,429	4,429
0005603	94	1,974	1,974
0005604	35	3,885	3,885
0005605	44	9,969	9,969
0005606	28	8,131	8,131
0005701	278	15,259	15,259
0005702	69	6,129	6,129
0005704	35	3,592	3,592
0005705	43	2,353	2,353
0005706	27	2,163	2,163
0005801	215	8,380	8,380
0005802	81	5,117	5,117
0005804	53	6,184	6,184
0005901	218	4,949	4,949
0005902	77	2,837	2,837
0005904	53	3,611	3,611

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0006001	276	29,904	29,904
0006002	75	13,160	13,160
0006003	94	1,454	1,454
0006004	35	8,481	8,481
0006005	44	7,718	7,718
0006006	28	5,157	5,157
0006101	219	23,924	23,924
0006102	64	4,897	4,897
0006103	94	1,262	1,262
0006104	35	7,781	7,781
0006105	44	9,909	9,909
0006106	28	8,586	8,586
0006201	235	5,881	5,881
0006202	76	3,090	3,090
0006204	49	3,633	3,633
0006401	184	10,126	10,126
0006402	64	4,593	4,593
0006404	35	3,326	3,326
0006405	43	1,503	1,503
0006406	27	2,111	2,111
0006601	182	18,339	18,339
0006602	64	9,891	9,891
0006603	94	1,736	1,736
0006604	47	14,048	14,048
0006605	56	13,493	13,493
0006606	29	11,068	11,068
0006701	202	25,937	25,937
0006702	64	6,726	6,726
0006703	94	2,690	2,690
0006704	35	11,465	11,465
0006705	57	17,737	17,737
0006706	36	17,519	17,519
0006901	299	20,573	20,573
0006902	81	9,074	9,074
0006904	64	13,211	13,211
0007301	173	12,425	12,425
0007302	64	6,200	6,200
0007304	40	8,510	8,510
0007305	43	5,730	5,730
0007306	34	9,404	9,404
0007501	180	12,310	12,310
0007502	64	4,017	4,017
0007504	35	5,115	5,115

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0007505	43	1,941	1,941
0007506	28	2,825	2,825
0007801	145	8,402	8,402
0007802	64	5,791	5,791
0007804	45	7,830	7,830
0007805	55	7,726	7,726
0007806	28	6,178	6,178
0007901	105	8,957	8,957
0007902	64	6,234	6,234
0007904	49	12,570	12,570
0007905	75	15,558	15,558
0007906	46	15,034	15,034
0008301	196	8,180	8,180
0008302	71	4,836	4,836
0008304	65	8,059	8,059
0008601	164	9,671	9,671
0008602	64	2,787	2,787
0008603	94	1,776	1,776
0008604	35	2,996	2,996
0008605	43	5,746	5,746
0008606	37	8,341	8,341
0008901	364	53,039	53,039
0008902	103	24,412	24,412
0008903	94	3,076	3,076
0008904	38	16,340	16,340
0008905	52	18,378	18,378
0008906	28	13,764	13,764
0009001	220	4,729	4,729
0009002	73	2,552	2,552
0009004	55	3,500	3,500
0009101	285	30,259	30,259
0009102	77	13,354	13,354
0009103	94	2,028	2,028
0009104	35	6,239	6,239
0009105	44	6,688	6,688
0009106	28	4,261	4,261
0009201	138	9,187	9,187
0009202	64	4,945	4,945
0009204	35	3,323	3,323
0009205	43	3,636	3,636
0009206	28	3,498	3,498
0009501	106	7,848	7,848
0009502	64	5,902	5,902

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0009504	55	12,167	12,167
0009505	49	8,754	8,754
0009506	36	10,318	10,318
0009601	315	16,513	16,513
0009602	91	7,730	7,730
0009604	54	8,431	8,431
0009801	222	15,743	15,743
0009802	68	7,872	7,872
0009804	36	7,574	7,574
0009805	43	4,103	4,103
0009806	28	5,423	5,423
0010101	114	6,265	6,265
0010102	64	3,306	3,306
0010104	35	3,657	3,657
0010105	43	3,549	3,549
0010106	28	3,718	3,718
0010301	162	14,811	14,811
0010302	64	5,042	5,042
0010303	94	1,543	1,543
0010304	35	9,134	9,134
0010305	54	11,967	11,967
0010306	29	10,138	10,138
0010401	171	10,290	10,290
0010402	64	3,755	3,755
0010404	35	2,492	2,492
0010405	43	2,190	2,190
0010406	28	3,475	3,475
0010501	165	12,132	12,132
0010502	64	4,755	4,755
0010504	39	8,617	8,617
0010505	48	8,408	8,408
0010506	36	10,181	10,181
0010801	214	18,410	18,410
0010802	64	8,636	8,636
0010803	93	1,075	1,075
0010804	45	11,528	11,528
0010805	44	6,304	6,304
0010806	34	10,977	10,977
0010901	105	9,608	9,608
0010902	64	6,036	6,036
0010903	94	1,583	1,583
0010904	56	17,664	17,664
0010905	45	11,527	11,527

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0010906	54	22,068	22,068
0011001	389	49,834	49,834
0011002	100	20,780	20,780
0011003	94	2,803	2,803
0011004	41	15,488	15,488
0011005	44	11,741	11,741
0011006	28	9,323	9,323
0011201	249	8,173	8,173
0011202	75	4,027	4,027
0011204	45	4,346	4,346
0011301	154	8,414	8,414
0011302	64	3,160	3,160
0011304	35	3,179	3,179
0011305	43	1,980	1,980
0011306	28	3,335	3,335
0011701	205	24,992	24,992
0011702	64	9,365	9,365
0011704	53	19,110	19,110
0011705	44	8,104	8,104
0011706	39	17,850	17,850
0011801	227	6,404	6,404
0011802	76	3,473	3,473
0011804	52	4,333	4,333
0011901	232	9,503	9,503
0011902	79	5,294	5,294
0011904	48	5,882	5,882
0012001	176	13,596	13,596
0012002	64	7,366	7,366
0012003	93	1,051	1,051
0012004	35	5,988	5,988
0012005	48	8,989	8,989
0012006	28	5,977	5,977
0012101	145	13,302	13,302
0012102	64	8,736	8,736
0012103	94	1,616	1,616
0012104	43	11,672	11,672
0012105	46	10,212	10,212
0012106	28	8,058	8,058
0012301	127	15,531	15,531
0012302	74	14,732	14,732
0012303	94	3,497	3,497
0012304	71	25,974	25,974
0012305	99	29,220	29,220

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0012306	43	20,145	20,145
0012401	331	81,971	81,971
0012402	78	31,464	31,464
0012403	95	11,326	11,326
0012404	35	22,416	22,416
0012405	72	43,102	43,102
0012406	28	24,576	24,576
0012501	287	39,759	39,759
0012502	66	14,851	14,851
0012503	94	2,614	2,614
0012504	56	23,254	23,254
0012505	57	18,830	18,830
0012506	47	24,917	24,917
0012601	187	14,576	14,576
0012602	77	9,790	9,790
0012604	40	9,208	9,208
0012605	44	5,985	5,985
0012606	28	5,369	5,369
0012701	150	8,479	8,479
0012702	64	4,264	4,264
0012704	35	3,532	3,532
0012705	43	2,240	2,240
0012706	27	2,676	2,676
0012801	183	4,062	4,062
0012802	64	2,099	2,099
0012804	72	4,789	4,789
0012901	287	10,704	10,704
0012902	64	3,861	3,861
0012904	38	4,222	4,222
0013101	259	4,823	4,823
0013102	85	2,562	2,562
0013105	44	1,944	1,944
0025201	214	6,317	6,317
0025202	72	3,431	3,431
0025204	58	5,100	5,100
0028001	212	8,403	8,403
0028002	126	8,157	8,157
0028004	35	2,355	2,355
0028701	253	4,795	4,795
0028702	94	2,887	2,887
0028704	35	1,391	1,391
0032101	296	4,771	4,771
0032102	64	1,549	1,549

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0032104	35	1,380	1,380
0032601	327	14,572	14,572
0032602	64	3,045	3,045
0032604	35	2,344	2,344
0033001	367	15,983	15,983
0033002	84	5,980	5,980
0036601	144	4,652	4,652
0036602	64	3,345	3,345
0036604	86	8,258	8,258
0038501	233	8,548	8,548
0038502	82	4,856	4,856
0038504	46	5,059	5,059
0060601	360	22,637	22,637
0060602	100	10,255	10,255
0060605	43	5,198	5,198
0060701	364	19,365	19,365
0060702	98	8,502	8,502
0060705	43	4,292	4,292
0060901	400	28,684	28,684
0060902	104	12,070	12,070
0060905	43	2,261	2,261
0061201	508	34,432	34,432
0061202	64	2,313	2,313
0061205	43	2,158	2,158
0061601	198	3,902	3,902
0061602	65	2,094	2,094
0061605	43	1,957	1,957
0061606	27	1,372	1,372
0061701	331	18,129	18,129
0061702	76	6,791	6,791
0061705	43	1,560	1,560
0062001	225	5,877	5,877
0062002	68	2,901	2,901
0062005	69	4,364	4,364
0062101	399	20,125	20,125
0062102	65	5,323	5,323
0062201	449	21,103	21,103
0062202	68	5,206	5,206
0062203	94	1,768	1,768
0063301	281	11,669	11,669
0063302	82	5,542	5,542
0063305	43	2,653	2,653
0063801	405	10,923	10,923

STRATUM	Unweighted Sample Count	Weighted Sample Count	Frame Count
0063805	43	2,040	2,040
0064001	290	9,390	9,390
0064002	88	4,648	4,648
0064005	43	1,402	1,402
0080401	328	7,980	7,980
0080402	107	4,249	4,249
0080501	301	5,496	5,496
0080502	123	3,646	3,646
0080601	326	10,630	10,630
0080602	109	5,793	5,793
0622301	376	17,428	17,428
0622302	83	6,231	6,231
0622304	38	5,152	5,152
0713901	312	7,754	7,754
0713902	117	4,735	4,735
0990101	277	81,726	81,726
0990102	74	35,441	35,441
0990103	329	54,961	54,961
0990104	68	60,106	60,106
0990105	518	371,002	371,002
0990106	292	330,850	330,850
0990201	182	58,192	58,192
0990202	73	38,135	38,135
0990203	252	42,038	42,038
0990204	118	113,010	113,010
0990205	462	358,515	358,515
0990206	328	403,407	403,407
0990301	224	54,970	54,970
0990302	77	30,744	30,744
0990303	209	34,879	34,879
0990304	81	59,532	59,532
0990305	467	278,038	278,038
0990306	338	319,410	319,410
0990401	1,442	64,680	64,680
0990402	64	2,770	2,770
0990403	175	8,652	8,652
0990405	341	36,962	36,962
0990406	157	26,937	26,937

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

Branch of Service	Unweighted Sample Count	Weighted Sample Count	Frame Count
Blank	0	0	12
A=Army	17,777	2,567,450	2,600,103
C=Coast Guard	992	150,185	144,758
F=Air Force	17,477	2,166,614	2,123,274
H=Commissioned Corps of the PHS	134	20,615	20,048
M=Marines	4,279	537,789	537,522
N=Navy	9,336	1,660,554	1,677,338
O=Commissioned Corps of the NOAA	5	930	1,082

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

Enrollment/Beneficiary Group	Unweighted Sample Count	Weighted Sample Count	Frame Count
Active Duty	25,980	1,838,606	1,838,606
Active Duty Family Member Enrolled	7,336	758,530	761,690
Active Duty Family Member, Not Enrolled	4,252	239,986	237,451
Retirees and Family Members younger than 65, Enrolled	4,342	956,238	956,698
Retirees and Family Members younger than 65, Not Enrolled	4,840	1,611,256	1,610,903
Retirees and Family Members age 65 and over	3,250	1,699,522	1,698,789
TOTAL	50,000	7,104,137	7,104,137

APPENDIX E

Q1 2004 VARIABLES DELIVERED TO NRC

APPENDIX E: LIST OF VARIABLES IN THE DATA SET DELIVERED TO NRC (FORM A - SAMPLA02.DBF)

#	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	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	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

#	Variable	Type	Length	Label	Values	Source
24	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
25	ENRID	Char	4	Enrollment DMISID		DEERS
26	HADDFLG	Num	1	Residential Address - FLAG	0 = No address line1 1 = Address line1 present	DEERS
27	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
28	MACITYNM	Char	20	Residential Address - City		DEERS
29	MACTRYCD	Char	2	Residential Address, Country		DEERS
30	MALN1TX	Char	40	Residential Address - Line1		DEERS
31	MALN2TX	Char	40	Residential Address - Line2		DEERS
32	MAPRZIP	Char	5	Residential Address - ZIP		DEERS
33	MAPRZIPX	Char	4	Residential Address - ZIPX		DEERS
34	MASTCD	Char	2	Residential Address - State		DEERS
35	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
36	MEDTYPE	Char	1	Medicare Eligibility	A - Medicare A Only B - Medicare B Only C - Medicare A and B N - No Medicare eligibility	
37	MPRID	Char	8	Unique MPR Identifier		MPR

#	Variable	Type	Length	Label	Values	Source
38	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
39	NHFF	Num	8	NHFF - Stratum Sample Size		MPR
40	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
41	PAYPLNCD	Char	5	Pay Plan Code		DEERS
42	PCM	Char	3	Enrolled to a Military or Civilian PCM	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
43	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
44	PN1STNM	Char	20	Beneficiary First Name		DEERS
45	PNBRTHDT	Char	8	Beneficiary Date of Birth		DEERS
46	PNCDNCY	Char	4	Beneficiary Generation		DEERS
47	PNID	Char	9	Beneficiary/Dependent SSN		DEERS

#	Variable	Type	Length	Label	Values	Source
48	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 L = Lighthouse service M = Non-government Agency Personnel N = National Guard O = Other Government Agency Contractor Q = Reserve retiree R = Retired T = Foreign military U = Foreign national employee V = Reserve	DEERS
49	PNLSTNM	Char	26	Beneficiary Last Name		DEERS
50	PNMIDNM	Char	20	Beneficiary Middle Name		DEERS
51	PNSEXCD	Char	1	Beneficiary Sex	F = Female M = Male Z = Unknown	DEERS
52	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
53	PRN	Num	8	Permanent Random Number		MPR
54	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
55	RANKCD	Char	6	Rank Code	See RANKCD.DOC for list of values	DEERS
56	SADDFLG	Num	1	Sponsor Address - FLAG	0 = No address line1 1 = Address line1 present	DEERS
57	SPCITYNM	Char	20	Sponsor Address - City		DEERS
58	SPCTRYCD	Char	2	Sponsor Address, Country		DEERS

#	Variable	Type	Length	Label	Values	Source
59	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
60	SPLN1TX	Char	40	Sponsor Address - Line1		DEERS
61	SPLN2TX	Char	40	Sponsor Address - Line2		DEERS
62	SPONSSN	Char	9	Sponsor Social Security Number		DEERS
63	SPPRZIP	Char	5	Sponsor Residential Address - ZIP		DEERS
64	SPPRZIPX	Char	4	Sponsor Address - ZIPX		DEERS
65	SPSTCD	Char	2	Sponsor Residential Address - State		DEERS
66	SPTNUMCD	Char	14	Sponsor Phone Number		DEERS
67	SSNSMPL	Char	12	SPONSSN || SPDUPID || LEGDDSCD SSN Sampling Variable		MPR
68	STRATUM	Char	7	Stratum		MPR
69	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
70	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
71	TNUMCD	Char	14	Residence Telephone Number		DEERS
72	UADDFLG	Num	1	Unit Address - FLAG	0 = No address line1 1 = Address line1 present	DEERS
73	UICADD1	Char	30	Unit Address - Line1		DEERS
74	UICADD2	Char	30	Unit Address - Line2		DEERS
75	UICCITY	Char	30	Unit Address - City		DEERS
76	UICST	Char	2	Unit Address - State		DEERS
77	UICZIP	Char	5	Unit Address - ZIP		DEERS
78	ULOCDMIS	Char	4	Unit Address - DMIS Code		DEERS
79	ULOCGRN	Char	2	Unit Address - Region		DEERS

APPENDIX F

Q1 2004 SAS CODE

STI.SAS

```
*******************************************************************
*
* PROGRAM: STI.SAS
* TASK:    DOD Health Care Survey, Sampling (8860-210/220)
* PURPOSE: Split STI2004 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.
*
* INPUTS:
*
* 1) STI2004.001 - RAW 2004 Q1 DEERS Population Extract File (Tape Part 1)
* 2) STI2004.002 - RAW 2004 Q1 DEERS Population Extract File (Tape Part 2)
*
* OUTPUTS:
*
* 1) STI001.SD2 - 2004 Q1 DEERS Population Extract File (CD Part 1)
* 2) STI002.SD2 - 2004 Q1 DEERS Population Extract File (CD Part 2)
* 3) STI003.SD2 - 2004 Q1 DEERS Population Extract File (CD Part 3)
* 4) STI004.SD2 - 2004 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 (STI2004.001
*    and STI2004.002).
* 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\STI2004.&INUM";

DATA OUT.STI&ONUM1 OUT.STI&ONUM2;
   INFILE IN LRECL=99999 RECFM=V MISSOVER;
   %INCLUDE "LAYOUT.SAS";
   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 (8860-210/220)";
TITLE2 "PROGRAM: STI.SAS,WRITTEN BY: KEITH RATHBUN, July 2003";
TITLE3 "OUTPUT: STI&PNUM..SD2";

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

PROC FREQ DATA=OUT.STI&PNUM;
   TABLES
      TNEXREG
      PNTYPCD
      MRTLSTAT
      PNSEXCD
      PNARSNCD
      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 (8860-210/220)
* PURPOSE:  INPUT step for the 2000 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.
*
*******************************************************************************
*
*******************************************************************************
*
* 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     PNARSNCD   $CHAR2.
   @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.
   @216    PNLSTNM    $CHAR26.
   @243    PN1STNM    $CHAR20.
   @264    PNMIDNM    $CHAR20.
   @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.
   @575    ENRID      $CHAR4.
   @580    ACV        $CHAR1.
   @582    PCM        $CHAR3.
   @586    PATCAT     $CHAR7.
   @594    TNEXREG    $CHAR1.
 ;
*************************************************************************
* 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"
    PNARSNCD =   "Person Association Reason Code"
    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"
   PNMIDNM  =   "Person Middle 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 30 September 2003)"
   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"
;
```

XWALK.SAS

```
*********************************************************************
*
* PROGRAM:  XWALK.SAS
* TASK:     DOD Health Care Survey, Adult Sampling (8860-210)
* 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) 10/14/2002 BY KEITH RATHBUN for Q2 2003 processing.
* 9) 04/10/2003 BY KEITH RATHBUN for Q3 2003 processing.
* 10) 04/10/2003 BY KEITH RATHBUN for Q4 2003 processing.
* 11) 10/10/2003 BY DAWN FERRAGAMO for Q1 2004 processing.
*
* INPUTS:
* 1) STI001.SD2 - 2004 Q1 DEERS Population SSN SAS data set (Part 1)
* 2) STI002.SD2 - 2004 Q1 DEERS Population SSN SAS data set (Part 2)
* 3) STI003.SD2 - 2004 Q1 DEERS Population SSN SAS data set (Part 3)
* 4) STI004.SD2 - 2004 Q1 DEERS Population SSN SAS data set (Part 4)
* 5) XWALK.SD2  - 2003 Q4 DEERS Population XWALK SAS data set
*
* OUTPUTS:
* 1) XWALK.SD2 - 2004 Q1 DEERS Population XWALK SAS data set
* 2) SEED.SD2  - 2004 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_2003\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 = 13; * Increment by 1 every quarter;

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

TITLE1 "Generate XWALK file from 2004 Q1 DOD DEERS Population Extract
File";
TITLE2 "Program Name: XWALK.SAS, Written by Keith Rathbun, July 2003";

*************************************************************************
*
* 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) OUT=STI&NUM;
       BY SSNSMPL;
   RUN;
%MEND SORTIT;
```

```
%SORTIT(NUM=001);
%SORTIT(NUM=002);
%SORTIT(NUM=003);
%SORTIT(NUM=004);

*************************************************************************
*
* Remove children (<18) prior to assigning permanent random number (PRN).
*************************************************************************
*;
DATA SSN_Q(KEEP=SSNSMPL);
   SET STI001
       STI002
       STI003
       STI004
      ;
   BY SSNSMPL;
   IF DAGEQY GE "018" OR (DAGEQY = " " AND LEGDDSCD GE "20");

************************************************************************
   * STI sent duplicates SSNSMPLs.  So, we let SAS remove them here.

************************************************************************;
   IF FIRST.SSNSMPL;

************************************************************************
   * 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) IN1.XWALK(IN=IN2);
   BY SSNSMPL;


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

************************************************************************
   * 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 /MISSING LIST;
RUN;
```

DUPCHECK.SAS

```
*******************************************************************
*
* PROGRAM:  DUPCHECK.SAS
* TASK:     DOD Health Care Survey, Sampling (8860-210/220)
* 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.
*
* 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  IN 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, July 2003";

*******************************************************************
* Check for duplicate PRNs.  If duplicates are found, then the XWALK.SAS
* and/or XWALKC.SAS programs will need to be rerun until this program
* detects no duplicates.
*******************************************************************;
PROC SORT DATA=IN.XWALK  OUT=DUPCHECK NODUPKEY; BY PRN; RUN;
/* PROC SORT DATA=IN.XWALKC OUT=DUPCHECK NODUPKEY; BY PRN; RUN; */
```

EXTRACT.SAS

```
*************************************************************************
*
*
* PROGRAM:  EXTRACT.SAS
* TASK:     DOD Health Care Survey, Sampling (8860-210)
* 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) 10/14/2002 BY KEITH RATHBUN for Q2 2003 processing.  Added address
*    flags (SADDFLG, HADDFLG, UADDFLG) and zip code (MAPRZIP) to
*    the extract file.
* 10) 10/14/2002 BY KEITH RATHBUN for Q3 2003 processing.
* 11) 10/14/2002 BY KEITH RATHBUN for Q4 2003 processing.
* 12) 10/10/2003 BY DAWN FERRAGAMO added TNEXREG for Q1 2004.
*
* INPUTS:
* 1) STI001.SD2 - 2003 Q4 DEERS Population SSN SAS data set (Part 1)
* 2) STI002.SD2 - 2003 Q4 DEERS Population SSN SAS data set (Part 2)
* 3) STI003.SD2 - 2003 Q4 DEERS Population SSN SAS data set (Part 3)
* 4) STI004.SD2 - 2003 Q4 DEERS Population SSN SAS data set (Part 4)
* 5) XWALK.SD2  - DEERS Population XWALK SAS data set (sorted by SSNSMPL)
*
* 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
                   PNARSNCD 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)
              OUT=STI&NUM;
        BY SSNSMPL;
   RUN;
%MEND SORTIT;

%SORTIT(NUM=001);
%SORTIT(NUM=002);
%SORTIT(NUM=003);
%SORTIT(NUM=004);

*******************************************************************************
*
* Remove children (<18) and exclude specific families.
*******************************************************************************
*;
DATA EXTRACT;
   SET STI001
       STI002
       STI003
       STI004
   ;
   BY SSNSMPL;
   IF DAGEQY GE "018" OR (DAGEQY = " " AND LEGDDSCD GE "20");

*******************************************************************************
   * STI sent duplicates SSNSMPLs.  So, we let SAS remove them here.

*******************************************************************************;
   IF FIRST.SSNSMPL;

*******************************************************************************
   * Exclude specific families from survey.
```

```
*********************************************************************;
   &EXCLUDE;
RUN;

DATA OUT.EXTRACT;
   MERGE IN.XWALK(IN=IN1) EXTRACT(IN=IN2);
   BY SSNSMPL;
   IF IN1 AND IN2;
   DROP SSNSMPL;
RUN;

TITLE1 "Build SAS EXTRACT file for the DOD sample";
TITLE2 "Program Name: EXTRACT.SAS, Written by Keith Rathbun, July 2003";

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

TITLE3 "FREQS of key variables - 2004 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
      E1*E2*E3*E4*E5*E6*E7*E8*E9*E10*E11*E12*E13
      TNEXREG
      PNTYPCD
      MRTLSTAT
      PNSEXCD
      PNARSNCD
      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
  /MISSING LIST;
RUN;
```

FRAMEA.SAS

```
*************************************************************************
*** Project: 2004 Health Care Survey of DoD Beneficiaries - Adult
*** Purpose: Create the frame for the adult survey.
*** Updated: Esther M Friedman 10/20/03
***
*** Program: framea01.sas, Creates the adult sampling frame.
***
*** Inputs:  extract.sd2, Extracted DoD data set used to create the adult
sampling frame.
***
***          F:\DOD\Q1_2004\Data\AFinal\TMA.sd2
***          DMIS information
***
***          "F:\DOD\Q1_2004\Programs\frame.inc";
***
*** Outputs: F:\DOD\Q1_2004\Data\AFinal\framea.sd2
***          Adult sampling frame created from the extracted DoD data set.
*************************************************************************
;

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

*** Set up the titles. ***;
title1 'Construct Adult Sampling Frame, FRAMEA.SD2';
title2 'from the 2004 Quarterly DOD Extract File, EXTRACT.SD2';
title3 'Program: FRAMEA.SAS by Esther M Friedman';

*** Set up the input and output paths. ***;
libname in   v6   'F:\DOD\Q1_2004\Data\AFinal';
libname inv6 v6  'F:\DOD\Q1_2004\Data\AFinal';
libname out  v6  'F:\DOD\Q1_2004\Data\AFinal';

%MACRO PROCESS(TMA,TMA2,outdata);

*************************************************;
***** Start the data step to create the frame ********;
*************************************************;
proc freq data=in.extract;
  tables DHSRGN*TNEXREG/list;
run;

data frame;
  set in.extract; /*recode Alaska*/
      if  DHSRGN= 'AK' then TNEXREG='W';
      if TNEXREG='N' then TREG='01';
        else if TNEXREG='S' then TREG='02';
        else if TNEXREG='W' then TREG='03';
        else if TNEXREG='O' then TREG='04';
run;

Proc freq data=frame;
  tables DHSRGN*TNEXREG*TREG/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);
   set inv6.&TMA.;
   rename facilit1=d_fac installa=d_instal dmis_fac=d_dmis;
   length d_par $4.;
   d_par = DMIS_PAR;
   length geocell $4.;
   geocell = DMIS_ID;
   length d_health $2.;
   d_health = HEALTH_S;
run;

proc sort nodupkey data=&TMA.;
   by geocell;
run;

%include "F:\DOD\Q1_2004\Programs\Sampling\frame.inc";

proc freq data=frame;
  tables geocell*tnexreg*dcatch*pcm/ list missing;
  where geocell in (’0953’,’0969’,’0970’,’0971’,’0972’,’0975’,’0983’) and
PCM~=’MTF’;
run;


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

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.
```

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
*** Notes:
*** 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
*********************************************************************;

DATA FRAME;
   SET FRAME;
   if pcm='MTF' then do;
      if ('1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or
         ('6991' <= enrid <= '6994')   or ('6501' <=enrid <='6512') or
         ('7166' <= enrid <= '7195') or ( '6700' <= enrid <= '6881' )
         then geocell=dcatch; *administrative assignment 1976-1980 added q4
2002--6700-6881 added q1 2004*;
      else if ('3031' <= enrid <= '3057')
         then geocell = dcatch; ***On the Ship***;
      else if enrid in ('0002', '5208', '0250', '0449', '0626', '0012') /*
'0626' added q2 2003, 0012 added q4 2003*/
         then geocell = dcatch; ***Inactive***;
      ********************************************************************;
      else if ('0190' <= enrid <='0199') then geocell = dcatch;**BYDON;
      ********************************************************************;
      else geocell = enrid;
   end;
   else geocell=dcatch;
RUN;


/* commented out 01/23/03 by emf, since we want ALL IDS
proc sort data=frame;
   by mprid;
run;

data frame;
     merge frame(in=in1) &idfile(in=in2);
     by mprid;
     if in1 and in2; *Keep only eligible respondents;
run; */

proc sort data=frame;
```

```
   by geocell;
run;

data frame2 fr_only fy_only; /* fr_only fy_only added by emf 01/23/03 to
check nonmerging cacsmpls */;
   merge frame (in=infr) &TMA (in=infy) /* TMA spreadsheet changed to Macro
Variable by emf 1/23/03*/;
   by geocell;
/*   if a; */;
/* Code below added 01/23/03 by emf */;
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;

data &outdata /*(keep=mprid cacsmpl)commented out by emf 01/23/03 */ ;
   set frame2;
   **************************;
   com_geo=geocell; **BY DON**;
   **************************;
   if pcm='MTF' then do;
      if ( '1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or
('6991' <= enrid <= '6994') or ('6501' <=enrid <='6512') or ('7166' <=
enrid <= '7195')
           or ( '6700' <= enrid <= '6881' )
         then com_geo = geocell; ***Administrative assignment--1976-1980
added q4 2002***;
      else if ('3031' <= enrid <= '3057')
         then com_geo = geocell; ***On board ship***;
      else if enrid in ('0002', '5208', '0250', '0449', '0626', '0012')  /*
'0626' added q2 2003, 0012 added q4 2003*/
         then com_geo = geocell; ***Inactive***;
      ***Clinics large enough-stand on their own***;
      ***else if enrid in
('7293','0252','0534','7286','7294','0511','1592',
                       '7236','6201','0378','0387','0508')
         then com_geo = geocell;  ***By Don;
      else com_geo = d_par;
   end;


   ************************************************;
   *** Collapsing small areas with nearest facility ***;
   ************************************************;
   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')               then com_geo='0014';
   else if com_geo in ('0018','0248')        then com_geo='0019';
   **else if com_geo in ('0034','0100')        then com_geo='0035';
   else if com_geo in ('0034','0035','0100')   then com_geo='6223';
*changed emf q1 2004;
   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 ('7043')               then com_geo='0052';
else if com_geo in ('0076')               then com_geo='0058';
else if com_geo in ('0338')               then com_geo='0059';
else if com_geo in ('0423')               then com_geo='0064';
else if com_geo in ('0068','0413')        then com_geo='0066';
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 ('0085')               then com_geo='0083';
else if com_geo in ('0430','0335')        then com_geo='0089';
else if com_geo in ('0093','0094')        then com_geo='0096';
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')       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')        then com_geo='0120';
else if com_geo in ('0122')               then com_geo='0121';
else if com_geo in ('0431','0434','0395') 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')        then com_geo='0129';
else if com_geo in ('0310','0425','0426') then com_geo='0321';
else if com_geo in ('0428')               then com_geo='0326';
else if com_geo in ('0808')               then com_geo='0609';
else if com_geo in ('0615','7042','5197') then com_geo='0616';
else if com_geo in ('0618','0623','0629',
      '0624','0635','0825')               then com_geo='0617';
else if com_geo in ('0802')               then com_geo='0620';
else if com_geo in ('8931')               then com_geo='0633';
else if com_geo in ('0637')               then com_geo='0638';
else if com_geo in ('0610','0639')        then com_geo='0640';
*****************************************************;
*BY DON; else if com_geo = '0041' then com_geo='0045';
*BY DON; else if com_geo = '0213' then com_geo='0019';
*BY DON; else if com_geo = '0235' then com_geo='0014';
*****************************************************;
select (com_geo);
     when ('0081') com_geo= '0086'; * By emf added q1 2003;
   **when ('0252') com_geo= '0033'; *By Don;
   **when ('0378') com_geo= '0124'; *By Don;
   **when ('0387') com_geo= '0124'; *By Don;
   **when ('0508') com_geo= '0124'; *By Don;
   **when ('0511') com_geo= '0103'; *By Don;
   **when ('0534') com_geo= '0052'; *By Don;
   when ('1587') com_geo= '0109';
   **when ('1592') com_geo= '0110'; *By Don;
   when ('1646') com_geo= '0125';
   **when ('6201') com_geo= '0123'; *By Don;
   when ('7143') com_geo= '0089';
   **when ('7236') com_geo= '0110'; *By Don;
   **when ('7286') com_geo= '0089'; *By Don;
   **when ('7293') com_geo= '0032'; *By Don;
   **when ('7294') com_geo= '0089'; *By Don;
```

```
        when (’0427’) com_geo= ’0056’; * By emf added q3 2003;
        when (’5196’) com_geo= ’0086’; * By emf added q3 2003;
        when (’8982’) com_geo= ’0806’; * By emf added q3 2003;
         when (’7046’) com_geo= ’0029’;* By emf added q4 2003;

      otherwise;
   end;

      if d_fac=’NONCAT’ then do;
         if d_health in (’01’,’02’,’05’) then com_geo=’9901’;
         else if d_health in (’03’,’04’,’06’) then com_geo=’9902’;
         else if d_health in (’07’,’08’,’09’,’10’,’11’,’12’) then
com_geo=’9903’;
         else if d_health in (’00’,’13’,’14’,’15’) then com_geo=’9904’;
      end;

   *** 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;
```

FRAMEA01_CHK.SAS

```
*************************************************************************
***
*** Project:  2004 Health Care Survey of DoD Beneficiaries - Adult
***
*** Purpose: Checks for framea01 program
*** Program: F:\DOD\Q1_2004\Programs\Sampling\framea01_chk.sas,
***
*** Notes: None
***
*************************************************************************
;

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

*** 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 'F:\DOD\Q1_2004\Data\Afinal';
libname out v6 'F:\DOD\Q1_2004\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.excel;
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 / list
missing;
run;

***Freq to find small strata***;
proc freq data=framea;
tables cacsmpl;
run;
```

EBCOLL01.SAS

```
*********************************************************************
*** Project: 2004 Health Care Survey of DoD Beneficiaries - Adult
*** Purpose: Enrollee-Beneficiary Group Collapsing
*** Programmer: Esther M Friedman
***
*** Program: F:\DOD\Q1_2004\Programs\Sampling\ebcoll01.sas,
***          Collapses the strata on the frame.
***
*** Inputs:  F:\DOD\Q1_2004\data\afinal\framea.sd2
***          The adult sampling frame.
***
*** Outputs: F:\DOD\Q1_2004\data\afinal\framea.sd2
***          The collapsed adult sampling frame.
*********************************************************************
;

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

*** Set up the titles. ***;
title1 'Modify Sampling Frame, FRAMEA.SD2';
title2 'From the 2004 Quarterly DOD FRAMEA File, FRAMEA.SD2';
title3 'Program: ebcoll01.SAS';

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

libname in  v6  'F:\DOD\Q1_2004\data\afinal\';
libname out v6  'F:\DOD\Q1_2004\data\afinal\';

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 TNEXREG TREG);

if cacsmpl in ('0534','7293','6992') then ebsmpl = '01';

else if cacsmpl = '0638' then do;
      if ebg_com in ('02','03','04','05','06') then ebsmpl = '05';
      else ebsmpl = ebg_com;
end;

else if cacsmpl in ('0330','0508','0804','0806','1592','7139','0805') then
do;
      if ebg_com in ('02','03','04','05','06') then ebsmpl = '02';
      else ebsmpl = ebg_com;
end;

else if
      cacsmpl in ('0131','0606','0607','0609','0612','0616','0617',
                  '0620','0624','0633','0640','0808','9904')
      and ebg_com = '04' then ebsmpl = '05';

else if
      cacsmpl in ('0003','0005','0006','0028','0030','0033','0047','0053',
                  '0057','0064','0073','0075','0078','0079','0092','0095',
```

```
'0098','0101','0104','0105','0113','0114','0117','0126','0127',
                  '0131','0607','0612','0616','0617','0620','0621',
'0624','0633',
                  '0640','0808','0606','0609') and ebg_com = '03' then
ebsmpl = '02';
else if
      cacsmpl = '0622' and ebg_com in ('04','05') then ebsmpl = '03';

* added q2 2003;
else if
      cacsmpl = '0621' and ebg_com in ('04', '05')  then ebsmpl = '02';
else ebsmpl = ebg_com;

*6223 added q1 2004;
if ebg_com = '06' then do;
   if cacsmpl in ('0001','0004','0008','0010','0013','0019','0035','0043',
                  '0046','0051','0058','0059','0062','0069',
                  '0083','0090','0096','0112','0118',
                  '0119','0128','0129','0252','0280','0287',
                  '0321','0326','0366','0378','0385',
                  '0387','0511','6201','6223', '7236',
                  '7286','7294') then ebsmpl = '04';
   else if
      cacsmpl in ('0005','0053','0131','0606','0607','0609','0612',
                  '0617','0620','0624','0633','0640','0808') then ebsmpl =
'05';
   else if
      cacsmpl = '0621' then ebsmpl = '02';
else if
      cacsmpl = '0622' then ebsmpl = '03';
   else if
      cacsmpl = '0638' then ebsmpl = '05';
   else if
      cacsmpl in ('0330','0508','0804','0806','1592','7139','0805') then
ebsmpl = '02';
   else ebsmpl = ebg_com;
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 '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;

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;
```

COUNTA.SAS

```
*************************************************************************
*** Project:   2004 Health Care Survey of DoD Beneficiaries - Adult
***
*** Purpose: Produce population cell counts by STRATUM, STRSMPL, new_enbg,
***     and TOTAL for 2004 DOD Quarterly survey Form A Sampling Frame.
***
***     STRATUM, STRSMPL, new_enbg, TOTAL counts for 2004 DOD Quarterly
***           survey (Form A Sampling frame)
***           Where PSUM0 = STRATUM Count
***                 PSUM1 = GEOSMPL Count
***                 PSUM2 = EBSMPL Count
***                 TOTAL = Total Population
*** Program: F:\DOD\Q1_2004\Programs\Sampling\counta.sas,
***          Produces the population cell counts.
***
*** Inputs:  F:\DOD\Q1_2004\data\afinal\framea.sd2
***          Extracted DoD data set used to create the adult sampling
frame.
***
*** Outputs: F:\DOD\Q1_2004\data\afinal\counta.sd2
***          Adult sampling frame created from the extracted DoD data set.
***
*** Notes: None
***
*************************************************************************
;

*** Set up the path names. ***;
libname in  v6 'F:\DOD\Q1_2004\data\afinal';
libname out v6 'F:\DOD\Q1_2004\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;
RUN;

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

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

SAMSIZEA.SAS

```
************************************************************************
******
* Project:        2004 Health Care Survey of DoD Beneficiaries - Adult
* Project Number: 8860
* Task Number:    210
*
* PROGRAM:    SAMSIZEA.SAS
* Purpose:    Sample size determination for the 2004 Quarterly HCSDB
*
* Programmer: Don Jang
* Updated:    Nancy Clusen
* INPUTS:     POPULATION COUNTS (COUNTA.SD2)
* OUTPUTS:    FINAL SAMPLE SIZES (SAMSIZEA.SD2)
************************************************************************
*******
*;

libname in v6 'F:\DOD\Q1_2004\data\afinal';
libname out v6 'F:\DOD\Q1_2004\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;

*************************************************************************
*       START THE MAIN PROGRAM:
-------------------------------------------------------------------------
;

DATA INDATA;
        SET IN.counta;
TITLE1 "SAMPLE SIZE DETERMINATION FOR THE 2001 DOD Quarterly FORM A SURVEY
OF HEALTH BENES";
TITLE2 "PROGRAM: samsizea.SAS, INPUT: counta.SD2";
        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', '99902', '9903', '9904') then do;
           if psum1<=26480 then HL1 = 0.10;  **50th percentile or less;
           else if psum1<=56359 then HL1 = 0.09;  **between 50th and 75th
percentile;
           else if psum1<=82074 then HL1 = 0.085;  **between 75th and 90th
percentile;
           else if psum1 >82074 then HL1 = 0.07447;  **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 NUM PSUM0 PSUM1 PSUM2 TOTAL;
RUN;

*-------------------------------------------------------------------------
***
*       ADJUST INITIAL SAMPLE SIZE TO SATISFY THE DOM&ITE PRECISION
REQUIREMENT
```

```
-------------------------------------------------------------------------
-*;

%MPART(1);

**-----------------------------------------------------------------------
-
*       CTEATE 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
*****************************************************;
DATA RESP;
        SET FINAL;
                IF DOM2=1 THEN NHFF=INT(NHF/0.19)+1;
                IF DOM2=2 THEN NHFF=INT(NHF/0.31)+1;
                IF DOM2=3 THEN NHFF=INT(NHF/0.21)+1;
                IF DOM2=4 THEN NHFF=INT(NHF/0.57)+1;
                IF DOM2=5 THEN NHFF=INT(NHF/0.46)+1;
                IF DOM2=6 THEN NHFF=INT(NHF/0.73)+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;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 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;
```

SAMPLA01.SAS

```
*********************************************************************
* PROGRAM: SAMPLA01.SAS
*
* TASK:    2004 DOD Health Care Survey, Quarterly Sampling
*
* PURPOSE: Draw Sampling Frame for 2004 Quarterly DOD Survey Form A
*

* PROGRAMMER: Darryl V. Creel
*
* UPDATED: Esther Friedman                                          *

* INPUTS:  FRAMEA.SD2 - Frame for 2004 Quarterly DOD Survey
*
*          SAMSIZEA.SD2 - Sample Sizes by Stratum for 2004 Quarterly DOD
Survey *

*
* OUTPUTS: SAMPLA01.SD2 - Sampling Frame for 2004 Quarterly DOD Survey Form
A   *
*
*
*
*********************************************************************;

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


title1 'Construct the Sample, SAMPLA01.SD2';
title2 'from the 2004 Quarterly DOD Files, FRAMEA.SD2 and SAMSIZEA.SD2';
title3 'Program: SAMPLA01.SAS';

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

libname in  v6 'F:\DOD\Q1_2004\Data\AFinal';
libname out v6 'F:\DOD\Q1_2004\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>=0.125;
by stratum 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 max=max_prn;
run;

data m_prn;
set m_prn (keep=stratum max_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;

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

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

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

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

data numer (rename=(count=numer));
set numer (drop=percent);
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 'Sampling Ratio for Original EBG_COM';
proc print data=in.rat_enbg;
run;

title5 'Information about Collapsing: Sample';
proc freq data = in.sample;
table stratum * cacsmpl * ebg_com / list missing;
run;

title5 'Information about Collapsing: Frame';
proc freq data = in.framea;
table stratum * cacsmpl * ebg_com / list missing;
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
tnexreg);
set in.sampla;

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

BWT.SAS

```
*********************************************************************
* PROGRAM: BWT.SAS
*
* TASK:    2004 DoD Health Care Survey, Quarterly Sampling
*
* PURPOSE:Construct Sampling Weight for 2004 Quarterly DoD Survey FormA
*
*
* INPUTS:  FRAMEA.SD2 - Frame for 2004 Quarterly DoD Survey
*
*       SAMPLA.SD2 - Internal Sample file for 2004 Quarterly DoD Survey
*
*
* OUTPUTS: BWT.SD2 -Sampling Weight for 2004 Quarterly DOD Survey FormA
*********************************************************************;

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


title1 'Construct the Sampling Weight, BWT.SD2';
title2 'from the 2004 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 'F:\DOD\Q1_2004\data\afinal';
libname out  v6 'F:\DOD\Q1_2004\data\afinal';
libname inv8 v8 'F:\DOD\Q1_2004\data\afinal';

*** include the design effects macro.;

%include "c:\myfiles\macros\design_effects_unequal_weights.sas";
***** Add Xregion to sampla01--added as per Nancy october 31, 2002  *****;

data sampla;
set out.sampla;

IF      CACSMPL IN (0035, 0036, 0037, 0066, 0067,
                    0068, 0069, 0081, 0086, 0100,
                    0123, 0306, 0310, 0321, 0326,
                    0330, 0385, 0413, 6201, 9901       ) THEN XREGION=
'01';
ELSE IF CACSMPL IN (0089, 0090, 0091, 0092, 0120,
                    0121, 0122, 0124, 0335, 0378, 0387, 0432,
                    0433, 0508, 7143, 7286, 7294, 9902                  )
THEN XREGION= '02';
ELSE IF CACSMPL IN (0039, 0041, 0045, 0046, 0047,
                    0048, 0049, 0050, 0051, 0101,
                    0103, 0104, 0105, 0337, 0356,
                    0422, 0511, 9903                    ) THEN XREGION=
'03';
ELSE IF CACSMPL IN (0001, 0002, 0003, 0004, 0038,
                    0042, 0043, 0073, 0074, 0107,
                    0297, 7139, 9904             ) THEN XREGION= '04';
```

```
ELSE IF CACSMPL IN (0055, 0056, 0060, 0061, 0095,
                    9905                          ) THEN XREGION= ’05’;
ELSE IF CACSMPL IN (0013, 0062, 0064, 0096, 0097,
                    0098, 0109, 0110, 0112, 0113,
                    0114, 0117, 0118, 0338, 0363,
                    0364, 0365, 0366, 1587, 1592, 7236, 9906       ) THEN
XREGION= ’06’;
ELSE IF CACSMPL IN (0008, 0009, 0010, 0079, 0083,
                    0084, 0085, 0108, 9907       ) THEN XREGION= ’07’;
ELSE IF CACSMPL IN (0031, 0032, 0033, 0053, 0057,
                    0058, 0059, 0075, 0076, 0077,
                    0078, 0093, 0094, 0106, 0119,
                    0129, 0252, 7200, 7293, 9908             ) THEN
XREGION= ’08’;
ELSE IF CACSMPL IN (0018, 0019, 0024, 0026, 0029, 0030,
                    0131, 0213, 0248, 5205, 9909 ) THEN XREGION= ’09’;
ELSE IF CACSMPL IN (0014, 0015, 0028, 0235, 0250,
                    9910                          ) THEN XREGION=’10’;
ELSE IF CACSMPL IN (0125, 0126, 0127, 0128, 0395, 1646,
                    9911                          ) THEN XREGION=’11’;
ELSE IF CACSMPL IN (0052, 0280, 0287, 0534, 7043, 9912 ) THEN XREGION=’12’;
ELSE IF CACSMPL IN (0606, 0607, 0609, 0617, 0618,
                    0623, 0624, 0629, 0633, 0635,
                    0653, 0805, 0806, 0808, 0814,
                    8931, 8982, 9913             ) THEN XREGION=’13’;
ELSE IF CACSMPL IN (0610, 0612, 0620, 0621, 0622,
                    0637, 0638, 0639, 0640, 0802,
                    0804, 0853, 0862, 9914       ) THEN XREGION=’14’;
ELSE IF CACSMPL IN (0449, 0613, 0615, 0616, 9915 ) THEN XREGION=’15’;
ELSE IF CACSMPL IN (0005, 0006, 0203, 9916       ) THEN XREGION=’16’;
ELSE IF CACSMPL = 9999                             THEN XREGION=’99’;
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 = numer));
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 = denom));
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 = numer / denom;
run;

title5 'Information for the Sampling Weight';
proc print data=weight;
var stratum numer denom bwt;
sum numer denom;
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;

proc means data=inv8.bwt n sum noprint;
class stratum;
var bwt;
output out=bwtchk  n = sampcnt sum = bwtsum;
run;

title5 'Information for the Sampling Weight Data Set';
proc contents data=inv8.bwt;
run;

data bwtchk;
set bwtchk;
where _type_ = 1;
run;

proc sort data=bwtchk;
by stratum;
run;

proc sort data=frame;
by stratum;
run;

data finalchk;
```

```
merge bwtchk frame(rename = (numer = pop));
by stratum;
diff = pop - bwtsum;
run;

title 'Final Checks for the Sampling Weight';
proc print data=finalchk;
var stratum sampcnt bwtsum pop diff;
sum sampcnt bwtsum pop diff;
run;

**********************************;
*** Calculate the Design Effects ***;
*** added 04/15/02               ***;
**********************************;

%design_effects_unequal_weights ( inv8.bwt, cacsmpl, bwt, deff_overall,
deff_cac );
%design_effects_unequal_weights ( inv8.bwt, enbgsmpl, bwt, deff_overall,
deff_enbg );
%design_effects_unequal_weights ( inv8.bwt, ebg_com, bwt, deff_overall,
deff_ebg );
%design_effects_unequal_weights ( inv8.bwt, treg, bwt, deff_overall,
deff_reg );
%design_effects_unequal_weights ( inv8.bwt, xregion, bwt, deff_overall,
deff_xreg );

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

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

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

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

proc print data= deff_reg;
title5 "design effect by TNEXREG";
run;

proc print data= deff_xreg;
title5 "design effect by xregion";
run;
```

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;
```

APPENDIX G

TECHNICAL BACKGROUND IN DETERMINING THE SAMPLE SIZES

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 quite variable population sizes.

For simple random samples (SRS) of size *n* from finite populations of size *N*, the variance of *p* is:

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

Because the expected sample sizes for all strata for the 2004 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*. With the variance of *P*, we can determine the sample size to attain the precision requirement *B* by solving the following equation with respect to *n*:

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

implies

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

This formula was used as the first step in determining initial sample sizes for all strata in the 2004 HCSDB.

Note from formula (G.3), sample sizes vary according to values of the proportion *P*. As *P* becomes closer to 0.5, *n* becomes larger. Because characteristics of interest of 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 *P* value of 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 (F.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 2004 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)
$$p_d = \sum_{h=1}^{H} \sum_{i \in d} \frac{N_d(h)}{N_d(+)} \; p_h ,$$

where N_h is the population size for stratum h, $N_{\overset{+}{d}}$ is the sum of N_h over domain d, and p_h 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 2003 HCSDB response rates for beneficiary groups as the expected response rates R; R = 0.19, 0.31, 0.21, 0.57, 0.46, and 0.73 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.