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Health Care Survey of DoD Beneficiaries:

2005 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 2005 Adult HCSDB sample design is similar to the 2004 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 number of strata, which reflects the TRICARE Management Activity's (TMA's) desire to report for more military treatment facilities (MTF). As in the 2004 sample, beneficiaries residing outside of a MTF catchment area are grouped into one of four TRICARE TNEX regions. This report documents the procedures used to design and select the sample of adult beneficiaries for the 2005 Adult HCSDB.

The 2005 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 2005 Adult HCSDB sample design's major features are:

- The sampling frame consisted of the roughly 7.2 million beneficiaries 18 or older who were eligible for military health care benefits as of September 17, 2004. The sampling frame consists of beneficiaries living both in the U.S. and abroad.

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

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

- Stratification based on a simple combination of the two stratifying variables produces too many strata because of the large number of geographic sites defined by catchment areas, service areas, and MTFs depending on the enrollment status. Because the population in many of these strata is small, we collapsed them to reduce the total number of strata for the 2005 survey to 481.

- Based on the 2004 results, response rates for the 2005 survey are expected to be 17.5 percent for active duty beneficiaries; 29 percent for active duty family members enrolled in Prime; 25 percent for active duty family members not enrolled in Prime; 53 percent for retirees and their family members younger than 65 enrolled in Prime; 42.5 percent for retirees and

family members younger than 65 not enrolled in Prime; and 72 percent for retirees and their family members age 65 or older.

- Given the 2004 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 2005. 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 2005 HCSDB is similar in design to the 2004 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 2005. Subsequent QBSs in 2005 will essentially follow the same design. Chapter II explains how MPR used a population data file of all MHS beneficiaries to develop the sampling frame. Chapter III explains how the sampling frame was stratified before the sample was selected. Chapter IV describes how the sample sizes were derived to meet the precision requirements specified for the survey estimates. In Chapter V, we present the permanent random number sample selection procedure used to draw the sample. We also describe the creation of the sampling weights, which reflect the probability of selection, and we summarize the checking procedures designed to ensure that sampling was implemented as specified.

The appendices include tables and SAS programs that provide detailed information about the quarterly Adult HCSDB sample selection. Appendix A lists Defense Enrollment Eligibility Reporting System (DEERS) variables provided by TRICARE Management Activity (TMA). Appendix B contains a detailed table of facilities for which beneficiaries with a military primary care manager (PCM) were assigned a catchment area as the geographic area. Appendix C contains detailed tables summarizing the counts of beneficiaries by collapsed strata and by strata that have not been collapsed so that readers can understand the collapsing rules. Appendix D includes population, sample, and weighted sample counts tabulated for all sampling strata as part of the sample verification process. Appendix D also includes population, sample, and weighted sample counts for two analytic domains, service and enrollment and beneficiary group. Appendix E includes all variables delivered to Synovate, the data collection contractor, after the sample was selected. Appendix F contains all SAS programs used for the 2005 quarterly sample design and sample selection. Appendix G includes all technical arguments and related formula in determining the sample sizes.

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Chapter 2

Construction of the Sampling Frame

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

- An extract of the Defense Enrollment Eligibility Reporting System (DEERS) data file that included all eligible beneficiaries on the reference date of September 17, 2004 was requested to use in constructing the sampling frame.
- The sampling frame was constructed by excluding beneficiaries under the age of 18 from the DEERS extract data file and constructing additional variables required for sampling purposes.
- Population counts were calculated for potential stratification cells defined by the cross-classification of geographic area, beneficiary type, and enrollment status.

A. REQUESTING THE DEERS EXTRACT FILE

The first step in building the frame was to prepare specifications that TMA could use to create the population data file. The variables were based on data from DEERS. The sampling frame is an extract of this DEERS file. The file contained data for 9.2 million DoD health care beneficiaries (adults and children) as of September 17, 2004, 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 7,185,444 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

[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).

1974. We also maintained a secure data storage facility and a C2-compliant local area network, and we set up chain-of-custody procedures. The original extract was returned to TMA four weeks after we received the data.

B. DETERMINING ELIGIBLES FOR THE SAMPLING FRAME

The QBS sampling frame was constructed by using the DEERS extract file described above and only retaining those cases that were 18 years of age or older on September 17, 2004. In other words, the QBS sampling frame includes individuals who meet the following characteristics:

- 18 years of age or older on September 17, 2004 and living in the United States or abroad
- Eligible for military health care benefits

Beneficiaries whose ages were missing from the DEERS file were included in the QBS sampling frame if LEGDDSCD = 20, that is, if the beneficiary was not a dependent child of a sponsor. Such cases represented less than 1.0 percent of the more than 9.2 million (adult and child) records in the sampling frame. They are all classified as sponsors, spouses of a sponsor, parents of a sponsor, or in-laws of a sponsor, which suggests that they were 18 or older at the time of sampling.

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

C. CONSTRUCTING ADDITIONAL VARIABLES REQUIRED FOR SAMPLING

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

- **MPRID (nonconfidential identification number)**. This variable corresponds uniquely to SSNSMPL 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 is associated with a managed care contractor (3) MTF assigned to beneficiaries at sea, and (4) MTF is an inactive facility (see Appendix B). For civilian PCM and not-enrolled groups, catchment area identification numbers were used to assign beneficiaries to geographic areas. This variable was created from DEERS variables ENRID, DCATCH, and PCM.

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

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

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Chapter
3

Construction of Sampling Strata

The QBS sample was independently selected within strata defined by a combination of enrollment status and beneficiary type within a geographic area. This chapter describes the initial construction of sampling strata for the QBS, the collapsing of initial strata to form larger strata (as necessary), and results of the stratification. One difference between this year's design and the 2004 design is that ten MTFs (one Army site and nine Navy sites) that were previously collapsed are now strata. However, we also collapsed nine Air Force MTFs that were previously separate strata. Otherwise the design is identical to that implemented last year.

A. STRATIFICATION VARIABLES

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

1. TRICARE Prime Enrollment Status and Beneficiary Type

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

Next, beneficiaries were separated into four groups: (1) active duty, (2) active duty family members, (3) retirees and their family members younger than 65, and (4) retirees and their family members age 65 or older. We used DEERS variable PATCAT to identify each beneficiary group. All beneficiaries with PATCAT = ACTDTY are active duty; all beneficiaries with PATCAT = DEPACT are active duty family members. Those beneficiaries with PATCAT = NADD<65 are retirees and their family members younger than 65; and those beneficiaries with PATCAT = NADD65+ are retirees and their family members age 65 or older. 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 final combined enrollment status and beneficiary type variable EBG_COM has six groups: (1) active duty, (2) active duty family members enrolled in Prime, (3) active duty family members not enrolled in Prime, (4) retirees and their family members younger than 65 enrolled in Prime, (5) retirees and their family members younger than 65 not enrolled in Prime, and (6) retirees and their family members age 65 or older.

All active duty and retirees and their family members age 65 or older are in their own enrollment and beneficiary group. Active duty beneficiaries are grouped together because they are regarded

as being enrolled in TRICARE Prime. Retirees and their family members age 65 and over are grouped together because they are regarded as not being enrolled in TRICARE Prime.

2. Geographic Area

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

For enrollees with a military PCM, the value of ENRID defines their geographic area except when the ENRID corresponds to an inactive facility, a facility whose purpose is only administration, or when the ENRID is assigned because a beneficiary is at sea. See Appendix B for a full list of these facilities. In these cases, and for enrollees with a civilian PCM and nonenrollees, we used the derived geographic catchment area (DCATCH).

B. COLLAPSING STRATA

We developed a collapsing scheme to combine geographic areas based on the 1998 HCSDB sample design and the improved scheme in the 1999 HCSDB (Cox et al. 1998; Jang and Satake 1999). The 1999 collapsing rule made the geographic areas more compatible with catchment areas on which we are reporting. Further refinements inthe collapsing scheme for the 2005 HCSDB resulted in 481 final strata. In the QBS, we collapsed the initial geographic areas to get 107 final "collapsed" catchment areas for the first quarter of 2005. The collapsing rules were determined in collaboration with TMA's staff. In general, the collapsing rules were as follows:

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

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

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

After collapsing geographic areas as described above, the populations of some strata were still too small. Therefore, we collapsed across EBG_COM, the variable that defines enrollment and beneficiary group, to create strata with at least 1,000 beneficiaries. We first collapsed across enrollment group combining Prime enrollees with nonenrollees. If the stratum was still too small, we collapsed across beneficiary group combining retirees younger than 65 with retirees age 65 or older or combining retirees younger than 65 with active duty family members

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

- Group 1 consists of noncatchment areas from the North TNEX region, 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 481strata (STRATUM), which can be uniquely specified using two variables: EBSMPL, the collapsed version of EBG_COM (enrollment status and beneficiary group), and CACSMPL (geographic area). The sampling frame contains these variables as well as other variables used in developing the final collapsed strata.

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

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Chapter
4

Sample Sizes

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

A. PRECISION REQUIREMENTS

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

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

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 a standard deviation of one, *V*(*p*) is the variance of the estimate, and HL is the half-length of the two-sided 95 percent confidence interval, or $HL = z_{0.975}\sqrt{V(p)}$.

For the QBS, precision requirements specified that the *HL* of the 95 percent confidence interval in (IV.1) for a given estimate should be less than or equal to a specified value. Because the maximum *HL* value occurs for *P* = 0.5, the precision requirements for the *HLs* were set for *P* values of 0.5. This helped to ensure that *HLs* for all estimates would be less than or equal to the specified values. Combining four quarters of the QBS should yield catchment-area-level estimates with precision levels of 5 percentage points. However, as response is not constant among catchment areas, final precision levels may vary among catchment areas. These precision requirements apply to the four noncatchment areas strata, as well.

B. RESPONSE RATES

After calculating the number of eligible respondents needed to achieve the precision requirements, we inflated the resulting sample sizes to account for survey nonresponse. Average response rates from the 2004 Adult HCSDB were used to approximate the expected QBS response rates.

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

C. SAMPLE SIZE COMPUTATION

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

The first step was allocating 20 eligible respondents to each stratum, which corresponds to a precision level of 22 percentage points. Next, we allocated the initial sample sizes needed to achieve the precision requirements for each catchment area. The precision levels for catchment areas are 10 percentage points for quarterly level estimates and 5 percentage points for annual estimates. Therefore, we needed values for stratum-level population size (POPSIZE) and domain-specific population size (DSUM1). The summation in the formula occurs over all strata within the domain *d* geographic areas. Input values needed to calculate sample size for domain *d* for (G.7) and (G.8) in Appendix G were:

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

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

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

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

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

Chapter
5

Selecting the Sample

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

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

A. PRN SELECTION PROCEDURE

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

1. Assignment of the Permanent Random Number

When we first implemented the PRN selection method for the 2001 HCSDB, each beneficiary in the sampling frame was permanently assigned a random number drawn independently from the uniform distribution on the interval (0,1). These PRNs, permanent for beneficiaries who stayed on the frame, were used for every subsequent sample selection. The frame has been updated for each quarter. Beneficiaries who became ineligible were removed from the list along with their PRNs. Beneficiaries who became eligible and were added to the frame will be assigned a unique PRN. Prior to selecting the sample for the 2005 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 2005, overlap among the four quarterly samples, as well as overlap with the 2004 HCSDB, had to be kept to a minimum. This was achieved by partitioning the sampling frame into four zones before drawing the first quarterly sample:

- Zone 1 for all beneficiaries with $0 \leq PRN < 0.25$.
- Zone 2 for all beneficiaries with $0.25 \leq PRN < 0.5$.

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

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

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

Using the stratum sample size n_h for each stratum (h = 1,…, 481), we used a PRN sample selection method. Sample selection was independent and essentially identical across sampling strata. The following describes the sample selection procedure for one stratum.

Recall that each zone was stratified according to the procedures outlined in Chapter III and that within each stratum, the PRNs are arranged in ascending order. The starting point for Zone 1, a_i, was equal to 0.03125 for quarter 1. This starting point was chosen to minimize the overlap with quarter 1, 2004. Therefore, for stratum h, the sample consists of the first n_h beneficiaries with a random number greater than 0.03125, 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 2003 and 2004 QBS Samples and the 2005 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 2005 and 2004 datasets. We did, however, have an overlap of 190 cases between quarter 1, 2005 and quarter 1, 2003. All of the beneficiaries who were sampled in both 2003 and 2005 are either active duty family members not enrolled in TRICARE, beneficiaries, or active duty. 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 which used differential probabilities of selection across strata. Established precision requirements determined the sample sizes. The sampling weights, which reflect these unequal sampling rates across strata, were defined as the inverse of the beneficiary's selection probability, or $BWT_{hi} = N_h/n_h$, where BWT_{hi} is the sampling weight for the i^{th} sampled beneficiary from the h^{th} stratum, N_h is the total number of beneficiaries in the h^{th} stratum, and n_h is the number of sampled beneficiaries from stratum h. The sum of the sampling weights over selections from the h^{th} stratum equals the total population size of the h^{th} stratum or N_h.

C. CHECKS FOR THE SELECTED SAMPLE

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

- The number of sampled records for each stratum (STRATUM)

- The weighted count of sampled records for STRATUM, where the weight is equal to BWT_h, where h = stratum

- The number of frame records for each stratum

- The number of sampled records for each branch of service (SVCCD)
- The weighted count of sampled records for SVCCD
- The number of frame records for SVCCD
- The frequency of sampled records for each enrollment beneficiary group (EBG_COM)
- The weighted count of sampled records for EBG_COM
- The number of frame records for EBG_COM

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

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

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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

Variable	Explanation
B.1.	Beneficiary's family sequence number
B.2.	Beneficiary's DEERS dependent suffix
B.3.	Age of beneficiary in years, representing the difference between the date-of-birth and the date of the reference date
B.4.	Beneficiary's date of birth
B.5.	Beneficiary's record type
B.6.	Beneficiary's marital status
B.7.	Beneficiary's race/ethnicity
B.8.	Beneficiary's sex
B.9.	Beneficiary's Medicare flag
B.10.	Beneficiary's primary care manager code
B.11.	Beneficiary's provider code
B.12.	Beneficiary's alternative care value
B.13.	Beneficiary's enrolled DMIS
B.14.	Beneficiary's first name
B.15.	Beneficiary's last name
B.16.	Beneficiary's generation
B.17.	Beneficiary's residential address - line 1
B.18.	Beneficiary's residential address - line 2
B.19.	Beneficiary's residential address - line 3
B.20.	Beneficiary's residential address – city
B.21.	Beneficiary's residential address – state
B.22.	Beneficiary's residential address – zip
B.23.	Beneficiary's residential address – zip extension
B.24.	Beneficiary's residential address flag - 0 if no res. Address available, 1 If there is a residential address
B.25.	Beneficiary's residence address—region
B.26.	Beneficiary's residence address - DMIS code
B.27.	Beneficiary's residence phone number
B.28.	Beneficiary Type coded as one of these four groups: (1) active duty; (2) active duty dependents; (3) Retirees and their dependents less than 65; or (4) Retirees and their dependents 65 and over
B.29.	Beneficiary's prime enrollment status as one of these three cases: (1) enrolled as a military Primary Care Organization such as hospital or clinic; (2) enrolled as a civilian Primary Care Organization; and (3) not enrolled
B.30.	Beneficiary's senior prime enrollment status coded as (1) Senior Prime enrollee; or (2) Nonenrollee
B.31.	Beneficiary's Catchment area from the consolidation of (i) the list of MTFs for Prime enrollees with military Primary Care Organization; (ii) the list of catchment areas for Prime enrollees with a civilian Primary Care Organization; and (iii) the list of service areas for non-enrollees
B.32.	Beneficiary's TRICARE region based on the constructed Catchment area assignment
B.33.	Beneficiary's TNEX region based on the newly defined TNEX organization
B.34.	Person/Patient ID
B.35.	Primary Record Identifier/Flag
S.1.	Sponsor's social security number
S.2.	Sponsor's duty status
S.3.	Sponsor' group code
S.4.	Sponsor's marital status

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

APPENDIX B

Q1 2005 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_FAC
MANAGED CARE CONTRACTOR	6917	MANAGED CARE CNTRCTR-REGION 17
	6918	MANAGED CARE CNTRCTR-REGION 18
	6919	MANAGED CARE CNTRCTR-REGION 19
INACTIVE	0002	NOBLE AHC-FT. MCCLELLAN
	0012	97th STRAT HOSP-EAKER
	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 CLEVELAND (LPD7)
	3051	USS DUBUQUE (LPD8)
	3052	USS DENVER (LPD9)
	3053	USS JUNEAU (LPD10)
	3054	USS SHREVEPORT (LPD12)
	3055	USS NASHVILLE (LPD13)
	3056	USS TREMTOM (LPD14)
	3057	USS PONCE (LPD15)
ADMINISTRATIVE PURPOSES	0000	
	1976	BMC CAMP MARGUARITA
	1977	BMC CAMP LAS FLORES
	1978	BMC CAMP LAS PULGAS
	1979	BMC CAMP HORNO
	1980	BMC CAMP SAN MATEO
	6301	OP FORCES-NH CAMP PENDLETON
	6302	OP FORCES-NH LEMOORE

	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	6303	OP FORCES-NMC SAN DIEGO
	6304	OP FORCES-NH TWENTY-NINE PALM
	6305	OP FORCES-NACC GROTON
	6306	OP FORCES-NH PENSACOLA
	6307	OP FORCES-NH JACKSONVILLE
	6308	OP FORCES-NH GREAT LAKES
	6309	OP FORCES-NNMC BETHESDA
	6310	OP FORCES-NMCL PAXTUXENT
	6311	OP FORCES-NH CAMP LEJEUNE
	6312	OP FORCES-NH CHERRY POINT
	6313	OP FORCES-NACC NEWPORT
	6314	OP FORCES-NH CHARLESTON
	6315	OP FORCES-NH BEAUFORT
	6316	OP FORCES-NH CORPUS CHRISTI
	6317	OP FORCES-NMC PORTSMOUTH
	6318	OP FORCES-NH BREMERTON
	6319	OP FORCES-NH OAK HARBOR
	6320	OP FORCES-NMCL PEARL HARBOR
	6321	OP FORCES-NMCL ANNAPOLIS
	6322	OP FORCES-NACC PORTSMOUTH
	6323	OP FORCES-NMCL QUANTICO
	6501	TRICARE SRVC AREA (PORTSMOUTH)
	6502	SAN ANTONIO SRVC AREA (LACKLAN
	6503	SAN FRANCISCO SRVC AREA (TRAVI
	6504	SOUTH CA SRVC AREA (SAN DIEGO)
	6505	COLORADO SRVC AREA (CARSON)
	6506	FT STEWART/BEAUFORT SRVC AREA
	6507	NORTH CAROLINA SERVICE AREA
	6508	SOUTH CAROLINA SERVICE AREA
	6509	DELAWARE VALLEY SRVC AREA
	6510	WASHINGTON SRVC AREA
	6511	HAWAII TRICARE CATCHMENT AREA
	6512	CALIFORNIA/HAWAII ENROLLMENT
	6700	TRICARE EUROPE-SEMBACH AB
	6701	ARAXOS
	6702	MEDICAL AID STATION GLONS
	6703	MED AID STATION KLEIN BROGEL
	6704	401 EABG/SG-TUZLA AB
	6705	525 EABS/SG-YUGOSLAVIA
	6706	AMERICAN FORCES ISTRES AB
	6707	MED AID STATION BUECHEL
	6708	MED AID STATION KALKAR
	6709	12 SWS/SG (AFSPC)-THULE AB
	6710	406 EABG/SG-TASZAR AB
	6711	31 MUNSS-GHEDI AB
	6712	426 ABS/SG-STAVENGER

	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	6713	763 EXP AS-MUSCAT
	6714	DET 4 18 SPSS (SPACECOM)-MORON
	6715	DET 2 45TH LG AFSPC-AA AIR FLD
	6716	USDAO SCOTLAND
	6717	21SW DET AFSPC-RAF FYLINGDALES
	6718	AFSPC UNIT-OAKHANGER
	6719	USDAO KABUL
	6720	USDAO TIRANA
	6721	USDAO ALGIERS
	6722	AM EMB ANDORRA
	6723	USDAO LUANDA
	6724	USDAO YEREVAN
	6725	USDAO VIENNA
	6726	USDAO BAKU
	6727	USDAO MINSK
	6728	USDAO BRUSSELS
	6729	USDAO BENIN-PORTO-NOVO
	6730	USDAO SARAJEVO
	6731	USODC GABORONE
	6732	USDAO SOFIA
	6733	USDAO OUAGADOUGOU
	6734	AM EMB BUJUMBURA
	6735	USDAO YAOUNDE
	6736	USDAO PRAIA
	6737	AM EMB BANGUI
	6738	USDAO N'DJAMENA
	6739	USDAO BRAZZAVILLE
	6740	USDAO ABIDJAN
	6741	USDAO ZAGREB
	6742	USDAO NICOSIA
	6743	USDAO PRAGUE
	6744	USDAO KINSHASA
	6745	USDAO COPENHAGEN
	6746	USDAO DJIBOUTI
	6747	USDAO CAIRO
	6748	USDAO MALABO
	6749	USDAO ASMARA
	6750	USDAO TALLINN
	6751	USDAO ADDIS ABABA
	6752	USDAO HELSINKI
	6753	USDAO PARIS
	6754	AM EMB LIBREVILLE
	6755	AM EMB BANJUL
	6756	USDAO TBILISI
	6757	USDAO BERLIN
	6758	USDAO ACCRA

	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	6759	USODC ATHENS
	6760	JOINT CMND S CENTRAL-LARISSA
	6761	USDAO CONAKRY
	6762	USDAO BISSAU
	6763	USDAO VATICAN CITY
	6764	USDAO BUDAPEST
	6765	USDAO REYKJAVIK
	6766	USDAO TEHRAN
	6767	USDAO BAGHDAD
	6768	USDAO DUBLIN
	6769	USDAO TEL AVIV
	6770	USODC ROME
	6771	USDAO AMMAN
	6772	AM EMB ALMATY
	6773	USDAO NAIROBI
	6774	USDLO KUWAIT CITY
	6775	USDAO BISHKEK
	6776	USDAO RIGA
	6777	USDAO BEIRUT
	6778	USDAO MASERU
	6779	USDAO MONROVIA
	6780	USDAO TRIPOLI
	6781	USDAO VADUZ
	6782	USDAO VILNIUS
	6783	USDAO LUXEMBOURG
	6784	USDAO CAMP ABLE SENTRY-SKOPJE
	6785	USDAO LILONGWE
	6786	USDAO BAMAKO
	6787	USDAO VALETTA
	6788	USDAO NOUAKCHOTT
	6789	USDAO CHISINAU
	6790	USDAO MONTE CARLO
	6791	USDAO RABAT
	6792	USDAO MAPUTO
	6793	USDAO WINDHOEK
	6794	USDAO THE HAGUE
	6795	AF RHEINDAHLEM
	6796	US AID STATION VOLKEL
	6797	AM EMB NIAMEY
	6798	USDAO LAGOS
	6799	USDAO OSLO
	6800	USDAO MUSCAT
	6801	USDAO ISLAMABAD
	6802	USDAO WARSAW
	6803	CINCSOUTHLAND-LISBON
	6804	USDAO LISBON

	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	6805	USDAO DOHA
	6806	USDAO BUCHAREST
	6807	USDAO MOSCOW
	6808	USDAO KIGALI
	6809	USDAO SAN MARINO
	6810	USDAO DAKAR
	6811	USDAO PRISTINA
	6812	USDAO VICTORIA
	6813	USDAO FREETOWN
	6814	USDAO BRATISLAVA
	6815	USDAO LJUBLJANA
	6816	USDAO MOGADISHU
	6817	USDAO PRETORIA
	6818	JOINT COMMND SOUTHWEST-GRANADA
	6819	USDAO MADRID
	6820	USDAO KHARTOUM
	6821	USDAO MBABANE
	6822	USDAO STOCKHOLM
	6823	USDAO BERN
	6824	US MSN SPL LSN DET-GENEVA
	6825	USDAO DAMASCUS
	6826	USDAO DUSHANBE
	6827	USDAO DAR ES SALAAM
	6828	USDAO LOME
	6829	USDAO TUNIS
	6830	USDAO TURKMENISTAN
	6831	USDAO ABU DHABI
	6832	USDAO KAMPALA
	6833	USDAO KIEV
	6834	USDAO TASHKENT
	6835	USDAO SANAA
	6836	USDAO LUSAKA
	6837	USDAO HARARE
	6838	MARINE SEC BATT NICOSIA
	6839	USOMC-CAIRO
	6840	US NAVAL FORCES-CAIRO
	6841	NAMRU
	6842	USMC GUARD-BREMERHAVEN
	6843	USMC SEC BATTALION JERUSALEM
	6844	USMC NAIROBI
	6845	USOMC KUWAIT
	6846	USMC ROTTERDAM
	6847	USOMC MUSCAT
	6848	USMC KARACHI
	6849	USMC LAHORE
	6850	USMC PESHAWAR

	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	6851	USMC KRAKOW
	6852	USMC ST PETERSBURG
	6853	USMC YEKATERINBURG
	6854	USMC SEC JEDDAH
	6855	USMC CAPETOWN
	6856	MARINE SEC GRD DET-GENEVA
	6857	US SUPPORT UNIT MANAMA
	6858	FAROE ISLAND
	6859	KARUP
	6860	BASSAS DA INDIA
	6861	ILE EUROPA
	6862	ST. PIERRE & MIQUELON
	6863	US DET BONN
	6864	KIGAH
	6865	BOUVET ISLAND
	6866	SVALBARD
	6867	P3 DET CMD MASIRAH ISLAND
	6868	PRINCE SULTAN AIR BASE
	6869	HOFUF
	6870	JUBAIL
	6871	KHAMIS
	6872	TABUK
	6873	RIYADAH
	6874	IZMIR
	6875	USMC ISTANBUL
	6876	UNITED ARAB EMIRATES
	6877	GIBRALTAR
	6878	GUERNSEY
	6879	ISLE OF MAN
	6880	JERSEY
	6881	ST. HELENA
	6991	ACTIVE DUTY ARMY
	6992	ACTIVE DUTY NAVY
	6993	ACTIVE DUTY USAF
	6994	ACTIVE DUTY NON-DOD
	7166	528th SPPT BAT (SPEC OP)-BRAGG
	7167	HQ-USASOC-FT. BRAGG
	7168	HQ-1st SFG (AIRBORNE)-LEWIS
	7169	1st SFG (1st BATTLION)-OKINAWA
	7170	1st SFG (2nd BATTALION)-LEWIS
	7171	1st SFG (3rd BATTALION)-LEWIS
	7172	HQ-3rd SFG (AIRBORNE)-BRAGG
	7173	3rd SFG (1st BATTALION)-BRAGG
	7174	3rd SFG (2nd BATTALION)-BRAGG
	7175	3rd SFG (3rd BATTALION)-BRAGG
	7176	HQ 5th SFG (AIRBORNE)-CAMPBELL

	DMIS_ID	DMIS_FAC
ADMINISTRATIVE PURPOSES, CONT.	7177	5th SFG (1st BATTALION)-CAMPBL
	7178	5th SFG (2nd BATTALION)-CAMPBL
	7179	5th SFG (3rd BATTALION)-CAMPBL
	7180	HQ 7th SFG (AIRBORNE)-BRAGG
	7181	7th SFG (1st BATTALION)-BRAGG
	7182	7th SFG (2nd BATTALION)-BRAGG
	7183	7th SFG (3rd BATTALION)-BRAGG
	7184	HQ 160th SPEC OPS AV REG-CAMPB
	7185	160th SOAR (1ST BATTLN)-CAMPBL
	7186	160th SOAR (2nd BATTLN)-CAMPBL
	7187	160th SOAR (3rd BATTLN)-STEWRT
	7188	HQ 75th RANGER REG-BENNING
	7189	75th RNGR REG (1st BATTLN)-STE
	7190	75th RNGR REG (2nd BATTLN)-LEW
	7191	75th RNGR REG (3rd BATTLN)-BEN
	7192	10th SFG (1st BATTLN)-STUTTGAR
	7193	10th SFG (2nd BATTLN)-CARSON
	7194	10th SFG (3rd BATTLN)-CARSON
	7195	HQ-USA SPL OP SPPT CMD SOSCOM

APPENDIX C

Q1 2005 TABLE FOR COLLAPSING RULES

Table C: Collapsing Rules for Geographic Areas (GEOCELL) for the 2005 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 2005 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	149	966	939	948	911	0.0657
0000102	68	540	553	519	527	0.0590
0000104	96	1,857	1,762	1,843	1,883	0.0439
0000301	113	1,113	1,114	1,111	1,065	0.0538
0000302	69	881	884	932	876	0.0492
0000304	38	990	1,001	990	1,034	0.0398
0000305	51	1,731	1,712	1,663	1,752	0.0385
0000306	28	1,572	1,489	1,627	1,628	0.0361
0000401	190	1,115	1,037	1,109	1,052	0.0655
0000402	80	745	754	747	756	0.0556
0000404	74	1,280	1,305	1,199	1,276	0.0450
0000501	288	3,246	3,201	3,223	3,299	0.0538
0000502	69	1,138	1,146	1,157	1,198	0.0458
0000504	38	569	514	534	542	0.0530
0000505	47	426	447	416	406	0.0595
0000601	157	2,049	2,109	1,989	2,038	0.0480
0000602	79	1,689	1,679	1,720	1,682	0.0461
0000604	43	1,737	1,688	1,624	1,650	0.0357
0000605	47	982	967	963	921	0.0437
0000606	28	748	752	757	779	0.0438
0000801	190	1,006	1,027	1,048	1,033	0.0790
0000802	75	715	664	646	660	0.0591
0000804	77	1,208	1,234	1,287	1,267	0.0432
0000901	114	2,001	2,066	2,099	2,062	0.0456
0000902	69	1,312	1,316	1,323	1,358	0.0445
0000903	79	361	308	356	377	0.0940
0000904	44	3,771	3,906	3,807	3,768	0.0338
0000905	56	3,928	3,949	3,974	3,841	0.0353
0000906	52	6,223	6,134	6,115	6,224	0.0335
0001001	201	1,896	1,959	1,963	1,886	0.0579
0001002	69	1,101	1,097	1,088	1,075	0.0515
0001004	61	1,754	1,697	1,762	1,813	0.0428
0001006	28	252	280	255	251	0.0686
0001401	209	5,857	5,800	5,673	5,870	0.0412
0001402	69	2,696	2,604	2,678	2,651	0.0382
0001403	79	386	422	370	426	0.0707
0001404	58	4,798	4,948	4,766	4,943	0.0345
0001405	51	3,492	3,429	3,423	3,384	0.0353
0001406	60	6,849	6,771	6,868	6,872	0.0337
0001901	267	2,405	2,499	2,435	2,448	0.0592

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0001902	81	1,229	1,289	1,208	1,201	0.0491
0001904	49	1,331	1,376	1,310	1,330	0.0397
0002401	297	8,733	8,723	8,727	8,813	0.0392
0002402	84	4,036	4,057	4,115	4,123	0.0354
0002403	79	737	720	718	779	0.0578
0002404	40	3,510	3,520	3,494	3,506	0.0340
0002405	47	3,325	3,251	3,267	3,245	0.0348
0002406	44	5,207	5,181	5,305	5,169	0.0337
0002601	200	634	639	647	648	0.1101
0002602	123	659	658	656	645	0.0837
0002604	47	490	451	451	408	0.0609
0002801	130	1,941	1,871	1,887	1,952	0.0474
0002802	69	1,280	1,224	1,256	1,232	0.0474
0002804	38	1,099	1,217	1,124	1,177	0.0388
0002805	47	791	802	754	772	0.0474
0002806	28	1,028	1,081	1,045	1,069	0.0375
0002901	311	15,731	15,565	15,360	15,501	0.0357
0002902	69	4,461	4,358	4,523	4,580	0.0355
0002903	80	1,455	1,472	1,455	1,529	0.0446
0002904	38	5,377	5,435	5,409	5,477	0.0332
0002905	54	6,470	6,527	6,410	6,565	0.0338
0002906	43	8,772	8,674	8,656	8,674	0.0325
0003001	225	3,035	2,951	2,946	2,914	0.0498
0003002	69	900	944	932	913	0.0489
0003004	38	612	638	660	606	0.0474
0003005	46	283	305	286	283	0.0793
0003006	28	710	679	671	664	0.0398
0003201	165	4,402	4,385	4,360	4,478	0.0408
0003202	69	2,059	2,008	2,040	1,990	0.0395
0003203	79	286	305	305	271	0.0974
0003204	38	2,400	2,413	2,416	2,478	0.0354
0003205	47	1,423	1,420	1,540	1,446	0.0382
0003206	28	1,849	1,995	1,897	1,921	0.0350
0003301	114	1,873	1,898	1,760	1,820	0.0487
0003302	69	1,039	987	1,023	1,024	0.0498
0003304	50	2,726	2,708	2,610	2,731	0.0359
0003305	51	2,197	2,144	2,228	2,194	0.0385
0003306	33	2,488	2,461	2,379	2,447	0.0348
0003701	184	4,444	4,391	4,357	4,460	0.0414
0003702	68	634	644	634	682	0.0572
0003703	79	546	600	512	547	0.0632
0003704	38	2,118	2,142	2,150	2,138	0.0359

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0003705	54	3,045	3,098	3,148	3,160	0.0351
0003706	39	3,848	3,857	3,815	3,872	0.0338
0003801	204	6,076	6,065	6,185	5,975	0.0397
0003802	69	2,144	2,108	2,181	2,241	0.0407
0003803	79	305	314	299	322	0.0999
0003804	40	3,561	3,528	3,658	3,545	0.0335
0003805	47	2,733	2,793	2,860	2,904	0.0354
0003806	30	3,635	3,598	3,561	3,567	0.0339
0003901	246	8,365	8,326	8,416	8,433	0.0378
0003902	69	3,589	3,532	3,658	3,609	0.0355
0003903	79	828	746	769	842	0.0550
0003904	57	5,871	5,845	5,737	6,059	0.0342
0003905	72	5,996	5,974	5,828	5,867	0.0349
0003906	35	4,822	5,028	5,044	4,779	0.0329
0004201	114	2,549	2,474	2,517	2,462	0.0413
0004202	69	1,473	1,489	1,535	1,476	0.0420
0004203	79	340	329	347	341	0.0909
0004204	39	2,896	2,886	2,837	2,798	0.0336
0004205	53	3,057	3,069	3,042	3,142	0.0349
0004206	32	3,183	3,150	3,173	3,218	0.0335
0004301	197	1,132	1,109	1,052	1,123	0.0749
0004302	68	630	584	586	628	0.0580
0004304	78	1,345	1,329	1,310	1,290	0.0445
0004501	139	4,104	4,077	4,162	4,062	0.0405
0004502	69	2,206	2,058	2,132	2,133	0.0397
0004503	79	356	347	377	388	0.0916
0004504	62	5,652	5,402	5,543	5,460	0.0338
0004505	68	4,836	4,928	4,744	4,739	0.0346
0004506	68	8,180	8,120	8,258	8,180	0.0335
0004601	113	619	700	648	646	0.0754
0004602	68	467	467	484	462	0.0654
0004604	79	1,758	1,709	1,727	1,722	0.0442
0004606	28	470	483	450	530	0.0420
0004701	196	4,726	4,652	4,729	4,789	0.0421
0004702	69	1,918	1,824	1,843	1,859	0.0406
0004704	53	3,790	3,867	3,884	3,783	0.0343
0004705	47	1,933	1,937	1,929	2,051	0.0365
0004706	28	2,295	2,252	2,232	2,316	0.0354
0004801	216	5,624	5,607	5,586	5,738	0.0409
0004802	69	1,791	1,817	1,756	1,816	0.0406
0004803	79	366	343	346	335	0.0812
0004804	38	2,460	2,507	2,453	2,453	0.0346

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0004805	47	2,037	1,954	1,980	1,920	0.0379
0004806	28	2,514	2,424	2,457	2,438	0.0345
0004901	249	6,989	6,961	6,794	6,905	0.0397
0004902	69	2,406	2,438	2,459	2,493	0.0391
0004903	79	513	480	533	489	0.0657
0004904	38	1,972	2,101	1,975	1,975	0.0357
0004905	47	1,704	1,756	1,665	1,691	0.0385
0004906	28	1,093	1,154	1,139	1,128	0.0377
0005101	231	1,599	1,603	1,663	1,564	0.0663
0005102	76	901	854	850	869	0.0535
0005104	64	1,333	1,403	1,310	1,285	0.0443
0005201	239	8,929	8,951	8,995	9,036	0.0378
0005202	69	2,582	2,645	2,567	2,641	0.0378
0005203	80	1,025	1,091	1,075	1,042	0.0484
0005204	38	1,300	1,328	1,306	1,328	0.0380
0005205	47	2,394	2,312	2,322	2,365	0.0355
0005206	28	2,977	2,989	2,992	2,960	0.0338
0005301	216	1,181	1,137	1,268	1,131	0.0780
0005302	68	599	570	566	598	0.0536
0005304	38	561	538	626	563	0.0520
0005305	47	416	430	446	406	0.0578
0005501	114	2,077	2,024	2,106	2,037	0.0470
0005502	69	1,282	1,269	1,258	1,279	0.0460
0005503	79	299	273	352	299	0.0951
0005504	42	2,673	2,597	2,655	2,689	0.0349
0005505	56	2,848	2,840	2,806	2,874	0.0361
0005506	28	2,341	2,360	2,413	2,367	0.0344
0005601	205	5,769	5,664	5,702	5,702	0.0405
0005602	69	1,022	1,022	1,064	1,074	0.0467
0005603	79	484	485	490	473	0.0721
0005604	38	1,129	1,155	1,145	1,091	0.0403
0005605	47	2,579	2,481	2,515	2,601	0.0362
0005606	28	2,033	1,990	2,114	2,014	0.0339
0005701	246	3,497	3,665	3,584	3,470	0.0488
0005702	69	1,548	1,546	1,545	1,509	0.0431
0005704	38	956	924	973	928	0.0411
0005705	47	706	635	675	684	0.0524
0005706	28	517	531	556	578	0.0460
0005801	223	1,951	2,063	2,004	2,092	0.0602
0005802	84	1,201	1,273	1,288	1,271	0.0497
0005804	62	1,647	1,709	1,659	1,746	0.0409
0006001	237	6,699	6,582	6,630	6,714	0.0390

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0006002	70	3,192	3,183	3,303	3,259	0.0369
0006003	79	455	466	483	495	0.0726
0006004	38	2,327	2,353	2,330	2,325	0.0352
0006005	47	1,977	1,883	1,944	1,958	0.0366
0006006	28	1,395	1,315	1,320	1,295	0.0350
0006101	171	4,372	4,259	4,359	4,457	0.0417
0006102	69	1,114	1,134	1,152	1,148	0.0486
0006103	79	293	266	275	295	0.0954
0006104	38	2,149	2,058	2,053	2,117	0.0358
0006105	47	2,483	2,505	2,378	2,467	0.0363
0006106	28	2,235	2,209	2,097	2,183	0.0345
0006201	262	1,570	1,561	1,584	1,581	0.0724
0006202	79	751	756	841	789	0.0598
0006204	51	969	946	892	896	0.0437
0006401	194	2,449	2,576	2,535	2,495	0.0505
0006402	69	1,275	1,219	1,135	1,207	0.0450
0006404	38	878	834	787	869	0.0408
0006405	47	412	423	414	459	0.0628
0006406	28	568	519	555	546	0.0447
0006601	195	6,711	6,847	6,632	6,723	0.0381
0006602	69	3,129	3,068	3,061	3,071	0.0370
0006603	79	404	478	406	425	0.0768
0006604	42	4,342	4,380	4,273	4,371	0.0336
0006605	47	3,229	3,320	3,250	3,236	0.0347
0006606	28	2,971	3,141	3,159	3,109	0.0335
0006701	193	6,410	6,366	6,418	6,581	0.0382
0006702	69	1,580	1,591	1,628	1,590	0.0428
0006703	79	633	611	619	659	0.0610
0006704	38	2,978	3,011	3,055	3,065	0.0349
0006705	53	4,283	4,270	4,249	4,254	0.0349
0006706	32	4,380	4,335	4,365	4,432	0.0332
0006801	237	897	893	841	852	0.0928
0006802	81	473	502	487	512	0.0729
0006804	58	637	631	613	667	0.0526
0006901	260	4,513	4,577	4,548	4,488	0.0453
0006902	73	2,043	2,160	2,139	2,080	0.0389
0006904	53	2,819	2,796	2,839	2,764	0.0369
0006906	28	705	698	694	697	0.0381
0007301	166	3,534	3,551	3,663	3,602	0.0425
0007302	69	1,190	1,212	1,262	1,244	0.0448
0007303	79	263	241	251	322	0.1034
0007304	38	2,219	2,212	2,191	2,243	0.0350

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0007305	47	1,453	1,459	1,408	1,402	0.0400
0007306	28	2,450	2,405	2,449	2,385	0.0343
0007501	185	2,902	2,937	2,714	2,806	0.0464
0007502	69	1,010	1,022	1,041	1,054	0.0485
0007504	38	1,359	1,349	1,267	1,307	0.0368
0007505	47	512	487	497	546	0.0549
0007506	28	698	765	698	719	0.0433
0007801	140	3,312	3,417	3,314	3,286	0.0434
0007802	69	1,935	1,868	1,908	1,907	0.0393
0007803	78	251	268	237	293	0.1072
0007804	42	2,946	2,960	2,991	3,037	0.0347
0007805	47	1,932	1,862	1,958	1,963	0.0368
0007806	28	1,716	1,684	1,687	1,720	0.0342
0007901	114	2,267	2,355	2,306	2,325	0.0426
0007902	69	1,566	1,641	1,507	1,715	0.0403
0007904	48	3,355	3,348	3,519	3,247	0.0347
0007905	66	3,844	3,730	3,703	3,742	0.0355
0007906	40	3,838	3,835	3,790	3,856	0.0341
0008301	213	2,091	2,154	2,164	2,184	0.0554
0008302	76	1,262	1,300	1,254	1,234	0.0446
0008304	70	2,179	2,074	2,099	2,147	0.0384
0008601	203	4,087	4,234	4,404	4,305	0.0445
0008602	68	722	730	726	704	0.0517
0008603	79	476	488	476	462	0.0735
0008604	38	811	820	829	809	0.0407
0008605	47	1,623	1,519	1,514	1,604	0.0388
0008606	28	2,024	2,045	2,069	2,122	0.0343
0008901	339	12,935	13,114	13,222	12,955	0.0378
0008902	92	5,924	5,896	5,753	5,868	0.0348
0008903	80	1,124	1,110	1,088	1,074	0.0491
0008904	38	4,391	4,272	4,318	4,364	0.0336
0008905	52	4,918	4,792	4,902	4,704	0.0341
0008906	28	3,371	3,580	3,565	3,633	0.0335
0009101	293	9,377	9,522	9,718	9,467	0.0391
0009102	69	3,167	3,256	3,177	3,246	0.0374
0009103	79	563	541	562	518	0.0662
0009104	38	1,675	1,672	1,710	1,664	0.0373
0009105	47	1,690	1,667	1,686	1,631	0.0383
0009106	28	1,111	1,142	1,080	1,056	0.0365
0009201	143	2,168	2,166	2,117	2,051	0.0487
0009202	69	1,225	1,265	1,194	1,165	0.0465
0009204	38	867	784	885	912	0.0418

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0009205	47	870	866	903	872	0.0455
0009206	28	862	904	886	919	0.0390
0009501	114	2,177	2,111	2,110	2,108	0.0447
0009502	69	1,233	1,196	1,132	1,162	0.0443
0009503	79	317	319	369	313	0.0923
0009504	48	3,155	3,120	3,052	3,104	0.0346
0009505	47	2,225	2,213	2,283	2,260	0.0362
0009506	30	2,602	2,684	2,535	2,555	0.0331
0009601	297	3,783	3,696	3,786	3,782	0.0505
0009602	76	1,575	1,596	1,598	1,575	0.0436
0009604	61	2,366	2,293	2,354	2,308	0.0381
0009801	195	3,847	3,712	3,714	3,810	0.0437
0009802	69	1,924	1,947	1,988	2,048	0.0404
0009804	38	1,933	1,903	1,963	1,987	0.0361
0009805	47	1,028	999	1,008	954	0.0442
0009806	28	1,305	1,314	1,367	1,375	0.0364
0010101	260	1,513	1,444	1,471	1,453	0.0725
0010102	75	721	705	708	671	0.0552
0010104	54	934	878	924	931	0.0451
0010301	150	3,760	3,705	3,610	3,692	0.0416
0010302	69	1,330	1,276	1,273	1,280	0.0457
0010303	79	359	388	375	392	0.0994
0010304	38	2,321	2,332	2,410	2,258	0.0351
0010305	49	2,845	2,895	2,918	2,968	0.0355
0010306	28	2,593	2,551	2,593	2,629	0.0340
0010401	204	3,114	3,062	3,032	3,074	0.0471
0010402	69	919	920	852	899	0.0530
0010404	38	550	568	561	587	0.0510
0010405	47	652	613	612	629	0.0462
0010406	28	865	844	893	886	0.0387
0010501	130	2,804	2,835	2,699	2,690	0.0441
0010502	69	930	878	920	879	0.0511
0010503	79	375	374	388	363	0.0841
0010504	38	2,198	2,297	2,271	2,263	0.0352
0010505	49	2,537	2,538	2,490	2,587	0.0357
0010506	35	2,985	2,981	3,026	3,016	0.0340
0010801	201	4,594	4,700	4,731	4,569	0.0431
0010802	69	2,250	2,120	2,219	2,217	0.0402
0010803	79	260	279	283	307	0.1022
0010804	42	2,958	2,933	2,912	2,924	0.0346
0010805	47	1,547	1,552	1,530	1,561	0.0382
0010806	29	2,675	2,728	2,669	2,675	0.0334

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0010901	114	2,420	2,484	2,405	2,371	0.0418
0010902	69	1,483	1,535	1,471	1,494	0.0421
0010903	79	367	394	417	387	0.0784
0010904	54	4,677	4,757	4,831	4,802	0.0339
0010905	47	2,711	2,767	2,823	2,778	0.0355
0010906	46	5,467	5,593	5,491	5,389	0.0333
0011001	393	14,189	14,243	14,128	14,143	0.0387
0011002	84	5,038	5,068	4,913	5,021	0.0350
0011003	79	653	735	732	691	0.0637
0011004	39	4,195	4,182	4,288	4,212	0.0337
0011005	47	3,026	3,024	3,130	2,955	0.0344
0011006	28	2,451	2,361	2,440	2,422	0.0342
0011201	264	1,951	1,925	1,903	1,877	0.0652
0011202	80	940	973	955	974	0.0515
0011204	50	1,090	1,065	1,097	1,081	0.0402
0011301	176	2,342	2,314	2,218	2,241	0.0519
0011302	69	788	763	778	790	0.0507
0011304	38	762	809	848	816	0.0434
0011305	47	438	428	472	486	0.0605
0011306	28	853	833	830	894	0.0391
0011701	186	5,933	5,828	5,918	5,834	0.0388
0011702	69	2,247	2,220	2,257	2,189	0.0383
0011704	52	4,872	4,997	4,859	4,857	0.0339
0011705	47	1,932	1,865	1,879	1,883	0.0373
0011706	36	4,534	4,703	4,553	4,607	0.0337
0011801	245	1,673	1,656	1,699	1,639	0.0644
0011802	80	890	862	897	933	0.0521
0011804	57	1,123	1,196	1,124	1,192	0.0432
0011901	250	2,589	2,477	2,505	2,536	0.0553
0011902	80	1,285	1,320	1,305	1,409	0.0453
0011904	55	1,640	1,621	1,729	1,681	0.0405
0012001	163	4,743	4,730	4,760	4,737	0.0404
0012002	69	2,316	2,292	2,402	2,344	0.0384
0012003	79	316	309	295	305	0.0840
0012004	38	2,584	2,514	2,482	2,524	0.0351
0012005	47	2,221	2,210	2,134	2,222	0.0371
0012006	28	1,597	1,520	1,592	1,576	0.0363
0012101	114	2,327	2,345	2,242	2,307	0.0436
0012102	69	1,537	1,557	1,515	1,574	0.0412
0012103	79	360	455	430	418	0.0889
0012104	38	2,059	2,072	2,064	2,024	0.0358
0012105	51	2,555	2,543	2,557	2,523	0.0365

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0012106	28	1,949	1,986	2,022	2,047	0.0344
0012201	194	869	939	878	899	0.0917
0012202	78	611	600	597	552	0.0649
0012204	74	1,038	1,012	1,028	1,034	0.0490
0012301	114	3,433	3,455	3,474	3,379	0.0395
0012302	69	3,635	3,575	3,519	3,645	0.0367
0012303	79	876	864	828	942	0.0559
0012304	75	7,097	7,099	7,118	7,042	0.0342
0012305	93	6,983	7,118	6,982	7,292	0.0345
0012306	40	5,201	5,149	5,056	5,156	0.0329
0012401	258	13,465	13,245	13,244	13,289	0.0356
0012402	69	4,865	4,834	4,981	4,860	0.0345
0012403	80	2,867	2,813	2,845	2,819	0.0387
0012404	38	4,626	4,487	4,530	4,467	0.0326
0012405	86	10,801	10,739	10,747	10,652	0.0334
0012406	30	6,235	6,104	6,174	6,273	0.0324
0012501	274	9,960	10,005	10,143	9,943	0.0380
0012502	69	3,547	3,656	3,607	3,672	0.0377
0012503	79	778	818	802	800	0.0553
0012504	56	6,096	6,143	6,160	5,993	0.0334
0012505	52	4,640	4,635	4,532	4,544	0.0331
0012506	42	6,204	6,237	6,248	6,469	0.0326
0012601	157	3,506	3,311	3,346	3,367	0.0420
0012602	69	2,131	2,164	2,101	2,128	0.0402
0012603	79	271	283	286	299	0.0960
0012604	38	2,528	2,520	2,454	2,405	0.0353
0012605	47	1,439	1,402	1,419	1,454	0.0372
0012606	28	1,351	1,357	1,415	1,462	0.0362
0012701	165	2,131	2,141	2,222	2,196	0.0491
0012702	69	1,074	1,069	1,095	1,078	0.0442
0012704	38	861	901	932	970	0.0392
0012705	47	515	555	522	521	0.0499
0012706	28	728	675	639	722	0.0389
0012801	208	1,060	993	987	979	0.0815
0012802	68	512	501	512	501	0.0633
0012804	75	1,105	1,092	1,064	1,081	0.0487
0012901	341	4,683	4,852	4,723	4,650	0.0488
0012902	86	1,990	1,956	1,962	1,941	0.0446
0012904	41	1,744	1,717	1,734	1,692	0.0370
0013101	285	1,297	1,369	1,244	1,346	0.0867
0013102	89	686	677	668	676	0.0658
0013105	47	460	527	532	576	0.0597

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0023101	331	1,320	1,272	1,379	1,365	0.0987
0023102	70	451	462	475	469	0.0776
0023104	37	281	276	274	301	0.0744
0025201	232	1,675	1,714	1,669	1,588	0.0660
0025202	75	903	841	881	899	0.0555
0025204	63	1,409	1,385	1,373	1,300	0.0428
0028001	228	2,116	2,079	2,016	2,049	0.0579
0028002	134	2,057	2,041	1,994	1,948	0.0473
0028004	38	639	637	619	633	0.0451
0032101	319	1,125	1,122	1,109	1,166	0.1027
0032102	68	402	354	388	382	0.0770
0032104	37	355	410	354	379	0.0568
0033001	381	4,503	4,492	4,382	4,412	0.0519
0033002	69	1,227	1,203	1,256	1,231	0.0472
0033004	37	368	319	375	357	0.0571
0036601	155	1,163	1,196	1,193	1,213	0.0664
0036602	69	796	809	830	860	0.0532
0036604	93	2,186	2,152	2,185	2,110	0.0415
0037801	165	1,004	1,025	1,082	1,053	0.0699
0037802	128	1,379	1,345	1,316	1,305	0.0542
0037804	56	1,089	1,045	1,041	1,106	0.0454
0038501	256	2,239	2,096	2,108	2,153	0.0591
0038502	90	1,244	1,256	1,217	1,277	0.0476
0038504	47	1,182	1,222	1,154	1,206	0.0408
0038701	311	2,308	2,285	2,220	2,306	0.0631
0038702	77	975	945	954	859	0.0499
0038704	38	639	683	632	655	0.0420
0040501	200	771	822	798	766	0.0956
0040502	135	865	848	919	900	0.0666
0040504	40	498	467	494	450	0.0519
0040701	181	710	730	710	701	0.0953
0040702	87	543	567	570	567	0.0744
0040704	41	457	494	503	494	0.0527
0040706	28	229	271	274	290	0.0737
0050801	446	3,341	3,239	3,282	3,243	0.0629
0050802	68	542	559	525	534	0.0611
0060601	324	5,857	5,628	5,773	5,837	0.0465
0060602	87	2,523	2,599	2,585	2,534	0.0408
0060604	38	726	702	684	695	0.0471
0060605	47	784	719	758	772	0.0430
0060701	312	5,346	5,384	5,144	5,335	0.0438
0060702	69	1,866	1,830	1,836	1,911	0.0398

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0060703	79	470	503	476	466	0.0729
0060704	38	693	693	680	639	0.0442
0060705	47	543	567	557	531	0.0529
0060901	376	7,117	7,167	7,119	7,113	0.0450
0060902	86	2,665	2,716	2,736	2,635	0.0389
0060903	78	252	262	243	295	0.1146
0060905	47	727	666	659	673	0.0483
0061201	483	8,781	8,988	8,803	8,887	0.0455
0061202	68	683	743	703	680	0.0562
0061205	47	605	569	620	621	0.0497
0061701	358	4,332	4,362	4,313	4,414	0.0518
0061702	80	1,568	1,664	1,578	1,586	0.0437
0061705	47	397	424	407	406	0.0581
0062001	216	1,891	1,935	1,934	1,853	0.0599
0062002	69	906	871	927	933	0.0501
0062004	37	287	289	272	295	0.0540
0062005	47	616	603	602	598	0.0508
0062006	28	211	244	267	299	0.0664
0062101	429	4,728	4,862	4,827	4,813	0.0532
0062102	72	1,338	1,301	1,345	1,292	0.0461
0062201	391	5,116	5,070	5,225	5,110	0.0496
0062202	69	1,352	1,420	1,469	1,398	0.0432
0062204	37	328	350	303	269	0.0566
0063301	305	2,889	2,862	2,974	2,979	0.0587
0063302	86	1,354	1,357	1,381	1,350	0.0468
0063305	47	687	703	705	702	0.0506
0064001	318	4,611	4,686	4,661	4,660	0.0479
0064002	69	895	896	920	927	0.0513
0064003	79	428	444	417	423	0.0716
0064005	47	654	682	650	694	0.0522
0080401	347	1,923	1,956	1,981	2,003	0.0758
0080402	120	1,187	1,106	1,099	1,107	0.0571
0080601	326	3,380	3,302	3,255	3,342	0.0549
0080602	94	1,549	1,587	1,662	1,536	0.0443
0080604	37	410	378	385	408	0.0551
0621502	128	985	1,009	987	1,024	0.0674
0621504	110	1,526	1,561	1,613	1,608	0.0504
0622301	355	4,082	3,993	4,030	4,017	0.0545
0622302	83	1,579	1,559	1,558	1,563	0.0450
0622304	38	1,329	1,336	1,245	1,286	0.0398
0990101	294	20,515	20,393	20,586	20,436	0.0349
0990102	84	9,602	9,669	9,665	9,604	0.0332

STRATUM	SAMPLE SIZE (Quarter 1 only)	FRAME				MAXIMUM PRN (Zone 1 only)
		ZONE1	ZONE2	ZONE3	ZONE4	
0990103	231	12,291	12,492	12,514	12,502	0.0365
0990104	85	17,803	18,031	17,956	17,928	0.0325
0990105	561	94,669	95,152	94,590	95,611	0.0328
0990106	293	83,739	83,993	83,791	84,150	0.0322
0990201	190	14,226	14,334	14,289	14,353	0.0345
0990202	84	10,514	10,546	10,354	10,346	0.0332
0990203	188	10,185	10,152	10,094	10,031	0.0358
0990204	142	32,649	32,170	32,408	32,199	0.0323
0990205	488	89,282	89,384	89,316	89,659	0.0326
0990206	330	102,347	102,314	102,474	102,649	0.0320
0990301	251	14,507	14,677	14,382	14,408	0.0356
0990302	85	8,108	8,194	8,080	8,101	0.0338
0990303	153	8,242	8,154	8,412	8,154	0.0355
0990304	91	15,907	15,769	15,989	15,929	0.0328
0990305	507	71,234	71,212	71,356	70,868	0.0331
0990306	338	80,228	80,005	80,421	80,249	0.0323
0990401	722	8,343	8,282	8,315	8,186	0.0538
0990402	69	968	957	969	900	0.0514
0990403	120	1,910	2,058	1,936	1,919	0.0485
0990405	571	15,918	15,785	15,921	15,975	0.0396
0990406	252	11,826	11,987	12,002	11,788	0.0368

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

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0000101	149	3,764	3,764
0000102	68	2,139	2,139
0000104	96	7,345	7,345
0000301	113	4,403	4,403
0000302	69	3,573	3,573
0000304	38	4,015	4,015
0000305	51	6,858	6,858
0000306	28	6,316	6,316
0000401	190	4,313	4,313
0000402	80	3,002	3,002
0000404	74	5,060	5,060
0000501	288	12,969	12,969
0000502	69	4,639	4,639
0000504	38	2,159	2,159
0000505	47	1,695	1,695
0000601	157	8,185	8,185
0000602	79	6,770	6,770
0000604	43	6,699	6,699
0000605	47	3,833	3,833
0000606	28	3,036	3,036
0000801	190	4,114	4,114
0000802	75	2,685	2,685
0000804	77	4,996	4,996
0000901	114	8,228	8,228
0000902	69	5,309	5,309
0000903	79	1,402	1,402
0000904	44	15,252	15,252
0000905	56	15,692	15,692
0000906	52	24,696	24,696
0001001	201	7,704	7,704
0001002	69	4,361	4,361
0001004	61	7,026	7,026
0001006	28	1,038	1,038
0001401	209	23,200	23,200
0001402	69	10,629	10,629
0001403	79	1,604	1,604
0001404	58	19,455	19,455
0001405	51	13,728	13,728
0001406	60	27,360	27,360
0001901	267	9,787	9,787
0001902	81	4,927	4,927

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0001904	49	5,347	5,347
0002401	297	34,996	34,996
0002402	84	16,331	16,331
0002403	79	2,954	2,954
0002404	40	14,030	14,030
0002405	47	13,088	13,088
0002406	44	20,862	20,862
0002601	200	2,568	2,568
0002602	123	2,618	2,618
0002604	47	1,800	1,800
0002801	130	7,651	7,651
0002802	69	4,992	4,992
0002804	38	4,617	4,617
0002805	47	3,119	3,119
0002806	28	4,223	4,223
0002901	311	62,157	62,157
0002902	69	17,922	17,922
0002903	80	5,911	5,911
0002904	38	21,698	21,698
0002905	54	25,972	25,972
0002906	43	34,776	34,776
0003001	225	11,846	11,846
0003002	69	3,689	3,689
0003004	38	2,516	2,516
0003005	46	1,157	1,157
0003006	28	2,724	2,724
0003201	165	17,625	17,625
0003202	69	8,097	8,097
0003203	79	1,167	1,167
0003204	38	9,707	9,707
0003205	47	5,829	5,829
0003206	28	7,662	7,662
0003301	114	7,351	7,351
0003302	69	4,073	4,073
0003304	50	10,775	10,775
0003305	51	8,763	8,763
0003306	33	9,775	9,775
0003701	184	17,652	17,652
0003702	68	2,594	2,594
0003703	79	2,205	2,205
0003704	38	8,548	8,548
0003705	54	12,451	12,451
0003706	39	15,392	15,392
0003801	204	24,301	24,301

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0003802	69	8,674	8,674
0003803	79	1,240	1,240
0003804	40	14,292	14,292
0003805	47	11,290	11,290
0003806	30	14,361	14,361
0003901	246	33,540	33,540
0003902	69	14,388	14,388
0003903	79	3,185	3,185
0003904	57	23,512	23,512
0003905	72	23,665	23,665
0003906	35	19,673	19,673
0004201	114	10,002	10,002
0004202	69	5,973	5,973
0004203	79	1,357	1,357
0004204	39	11,417	11,417
0004205	53	12,310	12,310
0004206	32	12,724	12,724
0004301	197	4,416	4,416
0004302	68	2,428	2,428
0004304	78	5,274	5,274
0004501	139	16,405	16,405
0004502	69	8,529	8,529
0004503	79	1,468	1,468
0004504	62	22,057	22,057
0004505	68	19,247	19,247
0004506	68	32,738	32,738
0004601	113	2,613	2,613
0004602	68	1,880	1,880
0004604	79	6,916	6,916
0004606	28	1,933	1,933
0004701	196	18,896	18,896
0004702	69	7,444	7,444
0004704	53	15,324	15,324
0004705	47	7,850	7,850
0004706	28	9,095	9,095
0004801	216	22,555	22,555
0004802	69	7,180	7,180
0004803	79	1,390	1,390
0004804	38	9,873	9,873
0004805	47	7,891	7,891
0004806	28	9,833	9,833
0004901	249	27,649	27,649
0004902	69	9,796	9,796
0004903	79	2,015	2,015

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0004904	38	8,023	8,023
0004905	47	6,816	6,816
0004906	28	4,514	4,514
0005101	231	6,429	6,429
0005102	76	3,474	3,474
0005104	64	5,331	5,331
0005201	239	35,911	35,911
0005202	69	10,435	10,435
0005203	80	4,233	4,233
0005204	38	5,262	5,262
0005205	47	9,393	9,393
0005206	28	11,918	11,918
0005301	216	4,717	4,717
0005302	68	2,333	2,333
0005304	38	2,288	2,288
0005305	47	1,698	1,698
0005501	114	8,244	8,244
0005502	69	5,088	5,088
0005503	79	1,223	1,223
0005504	42	10,614	10,614
0005505	56	11,368	11,368
0005506	28	9,481	9,481
0005601	205	22,837	22,837
0005602	69	4,182	4,182
0005603	79	1,932	1,932
0005604	38	4,520	4,520
0005605	47	10,176	10,176
0005606	28	8,151	8,151
0005701	246	14,216	14,216
0005702	69	6,148	6,148
0005704	38	3,781	3,781
0005705	47	2,700	2,700
0005706	28	2,182	2,182
0005801	223	8,110	8,110
0005802	84	5,033	5,033
0005804	62	6,761	6,761
0006001	237	26,625	26,625
0006002	70	12,937	12,937
0006003	79	1,899	1,899
0006004	38	9,335	9,335
0006005	47	7,762	7,762
0006006	28	5,325	5,325
0006101	171	17,447	17,447
0006102	69	4,548	4,548

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0006103	79	1,129	1,129
0006104	38	8,377	8,377
0006105	47	9,833	9,833
0006106	28	8,724	8,724
0006201	262	6,296	6,296
0006202	79	3,137	3,137
0006204	51	3,703	3,703
0006401	194	10,055	10,055
0006402	69	4,836	4,836
0006404	38	3,368	3,368
0006405	47	1,708	1,708
0006406	28	2,188	2,188
0006601	195	26,913	26,913
0006602	69	12,329	12,329
0006603	79	1,713	1,713
0006604	42	17,366	17,366
0006605	47	13,035	13,035
0006606	28	12,380	12,380
0006701	193	25,775	25,775
0006702	69	6,389	6,389
0006703	79	2,522	2,522
0006704	38	12,109	12,109
0006705	53	17,056	17,056
0006706	32	17,512	17,512
0006801	237	3,483	3,483
0006802	81	1,974	1,974
0006804	58	2,548	2,548
0006901	260	18,126	18,126
0006902	73	8,422	8,422
0006904	53	11,218	11,218
0006906	28	2,794	2,794
0007301	166	14,350	14,350
0007302	69	4,908	4,908
0007303	79	1,077	1,077
0007304	38	8,865	8,865
0007305	47	5,722	5,722
0007306	28	9,689	9,689
0007501	185	11,359	11,359
0007502	69	4,127	4,127
0007504	38	5,282	5,282
0007505	47	2,042	2,042
0007506	28	2,880	2,880
0007801	140	13,329	13,329
0007802	69	7,618	7,618

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0007803	78	1,049	1,049
0007804	42	11,934	11,934
0007805	47	7,715	7,715
0007806	28	6,807	6,807
0007901	114	9,253	9,253
0007902	69	6,429	6,429
0007904	48	13,469	13,469
0007905	66	15,019	15,019
0007906	40	15,319	15,319
0008301	213	8,593	8,593
0008302	76	5,050	5,050
0008304	70	8,499	8,499
0008601	203	17,030	17,030
0008602	68	2,882	2,882
0008603	79	1,902	1,902
0008604	38	3,269	3,269
0008605	47	6,260	6,260
0008606	28	8,260	8,260
0008901	339	52,226	52,226
0008902	92	23,441	23,441
0008903	80	4,396	4,396
0008904	38	17,345	17,345
0008905	52	19,316	19,316
0008906	28	14,149	14,149
0009101	293	38,084	38,084
0009102	69	12,846	12,846
0009103	79	2,184	2,184
0009104	38	6,721	6,721
0009105	47	6,674	6,674
0009106	28	4,389	4,389
0009201	143	8,502	8,502
0009202	69	4,849	4,849
0009204	38	3,448	3,448
0009205	47	3,511	3,511
0009206	28	3,571	3,571
0009501	114	8,506	8,506
0009502	69	4,723	4,723
0009503	79	1,318	1,318
0009504	48	12,431	12,431
0009505	47	8,981	8,981
0009506	30	10,376	10,376
0009601	297	15,047	15,047
0009602	76	6,344	6,344
0009604	61	9,321	9,321

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0009801	195	15,083	15,083
0009802	69	7,907	7,907
0009804	38	7,786	7,786
0009805	47	3,989	3,989
0009806	28	5,361	5,361
0010101	260	5,881	5,881
0010102	75	2,805	2,805
0010104	54	3,667	3,667
0010301	150	14,767	14,767
0010302	69	5,159	5,159
0010303	79	1,514	1,514
0010304	38	9,321	9,321
0010305	49	11,626	11,626
0010306	28	10,366	10,366
0010401	204	12,282	12,282
0010402	69	3,590	3,590
0010404	38	2,266	2,266
0010405	47	2,506	2,506
0010406	28	3,488	3,488
0010501	130	11,028	11,028
0010502	69	3,607	3,607
0010503	79	1,500	1,500
0010504	38	9,029	9,029
0010505	49	10,152	10,152
0010506	35	12,008	12,008
0010801	201	18,594	18,594
0010802	69	8,806	8,806
0010803	79	1,129	1,129
0010804	42	11,727	11,727
0010805	47	6,190	6,190
0010806	29	10,747	10,747
0010901	114	9,680	9,680
0010902	69	5,983	5,983
0010903	79	1,565	1,565
0010904	54	19,067	19,067
0010905	47	11,079	11,079
0010906	46	21,940	21,940
0011001	393	56,703	56,703
0011002	84	20,040	20,040
0011003	79	2,811	2,811
0011004	39	16,877	16,877
0011005	47	12,135	12,135
0011006	28	9,674	9,674
0011201	264	7,656	7,656

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0011202	80	3,842	3,842
0011204	50	4,333	4,333
0011301	176	9,115	9,115
0011302	69	3,119	3,119
0011304	38	3,235	3,235
0011305	47	1,824	1,824
0011306	28	3,410	3,410
0011701	186	23,513	23,513
0011702	69	8,913	8,913
0011704	52	19,585	19,585
0011705	47	7,559	7,559
0011706	36	18,397	18,397
0011801	245	6,667	6,667
0011802	80	3,582	3,582
0011804	57	4,635	4,635
0011901	250	10,107	10,107
0011902	80	5,319	5,319
0011904	55	6,671	6,671
0012001	163	18,970	18,970
0012002	69	9,354	9,354
0012003	79	1,225	1,225
0012004	38	10,104	10,104
0012005	47	8,787	8,787
0012006	28	6,285	6,285
0012101	114	9,221	9,221
0012102	69	6,183	6,183
0012103	79	1,663	1,663
0012104	38	8,219	8,219
0012105	51	10,178	10,178
0012106	28	8,004	8,004
0012201	194	3,585	3,585
0012202	78	2,360	2,360
0012204	74	4,112	4,112
0012301	114	13,741	13,741
0012302	69	14,374	14,374
0012303	79	3,510	3,510
0012304	75	28,356	28,356
0012305	93	28,375	28,375
0012306	40	20,562	20,562
0012401	258	53,243	53,243
0012402	69	19,540	19,540
0012403	80	11,344	11,344
0012404	38	18,110	18,110
0012405	86	42,939	42,939

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0012406	30	24,786	24,786
0012501	274	40,051	40,051
0012502	69	14,482	14,482
0012503	79	3,198	3,198
0012504	56	24,392	24,392
0012505	52	18,351	18,351
0012506	42	25,158	25,158
0012601	157	13,530	13,530
0012602	69	8,524	8,524
0012603	79	1,139	1,139
0012604	38	9,907	9,907
0012605	47	5,714	5,714
0012606	28	5,585	5,585
0012701	165	8,690	8,690
0012702	69	4,316	4,316
0012704	38	3,664	3,664
0012705	47	2,113	2,113
0012706	28	2,764	2,764
0012801	208	4,019	4,019
0012802	68	2,026	2,026
0012804	75	4,342	4,342
0012901	341	18,908	18,908
0012902	86	7,849	7,849
0012904	41	6,887	6,887
0013101	285	5,256	5,256
0013102	89	2,707	2,707
0013105	47	2,095	2,095
0023101	331	5,336	5,336
0023102	70	1,857	1,857
0023104	37	1,132	1,132
0025201	232	6,646	6,646
0025202	75	3,524	3,524
0025204	63	5,467	5,467
0028001	228	8,260	8,260
0028002	134	8,040	8,040
0028004	38	2,528	2,528
0032101	319	4,522	4,522
0032102	68	1,526	1,526
0032104	37	1,498	1,498
0033001	381	17,789	17,789
0033002	69	4,917	4,917
0033004	37	1,419	1,419
0036601	155	4,765	4,765
0036602	69	3,295	3,295

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0036604	93	8,633	8,633
0037801	165	4,164	4,164
0037802	128	5,345	5,345
0037804	56	4,281	4,281
0038501	256	8,596	8,596
0038502	90	4,994	4,994
0038504	47	4,764	4,764
0038701	311	9,119	9,119
0038702	77	3,733	3,733
0038704	38	2,609	2,609
0040501	200	3,157	3,157
0040502	135	3,532	3,532
0040504	40	1,909	1,909
0040701	181	2,851	2,851
0040702	87	2,247	2,247
0040704	41	1,948	1,948
0040706	28	1,064	1,064
0050801	446	13,105	13,105
0050802	68	2,160	2,160
0060601	324	23,095	23,095
0060602	87	10,241	10,241
0060604	38	2,807	2,807
0060605	47	3,033	3,033
0060701	312	21,209	21,209
0060702	69	7,443	7,443
0060703	79	1,915	1,915
0060704	38	2,705	2,705
0060705	47	2,198	2,198
0060901	376	28,516	28,516
0060902	86	10,752	10,752
0060903	78	1,052	1,052
0060905	47	2,725	2,725
0061201	483	35,459	35,459
0061202	68	2,809	2,809
0061205	47	2,415	2,415
0061701	358	17,421	17,421
0061702	80	6,396	6,396
0061705	47	1,634	1,634
0062001	216	7,613	7,613
0062002	69	3,637	3,637
0062004	37	1,143	1,143
0062005	47	2,419	2,419
0062006	28	1,021	1,021
0062101	429	19,230	19,230

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0062102	72	5,276	5,276
0062201	391	20,521	20,521
0062202	69	5,639	5,639
0062204	37	1,250	1,250
0063301	305	11,704	11,704
0063302	86	5,442	5,442
0063305	47	2,797	2,797
0064001	318	18,618	18,618
0064002	69	3,638	3,638
0064003	79	1,712	1,712
0064005	47	2,680	2,680
0080401	347	7,863	7,863
0080402	120	4,499	4,499
0080601	326	13,279	13,279
0080602	94	6,334	6,334
0080604	37	1,581	1,581
0621502	128	4,005	4,005
0621504	110	6,308	6,308
0622301	355	16,122	16,122
0622302	83	6,259	6,259
0622304	38	5,196	5,196
0990101	294	81,930	81,930
0990102	84	38,540	38,540
0990103	231	49,799	49,799
0990104	85	71,718	71,718
0990105	561	380,022	380,022
0990106	293	335,673	335,673
0990201	190	57,202	57,202
0990202	84	41,760	41,760
0990203	188	40,462	40,462
0990204	142	129,426	129,426
0990205	488	357,641	357,641
0990206	330	409,784	409,784
0990301	251	57,974	57,974
0990302	85	32,483	32,483
0990303	153	32,962	32,962
0990304	91	63,594	63,594
0990305	507	284,670	284,670
0990306	338	320,903	320,903

STRATUM	Unweighted Sample Count	Frame Count	Frame Count
0990401	722	33,126	33,126
0990402	69	3,794	3,794
0990403	120	7,823	7,823
0990405	571	63,599	63,599
0990406	252	47,603	47,603

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	4
A=Army	17,340	2,684,195	2,695,464
C=Coast Guard	979	147,864	143,930
D=Office of the Secretary of Defense	1	145	27
F=Air Force	15,556	2,142,179	2,116,854
H=Commissioned Corps of the PHS	134	18,808	20,478
M=Marines	4,211	529,350	531,974
N=Navy	11,772	1,661,968	1,675,567
O=Commissioned Corps of the NOAA	7	934	1,133
X=Not applicable	0	0	13

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	24,851	1,789,835	1,789,842
Active Duty Family Member Enrolled	7,893	749,432	749,141
Active Duty Family Member, Not Enrolled	4,005	234,770	235,264
Retirees and Family Members younger than 65, Enrolled	4,870	1,033,416	1,034,487
Retirees and Family Members younger than 65, Not Enrolled	5,113	1,641,012	1,640,933
Retirees and Family Members age 65 and over	3,268	1,736,979	1,735,777
TOTAL	50,000	7,185,444	7,185,444

APPENDIX E

Q1 2005 VARIABLES DELIVERED TO SYNOVATE

APPENDIX E: LIST OF VARIABLES IN THE DATA SET DELIVERED TO SYNOVATE (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 2005 SAS CODE FOR SAMPLE FRAME CONSTRUCTION AND SAMPLE SELECTION

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.
*           3) 07/02/2004 BY KEITH RATHBUN, Added Primary Record
*              Identifier/Flag (PRRECFLG) and removed reference to
*              PNARSNCD.
*
* INPUTS:
*
* 1) STI2005.001 - RAW 2005 Q1 DEERS Population Extract File (Tape Part 1)
* 2) STI2005.002 - RAW 2005 Q1 DEERS Population Extract File (Tape Part 2)
*
* OUTPUTS:
*
* 1) STI001.SD2 - 2005 Q1 DEERS Population Extract File (CD Part 1)
* 2) STI002.SD2 - 2005 Q1 DEERS Population Extract File (CD Part 2)
* 3) STI003.SD2 - 2005 Q1 DEERS Population Extract File (CD Part 3)
* 4) STI004.SD2 - 2005 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 (STI2005.001
*    and STI2005.002).
* 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\STI2005.&INUM";

DATA OUT.STI&ONUM1 OUT.STI&ONUM2;
   INFILE IN LRECL=99999 RECFM=V MISSOVER;
   %INCLUDE "LAYOUT.SAS";

   ************************************************************************
   * STI did not create TNEXREG in Q1 2005.  I will create it here.
   * This TNEXREG creation code should be deleted for Q2 2005.
   ************************************************************************;
   IF DHSRGN IN (’01’ ’02’ ’05’) THEN TNEXREG = ’N’;
   ELSE IF DHSRGN IN (’03’ ’04’ ’06’) THEN TNEXREG = ’S’;
   ELSE IF DHSRGN IN (’07’ ’08’ ’09’ ’10’ ’11’ ’12’ ’AK’) THEN TNEXREG = ’W’;
   ELSE TNEXREG = ’O’;

   IF _N_ LE 2500000 THEN OUTPUT OUT.STI&ONUM1;
   ELSE OUTPUT OUT.STI&ONUM2;
RUN;

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

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

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

TITLE1 "DOD Health Care Survey, Sampling (6077-210/220)";
TITLE2 "PROGRAM: STI.SAS,WRITTEN BY: KEITH RATHBUN, October 2004";
TITLE3 "OUTPUT: STI&PNUM..SD2";

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

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

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

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

LAYOUT.SAS

```
*********************************************************************
*
* PROGRAM:  LAYOUT.SAS
* TASK:     DOD Health Care Survey, Sampling (6077-210/220)
* PURPOSE:  INPUT step for the 2004 DEERS Extract file from STI
*
* WRITTEN:  10/18/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 04/22/2002 BY KEITH RATHBUN, Removed TSPSITE from layout.
*           2) 10/10/2003 BY DAWN FERRAGAMO, ADDED TNEXREG TO LAYOUT.
*           3) 04/09/2004 BY KEITH RATHBUN, ADDED PTNT_ID TO LAYOUT.
*           4) 06/29/2004 BY KEITH RATHBUN, Removed PNARSNCD, PNMIDNM,
*              SPTNUMCD, and TNUMCD from LAYOUT since they are no longer
*              available on the STI-provided DEERS extract.  Added
*              Primary Record Identifier/Flag (PRRECFLG) to the layout.
*
*********************************************************************
*********************************************************************
* Input RAW data (ignore delimiters!)
*********************************************************************;
INPUT
   @1      SPONSSN    $CHAR9.
   @11     SPDUPID    $CHAR1.
   @13     PNTYPCD    $CHAR1.
   @15     PNID       $CHAR9.
   @25     PNBRTHDT   $CHAR8.
   @34     MRTLSTAT   $CHAR1.
   @36     PNSEXCD    $CHAR1.
   @38     FILLER1    $CHAR2.  /* KRR - DELETED PNARSNCD 06/29/2004 */
   @41     MDCABRSN   $CHAR1.
   @43     MDCAEFDT   $CHAR8.
   @52     MDCAEXDT   $CHAR8.
   @61     LEGDDSCD   $CHAR2.
   @64     PNLCATCD   $CHAR1.
   @66     SVCCD      $CHAR1.
   @68     PAYPLNCD   $CHAR5.
   @74     PGCD       $CHAR2.
   @77     MBRRELCD   $CHAR1.
   @79     MALN1TX    $CHAR40.
   @120    MALN2TX    $CHAR40.
   @161    MACITYNM   $CHAR20.
   @182    MASTCD     $CHAR2.
   @185    MACTRYCD   $CHAR2.
   @188    MAPRZIP    $CHAR5.
   @194    MAPRZIPX   $CHAR4.
   @199    HADDFLG    $CHAR1.
   @201    FILLER2    $CHAR14. /* KRR - DELETED TNUMCD 06/29/2004 */
   @216    PNLSTNM    $CHAR26.
   @243    PN1STNM    $CHAR20.
   @264    FILLER3    $CHAR20. /* KRR - DELETED PNMIDNM 06/29/2004 */
   @285    PNCDNCY    $CHAR4.
   @290    RANKCD     $CHAR6.
   @297    ULOCGRN    $CHAR2.
   @300    ULOCDMIS   $CHAR4.
   @305    RACEETHN   $CHAR1.
   @307    DCATCH     $CHAR4.
```

```
   @312    DMEDELG    $CHAR1.
   @314    DAGEQY     $CHAR3.
   @318    DBENCAT    $CHAR3.
   @322    DPRISM     $CHAR4.
   @327    DHSRGN     $CHAR2.
   @330    DSPONSVC   $CHAR1.
   @332    MEDTYPE    $CHAR1.
   @334    UICADD1    $CHAR30.
   @365    UICADD2    $CHAR30.
   @396    UICCITY    $CHAR30.
   @427    UICST      $CHAR2.
   @430    UICZIP     $CHAR5.
   @436    UADDFLG    $CHAR1.
   @438    SPLN1TX    $CHAR40.
   @479    SPLN2TX    $CHAR40.
   @520    SPCITYNM   $CHAR20.
   @541    SPSTCD     $CHAR2.
   @544    SPCTRYCD   $CHAR2.
   @547    SPPRZIP    $CHAR5.
   @553    SPPRZIPX   $CHAR4.
   @558    SADDFLG    $CHAR1.
   @560    FILLER4    $CHAR14. /* KRR - DELETED SPTNUMCD 06/29/2004 */
   @575    ENRID      $CHAR4.
   @580    ACV        $CHAR1.
   @582    PCM        $CHAR3.
   @586    PATCAT     $CHAR7.
   @594    TNEXREG    $CHAR1.
   @596    PTNT_ID    $CHAR10.
   @607    PRRECFLG   $CHAR1.  /* KRR - ADDED PRRECFLG 06/30/2004 */
  ;
DROP FILLER1-FILLER4;
**************************************************************************
* Construct SSNSMPL as SPONSSN & SPDUPID & LEGDDSCD
**************************************************************************;
LENGTH SSNSMPL $12;
SSNSMPL = SPONSSN || SPDUPID || LEGDDSCD ;

**************************************************************************
* LABEL variables
**************************************************************************;
LABEL
    SSNSMPL  =   "SSNSMPL - SPONSSN & SPDUPID & LEGDDSCD"
    SPONSSN  =   "Sponsor SSN"
    SPDUPID  =   "Family Sequence Number"
    PNTYPCD  =   "Person Type Code"
    PNID     =   "Person SSN"
    PNBRTHDT =   "Person Birth Date"
    MRTLSTAT =   "Marital Status"
    PNSEXCD  =   "Person Gender"
    MDCABRSN =   "Medicare A Begin Reason Code"
    MDCAEFDT =   "Medicare A Effective Date"
    MDCAEXDT =   "Medicare A Expiration Date"
    LEGDDSCD =   "DDS Code"
    PNLCATCD =   "Personnel Category Code (Duty Status)"
    SVCCD    =   "Branch of Service"
    PAYPLNCD =   "Pay Plan Code"
    PGCD     =   "Pay Grade"
```

```
   MBRRELCD =   "Member Relationship Code"
   MALN1TX  =   "Residential Address, Line 1"
   MALN2TX  =   "Residential Address, Line 2"
   MACITYNM =   "Residential Address, City"
   MASTCD   =   "Residential Address, State"
   MACTRYCD =   "Residential Address, Country"
   MAPRZIP  =   "Residential Address, ZIP Code"
   MAPRZIPX =   "Residential Address, ZIP Code Extension"
   HADDFLG  =   "Residential Address Flag"
   PNLSTNM  =   "Person Last Name"
   PN1STNM  =   "Person First Name"
   PNCDNCY  =   "Person Generation (Cadency)"
   RANKCD   =   "Rank Code"
   ULOCGRN  =   "Unit Region"
   ULOCDMIS =   "Unit DMISID"
   RACEETHN =   "Race/Ethnic Code"
   DCATCH   =   "Catchment Area"
   DMEDELG  =   "Medical Privlege Code"
   DAGEQY   =   "Age (As of 17 September 2004)"
   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"
   ENRID    =   "Enrollment DMISID"
   ACV      =   "Alternate Care Value"
   PCM      =   "Primary Manager Code (CIV or MIL)"
   PATCAT   =   "Aggregated Beneficiary Category"
   TNEXREG  =   "Beneficiary's TNEX Region"
   PTNT_ID  =   "unique Patient ID"
   PRRECFLG =   "Primary Record Identifier/Flag"
;
```

XWALK.SAS

```
*************************************************************************
*
* PROGRAM:  XWALK.SAS
* TASK:     DOD Health Care Survey, Adult Sampling (6077-210)
* PURPOSE:  Build SAS extract/cross-walk file for the DOD sample
*           and assign permanent random numbers (PRN).
*
* WRITTEN:  01/17/2001 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 02/08/2001 BY KEITH RATHBUN for Q3 processing.  Also, added
*    specific family exclusion criteria as include file.
* 2) 07/09/2001 BY KEITH RATHBUN for Q4 processing.  Removed Q3-specific
*    processing.
* 3) 10/09/2001 BY KEITH RATHBUN for Q1 2002 processing.
* 4) 01/22/2002 BY KEITH RATHBUN for Q2 2002 processing.
* 5) 04/10/2002 BY KEITH RATHBUN for Q3 2002 processing.
* 6) 07/03/2002 BY KEITH RATHBUN for Q4 2002 processing.
* 7) 10/14/2002 BY KEITH RATHBUN for Q1 2003 processing.
* 8) 01/14/2003 BY KEITH RATHBUN for Q2 2003 processing.
* 9) 04/10/2003 BY KEITH RATHBUN for Q3 2003 processing.
* 10) 07/10/2003 BY KEITH RATHBUN for Q4 2003 processing.
* 11) 10/10/2003 BY DAWN FERRAGAMO for Q1 2004 processing.
* 12) 01/13/2004 BY KEITH RATHBUN for Q2 2004 processing.
* 13) 06/29/2004 BY KEITH RATHBUN for q4 2004 processing.
*     Added PTNT_ID to XWALK file.
* 14) 10/06/2004 BY KEITH RATHBUN for Q1 2005 processing.
*
* INPUTS:
* 1) STI001.SD2 - 2005 Q1 DEERS Population SSN SAS data set (Part 1)
* 2) STI002.SD2 - 2005 Q1 DEERS Population SSN SAS data set (Part 2)
* 3) STI003.SD2 - 2005 Q1 DEERS Population SSN SAS data set (Part 3)
* 4) STI004.SD2 - 2005 Q1 DEERS Population SSN SAS data set (Part 4)
* 5) XWALK.SD2  - 2004 Q4 DEERS Population XWALK SAS data set
*
* OUTPUTS:
* 1) XWALK.SD2 - 2005 Q1 DEERS Population XWALK SAS data set
* 2) SEED.SD2  - 2005 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  '.';                       * Fixed 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 = 17; * Increment by 1 every quarter;

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

TITLE1 "Generate XWALK file from 2005 Q1 DOD DEERS Population Extract File";
TITLE2 "Program Name: XWALK.SAS, Written by Keith Rathbun, October 2004";

*******************************************************************************
* 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.FIXXWALK END=FINISHED;
   LENGTH MPRIDX 8; RETAIN MPRIDX;
   IF MPRID > MPRIDX THEN MPRIDX = MPRID;
   IF FINISHED THEN CALL SYMPUT("LASTID",MPRIDX);
RUN;

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

%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 PTNT_ID);
```

```
   SET STI001
       STI002
       STI003
       STI004
      ;
   BY SSNSMPL PTNT_ID;
   IF DAGEQY GE "018" OR (DAGEQY = " " AND LEGDDSCD GE "20");
   ************************************************************************
   * Add code here if STI failed to remove all duplicates.
   ************************************************************************;
   ************************************************************************
   * Exclude specific families from survey.
   ************************************************************************;
   &EXCLUDE;
RUN;

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

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

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

************************************************************************
* Assign PRN for all new eligibles.
************************************************************************;
DATA NEWXWALK (KEEP=MPRID SSNSMPL PRN PTNT_ID E&PD);
   SET SSN_NEW;
   LENGTH MPRID  $8;
   ************************************************************************
   * Assign eligibility indicator for new eligibles.
   ************************************************************************;
   LENGTH E&PD   $1;
   E&PD = "Y";
   LABEL E&PD = "Eligibility indicator for period = &PD";
   ************************************************************************
   * Assign PRN for new eligibles.
   ************************************************************************;
   PRN = RANUNI(&SEED);
   LABEL PRN = "Permanent Random Number";
   ************************************************************************
   * Assign MPRID starting with previous XWALKs LASTID+1.
   ************************************************************************;
```

```
   IF _N_ = 1 THEN MPRIDX = %EVAL(&LASTID+1);
   ELSE MPRIDX + 1; RETAIN MPRIDX;
   MPRID  = PUT(MPRIDX,Z8.);
RUN;

%MACRO XWALK;
DATA OUT.XWALK;
   SET NEWXWALK OLDXWALK;
   BY SSNSMPL PTNT_ID;
   ************************************************************************
   * Recode missing values to Not eligible.
   ************************************************************************;
   %DO I = 1 %TO &PD;
       IF E&I = " " THEN E&I = "N";
   %END;
RUN;
%MEND XWALK;
%XWALK;

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

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

DUPCHECK.SAS

```
*********************************************************************
* PROGRAM:  DUPCHECK.SAS
* TASK:     DOD Health Care Survey, Sampling (6077-210/220)
* PURPOSE:  Check cross-walk file for duplicate permanent random numbers
(PRN).
*
* WRITTEN:  01/19/2001 BY KEITH RATHBUN
*
* MODIFIED: 1) 04/10/2002 BY KEITH RATHBUN, Added duplicate checking and
*              notes for Child Population XWALK checking.
*           2) 10/08/2004 BY KEITH RATHBUN, Added printing of duplicates.
*              Need this information to manually update XWALK program if
*              these duplicates are not the same people.
*
* INPUTS:
* 1) XWALK.SD2  - DEERS Adult Population XWALK SAS data set
* 2) XWALKC.SD2 - DEERS Child Population XWALK SAS data set
*
* OUTPUTS: None
*
* NOTES:
* 1) Since the XWALK.SAS program is run each quarter to append new eligibles
*    to the previous quarters XWALK.SD2, this program needs to be run just
*    to be sure that duplicate PRNs have not been created.  It is highly
*    unlikely that the XWALK.SAS program will generate duplicate PRNs;
*    however, we must be sure that there are in fact no duplicates.
* 2) Since the XWALKC.SAS program is run each year to append new eligibles
*    to the previous years XWALKC.SD2, this program needs to be run just
*    to be sure that duplicate PRNs have not been created.  It is highly
*    unlikely that the XWALKC.SAS program will generate duplicate PRNs;
*    however, we must be sure that there are in fact no duplicates.
*********************************************************************;
LIBNAME  IN1 V612 "..\..\DATA\Afinal";
LIBNAME  IN2 V612 "..\..\DATA\Cfinal";

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, October 2004";

*********************************************************************
* Check for duplicate PRNs.  If duplicates are found, then the XWALK.SAS
* and/or XWALKC.SAS programs will need to be rerun until this program
* detects no duplicates.
*********************************************************************;
PROC SORT DATA=IN1.XWALK  OUT=DUPCHECK; BY PRN; RUN;

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

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

EXTRACT.SAS

```
*************************************************************************
*
* PROGRAM:  EXTRACT.SAS
* TASK:     DOD Health Care Survey, Sampling (6077-210)
* PURPOSE:  Build SAS extract file for the DOD sample
*
* WRITTEN:  10/19/2000 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 01/18/2001 BY KEITH RATHBUN - Small changes for Q2 processing.
*    Removed sorting of XWALK and EXTRACT files by MPRID.
* 2) 02/08/2001 BY KEITH RATHBUN - Small changes for Q3 processing.
*    Added specific family exclusion criteria as include file.
* 3) 07/09/2001 BY KEITH RATHBUN for Q4 processing.
* 4) 10/09/2001 BY KEITH RATHBUN for Q1 2002 processing.
* 5) 01/22/2002 BY KEITH RATHBUN for Q2 2002 processing.
* 6) 04/23/2002 BY KEITH RATHBUN for Q3 2002 processing and removed TSPSITE.
* 7) 07/22/2002 BY KEITH RATHBUN for Q4 2002 processing.
* 8) 10/14/2002 BY KEITH RATHBUN for Q1 2003 processing.
* 9) 01/14/2003 BY KEITH RATHBUN for Q2 2003 processing.  Added address
*    flags (SADDFLG, HADDFLG, UADDFLG) and zip code (MAPRZIP) to
*    the extract file.
* 10) 04/10/2003 BY KEITH RATHBUN for Q3 2003 processing.
* 11) 07/10/2003 BY KEITH RATHBUN for Q4 2003 processing.
* 12) 10/10/2003 BY DAWN FERRAGAMO added TNEXREG for Q1 2004.
* 13) 01/13/2004 BY KEITH RATHBUN for Q2 2004 processing.
* 14) 06/29/2004 BY KEITH RATHBUN for Q4 2004 processing.
*     Added PTNT_ID, PRRECFLG, PNBRTHDT, PN1STNM, PNLSTNM, and PNID
*     to extract file.  Removed PNARSNCD from extract
*     file since it is no longer being provided by STI.
* 15) 10/06/2004 BY KEITH RATHBUN for Q1 2005 processing.
*
* INPUTS:
* 1) STI001.SD2 - 2005 Q1 DEERS Population SSN SAS data set (Part 1)
* 2) STI002.SD2 - 2005 Q1 DEERS Population SSN SAS data set (Part 2)
* 3) STI003.SD2 - 2005 Q1 DEERS Population SSN SAS data set (Part 3)
* 4) STI004.SD2 - 2005 Q1 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
                   MDCABRSN MDCAEFDT MDCAEXDT
                   LEGDDSCD PNLCATCD SVCCD     PAYPLNCD
                   PGCD     MBRRELCD RANKCD    ULOCGRN
                   ULOCDMIS RACEETHN DCATCH    DMEDELG
                   DAGEQY   DBENCAT  DPRISM    DHSRGN
                   DSPONSVC MEDTYPE  ENRID     ACV
                   PCM      PATCAT   SADDFLG   HADDFLG
                   UADDFLG  MAPRZIP  TNEXREG   PTNT_ID
                   PNBRTHDT PN1STNM  PNLSTNM   PNID    PRRECFLG)
              OUT=STI&NUM;
        BY SSNSMPL PTNT_ID;
   RUN;
%MEND SORTIT;

%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 PTNT_ID;
   IF DAGEQY GE "018" OR (DAGEQY = " " AND LEGDDSCD GE "20");
   ************************************************************************
   * Add code here if STI failed to remove all duplicates.
   ************************************************************************;
   IF      PNID = "004780678" AND PNSEXCD = "M" THEN DELETE;
   ELSE IF PNID = "039547429" AND PNSEXCD = "M" THEN DELETE;
   ELSE IF PNID = "520302961" AND PNSEXCD = "M" THEN DELETE;
   ELSE IF PNID = "570115463" AND PNLSTNM = "LEBLANC" THEN DELETE;
   ELSE IF PNID = "584717217" AND PNLSTNM = "VAZQUEZVELEZ" THEN DELETE;
   ELSE IF PNID = "601640399" AND PNLSTNM = "MCKINLEY" THEN DELETE;
   ************************************************************************
   * Exclude specific families from survey.
   ************************************************************************;
   &EXCLUDE;
```

```
RUN;

DATA OUT.EXTRACT;
   MERGE IN.XWALK(IN=IN1) EXTRACT(IN=IN2);
   BY SSNSMPL PTNT_ID;
   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, October 2004";

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

TITLE3 "FREQS of key variables - 2005 Q1 DEERS adult population extract:
EXTRACT.SD2";
PROC FREQ DATA=OUT.EXTRACT;
   TABLES
      E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E13 E14 E15 E16 E17
      E1*E2*E3*E4*E5*E6*E7*E8*E9*E10*E11*E12*E13*E14*E15*E16*E17
      TNEXREG
      PRRECFLG
      PNTYPCD
      MRTLSTAT
      PNSEXCD
      MDCABRSN
      LEGDDSCD
      PNLCATCD
      SVCCD
      PAYPLNCD
      PGCD
      MBRRELCD
      RANKCD
      ULOCGRN
      ULOCDMIS
      RACEETHN
      DCATCH
      DMEDELG
      DAGEQY
      DBENCAT
      DPRISM
      DHSRGN
      DSPONSVC
      MEDTYPE
      ENRID
      ACV
      PCM
      PATCAT
      SADDFLG
      HADDFLG
      UADDFLG
  /MISSING LIST;
RUN;
```

FRAMEA01.SAS

```
*************************************************************************
*** Project: 2005 Health Care Survey of DoD Beneficiaries - Adult
*** Purpose: Create the sampling frame for the adult survey.
***
*** Program: F:\Q1_2005\Programs\Sampling\framea01.sas
***
*** Inputs:  extract.sd2: Extracted DoD data set used to create the adult
sampling frame.
***          TMA.sd2:     DMIS information
***          frame.inc:   Include file
***
*** Outputs: framea.sd2 : Adult sampling frame created from the extracted DoD
data set.
***          TMA2.sd2
***
*** Updated: 1)Esther M Friedman 10/20/03
***          2)Haixia Xu 01/23/2004 for Q2, 2004 sampling
***          3)Haixia Xu 04/14/2004 for Q3, 2004 sampling
***          4)Haixia Xu 07/13/2004 for Q4, 2004 sampling
***          5)Haixia Xu 11/08/2004 for Q1, 2005 sampling
*************************************************************************;

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

*** Set up the input and output paths. ***;
libname in   v6  'F:\Q1_2005\Data\AFinal'; /* extract.sd2 */
libname inv6 v6  'F:\Q1_2005\Data\AFinal'; /* TMA.sd2 */
libname out  v6  'F:\Q1_2005\Data\AFinal'; /* framea.sd2, TMA2.sd2 */

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

%MACRO PROCESS(TMA,TMA2,outdata);

data frame;
set in.extract;
run;

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

************************************************************************
* Added q2 2003, Don and Keith created a template to be used each quarter;
* The code below and the include file construct cacsmpl
* and collapse historically small catchment areas;
************************************************************************;
data &TMA. (keep = geocell d_par d_fac d_instal d_health d_dmis servaff);
   set inv6.&TMA.;
   ***Extract the facility service code variable(servaff) from the November
2004TMA spreadsheet in Q1,2005;
```

```
   rename facilit1=d_fac installa=d_instal dmis_fac=d_dmis facility=servaff ;
   length d_par $4.;
   d_par = DMIS_PAR;
   length geocell $4.;
   geocell = DMIS_ID;
   length d_health $2.;
   d_health = HEALTH_S;
run;

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

%include "F:\Q1_2005\Programs\Sampling\frame.inc";

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

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

FRAME.INC

```
*************************************************************************
*** Project:         Health Care Survey of DoD Beneficiaries -
Quarterly/Annual Adult Dataset
*** Program:         Frame.inc -- include file used in adjwt.sas and
cacsmpl.sas
*** Purpose:         Geographic collapsements from q4 framea to be run on all
quarters
***
*** Modified:        1) 01/07/2003 by Esther M Friedman
***                  2) 01/15/2003 by Keith Rathbun:  Moved collapsement
parts of the
***                     CACSMPL.SAS program into this include file.
***                  3) 01/28/03 by Esther Friedman: additional collapsements
for q2 2003
***                  4) 11/11/2004 by Haixia Xu: Made 9 Navy sites stand
alone. Collapsed 9 Air Force sites.
***                     Cleaned the codes by removing the commented codes
*** 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' ) or
enrid='0000'
         then geocell=dcatch; *administrative assignment 1976-1980 added q4
2002--6700-6881 added q1 2004. 0000 added q1,2005;
        else if enrid in ('6917', '6918', '6919')
         then geocell = dcatch; *Managed care contractor assignment, added in
q1, 2005;
      else if ('3031' <= enrid <= '3057')
         then geocell = dcatch; ***On the Ship***;
      else if enrid in ('0002', '5208', '0250', '0449', '0626', '0012')
         then geocell = dcatch; ***Inactive***;  *'0626' added q2 2003, 0012
added q4 2003;
      ************************************************************;
      else if ('0190' <= enrid <='0199') then geocell = dcatch;**BYDON;
      ************************************************************;

      ************************************************************;
      else if enrid in ('4919', '6138', '0136') then geocell=dcatch;

      * Above was added by Haixia on 10/28/04 for Q1, 2005. Remember to
recheck this next quarter!!!
      Since there are three records in frame, but not in November, 2004 TMA
spreadsheet in terms of geocell,
      we hard-code geocell for those three records as dcatch.
      Those three records have geocell in ('4919', '6138', '0136') and
PCM='MTF' ;
```

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

      else geocell = enrid;
   end;
   else geocell=dcatch;

RUN;

proc sort data=frame;
   by geocell;
run;

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

title4 "The records in framea but not in TMA spreadsheet";
proc print data=fr_only;
run;

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

   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' ) or
enrid='0000'
         then com_geo = geocell; *Administrative assignment--1976-1980 added
q4 2002. 0000 added q1,2005;
        else if enrid in ('6917', '6918', '6919')
         then com_geo = geocell; *Managed care contractor assignment, added
in q1, 2005;
      else if ('3031' <= enrid <= '3057')
         then com_geo = geocell; ***On board ship***;
      else if enrid in ('0002', '5208', '0250', '0449', '0626', '0012')
         then com_geo = geocell; ***Inactive***;  *'0626' added q2 2003, 0012
added q4 2003;
      else com_geo = d_par;
   end;

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

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

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

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

   if      com_geo in ('0074','0416')        then com_geo='0001';
   else if com_geo in ('0203','0130','0417',
                       '7044','7047')        then com_geo='0005';
   else if com_geo in ('0418','0419','7083',
                       '0015','0287')        then com_geo='0014'; *0287 added
in q1,2005 by Haixia;
   else if com_geo in ('0018','0248')        then com_geo='0019';
   else if com_geo in ('7046')               then com_geo='0029'; *By emf
added q4 2003;
   else if com_geo in ('0420')               then com_geo='0037';
   else if com_geo in ('0422')               then com_geo='0038';
   else if com_geo in ('0421','7048','0050') then com_geo='0039';
   else if com_geo in ('7139')               then com_geo='0045';
   else if com_geo in ('7043')               then com_geo='0052';
   else if com_geo in ('0427')               then com_geo='0056'; *By emf
added q3 2003;
   else if com_geo in ('0076')               then com_geo='0058';
   else if com_geo in ('0423')               then com_geo='0064';
   else if com_geo in ('0413','0428','0326',
                       '0036')               then com_geo='0066'; *Taken out
0068, added 0036, 0326 in q1,2005 by Haixia;
   else if com_geo in ('0424')               then com_geo='0067';
   else if com_geo in ('0306')               then com_geo='0069';
   else if com_geo in ('0338', '0059')       then com_geo='0078'; *changed in
q1,2005;
   else if com_geo in ('0085')               then com_geo='0083';
   else if com_geo in ('0081','5196')        then com_geo='0086'; *By emf
added q1 2003;
   else if com_geo in ('0430','0335','7143') then com_geo='0089';
   else if com_geo in ('0013')               then com_geo='0096'; *0013 added
in q1,2005 by Haixia;
   else if com_geo in ('0097')               then com_geo='0098';
   else if com_geo in ('0356')               then com_geo='0103';
   else if com_geo in ('0084')               then com_geo='0108';
   else if com_geo in ('0363','7082','1587') then com_geo='0109';
   else if com_geo in ('0364')               then com_geo='0112';
   else if com_geo in ('0114')               then com_geo='0117';
   else if com_geo in ('0077')               then com_geo='0119';
   else if com_geo in ('0432','0433','0090') then com_geo='0120'; *Added 0090
in q1,2005 by Haixia;
  *else if com_geo in ('0122')               then com_geo='0121'; *Uncollapse
0122(KENNER AHC-FT. LEE)
                                                                   to make it
a seperate cacsmpl in q1,2005 by Haixia;
   else if com_geo in ('0431','0434','0395',
                       '1646')               then com_geo='0125';
   else if com_geo in ('0435')               then com_geo='0126';
```

```
   else if com_geo in ('7045')              then com_geo='0128';
   else if com_geo in ('0106','7200','0093',
                       '0094')              then com_geo='0129'; *Changed in
q1,2005 by Haixia;
  *Collapse 0093,0094 with an Air Force site in the west TNEX region, 0129,
instead of the south TNEX region, 0096;
   else if com_geo in ('0310','0425','0426') then com_geo='0321';
   else if com_geo in ('0808')              then com_geo='0609';
   else if com_geo in ('0618','0623','0629',
                       '0624','0635','0825') then com_geo='0617';
   else if com_geo in ('0802', '0616','0615',
                       '7042','5197')       then com_geo='0620'; *0616 added
in q3,2004 by Haixia;
   else if com_geo in ('8931')              then com_geo='0633';
   else if com_geo in ('0610','0639','0637',
                       '0638')              then com_geo='0640'; *changed in
q1,2005;
   else if com_geo in ('0805','8982')       then com_geo='0806'; *0805 added
in q1,2005 by Haixia;
   else if com_geo in ('0034','0035','0100') then com_geo='6223'; *changed
emf q1 2004;

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

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

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

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

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

   rename com_geo = cacsmpl;

RUN;
```

FRAMEA01_CHK.SAS

```
*************************************************************************
***
*** Project:  2005 Health Care Survey of DoD Beneficiaries - Adult
***
*** Purpose: Checks for framea01 program
*** Program: F:\Q1_2005\Programs\Sampling\framea01_chk.sas,
***
*** Updated: 1)Haixia Xu on 01/26/2004 for Q2, 2004 sampling
***          2)Haixia Xu on 04/14/2004 for Q3, 2004 sampling
***          3)Haixia Xu on 07/07/2004 for Q4, 2004 sampling
***          4)Haixia Xu on 11/08/2004 for Q1, 2005 sampling
*** Notes: None
***
*************************************************************************;

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

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

*** Set up the input and output paths. ***;
libname in  v6 'F:\Q1_2005\Data\AFinal';
libname out v6 'F:\Q1_2005\Data\AFinal';


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

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

data framea;
set in.framea;
run;

proc sort data=framea;
by cacsmpl;
run;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

data out.excel;
merge in.TMA_REV(in=infy) in.b_framea (in=inb);
by geocell;
if infy=1 and inb=1;
```

```
run;

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

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

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

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

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

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

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

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

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

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

***Check the small cells in excel2.
Added in q3, 2004 by Haixia Xu;
Proc print data=out.excel2;
where DMIS_CNT<6000;
```

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


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

EBCOLL01.SAS

```
*********************************************************************
*** Project: 2005 Health Care Survey of DoD Beneficiaries - Adult
*** Purpose: Enrollee-Beneficiary Group Collapsing
*** Programmer: Esther M Friedman
***
*** Program: F:\Q1_2005\Programs\Sampling\ebcoll01.sas,
***          Collapses the strata on the frame.
***
*** Inputs:  F:\Q1_2005\data\afinal\framea.sd2
***          The adult sampling frame.
***
*** Outputs: F:\Q1_2005\data\afinal\framea.sd2
***          The collapsed adult sampling frame.
***
*** Updated: 1) Haixia Xu on 04/15/2004 for Q3,2004 sampling
***          2) Haixia Xu on 07/07/2004 for Q4,2004 sampling
***          3) Haixia Xu on 11/08/2004 for Q1,2005 sampling
*********************************************************************;

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

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

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

libname in  v6  'F:\Q1_2005\Data\AFinal';
libname out v6  'F:\Q1_2005\Data\AFinal';

***Add this comment in q4, 2004;
*To be consistent with the previous quarters in year 2004,
we keep all the collapsements made in the previous quarters,
and only add the new collapsements in the current quarter, if any;

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

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

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

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

```
      else ebsmpl = ebg_com;
      end;
else if
      cacsmpl in ('0131','0609','0612','0617','0633','0640','9904') and
ebg_com = '04' then ebsmpl = '05';
else if
      cacsmpl in ('0003','0005','0006','0028','0030','0033','0047','0053',
                  '0057','0064','0075','0079','0092',
                  '0098','0104','0113','0117','0127',
                  '0131','0612','0617','0620','0622','0633',
                  '0606','0806') and ebg_com = '03' then ebsmpl = '02';
else if
      cacsmpl in ('0622','0806') and ebg_com in ('05') then ebsmpl = '04';
else if cacsmpl ='6215' and ebg_com='01' then ebsmpl='02';
else ebsmpl=ebg_com;

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

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

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

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

run;

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


title5 'Information for the Frame';
```

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

proc contents data = framea;
run;


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

proc sort data=framea ;
   by geosmpl;
run;

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

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

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

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

proc sort data=framea ;
by geosmpl;
run;

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

data c_framea;
```

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

proc sort data=s_framea ;
   by geosmpl;
run;

proc sort data=c_framea ;
  by geosmpl;
run;

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

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

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

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


**CREATE OUTPUT DATASETS;

data out.framea;
  set framea;
run;

data out.s_framea;
  set s_framea;
run;

data out.c_framea;
  set c_framea;
run;

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

COUNTA.SAS

```
*************************************************************************
*** Project: 2005 Health Care Survey of DoD Beneficiaries - Adult
***
*** Purpose: Produce population cell counts by STRATUM, STRSMPL, new_enbg,
***          and TOTAL for 2005 DOD Quarterly survey Form A Sampling Frame.
***
***          STRATUM, STRSMPL, new_enbg, TOTAL counts for 2004 DOD Quarterly
***           survey (Form A Sampling frame)
***           Where PSUM0 = STRATUM Count
***                 PSUM1 = GEOSMPL Count
***                 PSUM2 = EBSMPL Count
***                 TOTAL = Total Population
***
*** Program: F:\Q1_2005\Programs\Sampling\counta.sas,
***          Produces the population cell counts.
***
*** Inputs:  F:\Q1_2005\Data\AFinal\framea.sd2
***          Extracted DoD data set used to create the adult sampling frame.
***
*** Outputs: F:\Q1_2005\Data\AFinal\counta.sd2
***          Adult sampling frame created from the extracted DoD data set.
***
*** Notes: None
***
*** Updated: 1)Haixia Xu on 01/28/2004 for Q2, 2004 sampling
***          2)Haixia Xu on 04/16/2004 for Q3, 2004 sampling
***          3)Haixia Xu on 07/22/2004 for Q4, 2004 sampling
***          4)Haixia Xu on 11/08/2004 for Q1, 2005 sampling
*************************************************************************;

*** Set up the path names. ***;
libname in  v6 'F:\Q1_2005\Data\AFinal';
libname out v6 'F:\Q1_2005\Data\AFinal';

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

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

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

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

TITLE3 "FREQS of sample FRAMEA.SD2";

PROC FREQ DATA=&dsn.;
   TABLES &by_vars.
  /MISSING LIST;
RUN;
```

```
*** Get the total number of observations. ***;

proc means data=&dsn.;
  var prn;
  output out=total n=total;
run;

data total;
  set total (keep=total);
run;

*** Sort the frame. ***;

PROC SORT DATA=&dsn. OUT=&dsn.;
   BY &by_vars.;
RUN;

*** Set up the table for the counts that will follow. ***;

PROC MEANS DATA=&dsn. NOPRINT;
   BY &by_vars.;
   VAR prn;
   OUTPUT
   OUT=T0(KEEP=&by_vars.)
   N=DUMMY;
RUN;

PROC FREQ DATA=&dsn. NOPRINT;
   TABLES stratum
  /MISSING LIST OUT=T1(RENAME=(COUNT=PSUM0)
                KEEP=COUNT stratum) NOPERCENT NOCUM NOPRINT;
RUN;

PROC FREQ DATA=&dsn. NOPRINT;
   TABLES geosmpl
  /MISSING LIST OUT=T2(RENAME=(COUNT=PSUM1)
                KEEP=COUNT geosmpl) NOPERCENT NOCUM NOPRINT;
RUN;

PROC FREQ DATA=&dsn. NOPRINT;
   TABLES ebsmpl
  /MISSING LIST OUT=T3(RENAME=(COUNT=PSUM2)
                KEEP=COUNT ebsmpl) NOPERCENT NOCUM NOPRINT;
RUN;

*** Merge the tables together. ***;

PROC SORT DATA=T0; BY stratum; RUN;
DATA T0;
   MERGE T0 T1;
   BY stratum;
RUN;

PROC SORT DATA=T0; BY geosmpl; RUN;
DATA T0;
   MERGE T0 T2;
   BY geosmpl;
```

```
RUN;

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

data t0;
   if _n_=1 then set total;
   set t0;
   label total = 'TOTAL - Population';
run;

*** Section to do some checking. ***;

proc sort data=t0 out=t0;
   by geosmpl ebsmpl stratum;
run;

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

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

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

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

SAMSIZEA.SAS

```
*************************************************************************
* Project:        2005 Health Care Survey of DoD Beneficiaries - Adult
* Project Number: 6077
* Task Number:    210
*
* PROGRAM:    F:\Q1_2005\Programs\Sampling\SAMSIZEA.SAS
* Purpose:    Sample size determination for the 2004 Quarterly HCSDB
*
* Programmer: Don Jang
* Updated:    1)04/16/2004 Esther Friedman -- Automated univar so no longer
run UNIVAR.SAS
*             2)11/01/2004 Haixia Xu for Q1, 2005 sampling
* INPUTS:     POPULATION COUNTS (COUNTA.SD2)
* OUTPUTS:    FINAL SAMPLE SIZES (SAMSIZEA.SD2)
*************************************************************************
*;

libname in v6  'F:\Q1_2005\Data\AFinal';
libname out v6 'F:\Q1_2005\Data\AFinal';

OPTIONS PS=79 LS=132 NOCENTER mlogic symbolgen;

%LET P = 0.5;   ***PRODUCE THE MOST CONSERVATIVE SAMPLE SIZES****;
%LET Z = 1.96;  ***97.5TH PERCENTILE FOR Z-DIST*****************;
%LET HLA0 = .22; ***HALF LENGTH = 22 PERCENT FOR EACH STRATUM*****;
%LET SSQUARE = &P*(1-&P); ***FORMULA FOR VARIANCE OF P***********;

/*-------------------------------------------------------------------------
        MACRO:  CALCULATE NUMERICAL PORTIONS OF VARIANCES GIVEN SAMPLE SIZES
-------------------------------------------------------------------------*/
%MACRO VAR(DAT,DOMAIN,POPSIZE,NH,ODAT);
DATA VARA;
        SET &DAT;BY &DOMAIN;
        VH=&POPSIZE**2*((&POPSIZE-&NH)/(&POPSIZE-1))*&SSQUARE/&NH;
RUN;

PROC MEANS DATA=VARA NOPRINT;
        VAR VH;BY &DOMAIN;
        OUTPUT OUT=&ODAT SUM=VSUM;
RUN;
%MEND VAR;

*********************************************************************
*       TO DETERMINE OPTIMAL STRATUM SIZES GIVEN PREDETERMINED VARIANCE
*********************************************************************;
%MACRO OPTALLO(DAT,DOMAIN,POPSIZE,V0,ODAT);
/*-----------------------------------------------------
        TO CALCULATE PARTIAL SUMS OF REMAINING DOMAIN SIZES
        NOTE:  THIS SUM can be DIFFERENT FROM THE DOMAIN TOTAL !!!
-----------------------------------------------------------*/
DATA &DAT;SET &DAT;
        DEN = (&POPSIZE/DSUM&ITE)**2/(&POPSIZE-1);
        COM = &POPSIZE*SQRT(&POPSIZE/(&POPSIZE-1));
        NUM = COM/DSUM&ITE;
RUN;
PROC MEANS DATA=&DAT NOPRINT;
```

```
        VAR NUM DEN COM;BY &DOMAIN;
        OUTPUT OUT=DSIZEA SUM=NUMS DENS COMS;
RUN;

DATA &ODAT;
        MERGE &DAT DSIZEA;BY &DOMAIN;
        ND=(&SSQUARE*NUMS**2)/(&V0+&SSQUARE*DENS);
        NHO=ND*COM/COMS;
        DROP ND NUM DEN COM NUMS DENS COMS;
RUN;
%MEND OPTALLO;
/*-----------------------------------------------------------------
        TO RETREIVE THE NUMBER OF OBSERVATIONS IN A SAS DATA SET
-----------------------------------------------------------------*/
%MACRO NUMOBS(DSN);
        %GLOBAL NUM;/* THIS MACRO CONTAINS THE NUMBER OF OBS IN THE DATA*/
        DATA _NULL_;
                IF 0 THEN SET &DSN NOBS=COUNT;
                CALL SYMPUT('NUM',LEFT(PUT(COUNT,8.)));
                STOP;
        RUN;
%MEND NUMOBS;

/*-----------------------------------------------------------------
        ITERATE UNTIL THE REMAINING DOMAINS HAVE NHO GREATER THAN
        THE PREVIOUS SAMPLE SIZES
-----------------------------------------------------------------*/
%MACRO ITERATE;
%OPTALLO(STE,DOM&ITE,POPSIZE,VSTAR,OSTAT);

DATA FIN&I STE;
        SET OSTAT;
        IF NHF < NHO THEN FIN = FIN +1;
IF FIN=&I then output FIN&I;
IF FIN = &I + 1 then output STE;
RUN;

%VAR(FIN&I,DOM&ITE,POPSIZE,NHF,SUMMARY);

DATA STE;
        MERGE STE (IN=A) SUMMARY ;BY DOM&ITE;
        IF A;
        IF VSUM=. THEN VSUM=0;****SHOULD EXIST!!!;
        VSTAR= VSTAR - VSUM/DSUM&ITE**2;
        DROP VSUM;
RUN;
%MEND ITERATE;

/*-----------------------------------------------------------------
        MAIN PART OF THE PROGRAM:  'ITE' INDICATES THE LEVEL OF DOMAINS
-----------------------------------------------------------------*/
%MACRO MPART(ITE);
PROC SORT data=indata;BY DOM&ITE;RUN;

%VAR(INDATA,DOM&ITE,POPSIZE,NHF,SUMMARY);

DATA CHKVAR;***TO COMPARE THE VARIANCE TO THE PRECISION REQUIREMENT;
```

```
        MERGE SUMMARY INDATA;BY DOM&ITE;
        FIN=1;
        MARGIN=SQRT((VSUM/DSUM&ITE**2)*1.96**2)/HL&ITE;
        IF MARGIN > 1 THEN FIN=FIN+1;
        DROP VSUM MARGIN; /* SHOULD DROP 'VSUM'VARIABLE HERE !!! */
RUN;

***DATA SET INCLUDING STRATA HAVING FINAL SAMPLE SIZE AT THIS STEP***;

DATA FIN1 STE;
        SET CHKVAR;BY DOM&ITE;
        VSTAR=(HL&ITE/1.96)**2;
IF FIN=1 then output FIN1;
IF FIN=2 then output STE;
RUN;

%NUMOBS(STE);

%LET I = 1;
%IF &NUM=0 %THEN %GOTO FDSN;
/*-----------------------------------------------------------------------------
        ITERATE MACRO TO UPDATE SAMPLE SIZES TO MEET THE PRECISION
REQUIREMENTS
        THIS PART NEEDS TO BE REFINED TO ALLOW TO STOP THE PROGRAM WHENEVER
NEEDED
-----------------------------------------------------------------------------*/
%DO %UNTIL(&NUM = 0);
        %LET I = %EVAL(&I +1);
        %ITERATE;
        %NUMOBS(FIN&I);
%END;
/*-----------------------------------------------------------------------------
        GIVE THE REMAINING DOMAINS OPTIMAL SAMPLE SIZES
-----------------------------------------------------------------------------*/
%LET I = %EVAL(&I +1);
DATA FIN&I;SET STE;
        NHF = NHO;
RUN;
/*-----------------------------------------------------------------------------
        COMBINE THE DATASETS INTO ONE
-----------------------------------------------------------------------------*/
%FDSN:
DATA STEP9;
        SET FIN1;

%DO J=2 %TO &I;
        DATA STEP9;
                SET STEP9 FIN&J;
        RUN;
%END;
%MEND MPART;

*****************************************************************************
*       GET PERCENTILES FOR PRECISION REQUIREMENTS:
-----------------------------------------------------------------------------;
data out.countb;
   set in.counta;
```

```
   by geosmpl;
   if first.geosmpl then output out.countb;
run;

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

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

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

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

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

***********************************************
*       SET INITIAL SAMPLE SIZES
***********************************************;
        NUM=&Z**2*&SSQUARE/&HLA0**2;
        NHZERO=NUM/(1+(NUM-1)/POPSIZE);
        NHF = NHZERO;
*************************************************************************
*    PRECISION REQUIREMENTS FOR SITE-LEVEL ESTIMATES W.R.T. THE NUMBER OF BGs
-------------------------------------------------------**************************;
        if dom1 in ('9901', '9902', '9903', '9904') then HL1 = 0.04; *Q1 2004
added precision requirement for OCONUS OOC;
                **greater precision for out-of-catchment areas;
        else if dom1 not in ('9901', '9902', '9903', '9904') then do;
           if psum1<=pop_50 then HL1 = 0.10; **50th percentile or less;
```

```
           else if psum1<=pop_75 then HL1 =0.095;  **between 50th and 75th
percentile;
           else if psum1<=pop_90 then HL1 =0.09;  **between 75th and 90th
percentile;
           else if psum1 >pop_90 then HL1 =0.07849; **greater than 90th
percentile;
        end;
        else HL1 = 0.10;
                **greater precision for large catchment areas, excluding out-
of-catchment areas;
        HL2 = 0.05;  ** FOR ebsmpl   **********;
        HL3 = 0.02;  ** FOR AS A WHOLE *****;
        DROP M pop_50 pop_75 pop_90 NUM PSUM0 PSUM1 PSUM2 TOTAL;
RUN;

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

%MPART(1);

**-----------------------------------------------------------------------
*       CREATE STATUS&ITE SO THAT FIN VALUES CAN REFLECT ITE TOO
-------------------------------------------------------------------------*;

DATA INDATA;SET STEP9;
        STATUS1=10+FIN;
        NHF1=NHF;
DROP FIN;
RUN;

*********************************************************
*       ACCOUNT FOR enbgsmpl PRECISION REQUIREMENT
*********************************************************;

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

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

%mpart(3)
DATA FINAL;SET STEP9;
        STATUS3=30+FIN;
        NHF3=NHF;
        VH=POPSIZE**2*((POPSIZE-NHF)/(POPSIZE-1))*&SSQUARE/NHF;
RUN;

*-------------------------------------------------------------------------
        CHECK IF THE FINAL SAMPLE SIZES MEET ALL PRECISION REQUIREMENTS
-------------------------------------------------------------------------;
```

```
PROC SORT DATA=FINAL;BY DOM1;RUN;
PROC MEANS NOPRINT DATA=FINAL;VAR VH;BY DOM1;
        OUTPUT OUT=FDATA1 SUM=V1;
RUN;
DATA FINAL;MERGE FINAL FDATA1;BY DOM1;run;

PROC SORT DATA=FINAL;BY DOM2;RUN;
PROC MEANS DATA=FINAL NOPRINT;VAR VH;BY DOM2;
        OUTPUT OUT=FDATA2 SUM=V2;
RUN;
DATA FINAL;MERGE FINAL FDATA2;BY DOM2;run;

PROC SORT data=final;BY DOM3;RUN;
PROC MEANS DATA=FINAL NOPRINT;VAR VH;BY DOM3;
        OUTPUT OUT=FDATA3 SUM=V3;
RUN;
DATA FINAL;MERGE FINAL FDATA3;BY DOM3;run;

DATA FINAL;IF _N_ = 1 THEN SET FDATA3;
        SET FINAL;
        P0=SQRT(((POPSIZE-NHF)/(POPSIZE-1))*&SSQUARE/NHF)*1.96;
        P1=SQRT((V1/DSUM1**2)*1.96**2);
        P2=SQRT((V2/DSUM2**2)*1.96**2);
        P3=SQRT((V3/DSUM3**2)*1.96**2);
RUN;

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

DATA LAST;SET RESP;
        nhf = int(nhf)+1;
        nhff = min(nhff, popsize);
        nhzero = int(nhzero)+1;
        BWT00 = POPSIZE/NHFF;
PROC SORT data=LAST;BY DOM0;run;
PROC MEANS DATA=LAST min max mean n sum;VAR NHZERO nhf NHFF BWT00;RUN;

PROC PRINT DATA=LAST;VAR DOM0 P0 DOM1 P1 DOM2 P2 DOM3 P3 POPSIZE NHFF bwt00;
sum nhff bwt00;
RUN;

proc means sum;
class dom1;
var popsize nhff;
```

```
proc means sum;
class dom2;
var popsize nhff;

proc means sum;
var nhff;

proc sort data=last;by stratum;run;

************************************************************
*       CREATE THE DATA SET CONTAINING THE FINAL SAMPLE SIZES
************************************************************;
DATA out.samsizea;
        SET LAST;
        KEEP STRATUM POPSIZE NHFF BWT00 dom2;
run;

Proc print data=out.samsizea;
where NHFF<20;
TITLE3 "Check for Sample Size less than 20";
run;
```

SAMPLA01.SAS

```
*************************************************************************
*                                                                       *
* PROGRAM: F:\Q1_2005\Programs\Sampling\SAMPLA01.SAS                    *
* TASK:    2005 DOD Health Care Survey, Quarterly Sampling              *
* PURPOSE: Draw Sampling Frame for 2005 Quarterly DOD Survey Form A     *
*                                                                       *
* PROGRAMMER: Darryl V. Creel                                           *
* UPDATED: Esther Friedman                                              *
*          2)11/15/2004 by Haixia Xu for q1,2005 sampling               *
*                                                                       *
* INPUTS:  FRAMEA.SD2 - Frame for 2005 Quarterly DOD Survey             *
*          SAMSIZEA.SD2 - Sample Sizes by Stratum for 2005 Quarterly DOD
Survey *
*
* OUTPUTS: SAMPLA01.SD2 - Sampling Frame for 2005 Quarterly DOD Survey Form A
*
*                                                                       *
*                                                                       *
*************************************************************************;

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


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

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

libname in  v6 'F:\Q1_2005\Data\AFinal';
libname out v6 'F:\Q1_2005\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>=0.03125;
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 ascending 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;

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

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

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

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

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

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

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

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

proc sort data=denom;
by ebg_com;
run;

proc sort data=numer;
```

```
by ebg_com;
run;

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

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

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

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

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

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

proc sort data=denom;
by CACSMPL;
run;

proc sort data=numer;
by CACSMPL;
run;

data in.rat_cac;
merge numer denom;
by CACSMPL;
sam_rat=numer/denom;
run;

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

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

```
run;

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

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

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

proc sort data=denom;
by STRATUM;
run;

proc sort data=numer;
by STRATUM;
run;

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

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

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

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

data in.sampla;
set in.sample (drop = bwt00 count dom2 enbgs01-enbgs07 I popsize pre_str zone
zone1-zone5);
label cacsmpl  = 'Catchment Area'
        geosmpl  = 'Geographic Area'
      enbgsmpl = 'Enrollee/Beneficiary Group'
        ebg_com  = 'Enrollee/Beneficiary Group Prime Combined'
        ebsmpl   = 'Enrollee/Beneficiary Group Collapsed'
      nhff     = 'Stratum Sample Size'
      stratum  = 'Stratum';
run;

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

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

data in.sampla01 (keep = mprid stratum cacsmpl enbgsmpl ebg_com nhff
PRRECFLG);
set in.sampla;

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

BWT.SAS

```
*************************************************************************
*
* PROGRAM: F:\Q1_2005\Programs\Sampling\BWT.SAS
* TASK:    2005 DoD Health Care Survey, Quarterly Sampling
* PURPOSE: Construct Sampling Weight for 2004 Quarterly DoD Survey Form A
*
*
* INPUTS:  FRAMEA.SD2 - Frame for 2005 Quarterly DoD Survey
*          SAMPLA.SD2 - Internal Sample file for 2005 Quarterly DoD Survey
*
* OUTPUTS: BWT.SD2 - Sampling Weight for 2005 Quarterly DOD Survey Form A
*
* Updated: Haixia Xu on 11/18/2004 for q1, 2005 sampling
*
*************************************************************************;

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

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

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

libname in   v6 'F:\Q1_2005\Data\AFinal';
libname out  v6 'F:\Q1_2005\Data\AFinal';
libname inv8 v8 'F:\Q1_2005\Data\AFinal';

*** include the design effects macro.;

%include "c:\myfiles\macros\design_effects_unequal_weights.sas";

data sampla;
set in.sampla;
run;

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

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

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

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

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

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

proc sort data=frame;
by stratum;
run;

proc sort data=sample;
by stratum;
run;

data weight;
merge frame sample;
by stratum;
bwt = Fcnt_str/ Scnt_str;
run;

title5 'Information for the Sampling Weight';
proc print data=weight;
var stratum Fcnt_str Scnt_str bwt;
sum Fcnt_str Scnt_str;
run;

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

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

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

proc sort data=sampla out=sample;
by stratum;
run;

data bwt wonly sonly problem;
merge wt (in=inw) sample (in=ins);
by stratum;

if pnsexcd = "M" then sexsmpl = 1;
  else if pnsexcd = "F" then sexsmpl = 2;
  else if pnsexcd in ("Z"," ") then sexsmpl = 1;
  else sexsmpl = 3;

if svccd = "A" then svcsmpl = 1;
  else if svccd = "N" then svcsmpl = 2;
  else if svccd = "M" then svcsmpl = 3;
  else if svccd = "F" then svcsmpl = 4;
  else if svccd = "C" then svcsmpl = 5;
  else svcsmpl = 6;

if inw = 1 and ins = 1 then output bwt;
  else if inw = 1 and ins = 0 then output wonly;
  else if inw = 0 and ins = 1 then output sonly;
  else output problem;
```

```
run;

title5 'Check the Constructed Variables';
proc freq data=bwt;
tables pnsexcd*sexsmpl svccd*svcsmpl / list missing;
run;

title5 'Information for the Sampling Weight';
proc univariate data=bwt normal plot;
var bwt;
run;

data inv8.bwt;
set bwt;
label bwt = 'Sampling Weight';
run;

title5 'Checks for BWT Data Set';
proc means data=inv8.bwt n sum;
var bwt;
run;

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


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

%macro checkvar(input_data, sorting_variable, weighting_variable);

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

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

proc means data=&input_data. n sum noprint;
class &sorting_variable.;
var &weighting_variable.;
output out=bwtchk  n = sampcnt sum = bwtsum;
run;

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

proc sort data=bwtchk;
by &sorting_variable.;
run;
```

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

data finalchk;
merge bwtchk frame(rename = (numer = pop));
by &sorting_variable.;
diff = pop - bwtsum;
run;

title5 "Final Checks for the Sampling Weight by &sorting_variable.";
proc print data=finalchk;
var &sorting_variable. sampcnt bwtsum pop diff;
sum sampcnt bwtsum pop diff;
run;

%mend checkvar;

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

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

proc univariate data=finalchk;
var diff;
run;


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

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

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

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

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

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

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

DESIGN_EFFECTS_UNEQUAL_WEIGHTS.INC

****

Name:
design_effects_unequal_weights

Purpose:
Calculate the design effects due to unequal weights. Creates two data sets. One data set contains the overall design effect and the information used to calculate the design effect. The other data set contains the design effects for each category of the analysis variable and the information used to calculate these design effects. In the two data sets, the additional information refers to the number of observations, the sum of the squared weights, and the sum of the weights squared.

Programmer:
Darryl V. Creel

Parameters:
There are five:

(1) in_data_set - The input data set.

(2) analysis_variable - The analysis variable contains the categories by which the design effects are calculated.

(3) weight_variable - The weight variable.

(4) out_overall_data_set - Name of the data set that contains the overall design effect.

(5) out_data_set - Name of the output data set that contains the design effects for each category of the analysis variable.

Output:
There are two data sets:

(1) A data set that contains the overall design effect and the information used to calculte the overall design effect. It includes observations that have a missing value for the analysis variable. This data set is named by the out_overall_data_set parameter.

(2) A data set that contains the design effects for each category of the analysis variable and the information used to calculate these design effects. There is one observation for each category of the analysis variable, including a missing category, if there are missing values for the analysis variable. This data set is named by the out_data_set parameter.

```
Side Effects:
None


Notes:

   (1) Use with SAS V8.

   (2) Do NOT use the following variable names as parameters:
       (a) _weight_variables
       (b) _overall_design_effect
       (c) _design_effect.


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


%macro design_effects_unequal_weights
   ( in_data_set,
     analysis_variable,
     weight_variable,
     out_overall_data_set,
     out_data_set );

   data _weight_variables;
      set &in_data_set. ( keep = &analysis_variable. &weight_variable. );
      &weight_variable._sq = &weight_variable. * &weight_variable.;
   run;

   proc means data = _weight_variables missing noprint;
      var &weight_variable. &weight_variable._sq;
      output out = _overall_design_effect
             sum ( &weight_variable. &weight_variable._sq ) =
             sum_&weight_variable. sum_&weight_variable._sq;
   run;

   data &out_overall_data_set.;
      set _overall_design_effect ( drop = _type_ );
      design_effect = ( _freq_ * sum_&weight_variable._sq ) / (
sum_&weight_variable. * sum_&weight_variable. );
   run;

   proc sort data = _weight_variables;
      by &analysis_variable.;
   run;

   proc means data = _weight_variables missing noprint;
      var &weight_variable. &weight_variable._sq;
      by &analysis_variable;
      output out = _design_effect
             sum ( &weight_variable. &weight_variable._sq ) =
             sum_&weight_variable. sum_&weight_variable._sq;
   run;

   data &out_data_set.;
      set _design_effect ( drop = _type_ );
```

```
      design_effect = ( _freq_ * sum_&weight_variable._sq ) / (
sum_&weight_variable. * sum_&weight_variable. );
   run;

   proc datasets;
      delete _weight_variables _overall_design_effect _design_effect;
   run;

%mend design_effects_unequal_weights;
```

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 variable population sizes.

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

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

where *P* denotes the population proportion. Because the expected sample sizes for all strata for the 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*. Using formula (G.1) for the simple random sample variance of *p*, the precision requirement *B* can represented by the following equation:

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

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

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

This formula was used as the first step in determining initial sample sizes for all strata in the 2005 HCSDB.

Note from formula (G.3), sample sizes vary according to values of the proportion *P*. As the value of *P* becomes closer to 0.5, *n* becomes larger. Because proportions of interest for this survey could have values ranging from zero to one, the resulting sample sizes lie within a wide range of values with the largest value associated with *P*=0.5. For sample size determination, we used a proportion value of *P*=0.5, which ensures that the sample size will be large enough to meet or exceed the predetermined precision requirement for all proportions to be estimated.

Since the sample size is being defined to construct a 95 percent interval for P = 0.5 with a half-length interval less than or equal to B, $z_{1-\alpha/2}$ can be replaced with $z_{.975}$ which is 1.96. Formula (G.3) can then be specified as the following:

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

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

Recall that the 2005 HCSDB employs a stratified sample design. Since we wish to estimate the proportion of beneficiaries from domain d having a certain characteristic. An estimate of the proportion P_d can be obtained as the weighted sum of stratum-level proportion estimates:

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

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

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

where n_h is the sample size in stratum h and P_h is the stratum-level proportion for stratum h. Like the single stratum case, all stratum-level proportions are assumed with 0.5, and thus the formula (G.6) can be reduced to the following:

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

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

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

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

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

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

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

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

Likewise, this formula becomes

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

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

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

We used the 2003 HCSDB response rates for beneficiary groups as the expected response rates R; R = 0.175, 0.29, 0.25, 0.53, 0.425, and 0.72 for enrollment and beneficiary group 1 (AD), 2 (ADFM-ENR), 3 (ADFM-NE), 4 (RET<65-ENR), 5 (RET<65-NE), and 6 (RET65+), respectively.