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ECONOMETRIC ANALYSIS OF 2003 DATA ON THE POST-SERVICE EARNINGS OF MILITARY RETIREES: METHODOLOGY REPORT

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Executive Summary

This study describes the methodology used to evaluate work effort decisions and estimate earnings of military retirees based on data from the *2003 Survey of Retired Military* (2003 SRM), supplemented with data on the civilian non-institutional population from the *March 2003 Current Population Survey Annual Social and Economic Supplement* (CPS-ASEC).

This report describes how the estimation datasets were constructed from these two data sources and describes the econometric methodology in detail, including the definition of alternative models designed to address empirical and data issues. The analysis datasets for the 2003 SRM and 2003 CPS-ASEC are discussed first, followed by a description of the basic model used throughout the analysis for both military retirees and comparable civilian workers. Application of this basic model estimate military retiree earnings and results of alternative model estimates are described next. Finally, Appendixes A-D include details about analysis datasets and regression results for enlisted and officer retirees and comparable civilians.

Data

The 2003 SRM provides detailed information on the personal characteristics and employment history of military retirees (DMDC, 2004a). It was distributed to a sample of 53,100 military retirees. Of these, 32,275 surveys were returned. The analysis dataset draws from these responses, although a number of observations were deleted because of missing variables. The final analysis datasets included 18,082 enlisted retirees and 6,857 officer retirees. The dataset also includes information from respondents' service, VA, and retirement records.

The CPS-ASEC—conducted by the Bureau of the Census for the Bureau of Labor Statistics—includes personal and job-related information on civilians, their families, and households. The CPS-ASEC sample includes a total of 216,424 person records. The analysis dataset was obtained from the civilian sample by excluding person records where respondents were less than 38 years of age, non-high school graduates, female, military retirees, or reported negative earnings. These exclusions resulted in an analysis sample of 36,027 observations.

Model Description

An individual's earnings depend on a variety of factors, including personal attributes (e.g., educational attainment level), work experience, and geographic location. The post-service earnings of military personnel may also be affected by service-related disabilities. This study focuses, in particular, on the impact of disabilities on the earnings of military retirees.

Typically, an earnings model is estimated for full-time workers. This model, however, ignores a potential source of bias because earnings are not observed for individuals who choose part-time over full-time work. The potential earnings of part time workers may be lower than the

observed earnings of full-time workers. This could result in biased model estimates and lead to erroneous conclusions about the earnings gap between retirees and their civilian cohorts, as well as the impact of disabilities on post-service earnings. The estimation technique used in this study corrects for this potential "selection" bias in the earnings equation by using a two-step procedure first proposed by Heckman (1979). The first stage estimates the probability an individual will work full time. In the second stage, information from this equation is incorporated into a non-linear regression model of earnings by including a variable that depends on the estimate of the probability of full-time work in the first stage. This variable, hereafter referred to as LAMDA, controls for the effects of selection bias in the earnings equation.

Results

The two-stage estimation process used in this study begins with a model of the factors affecting the probability of an individual working full time. This information is subsequently included in the second-stage earnings model that measures the effects of age, demographics, and other factors on annual earnings. Estimates for officers in the 2003 SRM and the civilian CPS-ASEC sample show evidence of bias (i.e., the coefficient on the control variable is statistically significant). Basic earnings model results are presented below and compared to several alternative model definitions.

Alternative Definitions of the Age Variable

The basic earnings equation includes both AGE and the square of the age variable. With this specification, age-earnings profiles show earnings increasing across a portion of the post-service career; eventually, however, earnings decline. An alternative model uses only AGE in the earnings equation. This model does not work as well as the basic equation. In all three alternative equations, the coefficient on AGE becomes negative, but remains significant. Overall fit of the equation is largely unaffected.

Age is treated differently in the basic choice equations for the three samples. For the enlisted sample, age is represented by categories and assigned a value of 1 if the respondent's age falls in a given category, 0 otherwise. The officer equation uses the AGE variable by itself and the civilian choice equation uses both AGE and AGESQ. An alternative definition of the officer choice equation using a categorical age variable has little effect on the significance or magnitude of other explanatory variables. However, when the results of this equation are used as the first-stage correction in the earnings equation, both the AGE and AGESQ variables become insignificant.

The alternative definition of age in the civilian choice equation also has an unexpected effect on the civilian earnings equation. When AGESQ is omitted from the equation the coefficients on both AGE and AGESQ are significant in the earnings equation, but their signs are reversed. These results would yield a U-shaped age-earnings profile, the opposite of results found uniformly throughout the literature on earnings.

The Effects of Geographic Variation

Two models were estimated to account for the effects of geographic variation. In the baseline equation, URBAN takes the value of one if the household is located in an area with a

population greater than or equal to 10,000, 0 otherwise. 2003 SRM respondents' zip codes were matched to the corresponding Rural-Urban Commuting Areas (RUCA) code.

The alternative choice and earnings equations use region category variables (EAST, WEST, and SOUTH) to indicate in which part of the country the household was located (as compared to MIDWEST). In both officer equations, two of the three region category variables are insignificant. In the enlisted choice equation, none of the regional variables are significant. In the enlisted earnings equation, two of the three region variables are insignificant. For civilians, all of the region variables in the choice equation are negative, though only the coefficient for the variable WEST is significant. In the civilian earnings equation, WEST is again the only significant region variable. The addition of the region category variables also causes other variables to lose significance.

The Effects of Proximity to Military Facilities

Because retirees are eligible for non-cash benefits available only at military facilities (e.g., commissary and exchange shopping, direct medical care), location decisions may be affected by proximity to such facilities, whether they are in low wage areas or not. Location may therefore explain some gaps in retiree earnings relative to civilian earnings.

The baseline model uses a constructed variable (MEDLOC) that has a value of one if the retiree indicated that proximity to military medical facilities was important or very important, and a zero otherwise. An alternative model includes dummy variables indicating self-reported distance from a military commissary in place of MEDLOC.

In both the officer choice and officer earnings baseline equations, MEDLOC is significant and negative, while in the alternative model definition the commissary variables are positive and have mixed significance. The inclusion of the commissary categorical variable causes the selection bias control variable LAMBDA to become insignificant. In the baseline enlisted choice equation, MEDLOC is negative and significant, while in the alternative choice equation all three of the commissary categorical variables are positive and significant. There is little effect on the earnings equation; in the baseline MEDLOC is not significant, and in the alternative only one of the commissary variables is significant.

Restricting the Comparison Group to Veterans

The civilian earnings model is estimated on two different samples. The baseline sample includes all males between the ages of 38 and 64. An alternative sample further restricts this group to individuals with prior military experience, consistent with previous empirical research. AGE, AGESQ, and LAMBDA all lose significance for the veteran's sample. In particular, neither AGE nor LAMBDA is still significant at the 0.05 level. The coefficients on several other explanatory variables also become less significant for the veterans sample.

Summary and Conclusions

This study identifies and evaluates alternative earnings and employment models for military retirees sampled in the 2003 Survey of Retired Military. The methodology uses a two-stage estimation procedure that is sensitive to the definition of age in the employment choice

equation. The only equation yielding results for the civilian sample consistent with previous studies includes both AGE and AGESQ. The equations that fit best for officers use AGE alone, while the best enlisted equations use categorical age variables.

Further research is warranted to determine why veteran-only samples of civilians do not yield plausible results. Previous research consistently relied on veteran-only samples, primarily to control for the basic employability screening implied by successful entry into the military. However, these studies are based on earlier data in which a large proportion of the working age male population served in the military. Remaining veterans in the CPS-ASEC sample are largely from the all-volunteer era. These veterans make up a smaller proportion of the general workforce and may be more homogeneous in characteristics and workforce experience.

Another area for potential future research is an examination of trends in the retiree wage gap. This study, in contrast to previous work, shows no gap between retirees and those who did not complete a full career in the military. Longitudinal data on retirees' post-service earnings would be valuable to isolate cohort effects and determine whether military experience is becoming more relevant to subsequent civilian employment.

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Section 1: Introduction

Historically, military retirees could expect lower earnings than those of otherwise comparable civilians upon retirement. Previous research has identified the likely sources of this discrepancy and has shown that this earnings "gap" disappears over time as retiree's annual earnings catch up to the annual earnings of their civilian counterparts (Borjas and Welch, 1986). The military retirement system is designed, in part, to offset this gap. There has been a great deal of attention focused recently on the question of veterans' disability compensation for military retirees. At issue is whether veterans who were disabled while in the military earn less than otherwise comparable retirees without disabilities. If so, the retiree earnings gap would be even greater for disabled retirees. Because of this possibility, Congress has acted to gradually repeal the prohibition against concurrent receipt of military retired pay and disability compensation from the Department of Veterans Affairs (VA). The basic question for policy makers is what effect do disabilities have on both the decision to work full time and on earnings.

This study describes the methodology for econometric analysis of work effort decisions and earnings of military retirees based on data from the *2003 Survey of Retired Military* (2003 SRM[DMDC, 2004]), supplemented with data from on the civilian non-institutional population from the March *2003 Current Population Survey Annual Social and Economic Supplement* (CPS-ASEC). This report describes how estimation datasets were constructed from these two data sources and also defines alternative econometric models that address specific empirical and data issues. The analysis datasets for the 2003 SRM and 2003 CPS-ASEC are summarized in Section 2. Section 3 describes a baseline model applied throughout the analysis for both military retirees and comparable civilian workers. Section 4 shows how this model predicts military retiree earnings, including the effects of disabilities. Alternative variations of this baseline model are also discussed. Appendixes E and B include the 2003 SRM Survey instrument and 2003 CPS-ASEC Data Dictionary elements for civilian analysis variables. Detailed results of the baseline and alternative model definitions for enlisted retirees, officer retirees, and comparable civilians are in Appendixes B, C, and D, respectively.

Section 2: Construction of the Analysis Datasets

2003 SRM Analysis Datasets

The 2003 SRM (DMDC, 2004) provides detailed information on the personal characteristics and employment history of military retirees. The data provided also include information from respondents' service, VA, and retirement records. The 2003 SRM was distributed to a sample of 53,100 military retirees. Of these, 32,275 surveys were returned (Kroeger, Flores-Cervantes, Jones, & Wilson, 2004). Appendix E contains a copy of the survey questionnaire

The first step in the creation of the estimation datasets was to divide the respondents into officer and enlisted samples using the variable PAYGRADE. Records with PAYGRADE equal to E01 through E09 were allocated to the enlisted sample, and all other records were allocated to the officer sample.

Next, records with a missing value for sex or race were also eliminated. All early retirees were deleted by ensuring that years of service were greater than 19. Finally, any individual who was exclusively self-employed was also deleted. (An individual was defined as exclusively self-employed if the variable RE022 = 4.) For the earnings estimates, the samples were further pared down to include only those who were employed full time (RE028R = 4). Table 1 describes the 2003 SRM sample and summarizes the selections made for the analysis. A number of variables were constructed from 2003 SRM data for use in the analysis. Table 2 provides a complete list of the variables included in the analysis datasets.

Table 1.
Definition of 2003 SRM Sample

Sample	Number of Observations		
	Enlisted	**Officer**	**Total**
Total Sample Frame	41,174	11,925	53,099
Excluding nonrespondents	23,680	8,594	32,274
Excluding missing race and sex	23,011	8,400	31,411
Excluding YOS at retirement < 20	19,282	7,708	26,990
Excluding age < 38	19,282	7,708	26,990
Excluding self-employed	18,082	6,857	24,939
Full-time employed only[a]	7,988	3,062	11,050

[a]Sample used for estimation of earnings equation.

Table 2.
Variables in SRM Analysis File

Variable Name	Definition
FULLTIME	1 if re028r = 4
LOGEARN	log of re056ra
AGE	Age in years as of 1 January 2002
FEMALE	1 if SRSEX = 2
MINORITY	1 if Race2 = 2
MARRIED	1 if SRMARST = 1
DEPKIDS	1 if re115 = 2
URBAN	1 if respondent lives in an urban area or large town (pop. > 10,000); used Census data and mapped it to re0103
EAST	1 if Census4 = 4
WEST	1 if Census4 = 2
SOUTH	1 if Census4 = 3
MIDWEST	1 for all other valid Census4 responses
DIS0020	1 if CDISAB = 2
DIS3050	1 if CDISAB = 3
DIS6080	1 if CDISAB >3 and CDISAB < 7
DIS90100	1 if CDISAB > 6
SELFDIS	1 if re025 = 1
ARMY	1 if XSVC = 1
NAVY	1 if XSVC = 2
USMC	1 if XSVC = 3
USAF	1 if XSVC = 4
SOMECOLL	1 if re107c > 3 and re107c < 7
BACH	1 if re107c = 7
BACHPLUS	1 if re107c > 7
MANAGER	1 if cenoc00b < 100
PROF	1 if cenoc00b > 99 and cenoc00b < 360
SERV	1 if cenoc00b > 359 and cenoc00b < 470
SALES	1 if cenoc00b > 469 and cenoc00b < 500
OFFICE	1 if cenoc00b > 499 and cenoc00b < 600
FARM	1 if cenoc00b > 599 and cenoc00b < 620
TRANSPRT	1 if cenoc00b > 899 and cenoc00b < 980
BLUECOLL	1 if cenoc00b > 619 and cenoc00b < 900
MEDLOC	1 if re018 = 3
HH_INCOME	re052ra + re053ra + re054ra + re055ra + re056ra + re057ra + re058ra + re059ra
OTHER	HH_Income – re056ra
RET20	1 if SRVYRS = 20
RET2126	1 SRVYRS > 20 and SRVYRS < 27
RET27UP	1 SRVYRS > 26
O4O5	1 if PAYGRADE = O04 or O05
O6PLUS	1 if PAYGRADE = O06, O07, O08, O09, O10 or O11
WARRANT	1 if PAYGRADE = W02, W03, W04, OR W05
E1E4	1 if PAYGRADE = E01, E02, EO3 or EO4
E5E6	1 if PAYGRADE = E05 or EO6
E7E9	1 if PAYGRADE = E07, E08, or E09

2003 CPS-ASEC Analysis Dataset

The military retirees were compared to a dataset of civilians extracted from the *March 2003* CPS-ASEC.[1] The Current Population Survey (CPS) is a monthly survey conducted by the Bureau of the Census for the Bureau of Labor Statistics and is used to collect labor force data on a sample of households throughout the country. The CPS-ASEC survey, conducted annually in March, collects data on work experience, income and non-cash benefits in addition to that collected in the monthly CPS. The survey data base consist of household records, family records, and person records compiled for a random sample of housing units in the U.S. It includes 99,000 households made up of the standard CPS monthly sample of 60,000 households, 4,500 Hispanic households added specifically for the CPS-ASEC March supplement, and another 34,500 households sampled to improve state-level estimates of children's health insurance coverage (BLS [2003]). Data for the civilian sample used in this study came from the 216,424 person records in the 2003 CPS-ASEC.

One key difference between the CPS-ASEC sample and the 2003 SRM sample used for this study is that only males are included in the former. Female labor-force participation in the civilian population is typically more sporadic than male participation (e.g., some females leave the labor force for child-rearing) and the CPS-ASEC data do not provide information on the cumulative labor-force experience of females. In the 2003 SRM sample, the females who are included did not leave the labor force for extended periods, at least until they retired from active duty (a minimum of twenty years).

The CPS-ASEC sample was first partitioned into three separate datasets, according to record type (person, household, or family). Person records had to meet the following five criteria to be included in the estimation dataset:

- Respondent is over the age of 37 (A_AGE > 37)
- Respondent is male (A_SEX=1)
- Respondent has completed high school (A_HGA > 38)
- Respondent is not collecting retirement benefits from armed forces (RET_SC1 and RET_SC2 $\neq$ 3)
- Respondent has positive earnings (PEARNVAL > 0)

The records that passed this screening were then matched to the appropriate household and family records using unique household and family identifiers available on each person record. Table 3 summarizes the civilian sample based on these exclusions.

[1] Prior to 2002, this survey was known as the CPS March Demographic Supplement.

Table 3.
Definition of CPS-ASEC Sample

Sample	Number of Observations
Total Sample Frame	216,424
Excluding age < 38	93,274
Excluding non-high school graduates	78,346
Excluding females	36,927
Excluding military retirees	36,372
Excluding respondents with earnings < 0	36,027
Full-time employed only[a]	22,310

[a]Sample used for estimation of earnings equation.

Like the 2003 SRM datasets, the CPS-ASEC analysis dataset contains a number of constructed variables. A complete list of variables for this dataset is presented in Table 4.

Section 3: Model Description

Earnings are a function of personal and service characteristics. Earnings depend, as well, on the factors that affect one's decision to participate in the workforce. For instance, one might expect that those who do not have very good civilian earnings opportunities are least likely to find jobs with wages high enough to cause them to enter the labor force.[2] This would mean that a variable, call it "employability", is correlated with *observed earnings* (because it affects labor force participation decisions) but is itself unobserved and would therefore be reflected in the random error term of an earnings equation. Failure to correct for this "employability" factor would bias regression estimates of an earnings model and overstate predicted earnings. This effect is referred to as *selection bias* or *incidental truncation* in the econometrics literature. Heckman (1979) first analyzed the problem and proposed a simple, two-stage procedure that corrects for this bias.[3]

The first step is a model of labor-force participation.[4] The probability that an individual will work full time depends on personal attributes, including education, age, total household income, number of dependent children, and marital status. If these independent variables are denoted by w, their choice equation can be specified as

$$\Pr[FULLTIME] = \Phi(\gamma' w),$$

[2] Economists refer to the wage level below which the individual chooses not to work as the individual's *reservation wage*.
[3] Heckman (1979) shows how the decision to participate in the labor force can bias predicted earnings. The discussion in this section follows Greene (1990), p. 744.
[4] The discussion in this section follows Greene (1990), p. 744.

Table 4.
Variables in CPS-ASEC Analysis File

Variable Name	Definition
AGEUND45	1 if A_AGE <45
AGE4554	1 if (A_AGE >44) and (A_AGE <55)
AGE5564	1 if (A_AGE >54) and (A_AGE <65)
AGE65UP	1 if A_AGE >64
SOMECOLL	1 if (A_HGA ≥ 40) and (A_HGA ≤ 42)
BACH	1 if (A_HGA = 42)
BACHPLUS	1 if (A_HGA ≥ 44) and (A_HGA ≤ 46)
MINORITY	1 if (PRDTRACE ≥ 02) and (PRDTRACE ≤ 21)
AGESQ	(A_AGE^2)
MARRIED	1 if (A_MARITL ≥ 1) and (A_MARITL ≤ 3)
WITHKIDS	1 if (HUNDER18 ≥ 1)
EAST	1 if (GDIV = 1) or (GDIV = 2)
SOUTH	1 if (GDIV ≥ 5) and (GDIV ≤ 7)
WEST	1 if (GDIV = 8) or (GDIV = 9)
EARNLN	ln(PEARNVAL)
FULLTIME	1 if (A_HRS1 > 34)
TOTHHINC	(HEARNVAL + HTOTVAL)
REASONFORNW	1 is (RSNNOTW = 1)
VETTYPE	1 if (VET_TYP1 = 1)
VETERAN	1 if (A_VET < 6) and (A_VET > 0)
DISWORK	1 if (DIS_HP = 1)
URBAN	1 if (HMSA_R = 1)
OTHER	(TotHHInc – PEARNVAL)
MANAGER	1 if (A_DTOCC ≥ 0) and (A_DTOCC ≤ 3)
PROF	1 if (A_DTOCC ≥ 3) and (A_DTOCC ≤ 10)
SERVICE	1 if (A_DTOCC ≥ 11) and (A_DTOCC ≤ 15)
SALES	1 if (A_DTOCC = 16)
OFFICE	1 if (A_DTOCC = 17)
FARM	1 if (A_DTOCC = 18)
TRANSPT	1 if (A_DTOCC = 22)
BLUECOLL	1 if (A_DTOCC ≥ 19) and (A_DTOCC ≤ 21)
WSALVALLN	ln(WSAL_VAL+1)

which can be estimated as a probit equation. A probit equation is a discrete choice model that assumes a normal distribution for the error term. The dependent variable represents the probability of the choice being made. In this case, the dependent variable measures the outcome decision whether to work full time or not. It takes a value of one if the person has chosen to work full time and zero if he or she has chosen not to work full time.

For the selected sample (i.e., full-time workers), a variable commonly referred to in econometric literature as the inverse Mills ratio was computed as follows, where φ is the standard normal probability distribution and Φ is the standard normal cumulative distribution

$$\hat{\lambda}_i = \frac{\varphi(\gamma' w)}{\Phi(\gamma' w)}.$$

The earnings equation incorporates this information from the choice equation as a separate explanatory variable. The earnings model is defined as a log-earnings equation of the form

$$\ln(W_i) = X_i\alpha + M_i\beta + \hat{\lambda}_i\beta_\lambda + \varepsilon_i.$$

W_i represents the annual earnings from the individual's primary job; X_i are the individual's personal attributes affecting earnings; and M_i are the retiree's service characteristics affecting earnings. Because the earnings of non-full-time workers are expected to be lower than those of full-time workers, we expect $\beta_\lambda < 0$. This second-stage equation is estimated using Ordinary Least Squares regression.

Section 4: Results

The multivariate analysis of the effects of disability and other factors on retirees' post-service earnings uses a two-stage estimation process to control for potential bias resulting from the relationship between factors affecting an individual's decision to work full time, and the factors helping to determine the wages the individual would receive if he or she worked full time. Wages are observed only for full-time workers; the potential wages of individuals who chose not to work full time may differ systematically from these observed wages.

This section of the report provides the detailed results for baseline models of the decision to work full time and earnings. Additionally, the results of alternative model and variable definitions are reported and compared to the results for the baseline models. The alternatives addressed include:

- alternative definitions of the AGE variable
- measuring geographic variation in earnings and employment
- effects of proximity to military facilities
- restricting the comparison group to veterans only

Detailed results for the enlisted 2003 SRM alternatives are reported in Appendix B, while the officer results are detailed in Appendix C. Tables displaying alternative results for the CPS-ASEC sample appear in Appendix D.

Basic Model

Each model consists of two equations: a choice equation in which the dependent variable is the probability of working full time, and an earnings equation. Table 5 presents the results for the basic choice equations for the enlisted and officer samples of the 2003 SRM. Table 6 reports the results of the choice equation estimation for the CPS-ASEC sample. Earnings equation results for the basic earnings models are presented in Table 7 and Table 8.

Table 5.
Baseline Choice Equation Results for Enlisted and Officer 2003 SRM Samples

Variable	Officer		Enlisted	
	Coefficient	Standard Error	Coefficient	Standard Error
Constant	6.438420*	0.2252	0.628167*	0.0577
AGE	-0.111070*	0.0032	———	
AGEUND44	———		0.184270*	0.0482
AGE5564	———		-0.562734*	0.0316
AGE65UP	———		-1.941207*	0.0400
FEMALE	-0.873759*	0.0933	-0.264811*	0.0587
MINORITY	0.035626	0.0543	-0.091679*	0.0316
MARRIED	0.251178*	0.0625	0.270930*	0.0322
DEPKIDS	0.037978	0.0514	0.151734*	0.0304
URBAN	0.411874*	0.0679	0.230935*	0.0375
DIS0020	-0.042435	0.0589	-0.006736	0.0391
DIS3050	-0.135244**	0.0549	-0.124719*	0.0334
DIS6080	-0.349159*	0.0646	-0.673164*	0.0392
DIS90100	-0.781656*	0.0813	-1.221719*	0.0486
NAVY	-0.142362**	0.0555	-0.025943	0.0347
USMC	-0.105018	0.0918	0.007954	0.0649
USAF	-0.134511*	0.0516	0.021118	0.0316
SOMECOLL	-0.204617**	0.0897	0.084099*	0.0286
BACH	-0.056880	0.0808	0.110733**	0.0455
BACHPLUS	0.086745	0.0620	0.337396*	0.0504
MEDLOC	-0.139573*	0.0420	-0.058509**	0.0260
OTHER	-0.000002*	0.0000	-0.000002*	0.0000
RET2126	0.181983*	0.0474	0.084579*	0.0292
RET27UP	0.196076*	0.0663	0.180775*	0.0518
O1O3	0.024886	0.0834	———	
O6PLUS	0.122899**	0.0585	———	
WARRANT	0.056515	0.0721	———	
E1E4	———		-0.679725	0.4673
E5E6	———		-0.144428*	0.0325
Likelihood Ratio χ^2	2803.91		6204.82	
D.F.	23		24	
Pseudo R^2	0.3869		0.3564	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 6.
Choice Equation Results for CPS-ASEC Sample

Variable	Coefficient	Standard Error
Constant	-3.823344*	0.2188
AGE	0.195858*	0.0081
AGESQ	-0.002293*	0.0001
MINORITY	-0.189034*	0.0202
MARRIED	0.335607*	0.0186
FOWNU18	0.065683*	0.0092
FRELU6	-0.077514*	0.0191
URBAN	0.070929*	0.0176
SOMECOLL	0.072760*	0.0185
BACH	0.291315*	0.0210
BACHPLUS	0.327126*	0.0246
VET_VAL	-0.000032*	0.0000
VETERAN	-0.044563**	0.0180
Likelihood Ratio χ^2	10718.89	
D.F.	12	
Pseudo R^2	0.2574	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 7.
Earnings Equation Results for Enlisted and Officer 2003 SRM Samples

	Enlisted		Officer	
Variable	Coefficient	Standard Error	Coefficient	Standard Error
Constant	7.675188*	0.9745	8.352686*	1.5115
AGE	0.111583*	0.0370	0.127095**	0.0588
AGESQ	-0.001214*	0.0004	-0.001759*	0.0006
Demographic				
FEMALE	-0.327204*	0.0791	-0.604294*	0.2018
MINORITY	-0.163978*	0.0403	-0.016169	0.0624
MARRIED	-0.105995**	0.0458	0.108685	0.0926
DEPKIDS	-0.042207	0.0370	-0.037572	0.0548
URBAN	0.161988*	0.0527	0.341137*	0.1171
Education				
SOMECOLL	0.087321**	0.0383	-0.156992	0.1211
BACH	0.054104	0.0584	0.031620	0.1017
BACHPLUS	0.139796**	0.0639	0.055541	0.0801
Occupation				
MANAGER	0.200365*	0.0522	0.469291*	0.0974
PROF	0.203705*	0.0512	0.319738*	0.0988
SERV	-0.162227*	0.0559	0.130191	0.1368
SALES	-0.375119*	0.0761	-0.405213*	0.1537
OFFICE	-0.093354***	0.0543	-0.009703	0.1333
FARM	-0.118471	0.3034	-0.270584	0.6012
TRANSPRT	-0.145090**	0.0672	0.452274*	0.1385
Disability				
DIS0020	-0.046206	0.0448	-0.029899	0.0650
DIS3050	-0.078552***	0.0409	-0.250796*	0.0661
DIS6080	-0.117044	0.0714	-0.233847**	0.1028
DIS90100	-0.323211**	0.1323	-0.785276*	0.2147
MEDLOC	-0.026992	0.0334	-0.204874*	0.0560
Service				
NAVY	0.110834**	0.0434	-0.082514	0.0679
USMC	0.106870	0.0806	-0.074172	0.1093
USAF	0.181327*	0.0404	-0.128906**	0.0648
RET2126	-0.046010	0.0375	0.117875***	0.0616
RET27UP	0.122497	0.0748	0.219449**	0.0907
E1E4	-3.661470*	0.7086	———	
E5E6	-0.224021*	0.0430	———	
O1O3	———		-0.063755	0.0909
O6PLUS	———		0.395321*	0.0751
WARRANT	———		-0.195501**	0.0842
OTHER	0.000005*	0.0000	0.000000	0.0000
LAMBDA	-0.044963	0.1236	0.892587**	0.3848
Adjusted R^2	0.059		0.074	

Note. The omitted groups in the dummy variables are Nonminority, Unmarried, NoKids, Rural, No VA Disability Rating, Army, High School Diploma or less, Blue Collar, Retired with 20 YOS, Retired as E7 or above (Enlisted), and Retired as O4-O5 (Officer)
*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 8.
Earnings Equation Results for CPS-ASEC Sample

Variable	Coefficient	Standard Error
Constant	3.464002	2.4333
AGE	0.229627 **	0.0935
AGESQ	-0.002902 *	0.0010
	Demographic	
MINORITY	-0.074466	0.0808
URBAN	0.548239 *	0.0528
MARRIED	0.357988 *	0.1203
FOWNU18	0.003246	0.0258
FRELU6	-0.008119	0.0493
	Education	
SOMECOLL	0.278226 *	0.0566
BACH	0.712998 *	0.1022
BACHPLUS	0.682692 *	0.1206
	Occupation	
MANAGER	-0.198963 *	0.0616
PROF	0.073542	0.0687
SERVICE	0.022696	0.0781
SALES	-0.392779 *	0.0708
OFFICE	0.430145 *	0.0920
FARM	-0.539295 **	0.2706
TRANSPT	0.297066 *	0.0779
	Other	
VET_VAL	-0.000015	0.0000
DISWORK	-0.696833 *	0.1692
OTHER	0.000005 *	0.0000
VETERAN	0.245337 *	0.0520
LAMBDA	1.472765 **	0.6035
Adjusted R^2	0.050	

Note. The omitted groups in the dummy variables are Nonminority, Unmarried, Rural, High School Diploma or less, and Blue Collar.
*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Definitions of the Age Variable

In the basic earnings equation, age is represented by both AGE and AGESQ. This defines a nonlinear relationship between age and the log of earnings. This specification yields age-earnings profiles that show earnings initially increasing during retirees post-service careers, reaching a maximum and then eventually declining. An alternative equation definition uses only AGE in the earnings equation. This alternative does not work as well as the basic equation. In all three alternative equations, the coefficient on AGE is positive and statistically significant. In the enlisted equation, the coefficient on the selection bias control variable LAMBDA is statistically significant (see Table 10) but the coefficient on LAMBDA in the officer equation (Table 15) is insignificant. Likewise, the coefficient on LAMBDA in the civilian equation (Table 25) is statistically insignificant.

For the full-time work choice equations, the effect of age is defined differently for each of the three samples. For the enlisted sample, age categories are used. The officer equation uses the continuous variable AGE, and the civilian choice equation uses both AGE and AGESQ. Table 16 shows that an alternative of the officer choice equation with age categories has little effect on the significance or magnitude of other explanatory variables. The R^2 statistic decreases slightly (from 0.39 to 0.37) for the alternative model. However, when the results of the age category equation are entered as the first-stage correction in the earnings equation, both the AGE and AGESQ variables become insignificant (see Table 17). In addition, LAMBDA becomes negative and statistically insignificant.

For both of the age variables, R^2 decreases and the veteran variable becomes significant at the .01 level for a t-test (Table 24). Using these alternative definitions of the age variables in the civilian choice equation, however, affects the earnings equation estimates. Table 26 shows the earnings equation results for the civilian sample when AGESQ is omitted from the choice equation. Note that, while the coefficients on both AGE and AGESQ are statistically significant, their signs are reversed. These results would yield a convex age-earnings profile rather than one that increases to a maximum and then declines, as predicted by human capital theory and confirmed by previous research.

The Effects of Geographic Variation

Two equations are estimated to evaluate the effects of geographic variation. In the baseline equation, URBAN takes the value of one if the household is located in an area with a population greater than or equal to 10,000, 0 otherwise. 2003 SRM respondents' zip codes were matched to the corresponding Rural-Urban Commuting Areas (RUCA) code, as defined in Table 9.

The Economic Research Service of the U.S. Department of Agriculture and the University of Washington jointly developed the RUCA classification system. For the 2003 SRM sample, URBAN dwellers were those residing in a zip code with a RUCA code of 6 or lower. For the CPS-ASEC sample, URBAN was defined as residing in a Metropolitan Statistical Area (HMSA-R = 1).

Table 9.
Rural-Urban Commuting Areas (RUCAs)

RUCA	Definition
1	Metropolitan-area core: primary flow within an urbanized area (UA)
2	Metropolitan-area high commuting: primary flow 30% or more to a UA
3	Metropolitan-area low commuting: primary flow 5% to 30% to a UA
4	Large town core: primary flow within a place of 10,000 to 49,999
5	Large town high commuting: primary flow 30% or more to a place of 10,000 to 49,999
6	Large town low commuting: primary flow 5% to 30% to a place of 10,000 to 49,999
7	Small town core: primary flow within a place of 2,500 to 9, 999
8	Small town high commuting: primary flow 30% or more to a place of 2,500 to 9,999
9	Small town low commuting: primary flow 5% to 30% to a place of 2,500 to 9,999
10	Rural areas: primary flow to a tract without a place of 2,500 or more

Source. U.S. Department of Agriculture (2004)

The alternative definition uses region categorical variables (EAST, WEST, and SOUTH) to indicate in which part of the country the household was located. MIDWEST is the omitted reference variable.[5] In both officer equations (Table 18 and Table 19), two of the three region variables are insignificant. In addition, the pseudo R^2 in the alternative officer choice equation is slightly lower than in the baseline equation. For the enlisted choice equation (Table 11), none of the region variables are significant. In the enlisted earnings equation (Table 12), two of the three region variables are insignificant. In addition, the adjusted R^2 decreases slightly. In the case of the civilian choice equation (Table 27), all of the region variables are negative, though only the coefficient on WEST is significant. For the civilian earnings equation (Table 28), WEST is again the only significant regional variable. The addition of region variables also causes other variables to lose significance.

The Effects of Proximity to Military Facilities

The model also measures the effects of proximity to military facilities on wages and employment. Because retirees are eligible for non-cash benefits available only at military facilities (e.g., commissary and exchange shopping, direct medical care), some may choose to locate close to such facilities. In so doing, they may be locating in lower-wage areas. This location decision might explain some gaps in retiree earnings relative to non-retiree earnings.

The baseline model uses a constructed variable (MEDLOC) that has a value of one if the retiree indicated that proximity to military medical facilities was important or very important, and a zero otherwise. The alternative model includes categorical variables indicating self-reported distance from a military commissary in place of MEDLOC. These variables are derived

[5] The modal group in a set of categorical dummy variables is typically omitted because it represents the baseline case or "typical" member of the sample. The discussion then focuses on marginal effects for all other groups relative to the typical case. Designating a category with a smaller number of observations as the omitted category would result in a higher sampling variance among estimated differences. This would increase the chance of significance tests missing true differences among categorical variables.

from the variable RE060R (Miles to drive one-way nearest military commissary from your residence). The RE060R variable is recoded into categorical variables as follows:

- *COMM0010* – 10 miles or less
- *COMM1120* – 11 to 20 miles
- *COMM2140* – 21 to 40 miles

The regression model omits the variable for respondents who reported more than a 40-mile one-way commute to a military commissary.

In both the officer choice and officer earnings baseline equations (Table 20 and Table 21), MEDLOC is significant and negative, while in the alternative model the commissary variables are positive but sometimes insignificant. The inclusion of the commissary variables causes LAMBDA to become insignificant.

In the baseline enlisted choice equation, MEDLOC is negative and significant, while in the alternative choice equation (Table 13) all three of the commissary variables are positive and significant. There is little effect on the earnings equation; in the baseline MEDLOC is not significant, and in the alternative (Table 14) only one of the commissary variables is significant.

Restricting the Comparison Group to Veterans

The civilian model is estimated on two different samples. The baseline sample includes all male, non-retirees between the ages of 38 and 64. The baseline sample further restricts this group to individuals with prior military experience, which is consistent with previous empirical research. AGE, AGESQ, and LAMBDA all lose significance when the sample is restricted to veterans, as shown in Table 23. In particular, neither AGE nor LAMBDA is still significant at the 0.05 level. Other variables affected by this restriction include DISWORK, MARRIED, SOMECOLL, BACHPLUS, MANAGER, FARM, and TRANSPT. MARRIED, BACHPLUS, and FARM become insignificant; SOMECOLL and DISWORK drop from the .01 significance level to the .05 level; and MANAGER and TRANSPT drop from the .01 level to the .10.

Section 5: Summary and Conclusions

The basic earnings and employment models in this study use a two-stage estimation procedure. This procedure is sensitive to the definition of age in the choice equation. The only choice equation yielding results consistent with expectations and previous research for the civilian sample includes both AGE and AGESQ. The officer equations worked best using AGE alone, while the enlisted equations used age categorical variables to best effect.

Further research is warranted to determine why veteran-only samples of non-retirees do not yield significant results. Previous research consistently relied on veteran-only samples in the civilian population, primarily to control for the basic employability screening implied by successful entry into the military. However, these studies were based on earlier data in which a large proportion of the male population of working age served in the military. Remaining veterans in the CPS-ASEC sample are largely from the all-volunteer era. These veterans make

up a smaller proportion of the general workforce and may, therefore, be more homogeneous in characteristics and workforce experience. Alternative methods to screen the civilian sample in order to achieve comparability with military retirees are needed.

Another area for potential future research is an examination of trends in the retiree wage gap. This study, in contrast to previous work, shows no gap between retirees and those who did not complete a full career in the military. Longitudinal data on retirees' post-service earnings would be valuable to isolate cohort effects and to determine whether military experience has become more relevant to subsequent civilian employment.

References

Borjas, G. J., & Welch, F. (1986). The post service earnings of military retirees: Evidence from the U.S. Air Force. *Research in Labor Economics, 8*(A).

Cardell, N. S., Lamoreaux, D., Stromsdorfer, E. W., Wang, B., & Weeks, G. (1997). *The post-service earnings of military retirees: A comparison of the 1996 retired military personnel sample with a statistically comparable sample from the March 1994 Current Population Survey* (Contract No. DASW01-97-C-0076). Arlington, VA: DMDC.

Goldberg, M. S., & Warner, J. T. (1986). Military experience, civilian experience and the earnings of veterans. *Journal of Human Resources, 22*(1), 62-81.

Greene, W. H. (1990). *Econometric analysis*. New York: Macmillan Publishing Company.

Heckman, J.J. (1979). Sample selection bias as a specification error. *Econometrica, 47,* 153-161.

Kreider, B. (1999). Latent work disability and reporting bias. *Journal of Human Resources, 34*(4), 734-769.

Kroeger, K. R., Flores-Cervantes, I., Jones, M. E., & Wilson, M. J. (2004). *2003 Survey of Retired Military: Statistical methodology report* (Report No. 2003-022). Arlington, VA: DMDC.

Loughran, D. S. (2002). *Wage growth in the civilian careers of military retirees* (MR-1363-OSD). Santa Monica, CA: RAND.

U.S. Department of Agriculture, Economic Research Service. (2004). *Measuring Rurality: Rural-urban commuting area codes.* Retrieved from (http://www.ers.usda.gov/briefing/Rurality/RuralUrbanCommutingAreas/).

U.S. Department of Commerce, Census Bureau. (2003). Current Population Survey annual social and economic supplement. Retrieved from http://www.bls.census.gov/cps/asec/adsmain.htm.

Appendix A.
2003 CPS-ASEC Data Dictionary Excerpts

2003 CPS-ASEC Data Dictionary Excerpts

HOUSEHOLD RECORD

DATA SIZE BEGIN

D HRECORD 1 1 (1:1)
U All households
V 1 .Household record

D H-SEQ 5 2 (00001:99999)
Household sequence number
V All households
V 00001- .Household sequence number
V 99999 .

D HHPOS 2 7 (00:00)
Trailer portion of unique household
ID. 00 for HH record.
Same function in family record is
field FFPOS (01-39)
Same function in person record
is PPPOS (41-79)

D HUNITS 1 9 (1:5)
Item 78 - How many units in the structure
U H-HHTYPE = 1
V 1 .1 Unit
V 2 .2 Units
V 3 .3 - 4 Units
V 4 .5 - 9 Units
V 5 .10+ Units

D H-FAMINC 2 10 (0:13)
Family income
NOTE: If a nonfamily household, income
includes only that of householder.
U All households
V -1 .Not in universe
V 00 .Less than $5,000
V 01 .$5,000 to $7,499
V 02 .$7,500 to $9,999
V 03 .$10,000 to $12,499
V 04 .$12,500 to $14,999
V 05 .$15,000 to $19,999
V 06 .$20,000 to $24,999
V 07 .$25,000 to $29,999

V 08 .$30,000 to $34,999
V 09 .$35,000 to $39,999
V 10 .$40,000 to $49,999
V 11 .$50,000 to $59,999
V 12 .$60,000 to $74,999
V 13 .$75,000 and over

D H-RESPNM 2 12 (0:99)
Line number of household respondent
V -1 .Not in universe (non-interview)
V 00 .Blank or impossible
V 01-99 .Line number

D H-YEAR 4 14 (0:2999)
Year of survey
U All households
V 1999-2999 .

D H-HHTYPE 1 20 (1:3)
Type of household
U All
V 1 .Interview
V 2 .Type A non-interview
V 3 .Type B/C non-interview

D H-NUMPER 2 21 (00:39)
Number of persons in household
U H-HHTYPE = 1
V 00 .Noninterview household
V 01-39 .Number of persons in HHLD

D HNUMFAM 2 23 (00:39)
Number of families in household
U H-HHTYPE = 1
V 00 .Noninterview household
V 01-39 .Number of families in HHLD

D GESTFIPS 2 42 (01:56)
State FIPS code
V 01-56 .State code

D HG-MSAC 4 44 (0000:9360)
MSA or PMSA FIPS code
V 0000 .Not MSA/PMSA or not identified
V 0060-9360 .MSA/PMSA code

D GECO 3 50 (000:810)
FIPS County Code
U All HHLD's in sample
V 000 .Not identified
V 001-810 .Specific county code
V .(See Appendix D)
V .Note: This code must be
V .used in combination with
V .a State Code (GESTFIPS
V .or GESTCEN) in order to
V .uniquely identify a county

D HG-CMSA 2 53 (00:97)
Specific CMSA code (See Appendix D)
V 00 .Not identified or
V .nonmetropolitan
V 07. Min value
V 97. Max value

D HMSA-R 1 57 (1:3)
Modified metropolitan statistical
area status code MSA residence
U All
V 1 .MSA
V 2 .Non MSA
V 3 .Not identifiable

D HUNDER15 2 60 (00:39)
Recode
Number of persons in household under
age 15
U ITEM 79 = 1
V 00 .None
V 01-39 .Number persons under 15

D HH5TO18 2 68 (00:39)
Recode
Item 82 - Number of persons in household
age 5 to 18 excluding family heads and
spouses
V 00 .None
V 01-39 .Number persons 5 to 18

D HTOTVAL 8 248 (-389961:23399766)

Recode - Total household income
U H-HHTYPE = 1
V 00000000 .None or not in universe
V Neg Amt .Income (loss)
V Pos Amt .Income

D HEARNVAL 8 256 (-389961:11699883)
Recode - Total household earnings
U HINC-WS,HINC-SE or HINC-FR = 1
V 00000000 .None or not in universe
V Neg Amt .Income (loss)
V Pos Amt .Income

D HUNDER18 2 279 (00:39)
Recode - Number of persons in HHLD
under age 18
U H-HHTYPE = 1
V 00 .None
V 01-39 .Number persons under 18

D HTOP5PCT 1 281 (0:2)
Recode - Household income percentiles
U H-HHTYPE = 1
V 0 .Not in universe (group quarters)
V 1 .In top 5 percent
V 2 .Not in top 5 percent

FAMILY RECORD

DATA SIZE BEGIN
D FH-SEQ 5 2 (00001:99999)
Household sequence number
Matches H-SEQ for same household
U All families
V 00001-99999.Household sequence number

D FFPOS 2 7 (01:39)
Unique family identifier
This field plus FH-SEQ results in a
unique family number for the file.
Same function in household record is
field HHPOS (00).
Same function in person record is PPPOS
(41-79).
U All families
V 01-39 .Index for
V .family identifier

D FOWNU6 1 25 (0:6)
Own children in family under 6
V 0 .None, not in universe
V 1 .1
V 2 .2
V ...
V 6 .6+

D FOWNU18 1 27 (0:9)
Number of own never married children under 18
Primary family includes own children in related subfamily even if the child is the head of the subfamily.
U All families
V 0 .None, not in universe
V 1 .1
V ...
V 9 .9 or more

D FRELU6 1 28 (0:6)
Related persons in family under 6
U All families
V 0 .None, not in universe
V 1 .1
V 2 .2
V ...
V 6 .6+

D FRELU18 1 29 (0:9)
Related persons in family under 18
U All families
V 0 .None, not in universe
V 1 .1
V 2 .2
V ...
V 9 .9+

PERSON RECORD

DATA SIZE BEGIN
D PH-SEQ 5 2 (00001:99999)
Household seq number
U All

V 000001- .Household sequence number
V 99999 .

D PPPOS 2 7 (41:79)
Trailer portion of unique household ID. 00 for HH record. Same function in family record is field FFPOS (01-39) Same function in person record is PPPOS (41-79)

D A-AGE 2 15 (00:80)
Item 18d - Age
U All
V 00-80 .Years of age

D A-MARITL 1 17 (1:7)
Item 18e - Marital status
U All
V 1 .Married - civilian spouse
V .present
V 2 .Married - AF spouse present
V 3 .Married - spouse absent (exc
V .separated)
V 4 .Widowed
V 5 .Divorced
V 6 .Separated
V 7 .Never married

D A-SEX 1 20 (1:2)
Item 18g - Sex
U All
V 1 .Male
V 2 .Female

D A-VET 1 21 (0:6)
Veteran status
V 0 .Children or Armed Forces
V 1 .Vietnam
V 2 .Korean war
V 3 .World War II
V 4 .World War I
V 5 .Other service
V 6 .Nonveteran

D A-HGA 2 22 (00:46)
Item 18h - Educational attainment

U All
V 00 .Children
V 31 .Less than 1st grade
V 32 .1st,2nd,3rd,or 4th grade
V 33 .5th or 6th grade
V 34 .7th and 8th grade
V 35 .9th grade
V 36 .10th grade
V 37 .11th grade
V 38 .12th grade no diploma
V 39 .High school graduate - high
V .school diploma or equivalent
V 40 .Some college but no degree
V 41 .Associate degree in college -
V .occupation/vocation program
V 42 .Associate degree in college -
V .academic program
V 43 .Bachelor's degree (for
V .example: BA,AB,BS)
V 44 .Master's degree (for
V .example:MA,MS,MENG,MED,
V .MSW, MBA)
V 45 .Professional school degree (for
V .example: MD,DDS,DVM,LLB,JD)
V 46 .Doctorate degree (for
V .example: PHD,EDD)

D PRDTRACE 2 24 (01:21)
Race
U All
V 01 .White only
V 02 .Black only
V 03 .American Indian,
V .Alaskan Native only (AI)
V 04 .Asian only
V 05 .Hawaiian/Pacific Islander
V .only (HP)
V 06 .White-Black
V 07 .White-AI
V 08 .White-Asian
V 09 .White-HP
V 10 .Black-AI
V 11 .Black-Asian
V 12 .Black-HP
V 13 .AI-Asian
V 14 .Asian-HP

V 15 .White-Black-AI
V 16 .White-Black-Asian
V 17 .White-AI-Asian
V 18 .White-Asian-HP
V 19 .White-Black-AI-Asian
V 20 .2 or 3 races
V 21 .4 or 5 races

D PHF-SEQ 2 44 (01:39)
Pointer to the sequence number of own family record in household. (Care should be exercised when using these data as the related subfamilies are a part of the primary family and usually their characteristics come from the primary family record)

D A-HRS1 2 76 (00:99)
How many hrs did ... work last week at all jobs
U PEMLR=1
V -1 .Not in universe
V 00 .Children and Armed Forces
V 01-99 .Number of hrs

D A-DTOCC 2 161 (00:23)
Detailed occupation recode
See Appendix A2 for list of legal codes
U A-CLSWKR=1-7
V 00 .Not in universe for children or
V .Armed Forces

D RSNNOTW 1 170 (0:6)
Item 32 - What was the main reason ... did not work in 20..?
U WORKYN = 2
V 0 .Not in universe
V 1 .Ill or disabled
V 2 .Retired
V 3 .Taking care of home or family
V 4 .Going to school
V 5 .Could not find work
V 6 .Other

D GEDIV 1 219 (1:9)
Recode - Census division of current

residence.
V 1 .New England
V 2 .Middle Atlantic
V 3 .East North Central
V 4 .West North Central
V 5 .South Atlantic
V 6 .East South Central
V 7 .West South Central
V 8 .Mountain
V 9 .Pacific

D WSAL-VAL 6 243 (000000:686854)
Recode - Total wage and salary earnings (combined amounts in ERN-VAL, if ERN-SRCE=1, and WS-VAL)
U ERN-YN = 1 or WAGEOTR = 1
V 000000 .None or not in universe
V 000001- .Wage and salary
V 686854 .

D VET-TYP1 1 311 (0:2)
Item 60c - Disability compensation
U VET-YN = 1
V 0 .Not in universe
V 1 .Yes
V 2 .No

D VET-VAL 5 317 (00000:29999)
Item 60e - How much did ... receive from veterans' administration during 20..?
U VET-YN = 1
V 00000 .None or not in universe
V 1-29999 .Veterans' payments

D DIS-HP 1 343 (0:2)
Item 62b - Does ... have a health problem or a disability which prevents work or which limits the kind or amount of work?
U P-STAT = 1 or 2
V 0 .Not in universe
V 1 .Yes
V 2 .No

D RET-SC1 1 367 (0:8)
Item 65c - What was the source of

retirement income? Retirement income -
Source 1
U RET-YN = 1
V 0 .None or not in universe
V 1 .Company or union pension
V 2 .Federal government retirement
V 3 .US military retirement
V 4 .State or local government
V .retirement
V 5 .US railroad retirement
V 6 .Regular payments from annuities
V .or paid insurance policies
V 7 .Regular payments from ira,
V .KEOGH, or 401(k) accounts
V 8 .Other sources or don't know

D RET-SC2 1 368 (0:8)
Item 65c - Any other retirement income?
Retirement income - Source 2 (See
RET-SC1 for sources of retirement)
U RET-YN = 1

D PEARNVAL 8 448 (-389961:999999)
Recode - Total person's earnings
(WSAL-VAL, SEMP-VAL, FRSE-VAL)
V 0 .None or not in universe
V Neg .Income (loss)
V Pos .Income

Appendix B.
Detailed Results for 2003 SRM Enlisted Sample

Detailed Results for 2003 SRM Enlisted Sample

Table 10.
Enlisted Earnings Equations: With and Without AGESQ

	Baseline		Without AGESQ	
Variable	**Coefficient**	**Standard Error**	**Coefficient**	**Standard Error**
Constant	7.675188 *	0.9745	10.833890 *	0.1994
AGE	0.111583 *	0.0370	-0.010227 **	0.0041
AGESQ	-0.001214 *	0.0004	———	
	Demographic			
FEMALE	-0.327204 *	0.0791	-0.298262 *	0.0791
MINORITY	-0.163978 *	0.0403	-0.153274 *	0.0404
MARRIED	-0.105995 **	0.0458	-0.139698 *	0.0450
DEPKIDS	-0.042207	0.0370	-0.069805 ***	0.0363
URBAN	0.161988 *	0.0527	0.132962 **	0.0522
	Education			
SOMECOLL	0.087321 **	0.0383	0.080754 **	0.0384
BACH	0.054104	0.0584	0.045613	0.0588
BACHPLUS	0.139796 **	0.0639	0.111282 ***	0.0637
	Occupation			
MANAGER	0.200365 *	0.0522	0.198536 *	0.0522
PROF	0.203705 *	0.0512	0.202323 *	0.0513
SERV	-0.162227 *	0.0559	-0.162223 *	0.0559
SALES	-0.375119 *	0.0761	-0.382048 *	0.0761
OFFICE	-0.093354 ***	0.0543	-0.093654 ***	0.0543
FARM	-0.118471	0.3034	-0.116517	0.3034
TRANSPRT	-0.145090 **	0.0672	-0.145699 **	0.0672
	Disability			
DIS0020	-0.046206	0.0448	-0.045570	0.0452
DIS3050	-0.078552 ***	0.0409	-0.069553 ***	0.0411
DIS6080	-0.117044	0.0714	-0.032344	0.0668
DIS90100	-0.323211 **	0.1323	-0.132480	0.1191
MEDLOC	-0.026992	0.0334	-0.020596	0.0335
	Service			
NAVY	0.110834 **	0.0434	0.111552 **	0.0437
USMC	0.106870	0.0806	0.098431	0.0812
USAF	0.181327 *	0.0404	0.175044 *	0.0406
RET2126	-0.046010	0.0375	-0.048439	0.0377
RET27UP	0.122497	0.0748	0.095985	0.0747
E1E4	-3.661470 *	0.7086	-3.552512 *	0.7110
E5E6	-0.224021 *	0.0430	-0.210709 *	0.0431
OTHER	0.000005 *	0.0000	0.000005 *	0.0000
LAMBDA	-0.044963	0.1236	-0.320346 *	0.0914
Adjusted R2	0.059		0.058	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 11.
Enlisted Choice Equations: URBAN vs. Region Category Variables

	Baseline		Region Variables	
Variable	Coefficient	Standard Error	Coefficient	Standard Error
Constant	0.628167*	0.0577	0.803686*	0.0572
AGEUND44	0.184270*	0.0482	0.179917*	0.0472
AGE5564	-0.562734*	0.0316	-0.573024*	0.0311
AGE65UP	-1.941207*	0.0400	-1.949581*	0.0393
FEMALE	-0.264811*	0.0587	-0.283264*	0.0576
MINORITY	-0.091679*	0.0316	-0.075752**	0.0310
MARRIED	0.270930*	0.0322	0.269570*	0.0315
DEPKIDS	0.151734*	0.0304	0.152521*	0.0299
URBAN	0.230935*	0.0375	———	
EAST	———		0.017403	0.0605
WEST	———		0.045527	0.0420
SOUTH	———		-0.013033	0.0379
DIS0020	-0.006736	0.0391	-0.003787	0.0384
DIS3050	-0.124719*	0.0334	-0.125090*	0.0329
DIS6080	-0.673164*	0.0392	-0.679791*	0.0384
DIS90100	-1.221719*	0.0486	-1.217876*	0.0478
NAVY	-0.025943	0.0347	-0.030341	0.0343
USMC	0.007954	0.0649	0.000617	0.0636
USAF	0.021118	0.0316	0.020542	0.0312
SOMECOLL	0.084099*	0.0286	0.084919*	0.0281
BACH	0.110733**	0.0455	0.124032*	0.0447
BACHPLUS	0.337396*	0.0504	0.335282*	0.0492
MEDLOC	-0.058509**	0.0260	-0.031511	0.0255
OTHER	-0.000002*	0.0000	-0.000002*	0.0000
RET2126	0.084579*	0.0292	0.080706*	0.0287
RET27UP	0.180775*	0.0518	0.184162*	0.0509
E1E4	-0.679725	0.4673	-0.462737	0.4098
E5E6	-0.144428*	0.0325	-0.138333*	0.0319
Likelihood Ratio χ^2	6204.82		6342.82	
D.F.	24		26	
Pseudo R^2	0.3564		0.3537	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 12.
Enlisted Earnings Equations: URBAN vs. Region Category Variables

Variable	Baseline Coefficient	Baseline Standard Error	Region Variables Coefficient	Region Variables Standard Error
Constant	7.675188 *	0.9745	7.872104 *	0.9615
AGE	0.111583 *	0.0370	0.112469 *	0.0368
AGESQ	-0.001214 *	0.0004	-0.001248 *	0.0004
Demographic				
FEMALE	-0.327204 *	0.0791	-0.317751 *	0.0791
MINORITY	-0.163978 *	0.0403	-0.132632 *	0.0399
MARRIED	-0.105995 **	0.0458	-0.085932 ***	0.0454
DEPKIDS	-0.042207	0.0370	-0.034033	0.0367
URBAN	0.161988 *	0.0527	———	
EAST	———		0.016644	0.0746
WEST	———		-0.062153	0.0521
SOUTH	———		-0.101385 **	0.0467
Education				
SOMECOLL	0.087321 **	0.0383	0.097955 *	0.0378
BACH	0.054104	0.0584	0.057995	0.0578
BACHPLUS	0.139796 **	0.0639	0.168019 *	0.0631
Occupation				
MANAGER	0.200365 *	0.0522	0.202871 *	0.0517
PROF	0.203705 *	0.0512	0.192992 *	0.0506
SERV	-0.162227 *	0.0559	-0.160153 *	0.0554
SALES	-0.375119 *	0.0761	-0.354350 *	0.0751
OFFICE	-0.093354 ***	0.0543	-0.101202 ***	0.0537
FARM	-0.118471	0.3034	-0.122073	0.3049
TRANSPRT	-0.145090 **	0.0672	-0.146918 **	0.0665
Disability				
DIS0020	-0.046206	0.0448	-0.056080	0.0444
DIS3050	-0.078552 ***	0.0409	-0.082476 **	0.0406
DIS6080	-0.117044	0.0714	-0.149638 **	0.0711
DIS90100	-0.323211 **	0.1323	-0.403158 *	0.1306
MEDLOC	-0.026992	0.0334	-0.007966	0.0330
Service				
NAVY	0.110834 **	0.0434	0.106510 **	0.0432
USMC	0.106870	0.0806	0.116741	0.0796
USAF	0.181327 *	0.0404	0.183211 *	0.0402
RET2126	-0.046010	0.0375	-0.022759	0.0371
RET27UP	0.122497	0.0748	0.160460 **	0.0742
E1E4	-3.661470 *	0.7086	-2.853035 *	0.6373
E5E6	-0.224021 *	0.0430	-0.242064 *	0.0425
OTHER	0.000005 *	0.0000	0.000004 *	0.0000
LAMBDA	-0.044963	0.1236	0.044274	0.1224
Adjusted R2	0.059		0.055	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 13.
Enlisted Choice Equations: MEDLOC vs. Commissary Categorical Variables

	Baseline		Commissary Variables	
Variable	**Coefficient**	**Standard Error**	**Coefficient**	**Standard Error**
Constant	0.628167*	0.0577	0.591480*	0.0580
AGEUND44	0.184270*	0.0482	0.179688*	0.0482
AGE5564	-0.562734*	0.0316	-0.561992*	0.0316
AGE65UP	-1.941207*	0.0400	-1.941832*	0.0400
FEMALE	-0.264811*	0.0587	-0.270319*	0.0589
MINORITY	-0.091679*	0.0316	-0.120455*	0.0318
MARRIED	0.270930*	0.0322	0.265305*	0.0322
DEPKIDS	0.151734*	0.0304	0.146452*	0.0304
URBAN	0.230935*	0.0375	0.152783*	0.0393
DIS0020	-0.006736	0.0391	-0.012902	0.0391
DIS3050	-0.124719*	0.0334	-0.133084*	0.0334
DIS6080	-0.673164*	0.0392	-0.682075*	0.0391
DIS90100	-1.221719*	0.0486	-1.231614*	0.0485
NAVY	-0.025943	0.0347	-0.020756	0.0347
USMC	0.007954	0.0649	0.016559	0.0650
USAF	0.021118	0.0316	0.021236	0.0316
SOMECOLL	0.084099*	0.0286	0.087731*	0.0286
BACH	0.110733**	0.0455	0.111688**	0.0455
BACHPLUS	0.337396*	0.0504	0.338690*	0.0504
MEDLOC	-0.058509**	0.0260	———	
COMM0010	———		0.156478*	0.0326
COMM1120	———		0.179358*	0.0379
COMM2140	———		0.141242*	0.0402
OTHER	-0.000002*	0.0000	-0.000002*	0.0000
RET2126	0.084579*	0.0292	0.069433**	0.0293
RET27UP	0.180775*	0.0518	0.148734*	0.0520
E1E4	-0.679725	0.4673	-0.676376	0.4664
E5E6	-0.144428*	0.0325	-0.147075*	0.0325
Likelihood Ratio χ^2	6204.82		6232.45	
D.F.	24		26	
Pseudo R2	0.3564		0.3577	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 14.
Enlisted Earnings Equations: MEDLOC vs. Commissary Category Variables

	Baseline		Commissary Variables	
Variable	**Coefficient**	**Standard Error**	**Coefficient**	**Standard Error**
Constant	7.675188 *	0.9745	7.631291 *	0.9773
AGE	0.111583 *	0.0370	0.112359 *	0.0371
AGESQ	-0.001214 *	0.0004	-0.001219 *	0.0004
	Demographic			
FEMALE	-0.327204 *	0.0791	-0.333172 *	0.0791
MINORITY	-0.163978 *	0.0403	-0.177768 *	0.0408
MARRIED	-0.105995 **	0.0458	-0.108745 **	0.0457
DEPKIDS	-0.042207	0.0370	-0.043572	0.0369
URBAN	0.161988 *	0.0527	0.128822 **	0.0536
	Education			
SOMECOLL	0.087321 **	0.0383	0.088919 **	0.0383
BACH	0.054104	0.0584	0.054274	0.0584
BACHPLUS	0.139796 **	0.0639	0.140724 **	0.0638
	Occupation			
MANAGER	0.200365 *	0.0522	0.198838 *	0.0521
PROF	0.203705 *	0.0512	0.203641 *	0.0512
SERV	-0.162227 *	0.0559	-0.161630 *	0.0559
SALES	-0.375119 *	0.0761	-0.373681 *	0.0761
OFFICE	-0.093354 ***	0.0543	-0.092866 ***	0.0543
FARM	-0.118471	0.3034	-0.119156	0.3033
TRANSPRT	-0.145090 **	0.0672	-0.142695 **	0.0672
	Disability			
DIS0020	-0.046206	0.0448	-0.049649	0.0448
DIS3050	-0.078552 ***	0.0409	-0.081957 **	0.0409
DIS6080	-0.117044	0.0714	-0.119095 ***	0.0714
DIS90100	-0.323211 **	0.1323	-0.325289 **	0.1323
MEDLOC	-0.026992	0.0334	———	
COMM0010	———		0.075874 ***	0.0425
COMM1120	———		0.062981	0.0482
COMM2140	———		0.065448	0.0515
	Service			
NAVY	0.110834 **	0.0434	0.113264 *	0.0433
USMC	0.106870	0.0806	0.111042	0.0807
USAF	0.181327 *	0.0404	0.181650 *	0.0404
RET2126	-0.046010	0.0375	-0.051930	0.0374
RET27UP	0.122497	0.0748	0.108356	0.0746
E1E4	-3.661470 *	0.7086	-3.662027 *	0.7085
E5E6	-0.224021 *	0.0430	-0.223735 *	0.0430
OTHER	0.000005 *	0.0000	0.000005 *	0.0000
LAMBDA	-0.044963	0.1236	-0.049222	0.1234
Adjusted R^2	0.059		0.059	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Appendix C.
Detailed Results for 2003 SRM Officer Sample

Detailed Results for 2003 SRM Officer Sample

Table 15.
Officer Earnings Equations: With and Without AGESQ

	Baseline		Without AGESQ	
Variable	Coefficient	Standard Error	Coefficient	Standard Error
Constant	8.352686*	1.5115	12.071896*	0.6270
AGE	0.127095**	0.0588	-0.028588**	0.0135
AGESQ	-0.001759*	0.0006	———	
Demographic				
FEMALE	-0.604294*	0.2018	-0.288383***	0.1590
MINORITY	-0.016169	0.0624	-0.033505	0.0585
MARRIED	0.108685	0.0926	0.010473	0.0812
DEPKIDS	-0.037572	0.0548	-0.059432	0.0506
URBAN	0.341137*	0.1171	0.178049***	0.0961
Education				
SOMECOLL	-0.156992	0.1211	-0.087094	0.1131
BACH	0.031620	0.1017	0.052706	0.0966
BACHPLUS	0.055541	0.0801	0.023884	0.0757
Occupation				
MANAGER	0.469291*	0.0974	0.479053*	0.0974
PROF	0.319738*	0.0988	0.329044*	0.0987
SERV	0.130191	0.1368	0.128076	0.1370
SALES	-0.405213*	0.1537	-0.395567**	0.1550
OFFICE	-0.009703	0.1333	-0.000767	0.1343
FARM	-0.270584	0.6012	-0.139815	0.6142
TRANSPRT	0.452274*	0.1385	0.468163*	0.1376
Disability				
DIS0020	-0.029899	0.0650	-0.014393	0.0608
DIS3050	-0.250796*	0.0661	-0.207087*	0.0604
DIS6080	-0.233847**	0.1028	-0.104642	0.0867
DIS90100	-0.785276*	0.2147	-0.431834*	0.1661
MEDLOC	-0.204874*	0.0560	-0.151374*	0.0495
Service				
NAVY	-0.082514	0.0679	-0.036509	0.0620
USMC	-0.074172	0.1093	-0.048862	0.1030
USAF	-0.128906**	0.0648	-0.084217	0.0593
RET2126	0.117875***	0.0616	0.061347	0.0547
RET27UP	0.219449**	0.0907	0.148124***	0.0828
O1O3	-0.063755	0.0909	-0.083795	0.0850
O6PLUS	0.395321*	0.0751	0.343391*	0.0690
WARRANT	-0.195501**	0.0842	-0.225173*	0.0787
OTHER	0.000000	0.0000	0.000001***	0.0000
LAMBDA	0.892587**	0.3848	0.073895	0.2359
Adjusted R^2	0.074		0.073	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 16.
Officer Choice Equations: AGE vs. Age Category Variables

	Baseline		Age Variables	
Variable	**Coefficient**	**Standard Error**	**Coefficient**	**Standard Error**
Constant	6.438420 *	0.2252	0.461706 *	0.1165
AGE	-0.111070 *	0.0032	———	
AGEUND44	———		0.068429	0.1524
AGE5564	———		-0.459499 *	0.0529
AGE65UP	———		-1.972566 *	0.0624
FEMALE	-0.873759 *	0.0933	-0.673056 *	0.0908
MINORITY	0.035626	0.0543	0.067082	0.0535
MARRIED	0.251178 *	0.0625	0.249776 *	0.0611
DEPKIDS	0.037978	0.0514	0.267225 *	0.0505
URBAN	0.411874 *	0.0679	0.422758 *	0.0674
DIS0020	-0.042435	0.0589	-0.031512	0.0584
DIS3050	-0.135244 **	0.0549	-0.113573 **	0.0540
DIS6080	-0.349159 *	0.0646	-0.346629 *	0.0631
DIS90100	-0.781656 *	0.0813	-0.811955 *	0.0804
NAVY	-0.142362 **	0.0555	-0.098748 ***	0.0547
USMC	-0.105018	0.0918	-0.023020	0.0902
USAF	-0.134511 *	0.0516	-0.121858 **	0.0509
SOMECOLL	-0.204617 **	0.0897	-0.187331 **	0.0874
BACH	-0.056880	0.0808	-0.012502	0.0797
BACHPLUS	0.086745	0.0620	0.127433 **	0.0611
MEDLOC	-0.139573 *	0.0420	-0.152057 *	0.0415
OTHER	-0.000002 *	0.0000	-0.000002 *	0.0000
RET2126	0.181983 *	0.0474	0.132374 *	0.0468
RET27UP	0.196076 *	0.0663	0.046339	0.0652
O1O3	0.024886	0.0834	0.053436	0.0810
O6PLUS	0.122899 **	0.0585	0.066062	0.0578
WARRANT	0.056515	0.0721	0.124092 ***	0.0708
Likelihood Ratio χ^2	2803.91		2669.54	
D.F.	23		25	
Pseudo R2	0.3869		0.3723	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 17.
Officer Earnings Equations: Baseline vs. Age Category Variables Used in Choice Equation

	Baseline		Age Variables used in Choice Equation	
Variable	**Coefficient**	**Standard Error**	**Coefficient**	**Standard Error**
Constant	8.352686*	1.5115	10.632730*	1.5219
AGE	0.127095**	0.0588	0.019161	0.0542
AGESQ	-0.001759*	0.0006	-0.000353	0.0005
	Demographic			
FEMALE	-0.604294*	0.2018	-0.217582***	0.1321
MINORITY	-0.016169	0.0624	-0.030584	0.0588
MARRIED	0.108685	0.0926	-0.012273	0.0775
DEPKIDS	-0.037572	0.0548	-0.054610	0.0528
URBAN	0.341137*	0.1171	0.149272***	0.0889
	Education			
SOMECOLL	-0.156992	0.1211	-0.065818	0.1115
BACH	0.031620	0.1017	0.055905	0.0964
BACHPLUS	0.055541	0.0801	0.011828	0.0753
	Occupation			
MANAGER	0.469291*	0.0974	0.477253*	0.0975
PROF	0.319738*	0.0988	0.328174*	0.0987
SERV	0.130191	0.1368	0.133191	0.1371
SALES	-0.405213*	0.1537	-0.399305*	0.1550
OFFICE	-0.009703	0.1333	-0.003681	0.1343
FARM	-0.270584	0.6012	-0.114628	0.6132
TRANSPRT	0.452274*	0.1385	0.470005*	0.1376
	Disability			
DIS0020	-0.029899	0.0650	-0.013880	0.0607
DIS3050	-0.250796*	0.0661	-0.196882*	0.0587
DIS6080	-0.233847**	0.1028	-0.074578	0.0794
DIS90100	-0.785276*	0.2147	-0.347482**	0.1394
MEDLOC	-0.204874*	0.0560	-0.141443*	0.0483
	Service			
NAVY	-0.082514	0.0679	-0.027376	0.0605
USMC	-0.074172	0.1093	-0.027804	0.1016
USAF	-0.128906**	0.0648	-0.072734	0.0576
RET2126	0.117875***	0.0616	0.043784	0.0508
RET27UP	0.219449**	0.0907	0.132788***	0.0789
O1O3	-0.063755	0.0909	-0.080778	0.0852
O6PLUS	0.395321*	0.0751	0.336478*	0.0678
WARRANT	-0.195501**	0.0842	-0.227755*	0.0793
OTHER	0.000000	0.0000	0.000001**	0.0000
LAMBDA	0.892587**	0.3848	-0.084864	0.1325
Adjusted R^2	0.074		0.073	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 18.
Officer Choice Equations: URBAN vs. Region Category Variables

	Baseline		Region Variables	
Variable	**Coefficient**	**Standard Error**	**Coefficient**	**Standard Error**
Constant	6.438420*	0.2252	6.630572*	0.2209
AGE	-0.111070*	0.0032	-0.110965*	0.0031
FEMALE	-0.873759*	0.0933	-0.896196*	0.0921
MINORITY	0.035626	0.0543	0.039172	0.0534
MARRIED	0.251178*	0.0625	0.224766*	0.0616
DEPKIDS	0.037978	0.0514	0.062826	0.0503
URBAN	0.411874*	0.0679	———	
EAST	———		0.120350	0.1066
WEST	———		0.115706	0.0741
SOUTH	———		0.230545*	0.0681
DIS0020	-0.042435	0.0589	-0.032570	0.0579
DIS3050	-0.135244**	0.0549	-0.159241*	0.0538
DIS6080	-0.349159*	0.0646	-0.387467*	0.0634
DIS90100	-0.781656*	0.0813	-0.814799*	0.0797
NAVY	-0.142362**	0.0555	-0.147155*	0.0546
USMC	-0.105018	0.0918	-0.083753	0.0899
USAF	-0.134511*	0.0516	-0.106816**	0.0509
SOMECOLL	-0.204617**	0.0897	-0.186025**	0.0874
BACH	-0.056880	0.0808	-0.057755	0.0794
BACHPLUS	0.086745	0.0620	0.094721	0.0611
MEDLOC	-0.139573*	0.0420	-0.096102**	0.0412
OTHER	-0.000002*	0.0000	-0.000002*	0.0000
RET2126	0.181983*	0.0474	0.169205*	0.0466
RET27UP	0.196076*	0.0663	0.216726*	0.0652
O1O3	0.024886	0.0834	0.014301	0.0818
O6PLUS	0.122899**	0.0585	0.108032***	0.0574
WARRANT	0.056515	0.0721	0.031310	0.0704
Likelihood Ratio χ^2	2803.91		2866.65	
D.F.	23		25	
Pseudo R^2	0.3869		0.3837	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 19.
Officer Earnings Equations: URBAN vs. Region Category Variables

	Baseline		Region Variables	
Variable	Coefficient	Standard Error	Coefficient	Standard Error
Constant	8.352686 *	1.5115	8.559582 *	1.4777
AGE	0.127095 **	0.0588	0.122242 **	0.0587
AGESQ	-0.001759 *	0.0006	-0.001700 *	0.0007
Demographic				
FEMALE	-0.604294 *	0.2018	-0.571946 *	0.2066
MINORITY	-0.016169	0.0624	-0.004323	0.0613
MARRIED	0.108685	0.0926	0.131711	0.0897
DEPKIDS	-0.037572	0.0548	-0.036755	0.0540
URBAN	0.341137 *	0.1171	———	
EAST	———		0.115206	0.1232
WEST	———		0.087011	0.0876
SOUTH	———		0.192727 **	0.0863
Education				
SOMECOLL	-0.156992	0.1211	-0.101466	0.1169
BACH	0.031620	0.1017	0.076430	0.1000
BACHPLUS	0.055541	0.0801	0.077785	0.0791
Occupation				
MANAGER	0.469291 *	0.0974	0.460863 *	0.0964
PROF	0.319738 *	0.0988	0.295253 *	0.0978
SERV	0.130191	0.1368	0.063850	0.1343
SALES	-0.405213 *	0.1537	-0.417283 *	0.1522
OFFICE	-0.009703	0.1333	0.007232	0.1317
FARM	-0.270584	0.6012	-0.255792	0.6053
TRANSPRT	0.452274 *	0.1385	0.459375 *	0.1362
Disability				
DIS0020	-0.029899	0.0650	-0.011804	0.0634
DIS3050	-0.250796 *	0.0661	-0.235149 *	0.0665
DIS6080	-0.233847 **	0.1028	-0.229124 **	0.1075
DIS90100	-0.785276 *	0.2147	-0.730527 *	0.2209
MEDLOC	-0.204874 *	0.0560	-0.176888 *	0.0520
Service				
NAVY	-0.082514	0.0679	-0.061909	0.0674
USMC	-0.074172	0.1093	-0.033477	0.1055
USAF	-0.128906 **	0.0648	-0.078147	0.0623
RET2126	0.117875 ***	0.0616	0.119072 **	0.0602
RET27UP	0.219449 **	0.0907	0.225516 **	0.0912
O1O3	-0.063755	0.0909	-0.064140	0.0888
O6PLUS	0.395321 *	0.0751	0.388166 *	0.0728
WARRANT	-0.195501 **	0.0842	-0.223246 *	0.0817
OTHER	0.000000	0.0000	0.000000	0.0000
LAMBDA	0.892587 **	0.3848	0.823037 **	0.3905
Adjusted R^2	0.074		0.075	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 20.
Officer Choice Equations: MEDLOC vs. Commissary Category Variables

	Baseline		Commissary Variables	
Variable	**Coefficient**	**Standard Error**	**Coefficient**	**Standard Error**
Constant	6.438420*	0.2252	6.385433*	0.2264
AGE	-0.111070*	0.0032	-0.111191*	0.0032
FEMALE	-0.873759*	0.0933	-0.876323*	0.0932
MINORITY	0.035626	0.0543	0.014221	0.0543
MARRIED	0.251178*	0.0625	0.251478*	0.0624
DEPKIDS	0.037978	0.0514	0.038059	0.0514
URBAN	0.411874*	0.0679	0.337640*	0.0707
DIS0020	-0.042435	0.0589	-0.049188	0.0588
DIS3050	-0.135244**	0.0549	-0.139961**	0.0549
DIS6080	-0.349159*	0.0646	-0.358497*	0.0645
DIS90100	-0.781656*	0.0813	-0.793008*	0.0811
NAVY	-0.142362**	0.0555	-0.134880**	0.0555
USMC	-0.105018	0.0918	-0.087277	0.0920
USAF	-0.134511*	0.0516	-0.121754**	0.0516
SOMECOLL	-0.204617**	0.0897	-0.200732**	0.0897
BACH	-0.056880	0.0808	-0.049905	0.0808
BACHPLUS	0.086745	0.0620	0.097475	0.0620
MEDLOC	-0.139573*	0.0420	———	
COMM0010	———		0.157440*	0.0540
COMM1120	———		0.017897	0.0582
COMM2140	———		0.133822**	0.0614
OTHER	-0.000002*	0.0000	-0.000002*	0.0000
RET2126	0.181983*	0.0474	0.169445*	0.0475
RET27UP	0.196076*	0.0663	0.163036**	0.0664
O1O3	0.024886	0.0834	0.031456	0.0835
O6PLUS	0.122899**	0.0585	0.133513**	0.0585
WARRANT	0.056515	0.0721	0.054222	0.0721
Likelihood Ratio χ^2	2803.91		2804.98	
D.F.	23		25	
Pseudo R^2	0.3869		0.3870	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 21.
Officer Earnings Equations: MEDLOC vs. Commissary Category Variables

	Baseline		Commissary Variables	
Variable	Coefficient	Standard Error	Coefficient	Standard Error
Constant	8.352686 *	1.5115	8.929574 *	1.5399
AGE	0.127095 **	0.0588	0.096657	0.0601
AGESQ	-0.001759 *	0.0006	-0.001366 **	0.0007
	Demographic			
FEMALE	-0.604294 *	0.2018	-0.492575 **	0.2016
MINORITY	-0.016169	0.0624	-0.040272	0.0604
MARRIED	0.108685	0.0926	0.069759	0.0915
DEPKIDS	-0.037572	0.0548	-0.044586	0.0531
URBAN	0.341137 *	0.1171	0.230849 **	0.1097
	Education			
SOMECOLL	-0.156992	0.1211	-0.128667	0.1187
BACH	0.031620	0.1017	0.039156	0.0992
BACHPLUS	0.055541	0.0801	0.052869	0.0787
	Occupation			
MANAGER	0.469291 *	0.0974	0.478839 *	0.0976
PROF	0.319738 *	0.0988	0.322285 *	0.0989
SERV	0.130191	0.1368	0.140650	0.1371
SALES	-0.405213 *	0.1537	-0.414949 *	0.1546
OFFICE	-0.009703	0.1333	-0.010911	0.1340
FARM	-0.270584	0.6012	-0.183833	0.6084
TRANSPRT	0.452274 *	0.1385	0.469277 *	0.1383
	Disability			
DIS0020	-0.029899	0.0650	-0.035808	0.0632
DIS3050	-0.250796 *	0.0661	-0.247560 *	0.0646
DIS6080	-0.233847 **	0.1028	-0.214184 **	0.1028
DIS90100	-0.785276 *	0.2147	-0.689781 *	0.2174
MEDLOC	-0.204874 *	0.0560	———	
COMM0010	———		0.087983	0.0689
COMM1120	———		0.026120	0.0675
COMM2140	———		0.167331 **	0.0738
	Service			
NAVY	-0.082514	0.0679	-0.061156	0.0660
USMC	-0.074172	0.1093	-0.046772	0.1061
USAF	-0.128906 **	0.0648	-0.100770	0.0626
RET2126	0.117875 ***	0.0616	0.088051	0.0593
RET27UP	0.219449 **	0.0907	0.156299 ***	0.0864
O1O3	-0.063755	0.0909	-0.066137	0.0883
O6PLUS	0.395321 *	0.0751	0.388803 *	0.0742
WARRANT	-0.195501 **	0.0842	-0.201667 **	0.0819
OTHER	0.000000	0.0000	0.000001	0.0000
LAMBDA	0.892587 **	0.3848	0.623803	0.3896
Adjusted R2	0.074		0.071	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Appendix D.
Detailed Results for 2003 CPS-ASEC Sample

Detailed Results for 2003 CPS-ASEC Sample

Table 22.
CPS Choice Equations: Baseline vs. Veterans Only

	Baseline		Veterans Only	
Variable	Coefficient	Standard Error	Coefficient	Standard Error
Constant	-3.823344*	0.2188	-2.281763*	0.4190
AGE	0.195858*	0.0081	0.143618*	0.0145
AGESQ	-0.002293*	0.0001	-0.001870*	0.0001
MINORITY	-0.189034*	0.0202	-0.240267*	0.0395
MARRIED	0.335607*	0.0186	0.281539*	0.0343
FOWNU18	0.065683*	0.0092	0.038706***	0.0213
FRELU6	-0.077514*	0.0191	-0.010121	0.0475
URBAN	0.070929*	0.0176	0.082534*	0.0318
SOMECOLL	0.072760*	0.0185	0.108921*	0.0331
BACH	0.291315*	0.0210	0.303002*	0.0413
BACHPLUS	0.327126*	0.0246	0.357482*	0.0494
VET_VAL	-0.000032*	0.0000	-0.000032*	0.0000
VETERAN	-0.044563**	0.0180	———	
Likelihood Ratio χ^2	10718.89		4282.51	
D.F.	12		11	
Pseudo R^2	0.2574		0.3271	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 23.
CPS Earnings Equations: Baseline vs. Veterans Only

	Baseline		Veterans Only	
Variable	Coefficient	Standard Error	Coefficient	Standard Error
Constant	3.464002	2.4333	2.721552	4.0847
AGE	0.229627**	0.0935	0.282354***	0.1594
AGESQ	-0.002902*	0.0010	-0.003615**	0.0018
DISWORK	-0.696833*	0.1692	-0.533490**	0.2687
MINORITY	-0.074466	0.0808	-0.141651	0.1913
MARRIED	0.357988*	0.1203	0.325054	0.2095
FOWNU18	0.003246	0.0258	0.044474	0.0561
FRELU6	-0.008119	0.0493	-0.074565	0.1193
URBAN	0.548239*	0.0528	0.601496*	0.1080
SOMECOLL	0.278226*	0.0566	0.293618**	0.1196
BACH	0.712998*	0.1022	0.579232*	0.2223
BACHPLUS	0.682692*	0.1206	0.439065	0.2720
VET_VAL	-0.000015	0.0000	-0.000021	0.0000
MANAGER	-0.198963*	0.0616	-0.239021***	0.1230
PROF	0.073542	0.0687	0.228268***	0.1370
SERVICE	0.022696	0.0781	-0.001808	0.1471
SALES	-0.392779*	0.0708	-0.450528*	0.1423
OFFICE	0.430145*	0.0920	0.450994*	0.1637
FARM	-0.539295**	0.2706	0.092796	0.5296
TRANSPT	0.297066*	0.0779	0.243526***	0.1416
OTHER	0.000005*	0.0000	0.000004*	0.0000
VETERAN	0.245337*	0.0520	———	
LAMBDA	1.472765**	0.6035	1.927100***	1.1258
Adjusted R^2	0.050		0.052	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 24.
CPS Choice Equations: With and Without AGESQ vs. Age Category Variables

	Baseline		Without Age Squared		With Age Variables	
Variable	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Constant	-3.823344 *	0.2188	3.051940 *	0.0486	0.283966 *	0.0239
AGE	0.195858 *	0.0081	-0.060248 *	0.0009	———	
AGESQ	-0.002293 *	0.0001	———		———	
AGEUND45	———		———		0.025854	0.0194
AGE5564	———		———		-0.532069 *	0.0208
AGE65UP	———		———		-1.880476 *	0.0271
MINORITY	-0.189034 *	0.0202	-0.186031 *	0.0200	-0.183484 *	0.0201
MARRIED	0.335607 *	0.0186	0.391501 *	0.0183	0.334799 *	0.0184
FOWNU18	0.065683 *	0.0092	0.020857 **	0.0091	0.075763 *	0.0092
FRELU6	-0.077514 *	0.0191	-0.138914 *	0.0191	-0.074194 *	0.0192
URBAN	0.070929 *	0.0176	0.056652 *	0.0174	0.071947 *	0.0175
SOMECOLL	0.072760 *	0.0185	0.100931 *	0.0183	0.073788 *	0.0184
BACH	0.291315 *	0.0210	0.319913 *	0.0207	0.283375 *	0.0209
BACHPLUS	0.327126 *	0.0246	0.379933 *	0.0240	0.318758 *	0.0244
VET_VAL	-0.000032 *	0.0000	-0.000029 *	0.0000	-0.000032 *	0.0000
VETERAN	-0.044563 **	0.0180	-0.049399 *	0.0176	-0.068517 *	0.0178
Likelihood Ratio $\chi 2$	10718.89		9602.14		10304.85	
D.F.	12		11		13	
Pseudo R^2	0.2574		0.2340		0.2488	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 25.
CPS Earnings Equations: With and Without AGESQ vs. Age Category Variables

	Baseline		Without Age Squared		With Age Variables	
Variable	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Constant	3.464002	2.4333	10.792683 *	0.4041	6.511310 *	0.5241
AGE	0.229627 **	0.0935	-0.053259 *	0.0146	———	
AGESQ	-0.002902 *	0.0010	———		———	
AGEUND45	———		———		0.248136 *	0.0563
AGE5564	———		———		-1.260732 *	0.2413
AGE65UP	———		———		-5.275886 *	1.0488
DISWORK	-0.696833 *	0.1692	-0.693915 *	0.1700	-0.703174 *	0.1651
MINORITY	-0.074466	0.0808	0.005558	0.0703	-0.251456 **	0.1005
MARRIED	0.357988 *	0.1203	0.227781 **	0.1064	0.682748 *	0.1580
FOWNU18	0.003246	0.0258	-0.030755	0.0215	0.085343 **	0.0351
FRELU6	-0.008119	0.0493	-0.017901	0.0545	-0.069583	0.0601
URBAN	0.548239 *	0.0528	0.513478 *	0.0487	0.617473 *	0.0621
SOMECOLL	0.278226 *	0.0566	0.259810 *	0.0561	0.351271 *	0.0667
BACH	0.712998 *	0.1022	0.608483 *	0.0904	0.960690 *	0.1301
BACHPLUS	0.682692 *	0.1206	0.570803 *	0.1111	0.955131 *	0.1513
VET_VAL	-0.000015	0.0000	0.000003	0.0000	-0.000052 *	0.0000
MANAGER	-0.198963 *	0.0616	-0.202458 *	0.0617	-0.205834 *	0.0615
PROF	0.073542	0.0687	0.069961	0.0686	0.072554	0.0690
SERVICE	0.022696	0.0781	0.018412	0.0784	0.016672	0.0769
SALES	-0.392779 *	0.0708	-0.400774 *	0.0709	-0.396386 *	0.0705
OFFICE	0.430145 *	0.0920	0.431331 *	0.0922	0.426886 *	0.0909
FARM	-0.539295 **	0.2706	-0.537100 **	0.2712	-0.520316 ***	0.2669
TRANSPT	0.297066 *	0.0779	0.296121 *	0.0782	0.291554 *	0.0766
OTHER	0.000005 *	0.0000	0.000005 *	0.0000	0.000005 *	0.0000
VETERAN	0.245337 *	0.0520	0.249449 *	0.0513	0.134402 **	0.0640
LAMBDA	1.472765 **	0.6035	0.598084	0.4438	3.441931 *	0.8241
Adjusted R^2	0.050		0.050		0.050	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 26.
CPS Earnings Equations: When AGESQ is Omitted from Choice Equation

Variable	Coefficient	Standard Error
Constant	11.326166 *	0.3922
AGE	-0.044123 *	0.0144
AGESQ	0.000450 *	0.0001
	Demographic	
MINORITY	-0.072222 **	0.0345
MARRIED	0.034397	0.0307
DEPKIDS	-0.059899 **	0.0267
URBAN	0.133062 *	0.0265
	Education	
SOMECOLL	0.040241	0.0280
BACH	0.158489 *	0.0368
BACHPLUS	0.236263 *	0.0460
	Occupation	
MANAGER	0.080893 **	0.0357
PROF	0.102338 *	0.0397
SERVICE	-0.159271 *	0.0428
SALES	-0.036869	0.0414
OFFICE	-0.070552	0.0475
FARM	-0.267837 ***	0.1540
TRANSPR	-0.083245 **	0.0412
DISWORK	-0.231398 *	0.0780
OTHER	0.000004 *	0.0000
LAMBDA	-0.332673 *	0.0691
Adjusted R^2	0.243	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 27.
CPS Choice Equations: URBAN vs. Region Category Variables

	Baseline		Region Variables	
Variable	**Coefficient**	**Standard Error**	**Coefficient**	**Standard Error**
Constant	-3.823344 *	0.2188	-3.737394 *	0.2185
AGE	0.195858 *	0.0081	0.195322 *	0.0081
AGESQ	-0.002293 *	0.0001	-0.002289 *	0.0001
MINORITY	-0.189034 *	0.0202	-0.179754 *	0.0202
MARRIED	0.335607 *	0.0186	0.332932 *	0.0186
FOWNU18	0.065683 *	0.0092	0.065571 *	0.0092
FRELU6	-0.077514 *	0.0191	-0.075810 *	0.0191
URBAN	0.070929 *	0.0176	———	
NORTH	———		-0.030094	0.0220
WEST	———		-0.059041 *	0.0212
SOUTH	———		-0.009302	0.0208
SOMECOLL	0.072760 *	0.0185	0.080617 *	0.0185
BACH	0.291315 *	0.0210	0.303581 *	0.0209
BACHPLUS	0.327126 *	0.0246	0.342114 *	0.0244
VET_VAL	-0.000032 *	0.0000	-0.000032 *	0.0000
VETERAN	-0.044563 **	0.0180	-0.046024 **	0.0180
Likelihood Ratio $\chi 2$	10718.89		10712.07	
D.F.	12		14	
Pseudo R^2	0.2574		0.2572	

*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Table 28.
CPS Earnings Equations: URBAN vs. Region Category Variables

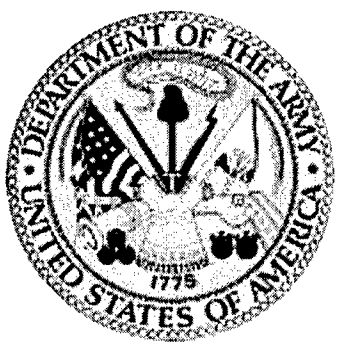
	Baseline		Region Variables	
Variable	**Coefficient**	**Standard Error**	**Coefficient**	**Standard Error**
Constant	3.464002	2.4333	4.419268 ***	2.4294
AGE	0.229627 **	0.0935	0.208041 **	0.0941
AGESQ	-0.002902 *	0.0010	-0.002665 **	0.0011
DISWORK	-0.696833 *	0.1692	-0.696913 *	0.1698
MINORITY	-0.074466	0.0808	0.003976	0.0795
MARRIED	0.357988 *	0.1203	0.305861 **	0.1205
FOWNU18	0.003246	0.0258	-0.000519	0.0258
FRELU6	-0.008119	0.0493	0.006825	0.0489
URBAN	0.548239 *	0.0528	———	
NORTH	———		0.039038	0.0584
WEST	———		-0.183790 *	0.0585
SOUTH	———		0.020396	0.0550
SOMECOLL	0.278226 *	0.0566	0.320707 *	0.0575
BACH	0.712998 *	0.1022	0.761418 *	0.1056
BACHPLUS	0.682692 *	0.1206	0.736043 *	0.1245
VET_VAL	-0.000015	0.0000	-0.000013	0.0000
MANAGER	-0.198963 *	0.0616	-0.186554 *	0.0618
PROF	0.073542	0.0687	0.088104	0.0688
SERVICE	0.022696	0.0781	0.058573	0.0783
SALES	-0.392779 *	0.0708	-0.364841 *	0.0709
OFFICE	0.430145 *	0.0920	0.465858 *	0.0922
FARM	-0.539295 **	0.2706	-0.650377 **	0.2712
TRANSPT	0.297066 *	0.0779	0.302393 *	0.0782
OTHER	0.000005 *	0.0000	0.000005 *	0.0000
VETERAN	0.245337 *	0.0520	0.240590 *	0.0520
LAMBDA	1.472765 **	0.6035	1.333789 **	0.6097
Adjusted R^2	0.050		0.046	

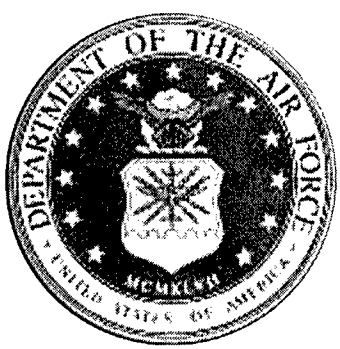
*Significant at the 0.01 level; **Significant at the 0.05 level; ***Significant at the 0.10 level

Appendix E.
2003 SRM Questionnaire

2003 Survey of Retired Military

RCS # DD-P&R(AR) 1978
Expiration Date: July 31, 2006
DMDC Survey Number 03-0012





DEFENSE MANPOWER DATA CENTER
ATTN: SURVEY PROCESSING ACTIVITY
DATA RECOGNITION CORPORATION
P.O. BOX 5720

COMPLETION INSTRUCTIONS

- **This is not a test, so take your time.**
- **Select answers you believe are most appropriate.**
- **Use a blue or black pen.**
- **Please PRINT where applicable.**
- **Place an "X" in the appropriate box or boxes.**

RIGHT ☒ **WRONG** ☑ ○

- **To change an answer, completely black out the wrong answer and put an "X" in the correct box as shown below.**

CORRECT ANSWER ☒ **INCORRECT ANSWER** ■

- **Do not make any marks outside of the response and write-in boxes.**

MAILING INSTRUCTIONS

- PLEASE RETURN YOUR COMPLETED SURVEY IN THE BUSINESS REPLY ENVELOPE. (If you misplaced the envelope, mail the survey to DMDC, c/o Data Recognition Corp., PO Box 5720, Hopkins, MN 55343.)
- IF YOU ARE RETURNING THE SURVEY FROM ANOTHER COUNTRY, BE SURE TO RETURN THE BUSINESS REPLY ENVELOPE ONLY THROUGH A U.S. GOVERNMENT MAIL ROOM OR POST OFFICE.
- FOREIGN POSTAL SYSTEMS WILL NOT DELIVER BUSINESS REPLY MAIL.

PRIVACY NOTICE

In accordance with the Privacy Act of 1974 (Public Law 93-579), this notice informs you of the purpose of the survey and how the findings will be used. Please read it carefully.

Authority: 10 United States Code, Sections 136, 1782, and 2358.

Principal Purpose: Information collected in this survey will be used to assess the impact of military service and other factors on lifetime earnings. Reports will be provided to the Office of the Secretary of Defense and each Military Department. Some findings may be published by the Defense Manpower Data Center (DMDC) or in professional journals, or presented at conferences, symposia, and scientific meetings. In no case will the data be reported or used for identifiable individual(s).

Routine Uses: None.

Disclosure: Providing information on this survey is voluntary. There is no penalty if you choose not to respond. However, maximum participation is encouraged so that the data will be complete and representative. Your survey responses will be treated as confidential. Identifying information will be used only by persons engaged in, and for purposes of, the survey research.

ABOUT THIS QUESTIONNAIRE

The Department of Defense needs career and income information to adequately assess the impact of military service and other factors on lifetime earnings. The survey is not intended to capture all aspects of your military and civilian careers; instead it builds a composite picture of post-retirement careers by surveying retirees who have retired over the past 32 years.

You have been selected at random to be part of a sample of people who represent retired military personnel. The only information used to sample individuals for this survey was demographic group membership defined by Military Service, rank (officer/enlisted), race/ethnicity (majority/minority), years since retirement, and VA disability status. Enough people were scientifically sampled for this survey so that valid conclusions can be made about military retirees' lifetime earnings. However, the validity of the survey results will be diminished if you do not fill out the survey. Please complete this survey as soon as possible.

If you have any questions about the purpose of this survey or how confidentiality will be maintained, you may contact the DMDC Survey Processing Center: Data Recognition Corporation, PO Box 5720, Hopkins, MN 55343. You may also contact the Survey Processing Center via electronic mail (email) at RetSurvey@osd.pentagon.mil or toll-free at 1-800-881-5307.

Military Retirement

First, we have some general questions about your retirement from the military. *(For each question below, please select the ONE best answer.)*

1. Compared to just before you retired from the military, would you say that your standard of living is now . . .

- ☐ A lot better
- ☐ Better
- ☐ About the same
- ☐ Worse
- ☐ A lot worse

2. In general, how satisfied are you with your civilian life currently?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Dissatisfied
- ☐ Very dissatisfied

3. In general, how do you currently feel about your military service?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Dissatisfied
- ☐ Very dissatisfied

4. How satisfied were you with your overall outprocessing/separation experience when you retired from the military?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Dissatisfied
- ☐ Very dissatisfied

5. In 1992, the Services began offering programs designed to assist Service members in making the transition to civilian life. Did you participate in a Service-provided Transition Assistance Program (TAP)?

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 9***
- ☐ Not applicable; I left the Service before 1992 ⇨ ***SKIP TO Question 9***

6. The following is a list of services often offered through the TAP. Which of these services did you use during your transition? *(Please mark USED or NOT USED for each item–a through d–below.)*

	Not Used	Used
a. Pre-separation counseling	☐	☐
b. Department of Labor-sponsored seminar	☐	☐
c. Executive transition course	☐	☐
d. VA benefits advice/assistance	☐	☐

7. Did your spouse participate in any TAP-sponsored activities?

- ☐ Yes
- ☐ No
- ☐ Not applicable; I was not married at the time

8. Overall, how satisfied are you with the transition assistance you received?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Dissatisfied
- ☐ Very dissatisfied

9. When you left the Service, how well prepared were you to enter the civilian job market?

- ☐ Very well prepared
- ☐ Well prepared
- ☐ Neither well nor poorly prepared
- ☐ Poorly prepared
- ☐ Very poorly prepared
- ☐ Not applicable; I was not interested in entering the civilian job market

10. When did you begin your transition processing?

- ☐ Less than 3 months prior to retirement
- ☐ 3-6 months prior to retirement
- ☐ 7-12 months prior to retirement
- ☐ 13-24 months prior to retirement
- ☐ More than 24 months prior to retirement

11. To what extent do you agree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
a. The military allowed me enough time to prepare for my transition and job search	☐	☐	☐	☐	☐
b. My chain of command was supportive when I began transition processing	☐	☐	☐	☐	☐
c. Officers were more likely than enlisted personnel to begin transition processing on time	☐	☐	☐	☐	☐

12. How valuable was your military experience to your civilian, post-retirement job experience?

- ☐ Very valuable
- ☐ Valuable
- ☐ Not very valuable
- ☐ Not at all valuable
- ☐ Not applicable; I did not enter the job market after retiring

13. Suppose a youth came to you for advice. How likely is it that you would recommend . . . ?

	Very likely	Likely	Neither likely nor unlikely	Unlikely	Very unlikely
a. Joining a Military Service such as the Army, Navy, Marine Corps, Air Force, or Coast Guard	☐	☐	☐	☐	☐
b. Joining a Reserve component of the military such as the Army National Guard, Army Reserve, Naval Reserve, Marine Corps Reserve, Air National Guard, Air Force Reserve, or Coast Guard Reserve	☐	☐	☐	☐	☐
c. Attending a four-year college or university	☐	☐	☐	☐	☐
d. Getting a full-time job	☐	☐	☐	☐	☐
e. Getting a part-time job	☐	☐	☐	☐	☐
f. Attending a trade, technical, vocational, or community college	☐	☐	☐	☐	☐

14. Overall, how much has being a military retiree helped or hindered your chances of finding and getting full-time employment?

- ☐ Helped very much
- ☐ Helped somewhat
- ☐ Neither helped nor hindered
- ☐ Hindered somewhat
- ☐ Hindered very much
- ☐ Never sought full-time employment

15. Overall, how much has being a military retiree helped or hindered your chances of getting a wage or salary comparable to civilian peers?

- ☐ Helped very much
- ☐ Helped somewhat
- ☐ Neither helped nor hindered
- ☐ Hindered somewhat
- ☐ Hindered very much
- ☐ Never sought full-time employment

16. How well are you doing economically as compared with others your age who did not have a military career (that is, who are not military retirees)?

- ☐ A lot better
- ☐ Better
- ☐ About the same
- ☐ Worse
- ☐ A lot worse
- ☐ Don't know

17. How much influence did each of the following reasons have on your decision to retire from the military? *(Please mark ONE answer for each retirement reason–a through x–below.)*

	Does not apply or no influence	Little influence	Some influence	Fairly high influence	Very high influence
a. Had reached maximum age	☐	☐	☐	☐	☐
b. Had reached maximum total time in service for my grade	☐	☐	☐	☐	☐
c. Failed to be promoted	☐	☐	☐	☐	☐
d. Not accepted for reenlistment	☐	☐	☐	☐	☐
e. Health/disability	☐	☐	☐	☐	☐
f. Was involuntarily retired/selected for early retirement	☐	☐	☐	☐	☐
g. Poor promotion possibilities in service	☐	☐	☐	☐	☐
h. Better opportunity for advancement in civilian life	☐	☐	☐	☐	☐
i. Possibility of undesirable assignments	☐	☐	☐	☐	☐
j. Desire to start second career before becoming too old	☐	☐	☐	☐	☐
k. Desire to settle in a particular location	☐	☐	☐	☐	☐
l. Dissatisfied with military life	☐	☐	☐	☐	☐
m. Needed more money than obtainable if I remained in service	☐	☐	☐	☐	☐
n. No economic advantage in remaining on active duty	☐	☐	☐	☐	☐
o. Family wanted me to retire	☐	☐	☐	☐	☐
p. Had good civilian job offer	☐	☐	☐	☐	☐
q. Downsizing	☐	☐	☐	☐	☐
r. Pay and allowances	☐	☐	☐	☐	☐
s. Continue my education	☐	☐	☐	☐	☐
t. Overall job satisfaction	☐	☐	☐	☐	☐

17. Continued.

	Does not apply or no influence	Little influence	Some influence	Fairly high influence	Very high influence
u. Dissatisfied with military leadership. .	☐	☐	☐	☐	☐
v. Frequency of PCS moves	☐	☐	☐	☐	☐
w. Time spent away from home	☐	☐	☐	☐	☐
x. Limited spouse employment and career opportunities	☐	☐	☐	☐	☐

18. How important is each of the following in your decision to live at your current location? *(Please mark ONE answer for each location characteristic–a through t–below.)*

	Does not apply or no importance	Little importance	Some importance	Fairly high importance	Very high importance
a. Cost of living (food, housing, commuting)	☐	☐	☐	☐	☐
b. Utility rates	☐	☐	☐	☐	☐
c. Your employment opportunities	☐	☐	☐	☐	☐
d. Spouse's employment opportunities	☐	☐	☐	☐	☐
e. Opportunities for volunteer work	☐	☐	☐	☐	☐
f. Convenient to major airport	☐	☐	☐	☐	☐
g. Local public transportation	☐	☐	☐	☐	☐
h. Educational opportunities	☐	☐	☐	☐	☐
i. Convenient shopping	☐	☐	☐	☐	☐
j. Cultural opportunities (museums, libraries, etc.)	☐	☐	☐	☐	☐
k. Preferred place of worship.....	☐	☐	☐	☐	☐
l. Close to civilian medical facilities ...	☐	☐	☐	☐	☐
m. Recreational facilities	☐	☐	☐	☐	☐
n. Close to family	☐	☐	☐	☐	☐
o. Close to friends	☐	☐	☐	☐	☐
p. Close to military medical care	☐	☐	☐	☐	☐
q. Close to a base commissary or exchange.....	☐	☐	☐	☐	☐
r. Climate	☐	☐	☐	☐	☐
s. Owned a home in the area	☐	☐	☐	☐	☐
t. Base was closed where I previously lived	☐	☐	☐	☐	☐

19. <u>Since your retirement</u> from the military, have you taken or are you planning to take any of the following actions? *(Please mark ONE answer for each action–a through j–below.)*

	Definitely will not do	Probably will not do	Probably will do	Definitely will do	Have done
a. Set up a savings/investment plan ...	☐	☐	☐	☐	☐
b. Get a job near a retirement location	☐	☐	☐	☐	☐
c. Move to a retirement home or community	☐	☐	☐	☐	☐
d. Start estate planning	☐	☐	☐	☐	☐
e. Retrain for new employment	☐	☐	☐	☐	☐
f. Start or return to college	☐	☐	☐	☐	☐
g. Make a will or living trust	☐	☐	☐	☐	☐
h. Live with family and/or relatives.....	☐	☐	☐	☐	☐
i. Sell home and relocate	☐	☐	☐	☐	☐
j. Join a veteran's association	☐	☐	☐	☐	☐

20. Which ONE of the following best describes your major activity <u>right after</u> you retired from military service? *(<u>If more than one apply</u>, select the ONE answer that applies the most to your situation. A full-time job is defined as working 35 hours a week or more, including self-employment.)*

- ☐ Working full-time (include self-employed)
- ☐ Working part-time (include self-employed)
- ☐ Working part-time, but looking for full-time work
- ☐ Not working, but looking for work
- ☐ Stayed home/took care of family
- ☐ Took a break/vacation
- ☐ Permanently retired
- ☐ Going to school full-time
- ☐ Going to school part-time

21. How many full-time jobs with different employers have you had since retiring from military service? *(To indicate no full-time job since retirement, enter "00.")*

☐☐ *JOBS*

Your Employment Situation During 2002

22. In 2002, did you work at a job or business at any time, including temporary, part-time, or seasonal work–even for a few days? *(Please mark ONE answer.)*

- ☐ Yes, self-employed ⇨ ***SKIP TO Question 27***
- ☐ Yes, I was employed by someone else ⇨ ***SKIP TO Question 27***
- ☐ Yes, I was self-employed and employed by someone else ⇨ ***SKIP TO Question 27***
- ☐ No

23. In 2002, even though you did not work, did you spend any time trying to find a job or were you on layoff? *(Please mark ONE answer.)*

- ☐ Yes, tried to find a job
- ☐ Yes, was on layoff
- ☐ Yes, was on layoff and also tried to find a job
- ☐ No ⇨ ***SKIP TO Question 25***

24. In 2002, how many different weeks were you: (a) looking for work, or (b) on layoff from a job? *(To indicate less than one week, enter "00.")*

a. Number of weeks looked for work ☐☐ *WEEKS*

b. Number of weeks on layoff ☐☐ *WEEKS*

25. In 2002, which ONE of the following is the MAIN REASON that you did not work or did not look for work?

- ☐ Disabled or ill, and unable to work
- ☐ Retired
- ☐ Taking care of home or family
- ☐ Going to school
- ☐ Could not find work
- ☐ Did not need to work
- ☐ Another reason *(specify below)*

Please print

26. In what month and year did you last work for pay? *(If you never accepted employment, enter the month and year you retired from the military.)*

☐☐☐☐☐☐ *MONTH/YEAR*

After completing Question 26, SKIP TO Question 45 ON PAGE 8.

27. In 2002, how many weeks did you work–even for a few hours? *(Include paid vacation and sick leave as work. Please give your best estimate.)*

☐☐ *WEEKS*

28. During the weeks that you worked in 2002, how many hours did you usually work per week?

☐☐ *HOURS*

29. In 2002, were there one or more weeks in which you worked less than 35 hours? *(Exclude time off with pay because of holidays, vacation, days off, or sickness.)*

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 32***

30. In 2002, how many weeks did you work less than 35 hours?

☐☐ *WEEKS*

31. In 2002, which ONE of the following is the MAIN REASON you worked less than 35 hours per week? *(Please mark ONE answer.)*

- ☐ Could not find a full-time job
- ☐ Slack work or material shortage
- ☐ Wanted to work part-time
- ☐ Was only able to work part-time
- ☐ Other reason

32. In 2002, what was your principal employment? *(By principal employment, we mean your longest primary job in 2002. Please mark ONE answer.)*

- ☐ An employee of a PRIVATE/PUBLIC company, business or individual, working for wages, salary or commission
- ☐ An employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
- ☐ A FEDERAL government employee
- ☐ A STATE government employee
- ☐ A LOCAL government employee (e.g., county, city, town)
- ☐ Self-employed in OWN business, professional practice, or farm
- ☐ Working WITHOUT PAY in family business or farm

33. In 2002, counting all locations where this employer operates, what is the total number of persons who worked for this employer?

- ☐ 1 to 9
- ☐ 10 to 24
- ☐ 25 to 99
- ☐ 100 to 499
- ☐ 500 to 999
- ☐ 1,000 or more

34. In 2002, what kind of business or industry was your principal employment? *(Describe the activity at the location where you were employed. For example: hospital, newspaper publishing, mail order house, auto repair shop, bank. Do not provide the name of the company.)*

Please print.

35. In 2002, what kind of work were you doing on your principal employment–that is, what was your occupation? *(For example: registered nurse, personnel manager, supervisor of order department, auto mechanic, accountant.)*

Please print.

36. In 2002, what were your most important activities or duties at your principal employment? *(For example: patient care, directing hiring policies, supervising order clerks, repairing automobiles, reconciling financial records.)*

Please print.

37. In 2002, was your salary or wage from your principal employer based on working full-time? *(If SELF-EMPLOYED for 35 or more hours a week, please answer "Yes.")*

- ☐ Yes
- ☐ No

38. In 2002, how much did you earn, including bonuses and overtime pay, from your principal employer before taxes and deductions?

Write your salary or wage income in the boxes. $ ☐☐☐, ☐☐☐.00

39. In 2002, which of the following benefits did this employer provide? *(Please mark YES or NO for each item–a through e–below.)*

	Yes	No
a. Health insurance	☐	☐
b. Dental insurance	☐	☐
c. Pension	☐	☐
d. Life and/or accident insurance	☐	☐
e. Disability insurance	☐	☐

40. In 2002, overall, how satisfied were you with your principal job?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Dissatisfied
- ☐ Very dissatisfied

41. To the nearest year, how many years total have you been employed on this job with this employer? *(To indicate less than six months, enter "00.")*

☐☐ *YEARS*

42. To what extent was your work on your principal job in 2002 related to your military training?

- ☐ Very related ⇨ ***SKIP TO Question 45***
- ☐ Somewhat related ⇨ ***SKIP TO Question 45***
- ☐ Very unrelated
- ☐ Not at all related

43. Did any of the reasons listed below influence your decision to work in an area UNRELATED TO YOUR MILITARY TRAINING? *(Please mark YES or NO for each item–a through h–below.)*

	Yes	No
a. Pay, promotion opportunities	☐	☐
b. Working conditions (hours, environment)	☐	☐
c. Job location	☐	☐
d. Change in career or professional interests	☐	☐
e. Family-related reasons	☐	☐
f. No jobs available in primary field of interest	☐	☐
g. No jobs available in field equivalent to my military training	☐	☐
h. Other reason	☐	☐

44. Which ONE reason represents your MOST important reason for working in an area outside of your military training?

- ☐ Pay, promotion opportunities
- ☐ Working conditions (hours, environment)
- ☐ Job location
- ☐ Change in career or professional interests
- ☐ Family-related reasons
- ☐ No jobs available in primary field of interest
- ☐ No jobs available in field equivalent to my military training
- ☐ Other reason

45. At what age did you or do you plan to retire fully from civilian employment?

- ☐ Don't know
- ☐ Never had civilian employment

☐☐ *AGE*

Family and Household Information

46. What is your current marital status?

- ☐ Never married ⇨ ***SKIP TO Question 56***
- ☐ Divorced ⇨ ***SKIP TO Question 56***
- ☐ Widowed ⇨ ***SKIP TO Question 56***
- ☐ Separated
- ☐ Married

Military service, with its frequent moves, has consequences for the career of a spouse. The next few questions are needed to assess the effects on a retiree's spouse's career. *(Only consider your current spouse if remarried.)*

47. How many years of your military service were shared by your spouse (current spouse if remarried)? *(To indicate less than one year, enter "00.")*

☐☐ *SHARED YEARS*

48. Overall, how much has your military career helped or hindered your spouse's career? *(Please mark ONE answer.)*

- ☐ Helped very much
- ☐ Helped somewhat
- ☐ Neither helped nor hindered
- ☐ Hindered somewhat
- ☐ Hindered very much
- ☐ Not applicable; spouse never sought a career

49. How old was your spouse on her/his last birthday?

☐☐ *AGE*

50. What is the highest level of education that your spouse has completed? *(Please mark ONE answer.)*

- ☐ Less than 12 years of school (no diploma)
- ☐ GED or other high school equivalency certificate
- ☐ High school diploma
- ☐ Less than 2 years of college, but no college degree
- ☐ 2-year college degree (AA/AS)
- ☐ More than 2 years of college credits, but no 4-year college degree
- ☐ 4-year college degree (BA/BS)
- ☐ Some graduate school, but no graduate degree
- ☐ Master's, doctoral, or professional school degree (MA/MS/PhD/MD/JD/DVM)

51. Which ONE of the following best describes your spouse's major activity during 2002? *(Please mark ONE answer. A full-time job is defined as working 35 hours a week or more, including self-employment.)*

- ☐ Working full-time (include self-employed)
- ☐ Working part-time (include self-employed)
- ☐ Working part-time, but looking for full-time
- ☐ Not working, but looking for work
- ☐ Not working and not looking for work
- ☐ Going to school full-time
- ☐ Going to school part-time
- ☐ Taking care of home or family
- ☐ Other

Military service, with its frequent moves, also has consequences on the combined income of military retirees and their spouses. The next few questions ask about income for <u>your spouse</u>.

52. How much did <u>your spouse</u> earn <u>before taxes and deductions in 2002</u>, including bonuses and overtime pay? *(To indicate no salary or wage income earned by spouse, enter "0.")*

Write your spouse's salary or wage income in the boxes. $☐☐☐,☐☐☐.00

53. <u>In 2002</u>, how much income did <u>your spouse</u> receive from the following sources: stocks or bonds, paid up life insurance, IRAs, savings, annuities, estate or trust payments, or rental income from property? *(Please give your best estimate. To indicate no income from any of these sources, enter "0.")*

Write the amount of income in the boxes. $☐☐☐,☐☐☐.00

54. In 2002, how much income did your spouse receive from all pensions including: civilian retirement pay, military retirement pay, social security, civil service, and other government pensions? *(Please give your best estimate. To indicate no income from any of these sources, enter "0.")*

Write the amount of pension income in the boxes. $ ☐☐☐, ☐☐☐.00

55. In 2002, how much income did your spouse receive from supplemental security income, unemployment insurance, civilian or military disability, worker's compensation, GI Bill, food stamps, Aid to Families with Dependent Children (AFDC) or welfare, and child support or alimony? *(Please give your best estimate. To indicate no income from any of these sources, enter "0.")*

Write the amount of income in the boxes. $ ☐☐☐, ☐☐☐.00

The next questions ask about your income. *(Answer only for yourself.)*

56. How much did you earn before taxes and deductions in 2002, including bonuses and overtime pay? *(To indicate no salary or wage income, enter "0.")*

Write your salary or wage income in the boxes. $ ☐☐☐, ☐☐☐.00

57. In 2002, how much income did you receive from the following sources: stocks or bonds, paid up life insurance, IRAs, savings, annuities, estate or trust payments, or rental income from property? *(Please give your best estimate. To indicate no income from any of these sources, enter "0.")*

Write the amount of income in the boxes. $ ☐☐☐, ☐☐☐.00

58. In 2002, how much income did you receive from all pensions including: civilian retirement pay, military retirement pay, social security, civil service, and other government pensions? *(Please give your best estimate.)*

Write the amount of pension income in the boxes. $ ☐☐☐, ☐☐☐.00

59. In 2002, how much income did you receive from supplemental security income, unemployment insurance, civilian or military disability, worker's compensation, GI Bill, food stamps, Aid to Families with Dependent Children (AFDC) or welfare, and child support or alimony? *(Please give your best estimate. To indicate no income from any of these sources, enter "0.")*

Write the amount of income in the boxes. $ ☐☐☐, ☐☐☐.00

Use of Commissary and Exchange

MILITARY COMMISSARY refers to any Armed Services commissary store with a full line of groceries such as dairy products, fresh vegetables and meats, canned and packaged food items, etc.

60. About how many miles would you have to drive, one way, to the nearest military commissary from your residence? *(To indicate less than one mile, enter "0.")*

☐☐☐ *MILES*

61. Do you and/or your family shop at military commissaries?

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 65***

62. In an average month, how often do you and/or your family shop at military commissaries? *(To indicate less than once per month, enter "0.")*

☐☐ *TIMES PER MONTH*

63. In an average month, approximately how much money do you and/or your family spend in military commissaries?

Write the amount spent each month in the boxes. $ ☐☐☐, ☐☐☐.00

64. On average, how much do you save, including sales tax, shopping at your commissary?

- ☐ None
- ☐ Less than 10%
- ☐ 10-19%
- ☐ 20-29%
- ☐ 30-39%
- ☐ 40-49%
- ☐ 50% or more

65. What single factor most discourages you from using the commissary?

- ☐ Not applicable; I regularly shop at the commissary
- ☐ Distance (location not convenient)
- ☐ Difficulty getting onto installation (gate access)
- ☐ Hours/days of operation (hours not convenient)
- ☐ Congested, crowded conditions (time spent in store)
- ☐ Product selection (limited variety/shelves not well stocked)
- ☐ Product quality (meat, produce, deli, bakery, etc.)
- ☐ Product prices (prices of grocery products)
- ☐ Customer service (employees not friendly/available)
- ☐ Parking (insufficient parking)
- ☐ Store brands
- ☐ Nationally advertised brands
- ☐ Store not attractive/clean
- ☐ Other *(specify below)*

Please print

MILITARY EXCHANGE refers to any Armed Services exchange (PX, BX, NEX, MCX) which may consist of the Main Store, Gas Station/Garage, Food Court, Vending Machines, and Personal Services (Barber & Beauty Shop, Laundry & Dry Cleaning, Photo Finishing, Watch Repair, etc.).

66. About how many miles would you have to drive, one way, to the nearest military exchange from your residence? *(To indicate less than one mile, enter "0.")*

☐☐☐ *MILES*

67. Do you and/or your family shop at military exchanges?

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 71***

68. In an average month, how often do you and/or your family shop at military exchanges? *(To indicate less than once per month, enter "0.")*

☐☐ *TIMES PER MONTH*

69. In an average month, approximately how much money do you and/or your family spend in military exchanges?

Write the amount spent each month in the boxes. $☐☐☐,☐☐☐.00

70. On average, how much do you save, including sales tax, shopping at your exchange?

- ☐ None
- ☐ Less than 10%
- ☐ 10-19%
- ☐ 20-29%
- ☐ 30-39%
- ☐ 40-49%
- ☐ 50% or more

71. What single factor most discourages you from using the military exchange?

- ☐ Not applicable; I regularly shop at the exchange
- ☑ Distance (location not convenient)
- ☐ Difficulty getting onto installation (gate access)
- ☐ Hours/days of operation (hours not convenient)
- ☐ Congested, crowded conditions (time spent in store)
- ☐ Merchandise selection (limited variety/shelves not well stocked)
- ☐ Merchandise quality
- ☐ Prices
- ☐ Customer service (employees not friendly/available)
- ☐ Parking (insufficient parking)
- ☐ Store brands
- ☐ Nationally advertised brands
- ☐ Store not attractive/clean
- ☐ Other *(specify below)*

Please print

Combat-Related Disabilities

You may want to have your letter from the Department of Veterans Affairs (VA) describing your disability (i.e., reasons and level) available when answering questions 72-85. If you do not have a copy, please do your best to answer these items from memory.

72. Were you ever awarded the Purple Heart Medal?

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 74***

73. Did the VA attribute any level of disability to the injury for which you received the Purple Heart Medal?

- ☐ Yes
- ☐ No

74. Do you have a disability rating from the VA?

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 86***

75. Do you receive any compensation from the VA?

- ☐ Yes
- ☐ No

76. Is your level of disability based on multiple determinations?

- ☐ Yes, 3 or more
- ☐ Yes, 2
- ☐ No, I have 1 disability determination

77. Using the information below, is your disability, or any part of it, combat related?

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 86***

DETERMINATIONS OF COMBAT-RELATEDNESS

Direct Result of Armed Conflict–refers to disease or injury incurred in the line of duty as a direct result of armed conflict. Armed conflict includes war, expedition, occupation of hostile area, battle, skirmish, raid, invasion, rebellion, guerilla action, riot, or other action in which Service members are engaged with a hostile nation, faction, force, or terrorists. Armed conflict also includes incidents while a POW or held against your will by a hostile or belligerent force.

While Engaged in Hazardous Service–such duties include, but are not limited to aerial flight, parachute, demolition, experimental stress, and diving. Injury or disease must be a direct result of actions taken in performing such service.

In the Performance of Duty Under Conditions Simulating War–covers disabilities resulting from military training such as war games, practice alerts, tactical exercises, airborne operations, leadership reaction courses, live-fire weapons training, hand-to-hand combat training, rappelling, and negotiation of combat confidence and obstacle courses. This does NOT include physical training activities, such as calisthenics and jogging or formation running and supervised sports.

Instrumentality of War–covers disabilities incurred due to a hazard or risk of the Service involving an instrumentality of war defined as a vehicle, vessel, or device designed primarily for military service. Such disabilities can be incurred during any period of service as a result of such diverse causes as wounds caused by military weapon, accidents involving a military combat vehicle, injury or sickness caused by fumes, gases, or explosion of military ordinance, vehicles, or material.

78. What category of combat-relatedness best describes your largest combat-related disability?

- ☐ Direct Result of Armed Conflict
- ☐ While Engaged in Hazardous Service
- ☐ In the Performance of Duty Under Conditions Simulating War
- ☐ Instrumentality of War

79. What percent disability did the VA attribute to this reason?

- ☐ 0%
- ☐ 10%
- ☐ 20%
- ☐ 30%
- ☐ 40%
- ☐ 50%
- ☐ 60%
- ☐ 70%
- ☐ 80%
- ☐ 90%
- ☐ Total or 100%

80. Do you have any other combat-related disabilities?

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 86***

81. What category of combat-relatedness best describes your second largest combat-related disability?

- ☐ Direct Result of Armed Conflict
- ☐ While Engaged in Hazardous Service
- ☐ In the Performance of Duty Under Conditions Simulating War
- ☐ Instrumentality of War

82. What percent disability did the VA attribute to this reason?

- ☐ 0%
- ☐ 10%
- ☐ 20%
- ☐ 30%
- ☐ 40%
- ☐ 50%
- ☐ 60%
- ☐ 70%
- ☐ 80%
- ☐ 90%
- ☐ Total or 100%

83. Do you have any other combat-related disabilities?

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 86***

84. What category of combat-relatedness best describes your third largest combat-related disability?

- ☐ Direct Result of Armed Conflict
- ☐ While Engaged in Hazardous Service
- ☐ In the Performance of Duty Under Conditions Simulating War
- ☐ Instrumentality of War

85. What percent disability did the VA attribute to this reason?

- ☐ 0%
- ☐ 10%
- ☐ 20%
- ☐ 30%
- ☐ 40%
- ☐ 50%
- ☐ 60%
- ☐ 70%
- ☐ 80%
- ☐ 90%
- ☐ Total or 100%

Use and Cost of Medical Services

86. About how many miles would you have to drive, one way, to the nearest military hospital from your residence? *(To indicate less than one mile, enter "0.")*

☐☐☐ *MILES*

87. In 2002, were you enrolled in any of the following TRICARE programs? *(Please mark YES or NO for each item–a through h–below.)*

	Yes	No
a. TRICARE Standard	☐	☐
b. TRICARE Extra	☐	☐
c. TRICARE Prime	☐	☐
d. TRICARE Prime Remote	☐	☐
e. TRICARE Plus	☐	☐
f. TRICARE Dental Program	☐	☐
g. TRICARE Retiree Dental Program	☐	☐
h. TRICARE For Life	☐	☐

88. In 2002, did you have any of the following types of health insurance coverage? *(Please mark YES or NO for each item–a through i–below.)*

	Yes	No
a. HMO/PPO	☐	☐
b. Single	☐	☐
c. Group	☐	☐
d. Individual	☐	☐
e. Medicare	☐	☐
f. Supplemental	☐	☐
g. Medicaid	☐	☐
h. Student plan	☐	☐
i. Other *(specify below)*	☐	☐

Please print.

89. In 2002, did you use TRICARE to pay for any medical care?

- ☐ Yes
- ☐ No

90. In 2002, in addition to military retiree benefits, did you have any medical insurance/coverage paid by . . . ? *(Please mark YES or NO for each item–a through c–below.)*

	Yes	No
a. Spouse's employer	☐	☐
b. Yourself, private	☐	☐
c. Yourself, military-contract	☐	☐

91. In 2002, did you visit any of the following for your own health reasons? *(Please mark YES or NO for each item–a through d–below.)*

	No	Yes
a. A military facility (i.e., military clinic, military hospital)	☐	☐
b. A civilian facility (i.e., doctor's office, clinic, hospital, civilian TRICARE contractor)	☐	☐
c. Uniformed Services Family Health Plan facility (USFHP)	☐	☐
d. Veterans Affairs (VA) clinic or hospital	☐	☐

92. In 2002, were any of your family members eligible for retiree medical benefits?

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 94***

93. In 2002, did other members of your family visit any of the following for health reasons? *(Please mark YES or NO for each item–a through d–below.)*

	No	Yes
a. A military facility (i.e., military clinic, military hospital)	☐	☐
b. A civilian facility (i.e., doctor's office, clinic, hospital, civilian TRICARE contractor)	☐	☐
c. Uniformed Services Family Health Plan facility (USFHP)	☐	☐
d. Veterans Affairs (VA) clinic or hospital	☐	☐

94. In 2002, how much "out-of-pocket" money did you and other family members who were eligible for retiree medical benefits spend on medical care (including medical appliances, pharmacy drugs, dental care, and medical insurance charges, etc.) that was not reimbursed by insurance? *(To indicate no "out-of-pocket" cost, enter "0.")*

Write the amount spent in 2002 in the boxes. $ ☐☐☐,☐☐☐.00

Or, if you wish, you can write in a range here. The "out-of-pocket" cost was at least: $ ☐☐☐,☐☐☐.00

but no more than: $ ☐☐☐,☐☐☐.00

95. What is the USUAL degree of difficulty you have with each of the following:

	No difficulty	Slight difficulty	Moderate difficulty	Severe difficulty	Unable to do
a. SEEING words or letters in ordinary newsprint (with glasses/contact lenses if you usually wear them)	☐	☐	☐	☐	☐
b. HEARING what is normally said in conversation with another person (with hearing aid, if you usually wear one)	☐	☐	☐	☐	☐
c. WALKING without assistance (human or mechanical) or using stairs	☐	☐	☐	☐	☐
d. LIFTING or carrying something as heavy as 10 pounds, such as a bag of groceries	☐	☐	☐	☐	☐

96. An important factor in evaluating a person's health insurance situation is that person's current health status. Would you say that your health in general is . . . ?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

97. Did you ever leave, or retire from, a civilian job for health reasons?

- ☐ Yes
- ☐ No

98. Do you have a health problem or disability which prevents you from working or limits your working ability (i.e., type or amount of work)?

- ☐ Yes, non-military-related
- ☐ Yes, military-related
- ☐ Yes, both military-related and non-military-related
- ☐ No

99. During 2002, how many prescriptions did you fill or refill? *(Please mark ONE answer for each type of pharmacy–a through e–below.)*

	25 prescriptions or more	19-24 prescriptions	13-18 prescriptions	7-12 prescriptions	4-6 prescriptions	1-3 prescriptions	Not used
a. Military medical pharmacy	☐	☐	☐	☐	☐	☐	☐
b. Military contracted pharmacy	☐	☐	☐	☐	☐	☐	☐
c. VA medical pharmacy	☐	☐	☐	☐	☐	☐	☐
d. Civilian medical pharmacy	☐	☐	☐	☐	☐	☐	☐
e. TRICARE Mail Order Pharmacy (TMOP)	☐	☐	☐	☐	☐	☐	☐

100. During 2002, how many times did you visit with a doctor, nurse, or other medical professional (including dental)? *(Please mark ONE answer for each type of facility–a through d–below.)*

	25 times or more	19-24 times	13-18 times	7-12 times	4-6 times	1-3 times	Not used
a. Military medical facility	☐	☐	☐	☐	☐	☐	☐
b. Military contracted facility	☐	☐	☐	☐	☐	☐	☐
c. VA medical facility	☐	☐	☐	☐	☐	☐	☐
d. Civilian medical facility	☐	☐	☐	☐	☐	☐	☐

101. During 2002, how many nights did you spend in a medical facility? *(Please mark ONE answer for each type of facility–a through d–below.)*

	25 nights or more	19-24 nights	13-18 nights	7-12 nights	4-6 nights	1-3 nights	Not used
a. Military medical facility	☐	☐	☐	☐	☐	☐	☐
b. Military contracted facility	☐	☐	☐	☐	☐	☐	☐
c. VA medical facility	☐	☐	☐	☐	☐	☐	☐
d. Civilian medical facility	☐	☐	☐	☐	☐	☐	☐

102. Do you believe that the Armed Forces promised you free lifetime medical care?

- ☐ Yes
- ☐ Yes, but only on a "space available" basis
- ☐ No

Questions About You

103. What is the ZIP code for your present place of residence?

☐☐☐☐☐ *ZIP CODE*

104. Are you . . . ?

- ☐ Male
- ☐ Female

105. Are you Spanish/Hispanic/Latino?

- ☐ No, not Spanish/Hispanic/Latino
- ☐ Yes, Mexican, Mexican-American, Chicano, Puerto Rican, Cuban, or other Spanish/Hispanic/Latino

106. What is your race? *(Mark one or more races to indicate what you consider yourself to be.)*

- ☐ White
- ☐ Black or African-American
- ☐ American Indian or Alaska Native
- ☐ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
- ☐ Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian or Chamorro)

107. How much education did you have when you: (a) entered the military; (b) retired from the military; and (c) received this survey? *(Please mark the ONE best answer for each time frame.)*

	(c) When you received this survey	(b) When you retired	(a) When you entered the military
Less than 12 years of school (no diploma)	☐	☐	☐
GED or other high school equivalency certificate	☐	☐	☐
High school diploma	☐	☐	☐
Less than 2 years of college, but no college degree	☐	☐	☐
2-year college degree (AA/AS)	☐	☐	☐
More than 2 years of college credits, but no 4-year college degree	☐	☐	☐
4-year college degree (BA/BS)	☐	☐	☐
Some graduate school, but no graduate degree	☐	☐	☐
Master's, doctoral, or professional degree (MA/MS/PhD/MD/JD/DVM)	☐	☐	☐

108. Do you rent or own your current residence?

- ☐ Rent
- ☐ Own, purchased while in the military
- ☐ Own, purchased after leaving military
- ☐ Rent lot, own home
- ☐ Other

109. Are you currently enrolled in any type of job-related training or schooling?

- ☐ Yes, enrolled full-time
- ☐ Yes, enrolled part-time
- ☐ No, not enrolled

110. In what year did you retire from the military?

☐☐☐☐ *YEAR*

111. What was your paygrade on the day before your retirement?

☐ E-1	☐ E-6	☐ W-1	☐ O-1/O-1E
☐ E-2	☐ E-7	☐ W-2	☐ O-2/O-2E
☐ E-3	☐ E-8	☐ W-3	☐ O-3/O-3E
☐ E-4	☐ E-9	☐ W-4	☐ O-4
☐ E-5		☐ W-5	☐ O-5
			☐ O-6 or above

112. In what Service were you when you retired from the military?

- ☐ Army
- ☐ Navy
- ☐ Marine Corps
- ☐ Air Force

113. How many years of active-duty service did you complete?

☐☐ *YEARS*

114. How old were you on January 1, 2002?

☐☐ *YEARS OLD*

For the next questions, the definition of **"child** or **children"** or **"other legal dependents"** includes anyone in your family, except your spouse, who has or is eligible to have a Uniformed Services identification card (military dependent ID card) or is eligible for military health care benefits and is enrolled in the Defense Enrollment Eligibility Reporting System (DEERS).

115. Do you have a child, children, or other legal dependents based on the definition above?

- ☐ Yes
- ☐ No ⇨ ***SKIP TO Question 117***

116. How many children or other legal dependents do you have in each age group? *(Mark one answer in each row. To indicate none, enter "0." To indicate nine or more, enter "9.")*

	AGE
A. Under 12 years old . . .	☐
B. 13-22 years old	☐
C. 23 years old or older. .	☐

117. Can you personally access the Internet from the following locations? *(Please mark ONE answer for each location–a through c–below.)*

	Yes, anytime	Yes, most of the time	Yes, sometimes	No/not applicable
a. Your home	☐	☐	☐	☐
b. Your workplace	☐	☐	☐	☐
c. Another location (e.g., library, cyber café)	☐	☐	☐	☐

118. In a typical week, how often do you access the Internet?

- ☐ Never
- ☐ Occasionally, but less than once per week
- ☐ About once per week
- ☐ Several times a week
- ☐ About once a day
- ☐ Several times a day

119. How willing are you to use the Internet for the following activities? *(Please mark ONE answer for each activity–a through d–below.)*

	Very willing	Somewhat willing	Neither willing nor unwilling	Somewhat unwilling	Very unwilling
a. Obtaining news and information . .	☐	☐	☐	☐	☐
b. Carrying out research on products .	☐	☐	☐	☐	☐
c. Purchasing goods or services	☐	☐	☐	☐	☐
d. Responding to polls or surveys . . .	☐	☐	☐	☐	☐

120. If this survey were available only on the Web, would you have completed the survey?

☐ Yes
☐ No

COMMENTS

121. Would you like to know the results of this survey? If you are interested in being notified when a brief summary of the results is available on the Web, please print your e-mail address below. This e-mail address will be used for no other purpose than this notification.

Please print.

122. Thank you very much for completing and returning this questionnaire. If you have comments or concerns about this questionnaire or about the issues raised in this survey, please feel free to write them in the space below. Any comments you make on this questionnaire will be kept confidential!

Please accept our thanks for your help in this survey! Your responses will contribute to improved military personnel and retirement policies.

REPORT DOCUMENTATION PAGE

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14. ABSTRACT

This study describes the methodology underlying the analysis of work effort decisions and earnings estimates for military retirees using data from the 2003 Survey of Retired Military (2003 SRM), supplemented with data from the March 2003 Current Population Survey Annual Social and Economic Supplement (CPS-ASEC). This report details how the estimation datasets were constructed from these two data sources and describes the econometric methodology in detail, including the definition of alternative models designed to address empirical and data issues.

15. SUBJECT TERMS

Benefits, Career, Compensation, Demographic, Employer, Employment, Job Characteristics, Retirement

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
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