

# VALUATION OF THE MILITARY RETIREMENT SYSTEM

**SEPTEMBER 30, 2016** 



DoD Office of the Actuary June 2018

#### ACTUARIAL CERTIFICATION

This report on the valuation of the Military Retirement System as of September 30, 2016, has been prepared in accordance with generally accepted actuarial principles, standards, and practices. In preparing the report, we have relied upon information maintained by other Department of Defense activities regarding plan provisions, finances, and participants. The purpose of the actuarial valuation documented in this report is to develop actuarial liability and funding amounts to support the Secretary of Defense and the DoD Board of Actuaries ("Board") in meeting the requirements of Chapter 74, Title 10, United States Code. Use of these results for other purposes may not be appropriate. Any rates or parameters included in this report should not be used for other purposes without complete comprehension of the underlying derivation. Please contact the DoD Office of the Actuary for further information.

We have performed the valuation using methods and assumptions approved by the Board. In general, the decrement rates used in the valuation are based on Military Retirement System experience. The annual, long-term economic assumptions include a 2.75% rate of inflation, a 3.25% across-the-board salary increase, and a 5.25% interest rate. Unless otherwise stated, normal cost percentages (NCPs) shown in this report do not reflect budgetary reductions ("sequestration").

The actuarial methods and assumptions used in the preparation of this report are reasonable, and the valuation results present a fair picture of the financial condition of the Military Retirement System for purposes of meeting the requirements of Chapter 74, Title 10, United States Code. The Blended Retirement System (BRS) enacted in the National Defense Authorization Act for FY 2016, as amended, is reflected in this report. Future report results may differ significantly from those presented and documented in this report, for reasons that include uncertainty regarding how behavior will change under BRS.

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<sup>\*</sup> Meets the qualification standards of the American Academy of Actuaries, and continuing professional development requirements of the Society of Actuaries, to render the actuarial opinion referenced above.

#### **USE OF THIS REPORT**

- <u>Intended Audience</u>: Those seeking actuarial information about the Military Retirement System (MRS) or financial information about the Military Retirement Fund (MRF).
- **Report Limitations**: Stated in *Actuarial Certification* section of this report.
- \*\*\* Economic, demographic, and political forces impact the actuarial projections and valuation results and cannot be predicted precisely over long periods of time. \*\*\*
- For a high-level summary and bottom line results, refer to the *General Information* and *Key Results* section.
- For those new to the MRS, the main text and associated tables/figures can be found in the central section of this report (*Valuation of the MRS*).
- For those familiar with the MRS, the appendices and supplementary information provide additional technical and background information about DoD Office of the Actuary's work.
- In various places throughout this report, figures may not add exactly due to rounding.
- Many references to "active duty" personnel throughout the report also include full-time support reservists. Similarly, many references to "reservists" or "selected reservists" exclude full-time support reservists.

#### ABBREVIATIONS AND COMMON TERMS

**AEAN** Aggregate Entry-Age Normal cost method

Board DoD Board of Actuaries
BRS Blended Retirement System
COLA Cost-of-Living Adjustment
CPI Consumer Price Index

CSB/Redux Career Status Bonus Retirement System combined with the Redux System

**DIC** Dependency and Indemnity Compensation

**DoD** U.S. Department of Defense

FY Fiscal Year

GORGO Actuarial Projection Model used by DoD OACT
MRF / MRS Military Retirement Fund / Military Retirement System

NCP Normal Cost Percentage

**P.L.** Public Law

**RSFPP** Retired Serviceman's Family Protection Plan

**OACT** DoD Office of the Actuary

**OMB** U.S. Office of Management and Budget

PEBD Pay Entry Base Date SBP Survivor Benefit Plan

Services Army, Navy, Air Force, Marines
SSIA Special Survivor Indemnity Allowance

UFL Unfunded Liability U.S.C. United States Code

VA U.S. Department of Veterans Affairs

#### GENERAL INFORMATION AND KEY RESULTS

#### Military Retirement System – For Fiscal Year ending September 30, 2016

#### 1. Name of Plan:

Military Retirement System

#### 2. Name and Address of Plan Sponsor:

Department of Defense 1400 Defense Pentagon Washington, DC 20301-1400 Phone: (703) 571-3343

Website: https://www.defense.gov/

#### 3. Type of Plan:

Defined Benefit

#### 4. Establishment of Funding Arrangement:

Public Law 98-94 (currently Chapter 74 of Title 10, U.S.C.)

#### 5. Administrative Costs:

Not borne by the Plan

#### 6. Funding Arrangement:

Trust Fund

#### 7. Actuarial Cost Method:

Aggregate Entry-Age Normal (AEAN)

#### 8. Oversight:

DoD Board of Actuaries. The Board approves methods and assumptions used in the valuation. The current members of the Board are:

Mr. James F. Verlautz, Chairman

Ms. Marcia A. Dush

Mr. John H. Moore

#### 9. Plan Participant Information at End of Plan Year:

	<u>Members</u>	<b>Annualized Pay</b>
	(in 000s)	(\$ in billions)
Active Duty and Full-time Reservists:	1,364	\$56.47
Selected Drilling Reservists:	735	\$7.70
Non-Selected Reservists – w/ 20 years:	212	-N/A-
Nondisability Retirees:	1,874	\$51.62
Disability Retirees:	116	\$1.58
Surviving Families:	287	\$3.74

<sup>\*\*\*</sup> Only retirees and surviving families are paid from the Military Retirement Fund. \*\*\*

## GENERAL INFORMATION AND KEY RESULTS (Continued) Military Retirement System – For Fiscal Year ending September 30, 2016

#### 10. Valuation Input Data:

Extracts from files maintained by the Defense Manpower Data Center (DMDC), and files submitted by the Defense Finance and Accounting Service (DFAS)

#### 11. Retirement Criteria:

- A. Nondisabled Retirement from Active Duty Immediate, after 20 years of service
- B. Disabled Retirement Immediate, generally with no years of service requirement
- C. Nondisabled Retirement from Reserve Duty Deferred to age 60 (or earlier in some cases) after 20 years of creditable service

#### 12. Actuarial Assumptions:

#### A. Economic:

(Annual Rates)

- 1) Inflation 2.75%
- 2) Salary 3.25% (excludes promotion and longevity increases)
- 3) Interest 5.25%

#### B. <u>Demographic</u>:

- 1) Mortality and other assumptions: Based on Plan experience.
- 2) Mortality Improvement: Based on adjusted U.S. general population and projected by the Society of Actuaries (SOA).
- 3) Percent of a Typical New Entrant Cohort Serving 20 Or More Years: Full-time (FT) personnel: 19% ||| Part-time (PT) personnel: 14%

#### 13. Accounting Results During Fiscal Year 2016:

(\$ in billions)

A. Benefits paid to participants: \$ 57.2

B. Contributions from Services: \$ 19.3

C. Contributions from Treasury: \$86.2

D. Investment Income: \$ 15.6

#### 14. Actuarial Results at End of Fiscal Year 2016:

(\$ in billions)

A. Present Value of Future Benefits: \$1,628.1

B. Actuarial Accrued Liability: \$1,407.0

C. Actuarial Value of Assets: \$ 664.4

D. Unfunded Accrued Liability: \$ 742.6

E. Funded Ratio (C./B.): 47%

#### 15. Normal Cost Percentages Applied to Fiscal Year 2018 Basic Pay:

	<b>DoD</b>	<b>Treasury</b>	<u>Total</u>
Full-time:	28.4%	12.5%	40.9%
Part-time:	22.6%	3.3%	25.8%

#### TABLE OF CONTENTS FOR THE SEPTEMBER 30, 2016, VALUATION

Section	<u>Page</u>
Supplementary Information	2
Actuarial Certification	2
Use of This Report	3
Abbreviations and Terms	3
General Information and Key Results	4
Summary of Changes for the September 30, 2016, Valuation	8
Summary of Anticipated Changes for the September 30, 2017, Valuation	9
Valuation of the Military Retirement System (MRS)	10
Introduction	10
Valuation Data and Procedure	11 13
Assets  Table 3: Statement of Actuarial Value of Assets  Table 4: Statement of Changes in Actuarial Value of Assets	17
Normal Cost	
Table 5: Normal Cost as a Percent of Basic Pay (NCPs)  Amortization of Unfunded Liability	
Unfunded Accrued Liability as of September 30, 2016	
Table 6A: Actuarial Status Information	25
Table 7: FY 2016 Change in Unfunded Liability	27
Table 9: Past and Projected Payroll and Normal Cost Payments	31
The Military Retirement Fund Transaction Process	33

## TABLE OF CONTENTS FOR THE SEPTEMBER 30, 2016, VALUATION (Continued)

<u>Appendix</u>	<b>Page</b>
Appendix A: The Military Retirement System: Benefits	37
Table A-1: Military Retirement Fund Performance Measures	49
Appendix B: The Military Retirement System: History	50
Table B-1: Military Retirement System Properties	61
Table B-2: Military Retirement System Multipliers	61
Table B-3: Military Retired Pay Cost-of-Living Increases (1958 – Present)	62
Table B-4: Military Basic Pay Scale Increases (1958 – Present)	
Appendix C: Valuation Data	64
Appendix D: Economic Assumptions	89
Table D-1: DoD Board of Actuaries' Long-Term Economic Assumptions	
Appendix E: Normal Cost Weighting Factors	98
Appendix F: Valuation Program Parameters	101
Appendix G: Active Duty Rates	111
Appendix H: Reserve Duty Rates	125
Appendix I: Retiree and Survivor Rates	166
Appendix J: Mortality Improvement Factors	186
Appendix K: 25 Year Projections	192
Appendix L: Financial Statement Disclosures	202
Table L-1: Statement of Net Assets Available for Benefits	204
Table L-2: Statement of Changes in Net Assets Available for Benefits	205
Table L-3: Comparison of DoD Board and SFFAS 33 Actuarial Liabilities	
Appendix M: Treasury Payments	209
Table M-1: Total Treasury Payment	
OACT EndNotes	218

### **SUMMARY OF CHANGES FOR THE SEPTEMBER 30, 2016, VALUATION**

#### **Changes in Actuarial Assumptions**

At its July 2016 meeting, the DoD Board of Actuaries approved the following changes for the September 30, 2016, valuation. Notes and transcript from the July 2016 meeting can be found at: https://facadatabase.gov/committee/meetingdocuments.aspx?flr=141815&cid=2191&fy=2016.

Active Duty and Reserve Death Rates

The Board approved updates to the active duty and reserve death rates. The net effect of the new rates is no change (to the third decimal place) to the full- and part-time DoD NCPs. The change led to an actuarial gain of \$1.7 billion (or 0.1%) to the Fund. For the September 30, 2016, valuation, these assumptions are described in Appendices G and H.

Mortality Improvement Factors

The Board approved the use of mortality improvement factors developed from "Mortality Projection-2015," or MP-2015, which was issued by the Society of Actuaries in October 2015. The MP-2015 factors are an update to the MP-2014 mortality improvement scales currently in use, which incorporate two additional years (2010 and 2011) of mortality data from the Social Security Administration. They result in a decrease to the full-time DoD NCP of 0.1%, and decrease the part-time NCP by 0.2%. The change led to an actuarial gain of \$14.8 billion (or 1.1%) to the Fund. For the September 30, 2016, valuation, mortality improvement factors are described in Appendix J.

#### **Changes in Benefits**

National Defense Authorization Act for FY 2016 (NDAA 2016) Blended Retirement System (BRS)

The impact on the valuation of members choosing the lump sum distribution option available under BRS has been calculated according to DoD signed policy on the Government Discount Rate. Assumptions regarding the policy implementation are discussed in Appendix F, and impact to the Fund shown in Table 7.

National Defense Authorization Act for FY 2017 (NDAA 2017)

The following changes enacted in NDAA 2017 are included in the September 30, 2016, valuation. Impacts to the Fund are shown in Table 7:

- The maximum period a member can remain on the Temporary Disability Retired List (TDRL) was lowered from 5 years to 3 years (with grandfathering of current TDRL retirees).
- Reservists who die on inactive duty training receive full SBP benefits.
- Survivors receiving Special Survivor Indemnity Allowance (SSIA), scheduled to end on 9/30/2017, will now receive payments through 5/31/2018, at the same level of \$310 per month.
- SBP Premiums can be paid from Combat-Related Special Compensation (CRSC), whereas in the past CRSC recipients had to remit their premium payments.

#### **SUMMARY OF CHANGES ANTICIPATED FOR THE SEPTEMBER 30, 2017, VALUATION**

#### **Changes in Actuarial Assumptions**

At its July 2017 meeting, the DoD Board of Actuaries approved the following changes for the September 30, 2017, valuation. Notes and transcript from the July 2017 meeting can be found at: https://facadatabase.gov/committee/meetingdocuments.aspx?flr=148453&cid=2191&fy=2017.

Economic Assumptions (Long-Term Interest)

The Board approved a new long-term interest rate assumption of 5.0% (vs. 5.25%). The new interest assumption increases the full-time DoD NCP by 2.2 percentage points, and increases the part-time DoD NCP by 2.1 percentage points. The change leads to an actuarial loss of \$60.2 billion (or 4.2%) to the Fund. For the September 30, 2016, valuation, this assumption is described in Appendices D and F.

#### **Changes in Benefits**

National Defense Authorization Act for FY 2018 (NDAA 2018)

The SSIA was extended to be a permanent benefit, with annual COLA increases. This change is estimated to increase the full-time and part-time DoD NCPs by approximately 0.1 percentage point and lead to an actuarial loss of approximately \$8 billion.

#### VALUATION OF THE MILITARY RETIREMENT SYSTEM

#### **Introduction**

The Military Retirement System provides benefits for retirement from active duty and from the reserves, disability retirement benefits, optional survivor coverage, and a special compensation program for certain disabled retirees. A detailed description of benefits can be found in Appendix A, and a history of the system is in Appendix B.

Public Law (P.L.) 98-94 (currently Chapter 74 of Title 10, U.S.C.) established that an aggregate entry-age normal cost funding method for the Military Retirement System starting October 1, 1984. Under this law, DoD pays the normal cost of the system and the Treasury Department makes payments from general revenues to amortize the unfunded liability, including any gains or losses that have arisen from assumption or benefit changes, or from actual experience differing from assumed experience. P.L. 108-136 modified this process such that DoD's normal cost contribution excludes the cost due to Concurrent Receipt benefits (refer to Appendix A for more information on Concurrent Receipt provisions). Treasury's total contribution includes an additional amount to fund the normal cost for Concurrent Receipt benefits.

P.L. 98-94 also established an independent three-member DoD Retirement Board of Actuaries who were appointed by the President. The Board is required to review valuations of the Military Retirement System; to determine the method of amortizing unfunded liabilities; to report annually to the Secretary of Defense; and to report to the President and the Congress on the status of the Military Retirement Fund at least every four years. The DoD Office of the Actuary provides all technical and administrative support to the Board. P.L. 110-181 eliminated the Retirement and Education Benefits Boards, and created a new single DoD Board of Actuaries appointed by the Secretary of Defense. Board duties with respect to the Retirement and Education Benefits Funds are similar, and the new law expands the Board's responsibilities to include oversight of any other Fund the Secretary of Defense deems necessary.

The terms of the Board members are fifteen years and a member can be removed only for misconduct or failure to perform the duties of the office. The current (as of the July 2016, public meeting) Board members are Mr. James Verlautz (Chairman), Ms. Marcia Dush, and Mr. John Moore. The DoD Chief Actuary is the Executive Secretary for the Board.

Military retired pay is based on "basic pay." This is the principal element of military compensation that all members receive; however, it is not analogous to private or public sector salaries for comparative purposes. Reasonable comparisons can be made to Regular Military Compensation (RMC). RMC is the sum of (1) basic pay, (2) the housing allowance, which varies by grade, location, and dependency status, (3) the subsistence allowance and, (4) the tax advantages accruing to allowances because they are not subject to federal income tax. Consequently, comparisons of military retired pay to other pension systems should recognize the relationship to RMC rather than to basic pay only. Appendix A contains a more complete description of this topic.

#### Valuation Data and Procedure

The valuation input data were extracted from files maintained by the Defense Manpower Data Center (DMDC). Data on individual retirees and survivors come from official files submitted by the Defense Finance and Accounting Service (DFAS). Active data are obtained from the Active Duty Military Personnel (ADMP) Master File, and reserve data are obtained from the Reserve

Component Common Personnel Data System (RCCPDS) Master File. The DoD Office of the Actuary (OACT) reviews the data for reasonableness and consistency against figures provided by the DoD Comptroller, but does not audit the data and relies on the file suppliers for its accuracy and comprehensiveness.

Where applicable, dollar amounts include the subsequent January 1st, pay raise. These totals are summarized in Table 1.

TABLE 1 INITIAL ACCOUNTING FIGURES AS OF SEPTEMBER 30			
INTIAL ACCOUNTING TO			
Total Active Duty Personnel +	<u>2016</u>	<u>2015</u>	
Full-Time Reservists Total Annualized Basic Pay	1,363,939 \$56.47 billion	1,377,260 \$56.16 billion	
·			
BRS Non-Opt-In (estimated, see Note below) Total Annualized Basic Pay	570,161 \$32.18 billion	636,855 \$34.41 billion	
BRS Opt-In (estimated, see Note below)	793,778	740,405	
Total Annualized Basic Pay	\$24.29 billion	\$21.75 billion	
Total Selected Drilling Reservists	735,062	741,687	
Total Annualized Basic Pay	\$7.70 billion	\$7.57 billion	
BRS Non-Opt-In (estimated, see Note below)	546,184	565,338	
Total Annualized Basic Pay	\$6.25 billion	\$6.28 billion	
BRS Opt-In (estimated, see Note below)	188,878	176,349	
Total Annualized Basic Pay	\$1.45 billion	\$1.29 billion	
Total Non-Selected Reservists (with 20 years)	212,484	216,272	
Total Annualized Basic Pay	-N/A-	-N/A-	
Total Number of Nondisability Retirees	1,873,721	1,869,924	
Total Annualized Retired Pay	\$51.62 billion	\$51.31 billion	
Total Number of Disability Retirees	116,147	112,363	
Total Annualized Retired Pay	\$1.58 billion	\$1.55 billion	
Total Number of Surviving Families	286,730	288,276	
Total Annualized Survivor Annuities	\$3.74 billion	\$3.79 billion	
Total Number of SSIA Survivors	64,411	62,891	
Total Annualized	\$151 million	\$110 million	

<u>Note</u>: Personnel and pay allocations between those expected to opt-in to the Blended Retirement System (BRS) and those not expected to opt-in, are based on assumptions, not actual data. Actual opt-in allocations may prove different than these assumptions and won't be known until after the Open Season for opt-in election, which is scheduled for calendar year 2018.

Some amounts do not reflect benefit increases described in Appendix A. Costs, liabilities, and outlays in this report, however, reflect these benefit increases unless otherwise stated. Only retirees and survivors are paid from the Military Retirement Fund. There is overlap between the Surviving Families and Special Survivor Indemnity Allowance (SSIA) counts; some people are in both.

Population and pay projections are generated by an actuarial projection model (GORGO<sup>1</sup>). GORGO is a deterministic model; use of a deterministic model assumes the average outcome will occur annually over a period of time. When projecting a large population such as the military, the law of large numbers manages certain risks.

Valuation results reflect additional minor adjustments to the projection made outside of GORGO. Further, the data on active duty personnel and drilling reservists are grouped into cells by age and number of years of service. Each cell contains the number and the average basic pay for personnel with that particular combination of age and length of service. Data on the retired population and surviving families are grouped into cells by age, and each cell contains the number and total net annualized retired pay or survivor annuity.

Separate data arrays are maintained in GORGO for each of the population categories listed in Table 2. These data arrays are displayed in Appendix C.

In GORGO, these starting populations are projected year by year into the future. Each year personnel are moved from one population category to another (e.g., from active to retired, or dropped from the system altogether) by means of decrement rates such as withdrawal, nondisability retirement, temporary disability, permanent disability, transfer, death with and without survivors, etc. The basic pay scale is assumed to increase at the valuation across-the-board salary increase assumption. Basic pay is also increased by individual promotion and longevity increases. Generally, retired pay and survivor annuities are increased by the valuation cost-of-living adjustments (COLA) assumption each year for retirees and survivors who receive a full COLA. At the end of each year, the number of people and the amounts paid in basic pay and benefits are saved, and the population is aged. After 100 years, when a relatively small portion (less than 0.02 percent) of basic pay and benefit expenditures are projected, the present values of the series of future benefit payments and future basic pay outlays are determined, using the valuation interest rate. Because no new entrants come into the system, the projection is said to be "closed group."

There is also an option in GORGO for an "open group" projection in which new entrants are added each year to meet DoD projected endstrengths. Detailed results of an open group projection of the Military Retirement System appear in Appendix K.

An open group projection also appears in Table 8. This projection, which shows the past and projected flow of plan assets, includes the total basic payroll over the next 25 years, the normal cost contributions, the payments to amortize the unfunded liability, investment income, fund disbursements, and the fund balance. All of these items are discussed in detail throughout the text of this report. An overview of the GORGO process is illustrated in Figure 1.

GORGO was named after a monster featured in a 1961 British science fiction movie based on a variation of *Godzilla*.

#### TABLE 2

#### GORGO POPULATION CATEGORIES

- 1. Active duty populations and basic pay, and benefit tier (BRS/Non-BRS)
  - a. Officers
  - b. Enlistees
- 2. Selected reserve populations, basic pay, career points, and benefit tier (BRS/Non-BRS)
  - a. Officers
  - b. Enlistees
- 3. Non-selected reserve (those who have completed 20 good years and have not reached paid retirement) populations, basic pay, accumulated retirement credit points, and benefit tier (BRS/Non-BRS)
  - a. Officers
  - b. Enlistees
- 4. Retiree populations, benefit tier (BRS/Non-BRS), retired pay, and survivor benefit coverage
  - a. Nondisabled officers (non-CSB electors)
  - b. Nondisabled enlistees (non-CSB electors)
  - c. Nondisabled officers (CSB electors)
  - d. Nondisabled enlistees (CSB electors)
  - e. Reserve officers
  - f. Reserve enlistees
  - g. Disabled officers (Permanent and Temporary)
  - h. Disabled enlistees (Permanent and Temporary)
- 5. Surviving families in a survivor benefit plan, total annuities, survivor benefit coverage, and benefit tier (BRS/Non-BRS)
  - a. Survivor Benefit Plan (SBP)
  - b. Reserve Component Survivor Benefit Plan (RCSBP)
  - c. Retired Serviceman's Family Protection Plan (RSFPP)
  - d. Death on active duty
  - e. Minimum income
- 6. Typical new entrant cohort population and benefit tier (BRS/Non-BRS)
  - a. Officers
  - b. Enlistees

#### FIGURE 1

#### GORGO PROCESS OVERVIEW

## ECONOMIC ASSUMPTIONS

- Inflation
- Interest
- Basic Pay Scale Increases

#### **POPULATION FILES**

- Active Duty
- SelectedReserve
- Non-Selected Reserve
- Retirees
- Survivors

### NON-ECONOMIC ASSUMPTIONS

- Retirement
- Mortality
- Withdrawal
- Etc.



## **GORGO**



## CLOSED GROUP PROJECTION

- Actuarial Liability

## OPEN GROUP PROJECTION

- Long-Term Projections

### NEW ENTRANT PROJECTION

- Normal Cost Percentage Economic assumptions, i.e., the annual rate of inflation, the annual basic pay scale increases, and the annual valuation interest rate, were decided upon by the DoD Board of Actuaries after extensive analysis of past trends, current environment, and future expectations. A discussion of these considerations is contained in Appendix D.

The decrement rates and other non-economic assumptions can be categorized as follows:

- 1. Active duty decrement rates
- 2. Retiree and survivor decrement rates
- 3. Drilling and non-drilling (with 20 good years) reserve decrement rates
- 4. Actuarial projection model parameters
- 5. Other rates (e.g., mortality improvement)

The decrement rates and GORGO parameters are generally based on military-specific experience. The rates and descriptions of how they were derived appear in Appendices G through J. The actuarial projection model parameters, dealing with such matters as the survivor benefit elections, premium deductions, and member/beneficiary age differences, appear in Appendix F. In general, the valuation results are most sensitive to changes in the economic (e.g., long-term interest assumption) and retention assumptions, where retention refers to the active and reserve duty withdrawal/reentrant and separation rates – refer to Table 6B for analysis.

#### **Assets**

The assets of the Military Retirement Fund (the Fund) are invested in special issue Treasury obligations bearing interest at rates determined by the Secretary of the Treasury taking into consideration current market yields for outstanding marketable U.S. obligations of comparable maturities. Each security issued to the Fund "mirrors" a security that has been issued to the public, i.e., it has the same maturity date and coupon rate. The special issue "mirrored" security may have been issued recently, or at any time in the past. Under current procedures adopted by Treasury, the investment manager (DFAS Trust Fund Accounting & Reporting Division) is permitted to redeem long-term special issue securities at any time before maturity for their fair market value, which is based on the public issue bid price with the same maturity date and coupon rate. However, Treasury policy encourages a buy-and-hold approach giving consideration to the needs of the Fund in determining the maturities of securities purchased.

The investment manager must follow the asset investment strategy approved by the DFAS Investment Board at their semiannual meetings. The current investment strategy includes investing the assets so that the Fund generates sufficient cash to fund benefit payments and expenses as they come due. Many considerations are taken into account when making investment decisions, including balancing various risks, targeting an expected average maturity of future investments of 20 years (which is reasonably close to the duration of the liabilities), and current and expected economic conditions. A large majority of purchases are in Treasury Inflation-Protected Securities (TIPS). This strategy hedges almost all of the inflationary pressures while minimizing liquidity risks to the Fund. Timing issues and the inconsistency between the TIPS calculation of inflation (CPI-U) and the Fund's crediting of inflation (CPI-W) to retiree and survivor benefits leave some residual inflationary risks.

For purposes of determining the unfunded liability, the assets of the Fund are valued using the amortized cost method. Under this method, the yield to maturity of a security valued at any point in time is equal to the yield to maturity at the time of purchase. In the valuation of the Military Retirement System, the amortized cost value is referred to as the "actuarial value of assets." The actuarial value of assets is determined by amortizing premium and discount over the life of the securities. The total investment return includes: the interest coupons received; the change in the amortized cost value during the year; and the inflation compensation accrued from the holdings of TIPS. The actuarial value of assets used in the determination of the unfunded liability includes the "accrued interest," which is the amount of the next semiannual interest coupon payment that has accrued since the date of the last coupon payment. The amount of the "accrued interest" is determined by multiplying the coupon payment by the ratio of the time that has elapsed since the last coupon payment date to the total time between coupon payments. Table 3 presents a statement of the actuarial value of assets; Table 4 presents a statement of changes in the actuarial value of assets. Other associated asset statements and disclosures are included in Appendix L.

In an open group projection of a retirement system where the total number of employees is held constant, the number of retirees and survivors on the rolls at year end, as well as the number withdrawing, retiring, dying, etc., each year, eventually levels out. When this occurs, the population is said to be "stationary." In this report's open group projection, DoD-projected endstrengths are used through the end of FY 2021 (as depicted in Table 8). Subsequently, the force size is held constant each year. However, the assumption of future mortality improvement results in a small increase in the retired population each year, so that the retired population is nearly, but not completely, stationary<sup>2</sup>.

When a population becomes stationary, the fund disbursements increase each year at the same rate as total pay, which in this valuation is 3.25 percent per year. If the method of funding the system is theoretically sound, the value of the assets in the Fund will also increase at this same rate, and thus will become a level percentage of pay. Otherwise, the fund would either increase indefinitely as a percent of pay, or decrease until it was zero. Practical considerations in this report's open group projection, including (1) mortality improvement, and (2) the difference between the short-term economic assumptions and the ultimate economic assumptions (see Table 8 Footnote) and the fact that payments on future (after September 30, 2016) gains and losses implied by the short-term assumptions are not projected, cause the fund disbursements to grow at an ultimate rate different than 3.25 percent per year.

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More precisely, the retired population would become nearly, but not completely stationary if the open group projection were extended many years beyond what is shown in this report.

#### TABLE 3

## DEPARTMENT OF DEFENSE MILITARY RETIREMENT FUND STATEMENT OF ACTUARIAL VALUE OF ASSETS (\$ in millions)

For the Plan Year Ended September 30:

Assets	<u>2016</u>	<u>2015</u>
1) Investments, at book value:		
U.S. Government securities <sup>1</sup>	\$658,723	\$595,759
<ul><li>2) Accounts receivable:</li><li>a) Accrued interest<sup>2</sup></li></ul>	\$5,143	\$4,703
b) Due from military retirees or their survivors	\$129	\$92
c) Intragovernmental	\$0	\$0
3) Cash:	\$368	\$31
Actuarial value of assets	<u>\$664,363</u>	<u>\$600,585</u>

Book value is determined by 1) amortizing premium and discount over the life of the securities using the effective interest method and 2) including additional inflation compensation from TIPS. Additional adjustment made as a result of FY 2011 National Defense Authorization Act (P.L. 111-383) regarding retired pay date as follows:

	<u>2016</u>	<u>2015</u>
Investments, at book value (actual)	\$654,376	\$595,759
October Expenditures paid in September	\$4,347	\$0
Investments, at book value (adjusted)	\$658,723	\$595,759

Includes accrued interest receivable and interest purchased.

#### TABLE 4

# DEPARTMENT OF DEFENSE MILITARY RETIREMENT FUND STATEMENT OF CHANGES IN ACTUARIAL VALUE OF ASSETS (\$ in millions)

For the Plan Year Ended September 30: 2016 2015 1) Actuarial value of assets at beginning of plan year: \$600,585 \$545,019 2) Investment income: a) Interest/Inflation \$20,802 \$15,988 b) Net appreciation (depreciation) in book value \$(5,238) \$(5,170) of investments<sup>1</sup> 3) Contributions: a) From Services \$19,260 \$19,691 b) Appropriation to amortize the unfunded liability \$79,289 \$75,562 c) Appropriation for Treasury Normal Cost Contribution \$6,870 \$6,197 4) Total additions (2 + 3): \$120,983 \$112,268 5) Change in Accounts Receivable \$37 \$27 6) Benefits paid to participants: \$57,242 \$56,729 Actuarial value of assets (1 + 4 + 5 - 6): \$664,363 \$600,585

<sup>&</sup>lt;sup>1</sup> Investments bought, sold and held during the plan year ended September 30 appreciated (depreciated) in value as follows:

	<u>2016</u>	<u>2015</u>
Amortized discount	\$218	\$162
Amortized premium	\$(5,456)	\$(5,332)
Gain (loss) on sale *	\$0	\$0
	\$(5,238)	\$(5,170)

<sup>\*</sup> Gain (loss) on sale is only shown for informational purposes and is not included in the net appreciation (depreciation).

#### **Normal Cost**

The aggregate entry-age normal cost percentage (NCP) is the level percentage of basic pay that must be contributed over the entire active career of a typical group of new entrants to pay for all the future retirement and survivor benefits of that group. It is determined by using the new-entrant cohort as the starting population in a GORGO projection. Their basic pay and benefits are projected over 100 years, and then discounted back to the present (i.e. valuation date). Mathematically, a NCP is calculated by dividing the present value of future benefits for the entire cohort by the present value of future basic pay, evaluated at the assumed interest rate.

There are four nondisability benefit formulas (for four distinct populations) within the Military Retirement System (see Appendix A). Retirement benefits are based on final basic pay (Final Pay) for military personnel who first became members of a uniformed service before September 8, 1980, and are based on the average of the highest 36 months (High-3) for those becoming members on or after this date. Additionally, active duty military personnel who first became members of a uniformed service on or after August 1, 1986, are High-3 unless they elect the Career Status Bonus (CSB), which provides a bonus in exchange for reduced (Redux) benefits<sup>3</sup>. Military personnel who first become a member of a uniformed service after December 31, 2017, will be under the new Blended Retirement System (BRS) which was enacted in NDAA 2016 and takes effect January 1, 2018. Members who first entered the military before January 1, 2018, and who have served for fewer than 12 years as of December 31, 2017 (or less than 4,320 points for reservists), will have the option to "opt-in" to BRS via an irrevocable election during a one-year (calendar year 2018) open season or remain in the High-3 system. Members who have served 12 or more years as of December 31, 2017 (or more than 4,320 points for reservists), are not permitted to opt-in to BRS and will receive benefits based on their current plan.

P.L. 99-661, enacted in November 1986, mandated that two separate NCPs be used for the valuation of the Military Retirement System. One NCP is for active duty personnel and full-time reservists (full-time) and one is for part-time reservists (part-time). Full-time and part-time NCPs are calculated for each of the separate benefit formulas. Only full-time personnel are under the CSB/Redux benefit formula, thus an analogous part-time NCP is not applicable ("N/A"). The FY 2017 NCPs are summarized below (with DoD NCPs in parentheses):

Benefit Formula	<u>Full-Time</u>	Part-Time
Final Pay	50.0% (35.4%)	28.3% (24.8%)
High-3	45.6% (32.3%)	26.8% (23.5%)
CSB/Redux <sup>4</sup>	44.9% (31.7%)	-N/A-
BRS	35.1% (23.7%)	21.3% (18.3%)

P.L. 108-136 required the U.S. Department of Treasury to pay into the Fund at the beginning of each year the normal cost arising from increased Concurrent Receipt benefits. The NCPs shown above include the respective Total ('DoD plus Treasury') and DoD percentages. Table 6A displays the DoD and Treasury NCPs separately. The NCPs are further disaggregated in Table 5.

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The National Defense Authorization Act of FY 2016 (NDAA 2016, P.L. 114-92) sunsets the CSB/Redux benefit tier by not allowing any CSB elections after December 31, 2017.

This NCP represents a blend of NCPs for CSB/Redux and HI-3 benefit formulas based on the CSB/ Redux Election Proportion (see Appendix F).

The FY 2017 weighted NCPs in Table 5 are calculated using the NCP weighting factors (see Appendix E), along with BRS opt-in rates (see Appendix F). The sum of the DoD and Treasury components of the weighted aggregate full-time NCP is 41.3 percent, and the weighted aggregate part-time NCP is 25.9 percent. Due to federal budget deadlines, the two NCPs used to determine the actual contributions to the Fund must be established in advance of implementation and may vary from those actually derived in a valuation.

Table 5 summarizes the components of the FY 2017 normal cost percentages. Note that unlike the NCPs shown in Table 5, the implemented NCPs in FY 2017 did not reflect the BRS benefit tier.

TABLE 5

NORMAL COST AS A PERCENT OF BASIC PAY (NCPs)

(DoD Normal Cost Percentage in Parentheses)

FULL-TIME	FINAL PAY	HIGH-3	CSB/REDUX	BRS	FY 2017 Weighted
Nondisability benefits Disability benefits Survivor benefits Total	46.4 (33.1)	42.3 (30.2)	41.7 (29.6)	32.2 (21.9)	38.2 (26.7)
	1.5 (0.9)	1.4 (0.8)	1.4 (0.8)	1.3 (0.8)	1.4 (0.8)
	2.1 (1.5)	1.9 (1.3)	1.9 (1.3)	1.5 (1.0)	1.7 (1.2)
	50.0 (35.4)	45.6 (32.3)	44.9 (31.7)	35.1 (23.7)	41.3 (28.7)
PART-TIME  Nondisability benefits  Disability benefits	24.1 (21.6)	22.9 (20.5)	-N/A-	17.9 (15.8)	22.1 (19.7)
	1.7 (1.1)	1.6 (1.0)	-N/A-	1.6 (1.0)	1.6 (1.0)
Survivor benefits  Total	2.5 (2.1) 28.3 (24.8)	$\frac{2.3(2.0)}{26.8(23.5)}$	-N/A- -N/A-	1.9 (1.6) 1.9 (1.6) 21.3 (18.3)	2.2 (2.0) 25.9 (22.6)

<sup>-</sup> Note that columns may not add exactly due to rounding of the separate NCP components.

As can be determined from this table, 92 percent of the full-time normal cost and 85 percent of the part-time normal cost stems from nondisability retirement. Based on current decrement rates, 19 percent of a typical group of new entrants attains 20 years of active duty service and becomes eligible for nondisability retirement from active duty. Specifically, 49 percent of new officers and 17 percent of new enlistees attain 20 years of active duty service. It should be noted that some military personnel who begin their careers on active duty move to the reserves and retire from there. This is modeled through the allocation of a portion of the reserve benefit, in present values terms, to the full-time normal cost (see Appendix F). Based on current reserve decrement rates, 14 percent of

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<sup>-</sup> Only full-time personnel are under the CSB/Redux benefit formula, thus an analogous part-time NCP is not applicable ("N/A").

As in past valuation reports, these percentages are stated from the perspective of a new entrant cohort still in active service at its first fiscal-year boundary (i.e., September 30). If losses prior to the first fiscal-year boundary are taken into account, the percentages would be reduced by approximately 15 percent (19 percent would become 16 percent). The stated percentages also reflect the effect of reentrants, i.e., members who appear in the active duty population one year without having been there the year before, who are not new entrants. Without the effect of reentrants, the proportion of a typical group of new entrants who attain 20 years of active duty service is reduced from 19 percent to 15 percent. The paygrade transfer rates have no effect.

The effect of reentrants on the reserve duty percentages is more pronounced relative to the above active duty figures due to the inherent nature of a reserve career (i.e., a higher proportion entering the reserves for the first time as a reentrant to the military).

a typical group of members entering the reserves for the first time (including members with prior active or non-drilling reserve time) become eligible for a reserve nondisability retirement (46% for officers, and 13% for enlisted). \*\*\* See footnote 5 for additional important details related to these percentages. \*\*\*

Table 9 lists the past and projected weighted aggregate full-time and part-time NCPs under current law in the normal cost columns. The columns are separated into the DoD and Treasury NCPs due to P.L. 108-136. In recent years both the full- and part-time sums of the DoD and Treasury component weighted aggregate percentages are (generally) at the level of the CSB/Redux normal cost percentages (High-3 for part-time) since virtually all non-retired personnel entered the uniformed service on or after August 1, 1986. With the passage of BRS, projected NCPs will eventually converge to the level of the BRS NCPs. As indicated in the Table 8 footnote, the Treasury Concurrent Receipt normal cost payments reflect amounts sequestered by fiscal year.

#### **Amortization of Unfunded Liability**

Under P.L. 98-94, normal cost contributions began to be made by DoD on behalf of all military personnel on October 1, 1984. Since normal cost contributions had not been made for service prior to this date, there was an initial unfunded accrued liability, or "initial unfunded liability," of \$528.7 billion as of September 30, 1984. If this amount had been deposited in the retirement fund on September 30, 1984, then it, together with the future normal cost payments to be made on behalf of all active duty personnel and drilling reservists over the balance of their active careers, plus investment earnings at the assumed rate, would have been sufficient to provide all expected retirement and survivor benefits for those in the system on that date.

The Board of Actuaries originally determined that the initial unfunded accrued liability of the system (\$528.7 billion) should be amortized with payments equal to 33 percent of the second preceding fiscal year's basic payroll. It was originally projected that this method would amortize the initial unfunded liability over 60 years. However, economic assumption changes extended this amortization period well beyond 60 years. As a result, the Board revised the amortization method of the original unfunded liability in such a way that the amortization would have been completed in FY 2044. In more recent years, it was determined that the Military Retirement Fund was projected to have a negative balance for several years before becoming positive again. The Board decided to shorten the amortization period to 50 years in 1996. The Board again shortened the amortization period in 2007 to 42 years in order for the payments to cover the interest on the unfunded liability each year. The initial unfunded liability is now expected to be fully amortized in calendar year 2025 (FY 2026).

Changes in the unfunded liability can also arise because of: 1) modifications to benefit provisions, 2) changes in actuarial assumptions, and 3) deviations in actual experience from expected experience (gains and losses). The Board approved a method to amortize these changes over 30 years by payments that increase in absolute value at the same rate as the annual long-term basic pay scale assumption. A description of the methods and computations used to calculate the payment streams for changes in unfunded liability can be found in Appendix M.

#### **Unfunded Accrued Liability as of September 30, 2016**

Table 6A summarizes the calculation of the unfunded accrued liability as of September 30, 2016. The present value of future benefits is obtained by projecting future benefits for the total covered population (closed group with no new entrants) as of September 30, 2016, and discounting these benefits back to the present (i.e. valuation date) at the assumed interest rate. The GORGO actuarial model projects benefits for the current active and retired populations over the duration of their lifetimes. Additional adjustments (generally minor) to the projection results are made outside of the GORGO model to capture the more complex law changes. The initial retirement benefits for military personnel are based on their total projected service at retirement, the applicable benefit formula, and assumed basic pay increases. Subsequent retirement benefits include assumed cost-of-living adjustments and the age 62 adjustment for those retiring under the CSB/Redux formula.

The present value of future normal cost contributions is obtained by (1) using GORGO to project future yearly full-time and part-time basic pay for the September 30, 2016, covered population, (2) multiplying the pay by the total projected (DoD and Treasury) full-time and part-time weighted aggregate entry-age NCPs, and (3) discounting the resulting normal costs back to September 30, 2016. For this closed group, the relative percentages of basic pay subject to the four separate benefit formulas will change over time as fewer members are covered under the CSB/Redux, High-3 and Final Pay formulas, and more are covered under BRS. The *weighted* full-and part-time NCPs that are multiplied against the future full- or part-time pay in each year reflect expected changing percentages of pay going to members covered by the multiple benefit formulas. This will change in future years as more personnel are covered under BRS. This weighted procedure is roughly equivalent in the aggregate to projecting separately the pay of each of the eight groups of active duty and selected reserve members and multiplying it by the individual group's NCP.

The sum of the DoD and Treasury components of the weighted aggregate entry-age NCPs for FY 2017 are 41.3 percent full-time and 25.9 percent part-time. Federal budget deadlines require the establishment of NCPs in advance of the valuation. Consequently, the percentages actually implemented in a fiscal year may vary from those derived in the valuation. These differences, which are small unless major actuarial assumptions or benefits are changed, are reflected in the unfunded liability by using the implemented normal cost in the first year of the projection.

Table 6B displays selected sensitivities in the estimated valuation cost figures due to changes in key economic and non-economic assumptions. The figures require the use of actuarial assumptions regarding future economic and demographic experience, which are typically disclosed as a single value. In an attempt to assess system financial risks, key underlying valuation assumptions were tested for their respective impacts. The absolute levels of change tested in Table 6B were selected to show directional magnitudes, not necessarily anticipated changes.

Deducting the present value of future normal costs and the actuarial asset value of the Fund from the present value of future benefits leaves an unfunded liability of \$742.6 billion as of September 30, 2016. This was less than the expected unfunded liability of \$775.9 billion. The expected unfunded liability is what the unfunded liability would have been if all actuarial assumptions had been realized and all benefit formulas had remained unchanged. The fact that the actual unfunded liability is less than expected means that there was a total FY 2016 gain of \$33.3 billion (\$742.6 billion minus \$775.9 billion). The components of this gain are outlined in Table 7. The total experience gain/loss is divided into five segments: (1) the loss due to the difference between the actual interest rate (2.3%) earned by the Fund in FY16 and the assumed interest rate

(5.25%); (2) the gain due to the actual January 1, 2017, COLA (0.3%) being different from that assumed (2.75%); (3) the gain due to the actual January 1, 2017, across-the-board salary (2.1%) increase being different from that assumed (3.25%); (4) the gain due to the difference between the actual and assumed non-economic experience; and (5) the loss due to the sequestration-required nonpayment of the October 1, 2016, Treasury Concurrent Receipt normal cost contribution. See the Summary of Changes for the September 30, 2016, Valuation for a more detailed discussion of the actuarial assumptions outlined in Table 7.

These changes in unfunded liability were used to calculate the October 1, 2017, unfunded liability payment. The total payment was determined to be \$82.877 billion. This total payment includes (1) a payment of \$92.950 billion to amortize the original unfunded liability, plus (2) an amount of \$3.736 billion to amortize changes in actuarial assumptions, plus (3) an amount of \$7.904 billion to amortize benefit changes, less (4) an amount of \$22.426 billion to amortize total combined experience gains and losses through FY 2016, plus (5) \$0.713 billion to amortize over one year the loss due to sequestration of the October 1, 2016, Treasury Concurrent Receipt normal cost contribution. The detailed calculations of these payment components can be found in Appendix M. Tables 10 and 11 show the projection of the unfunded liability payments and unfunded liability balances. As stated earlier, Tables 8 and 9 display all projected transactions to the Fund.

Starting in FY 2005, the total payment to be made by Treasury includes the amount required by P.L. 108-136 to pay for the increased normal cost due to Concurrent Receipt benefits in addition to the unfunded liability amortization amount. The total actuarially determined Treasury payment on October 1, 2017, is \$90.382 billion, equal to \$82.877 billion for the unfunded liability amortization *plus* \$7.505 billion for Concurrent Receipt benefits. Note that the actual contribution reflected a sequestration-mandated reduction to the \$7.505 billion, to \$6.837 billion. Detailed calculations of the total Treasury payment are also located in Appendix M.

#### TABLE 6A

#### MILITARY RETIREMENT SYSTEM ACTUARIAL STATUS INFORMATION (\$ in billions)

For the Plan Year Ended September 30:

	Tor vite Timir	2016	<u>2015</u>
1.	Present value of future benefits	<u>2010</u>	<u>2013</u>
	<ul> <li>a. Annuitants now on roll</li> <li>b. Nonretired reservists</li> <li>c. Active duty personnel<sup>1</sup></li> <li>TOTAL</li> </ul>	\$914.1 \$184.1 <u>\$530.0</u> \$1,628.1	\$919.2 \$184.8 <u>\$539.3</u> \$1,643.2
2.	Present value of future normal cost contributions <sup>2</sup>	\$221.2	\$226.2
3.	Actuarial accrued liability $(1 2.)^3$	\$1,406.9	\$1,417.0
4.	Actuarial value of assets <sup>4</sup>	\$664.4	\$600.6
5.	Unfunded accrued liability (3. – 4.)	\$742.6	\$816.4
6.	Funded Ratio (4. / 3.)	47%	42%
7.	DoD normal cost percentage (NCP) <sup>5</sup> to be applied to basic pay in fiscal year  a. Full-time (FT)  b. Part-time (PT)	FY 2018 28.4% 22.6%	FY 2017 28.9% 22.8%
8.	Treasury normal cost percentage (NCP) <sup>6</sup> to be applied to basic pay in fiscal year	FY 2018	FY 2017
	<ul><li>a. Full-time (FT)</li><li>b. Part-time (PT)</li></ul>	12.5% 3.3%	12.8% 3.3%

Basic pay is only a portion of active duty military compensation. See The Military Retirement System: Benefits (Appendix A) for details.

<sup>&</sup>lt;sup>1</sup> The future benefits of active duty personnel expected to retire as reservists are counted on line 1.b.

The September 30, 2016, Present Value of Future Normal Cost (PVFNC) contributions reflects a reduction of \$677.677 million due to sequestration of the October 1, 2016, Treasury Concurrent Receipt normal cost contribution. The September 30, 2015, PVFNC reflects a reduction of \$704.382 million due to sequestration of the October 1, 2015, Treasury Concurrent Receipt normal cost contribution.

Due to a minor technical adjustment, the amount shown here differs slightly from the \$1,407.0 figure reported at the July 2017 Board meeting.

<sup>&</sup>lt;sup>4</sup> The actuarial value of assets is determined using the amortized cost method from Table 4.

Due to the need to establish the NCPs in advance of implementation (federal budget deadlines), the percentages actually used in a fiscal year may vary from the ones derived in the valuation.

<sup>&</sup>lt;sup>6</sup> P.L. 108-136 requires the Department of Treasury to pay the normal cost resulting from the increase in benefits due to Concurrent Receipt.

#### TABLE 6B

## MILITARY RETIREMENT SYSTEM SENSITIVITY TESTS\* (\$ in billions)

#### Long-Term Interest Assumption

[Baseline Interest = 5.25%]

		Baseline	1% LOWER	<u>1% HIGHER</u>
1.	Present value of future benefits	\$ 1,628.1	\$ 1,990.7	\$ 1,362.5
2.	Actuarial accrued liability	\$ 1,406.9	\$ 1,670.4	\$ 1,204.6
3.	Actuarial value of assets	\$ 664.4	\$ 664.4	\$ 664.4
4.	Unfunded accrued liability $(2 3.)$	\$ 742.6	\$ 1,006.1	\$ 540.2
5.	Funded Ratio	47%	40%	55%
6.a.	FY 2018 FT NCP [DoD + Treasury]	40.9%	56.5%	30.1%
6.b.	FY 2018 PT NCP [DoD + Treasury]	25.8%	37.4%	18.1%

#### Retention Assumptions

[FT Baseline Retention = 'Withdrawal' rates, Appendix G]
[PT Baseline Retention = 'Separation' rates, Appendix H]

		Baseline	<u>25% LOWER</u>	25% HIGHER
1.	Present value of future benefits	\$ 1,628.1	\$ 1,695.0	\$ 1,565.1
2.	Actuarial accrued liability	\$ 1,406.9	\$ 1,413.7	\$ 1,397.3
3.	Actuarial value of assets	\$ 664.4	\$ 664.4	\$ 664.4
4.	Unfunded accrued liability $(23.)$	\$ 742.6	\$ 749.4	\$ 733.0
5.	Funded Ratio	47%	47%	48%
6.a.	FY 2018 FT NCP [DoD + Treasury]	40.9%	46.7%	33.5%
6.b.	FY 2018 PT NCP [DoD + Treasury]	25.8%	32.4%	18.4%
7.a.	New Entrants eligible for FT retirement (%)	19%	27%	12%
7.b.	New Entrants eligible for PT retirement (%)	14%	27%	6%

A sensitivity test is a process for assessing the impact of a change in an actuarial assumption on an actuarial measurement. As mentioned earlier in the *Valuation Data and Procedures* section of this report, the valuation results/measurements are most sensitive to changes in the economic (e.g., long-term interest) assumptions and retention assumptions. 'Baseline' figures are generally from Table 6A and other sections of this report. The absolute levels of the changes (+/- 1% and +/- 25%, respectively) were selected to show potential directional magnitudes, not necessarily anticipated changes, assisting the report user to analyze system risks.

#### TABLE 7

#### MILITARY RETIREMENT SYSTEM FY 2016 CHANGE IN UNFUNDED LIABILITY (\$ in billions)

For the Plan Year Ended September 30, 2016

1.	Act	ual unfunded accrued liability (9/30/16)	\$742.6	
2.	Exp	pected unfunded accrued liability (9/30/16)	\$775.9	
3.	Tota	al (gain)/loss	(\$33.3)	2.4%
	a.	Total experience (gain)/loss Interest assumption COLA assumption Salary assumption Non-economic experience 10/1/16 unpaid contribution	(\$16.8) \$19.4 (\$22.0) (\$5.2) (\$8.9) \$0.7	1.2% 2.9% 1.6% 0.4% 0.6% 0.0%
	b.	Total benefit change (gain)/loss FY16 NDAA "Blended Retirement System" FY17 NDAA "TDRL 3 Years Vice 5" FY17 NDAA "All LOD Deaths" FY17 NDAA "Deduct SBP Premiums from CRSC" FY17 NDAA "SSIA Extension"	(\$0.7) (\$0.8) \$0.3 \$0.0 (\$0.3) \$0.2	0.0% 0.1% 0.0% 0.0% 0.0% 0.0%
	c.	Total assumption change (gain)/loss Updated Active Duty / Reserve Death Rates New Mortality Improvement Rates	(\$16.5) (\$1.7) (\$14.8)	1.2% 0.1% 1.1%

In this table, negative values represent actuarial gains and positive values represent actuarial losses.

Percentages shown are ratios of absolute values of each gain or loss component to the accrued liability (Table 6A, line 3), except the percentage for the experience (gain)/loss due to the interest assumption is the ratio to the actuarial value of assets (Table 6A, line 4).

The reasons for the experience (gain)/loss for: interest = 5.25% long-term assumed vs 2.3% FY16 fund yield; salary = 3.25% long-term assumed vs 2.1% Jan 2017 increase; COLA = 2.75% long-term assumed vs. 0.3% Jan 2017 COLA. The 10/1/16 unpaid contribution loss is due to sequestration of the Treasury Concurrent Receipt normal cost contribution.

The benefit change (gain)/loss for: Blended Retirement System = reflecting BRS lump sums; TDRL = reduction of max TDRL period from 5 to 3 years; all LOD deaths = full SBP for reservists who die on "inactive duty" training; Deduct SBP Premiums = new ability to deduct premiums from CRSC pay; SSIA Extension = moving sunset date from 9/30/17 to 5/31/18. New Mortality Improvement relates to use of the Society of Actuaries' "MP-2015."

TABLE 8

#### MILITARY RETIREMENT SYSTEM PAST AND PROJECTED FLOW OF PLAN ASSETS $^{\rm I}$ (In Billions of Dollars and as a Proportion of Payroll)

				Contributi	ons Received								
							reasury, for						
Fiscal Year	Basic Payroll <sup>2</sup>		), for Normal osts 3		reasury, for al Costs 3		ization of d Liability <sup>4</sup>	Investme	ent Income	Fund Disk	oursements 5		ance, End of ear <sup>6</sup>
1985	\$33.5	\$17.0	(50.7%)			\$9.5	(28.4%)	\$1.1	(3.3%)	\$15.8	(47.2%)	\$11.8	(35.2%)
1986	35.4	17.4	(49.2)			10.5	(29.7)	2.5	(7.1)	17.6	(49.7)	24.6	(69.5)
1987	36.4	18.3	(50.3)			10.5	(28.8)	3.6	(9.9)	18.1	(49.7)	38.9	(106.9)
1988	37.3	18.4	(49.3)			10.3	(27.6)	5.0	(13.4)	17.5	(46.9)	53.4	(143.2)
1989	38.6	18.5	(47.9)			9.8	(25.4)	6.1	(15.8)	20.2	(52.3)	67.6	(175.1)
1990	39.8	16.3	(41.0)			10.6	(26.6)	7.3	(18.3)	21.5	(54.0)	80.4	(202.0)
1991 1992	42.3	17.2	(40.7)			10.8	(25.5)	8.5 9.4	(20.1) (22.9)	23.1	(54.6)	93.7	(221.5)
1992	41.1 38.9	16.3 13.2	(39.7) (33.9)			11.2 12.3	(27.3) (31.6)	10.0	(25.7)	24.5 25.7	(59.6) (66.1)	106.1 115.9	(258.2) (297.9)
1994	38.3	12.8	(33.4)			11.9	(31.1)	10.3	(26.9)	26.7	(69.7)	124.2	(324.3)
1995	37.1	12.2	(32.9)			11.5	(31.0)	10.9	(29.4)	27.8	(74.9)	131.0	(353.1)
1996	36.7	11.2	(30.5)			10.7	(29.2)	11.3	(30.8)	28.8	(78.5)	135.3	(368.7)
1997	36.8	11.1	(30.2)			15.2	(41.3)	11.9	(32.3)	30.2	(82.1)	143.3	(389.4)
1998	37.1	10.4	(28.0)			15.1	(40.7)	12.2	(32.9)	31.1	(83.8)	149.9	(404.0)
1999	37.6	10.4	(27.7)			15.3	(40.7)	12.4	(33.0)	31.9	(84.8)	156.0	(414.9)
2000	39.0	11.4	(29.2)			15.3	(39.2)	12.7	(32.6)	32.8	(84.1)	162.7	(417.2)
2001	40.9	11.4	(27.9)			16.1	(39.4)	13.2	(32.3)	34.1	(83.4)	169.2	(413.7)
2002 2003	44.7 52.0	12.9 13.7	(28.9) (26.3)			17.0 17.9	(38.0) (34.4)	12.4 10.0	(27.7) (19.2)	35.1 35.6	(78.5) (68.5)	176.5 182.6	(394.9) (351.2)
2004	53.6	14.1	(26.3)			18.2	(34.4)	10.1	(18.8)	37.0	(69.0)	188.0	(350.7)
2005	56.3	15.0	(26.6)	\$1.5	(2.7%)	21.4	(38.0)	10.9	(19.4)	39.0	(69.3)	197.9	(351.5)
2006	54.0	13.9	(25.7)	2.3	(4.3)	23.2	(43.0)	12.3	(22.8)	41.1	(76.1)	208.4	(385.9)
2007	56.4	14.5	(25.7)	2.5	(4.4)	26.0	(46.1)	10.3	(18.3)	43.5	(77.1)	218.2	(386.9)
2008	59.2	16.1	(27.2)	2.8	(4.7)	46.2	(78.0)	15.6	(26.4)	45.8	(77.4)	253.1	(427.5)
2009	63.0	17.5	(27.8)	3.7	(5.9)	51.1	(81.1)	2.9	(4.6)	50.0	(79.4)	278.4	(441.9)
2010	64.4	20.4	(31.7)	4.5	(7.0)	58.6	(91.0)	10.4	(16.1)	50.6	(78.6)	321.7	(499.5)
2011 2012	66.9 66.8	21.0 21.9	(31.4)	5.0 5.4	(7.5)	61.4	(91.8) (97.0)	18.0 12.5	(26.9)	51.0 52.6	(76.2)	376.1 428.0	(562.2)
2012	66.3	20.5	(32.8) (30.9)	6.8	(8.1) (10.3)	64.8 67.7	(102.1)	15.0	(18.7) (22.6)	54.5	(78.7) (82.2)	483.5	(640.7) (729.3)
2014	65.4	20.5	(31.3)	6.3	(9.6)	72.9	(111.5)	17.1	(26.1)	55.4	(84.7)	545.0	(833.3)
2015	64.3	19.7	(30.6)	6.2	(9.6)	75.6	(117.6)	10.8	(16.8)	56.7	(88.2)	600.6	(934.1)
2016	64.5	19.5	(30.2)	6.9	(10.7)	79.3	(122.9)	15.6	(24.2)	57.2	(88.7)	664.4	(1,030.1)
							UAL ↑						
	0.00.4	A4# 0	(00.40/)		•		ECTED		(60, 60.0)	0.55	(04.00/)	0.000	(4.402.00/)
2017 2018	\$63.4 65.7	\$17.8 18.2	(28.1%) (27.7)	\$6.6 6.8	(10.4%) (10.4)	\$81.2 82.9	(128.1%) (126.1)	\$38.4 43.0	(60.6%) (65.5)	\$57.9 59.3	(91.3%) (90.1)	\$750.5 842.2	(1,183.8%) (1,281.2)
2019	64.9	17.8	(27.7)	7.3	(11.3)	85.5	(131.7)	48.0	(73.9)	60.7	(93.6)	940.1	(1,448.0)
2020	65.9	17.9	(27.1)	7.4	(11.2)	87.6	(132.8)	53.2	(80.6)	62.4	(94.7)	1,043.7	(1,582.9)
2021	67.2	18.0	(26.8)	7.5	(11.1)	90.4	(134.7)	58.7	(87.4)	64.1	(95.5)	1,154.2	(1,718.4)
2022	68.4	18.2	(26.5)	7.6	(11.1)	93.4	(136.4)	64.6	(94.4)	65.9	(96.3)	1,272.0	(1,858.5)
2023	69.7	18.3	(26.3)	7.7	(11.0)	96.4	(138.2)	70.9	(101.7)	67.8	(97.2)	1,397.6	(2,004.0)
2024	71.0	18.5	(26.0)	7.8	(10.9)	99.5	(140.1)	77.7	(109.3)	69.9	(98.4)	1,531.2	(2,155.5)
2025 2026	72.4 73.8	18.7 18.9	(25.8) (25.5)	7.9 8.0	(10.9) (10.8)	102.8 106.1	(142.0) (143.8)	84.8 92.4	(117.1) (125.2)	71.9 74.1	(99.4) (100.3)	1,673.4 1,824.7	(2,311.6) (2,471.8)
2027	76.1	10.2	(25.2)	0.2		14.4	(10.0)	04.0		76.2	(100.2)	1.055.5	
2027 2028	76.1 78.5	19.3 19.7	(25.3) (25.1)	8.2 8.4	(10.8) (10.7)	-14.4 -14.9	(-18.9) (-18.9)	94.0 95.5	(123.4) (121.6)	76.3 78.5	(100.2) (100.0)	1,855.5 1,885.7	(2,437.1) (2,400.7)
2029	81.1	20.1	(24.8)	8.6	(10.7)	-14.9	(-18.9)	97.1	(119.7)	80.8	(99.7)	1,915.4	(2,363.1)
2030	83.6	20.6	(24.6)	8.9	(10.6)	-15.8	(-18.9)	98.6	(117.8)	83.1	(99.3)	1,944.4	(2,325.1)
2031	86.3	21.0	(24.4)	9.1	(10.6)	-16.4	(-19.0)	100.0	(115.9)	85.4	(98.9)	1,972.9	(2,286.8)
2032	89.0	21.5	(24.2)	9.4	(10.5)	6.9	(7.7)	102.7	(115.4)	87.7	(98.5)	2,025.7	(2,276.6)
2033	91.7	22.0	(24.0)	9.6	(10.5)	18.8	(20.5)	106.1	(115.6)	90.1	(98.2)	2,092.1	(2,281.2)
2034	94.6	22.5	(23.8)	9.9	(10.5)	19.4	(20.5)	109.5	(115.8)	92.3	(97.6)	2,161.2	(2,285.4)
2035 2036	97.6 100.8	23.1 23.8	(23.7) (23.6)	10.2 10.5	(10.4) (10.4)	20.0 10.5	(20.5) (10.4)	113.2 116.4	(116.0) (115.5)	94.4 96.5	(96.7) (95.8)	2,233.3 2,297.9	(2,288.1) (2,280.3)
2037 2038	104.0 107.5	24.4 25.1	(23.5) (23.4)	10.8 11.1	(10.4) (10.4)	6.9 7.1	(6.6) (6.6)	119.6 122.9	(115.0) (114.4)	98.7 100.8	(94.8) (93.8)	2,361.0 2,426.5	(2,269.2) (2,258.1)
2038	111.0	25.9	(23.4)	11.1	(10.4)	7.1	(6.6)	126.4	(113.8)	100.8	(93.8)	2,426.3	(2,238.1)
2040	114.6	26.6	(23.3)	11.9	(10.3)	7.6	(6.6)	129.9	(113.4)	105.1	(91.7)	2,565.4	(2,238.5)
2041	118.3	27.5	(23.2)	12.2	(10.3)	7.8	(6.6)	133.6	(112.9)	107.3	(90.7)	2,639.2	(2,230.0)

Note: Treasury Normal Cost Contributions are net of actual and expected sequestered amounts by the following fiscal years (discussed further in Appendix M):

- FY 2014: 9.8%

- FY 2015: 9.5%

- FY 2016: 9.3%

- FY 2017: 9.1%

<sup>-</sup> FY 2018: 8.9%

#### **TABLE 8 FOOTNOTES**

NOTE REGARDING OPEN GROUP PROJECTIONS: The 25-year open group projection in this report is based on benefit provisions, data, methods and assumptions described herein. The values are displayed in future-year dollars. They are intended to provide the user with a general directional magnitude; uncertainty increases with the length of the projection period. Actual results are heavily dependent on the underlying assumptions being realized. Benefit changes, economic conditions, and other factors are not perfectly predictable. **Economic, demographic, and political forces cannot be precisely predicted over very long periods of time**.

In addition, the fundamental purpose of OACT's valuation is to produce actuarial liability and normal cost amounts, both of which are done on a closed group basis. In performing the valuation calculations, many assumptions represent long-run average expectations. This is appropriate for such liability and normal cost determinations. The open group projection uses many of the same long-run average assumptions as are used in the actuarial liability and normal cost calculations, but incorporates some adjustments for short-term expectations (e.g., the use of short-term economic assumptions for basic pay and COLA increases).

The projection in this publication is intentionally limited to 25 years. Additional projection years, as well as projections assuming different economic assumptions, may be available upon request.

- P.L. 98-94 established the Military Retirement Fund. Under the law, DoD is responsible for the normal cost payment and Treasury is responsible for the payments on the unfunded liability. P.L. 108-136 assigned Treasury the responsibility of funding the normal cost resulting from increased benefits due to Concurrent Receipt, starting in FY 2005. There are no employee contributions to the Fund.
- DoD-projected endstrengths are used through the end of FY 2021 and constant force strengths are used thereafter. Basic pay is only a portion of military compensation. See The Military Retirement System: Benefits in Appendix A for details. FYs 2014, 2015, 2016, 2017, and 2018 Treasury Normal Cost Payments reflect sequestered amounts of 9.8% in FY 2014, 9.5% in FY 2015, 9.3% in FY 2016, 9.1% in FY 2017, and 8.9% in FY 2018 (discussed further in Appendix M).
- Due to federal budget deadlines, normal cost percentages are established in advance of implementation. The percentage actually used and displayed here may vary from the one derived in the valuation as of the end of the previous year. Starting in FY 1987, NCPs have been developed separately for the full-time and part-time basic payrolls. Beginning in FY 2008, the part-time NCP has been charged against mobilized reserve pay. However, this report includes mobilized reserve pay as part of the full-time payroll from FY 2008 through FY 2010.

#### TABLE 8 FOOTNOTES (Continued)

- <sup>4</sup> Reflects amortization payments for FY 2018 and thereafter determined in the September 30, 2016, valuation. The FY 2027 FY 2031 payments depict negative values, implying the Fund will have to pay Treasury this amount. There is no mechanism allowing this case to occur under current law. We (and the Board) are monitoring this situation.
- Disbursements are on a cash basis. Beginning in December 1984, entitlements obligated for a month have been paid at the beginning of the following month. Prior to this date, entitlements were paid at the end of the month of obligation. Consequently, FY 1985 disbursements include only 11 months of payments. The FY 2011 National Defense Authorization Act allowed for retired pay to be paid on the previous business day if the first of the month falls on a weekend or holiday. This is not accounted for in the projected Fund Disbursements or Balances in order to give the projection a smooth trajectory.
- <sup>6</sup> This fund balance (on a book value basis) reflects cash disbursements during the year. On September 30, 2016, assets in the Fund totaled \$664.4 billion.

OTHER NOTES: Mortality rates that are applied in the valuation to active/reserve duty members, retirees, and survivors, are subject to annual rates of improvement – see Appendix J. People and pay underlying the projection can be found in Appendix K. The table does not reflect future gains or losses due to short-term economic experience being different than assumed. Consequently, only payments on the total unfunded liability as of September 30, 2016, are reflected.

ANNUAI	L ECONOMIC AS	SSUMPTIONS US	ED IN PROJECTION	S OF PLAN ASSETS
<u>F</u>	iscal Year	Full COLA	Basic Pay	Interest
[Actual]	2017	0.3%	2.1%	5.25%
[Short-Term]	2018	2.2	1.6	5.25
[Short-Term]	2019	2.1	1.6	5.25
[Short-Term]	2020	2.3	1.8	5.25
[Short-Term]	2021	2.2	2.1	5.25
[Short-Term]	2022	2.3	2.1	5.25
[Short-Term]	2023	2.3	2.1	5.25
[Short-Term]	2024	2.3	2.1	5.25
[Short-Term]	2025	2.3	2.1	5.25
[Short-Term]	2026	2.75	2.1	5.25
[Long-Term]	2027+	2.75	3.25	5.25

Full COLA is equal to full cost-of-living increases to retiree and survivor annuities. Basic Pay is the rate at which the entire military pay table increases (hence excludes longevity or promotion-and-merit increases). They are applied on an across-the-board basis and typically occur each January 1<sup>st</sup>. Interest assumptions pertain to annual, aggregate Fund yield on all cash flows. The above COLA and Basic Pay assumptions are from the OMB; the interest (fund yield) is the Board of Actuaries long-term interest assumption. Long-term annual economic assumptions (used throughout the projection in the normal cost and unfunded liability calculations) are 2.75% COLA, 3.25% basic pay, and 5.25% interest.

TABLE 9

MILITARY RETIREMENT SYSTEM

PAST AND PROJECTED PAYROLL AND NORMAL COST PAYMENTS

(In Billions of Dollars and as a Proportion of Payroll)

Part	Fiscal	Payroll			DoD Normal Cost Payments			Treasury Normal Cost Payments				Normal Cost Payments		
1988   323   311   354   1641   (59.7)   1.6   (50.7)   0.0     0.0     17.9   (50.7)     1988   33.4   3.0   3.3   37.3   17.4   (31.3   0.0   62.6   0.0     0.0     18.3   (40.0)     1989   23.0   3.6   3.7   3.7   17.4   (31.3   0.0   62.6   0.0     0.0     18.3   (40.0)     1990   36.0   3.7   3.7   3.7   15.8   (43.0)   0.5   (13.4   0.0     0.0     16.3   (41.1)     1991   36.0   3.7   3.7   3.7   15.8   (43.0)   0.5   (13.4   0.0     0.0     16.3   (41.1)     1992   35.0   34.1   34.8   34.9   34.8   34.8   (42.2   0.0   0.0   0.0     0.0     16.3   (41.1)     1994   34.5   3.8   38.3   12.4   (56.0   0.4   (10.0)   0.0     0.0     16.2   (21.3)     1995   31.1   31.8   34.9   12.8   (56.0   0.4   (10.0)   0.0     0.0     16.2   (21.3)     1996   31.1   31.8   34.9   34.8   34.8   (32.6   0.4   (10.0)   0.0     0.0     16.2   (21.3)     1997   31.2   31.3   31.7   36.0   18.8   (32.6   0.4   (20.0)   0.0     0.0     11.2   (20.3)     1998   33.1   31.8   31.2   31.8   31.8   (32.6   0.4   (20.0)   0.0     0.0     11.2   (20.3)     1999   33.7   3.9   37.6   10.2   (0.05)   0.3   (8.5   0.0     0.0     11.2   (20.3)     1999   33.7   3.9   37.6   10.2   (0.05)   0.3   (8.5   0.0     0.0     11.5   (22.8)     2000   36.1   40.9   39.1   11.2   (20.2)   0.3   (8.5   0.0     0.0     11.5   (22.8)     2001   36.7   42.   40.9   10.9   (26.6   0.6   (14.4)   0.0     0.0     11.5   (22.8)     2002   40.8   3.9   44.7   12.4   (0.5)   0.6   (14.4)   0.0     0.0     11.5   (22.8)     2003   47.8   42.2   20.8   13.1   (27.5   0.7   (16.7)   1.7   (0.0)   0.0     0.0     11.5   (22.8)     2004   47.8   42.2   23.6   13.1   (27.5   0.7   (16.7)   1.7   (0.0)   0.0     0.0     11.5   (22.8)     2005   20.7   43.8   54.0   12.2   (26.5   0.7   (16.7)   1.7   (20.0)   0.0     0.0     11.1   (20.5)     2006   47.8   42.2   43.8   43.8   (22.6   22.7   (22.5   0.7   (1	Year	Full-Time	Part-Time	Total	Full	-Time	Part	-Time	Full-	Time	Part-	-Time	Te	otal
1988   323   311   354   1641   (59.7)   1.6   (50.7)   0.0     0.0     17.9   (50.7)     1988   33.4   3.0   3.3   37.3   17.4   (31.3   0.0   62.6   0.0     0.0     18.3   (40.0)     1989   23.0   3.6   3.7   3.7   17.4   (31.3   0.0   62.6   0.0     0.0     18.3   (40.0)     1990   36.0   3.7   3.7   3.7   15.8   (43.0)   0.5   (13.4   0.0     0.0     16.3   (41.1)     1991   36.0   3.7   3.7   3.7   15.8   (43.0)   0.5   (13.4   0.0     0.0     16.3   (41.1)     1992   35.0   34.1   34.8   34.9   34.8   34.8   (42.2   0.0   0.0   0.0     0.0     16.3   (41.1)     1994   34.5   3.8   38.3   12.4   (56.0   0.4   (10.0)   0.0     0.0     16.2   (21.3)     1995   31.1   31.8   34.9   12.8   (56.0   0.4   (10.0)   0.0     0.0     16.2   (21.3)     1996   31.1   31.8   34.9   34.8   34.8   (32.6   0.4   (10.0)   0.0     0.0     16.2   (21.3)     1997   31.2   31.3   31.7   36.0   18.8   (32.6   0.4   (20.0)   0.0     0.0     11.2   (20.3)     1998   33.1   31.8   31.2   31.8   31.8   (32.6   0.4   (20.0)   0.0     0.0     11.2   (20.3)     1999   33.7   3.9   37.6   10.2   (0.05)   0.3   (8.5   0.0     0.0     11.2   (20.3)     1999   33.7   3.9   37.6   10.2   (0.05)   0.3   (8.5   0.0     0.0     11.5   (22.8)     2000   36.1   40.9   39.1   11.2   (20.2)   0.3   (8.5   0.0     0.0     11.5   (22.8)     2001   36.7   42.   40.9   10.9   (26.6   0.6   (14.4)   0.0     0.0     11.5   (22.8)     2002   40.8   3.9   44.7   12.4   (0.5)   0.6   (14.4)   0.0     0.0     11.5   (22.8)     2003   47.8   42.2   20.8   13.1   (27.5   0.7   (16.7)   1.7   (0.0)   0.0     0.0     11.5   (22.8)     2004   47.8   42.2   23.6   13.1   (27.5   0.7   (16.7)   1.7   (0.0)   0.0     0.0     11.5   (22.8)     2005   20.7   43.8   54.0   12.2   (26.5   0.7   (16.7)   1.7   (20.0)   0.0     0.0     11.1   (20.5)     2006   47.8   42.2   43.8   43.8   (22.6   22.7   (22.5   0.7   (1	1985	\$30.6	\$2.9	\$33.5	\$15.5	(50.7%)	\$1.5	(50.7%)	\$0.0		\$0.0		\$17.0	(50.7%)
1988   340   33   373   373   374   (512)   0.9   (26.1)   0.0     0.0     0.0     18.3   (49.9)														
1989   35.0   36.0   38.6   17.6   (50.2)   9.9   (25.7)   0.0     0.0     18.5   (47.9)		33.4	3.0	36.4	17.4	(52.2)	0.8	(26.4)	0.0		0.0		18.2	(50.1)
1990   36.0   37   39.7   15.8   (43.9)   0.5   (13.4)   0.0     0.0     16.3   (41.1)     1991   38.6   37   42.3   16.7   (42.2)   0.5   (13.3)   0.0     0.0     17.2   (40.8)     1993   34.5   38.8   38.3   12.4   (36.0)   0.4   (10.6)   0.0     0.0     17.2   (40.8)     1994   34.5   38.8   38.3   12.4   (36.0)   0.4   (10.6)   0.0     0.0     12.3   (23.5)     1995   34.5   38.8   38.3   12.4   (36.0)   0.4   (10.6)   0.0     0.0     12.8   (33.5)     1996   33.1   37.7   36.8   10.9   (35.5)   0.4   (10.5)   0.0     0.0     11.2   (30.6)     1997   33.2   37.3   36.8   10.9   (35.5)   0.4   (10.5)   0.0     0.0     11.2   (30.6)     1998   33.1   37.3   36.8   10.8   (22.6)   0.4   (9.6)   0.0     0.0     11.2   (30.6)     1999   33.2   37.3   37.6   10.2   (20.2)   0.3   (87.3)   0.0     0.0     11.2   (30.6)     1999   33.7   37.6   10.2   (20.2)   0.3   (87.3)   0.0     0.0     11.2   (30.6)     2000   35.1   4.0   35.1   11.2   (31.8)   0.4   (9.8)   0.0     0.0     11.5   (30.2)     2001   36.7   42.3   40.9   10.9   (29.6)   0.6   (14.4)   0.0     0.0     11.5   (20.2)     2001   49.4   42.2   53.6   13.4   (27.1)   0.7   (16.0)   0.0     0.0     11.5   (20.2)     2002   49.4   42.2   53.6   13.4   (27.1)   0.7   (16.0)   0.0     0.0     11.1   (20.2)     2003   52.0   43.3   54.3   43.8   (27.5)   0.7   (16.7)   1.7   (0.0)   0.0     12.7   (26.2)     2004   49.4   42.2   53.6   13.4   (27.1)   0.7   (16.0)   0.0     0.0     12.7   (26.2)     2005   52.0   43.3   54.3   13.5   (27.7)   27.5   (16.7)   27.4   (4.9)   0.1   (1.1)   17.4   (1.1)														
1991   38.6   37   42.3   16.7   (43.2)   6.5   (13.3)   0.0     0.0     17.2   (40.6)     1992   35.1   33.8   38.9   12.8   (36.4)   0.4   (10.6)   0.0     0.0     13.2   (33.9)     1994   34.5   33.8   33.3   12.8   (36.4)   0.4   (10.6)   0.0     0.0     12.8   (33.5)     1995   33.4   33.8   37.2   11.9   (35.5)   0.4   (10.5)   0.0     0.0     12.3   (32.9)     1996   33.1   37.7   36.8   10.9   (32.9)   0.4   (9.6)   0.0     0.0     11.2   (36.6)     1997   33.2   37.7   36.9   10.8   (32.6)   0.4   (10.6)   0.0     0.0     11.2   (36.9)     1998   33.4   33.7   31.1   10.2   (30.5)   33.8   83.0   0.0     0.0     11.2   (36.9)     1998   33.4   31.7   31.1   10.2   (30.5)   33.8   83.0   0.0     0.0     11.2   (36.9)     1998   33.4   31.7   37.1   10.2   (30.5)   33.8   83.0   0.0     0.0     10.5   (26.3)     1998   33.5   4.0   33.1   12.2   (31.8)   0.4   (9.8)   0.0     0.0     10.5   (26.3)     1999   33.7   39.   37.6   10.2   (30.3)   33.8   (8.7)   0.0     0.0     10.5   (26.9)     2001   36.7   42.2   40.9   10.9   (29.6)   6.6   (14.1)   0.0     0.0     11.6   (22.5)     2002   40.8   3.9   44.7   12.4   (30.5)   60.6   (14.4)   0.0     0.0     11.5   (26.9)     2003   47.8   42.2   52.0   13.1   (27.4)   66.6   (14.6)   0.0     0.0     11.7   (26.9)     2004   49.4   42.2   53.6   13.4   (27.1)   67.7   (16.0)   0.0     0.0     11.4   (26.9)     2005   52.0   43.3   53.1   43.0   (27.5)   67.7   (16.7)   17.7   (20.0)   0.0     0.0     14.1   (26.9)     2006   49.7   43.1   53.1   43.2   (27.5)   67.7   (16.7)   17.7   (20.0)   0.0	1989	35.0	3.6	38.6	17.6	(50.2)	0.9	(25.7)	0.0		0.0		18.5	(47.9)
1992   36.0														
1994   35.1   3.8   38.9   12.8   (36.4)   0.4   (10.6)   0.0     0.0     13.2   (33.5)     1996   33.4   3.8   38.2   11.2   (36.5)   0.4   (10.6)   0.0     0.0     12.3   (32.5)     1997   33.1   37.   36.9   10.8   (35.5)   0.4   (10.5)   0.0     0.0     12.3   (32.9)     1997   33.2   3.7   36.9   10.8   (35.6)   0.4   (10.6)   0.0     0.0     11.2   (30.6)     1998   33.4   37.   36.9   10.8   (35.6)   0.4   (10.6)   0.0     0.0     0.0     11.2   (30.6)     1998   33.4   37.   37.1   10.2   (30.5)   0.3   (8.8)   0.0     0.0     10.5   (28.3)     1999   33.7   3.9   37.6   10.2   (30.5)   0.3   (8.8)   0.0     0.0     10.5   (28.3)     1999   33.7   3.9   37.6   10.2   (30.5)   0.5   (4.14)   0.0     0.0     10.5   (28.3)     2001   36.7   4.2   40.9   10.9   (27.6)   0.66   (41.1)   0.0     0.0     11.5   (28.0)     2001   36.7   4.2   40.9   11.1   (27.4)   0.6   (41.1)   0.0     0.0     11.5   (28.0)     2003   47.8   42.2   52.0   13.1   (27.4)   0.6   (14.6)   0.0     0.0     0.0     11.1   (28.2)     2004   47.8   43.2   54.0   13.2   (26.5)   0.7   (16.7)   1.7   (0.0)   0.0   0.0     11.1   (26.2)     2005   52.0   4.3   56.3   14.3   (27.5)   0.7   (16.7)   2.4   (4.9)   0.1   (1.1)   (1.1)   (1.4)   (16.4   (30.3)   (1.2														
1994   34.5   38.8   38.3   12.4   (36.0)   0.4   (10.6)   0.0     0.0     12.8   (33.5)     1995   33.1   37.3   38.8   37.2   11.9   (35.5)   0.4   (10.5)   0.0     0.0     0.0     11.2   (32.9)     1996   33.1   3.7   3.8   10.9   (32.9)   0.4   (9.6)   0.0     0.0     0.0     11.2   (30.0)     1997   33.3   3.7   3														
1995														
1996	1994	34.3	3.8	38.3	12.4	(30.0)	0.4	(10.6)	0.0		0.0		12.8	(33.3)
1997   33.2   3.7   36.9   10.8   62.26  0.4   (9.6)   0.0     0.0     11.2   (30.3)     1998   33.4   3.7   37.1   10.2   (30.5)   0.3   (8.8)   0.0     0.0     10.5   (28.3)     1999   33.7   3.9   37.6   10.2   (30.2)   0.3   (8.7)   0.0     0.0     10.5   (28.0)     2000   35.1   4.0   39.1   11.2   (31.8)   0.4   (9.8)   0.0     0.0     11.5   (28.0)     2001   36.7   4.2   40.1   10.9   (29.6)   6.6   (14.1)   0.0     0.0     11.5   (28.0)     2002   36.8   4.2   40.2   11.3   (27.4)   0.6   (14.1)   0.0     0.0     11.5   (28.0)     2003   47.8   42.2   42.7   13.1   (27.4)   0.6   (14.1)   0.0     0.0     11.5   (28.0)     2004   49.4   42   53.6   13.4   (27.1)   0.7   (16.0)   0.0     0.0     11.7   (26.4)     2005   52.0   43   56.3   14.3   (27.5)   0.7   (16.7)   1.7   (0.0)   0.0     11.7   (26.2)     2006   49.7   43   54.0   13.2   (26.5)   0.7   (16.7)   2.4   (4.9)   0.1   (1.4)   16.4   (30.3)     2008   53.5   57   59.2   15.5   (29.0)   1.1   (19.1)   2.7   (5.0)   0.1   (1.5)   17.1   (30.2)     2009   57.1   59   63.0   16.8   (23.4)   1.5   (24.5)   4.7   (8.0)   0.2   (2.8)   (22.2)   (32.2)     2010   58.3   6.1   64.4   18.9   (32.4)   1.5   (24.5)   4.7   (8.0)   0.2   (2.8)   (2.7)   (2.7)   (2.1)     2011   56.6   10.3   66.9   18.5   (32.7)   2.5   (24.4)   6.6   (12.5)   0.3   (3.0)   (2.7)   (2.7)   (4.0)     2012   57.3   92   66.5   19.7   (34.3)   2.2   (24.4)   6.6   (12.5)   0.2   (3.3)   (3.2)   (2.7)   (3.7)   (4.0)     2015   56.0   8.3   64.3   18.0   (32.2)   1.9   (22.5)   6.6   (11.8)   0.2   (2.7)   2.5   (4.0)														
1998   33.4   3.7   37.1   10.2   (30.5)   0.3   (8.8)   0.0     0.0     10.5   (28.5)														
1999   33.7   3.9   37.6   102   (30.2)   0.3   (8.7)   0.0     0.0     10.5   (28.9)														
2000   35.1   4.0   39.1   11.2   (31.8)   0.4   (9.8)   0.0     0.0     11.6   (29.5)														
2001         36.7         4.2         40.9         10.9         (29.6)         0.6         (14.4)         0.0          0.0          11.5         (28.9)           2003         47.8         4.2         52.0         13.1         (27.4)         0.6         (14.6)         0.0          0.0          11.7         (26.4)           2004         49.4         42         52.0         13.1         (27.4)         0.6         (16.7)         1.7         (0.0)          0.0          11.4         (26.2)           2005         52.0         4.3         56.3         14.3         (27.5)         0.7         (16.7)         1.7         (0.0)         0.0         0.0         1.6         (28.9)         200         6.0         1.1         1.6         (26.5)         0.7         (16.7)         1.7         (0.0)         0.0         0.0         0.0         0.0         1.6         0.9         0.75         2.5         (4.9)         0.1         (1.4)         16.4         (0.3)         3.2         2.5         5.4         0.7         0.0         0.0         0.0         0.0         0.0         1.1         1.6         0		33.7			10.2	(30.2)	0.5	(6.7)					10.5	(20.0)
2002 40.8 3.9 44.7 12.4 (30.3) 0.6 (14.4) 0.0 0.0 12.9 (28.9) 2004 47.8 4.2 52.0 13.1 (27.4) 0.6 (14.6) 0.0 0.0 12.9 (28.9) 2004 49.4 4.2 53.6 13.4 (27.1) 0.7 (16.0) 0.0 0.0 14.1 (26.2) 2005 52.0 4.3 56.3 14.3 (27.5) 0.7 (16.7) 1.7 (0.0) 0.0 (0.0) 14.1 (26.2) 2006 49.7 4.3 54.0 13.2 (26.5) 0.7 (16.7) 1.7 (0.0) 0.0 (0.0) 11.4 16.4 (30.3) 2007 51.2 5.2 56.4 13.6 (26.5) 0.7 (16.7) 2.4 (4.9) 0.1 (1.4) 16.4 (30.3) 2007 51.2 5.2 56.4 13.6 (26.5) 0.7 (16.7) 2.5 (4.9) 0.1 (1.5) 17.1 (30.3) 2008 53.5 5.7 59.2 11.5 (29.0) 1.1 (19.1) 2.7 (5.0) 0.1 (1.5) 19.4 (32.7) 2009 57.1 5.9 63.0 16.8 (29.4) 1.2 (21.1) 4.0 (7.0) 0.1 (2.3) 22.2 (35.2) 2009 57.1 5.9 63.0 16.8 (29.4) 1.2 (21.1) 4.0 (7.0) 0.1 (2.3) 22.2 (35.2) 2011 56.6 10.3 66.9 18.5 (32.7) 2.5 (24.4) 4.6 (8.2) 0.3 (32.1) 22.2 (35.2) 2011 56.6 10.3 66.9 18.5 (32.7) 2.5 (24.4) 4.6 (8.2) 0.3 (32.1) 22.0 (38.9) 2012 57.3 9.2 66.5 19.7 (34.3) 2.2 (24.3) 5.0 (8.8) 0.3 (3.6) 27.3 (41.0) 2013 57.1 9.2 66.5 18.3 (32.1) 2.2 (24.4) 6.4 (11.2) 0.3 (3.2) 2.27 3 (41.1) 2014 57.0 8.4 65.4 18.5 (32.2) 1.9 (22.5) 6.0 (11.8) 0.2 (2.7) 26.1 (40.6) 2015 56.0 8.3 64.3 18.0 (32.2) 1.9 (22.5) 6.0 (11.8) 0.2 (2.7) 26.1 (40.6) 2015 56.3 8.3 64.6 17.7 (31.4) 1.9 (23.0) 6.7 (13.1) 0.2 (2.9) 26.8 (40.9) 2015 56.8 8.3 64.6 17.7 (31.4) 1.9 (22.5) 6.0 (11.8) 0.2 (2.7) 26.1 (40.6) 2015 58.3 8.3 64.6 17.7 (31.4) 1.9 (22.5) 6.0 (11.8) 0.2 (2.7) 26.1 (40.6) 2015 58.3 8.3 64.6 17.7 (31.4) 1.9 (22.5) 6.0 (11.8) 0.2 (2.7) 26.1 (40.6) 2015 58.3 8.3 64.6 17.7 (31.4) 1.9 (22.5) 6.0 (11.8) 0.2 (2.7) 26.1 (40.6) 2015 56.9 8.8 8.4 67.2 16.6 (28.7) 1.9 (22.5) 6.0 (11.8) 0.2 (2.7) 26.1 (40.6) 2015 58.3 8.3 64.6 17.7 (31.4) 1.9 (22.5) 6.0 (31.1) 0.2 (2.9) 26.8 (40.9) 2015 56.0 8.8 8.4 67.2 16.6 (28.7) 1.9 (22.0) 7.7 (12.4) 0.3 (3.2) 22.5 (38.3) 2019 56.9 8.0 64.9 16.0 (28.1) 1.8 (22.5) 7.0 (12.4) 0.3 (3.2) 22.5 (38.3) 2019 56.9 8.0 64.9 16.0 (28.1) 1.8 (22.5) 7.0 (12.4) 0.3 (3.2) 22.5 (38.3) 2019 56.9 8.0 64.9 16.0 (28.1) 1.8 (22.5) 7.0 (12.4) 0.3 (3.2) 22.5 (38.3) 20.2 20.2 20.2 20.2 20														
2003 47.8 42 52.0 13.1 (27.4) 0.6 (14.6) 0.0 0.0 0.0 13.7 (26.4) 2004 49.4 42. 53.6 13.4 (27.1) 0.7 (16.0) 0.0 0.0 0.0 14.1 (26.2) 2005 52.0 4.3 56.3 14.3 (27.5) 0.7 (16.7) 1.7 (0.0) 0.0 0.0 14.1 (26.2) 2006 49.7 4.3 54.0 13.2 (26.5) 0.7 (16.7) 2.4 (4.9) 0.1 (1.4) 16.4 (30.3) 2007 51.2 5.2 56.4 13.6 (26.5) 0.9 (17.5) 2.5 (4.9) 0.1 (1.5) 17.1 (30.3) 2008 53.5 5.7 59.2 15.5 (29.0) 1.1 (19.1) 2.7 (5.0) 0.1 (1.5) 17.1 (30.3) 2008 53.5 5.7 59.2 15.5 (29.0) 1.1 (19.1) 2.7 (5.0) 0.1 (1.5) 19.4 (32.7) 2009 57.1 5.9 63.0 16.8 (29.4) 1.2 (21.1) 4.0 (7.0) 0.1 (2.3) 22.2 (55.2) 2011 56.6 10.3 (6.9 18.5 (32.4) 1.5 (24.5) 4.7 (8.0) 0.2 (2.8) 25.2 (39.2) 2011 56.6 10.3 (6.9 18.5 (32.1) 2.2 (24.4) 4.6 (8.3) 0.3 (3.2) 22.0 (32.9) 22.2 (39.2) 2013 57.3 (2.6 (5.5 18.8) 2.2 (2.2 (2.4 1.2) 4.6 (8.3) 0.3 (3.2) 22.0 (32.9) 22.3 (32.9) 2013 57.3 (2.6 (5.5 18.5) (3.2 4.2) 2.2 (24.4) 4.6 (8.3) 0.3 (3.2) 22.0 (3.2) 22.0 (3.2) 2013 57.1 9.2 (6.3 18.3 (32.1) 2.2 (24.4) 4.6 (8.3) 0.3 (3.2) 22.0 (3.2) 22.0 (3.2) 2014 57.0 (8.6 18.5 (32.4) 18.5 (32.4) 2.1 (24.5) (6.0 (11.7) 0.2 (2.9) 26.8 (40.9) 2015 56.0 8.3 64.8 18.5 (32.4) 1.9 (22.5) 6.0 (11.8) 0.2 (2.9) 26.8 (40.9) 2015 56.0 8.3 64.8 18.0 (32.2) 1.9 (22.5) 6.0 (11.8) 0.2 (2.9) 26.5 (41.0) 2018 58.3 7.4 (6.7 16.6 (28.4) 1.7 (22.6) 6.6 (12.5) 0.2 (3.3) 22.1 (38.1) 20.0 57.7 8.2 6.9 16.0 (27.8) 1.8 (22.2) 7.7 (12.4) 0.3 (3.2) 25.5 (37.9) 2018 58.3 7.4 6.7 16.6 (28.4) 1.7 (22.6) 6.6 (12.5) 0.2 (3.3) 22.1 (38.1) 20.0 57.7 8.2 6.9 16.0 (27.8) 1.8 (22.2) 7.7 (12.3) 0.3 (3.2) 25.5 (37.9) 2025 58.8 8.6 68.4 16.3 (27.2) 1.9 (21.5) 1.9 (22.5) 6.0 (11.8) 0.2 (2.9) 26.5 (41.0) 2025 69.9 8.8 60.7 16.6 (27.7) 1.9 (21.7) 7.4 (12.1) 0.3 (3.2) 25.5 (37.9) 2025 63.2 9.2 72.4 16.7 (26.4) 2.0 (21.4) 7.5 (12.1) 0.3 (3.2) 25.5 (37.9) 2025 63.2 9.2 72.4 16.7 (26.4) 2.0 (21.4) 7.5 (12.1) 0.3 (3.2) 25.5 (37.9) 2025 63.2 9.2 72.4 16.7 (26.4) 2.0 (21.4) 7.5 (12.1) 0.3 (3.2) 25.5 (37.9) 2025 63.2 9.2 72.4 16.7 (26.4) 2.0 (21.4) 7.5 (12.1) 0.3 (3.2) 25.5 (37.9) 2025 63.2 9.2 72.4 16.7														
2004														
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$														
2006   49,7   4.3   54,0   13.2   26.5   0.7   (16.7)   2.4   (4.9)   0.1   (1.4)   16.4   (30.3)	2004	49.4	4.2	33.0	13.4	(27.1)	0.7	(16.0)	0.0		0.0		14.1	(20.2)
2007   51.2   52   56.4   13.6   (26.5)   0.9   (17.5)   2.5   (4.9)   0.1   (1.5)   17.1   (30.3)			4.3	56.3		(27.5)	0.7	(16.7)	1.7	(0.0)	0.0	(0.0)	16.8	(29.8)
2008   535   57   592   155   (29.0)   1.1   (19.1)   2.7   (5.0)   0.1   (15)   19.4   (32.7)														
2010   57.1   5.9   63.0   16.8   (29.4)   1.2   (21.1)   4.0   (7.0)   0.1   (2.3)   22.2   (35.2)														
2010														
2011   56.6   10.3   66.9   18.5   (32.7)   2.5   (24.4)   4.6   (8.2)   0.3   (3.2)   26.0   (38.9)	2009	57.1	5.9	63.0	16.8	(29.4)	1.2	(21.1)	4.0	(7.0)	0.1	(2.3)	22.2	(35.2)
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$										(8.0)				
2013   57.1   9.2   66.3   18.3   (32.1)   2.2   (24.4)   6.4   (11.2)   0.3   (3.2)   27.3   (41.1)														
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$														
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$														
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	2014	57.0	8.4	65.4	18.5	(32.4)	2.1	(24.5)	6.0	(11.7)	0.2	(2.9)	26.8	(40.9)
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$														
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	2010	30.3	0.3	04.0	1/./	(31.4)	-		0.7	(13.1)	0.2	(2.9)	20.3	(41.0)
2017   \$56.3   \$7.1   \$63.4   \$16.2   \$(28.7%)   \$1.6   \$(22.6%)   \$6.4   \$(12.5%)   \$0.2   \$(3.3%)   \$24.4   \$(38.5%)   \$2018   \$58.3   7.4   \$65.7   \$16.6   \$(28.4)   \$1.7   \$(22.6)   \$6.6   \$(12.5)   \$0.2   \$(3.3)   \$25.1   \$(38.1)   \$2019   \$56.9   \$8.0   \$64.9   \$16.0   \$(28.1)   \$1.8   \$(22.5)   \$7.0   \$(12.4)   \$0.3   \$(3.2)   \$25.1   \$(38.7)   \$2020   \$57.7   \$8.2   \$65.9   \$16.0   \$(27.8)   \$1.8   \$(22.2)   \$7.1   \$(12.3)   \$0.3   \$(3.2)   \$25.2   \$(38.3)   \$2021   \$58.8   \$8.4   \$67.2   \$16.2   \$(27.5)   \$1.9   \$(22.0)   \$7.2   \$(12.3)   \$0.3   \$(3.2)   \$25.5   \$(37.9)   \$2022   \$59.8   \$8.6   \$68.4   \$16.3   \$(27.2)   \$1.9   \$(21.8)   \$7.3   \$(12.2)   \$0.3   \$(3.2)   \$25.5   \$(37.9)   \$2023   \$60.9   \$8.8   \$69.7   \$16.4   \$(27.0)   \$1.9   \$(21.7)   \$7.4   \$(12.1)   \$0.3   \$(3.2)   \$26.0   \$(37.3)   \$2024   \$62.0   \$9.0   \$71.0   \$16.6   \$(26.7)   \$1.9   \$(21.5)   \$7.5   \$(12.1)   \$0.3   \$(3.2)   \$26.3   \$(37.0)   \$2025   \$63.2   \$9.2   \$72.4   \$16.7   \$(26.4)   \$2.0   \$(21.4)   \$7.6   \$(12.0)   \$0.3   \$(3.2)   \$26.9   \$(36.4)   \$20.6   \$64.4   \$9.5   \$73.8   \$16.9   \$(26.2)   \$2.0   \$(21.2)   \$7.7   \$(12.0)   \$0.3   \$(3.2)   \$26.9   \$(36.4)   \$20.2	-						•		I					
2018         58.3         7.4         65.7         16.6         (28.4)         1.7         (22.6)         6.6         (12.5)         0.2         (3.3)         25.1         (38.1)           2019         56.9         8.0         64.9         16.0         (28.1)         1.8         (22.5)         7.0         (12.4)         0.3         (3.2)         25.1         (38.7)           2020         57.7         8.2         66.9         16.0         (27.8)         1.8         (22.2)         7.1         (12.3)         0.3         (3.2)         25.5         (38.7)           2021         58.8         8.4         67.2         16.2         (27.5)         1.9         (22.0)         7.2         (12.3)         0.3         (3.2)         25.5         (37.9)           2022         59.8         8.6         68.4         16.3         (27.2)         1.9         (21.8)         7.3         (12.2)         0.3         (3.2)         25.5         (37.9)           2022         59.8         8.6         68.4         16.3         (27.2)         1.9         (21.8)         7.3         (12.2)         0.3         (3.2)         25.5         (37.9)           2022         59.8	2017	\$56.3	\$7.1	\$63.4	\$16.2	<u>`</u>			•	(12.5%)	\$0.2	(3.3%)	\$24.4	(38.5%)
2019         56.9         8.0         64.9         16.0         (28.1)         1.8         (22.5)         7.0         (12.4)         0.3         (3.2)         25.1         (38.7)           2020         57.7         8.2         65.9         16.0         (27.8)         1.8         (22.2)         7.1         (12.3)         0.3         (3.2)         25.5         (38.3)           2021         58.8         8.4         67.2         16.2         (27.5)         1.9         (22.0)         7.2         (12.3)         0.3         (3.2)         25.5         (37.9)           2022         59.8         8.6         68.4         16.3         (27.2)         1.9         (21.8)         7.3         (12.2)         0.3         (3.2)         25.7         (37.6)           2024         62.0         9.0         71.0         16.6         (26.7)         1.9         (21.5)         7.5         (12.1)         0.3         (3.2)         26.0         (37.3)           2025         63.2         9.2         72.4         16.7         (26.4)         2.0         (21.4)         7.6         (12.0)         0.3         (3.2)         26.6         (36.7)           2026         64.4														
2020         57.7         8.2         65.9         16.0         (27.8)         1.8         (22.2)         7.1         (12.3)         0.3         (3.2)         25.2         (38.3)           2021         58.8         8.4         67.2         16.2         (27.5)         1.9         (22.0)         7.2         (12.3)         0.3         (3.2)         25.5         (37.9)           2022         59.8         8.6         68.4         16.3         (27.2)         1.9         (21.8)         7.3         (12.2)         0.3         (3.2)         25.7         (37.6)           2023         60.9         8.8         69.7         16.4         (27.0)         1.9         (21.7)         7.4         (12.1)         0.3         (3.2)         26.0         (37.3)           2024         62.0         9.0         71.0         16.6         (26.7)         1.9         (21.5)         7.5         (12.1)         0.3         (3.2)         26.6         36.7)           2025         63.2         9.2         72.4         16.7         (26.4)         2.0         (21.4)         7.6         (12.0)         0.3         (3.2)         26.6         36.7)           2026         64.4														
2021         58.8         8.4         67.2         16.2         (27.5)         1.9         (22.0)         7.2         (12.3)         0.3         (3.2)         25.5         (37.9)           2022         59.8         8.6         68.4         16.3         (27.2)         1.9         (21.8)         7.3         (12.2)         0.3         (3.2)         25.7         (37.6)           2023         60.9         8.8         69.7         16.4         (27.0)         1.9         (21.7)         7.4         (12.1)         0.3         (3.2)         26.0         (37.3)           2024         62.0         9.0         71.0         16.6         (26.7)         1.9         (21.5)         7.5         (12.1)         0.3         (3.2)         26.3         (37.0)           2025         63.2         9.2         72.4         16.7         (26.4)         2.0         (21.4)         7.6         (12.0)         0.3         (3.2)         26.6         36.7)           2026         64.4         9.5         73.8         16.9         (26.2)         2.0         (21.2)         7.7         (12.0)         0.3         (3.2)         27.5         (36.1)           2027         66.3														
2023         60.9         8.8         69.7         16.4         (27.0)         1.9         (21.7)         7.4         (12.1)         0.3         (3.2)         26.0         (37.3)           2024         62.0         9.0         71.0         16.6         (26.7)         1.9         (21.5)         7.5         (12.1)         0.3         (3.2)         26.6         (37.0)           2025         63.2         9.2         72.4         16.7         (26.4)         2.0         (21.4)         7.6         (12.0)         0.3         (3.2)         26.6         (36.7)           2026         64.4         9.5         73.8         16.9         (26.2)         2.0         (21.2)         7.7         (12.0)         0.3         (3.2)         26.9         (36.4)           2027         66.3         9.8         76.1         17.2         (25.9)         2.1         (21.0)         7.9         (11.9)         0.3         (3.2)         27.5         (36.1)           2028         68.4         10.2         78.5         17.6         (25.7)         2.1         (20.9)         8.1         (11.8)         0.3         (3.1)         28.1         (35.8)           2030         72.7 <td></td>														
2023         60.9         8.8         69.7         16.4         (27.0)         1.9         (21.7)         7.4         (12.1)         0.3         (3.2)         26.0         (37.3)           2024         62.0         9.0         71.0         16.6         (26.7)         1.9         (21.5)         7.5         (12.1)         0.3         (3.2)         26.6         (37.0)           2025         63.2         9.2         72.4         16.7         (26.4)         2.0         (21.4)         7.6         (12.0)         0.3         (3.2)         26.6         (36.7)           2026         64.4         9.5         73.8         16.9         (26.2)         2.0         (21.2)         7.7         (12.0)         0.3         (3.2)         26.9         (36.4)           2027         66.3         9.8         76.1         17.2         (25.9)         2.1         (21.0)         7.9         (11.9)         0.3         (3.2)         27.5         (36.1)           2028         68.4         10.2         78.5         17.6         (25.7)         2.1         (20.9)         8.1         (11.8)         0.3         (3.1)         28.1         (35.8)           2030         72.7 <td>2022</td> <td>59.8</td> <td>8.6</td> <td>68.4</td> <td>163</td> <td>(27.2)</td> <td>1.9</td> <td>(21.8)</td> <td>7.3</td> <td>(12.2)</td> <td>0.3</td> <td>(3.2)</td> <td>25.7</td> <td>(37.6)</td>	2022	59.8	8.6	68.4	163	(27.2)	1.9	(21.8)	7.3	(12.2)	0.3	(3.2)	25.7	(37.6)
2024         62.0         9.0         71.0         16.6         (26.7)         1.9         (21.5)         7.5         (12.1)         0.3         (3.2)         26.3         (37.0)           2025         63.2         9.2         72.4         16.7         (26.4)         2.0         (21.4)         7.6         (12.0)         0.3         (3.2)         26.6         (36.7)           2026         64.4         9.5         73.8         16.9         (26.2)         2.0         (21.2)         7.7         (12.0)         0.3         (3.2)         26.9         (36.4)           2027         66.3         9.8         76.1         17.2         (25.9)         2.1         (21.0)         7.9         (11.9)         0.3         (3.2)         27.5         (36.1)           2028         68.4         10.2         78.5         17.6         (25.7)         2.1         (20.9)         8.1         (11.8)         0.3         (3.1)         28.1         (35.8)           2029         70.5         10.5         81.1         17.9         (25.4)         2.2         (20.7)         8.3         (11.8)         0.3         (3.1)         28.1         (35.5)           2030         72.7 <td></td>														
2025         63.2         9.2         72.4         16.7         (26.4)         2.0         (21.4)         7.6         (12.0)         0.3         (3.2)         26.6         (36.7)           2026         64.4         9.5         73.8         16.9         (26.2)         2.0         (21.2)         7.7         (12.0)         0.3         (3.2)         26.9         (36.4)           2027         66.3         9.8         76.1         17.2         (25.9)         2.1         (21.0)         7.9         (11.9)         0.3         (3.2)         27.5         (36.1)           2028         68.4         10.2         78.5         17.6         (25.7)         2.1         (20.9)         8.1         (11.8)         0.3         (3.1)         28.1         (35.8)           2029         70.5         10.5         81.1         17.9         (25.4)         2.2         (20.7)         8.3         (11.8)         0.3         (3.1)         28.8         (35.5)           2030         72.7         10.9         83.6         18.3         (25.2)         2.2         (20.6)         8.5         (11.7)         0.3         (3.1)         29.4         (35.2)           2031         75.0 </td <td></td>														
2027 66.3 9.8 76.1 17.2 (25.9) 2.1 (21.0) 7.9 (11.9) 0.3 (3.2) 27.5 (36.1) 2028 68.4 10.2 78.5 17.6 (25.7) 2.1 (20.9) 8.1 (11.8) 0.3 (3.1) 28.1 (35.8) 2029 70.5 10.5 81.1 17.9 (25.4) 2.2 (20.7) 8.3 (11.8) 0.3 (3.1) 28.8 (35.5) 2030 72.7 10.9 83.6 18.3 (25.2) 2.2 (20.6) 8.5 (11.7) 0.3 (3.1) 29.4 (35.2) 2031 75.0 11.3 86.3 18.7 (25.0) 2.3 (20.4) 8.8 (11.7) 0.4 (3.1) 30.1 (34.9) 2032 77.3 11.7 89.0 19.1 (24.8) 2.4 (20.3) 9.0 (11.6) 0.4 (3.1) 30.1 (34.9) 2032 77.3 11.7 19.6 (24.6) 2.4 (20.1) 9.2 (11.6) 0.4 (3.1) 31.6 (34.5) 2034 82.1 12.5 94.6 20.0 (24.4) 2.5 (20.0) 9.5 (11.6) 0.4 (3.1) 32.4 (34.3) 2035 84.7 12.9 97.6 20.6 (24.3) 2.6 (19.9) 9.8 (11.5) 0.4 (3.1) 33.3 (34.1) 2036 87.5 13.3 100.8 21.1 (24.2) 2.6 (19.8) 10.1 (11.5) 0.4 (3.1) 35.2 (33.9) 2038 93.3 14.2 107.5 22.4 (24.0) 2.8 (19.5) 10.7 (11.5) 0.4 (3.1) 35.2 (33.9) 2039 96.4 14.6 111.0 23.0 (23.9) 2.8 (19.4) 11.0 (11.5) 0.4 (3.1) 37.4 (33.7) 2040 99.5 15.1 114.6 23.7 (23.9) 2.9 (19.3) 11.4 (11.4) 0.5 (3.0) 38.5 (33.6)														
2028         68.4         10.2         78.5         17.6         (25.7)         2.1         (20.9)         8.1         (11.8)         0.3         (3.1)         28.1         (35.8)           2029         70.5         10.5         81.1         17.9         (25.4)         2.2         (20.7)         8.3         (11.8)         0.3         (3.1)         28.8         (35.5)           2030         72.7         10.9         83.6         18.3         (25.2)         2.2         (20.6)         8.5         (11.7)         0.3         (3.1)         29.4         (35.2)           2031         75.0         11.3         86.3         18.7         (25.0)         2.3         (20.4)         8.8         (11.7)         0.4         (3.1)         30.1         (34.9)           2032         77.3         11.7         89.0         19.1         (24.8)         2.4         (20.3)         9.0         (11.6)         0.4         (3.1)         30.9         (34.7)           2033         79.6         12.1         91.7         19.6         (24.6)         2.4         (20.1)         9.2         (11.6)         0.4         (3.1)         31.6         (34.5)           2034         82.	2026	64.4	9.5	73.8	16.9	(26.2)	2.0	(21.2)	7.7	(12.0)	0.3	(3.2)	26.9	(36.4)
2028         68.4         10.2         78.5         17.6         (25.7)         2.1         (20.9)         8.1         (11.8)         0.3         (3.1)         28.1         (35.8)           2029         70.5         10.5         81.1         17.9         (25.4)         2.2         (20.7)         8.3         (11.8)         0.3         (3.1)         28.8         (35.5)           2030         72.7         10.9         83.6         18.3         (25.2)         2.2         (20.6)         8.5         (11.7)         0.3         (3.1)         29.4         (35.2)           2031         75.0         11.3         86.3         18.7         (25.0)         2.3         (20.4)         8.8         (11.7)         0.4         (3.1)         30.1         (34.9)           2032         77.3         11.7         89.0         19.1         (24.8)         2.4         (20.3)         9.0         (11.6)         0.4         (3.1)         30.9         (34.7)           2033         79.6         12.1         91.7         19.6         (24.6)         2.4         (20.1)         9.2         (11.6)         0.4         (3.1)         31.6         (34.5)           2034         82.	2027	66.3	9.8	76.1	17.2	(25.9)	2.1	(21.0)	7.9	(11.9)	0.3	(3.2)	27.5	(36.1)
2029         70.5         10.5         81.1         17.9         (25.4)         2.2         (20.7)         8.3         (11.8)         0.3         (3.1)         28.8         (35.5)           2030         72.7         10.9         83.6         18.3         (25.2)         2.2         (20.6)         8.5         (11.7)         0.3         (3.1)         29.4         (35.2)           2031         75.0         11.3         86.3         18.7         (25.0)         2.3         (20.4)         8.8         (11.7)         0.4         (3.1)         30.1         (34.9)           2032         77.3         11.7         89.0         19.1         (24.8)         2.4         (20.3)         9.0         (11.6)         0.4         (3.1)         30.9         (34.7)           2033         79.6         12.1         91.7         19.6         (24.6)         2.4         (20.1)         9.2         (11.6)         0.4         (3.1)         31.6         (34.5)           2034         82.1         12.5         94.6         20.0         (24.4)         2.5         (20.0)         9.5         (11.6)         0.4         (3.1)         32.4         (34.3)           2035         84.														
2031         75.0         11.3         86.3         18.7         (25.0)         2.3         (20.4)         8.8         (11.7)         0.4         (3.1)         30.1         (34.9)           2032         77.3         11.7         89.0         19.1         (24.8)         2.4         (20.3)         9.0         (11.6)         0.4         (3.1)         30.9         (34.7)           2033         79.6         12.1         91.7         19.6         (24.6)         2.4         (20.1)         9.2         (11.6)         0.4         (3.1)         31.6         (34.5)           2034         82.1         12.5         94.6         20.0         (24.4)         2.5         (20.0)         9.5         (11.6)         0.4         (3.1)         31.4         (34.3)           2035         84.7         12.9         97.6         20.6         (24.3)         2.6         (19.9)         9.8         (11.5)         0.4         (3.1)         33.3         (34.1)           2036         87.5         13.3         100.8         21.1         (24.2)         2.6         (19.8)         10.1         (11.5)         0.4         (3.1)         34.2         (34.0)           2037         9	2029		10.5				2.2							
2032 77.3 11.7 89.0 19.1 (24.8) 2.4 (20.3) 9.0 (11.6) 0.4 (3.1) 30.9 (34.7) 2033 79.6 12.1 91.7 19.6 (24.6) 2.4 (20.1) 9.2 (11.6) 0.4 (3.1) 31.6 (34.5) 2034 82.1 12.5 94.6 20.0 (24.4) 2.5 (20.0) 9.5 (11.6) 0.4 (3.1) 32.4 (34.3) 2035 84.7 12.9 97.6 20.6 (24.3) 2.6 (19.9) 9.8 (11.5) 0.4 (3.1) 33.3 (34.1) 2036 87.5 13.3 100.8 21.1 (24.2) 2.6 (19.8) 10.1 (11.5) 0.4 (3.1) 34.2 (34.0) 2037 90.3 13.7 104.0 21.7 (24.1) 2.7 (19.6) 10.4 (11.5) 0.4 (3.1) 35.2 (33.9) 2038 93.3 14.2 107.5 22.4 (24.0) 2.8 (19.5) 10.7 (11.5) 0.4 (3.1) 36.3 (33.8) 2039 96.4 14.6 111.0 23.0 (23.9) 2.8 (19.4) 11.0 (11.5) 0.4 (3.1) 37.4 (33.7) 2040 99.5 15.1 114.6 23.7 (23.9) 2.9 (19.3) 11.4 (11.4) 0.5 (3.0) 38.5 (33.6)											0.3			
2033         79.6         12.1         91.7         19.6         (24.6)         2.4         (20.1)         9.2         (11.6)         0.4         (3.1)         31.6         (34.5)           2034         82.1         12.5         94.6         20.0         (24.4)         2.5         (20.0)         9.5         (11.6)         0.4         (3.1)         32.4         (34.3)           2035         84.7         12.9         97.6         20.6         (24.3)         2.6         (19.9)         9.8         (11.5)         0.4         (3.1)         33.3         (34.1)           2036         87.5         13.3         100.8         21.1         (24.2)         2.6         (19.8)         10.1         (11.5)         0.4         (3.1)         34.2         (34.0)           2037         90.3         13.7         104.0         21.7         (24.1)         2.7         (19.6)         10.4         (11.5)         0.4         (3.1)         35.2         (33.9)           2038         93.3         14.2         107.5         22.4         (24.0)         2.8         (19.5)         10.7         (11.5)         0.4         (3.1)         36.3         (33.8)           2039         <	2031	75.0	11.3	86.3	18.7	(25.0)	2.3	(20.4)	8.8	(11.7)	0.4	(3.1)	30.1	(34.9)
2034       82.1       12.5       94.6       20.0       (24.4)       2.5       (20.0)       9.5       (11.6)       0.4       (3.1)       32.4       (34.3)         2035       84.7       12.9       97.6       20.6       (24.3)       2.6       (19.9)       9.8       (11.5)       0.4       (3.1)       33.3       (34.1)         2036       87.5       13.3       100.8       21.1       (24.2)       2.6       (19.8)       10.1       (11.5)       0.4       (3.1)       34.2       (34.0)         2037       90.3       13.7       104.0       21.7       (24.1)       2.7       (19.6)       10.4       (11.5)       0.4       (3.1)       35.2       (33.9)         2038       93.3       14.2       107.5       22.4       (24.0)       2.8       (19.5)       10.7       (11.5)       0.4       (3.1)       36.3       (33.8)         2039       96.4       14.6       111.0       23.0       (23.9)       2.8       (19.4)       11.0       (11.5)       0.4       (3.1)       37.4       (33.7)         2040       99.5       15.1       114.6       23.7       (23.9)       2.9       (19.3)       11.4														
2035       84.7       12.9       97.6       20.6       (24.3)       2.6       (19.9)       9.8       (11.5)       0.4       (3.1)       33.3       (34.1)         2036       87.5       13.3       100.8       21.1       (24.2)       2.6       (19.8)       10.1       (11.5)       0.4       (3.1)       34.2       (34.0)         2037       90.3       13.7       104.0       21.7       (24.1)       2.7       (19.6)       10.4       (11.5)       0.4       (3.1)       35.2       (33.9)         2038       93.3       14.2       107.5       22.4       (24.0)       2.8       (19.5)       10.7       (11.5)       0.4       (3.1)       36.3       (33.8)         2039       96.4       14.6       111.0       23.0       (23.9)       2.8       (19.4)       11.0       (11.5)       0.4       (3.1)       37.4       (33.7)         2040       99.5       15.1       114.6       23.7       (23.9)       2.9       (19.3)       11.4       (11.4)       0.5       (3.0)       38.5       (33.6)														
2036     87.5     13.3     100.8     21.1     (24.2)     2.6     (19.8)     10.1     (11.5)     0.4     (3.1)     34.2     (34.0)       2037     90.3     13.7     104.0     21.7     (24.1)     2.7     (19.6)     10.4     (11.5)     0.4     (3.1)     35.2     (33.9)       2038     93.3     14.2     107.5     22.4     (24.0)     2.8     (19.5)     10.7     (11.5)     0.4     (3.1)     36.3     (33.8)       2039     96.4     14.6     111.0     23.0     (23.9)     2.8     (19.4)     11.0     (11.5)     0.4     (3.1)     37.4     (33.7)       2040     99.5     15.1     114.6     23.7     (23.9)     2.9     (19.3)     11.4     (11.4)     0.5     (3.0)     38.5     (33.6)														
2037 90.3 13.7 104.0 21.7 (24.1) 2.7 (19.6) 10.4 (11.5) 0.4 (3.1) 35.2 (33.9) 2038 93.3 14.2 107.5 22.4 (24.0) 2.8 (19.5) 10.7 (11.5) 0.4 (3.1) 36.3 (33.8) 2039 96.4 14.6 111.0 23.0 (23.9) 2.8 (19.4) 11.0 (11.5) 0.4 (3.1) 37.4 (33.7) 2040 99.5 15.1 114.6 23.7 (23.9) 2.9 (19.3) 11.4 (11.4) 0.5 (3.0) 38.5 (33.6)														
2038     93.3     14.2     107.5     22.4     (24.0)     2.8     (19.5)     10.7     (11.5)     0.4     (3.1)     36.3     (33.8)       2039     96.4     14.6     111.0     23.0     (23.9)     2.8     (19.4)     11.0     (11.5)     0.4     (3.1)     37.4     (33.7)       2040     99.5     15.1     114.6     23.7     (23.9)     2.9     (19.3)     11.4     (11.4)     0.5     (3.0)     38.5     (33.6)	2036	87.5	13.3	100.8	21.1	(24.2)	2.6	(19.8)	10.1	(11.5)	0.4	(3.1)	34.2	(34.0)
2039 96.4 14.6 111.0 23.0 (23.9) 2.8 (19.4) 11.0 (11.5) 0.4 (3.1) 37.4 (33.7) 2040 99.5 15.1 114.6 23.7 (23.9) 2.9 (19.3) 11.4 (11.4) 0.5 (3.0) 38.5 (33.6)														
2040 99.5 15.1 114.6 23.7 (23.9) 2.9 (19.3) 11.4 (11.4) 0.5 (3.0) 38.5 (33.6)														
2041 102.8 15.6 118.5 24.5 (23.8) 3.0 (19.1) 11.8 (11.4) 0.5 (3.0) 39.7 (33.5)														
	2041	102.8	15.6	118.3	24.5	(23.8)	3.0	(19.1)	11.8	(11.4)	0.5	(3.0)	39.7	(33.5)

 $\underline{\underline{Note}}{:} \ \ Treasury\ Normal\ Cost\ Contributions\ are\ net\ of\ actual\ and\ expected\ sequestered\ amounts\ as\ discussed\ in\ Appendix\ M.$ 

TABLE 10

MILITARY RETIREMENT SYSTEM

PAST AND PROJECTED UNFUNDED LIABILITY PAYMENTS ON OCTOBER 1
(S in billions)

Calendar	Original	Assumption	Benefit	Actuarial	
Year	UFL	Changes	Changes	Experience	Total
1984	\$9.500	\$.000	\$.000	\$.000	\$9,500
1985	10.500	0.000	0.000	0.000	10.500
1986	11.042	0.000	0.000	-0.518	10.524
1987	11.679	0.000	-0.113	-1.281	10.285
1988	12.003	0.135	-0.112	-2.244	9.782
1900	12.003	0.133	0.112	2.2	J.702
1989	16.300	-2.116	-0.132	-3.456	10.596
1990	17.237	-2.237	-0.140	-4.078	10.782
1991	18.228	-2.366	-0.148	-4.508	11.206
1992	22.621	-4.625	-0.171	-5.552	12.273
1993	23.865	-4.880	-0.180	-6.897	11.908
1994	25.177	-5.148	-0.189	-8.370	11.470
1995	27.746	-6.619	-0.079	-10.349	10.699
1996	33.456	-6.917	-0.042	-11.346	15.151
1997	36.227	-8.529	0.048	-12.627	15.119
1998	37.676	-8.870	0.050	-13.606	15.250
4000	20.102	0.201	0.052	14.722	15 202
1999	39.183	-9.201	0.052	-14.732	15.302
2000	42.098	-9.984	0.335	-16.360	16.089
2001	43.571	-9.862	0.472	-17.134	17.047
2002	45.096	-10.059	0.661	-17.770	17.928
2003	46.674	-10.741	0.977	-18.721	18.189
2004	46.857	-10.959	4.627	-19.167	21.358
2005	48.614	-11.337	6.081	-20.178	23.180
2006	50.437	-11.238	6.313	-19.464	26.048
2007	66.711	-7.642	6.430	-19.312	46.187
2007	69.213	-5.076	7.026	-20.038	51.125
2000	07.213	3.070	7.020	20.030	511125
2009	70.379	-1.241	7.100	-17.619	58.619
2010	73.018	-1.012	7.367	-17.969	61.404
2011	75.757	0.171	7.643	-18.820	64.751
2012	78.598	0.386	7.930	-19.181	67.733
2013	81.373	3.150	8.211	-19.849	72.885
2014	84.221	2.594	8.498	-19.751	75.562
2015 2016	87.169 90.024	3.770 4.459	8.796 7.724	-20.446 -21.015	79.289 81.192
2010	70.024			-21.013	01.172
		↑ A C T	UAL ↑		
		↓ PROJE	C T E D \		
2017	\$92.950	\$3.736	\$7.904	-\$21.713	\$82.877
2018	95.971	3.857	8.159	-22.452	85.535
2019	99.090	3.982	8.425	-23.908	87.589
2020	102.311	4.112	8.698	-24.685	90.436
2021	105.636	4.245	8.981	-25.487	93.375
2022	109.069	4.383	9.273		
2023				-26.315	96.410
	112.614	4.526	9.574	-27.170	99.544
2024	116.273	4.526 4.673	9.574 9.885	-27.170 -28.053	99.544 102.778
2025	116.273 120.053	4.526 4.673 4.825	9.574 9.885 10.207	-27.170 -28.053 -28.965	99.544 102.778 106.120
	116.273	4.526 4.673	9.574 9.885	-27.170 -28.053	99.544 102.778
2025 2026	116.273 120.053 0.000	4.526 4.673 4.825 4.981	9.574 9.885 10.207 10.539	-27.170 -28.053 -28.965 -29.907	99.544 102.778 106.120 -14.387
2025 2026 2027	116.273 120.053 0.000	4.526 4.673 4.825 4.981 5.143	9.574 9.885 10.207 10.539	-27.170 -28.053 -28.965 -29.907	99.544 102.778 106.120 -14.387
2025 2026 2027 2028	116.273 120.053 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310	9.574 9.885 10.207 10.539 10.881 11.235	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882	99.544 102.778 106.120 -14.387 -14.854 -15.337
2025 2026 2027 2028 2029	116.273 120.053 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483	9.574 9.885 10.207 10.539 10.881 11.235 11.600	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835
2025 2026 2027 2028 2029 2030	116.273 120.053 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351
2025 2026 2027 2028 2029	116.273 120.053 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483	9.574 9.885 10.207 10.539 10.881 11.235 11.600	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835
2025 2026 2027 2028 2029 2030 2031	116.273 120.053 0.000 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895
2025 2026 2027 2028 2029 2030	116.273 120.053 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351
2025 2026 2027 2028 2029 2030 2031	116.273 120.053 0.000 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895
2025 2026 2027 2028 2029 2030 2031 2032 2033	116.273 120.053 0.000 0.000 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034	116.273 120.053 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316 -0.000 0.000	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036	116.273 120.053 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434 6.643 6.859	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611 3.848 0.000	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316  0.000 0.000 0.000 0.000 0.000 0.000	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045 10.491 6.859
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036	116.273 120.053 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434 6.643 6.859 7.082	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611 3.848 0.000 0.000	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316 0.000 0.000 0.000 0.000 0.000 0.000	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045 10.491 6.859 7.082
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036	116.273 120.053 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434 6.643 6.643 6.859	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611 3.848 0.000 0.000 0.000	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	99,544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045 10.491 6.859 7.082 7.312
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039	116.273 120.053 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434 6.643 6.859 7.082 7.312 7.550	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611 3.848 0.000 0.000 0.000 0.000	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045 10.491 6.859 7.082 7.312 7.550
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040	116.273 120.053 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434 6.643 6.859 7.082 7.312 7.550 7.795	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611 3.848 0.000 0.000 0.000 0.000 0.000 0.000	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045 10.491 6.859 7.082 7.312 7.550 7.795
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039	116.273 120.053 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434 6.643 6.859 7.082 7.312 7.550	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611 3.848 0.000 0.000 0.000 0.000	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045 10.491 6.859 7.082 7.312 7.550
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041	116.273 120.053 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434 6.643 6.643 6.859 7.082 7.312 7.550 7.795 8.049	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611 3.848 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	99,544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045 10.491 6.859 7.082 7.312 7.550 7.795 8.049
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041	116.273 120.053 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434 6.643 6.859 7.082 7.312 7.550 7.795 8.049 8.310	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611 3.848 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316  0.000	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045 10.491 6.859 7.082 7.312 7.550 7.795 8.049
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041	116.273 120.053 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434 6.643 6.859 7.082 7.312 7.550 7.795 8.049 8.310 8.580	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611 3.848 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316 -0.000	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045 10.491 6.859 7.082 7.312 7.550 7.795 8.049 8.310 8.580
2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041	116.273 120.053 0.000	4.526 4.673 4.825 4.981 5.143 5.310 5.483 5.661 5.845 6.035 6.231 6.434 6.643 6.859 7.082 7.312 7.550 7.795 8.049 8.310	9.574 9.885 10.207 10.539 10.881 11.235 11.600 11.977 12.366 12.767 13.183 13.611 3.848 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	-27.170 -28.053 -28.965 -29.907 -30.878 -31.882 -32.918 -33.989 -11.316  0.000	99.544 102.778 106.120 -14.387 -14.854 -15.337 -15.835 -16.351 6.895 18.802 19.414 20.045 10.491 6.859 7.082 7.312 7.550 7.795 8.049

Note: Actuarial Experience item is net of actual and expected sequestered Treasury Normal Cost payments as discussed in Appendix M.

TABLE 11

MILITARY RETIREMENT SYSTEM

PAST AND PROJECTED UNFUNDED LIABILITY BALANCE ON SEPTEMBER 30 (Before Payment)
(\$ in billions)

Calendar	Original	Assumption	Benefit	Actuarial	
Year	UFL	Changes	Changes	Experience	Total
	\$528.700	\$.000	\$.000	\$.000	\$528.700
1984 1985	553.500	0.000	0.000	-13.800	539.700
	578.800	0.000	-3.000	-34.200	541.600
1986					
1987 1988	605.200	3.600	-2.998	-59.500	546.302 498.382
1988	632.700	-50.062	-3.076	-81.180	498.382
1989	664.173	-53.711	-3.172	-94.562	512.728
1990	693.224	-55.207	-3.253	-102.283	532.481
1991	723.306	-97.578	-3.331	-111.879	510.518
1992	757.959	-102.353	-3.421	-139.327	512.858
1993	790.488	-105.057	-3.494	-167.942	513.995
1004	824.120	-130.691	-0.968	-201.052	491.409
1994	852.872	-134.017	-0.832	-201.032	500.768
1995 1996	880.822	-159.859	0.897	-231.424	490.436
1996	902.444		1.000		
1998	922.521	-162.883 -164.057	1.014	-244.673 -259.976	495.888 499.503
1770	722.321	104.037	1.014	237.710	477.505
1999	942.360	-169.827	6.583	-277.940	501.176
2000	959.626	-164.942	9.414	-284.168	519.931
2001	974.873	-162.970	13.075	-285.393	539.585
2002	989.509	-170.593	19.216	-293.105	545.027
2003	1,003.439	-172.248	94.231	-297.115	628.308
2004	1.016.562	171 200	125 272	204.415	666 122
2004	1,016.562	-171.288 165.760	125.272	-304.415	666.132
2005	1,030.312	-165.769	128.261	-290.020	702.784
2006	1,043.054	-126.439	131.332	-282.660	765.287
2007	1,052.174	-89.221	140.140	-279.068	824.025
2008	1,044.591	-27.990	142.047	-254.441	904.207
2009	1,031.462	-19.974	142.785	-245.726	908.548
2010	1,016.346	2.415	143.487	-258.786	903.461
2011	997.569	8.208	143.947	-252.478	897.246
2012	974.816	68.621	144.141	-254.041	933.537
2013	945.510	58.240	143.703	-262.348	885.105
2014 2015	911.665 872.953	81.894 96.068	142.944 127.811	-268.748 -280.383	867.755 816.450
2016	827.038	80.674	124.563	-289.710	742.564
		↑ A C T			
		· · · · · · · · · · · · · · · · · · ·			
2017	\$555.505	↓ PROJE	•	#202.124	0.00.7.0
2017	\$775.707	\$80.216	\$122.973	-\$282.134	\$696.762
2018	718.602	80.496	121.112	-274.093	646.117
2019	655.319	80.663	118.883	-264.852	590.012
2020	585.431	80.706	116.257	-253.593	528.800
2021	508.484	80.616	113.205	-240.926	461.378
2022	423.997	80.380	109.696	-226.750	387.324
2023	331.462	79.987	105.695	-210.957	306.187
2024	230.337	79.423	101.168	-193.436	217.491
2025	120.053	78.674	96.075	-174.066	120.736
2026	0.000	77.726	90.376	-152.719	15.383
2025	0.577	#cc::	04.555	100	
2027	0.000	76.564	84.029	-129.259	31.333
2028	0.000	75.171	76.988	-103.546	48.612
2029	0.000	73.528	69.205	-75.427	67.307
2030	0.000 0.000	71.618 69.420	60.629 51.206	-44.740 -11.316	87.507 109.310
2031	0.000	07.720	31.200	-11.310	107.310
2031				0.000	
2031 2032	0.000	66.912	40.880	0.000	107.792
	0.000 0.000	66.912 64.073	40.880 29.588	0.000	107.792 93.662
2032					
2032 2033	0.000	64.073	29.588	0.000	93.662
2032 2033 2034	0.000 0.000	64.073 60.879	29.588 17.267	0.000 0.000	93.662 78.146
2032 2033 2034 2035 2036	0.000 0.000 0.000 0.000	64.073 60.879 57.303 53.320	29.588 17.267 3.848 0.000	0.000 0.000 0.000 0.000	93.662 78.146 61.151 53.320
2032 2033 2034 2035 2036	0.000 0.000 0.000 0.000	64.073 60.879 57.303 53.320 48.900	29.588 17.267 3.848 0.000	0.000 0.000 0.000 0.000	93.662 78.146 61.151 53.320 48.900
2032 2033 2034 2035 2036	0.000 0.000 0.000 0.000 0.000	64.073 60.879 57.303 53.320 48.900 44.014	29.588 17.267 3.848 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	93.662 78.146 61.151 53.320 48.900 44.014
2032 2033 2034 2035 2036 2037 2038 2039	0.000 0.000 0.000 0.000 0.000 0.000 0.000	64.073 60.879 57.303 53.320 48.900 44.014 38.628	29.588 17.267 3.848 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000	93.662 78.146 61.151 53.320 48.900 44.014 38.628
2032 2033 2034 2035 2036 2037 2038 2039 2040	0.000 0.000 0.000 0.000 0.000 0.000 0.000	64.073 60.879 57.303 53.320 48.900 44.014 38.628 32.710	29.588 17.267 3.848 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000 0.000	93.662 78.146 61.151 53.320 48.900 44.014 38.628 32.710
2032 2033 2034 2035 2036 2037 2038 2039	0.000 0.000 0.000 0.000 0.000 0.000 0.000	64.073 60.879 57.303 53.320 48.900 44.014 38.628	29.588 17.267 3.848 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000	93.662 78.146 61.151 53.320 48.900 44.014 38.628
2032 2033 2034 2035 2036 2037 2038 2039 2040 2041	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	64.073 60.879 57.303 53.320 48.900 44.014 38.628 32.710 26.223	29.588 17.267 3.848 0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	93.662 78.146 61.151 53.320 48.900 44.014 38.628 32.710
2032 2033 2034 2035 2036 2037 2038 2039 2040	0.000 0.000 0.000 0.000 0.000 0.000 0.000	64.073 60.879 57.303 53.320 48.900 44.014 38.628 32.710	29.588 17.267 3.848 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000 0.000	93.662 78.146 61.151 53.320 48.900 44.014 38.628 32.710 26.223
2032 2033 2034 2035 2036 2037 2038 2039 2040 2041	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	64.073 60.879 57.303 53.320 48.900 44.014 38.628 32.710 26.223	29.588 17.267 3.848 0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	93.662 78.146 61.151 53.320 48.900 44.014 38.628 32.710 26.223

 $\underline{Note}{:} \quad \text{Actuarial Experience item is net of actual and expected sequestered Treasury Normal Cost payments as discussed in Appendix M.}$ 

#### **The Military Retirement Fund Transaction Process**

The description of deficit, debt, and funding impact contained in this section are applicable under the current practices of the federal government regarding budget accounting and tax policy. These practices do not provide for increases in taxes to fund the Military Retirement System beyond what is required to pay benefits to retirees and survivors each year, but do result in increases in the national debt.

A nonrevolving trust fund was created inside the Unified Budget of the federal government for the monies of the Military Retirement System. This fund has three sources of income: (1) normal cost payments made by DoD, (2) unfunded liability and Concurrent Receipt normal cost payments made by Treasury, and (3) interest earnings on investments in government securities made by Treasury and the payment of the par values of these securities at maturity. All three of these items are intragovernmental transfers consisting of debits from one government account and credits to another.

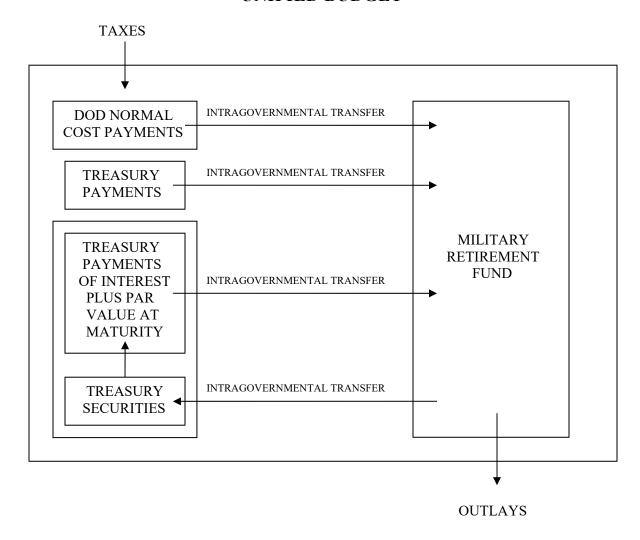
The Fund has two types of payouts: (1) payments to retirees and survivors of retirees and (2) purchases of U.S. Treasury securities. The purchase of a Treasury security is also an intragovernmental transfer, while a payment to a retiree or a survivor is not.

Figure 2 on the following page depicts this process. The only transactions in a particular year that directly affect the deficit of the Unified Budget are those that pass in or out of the government, such as tax collections ("in") and retiree or survivor payments ("out"). The intragovernmental transfers are debits and credits within the federal budget, with no direct effect on the deficit. The following examples illustrate the process:

- If DoD debits \$25 billion in normal cost payments and the Fund credits the \$25 billion, the net direct federal budget deficit effect is zero.
- If the Fund purchases \$60 billion in securities (debit) and the Treasury sells \$60 billion in securities (credit), the net direct federal budget deficit effect is zero.
- If the Treasury pays \$20 billion interest (debit) and the Fund earns \$20 billion interest (credit), the net direct federal budget deficit effect is zero.
- Disregarding all other government programs, if the government collects \$45 billion in tax revenues (credit) and pays \$50 billion to retirees (debit), the net direct federal budget deficit effect is \$5 billion.

#### FIGURE 2

## MILITARY RETIREMENT SYSTEM UNIFIED BUDGET



All of the intragovernmental transfers in Figure 2 will always generate both a credit and an associated equal debit within the Unified Budget. Consequently, under current federal budget accounting practices, contributions to the Fund beyond what are required to pay benefits to retirees and survivors that year have no impact on the total federal deficit. Just as in the pay-as-you-go method, the only transactions that directly affect the deficit in the retirement system accounting process are payments to retirees and survivors (i.e. outlays).

On the other hand, the purchase of securities by the Fund does increase the national debt, specifically the portion of the debt held by the government. The portion held by the public will not change. However, the total debt will increase and this requires an increase in the statutory borrowing authority (debt ceiling).

Suppose that in the year 2016 the amount needed to pay retirees was \$55 billion and the Military Retirement Fund had grown to \$660 billion. The following transactions would take place:

- Fund redeems \$55 billion in Treasury securities (credit).
- Treasury pays \$55 billion to Fund (debit).
- Net federal surplus zero.

Since no budget surplus can be derived from using fund money, the government still has a need for \$55 billion to pay retirees—the same need it would have under the pay-as-you-go system. Accordingly, the Fund cannot transfer liabilities from one tax year to another.

However, funding does have an effect on the DoD budget. With the normal cost payments (except for Concurrent Receipt) in the DoD budget, policymakers now consider the impact on future retirement costs when they make manpower decisions, and this could have a significant impact on future federal budgets. For example, if a decision were made today to double the size of the active duty and reserve forces, the DoD budget would automatically have an immediate increase in retirement funding obligations. Under the pay-as-you-go method, the retirement expenses would not necessarily be considered in the initial decision since they would not emerge for 20 years.

In their prior quadrennial reports to the President and Congress, the DoD Board has noted that the establishment of the Fund does not represent actual advance funding. Real advance funding could be achieved by investing the assets outside the Unified Budget, for example, in stocks or corporate bonds, or in bonds of state and local municipalities or quasifederal government agencies (like Fannie Mae or Freddie Mac). Instead, the accrual accounting procedure now in place is essentially an internal cost accounting system. While the nation has not technically set aside money to pay the benefits of those who have served in uniform, the Fund can be viewed as earmarking future tax receipts for the benefit of military retirees. As such, the existence of the Fund promotes a measure of "psychological security" for military members.

Along these same lines, the DoD Board has frequently noted two common misconceptions about the Fund:

- 1) The Fund represents government tax receipts that have been accumulated in the past. Actually, the Fund represents future tax receipts that will be allocated to pay principal and interest on government bonds being held by the Fund.
- 2) The financial and actuarial status of the Fund can be measured by prospective shortterm (or medium-term) cash flows. Rather, the entire present value of the liabilities must be compared to the sum of the Fund and prospective contributions. A year-by-year projection of cash flow is also needed to measure the Fund's ability to pay annual

benefits. Comparing the past and projected dollars as a proportion of payroll (as shown in Table 8) is another key measure of sustainability.

The current financing procedure, although carried out by allocating no more tax dollars than needed to pay benefits to military retirees as they come due, has nonetheless contributed to a more accurate allocation of resources within the defense budget and to formal recognition--in the national debt--of the government's obligation to pay retirement benefits to military members and eligible survivors/annuitants. This represents more responsible fiscal practice than would obtain under a pay-as-you-go system.

The fact that costs are fully recognized in advance provides greater benefit security over the long term. Also, when there is a Fund, the system is not as dependent on obtaining the necessary appropriation from Congress each year in order to pay benefits for that year. This can provide additional benefit security in the short run.

The actuarially based costs of the retirement system are reasonable given the plan provisions, and the system is considered sustainable assuming continuing willingness of the government to pay the required costs.

## APPENDIX A

# THE MILITARY RETIREMENT SYSTEM: BENEFITS

	Page
Summary	38
Nondisability Retirement from Active Service	40
Disability Retirement	40
Reserve Retirement	41
Survivor Benefits	42
Temporary Early Retirement Authority (TERA)	44
Cost-of-Living Increases	45
Relationship with Veterans Administration Benefits	45
Interrelationship with Other Federal Service	46
Relationship of Retired Pay to Military Compensation	46
Social Security Benefits	47
Performance Measures.	48
Table A-1: Military Retirement Fund Performance Measures	49

### THE MILITARY RETIREMENT SYSTEM: BENEFITS

## As of September 30, 2016

## **Summary**

The Military Retirement System applies to members of the Army, Navy, Marine Corps, and Air Force. However, most of the provisions also apply to retirement systems for members of the Coast Guard (administered by the Department of Homeland Security), officers of the Public Health Service (administered by the Department of Health and Human Services), and officers of the National Oceanic and Atmospheric Administration (administered by the Department of Commerce). Only those members in plans administered by the Department of Defense (DoD) are included in this report.

Generally, the system is a funded, noncontributory defined benefit plan that includes nondisability retired pay, disability retired pay, retired pay for reserve service, survivor annuity programs, and special compensation programs for certain disabled retirees. The Service Secretaries may approve immediate nondisability retired pay at any age with credit of at least 20 years of active duty service. Reserve retirees generally must be at least 60 years old and have at least 20 qualifying years of service before retired pay commences, with certain exceptions. Public Law (P.L.) 110-181 allows for a day-for-day reduction (in 90 day blocks) in the reserve retirement eligibility age from age 60 (to an age no lower than 50) for every 3 months served in a contingency operation or national emergency, for service after enactment. There is no vesting of benefits before retirement.

There are distinct nondisability benefit formulas related to four populations within the Military Retirement System. A summary is displayed in Tables B-1 and B-2 (see Appendix B).

- 1) *Final Pay*: Military personnel who first became members of a uniformed service <u>before September 8, 1980</u>, have retired pay equal to final basic pay times a multiplier. The multiplier is equal to 2.5 percent times years of service.
- 2) *High-3* (*HI-3*): If the retiree first became a member of a uniformed service <u>on or after September 8, 1980</u>, the average of the highest 36 months of basic pay is used instead of final basic pay.
- 3) Career Status Bonus (CSB)/Redux: Those who first became a member of a uniformed service on or after August 1, 1986, may choose between a High-3 and CSB/Redux retirement. Those who elect CSB/Redux receive the Career Status Bonus outlined below, also have retired pay computed on a base of the average of their highest 36 months of basic pay, but are subject to a multiplier penalty if they retire with less than 30 years of service; however, at age 62, their retired pay is recomputed without the penalty. Members make their election during the fifteenth year of service and may receive the Career Status Bonus of \$30,000 in either a lump-sum or installments. Those who elect CSB/Redux generally must remain continuously on active duty until they complete 20 years of active duty service or forfeit a portion of the \$30,000 (exceptions include death and disability retirement). The National Defense Authorization Act for FY 2016 (NDAA 2016, P.L. 114-92) sunsets the CSB/Redux benefit tier by not allowing any CSB elections after December 31, 2017, and repeals all aspects of the Bipartisan Budget Act (BBA) 2013.

4) Blended Retirement System (BRS): Members who first become a member of a uniformed service after December 31, 2017, will be under the new Blended Retirement System (BRS) which was enacted in NDAA 2016 and takes effect January 1, 2018. Members who first entered the military before January 1, 2018, and who have served for fewer than 12 years (or for reservists, who have fewer than 4,320 points) as of December 31, 2017, will have the option to "opt-in" to BRS via an irrevocable election during a one-year (calendar year 2018) open season or remain in the High-3 system. Members who have served 12 or more years as of December 31, 2017, are not permitted to opt-in to BRS and will receive benefits based on their current plan. As a result of NDAA 2016, members with 12 or more but fewer than 15 years of service as of December 31, 2017, will not have the opportunity to opt-in to BRS or to elect the CSB and will automatically remain in the High-3 system<sup>1</sup>. The BRS lowers the nondisabled retired pay multiplier from 2.5 percent per year to 2.0 percent and includes automatic and matching government contributions to member Thrift Savings Plan (TSP) accounts and a mandatory mid-career continuation bonus if the member agrees to serve additional time. The BRS also provides members the choice of receiving a portion (either 25 percent or 50 percent) of their retired pay entitlement from when the member is eligible to begin receiving retired pay to normal Social Security retirement age (usually 67) as a discounted lump sum instead of an annuity. For additional information, see Table B-1 or refer to the DoD Office of Military Compensation website (http://militarypay.defense.gov/).

Retired pay and survivor annuity benefits are automatically adjusted annually to protect the purchasing power of initial retired pay. The benefits associated with members first entering the armed services before August 1, 1986, or those entering on or after that date who do not take the CSB, have their benefits adjusted annually by the percentage increase in the average Consumer Price Index (CPI). Refer to the section "Cost-of-Living Increases" in this appendix for more information on the CPI. Receiving a benefit adjustment based on the percentage increase in the CPI is commonly referred to as full CPI protection. Benefits associated with members entering on or after August 1, 1986, who elect the \$30,000 CSB bonus payment are annually increased by the percentage change in the CPI minus 1 percent (except when the change in the CPI is less than or equal to 1 percent), but at the military member's age 62, or when the member would have been age 62 for a survivor annuity, the benefits are restored to the amount that would have been payable had full CPI protection been in effect. This restoral is in combination with the elimination of the multiplier penalty for retiring with less than 30 years of service. However, after this restoral, partial indexing (CPI minus 1 percent) continues for future retired pay and survivor annuity payments.

The FY 2011 NDAA (P.L. 111-383) required "amounts of retired pay and retainer pay due a retired member of the uniformed services shall be paid on the first day of each month beginning after the month in which the right to such pay accrues." This means that when the first day of the month falls on a non-business day (weekend/holiday), the pay must be paid the preceding business day. This legislation did not apply to survivor annuitant pay and Combat-Related Special Compensation. This results in retirees receiving 13 payments in some fiscal years and 11 payments in others, with 12 payments occurring in a typical fiscal year. Note that annual fiscal year amounts shown throughout this report represent 12 monthly payments without

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<sup>&</sup>lt;sup>1</sup> Because of breaks in service and technical differences in the definition of qualifying years of service under BRS compared to CSB/Redux, it's not possible to precisely define this group based solely on dates of entry, but generally it will include members who joined the service after December 31, 2002, and on or before December 31, 2005.

regard to the 2011 NDAA. Comments regarding this law are also noted in the Table 8 footnotes in the main text.

## **Nondisability Retirement From Active Service**

The current system allows voluntary retirement upon completion of at least 20 years of service at any age, subject to Service Secretary approval. The military retiree receives immediate retired pay calculated as (base pay) times (a multiplier). Base pay is equal to terminal basic pay if the retiree first became a member of a uniformed service before September 8, 1980. It is equal to the average of the highest 36 months of basic pay for all other members. Refer to the prior section for a description of the four benefit tiers of nondisability retirement.

As of September 2016, 1.47 million nondisability retirees from active duty and full-time reserves were receiving an annualized retired pay entitlement totaling \$49.1 billion. Included in this number are a reported 63,311 nondisabled retirees who elected CSB/Redux. Due to FY 2011 NDAA retired pay provisions, there were 13 monthly payments in FY 2016.

## **Disability Retirement**

A military member in an active component or on active duty for more than 30 days who is found unfit for duty is entitled to disability retired pay if the disability:

- (1) based upon accepted medical principles, is of a permanent nature and stable;
- (2) is incurred while entitled to basic pay (or while on authorized absence in a status not entitled to basic pay);
- (3) is neither the result of the member's intentional misconduct nor willful neglect;
- (4) was not incurred during a period of unauthorized absence; and
- (5) either
  - (a) the member has at least 20 years of service; or
  - (b) the disability is rated at least 30 percent under the Department of Veterans Affairs Schedule of Rating Disabilities (VASRD) and one of the following conditions is met:
    - (i) the disability was not noted at the time of the member's entrance on active duty (unless clear and unmistakable evidence demonstrates that the disability existed before the member's entrance on active duty and was not aggravated by active military service);
    - (ii) the disability is the proximate result of performing active duty;
    - (iii) the disability incurred in the line of duty in time of war or national emergency; or
    - (iv) the disability was incurred in the line of duty after September 14, 1978.

Under certain conditions generally similar to the above, members on active duty for 30 days or less or on inactive-duty training are also entitled to disability retired pay for disabilities incurred or aggravated in the line of duty.

In disability retirement, the member may elect to receive retired pay equal to either:

- (1) the accrued nondisability retirement benefit regardless of eligibility to retire; or
- (2) base pay multiplied by the rated percent of disability.

Except for members with a multiplier under (1) that is greater than 75 percent (which will equate to different years of service depending on whether the member is under BRS), the benefit cannot be more than 75 percent of base pay. Only the excess of (1) over (2) is subject to federal income taxes if the member had service on or before September 24, 1975. If not a member of a uniformed service on September 24, 1975, disability retired pay is tax-exempt only for those disabilities that are combat or hazardous duty related. Base pay is equal to final basic pay if the retiree first became a member of a uniformed service before September 8, 1980; otherwise, base pay is equal to the average of the highest 36 months of basic pay.

Members whose disabilities may not be permanent are placed on a temporary-disability retired list and receive disability retirement pay just as if they were permanently disabled. However, they must be physically examined every 18 months for any change in disability. A final determination must be made within five years, except that for retirees placed on this list after December, 31, 2016 the final determination must be made within three years<sup>2</sup>. The temporary disability pay is calculated like the permanent disability retired pay, except that it can be no less than 50 percent of base pay.

Members who elected the CSB/Redux retirement option, but who retire for disability, are not subject to the reduced CSB/Redux retired pay multiplier and are awarded retired pay based on the disability retired rules outlined above. However, such members continue to be subject to the reduced CPI (with age 62 restoral) as Career Status Bonus recipients. Members who are under BRS and who retire for disability do not have the option of receiving a portion of retired pay as a discounted lump sum.

Past Congressional action has been directed to the care of disabled retirees and veterans. P.L. 110-181 established the Physical Disability Board of Review (PDBR). The PDBR has the authority to reexamine the files of veterans medically separated with ratings under 30 percent between September 11, 2001, and December 31, 2009, and potentially offer disability retirements. The PDBR is expected to review files for approximately 77,000 veterans.

As of September 2016, 116,000 disability retirees were receiving an annualized retired pay entitlement totaling \$1.69 billion. Included in this number are a reported 3,115 disability retirees who elected CSB/Redux. Due to FY 2011 NDAA retired pay provisions, there were 13 monthly payments in FY 2016.

## **Reserve Retirement**

Members of the Reserve Components may retire after 20 qualifying years of creditable service. However, reserve retired pay is not payable until age 60 unless the member performs certain types of active duty or active service specified in NDAA 2008 (P.L. 110-181), in which case the age is reduced below 60 by three months for every 90 days of such service within any two consecutive fiscal years. However, the age cannot be reduced below 50, and eligibility for subsidized retiree health benefits remains at age 60 even if the eligibility age for retired pay is reduced. For members not under BRS, retired pay is computed as retired pay base times 2.5 percent times years of service. For members under BRS (as explained below) the 2.5 percent

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<sup>&</sup>lt;sup>2</sup> The 2017 National Defense Authorization Act lowered the maximum length on the temporary-disability retired list from 5 years to 3 years, with grandfathering for those currently on the list.

multiplier is reduced to 2.0 percent. If the reservist was first a member of a uniformed service before September 8, 1980, retired pay base is defined as the active duty basic pay in effect for the retiree's grade and years of service at the time that retired pay begins. If the reservist first became a member of the armed services on or after September 8, 1980, retired pay base is the average basic pay for the member's grade in the highest 36 months computed as if he/she was on active duty for the entire period preceding the age at which retired pay commences. The years of service are determined by using a point system, where 360 points convert to a year of service. Typically, one point is awarded for one day of active duty service (e.g. active duty training) or one inactive duty training (IDT) drill attendance. Reservists may perform two IDT periods in one day thereby receiving two retirement points per day. In addition, 15 points are awarded for completion of one year's membership in an active reserve status. A creditable year of service is one in which the member earned at least 50 points. A member generally cannot retire with less than 20 creditable years, although points earned in non-creditable years are used in the retirement calculation. Beginning with years of service that include October 30, 2007, nonactive duty points are limited in any year to no more than 130. Lesser limitations have applied in the past.

Reservists who first became a member on or before December 31, 2017, and had fewer than 4,320 points (equating to 360 points per year multiplied by 12 years of service) as of that date are eligible to opt-in to BRS. Reservists who first become a member of the uniformed service after December 31, 2017, are automatically under BRS. For reserve retirement under BRS, the discounted lump sum option covers the period from the date the member first became eligible to receive retired pay (i.e., 60 or earlier if certain qualifying service is performed) to normal Social Security retirement age (usually 67).

As of September 2016, 402,000 reserve retirees were receiving an annualized retired pay entitlement totaling \$6.8 billion. Due to FY 2011 NDAA retired pay provisions, there were 13 monthly payments in FY 2016.

## **Survivor Benefits**

Legislation originating in 1953 provided optional survivor benefits. It was later referred to as the Retired Servicemen's Family Protection Plan (RSFPP). The plan proved to be expensive to the participants and inadequate since the survivor annuities were never adjusted for inflation and could not be more than 50 percent of retired pay. RSFPP was designed to be self-supporting in the sense that the present value of the reductions to retired pay equaled the present value of the survivor annuities.

On September 21, 1972, RSFPP was replaced by the Survivor Benefit Plan (SBP) for new retirees. RSFPP still covers those servicemen retired before 1972 who did not convert to the new plan or who retained RSFPP in conjunction with SBP. RSFPP continues to pay survivor annuities.

Retired pay is reduced, before taxes, for the member's cost of SBP. Total SBP costs are shared by the government and the retiree, so the reductions in retired pay are only a portion of the total cost of the SBP program.

The SBP survivor annuity is 55 percent of the member's base amount. The base amount is elected by the member, but cannot be less than \$300 or more than the member's full gross monthly retired pay, with one exception. If the member elects CSB/Redux and is subject to a penalty for service under 30 years in the calculation of retired pay, the maximum base amount is equal to the full retired pay without the penalty. However, the annuity for a survivor of a CSB/Redux retiree is subject to the reduced CPI.

When the plan started in 1972, benefits for those 62 and older were reduced by the amount of Social Security for which the survivor would be eligible based on the member's military pay. In 1985, that reduction formula was changed so all annuitants 62 and over received a reduced flat rate of 35 percent of the member's base. Beginning October 1, 2005, the age 62 reduced rate was phased out in 5 percent increments. On April 1, 2008, the survivor benefit reduction at age 62 was fully eliminated and the rate of 55 percent of the member's elected base became standard for all survivors, regardless of age.

During FY 1987, SBP's treatment of survivor remarriages changed. Prior to the change, a surviving spouse remarrying before age 60 had the survivor annuity suspended. The change lowered the age to 55. If the remarriage ends in divorce or death, the annuity is reinstated.

Members who die on active duty are generally assumed to have retired with full disability on the day they died and to have elected full SBP coverage for spouses, former spouses, and/or children. If it is more beneficial for the survivors to have elected child only because of Dependency and Indemnity Compensation (DIC) offsets, the family has the option to make that election instead. If the death does not occur in the line of duty, the SBP benefit is based on the member's years of service, rather than assuming a full disability retirement. Insurable interest elections may be applicable in some cases. These benefits have been improved and expanded over the history of the program.

The surviving spouse (or dependent children, if there is no surviving spouse or if the spouse subsequently dies) of a reservist who dies in the line of duty while performing IDT service is entitled to an SBP annuity. For payments prior to December 23, 2016, the annuity is based on the reservist's years of service. Due to NDAA 2017, effective December 23, 2016 reservists who die in the line of duty while performing IDT receive an SBP annuity equivalent to what they would have received if they had died in the line of duty on active duty (i.e., the annuity assumes the reservist retired with full disability and elected full SBP on the date of death).

SBP annuities generally are reduced by any VA survivor benefits (Dependency and Indemnity Compensation (DIC)), and all premiums relating to the reductions are returned to the survivor. The FY 2008 NDAA enacted, and subsequent legislation extended, a temporary Special Survivor Indemnity Allowance (SSIA) that pays a monthly amount (\$50 in FY 2009 grading up to \$310 in FY 2017 and FY 2018) to survivors with a DIC offset. Prior to NDAA 2018 the authority for the allowance ended in May 2018; the NDAA 2018 made it a permanent benefit with annual COLA increases.

As a result of the "Sharp Case" ruling, the SBP benefit of survivors with entitlement to both DIC and SBP who remarry after age 57 is not reduced by DIC benefits received.

As with retired pay, SBP annuities and premiums are increased annually with cost-of-living adjustments (COLAs). These COLAs are either full or partial CPI increases, depending on the benefit formula covering the member. If a member who elected the CSB/Redux retirement option dies before age 62, the survivor is subject to partial COLAs and his/her annuity is increased on what would have been the member's 62nd birthday to the amount that would have been payable had full COLAs been in effect. Partial COLAs continue annually thereafter.

For reserve retirees, the retired pay reductions applicable under SBP apply for survivor coverage after a reservist turns 60 (or earlier if they have certain active service) and begins to receive retired pay. Reserve Component Survivor Benefit Program (RCSBP) provides annuities to survivors of reservists who die before age 60 (or earlier if they have certain active service), provided they attained 20 years of qualified service and elected to participate in the program (or were within their 90-day election window after receiving their "20-year letter"). However, if the death occurs either on active or inactive duty as described above, the survivor receives an annuity under SBP. The added cost of RCSBP coverage is borne completely by reservists through deductions from future retired pay.

Beginning October 1, 2008, a paid-up provision eliminated the reduction in retired pay for premiums for SBP and RSFPP coverage for participants age 70 or older whose retired pay has been reduced for at least 360 months.

On June 26, 2013, the U.S. Supreme Court ruled to overturn the Defense of Marriage Act (DOMA). While not a change to Title 10 U.S. military benefits per se, the ruling has the effect of allowing legal spouses of same-sex marriages to be eligible to receive SBP benefits.

SBP premiums for members who elect lump sums under BRS will be equivalent to what they would have been without the lump sum, and consequently, the survivors' annuities will be equivalent to what they would have been without the lump sum. The maximum base amount will be equal to unreduced retired pay (i.e., ignoring the lump sum), premiums will be deducted only from monthly retired pay received, and SBP benefits will commence upon the retiree's death.

As of September 2016, 287,000 survivors of military members were receiving an annualized annuity entitlement totaling \$3.7 billion. There are 64,000 SSIA survivors receiving \$0.2 billion (approximately 28,000 receive survivor pay as well).

## **Temporary Early Retirement Authority (TERA)**

The FY 1993 NDAA (P.L. 102-484) granted temporary authority for the military services to offer early retirements to members with more than 15 but less than 20 years of service. The retired pay was calculated in the usual way except that there was a reduction of 1 percent for every year below 20 years of service. Part or all of this reduction can be restored at age 62 if the retired member works in a qualified public service job during the period from the date of retirement to the date on which the retiree would have completed 20 years of service. Unlike members who leave military service before 20 years with voluntary separation incentives or special separation benefits, these early retirees are generally treated like regular military retirees

for the purposes of other retirement benefits. This authority originally expired on September 1, 2002.

The FY 2012 NDAA (P.L. 112-81) reinstated TERA, from January 2012 through December 2018, but without the qualified public service provision. The FY 2017 NDAA further extended TERA through December 2025.

As of September 2016, 67,000 TERA retirees were receiving an annualized retired pay entitlement totaling \$1.3 billion. Due to FY 2011 NDAA retired pay provisions, there were 13 monthly payments in FY 2016.

## **Cost-of-Living Increases**

All nondisability retirement, disability retirement, and most survivor annuities are adjusted annually for inflation. Cost-of-living adjustments (COLAs) are automatically scheduled to occur every 12 months, on December 1st, to be reflected in checks issued at the beginning of January.

The "full" COLA effective December 1 is computed by calculating the percentage increase in the average CPI of the third quarter of the prior calendar year to the third quarter of the current calendar year. The increase is based on the Urban Wage Earner and Clerical Worker Consumer Price Index (CPI-W) and is rounded to the nearest tenth of one percent. Recent retirees/annuitants receive a prorated COLA depending on their date of retirement/eligibility.

The benefits of retirees (and most survivors) are increased annually with the full COLA, except for those first entering a uniformed service on or after August 1, 1986, who elect CSB/Redux. Their benefits are increased annually with a partial COLA equal to the full COLA minus 1 percent (except if the full COLA is less than or equal to 1 percent). A one-time restoral is given to a partial COLA recipient on the first day of the month after the retiree's 62nd birthday. At this time, retired pay (or the survivor benefit if the retiree is deceased) is increased to the amount that would have been payable had full COLAs been in effect. Annual partial COLAs continue after this restoral. Note that the FY 2016 NDAA sunsets the CSB/Redux benefit tier by not allowing any CSB elections after December 31, 2017.

## **Relationship with Veterans Administration Benefits**

The Department of Veterans Affairs (VA) provides compensation for Service-connected and certain non-Service-connected disabilities. These VA benefits can be in place of or in combination with DoD retired pay, but through December 31, 2003, were not fully additive. Since VA benefits are exempt from federal income taxes, it is often to the advantage of a member to elect them. Through 2003, retired pay earned from DoD for military service was offset by any payment received from VA for a VA-rated disability. Beginning with the FY 2004 NDAA (P.L. 108-136), a series of legislation has been enacted that increasingly reduces or eliminates the offset to military retired pay due to receipt of VA disability compensation. Members with a combined VA disability rating of 50% or greater who have at least 20 years of service will have their offset eliminated under the Concurrent Retirement and Disability Pay (CRDP) program. The CRDP program has a ten-year phase-in schedule that began in 2004; however, the offset is already fully eliminated for members whose disabilities are rated total or make the individual unemployable. Members whose disability meets certain combat-related

criteria can elect to receive payments against the offset under the Combat Related Special Compensation (CRSC) program. Under CRSC, members are not subject to a phase-in schedule, are not required to have at least 20 years of service (per P.L. 110-181), and are not required to have at least a 50% VA disability rating. Although CRSC amounts are calculated based on retired pay lost due to offset and are paid from the Military Retirement Fund, CRSC is not technically considered retired pay. CRSC payments are tax exempt. A member may not participate in both the CRDP and CRSC programs simultaneously, but may change from one to the other during an annual "open season."

For members who elect lump sums under BRS and qualify for VA disability compensation: (1) if the member is not eligible for CRDP or CRSC, the VA will withhold disability payments until the amount withheld equals the lump sum amount, after which VA disability payments, as an offset to retired pay, may be paid; (2) if the member is eligible for CRDP, no withholding of VA disability payments is required, and the retiree may receive VA disability compensation and retired pay without offset; and (3) if eligible for CRSC, the procedures for withholding VA disability payments are more complicated and relate to the portion of the total VA entitlement considered combat-related.

VA benefits also offset (or reduce) survivor pay through the Dependency and Indemnity Compensation (DIC) program. DIC benefits are payable to survivors of veterans who die from Service-connected causes. Although SBP annuities are generally reduced by the amount of any DIC benefit, all SBP premiums relating to the reduction in benefits are returned to the survivor. The FY 2008 NDAA enacted, and subsequent legislation extended, a temporary Special Survivor Indemnity Allowance (SSIA) that pays a monthly amount (\$50 in FY 2009 grading up to \$310 in FY 2017 and FY 2018) to survivors with a DIC offset. Prior to NDAA 2018 the authority for the allowance ended in May 2018; the NDAA 2018 made it a permanent benefit with annual COLA increases. As a result of the "Sharp Case" ruling, the SBP benefit of widows with entitlement to both DIC and SBP who remarry after age 57 is not reduced by DIC benefits received.

As of September 2016, there were 529,000 CRDP members and 92,000 CRSC members. These members were paid an additional monthly amount of \$844 million and \$89 million, respectively. As of September 2016, there were 64,000 survivors receiving annualized SSIA benefits of \$208 million.

### **Interrelationship with Other Federal Service**

For military retirement purposes, no credit is given for other federal service, except where cross-service transferability is allowed. Military service is generally creditable toward the federal civilian retirement systems if military retired pay is waived. However, a deposit (equal to a percentage of post-1956 basic pay) must be made to the Civil Service Retirement and Disability Fund in order to receive credit. Military service is not generally creditable under both systems (but is for reservists and certain disability retirees). Military retirees may qualify separately for Civil Service retirement and receive concurrent pay from both systems.

### **Relationship of Retired Pay to Military Compensation**

Basic pay is the only element of military compensation upon which nondisability retired pay is based and entitlement is determined. Basic pay is the principal element of military

compensation that all members receive, but it is not representative of salary levels in the public and private sectors for comparative purposes. Reasonable comparisons can be made to regular military compensation (RMC). RMC is the sum of (1) basic pay, (2) the housing allowance, which varies by grade, location, and dependency status, (3) the subsistence allowance and, (4) the tax advantages accruing to the housing and subsistence allowances because they are not subject to federal income tax. Basic pay represents approximately 69 percent of RMC for all retirement eligible members. For the 20-year retiree, basic pay is approximately 67 percent of RMC. Consequently, a member retired with 20-years of service and entitled to 50 percent of basic pay, only receives 33 percent of RMC. Further, such 20-year retirees (except for those who first entered service prior to September 8, 1980) receive a percentage (50 percent, or 40 percent for those under CSB/Redux or BRS) of their high 36-month average of basic pay, typically less than final basic pay. For a 30-year retiree, basic pay is approximately 72 percent of RMC and such members if entitled to 75 percent of basic pay, would only receive 54 percent of RMC. Again, note that most members currently retiring with 30 years will actually receive a percentage (75 percent, or 60 percent for those under BRS) of their high 36-month average, rather than of their final basic pay. P.L. 109-364 allows certain members, who retire on or after January 1, 2007 with sufficient years of service (greater than 37.5 years under BRS and 30 years under the other benefit formulas) to retire with entitlements exceeding 75 percent of their high 36-month average of basic pay. These relationships should be considered when military retired pay is compared to compensation under other retirement systems.

## **Social Security Benefits**

Many military members and their families receive monthly benefits indexed to the CPI from Social Security. As full participants in the Social Security system, military personnel are in general entitled to the same benefits and are subject to the same eligibility criteria and rules as other employees. Details concerning the benefits are covered in other publications.

Beginning in 1946, Congress enacted a series of amendments to the Social Security Act that extended some benefits to military personnel and their survivors. These "gratuitous" benefits were reimbursed out of the general fund of the U.S. Treasury. The Servicemen's and Veterans' Survivor Benefits Act brought members of the military into the contributory Social Security system effective January 1, 1957.

For the Old Age, Survivors, and Disability Insurance (OASDI) program, military members must contribute the employee portion of the OASDI payroll tax, with the federal government contributing the matching employer contribution. Only the basic pay of a military member constitutes wages for Social Security purposes. One feature of OASDI unique to military personnel grants a noncontributory wage credit of (i) \$300 for each quarter between 1956 and 1978 in which such personnel received military wages and (ii) up to \$1,200 per year after 1977 (\$100 of credit for each \$300 of wages up to a maximum credit of \$1,200). The purpose of this credit is to take into account elements of compensation such as quarters and subsistence not included in wages for Social Security benefit calculation purposes. Under the 1983 Social Security amendments, the cost of the additional benefits resulting from the noncontributory wage credits for past service was met by a lump sum payment from general revenues, while the cost for future service will be met by payment of combined employeremployee tax on such credits as the service occurs. Payments for these wage credits ended in 2002.

Members of the military are also required to pay the Hospital Insurance (HI) payroll tax, with the federal government contributing the matching employer contribution. Medicare eligibility occurs at age 65, or earlier if the employee is disabled.

## **Performance Measures**

During FY 2016, the Fund made monthly disbursements to approximately 2.3 million retirees and survivors.

There are many ways to measure the funding progress and performance of a pension plan. Table A-1 shows a few common measures, specifically 1) Percent Funded, 2) Asset-to-Annuitant Liability Ratio, and 3) Effective Fund Yield. The table footnotes show the associated derivation of each performance measure. Note that for a variety of reasons including investment and other constraints, the Fund's results for these "performance measures" cannot be reasonably compared to many other pension systems.

TABLE A-1 MILITARY RETIREMENT FUND PERFORMANCE MEASURES (\$ in billions)

End of Fiscal Year	Accrued Liability (1)	Assets (2)	Annuitant Liability On Roll (3)	Unfunded Accrued Liability (4)	Percent Funded (5)	Asset-to-Annuitant Liability Ratio (6)	Fund Effective Yield (7)
1984	\$528.7	\$.0	\$310.0	\$528.7	0.0%		
1985	551.5	11.8	322.7	539.7	2.1	3.7%	14.3%
1986	566.2	24.6	321.4	541.6	4.3	7.7	11.8
1987	585.2	38.9	326.3	546.3	6.6	11.9	11.0
1988	551.8	53.4	329.4	498.4	9.7	16.2	10.5
1000	500.2	(7.6	245.0	512.7	11.6	10.5	10.1
1989	580.3 612.9	67.6	345.8	512.7 532.5	11.6	19.5 21.9	10.1 9.9
1990		80.4	367.5		13.1		
1991	604.2	93.7	372.9	510.5	15.5	25.1	9.8
1992	619.0	106.1	392.7	512.9	17.1	27.0	9.5
1993	629.9	115.9	409.3	514.0	18.4	28.3	9.1
1994	615.6	124.2	409.9	491.4	20.2	30.3	8.7
1995	631.8	131.0	431.3	500.8	20.7	30.4	8.6
1996	625.8	135.3	432.2	490.5	21.6	31.3	8.6
1997	639.2	143.3	444.9	495.9	22.4	32.2	8.5
1998	649.4	149.9	452.9	499.5	23.1	33.1	8.4
1999	657.2	156.0	442.7	501.2	23.7	35.2	8.1
2000	682.6	162.7	459.8	519.9	23.8	35.4	8.0
2001	708.8	169.2	487.3	539.6	23.9	34.7	8.0
2002	721.6	176.5	467.2	545.1	24.5	37.8	7.2
2002	810.9	182.6	519.8	628.3	22.5	35.1	5.5
2003	810.9	162.0	319.6	026.3	22.3	33.1	5.5
2004	854.1	188.0	556.3	666.1	22.0	33.8	5.4
2005	900.6	197.9	592.2	702.7	22.0	33.4	5.5
2006	973.7	208.4	636.3	765.3	21.4	32.8	5.9
2007	1,042.3	218.2	677.3	824.1	20.9	32.2	4.7
2008	1,157.3	253.1	750.6	904.2	21.9	33.7	6.2
2009	1,186.9	278.4	751.8	908.5	23.5	37.0	1.0
2010	1,225.2	321.7	768.0	903.5	26.3	41.9	3.2
2010	1,273.3	376.1	807.3	897.2	29.5	46.6	4.9
2011	1,361.5	428.0	854.6	933.5	31.4	50.1	2.9
2013	1,368.6	483.5	869.5	885.1	35.3	55.6	3.1
2014	1,412.8	545.0	911.3	867.8	38.6	59.8	3.2
2015	1,417.0	600.6	919.2	816.4	42.4	65.3	1.8
2016	1,406.9	664.4	914.1	742.6	47.2	72.7	2.3

- NOTES: (1) From Table 6A, Item 3 in main text.
  - (2) From Table 6A, Item 4 in main text.
  - (3) From Table 6A, Item 1.a in main text.

  - (3) From Table OA, Refit 1.a in (4) = (1) (2) (5) = (2) / (1) x 100 (6) = (2) / (3) x 100 (7) Discussed in Appendix D.

# APPENDIX B

## THE MILITARY RETIREMENT SYSTEM: HISTORY

	<u>Page</u>
History of Retired Pay – Active Duty and Disability	51
History of Retired Pay – Reserve Duty	56
Adjustments – Cost-of-Living	56
Adjustments – Basic Pay	58
Funding of Retirement Benefits	59
Table B-1: Military Retirement System Properties	61
Table B-2: Military Retirement System Multipliers	61
Table B-3: Military Retired Pay Cost-of-Living Increases (1958 – Present)	62
Table B-4: Military Basic Pay Scale Increases (1958 – Present)	63

### THE MILITARY RETIREMENT SYSTEM: HISTORY<sup>1</sup>

The history of the Uniformed Services Military Retirement System in the United States extends back to the early days of the country. The history detailed in this appendix provides the user with a useful context when evaluating the status of the current system. The extensive legislative history has been an interplay of the separate retired pay plan motivations. When available, the Public Law (P.L.) reference is provided. Over the course of its history, the Military Retirement System has been scrutinized by numerous committees, commissions, and groups. Since the end of World War II, a number of military compensation studies have been conducted under the general sponsorship of the Department of Defense, the President, and Congress, including: Hook, Strauss, Cordiner, Gorham/Randall, Quadrennial Review of Military Compensation, Gates, Military Compensation and Retirement Modernization Commission, etc. These studies continue to the present day – see Blended Retirement System (BRS). Much discussion typically occurs as a result of the study findings. It should be noted that while there may be superficial resemblance between the Military Retirement System (MRS) and other retirement systems, there exist substantial differences, including between the MRS and the retirement plant of federal civil servants. Of significance, MRS retired members are subject to active duty recall.

## History of Retired Pay – Active Duty and Disability

The legislative history of the nondisability (regular service) and disability retired pay have been a collaborative effort of lawmakers. The two programs are highly correlated given the possible end states of a regular service career. Before discussing the regular service retired pay history, below are the motivations driving the two distinct retirement types:

1) The principal motivations guiding the <u>nondisability</u> retired pay evolution of the Military Retirement System have been to ensure that (1) continued service in the armed forces is competitive with the alternatives; (2) promotion opportunities are kept open for young and able members; (3) some measure of economic security is made available to members after retirement from a military career; (4) a pool of experienced personnel is available for recall in times of war or national emergency. Much of the history to be discussed focuses on officers. The legislative history for enlisted personnel is much shorter. The objectives can be achieved for the enlisted force by an administrative policy of "judicious non-acceptance of reenlistments."

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Much of the information in this appendix can be found in *Military Compensation Background Papers*, Seventh Edition (November 2011), Department of Defense – Under Secretary of Defense for Personnel and Readiness. For a more in-depth discussion of the early history of military pensions, refer to *History of Military Pension Legislation in the United States*, William H. Glasson, New York, N.Y. 1900, Digitized by Google.

2) The guiding motivation behind <u>disability</u> retired pay is to authorize continuing payments to members separated from active service due to physical disability causes in service for their country. Members should not be left to cope with the effects of these disabilities on their own. A measure of economic security will be provided for duties exposing members to wartime hazards and career military service. Early reports showed rationale for separation other than physical disability as well: "An officer may possess a strong mind and a robust frame, yet, if his moral perception of right or wrong be so blunted and debased as to render him unreliable, he could hardly be ranked as the capable officer."

Provisions for the maintenance of disabled military members date to colonial days. Not surprisingly, the English pension law is a precursor to the American colonial pension legislation. The pilgrims at Plymouth provided in 1636 that any man sent forth as a soldier and returned maimed should be maintained by the colony during his life. In order to obtain enlistments in military expeditions against the Indians the colonies promised to care for those who were disabled and had no means of earning a livelihood as well as providing aid for the indigent families of those fallen in conflict. Some of these precedents were continued in the first national pension law of August 26, 1776, which promised half pay for life, or during disability, to the disabled. After the Revolutionary War, a full disability pension for a noncommissioned officer or private soldier was fixed at five dollars per month, with commissioned officers being paid at one-half of their monthly pay. Initially, the States administered disability pensions. However, in 1790, the Secretary of War became the principal pension administrator. In 1805, disability pensions were extended to those who received wounds in military service who subsequently became disabled.

Pensions based on service by itself were more controversial. Payments of half pay for life had been promised in 1780 by Congress for officers who served to the end of the War. However, the resulting claims were initially settled for less than full value and with a considerable amount of controversy. With the number of veterans declining and the treasury increasing, Congress became more generous. In 1818, an act was passed providing relief to Revolutionary War veterans in need. By 1832, it became full pay for life, regardless of need. In 1836, widows were included. This same pattern was followed for Service pensions for subsequent wars, with each war treated separately.

In 1849, the Bureau of Pensions was transferred to the newly established Department of the Interior, where it was to remain until the Veterans Administration (VA) was created in 1930. In 1855, authorization was given for involuntary separation with partial pay of Navy officers adjudged incapable, but not necessarily disabled. The outbreak of the Civil War brought further changes when it became necessary to retire older officers no longer fit for field duty. The vehicle was the act of August 3, 1861, the first major nondisability retirement act, which provided for the voluntary retirement of regular officers of all branches of Service after 40 years of duty, at the discretion of the President. Subsequent acts in 1861 and 1862 provided for involuntary retirements for age or years of service.

The 1861 act also established a military disability retirement system that covered the regular officers of all branches of Service. Army and Marine Corps officers were to be paid an amount equal to their "pay proper" plus four rations. Navy officers were paid slightly more. The act of March 2, 1867, authorized disability retirement for enlisted personnel of the Navy and Marine Corps.

Congress established two enduring retirement principles while reducing forces to a peacetime basis in 1870. The first permitted voluntary retirement of officers after 30 years of service upon approval by the President, and the second eliminated the ration commutation by fixing retired pay at 75 percent of the officer's pay. The 75 percent applied to Army and Marine Corps officers, both disabled and nondisabled, and was extended to the Navy in 1873.

In 1885, the first nondisability retirement law for Army and Marine Corps enlistees was enacted. Paralleling the officer retirement laws, it provided for voluntary retirement at 30 years of service with 75 percent of pay of the grade in which retired, plus an allowance in lieu of fuel, quarters, and food. The law was extended to the Navy in 1899.

By the middle of World War I, the limit on the number of officers who could be placed on the retired list was causing stagnating promotion in the Navy. To alleviate the problem, Congress established selection boards for promotion to Rear Admiral, Captain, and Commanders on the basis of age-in-grade in 1916 (P.L. 64-241). Service-in-grade replaced age-in-grade in 1926 (P.L. 69-413). Those officers not selected for promotion were retired at 2 ½ percent of pay per year of service, not to exceed 75 percent of pay. This was the first recognition of length of service as well as grade in the computation of retired pay.

The act of 1916 (P.L. 64-241) also created the Fleet Naval Reserve, to provide a pool of experienced personnel who could be recalled to active duty in an emergency. While technically different than retirement, the practical effect was that it was possible for enlistees of the Navy and Marine Corps to "retire" with as little as 16 years of service (raised to 20 in 1925) and become entitled to "retainer pay."

By 1938 (P.L. 75-706), the Navy was again experiencing stagnating promotion caused by the large influx of officers throughout World War I. Almost all of these officers were in the same age and years of service groups. To remedy the situation, Congress extended the selection board process to all grades above Lieutenant (junior grade); set limits on years of service for Lieutenant Commanders through Captains; and provided for voluntary retirement at 20 years of service at the discretion of the President.

Following World War II, allegations of unfairness, inequity, and inefficiency in the existing disability retirement system became extensive. A new system for disability retirement was created by the Career Compensation Act of 1949 (P.L. 81-351). Under this system, all disabilities had to be rated under the standard schedule of rating disabilities in use by the VA, and the resultant ratings became a factor in disability retired pay entitlement and taxability. The new system covered officer and enlisted personnel of both the regular and reserve components, and it authorized temporary as well as permanent disability retirements. The disability

retirement system remains basically unchanged from the way it was enacted in 1949. Much legislation has been passed recently, as well as additional process improvements, in an attempt to modernize the disability system.

Meanwhile, the Officer Personnel Act of 1947 (P.L. 80-381) brought the Army and Air Force under a selection process similar to the Navy system. It also provided that those officers who failed promotion and were not eligible to retire would receive severance pay of two months per year of service, but not exceeding two years' pay.

Standardized nondisability retirement laws for all Services were brought about by the Army and Air Force Vitalization and Retirement Equalization Act of 1948 (P.L. 80-810). The act established 20 years as the minimum requirement for voluntary retirement, thereby placing the Army and Air Force on a par with the Navy. It also provided for the removal of substandard officers with severance pay equal to one month's pay per year of service, but not exceeding one year's pay. This law resulted, for the first time in history, in uniform voluntary retirement authority among the officers of all branches of service.

P.L. 96-513 changed the retired pay formula for persons who first became a service member after September 7, 1980. For this group, the 2 ½ percent times years of service is multiplied by the average of the highest 36 months of pay, rather than by final pay. This is sometimes referred to as the High-3 (HI-3) formula, where the highest 36 months of pay generally occurs within the highest 3 years of average annual pay. This first major change to retired pay computation since 1948 was endorsed in findings by various committees and commissions.

P.L. 99-348, enacted July 1, 1986, made extensive changes in retired pay formula for persons entering service after July 31, 1986. These persons are credited with 2 percent for each of the first twenty years of service, 3 ½ percent for each of the next 10 years, and 2 ½ percent thereafter. At the member's age 62, the annuity is recomputed to equal the annuity that would have been in effect if a level 2 ½ percent had been used for each year of service. In addition, the cost-of-living adjustment for this group no longer keeps up with inflation, as described later. This is referred to as the Redux benefit formula.

P.L. 106-65, enacted October 1, 1999, enhanced benefits for military members previously covered by the Redux benefit formula (those who entered service on or after August 1, 1986) by converting these members to the HI-3 formula. At the 15 year-of-service mark, these (full-time) members now have the choice of: (1) remaining in HI-3, or (2) electing the Career Status Bonus, which is not paid out of the Military Retirement Fund, and converting to the Redux benefit formula. Those who elect the bonus must commit to remaining continuously in service until completing 20 years or forfeit a portion of the \$30,000. Part-time reservists previously covered by Redux do not have the option of electing the bonus, and so remain under the HI-3 benefit formula. This is referred to as the Career Status Bonus (CSB)/Redux benefit formula. The four different retirement systems currently in effect for members of the uniformed services are summarized in Table B-1.

P.L. 108-136, enacted November 23, 2003, provides a phase-out of the offset to military retired pay due to receipt of VA disability compensation for members whose combined disability rating is 50% or greater, effective January 1, 2004. Members retired under disability provisions must have at least 20 years of service. P.L. 108-136 also expands eligibility under the Combat Related Special Compensation program to include qualified retirees at any combined percentage rating for certain combat-related disabilities compensated by the VA. Through 2003, retired pay earned from DoD for military service was offset by any payment received from Veterans Affairs for a VA-rated disability. These VA benefits were in place of or in combination with DoD retired pay but were not fully additive. Thus the law is commonly referred to as Concurrent Receipt.

Subsequent to P.L. 108-136, a series of legislation has been enacted that increasingly reduces or eliminates the offset to military retired pay due to receipt of VA disability compensation. This is described further in Appendix A.

- P.L. 109-364, enacted October 17, 2006, eliminated the 75 percent multiplier cap for nondisability retirements with sufficient years of service for members retiring after December 31, 2006, and P.L. 111-383, enacted January 7, 2011, removed the cap for disability retirements after the date of enactment. A member can now retire with a retired pay multiplier greater than 100 percent if their years of service are high enough. The various percentage multipliers by year of service and benefit system are shown in Table B-2. P.L. 109-364 also removed a reduction to the rate of basic pay used in the computation of retired pay for general and flag officers (those with pay grades of O-7 through O-10) retiring after September 30, 2006.
- P.L. 113-67 (commonly referred to as the *Bipartisan Budget Act of 2013*, or *BBA 2013*), enacted December 26, 2013, reduces the annual cost-of-living adjustment (COLA) by one percent (e.g., 2% instead of 3%) for "working-age" (i.e., members younger than age 62), non-disabled military retirees, with restoral at age 62 and full COLA thereafter. The changes apply only to those entering military service on or after January 1, 2014 (although those entering on or after that date who elect CSB/Redux are covered by the COLA provisions for CSB/Redux electors). Subsequent legislation exempts medically disabled retirees and their survivors, as well as survivors of members who die on active duty, from the COLA reduction enacted in P.L. 113-67. P.L. 113-291 amended the effective date of the legislative provision, applying only to those entering military service on or after January 1, 2016.
- P.L. 114-92 established the "Blended Retirement System (BRS)," a major reform to military compensation. The BRS lowers the nondisabled retired pay multiplier from 2.50% per year to 2.00% and allows for multiple retired pay distribution options. The BRS provides members (except for those who retire on disability) the choice of receiving a portion (either 25 percent or 50 percent) of their retired pay entitlement from when the member is eligible to begin receiving retired pay to normal Social Security retirement age (usually 67) as a discounted lump sum instead of an annuity. The newly established compensation system is supplemented with a Thrift Savings Plan (TSP) account government match and a mandatory mid-career continuation bonus. The changes apply to all members first entering service after December 31, 2017. Members with fewer than 12 completed years of service as of December 31, 2017, have the

option to fully participate in the BRS via an irrevocable election during a one year (calendar year 2018) open season. Additionally, P.L. 114-92 sunsets CSB/Redux and repeals all aspects of BBA 2013, as amended.

## History of Retired Pay – Reserve Duty

The motivation behind the reserve duty retirement (non-regular service) is to establish a nondisability retirement system to authorize retired pay for service in the reserve components. This provides an incentive for qualified personnel to retain membership and continue training in these components, providing a pool of skilled, trained, and readily available manpower to assist active duty forces in times of national emergency.

Title III of the Army and Air Force Vitalization and Retirement Equalization Act of 1948 (P.L. 80-810) created a nondisability retirement program for reserve personnel. The above motivation was explained as part of the House Report accompanying the legislation. The reserve retirement system remained basically unchanged from the original 1948 legislation until 1993. Those modifications made over that time were more corrective than substantive.

The National Defense Authorization Act for Fiscal Year 1993 (P.L. 102-484) adopted two provisions intended to induce Selected Reserves members to apply for transfer to the retired reserve through temporary special retirement mechanisms. Subsequent legislation authorizes further downsizing of the military during the mid-1990's, which was extended until October 1, 2001.

- P.L. 107-314 permanently reduced the required reserve service eligibility years for retired pay from eight years to six years. This law also authorized an additional 10 percent in retired pay, not to exceed 75 percent, for enlisted members (active or reserve) credited with extraordinary heroism in the line of duty during their career.
- P.L. 110-181, enacted January 28, 2008, reduces the retirement age for a reserve retirement below age 60 by three months for each aggregate of 90 days of certain active service performed (after the date of enactment) within any two (2) consecutive fiscal years with a limit of 10 years. Eligibility for subsidized retiree health benefits remains at age 60 even if the eligibility age for retired pay is reduced.
- P.L. 114-92, BRS, described in the previous section, also applies to Reserves with some differences, e.g., the eligibility threshold for opting in to BRS for Reserves is based on creditable points.

## <u>Adjustments – Cost-of-Living</u>

Cost-of-living adjustments provide a mechanism for adjusting retired pay entitlements to compensate for the effects of inflation. The ideal system is one that protects the initial value of pay to insure that members who retire from the military do not have the purchasing power of their pay eroded by inflation.

Prior to 1958, retired pay was generally increased in direct proportion to changes in active duty pay. The practice was discontinued with the act of May 1958 (P.L. 85-422), when it was realized that a single 6 percent cost-of-living increase would cost only \$35 million, as opposed to \$65 million for linking the retired pay to active duty pay. The 6 percent approximated the increase in the cost of living since 1955 when retired pay was last increased. In 1963, a permanent system of increasing retired pay (P.L. 88-132) based on a formula geared to increases in the cost-of-living was adopted. In 1965, the adjustment mechanism was modified slightly (P.L. 89-132). This system granted cost-of-living increases whenever the Consumer Price Index (CPI) went up at least 3 percent and remained up for three months. The benefit increase was equal to the percentage rise in the CPI. In 1969 (P.L. 91-179), an additional 1 percent was added to compensate for the fact that five months elapsed between the time that the index increased 3 percent and the time that benefits increased.

Effective March 1977, cost-of-living adjustments (COLAs) were scheduled to occur every six months, on March 1 and September 1. This would be reflected in checks issued those months and the additional 1 percent was eliminated (P.L. 94-440). The cost-of-living increase, effective March 1, was computed by calculating the percentage increase (adjusted to the nearest tenth of a percent) in the CPI from the previous June to the previous December. Similarly, the cost-of-living increase effective September 1 was obtained by calculating the percentage increase in the June CPI over the CPI from the previous December.

In August 1981 (P.L. 97-35), once-a-year cost-of-living increases were implemented by eliminating the September increase. Full annual cost-of-living increases were given in March of each year based on the percentage increase in the CPI between the two previous Decembers.

In August 1982, P.L. 97-253 created a temporary deviation to the calculation and timing of the cost-of-living increase. Consequently, in FY 1983, the increase was delayed until April and the full increase of 3.9 percent was given only to survivors, disabled persons and nondisabled persons over age 61. Nondisabled retirees under age 62 received 3.3 percent instead of 3.9 percent.

P.L. 98-270, enacted in April 1984, eliminated the FY 1984 increase and modified the permanent law. Under the modified system, the COLA equals the percentage increase in the average of the CPIs for July, August, and September over the averaged indexes for the same three months of the prior year. These increases become effective for entitlements earned in December. P.L. 98-369 directed that entitlements for a particular month should be paid at the beginning of the subsequent month rather than at the end of the month of entitlement and became effective with the December 1984 adjustment. P.L. 111-383 required amounts of retired and retainer pay (excluding survivor annuitant pay and Combat Related Special Compensation) due a retired member of the uniformed services shall be paid on the first day of each month beginning after the month in which the right to such pay accrues; unless the first falls on a non-business day, then the payment is made on the preceding business day.

P.L. 99-348, enacted July 1, 1986, changed the cost-of-living increase for members entering the service after July 31, 1986. Their retiree and survivor benefits are increased

annually by the full cost-of-living adjustment minus 1 percent (except if the full adjustment is less than or equal to 1 percent). A one-time catch-up is given on the first day of the month after the <u>retiree's</u> 62nd birthday. At this time, the retiree benefit (or survivor benefit if the retiree is deceased) is increased to the amount that would have been payable had full adjustments been made. Annual partial increases continue after this catch-up. For persons entering the service prior to August 1, 1986, full COLAs are still applied to the retiree and survivor benefits. P.L. 106-65 called for full COLAs to be applied to the retiree and survivor benefits of post-July 31, 1986, entrants who decline the CSB/Redux and retire under the HI-3 benefit formula. Retired pay cost-of-living increases from 1958 to the present time are shown in Table B-3. Additional discussion regarding cost-of-living increases can be found in Appendix D.

P.L. 113-67 (*Bipartisan Budget Act of 2013*, *or BBA 2013*) reduces the annual COLA by one percent (e.g., 2% instead of 3%) for "working-age" (i.e., members younger than age 62), non-disabled military retirees, with restoral at age 62 and full COLA thereafter. The changes apply only to those entering military service on or after January 1, 2014 (although those entering on or after that date who elect CSB/Redux are covered by the COLA provisions for CSB/Redux electors described in the previous paragraph). Subsequent legislation exempts medically disabled retirees and their survivors, as well as survivors of members who die on active duty, from the COLA reduction enacted in P.L. 113-67. P.L. 113-291 amended the effective date of the legislative provision, applying only to those entering military service on or after January 1, 2016. As stated earlier, P.L. 114-92 repeals the COLA changes enacted by BBA 2013, as amended.

## Adjustments - Basic Pay

Basic pay scale increases are analogous to retired pay cost-of-living increases for the current active duty and drilling reserve population. These increases are typically credited and paid at the beginning of the calendar year. The annual basic pay scale increases are designed to establish a crude comparability with the private sector and American economy in general.

The Act of 1790 provided funds for "militia employed in the service of the United States" payable to "the troops of the United States." Although the components of the pay system, basic pay plus allowances, have changed throughout its history, the system itself has been remarkably enduring. However, the proliferation of special allowances has caused confusion and complexity surrounding compensation.

The Career Compensation Act of 1949 (P.L. 81-351) revamped the military compensation structure to provide pay that was equitable to personnel yet responsive to the needs of the United States in attracting and retaining the necessary personnel following World War II. The Uniformed Services Pay Act of 1958 (P.L. 85-422) was the beginning of regular basic pay adjustments intended to make personnel pay more competitive.

In the Act of 1967 (P.L. 90-207) Congress adopted new basic pay rate adjustment mechanisms. The adjustments were to be a "comparable increase" to the general schedule compensation for federal classified employees (Civil Service employees). This legislation

resulted in a more systematic procedure for increasing basic pay rates as opposed to the prior methods which were solely dependent on Congressional discretion. The military-civilian pay adjustment remains loosely linked through present day.

The Department of Defense Authorization Act of 1981 (P.L. 96-342) granted personnel substantial basic pay adjustments with the intent of further convergence between military and civilian wages. The legislation also allowed the President greater flexibility in adjusting military compensation by allocating greater increases to "career" members. In the years that followed, Congress expressed dissatisfaction with the pay adjustment mechanisms shown in the military-civilian link. The Senate proposed linking military pay to the Employment Cost Index (ECI) as a method to correct the military-civilian pay inequity. This discussion continued for some years.

Beginning in 2000 (P.L. 106-65), legislative change responded to the military-civilian pay inequity by tying basic pay increases to the ECI plus an additional 0.5 percent for the five years that follow (through FY 2006). After FY 2006, the increases are tied directly to ECI; however, covenants are embedded within the law which gives the President the authority to propose an alternate adjustment. Subsequent legislation used targeted basic pay scale increases to be granted for specific pay grades and ranks in order to meet the necessary retention and recruitment needs. Basic pay scale increases from 1958 to the present time are shown in Table B-4. Additional discussion regarding basic pay scale increases can be found in Appendix D.

## **Funding of Retirement Benefits**

Prior to 1935, the Navy had a pension fund which provided payments to persons retired for disability whenever there was a sufficient amount in the fund. The income to the fund consisted of the government's share of the proceeds from the sale of enemy or pirate ships captured by the Navy, and from interest received on fund investments. This fund was abolished in 1935, and the Military Retirement System moved to an unfunded or "pay-as-you-go" basis. P.L. 98-94 (currently Chapter 74 of Title 10, U.S.C.), signed in September 1983, established a Military Retirement Fund starting October 1, 1984. Under this accrual accounting system, funds are allocated for the individual services via the Department of Defense annually by Congress. These funds are transferred to the Military Retirement Fund in an amount sufficient, along with the Treasury contributions resulting from P.L. 108-136 and interest earnings, to cover the expected retirement costs associated with the current active duty force. This system helps to apprise all stakeholders of the total costs of manpower decisions made each year.

As explained by Congress (House Report No. 98-107 – Committee on Armed Services – p. 225), the reasons for adoption of the Department of Defense Military Retirement Fund were as follows:

"Most retirement plans in the private sector are funded, either partially or fully, and the trend--as a result of the Employee Retirement and Income Security Act (ERISA)--is toward full funding. Security of a retirement plan, *i.e.*, the probability that promised benefits will be paid, is generally related to the method of funding. Full funding provides greater security than partial funding.

Of course, the security of payments from the Federal government is not generally related to the method of funding. From the Federal government's perspective, the issue of funding is primarily a matter of timing. Should funds be raised by taxing and borrowing when the obligation becomes due, or should funds be set aside through taxing and borrowing when the obligation is incurred?"

This funding law stated that DoD will make normal cost payments into the Fund and the Treasury Department will make payments from general revenues to amortize the unfunded liability. P.L. 99-661, enacted in November 1986, mandated that two separate normal cost percentages (NCPs) be used to compute the normal cost payment of the Military Retirement System. One NCP is for active-duty personnel and full-time reservists and the second NCP is for drilling reservists (part-time). These normal cost payments are designed to be sufficient to pay for the future retirement benefits for a cohort of new entrants. The unfunded liability exists primarily because such payments were not made in the past, although deviations of actual compared to expected experience increase or decrease the unfunded liability over time.

P.L. 108-136, enacted November 2003, required the Department of Treasury to pay the normal cost arising from the increased benefits due to Concurrent Receipt at the beginning of each fiscal year. Beginning with FY 2005, Treasury includes the annual normal cost payment along with the unfunded liability payment in the October 1<sup>st</sup> contribution.

The original funding law also established an independent three-member DoD Retirement Board of Actuaries, appointed by the President (changed to the Secretary of Defense as part of the 2008 National Defense Authorization Act (P.L. 110-181)). House Report No. 98-107 – Committee on Armed Services – p. 227, states:

"Care must be exercised to minimize the ability to manipulate the interest rate. The committee recommends that an independent Board of Actuaries be established and that they, alone, be charged with the responsibility for determining the interest rate and other actuarial assumptions in accordance with generally accepted actuarial principles and practices."

The Board is required to approve methods and assumptions for determining the normal cost and unfunded liability; to review valuations of the Military Retirement System; to determine the method of amortizing unfunded liabilities; to annually report to the Secretary of Defense; and to report to the President and Congress on the status of the Fund not less than every four years. P.L. 110-181 renamed the Board the "DoD Board of Actuaries," and added oversight of other funds deemed to be necessary by the Secretary of Defense.

#### TABLE B-1

# MILITARY RETIREMENT SYSTEM PROPERTIES (FOR NONDISABILITY RETIREMENT FROM ACTIVE DUTY)

			Career Status Bonus	Blended Retirement System
Benefit System	Final Pay	High-3 (HI-3)	(CSB)/Redux	(BRS)
Applies to Members Who Joined a Uniformed Service:	• before September 8, 1980	on or after September 8, 1980 and before August 1, 1986	on or after August 1, 1986 and before January 1, 2003 who elect to accept the Career Status Bonus (CSB) with additional 5-year service obligation	on or after January 1, 2018
		on or after August 1, 1986 and before January 1, 2003 who do not elect to accept the Career Status Bonus (CSB) at the 15-year anniversary		on or after January 1, 2006 and before January 1, 2018 who elect to participate in BRS
		on or after January 1, 2003 and before January 1, 2006		
		on or after January 1, 2006 and before January 1, 2018 who do not elect to participate in BRS		
Retired Pay Computation Basis	Final basic pay rate	Highest 36 months of basic pay rate	Highest 36 months of basic pay rate	Highest 36 months of basic pay rate
Multiplier	2.5% per year of service	2.5% per year of service	2.5% per year of service less 1% for each year of service less than 30 (restored at age 62)	2.0% per year of service
Cost-of-Living Adjustment Mechanism	Full CPI-W	Full CPI-W	Full CPI-W minus 1% (one-time catch-up at age 62)	Full CPI-W
Additional Benefit(s)			\$30,000 Career Status Bonus (CSB) payable at 15-year anniversary upon assumption of 5-year obligation to remain on continuous active duty	Choice of receiving a portion (either 25% or 50%) of the retired pay entitlement from retirement age to normal Social Security retirement age (usually 67) as a discounted lump sum instead of an annuity
				Automatic and matching Government contributions to Thrift Savings Plan (TSP) account
				Mandatory mid-career continuation bonus if member agrees to serve additional time

Notes: - Due to breaks in service and technical differences in the definition of qualifying years of service under different benefit systems, in some cases above it's not possible to precisely define which benefit systems cover the appropriate members based solely on dates of entry. The above table does not cover every possibility.

- For additional up-to-date information, refer to the DoD Office of Military Compensation website (http://militarypay.defense.gov).

#### TABLE B-2

MILITARY RETIREMENT SYSTEM MULTIPLIERS (FOR NONDISABILITY RETIREMENT FROM ACTIVE DUTY)

Years of	Final Pay/HI-3	CSB/Redux	Multiplier	BRS
Service	Multiplier	Before Age 62	After Age 62	Multiplier
20	50.0 %	40.0 %	50.0 %	40.0 %
21	52.5	43.5	52.5	42.0
22	55.0	47.0	55.0	44.0
23	57.5	50.5	57.5	46.0
24	60.0	54.0	60.0	48.0
25	62.5	57.5	62.5	50.0
26	65.0	61.0	65.0	52.0
27	67.5	64.5	67.5	54.0
28	70.0	68.0	70.0	56.0
29	72.5	71.5	72.5	58.0
30	75.0	75.0	75.0	60.0
31	77.5	77.5	77.5	62.0
32	80.0	80.0	80.0	64.0
33	82.5	82.5	82.5	66.0
34	85.0	85.0	85.0	68.0
35	87.5	87.5	87.5	70.0
36	90.0	90.0	90.0	72.0
37	92.5	92.5	92.5	74.0
38	95.0	95.0	95.0	76.0
39	97.5	97.5	97.5	78.0
40	100.0	100.0	100.0	80.0
41	102.5	102.5	102.5	82.0
42	105.0	105.0	105.0	84.0
43	107.5	107.5	107.5	86.0
44	110.0	110.0	110.0	88.0
45	112.5	112.5	112.5	90.0
46	115.0	115.0	115.0	92.0
47	117.5	117.5	117.5	94.0
48	120.0	120.0	120.0	96.0
49	122.5	122.5	122.5	98.0
50	125.0	125.0	125.0	100.0
51	127.5	127.5	127.5	102.0
:	:	:	:	:

**TABLE B-3** MILITARY RETIRED PAY COST-OF-LIVING INCREASES (JUNE 1958 TO PRESENT)

Date of Increase		Percentage Inci	rease	Cumulative % From <u>Date of Increase</u>
6/1/58		6.0%		791.3%
10/1/63		5.0%		740.8%
9/1/65		4.4%		700.8%
12/1/66		3.7%		667.0%
4/1/68		3.9%		639.7%
2/1/69		4.0%		611.9%
11/1/69		5.3%		584.5%
8/1/70		5.6%		550.1%
6/1/71		4.5%		515.6%
7/1/72	one percent over	4.8%		489.1%
7/1/73	inflation was	6.1%		462.1%
1/1/74		5.5%		402.176
	added during these years			
7/1/74	these years	6.3%		402.2%
1/1/75		7.3%		372.4%
8/1/75		5.1%		340.3%
3/1/76		5.4%		318.9%
3/1/77		4.8%		297.4%
9/1/77		4.3%		279.2%
3/1/78		2.4%		263.6%
9/1/78	twice-a-year	4.9%		255.1%
3/1/79	increases	3.9%		238.5%
9/1/79		6.9%		225.8%
3/1/80		6.0%		204.8%
9/1/80		7.7%		187.5%
3/1/81	once-a-year	4.4%		167.0%
3/1/82	increases	8.7%		155.7%
4/1/83	(Dec to Dec)	3.9%	(1)	135.2%
12/1/84		3.5%	(2)	126.4%
12/1/85		0.0%	(3)	118.8%
12/1/86	once-a-year	1.3%		118.8%
12/1/87	increases (3rd	4.2%		115.9%
12/1/88	qtr to 3rd qtr)	4.0%		107.2%
12/1/89		4.7%		99.3%
12/1/90		5.4%		90.3%
12/1/91		3.7%		80.6%
12/1/92		3.0%		74.1%
3/1/94		2.6%	(4)	69.1%
3/1/95		2.8%	(5)	64.8%
3/1/96		2.6%	(6)	60.3%
12/1/96		2.9%		56.2%
12/1/97		2.1%		51.8%
12/1/98		1.3%		48.7%
12/1/99		2.4%		46.8%
12/1/00		3.5%		43.4%
12/1/01		2.6%		38.5%
12/1/02		1.4%		35.0%
12/1/03		2.1%		33.1%
12/1/04		2.7%		30.4%
12/1/05		4.1%		27.0%
12/1/06		3.3%		22.0%
12/1/07		2.3%		18.1%
12/1/08		5.8%		15.4%
12/1/09		0.0%		9.1%
12/1/10		0.0%		9.1%
12/1/11		3.6%		9.1%
12/1/12		1.7%		5.3%
12/1/13		1.5%		3.5%
12/1/14		1.7%		2.0%
12/1/15		0.0%		0.3%
12/1/16		0.3%		0.3%

<sup>(1)</sup> Nondisabled retirees under age 62 received 3.3%.

<sup>(2)</sup> Starting December 1984, entitlements earned in a particular month are paid at the beginning of the next month.

<sup>(3)</sup> A cost-of-living adjustment of 3.1%, scheduled for 12/1/85, was suspended as a consequence of P.L. 99-177. (4) Disabled retirees and survivors received 2.6% on 12/1/93.

<sup>(5)</sup> Disabled retirees and survivors received 2.8% on 12/1/94.

<sup>(6)</sup> Disabled retirees and survivors received 2.6% on 12/1/95.

TABLE B-4

MILITARY BASIC PAY SCALE INCREASES
(JUNE 1958 TO PRESENT)

Date of Increase	Percentage Inc	rease	Cumulative % From Date of Increase		
			<del>=</del>		
6/1/58	8.3%		1356.1%		
10/1/63	14.2%		1244.5%		
9/1/64	2.3%		1077.3%		
9/1/65	10.4%		1050.8%		
7/1/66	3.2%		942.4%		
10/1/67	5.6%		910.1%		
7/1/68	6.9%		856.5%		
7/1/69	12.6%		794.8%		
1/1/70	8.1%		694.7%		
1/1/71	7.9%		635.1%		
11/14/71	11.6%		581.3%		
1/1/72	7.2%		510.5%		
10/1/72	6.7%		469.5%		
10/1/73 10/1/74	6.2% 5.5%		433.7% 402.6%		
10/1/75	5.0%		376.4%		
10/1/76	3.6%		353.7%		
10/1/77	6.2%		337.9%		
10/1/78	5.5%		312.3%		
10/1/79	7.0%		290.9%		
10/1/80	11.7%		265.3%		
10/1/81	14.3%	(1)	227.0%		
10/1/82	4.0%	(2)	186.1%		
1/1/84	4.0%	(2)	175.1%		
1/1/85	4.0%	( )	164.5%		
10/1/85	3.0%		154.3%		
1/1/87	3.0%		146.9%		
1/1/88	2.0%		139.7%		
1/1/89	4.1%		135.0%		
1/1/90	3.6%		125.8%		
1/1/91	4.1%		117.9%		
1/1/92	4.2%		109.4%		
1/1/93	3.7%		100.9%		
1/1/94	2.2%		93.8%		
1/1/95	2.6%		89.6%		
1/1/96	2.4%		84.8%		
1/1/97	3.0%		80.4%		
1/1/98	2.8%		75.2%		
1/1/99	3.6%	(2)	70.4%		
1/1/00	4.8%	(3)	64.5%		
1/1/01 1/1/02	3.7% 4.6%	(3)	57.0% 51.4%		
1/1/02	4.1%	(3) (3)	44.7%		
1/1/04	3.7%	(3)	39.0%		
1/1/05	3.5%	(3)	34.0%		
1/1/06	3.1%		29.5%		
1/1/07	2.2%	(3)	25.6%		
1/1/08	3.5%	(3)	22.9%		
1/1/09	3.9%		18.8%		
1/1/10	3.4%		14.3%		
1/1/11	1.4%		10.5%		
1/1/12	1.6%		9.0%		
1/1/13	1.7%		7.3%		
1/1/14	1.0%		5.5%		
1/1/15	1.0%		4.5%		
1/1/16	1.3%	(4)	3.4%		
1/1/17	2.1%		2.1%		

<sup>(1)</sup> Basic pay increases for enlisted personnel ranged from 10% for E-1; 10.7% for E-2, E-3; 13% for E-4; 16.5% for E-5, E-6; and 17% for E-7, E-8, E-9. For officers, the increase was 14.3%.

- (3) The increases do not include additional targeted pay increases.
- (4) Pay increase for general and flag officers (O-7s through 0-10s) is 0%

<sup>(2)</sup> Except for E-1 with less than 4 months service.

# APPENDIX C

# VALUATION DATA

	<u>Page</u>
Valuation Data Notes	65
DoD Officers Active Duty Personnel	66
DoD Enlisted Active Duty Personnel	67
All DoD Active Duty Personnel	68
DoD Officers Average Monthly Active Duty Basic Pay	69
DoD Enlisted Average Monthly Active Duty Basic Pay	70
All DoD Average Monthly Active Duty Basic Pay	71
DoD Officers Selected Reserve Personnel	72
DoD Enlisted Selected Reserve Personnel	73
All DoD Selected Reserve Personnel	74
DoD Officers Average Monthly Selected Reserve Basic Pay	75
DoD Enlisted Average Monthly Selected Reserve Basic Pay	76
All DoD Average Monthly Selected Reserve Basic Pay	77
DoD Officers Non-Selected Reserve Personnel with 20 Good Years	78
DoD Enlisted Non-Selected Reserve Personnel with 20 Good Years	79
All DoD Non-Selected Reserve Personnel with 20 Good Years	80
DoD Officers Retired	81
DoD Enlisted Retired	83
All DoD Retired	85
DoD Survivor	87

#### VALUATION DATA NOTES

The following are relevant notes to the valuation data displayed in this appendix:

- These population- and pay-related data represent the appropriate beginning counts ("inputs") to Closed Group and Open Group projections.
- Valuation input data were extracted from files maintained by the Defense Manpower Data Center (DMDC). Data on individual retirees and survivors came from official files submitted by the Defense Finance and Accounting Service (DFAS). Active data were obtained from the Active Duty Military Personnel (ADMP) Master File, and reserve data were obtained from the Reserve Component Common Personnel Data System (RCCPDS) Master File, the official source for all component strengths and statistics, respectively.
- Active Duty and Selected Reserve personnel data were not further adjusted to match the official end strength totals supplied by the DoD Comptroller. They were each within about 0.1% of aggregate end strength totals.
- The DoD Office of the Actuary (OACT) reviews the data for reasonableness and consistency, but does not audit the data and relies on the file suppliers for its accuracy and comprehensiveness.
- Table-specific notes are included at the bottom of the valuation data tables.

for FY 2016 Valuation Duty Personnel by Years of Service 

DoD Enlisted Active Duty Personnel by Years of Service and Age for FY 2016 Valuation

		Total	53 14,004 48,571 70,298	80,855 84,827 79,183 71,308 64,157	59,510 53,559 47,647 43,656 40,358	38,634 35,571 33,160 31,283 28,812	26,965 25,450 23,118 19,773 16,610	13,912 12,120 10,091 8,585 7,495	6,544 5,329 4,157 3,203 2,537	1,963 1,648 1,239 961 640	501 324 211 154 110	1,119,086
		30+	00000	00000	00000	00000	00000	00000	0 0 52 103 112	97 59 53 32 21	18 2 2 7 7	562
		29	00000	00000	00000	00000	00000	00000	0 271 189 115	94 57 39 23 26	19 2 2 6	1,026
		28	00000	00000	00000	00000	00000	00000	189 347 260 143 83	61 38 45 33	4 ≡ € 5 7	1,248
		27	00000	00000	00000	00000	00000	0 0 2 239	461 346 198 110	72 61 42 21 17	= - = 6	1,672
		26	00000	00000	00000	00000	00000	0 0 226 484	399 217 148 99 74	44 45 27 13	01 8 9 4 4	1,827
		25	00000	00000	00000	00000	00000	0 0 321 660 586	382 237 147 131 108	62 4 4 4 19	0 e 12 18	2,847
		24	00000	00000	00000	00000	00000	2 414 850 758 519	334 235 192 123	63 42 30 25	18 12 12 13 14	3,809
<b>=</b>		23	00000	00000	00000	00000	00000	583 1,338 1,182 747 510	342 228 180 140	79 76 45 37 20	25 115 7 7	5,662
2016 Valuation		22	00000	00000	00000	00000	0 0 0 1 650	1,517 1,299 835 582 385	333 239 153 129 98	60 77 53 35	28 2 2 2 2 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2	6,563
16 Va		21	00000	00000	00000	00000	0 0 808 1,897	1,573 1,070 719 530 420	308 244 165 112	84 46 48 22	32 4 1 6	8,300
FY 20		20	00000	00000	00000	0000	0 6 1,213 2,690 2,232	1,422 1,003 719 571 463	393 243 239 152 123	92 88 64 64 59	28 13 10 5	11,903
for		19	00000	00000	00000	00000	19 2,135 4,832 4,161 2,759	1,875 1,454 1,049 868 620	542 416 302 262 218	170 138 133 117 55	4 8 2 2 2	22,252
ıd Age		18	0000	00000	00000	0 0 0 13	2,354 5,204 4,056 2,607 1,855	1,311 990 781 585 498	465 333 267 224 233	183 156 144 91	36 37 13 11	22,546
Service and	S)	17	00000	00000	00000	0 0 0 18 2,445	5,297 3,948 2,512 1,739 1,292	939 791 586 459 413	354 270 237 199 168	140 130 60 69 31	39 29 7 115 8	22,194
	Years of Active Service (YAS)	16	00000	00000	00000	0 0 2,795 5,421	3,954 2,620 1,796 1,294 971	753 579 452 362 314	262 264 195 169 151	125 103 70 42 47	31 17 20 9	22,846
sars o	tive Serv	15	00000	00000	00000	0 13 2,674 5,523 4,077	2,721 1,959 1,396 1,028 809	664 523 376 334 272	264 233 161 181 118	118 72 57 48 31	36 10 8 8	23,728
by Y	rs of Ac	4	00000	00000	00000	12 2,555 5,767 4,326 2,981	2,171 1,708 1,294 943 742	621 444 388 268 254	256 219 170 146 101	95 70 62 49 33	13 12 3	25,726
onnel	Year	13	0000	00000		2,526 6,076 4,916 3,479 2,534	1,856 1,439 1,135 896 615	479 442 326 263 247	218 203 178 107 86	54 93 94 25	21 4 8 4 1	28,304
Active Duty Personnel by Years of		12	00000	00000	0 0 0 15 2,421	6,272 5,470 3,783 2,836 2,068	1,639 1,242 952 714 580		179 208 107 93 59		11 2 2 3 8 8 8 3 3 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	30,334
Duty		Ξ	00000	00000	0 0 18 2,173 5,750	5,159 3,248 2,545 1,973 1,509	1,134 858 664 508 367	287 258 197 210 197	180 107 91 69 49	38 33 26 8	41 9 8 8	27,715
Active		10	00000	00000	22 2,584 6,470 5,833	4,400 3,180 2,379 1,902 1,386	1,047 802 628 463 361	263 217 194 172 184	128 101 90 64 81	37 32 22 13 13	3 3 3	33,077
Enlisted		6	0000	0000-	34 2,673 6,544 5,619 4,229	3,254 2,573 1,981 1,492 1,145	801 648 497 335 314	224 223 186 197 146	135 98 90 73 63	49 33 11 19 13	35035	33,711
DoD En		œ	0000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2,979 7,221 6,186 4,542 3,502	2,811 2,162 1,562 1,212 951	745 567 406 314 231	229 187 157 108 113	88 82 58 54 52	33 22 16 6	0 0 0 0	36,649
Õ		7	00000	0 0 7 7 2,832	7,952 7,764 5,742 4,475 3,437	2,812 2,219 1,522 1,243 937	673 459 406 281 245		103 91 65 61 21	24 118 18 3	3 3 2 0	44,196
		9	00000	0 1 2,590 8,258	9,415 7,042 5,230 4,253 3,405	2,776 1,949 1,524 1,164 875			101 70 73 32 15		0 0 0 0	51,748
		5	00000	0 3,442 11,359 11,941	8,282 5,994 4,652 3,832 2,895	2,238 1,559 1,227 882 597			63 54 32 12 12		8 2 8 8 =	61,155
		4	00000	8 5,487 16,990 16,314 10,901	7,795 5,896 4,802 3,626 2,586	1,959 1,452 992 701 505	366 331 249 241 112		30 19 7	7 10 3 3	0 0 0 3 0	81,623
		3	0000=	10,201 28,782 24,398 15,729 10,907	8,222 6,292 4,583 3,230 2,417		379 276 237 87 87		17 31 18 9	8 1 8 8 1 5	- 5 0 0 0	120,856
		2	0 0 7 7 9,508	27,586 23,200 14,828 10,309 7,717	6,267 4,511 3,272 2,280 1,714	-	301 261 85 29 28		00400	0 5 3 3 3	0 0 0	115,383
		_	0 0 32 111,737 32,567	26,133 15,861 10,690 8,056 6,341	4,749 3,462 2,252 1,729 1,204		288 97 37 26 35		92738	00 % 00	0000-	141,648 127,975 115,383 120,856
		0	53 13,972 36,827 28,212	16,927 11,493 8,830 6,944 5,231	3,815 2,680 1,781 1,411 955	671 521 403 306 287	109 46 37 44 36	91 0 8 0 II	0 0 0 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	0 0 0 0 3	00000	141,648
		Age	16 17 18 20 20	21 22 23 24 25	26 27 28 29 30	31 32 33 34 35	36 37 39 40	44 45 45 45	46 48 49 50	51 52 53 54 55	56 57 58 59 60+	Total

Age is age nearest birthday as of the end of the fiscal year. Average Age: 28.1 Average YAS.

Appendix C

		Total	0 53 14,004 48,575 70,308	80,883 86,872 85,358 79,857 73,720	69,933 64,348 57,833 53,836 50,730	49,154 46,152 43,226 41,339 38,352	36,366 35,031 32,041 28,416 24,898	22,067 20,007 17,379 15,408 14,060	12,875 10,744 8,632 7,054 5,714	4,588 3,808 2,768 2,182 1,555	1,196 863 654 443 657	1,363,939
		30+	00000	00000	00000	00000	00000	00000	0 2 259 295	316 353 348 270 226	190 163 114 85 118	2,873
		29	00000	00000	00000	00000	00000	00000	1 295 464 336 216	313 294 154 87	63 26 29 29	2,408
		28	00000	00000	00000	00000	00000	0 0 0 0 -	334 571 414 256 360	370 232 147 125	48 71 72 74 75	3,014
		27	00000	00000	00000	00000	00000	0 0 3 402	764 543 323 468 556	387 197 147 83	44 30 20 16 48	4,096
		26	00000	00000	00000	00000	00000	0 0 2 387 800	620 383 581 581 350	187 171 113 85 85	30 36 19 32 32	4,452
		25	00000	00000	00000	00000	00000	0 459 962 819	604 783 748 544 351	209 174 120 80 67	49 38 30 34	6,083
		24	00000	00000	00000	00000	00000	4 568 1,210 1,067 778	1,006 1,032 670 371 295	201 153 102 67 52	44 44 14 32	7,741
		23	00000	00000	00000	00000	00000	761 1,713 1,529 1,016 1,233	1,348 832 504 382 236	191 151 82 95 48	60 33 33 31	10,299
ation		22	00000	00000	00000	00000	0 0 814	1,917 1,638 1,103 1,296 1,430	997 604 404 285 223	157 147 108 86 61	20 20 7 23	11,414
2016 Valuation		21	00000	00000	00000	00000	0 0 1,024 2,309	1,954 1,371 1,542 1,623 1,071	734 559 378 262 224	175 164 104 84 58	23 23 23 23 23	13,789
		20	00000	00000	00000	00000	0 6 1,482 3,237 2,718	1,805 1,934 1,945 1,356 992	804 529 446 321 230	179 151 117 104 99	49 38 18 22	18,612
for FY		19	00000	00000	00000	00000	22 2,548 5,568 4,691 3,208	3,092 3,073 2,088 1,529 1,180	998 708 523 462 327	285 230 216 179 85	8 4 4 8 8 8 3 3 4 4 8 8 4 4 8 8 8 4 4 8 8 8 8	31,249
Age f		18	00000	00000	00000	0 0 0 17	2,781 5,983 4,564 2,979 2,964	2,910 2,061 1,415 1,090 895	738 584 465 399 345	281 223 203 152 107	60 54 24 38	31,389
Service and Age	S)	17	00000	00000	00000	0 0 0 23 2,849	5,948 4,482 2,866 2,851 2,860	1,964 1,380 1,072 873 688	618 447 356 320 263	227 199 110 128	68 47 27 23	30,798
ervice	Service (YAS)	16	00000	00000	00000	0 0 28 3,169 6,095	4,440 3,058 2,941 2,958 2,005		472 415 339 280 229		61 32 15 28	31,668
oę	tive Serv	15	00000	0000	00000	1, 2,971 6,155 4,512	3,085 3,061 3,094 2,071 1,444			165 142 91 91 64		32,534
Year	rs of Active	4	00000	0000	00000	15 2,848 6,297 4,751 3,345	3,349 3,439 2,356 1,640 1,270	1,066 767 660 486 441	416 349 293 251 204	144 123 101 72 48	22 24 30 14 20	34,841
Active Duty Personnel by Years	Years	13	00000	00000	0 0 0 0 0	2,737 6,544 5,334 3,878 3,709	3,701 2,657 1,803 1,467 1,063	822 700 542 416 399	347 329 284 158 160	91 124 86 79 57	38 23 10 12 13	37,592
erson		12	00000	00000	0 0 0 16 2,572	6,649 5,860 4,112 4,087 4,028	2,765 1,983 1,497 1,186 898			91 81 63 29		39,451
Outy 1		Ξ	00000	00000	0 0 22 2,292 5,994	5,415 3,526 3,781 4,198 2,660	1,733 1,437 1,091 819 641			77 59 51 47	29 11 11 12 11 12 11 12 11 12 11 12 11 12 11 12 11 12 11 12 11 12 12	36,594
tive I		10	00000	0000	22 2,647 6,645 6,011	4,597 4,639 4,863 3,137 1,987	1,613 1,276 973 714 555	397 344 304 260 280	198 172 148 104 111	66 60 39 31 27	115 110 7 4	42,273
DoD Ac		6	00000	0000-	35 2,714 6,645 5,732 4,415	4,753 5,182 3,242 2,148 1,693	1,364 1,022 767 502 454	338 330 272 271 202	201 146 131 125 101	73 30 33 23	9 9 9	43,046
All D		∞	00000	29 0 0 29	3,008 7,279 6,262 4,684 4,928	5,493 3,512 2,252 1,777 1,505	_	328 268 215 168			13 9 9 8 8 8 8	46,021
		7	00000	0 0 7 7 2,845	7,994 7,822 5,860 5,986 6,383	4,407 3,076 2,166 1,876 1,375	1,013 698 558 415 337	265 243 206 1183	133 143 100 96 52	41 29 20 14	14 6 7 7 8	54,585
		9	00000	0 1 2,619 8,319	9,479 7,185 6,850 7,296 5,128	3,675 2,691 2,189 1,652 1,232	914 697 561 455 327	321 248 192 167 156	142 107 93 88	= 2 8 8 8	2 3 5	62,898
		S	00000	0 3,486 11,440 11,987	8,388 7,791 8,114 5,700 3,820	2,980 2,249 1,694 1,264 853	622 497 384 312 275	212 165 131 131 109		19 17 17 6 6	8 v 4 o v	72,965
		4	00000	8 5,489 16,993 16,340 10,984	9,910 10,035 6,848 4,535 3,328	2,677 1,969 1,330 940 710	503 465 336 299 156	88288	60 4 4 61 61 61	16 9 4 4 9	9 7 8 9 9	94,455
		3	0000=	10,201 28,791 24,421 15,796 13,031	12,476 8,581 5,499 3,999 3,213	2,235 1,583 1,107 837 571	4 (1) (1)	70 53 60 45 37		1 9 8 9 6	3 2 2 0 2	134,191
		2	0 0 7 7 9,508	27,587 23,227 14,907 12,402 11,865	8,517 5,399 3,965 2,994 2,193	1,568 1,026 729 580 466		63 30 41 36	19 21 7 7 16 10			153,303 141,080 128,224 134,191
		_	0 32 11,738 32,569	26,136 15,920 12,958 12,320 8,708	5,668 4,163 2,920 2,196 1,569	1,077 770 601 490 368	354 132 67 52 60		13 10 10 4	3 3 3 1 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	0000-	141,080
		0	0 53 13,972 36,830 28,220	16,951 13,442 12,587 8,934 5,950	4,459 3,357 2,199 1,760 1,166	876 657 528 378 379	155 79 78 75 65	25 30 21 21 9	5 6 6 5 10	4 9 2 2 -	0 0 0 - 0	153,303
		Age	16 17 18 19 20	21 22 23 24 25	26 27 28 29 30	31 33 34 35	36 37 39 40	41 43 44 45	46 47 48 49 50	51 53 54 55	56 57 58 59 60+	Total

Average YAS:

DoD Officers Average Monthly Active Duty Basic Pay by Active Years of Service and Age for FY 2016 Valuation

Avg	\$0 \$0 \$2,984 \$2,982	\$3,097 \$3,051 \$3,076 \$3,346 \$3,911	\$4,456 \$4,833 \$5,051 \$5,190 \$5,321	\$5,481 \$5,657 \$5,898 \$6,118 \$6,315	\$6,485 \$6,668 \$6,881 \$7,106 \$7,304	\$7,498 \$7,659 \$7,835 \$8,052 \$8,276	\$8,492 \$8,678 \$8,900 \$9,088 \$9,352	\$9,523 \$9,508 \$9,508 \$9,679 \$9,680	\$9,962 \$10,023 \$9,833 \$10,240 \$10,027	\$6,352
30+	88888	88888	88888	88888	88888	88888	\$0 \$8,734 \$8,693 \$8,750 \$9,137	\$9,415 \$10,349 \$11,036 \$11,459 \$11,458	\$12,334 \$12,137 \$12,287 \$12,719 \$11,757	\$10,812
29	8 8 8 8 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$7,685 \$8,232 \$8,319 \$8,488 \$8,793	\$10,793 \$11,097 \$10,777 \$10,417 \$10,897	\$10,538 \$10,616 \$10,497 \$10,325 \$10,735	\$9,843 \$
28	\$ 8 8 8 8 8 8 8 8 8 8 8 8	\$0 80 80 \$0 80 80	\$0 \$0 \$0 \$0 \$0 \$0	\$8,110 \$8,133 \$8,371 \$8,753 \$10,688	\$10,852 \$ \$10,708 \$ \$10,394 \$ \$10,578 \$	\$10,433 \$ \$10,228 \$ \$10,290 \$ \$10,135 \$ \$10,733 \$	\$9,818			
27	\$ 8 8 8 8 8 8 8 8 8 8 8 8	\$0 80 80 \$0 80 80	\$0 \$0 \$7,685 \$7,980	\$8,003 \$8,197 \$8,632 \$10,453	\$10,637 \$10,270 \$10,095 \$10,412 \$10,155	\$10,112 \$9,960 \$9,811 \$11,150 \$10,822	89,718			
26	\$ 8 8 8 8 8 8 8 8 8 8 8 8	\$0 80 80 \$0 80 80	\$0 \$0 \$7,858 \$7,862	\$7,966 \$8,403 \$10,327 \$10,532 \$10,345	\$10,276 \$10,120 \$10,110 \$10,496 \$9,751	\$9,932 \$ \$9,886 \$9,600 \$9,953 \$	89,559			
25	8 8 8 8 8	80 80 80 80	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 \$0 \$7,381 \$7,684 \$7,732	\$7,975 \$9,716 \$10,108 \$10,016 \$9,855	\$9,912 \$9,922 \$9,701 \$10,054 \$9,596	\$9,458 \$9,872 \$9,479 \$9,645	\$9,303
24	8 8 8 8 8	80 80 80 80	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$7,685 \$7,393 \$7,371 \$7,565 \$7,847	\$9,516 \$9,811 \$9,673 \$9,533 \$9,914	\$9,731 \$9,716 \$9,422 \$9,713 \$10,114	\$9,651 \$9,820 \$9,315 \$9,095 \$10,281	\$9,095
23	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8 8	8 8 8 8	\$7,147 \$7,171 \$7,237 \$7,692 \$9,200	\$9,553 \$9,417 \$9,227 \$9,276 \$9,520	\$9,561 \$9,438 \$9,281 \$9,526 \$9,582	\$9,890 \$8,958 \$9,475 \$10,190 \$9,657	\$8,873
22	8 8 8 8 8	8 8 8 8 8	\$ \$ \$ \$ \$ \$ \$ \$	S S S S S	\$0 \$0 \$8,044 \$7,048	\$7,082 \$7,120 \$7,440 \$9,117 \$9,391	\$9,263 \$9,050 \$9,069 \$9,128 \$9,434	\$9,553 \$9,208 \$9,443 \$9,139 \$9,418	\$9,643 \$9,974 \$9,924 \$9,888 \$9,913	\$8,754
21	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$ 80 80 80 80 80 80 80 80 80 80 80 80 80	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 \$0 \$7,026 \$6,817 \$6,897	\$6,924 \$7,205 \$8,623 \$8,797 \$8,728	\$8,609 \$8,937 \$9,032 \$8,874 \$8,913	\$9,120 \$9,112 \$9,023 \$9,824 \$8,854	\$9,369 \$9,070 \$9,288 \$9,521 \$9,296	\$8,360
20	\$ 8 8 8 8 8 8 8 8 8	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$ 20 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$6,759 \$6,707 \$6,776	\$5,041 \$8,312 \$8,538 \$8,475 \$8,322	\$8,533 \$8,671 \$8,821 \$8,836 \$8,948	\$8,901 \$9,006 \$9,092 \$8,893 \$9,047	\$9,096 \$9,518 \$8,934 \$9,495 \$9,631	\$8,093
19	\$ 8 8 8 8 8 8 8 8 8	\$ 80 80 80 80 80 80 80 80 80 80 80 80 80	\$ 80 80 80 80 80 80 80 80 80 80 80 80 80	\$ 80 80 80 80 80 80 80 80 80 80 80 80 80	\$6,670 \$6,390 \$6,502 \$6,623 \$6,836	\$7,985 \$8,192 \$8,121 \$8,030 \$8,155	\$8,287 \$8,153 \$8,277 \$8,220 \$8,265	\$8,540 \$8,360 \$8,676 \$8,750 \$8,923	\$8,834 \$8,599 \$9,013 \$8,910 \$9,161	\$7,793
18	88888	88888	88888	\$0 \$0 \$0 \$0 \$6,461	\$6,363 \$6,361 \$6,428 \$6,662 \$7,953	\$8,164 \$8,089 \$7,973 \$8,112 \$8,162	\$8,046 \$8,191 \$8,368 \$8,449 \$8,669	\$8,449 \$8,231 \$8,113 \$8,600 \$9,136	\$8,896 \$8,390 \$8,218 \$8,690 \$9,119	\$7,733
17	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 8 80 \$0 80 \$0 80	\$0 \$0 \$0 \$5,753 \$6,009	\$6,073 \$6,246 \$6,444 \$7,701 \$7,959	\$7,866 \$7,768 \$7,867 \$7,897 \$7,897	\$7,990 \$7,996 \$8,056 \$8,260 \$8,383	\$8,352 \$8,545 \$8,446 \$8,486 \$8,261	\$8,304 \$8,430 \$8,489 \$8,743 \$9,172	\$7,523
16	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 8 80 \$0 80 \$0 80	\$0 \$0 \$5,571 \$5,869 \$5,959	\$5,996 \$6,392 \$7,557 \$7,724 \$7,664	\$7,585 \$7,733 \$7,788 \$7,702 \$7,762	\$7,947 \$7,915 \$8,011 \$8,096 \$8,176	\$8,397 \$8,510 \$7,956 \$8,375 \$8,307	\$8,324 \$8,554 \$8,149 \$8,663 \$9,434	\$7,364
15	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 8 80 \$0 80 \$0 80	\$4,839 \$5,892 \$5,545 \$5,645 \$5,783	\$6,110 \$7,200 \$7,410 \$7,382 \$7,310	\$7,368 \$7,498 \$7,488 \$7,546 \$7,688	\$7,681 \$7,878 \$7,826 \$8,117 \$8,030	\$8,334 \$8,310 \$7,945 \$8,460 \$8,020	\$8,108 \$8,712 \$8,255 \$8,523 \$8,793	\$7,125
14	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 8 80 \$0 80 \$0 80	\$5,717 \$5,455 \$5,536 \$5,671 \$5,917	\$7,079 \$7,243 \$7,206 \$7,174 \$7,283	\$7,308 \$7,390 \$7,342 \$7,505 \$7,463	\$7,697 \$7,644 \$7,670 \$7,862 \$8,121	\$8,113 \$8,094 \$7,923 \$8,414 \$8,118	\$8,376 \$7,687 \$9,000 \$7,955 \$8,346	\$7,014
13	\$0 8 8 0 8 8 0 8 0 0 0 0 0 0 0 0 0 0 0 0	\$0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$0 \$0 \$0 \$5	\$5,034 \$5,147 \$5,378 \$5,631 \$6,857	\$7,019 \$6,955 \$6,883 \$7,025 \$7,064	\$7,053 \$7,122 \$7,239 \$7,243 \$7,253	\$7,430 \$7,810 \$7,796 \$7,709 \$7,975	\$7,785 \$8,160 \$7,792 \$8,382 \$8,770	\$8,066 \$8,151 \$8,256 \$8,146 \$7,683	\$6,793
12	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$4,760 \$5,027	\$5,090 \$5,214 \$5,537 \$6,788 \$6,992	\$6,874 \$6,813 \$6,852 \$6,925 \$6,934	\$7,015 \$6,889 \$7,086 \$7,110 \$7,242	\$7,199 \$7,478 \$7,568 \$7,997 \$7,658	\$7,766 \$7,872 \$7,615 \$8,102 \$8,279	\$7,716 \$8,033 \$8,681 \$8,412 \$8,255	\$6,728
Ξ	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$4,833 \$4,762 \$4,746	\$5,223 \$6,574 \$6,711 \$6,651	\$6,613 \$6,650 \$6,739 \$6,773 \$6,724	\$6,842 \$7,001 \$6,981 \$7,254	\$7,278 \$7,475 \$7,565 \$7,403 \$7,453	\$7,737 \$7,743 \$8,014 \$8,206 \$7,620	\$8,574 \$8,147 \$7,080 \$9,636 \$8,554	\$6,571
10	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$4,652 \$4,727 \$4,830	\$5,313 \$6,342 \$6,444 \$6,413 \$6,357	\$6,490 \$6,564 \$6,640 \$6,662 \$6,601	\$6,732 \$6,896 \$7,040 \$6,955 \$7,253	\$7,334 \$7,061 \$7,662 \$7,551 \$7,491	\$7,326 \$7,443 \$7,233 \$8,191 \$7,568	\$7,220 \$7,741 \$7,966 \$9,442 \$10,904	\$6,422
6	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$4,425 \$4,467 \$4,398 \$4,677 \$5,091	\$5,879 \$5,936 \$5,942 \$5,958 \$6,135	\$6,239 \$6,304 \$6,287 \$6,452 \$6,455	\$6,574 \$6,576 \$6,643 \$6,686 \$6,763	\$6,849 \$6,800 \$7,114 \$6,878 \$7,339	\$7,486 \$7,293 \$7,760 \$7,721 \$7,348	\$7,057 \$7,266 \$6,967 \$7,868 \$8,029	\$6,026
∞	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$0 \$0 \$4,741	\$4,274 \$4,262 \$4,720 \$5,198 \$5,865	\$5,918 \$5,903 \$5,909 \$6,061 \$6,175	\$6,173 \$6,235 \$6,351 \$6,380 \$6,359	\$6,550 \$6,475 \$6,454 \$6,643 \$6,648	\$6,742 \$6,820 \$6,521 \$6,952 \$6,839	\$7,130 \$7,475 \$7,410 \$6,930 \$6,483	\$8,041 \$6,957 \$8,294 \$8,192 \$8,329	\$5,998
7		\$0 \$0 \$0 \$0 \$3	\$4,081 \$4,639 \$5,189 \$5,612 \$5,641	\$5,661 \$5,654 \$5,750 \$5,815 \$5,794	\$5,791 \$5,960 \$6,041 \$6,054 \$6,191	\$6,024 \$6,286 \$6,355 \$6,321 \$6,321	\$6,243 \$6,544 \$6,614 \$6,467 \$6,919	\$7,023 \$6,372 \$6,588 \$7,053 \$7,317	\$6,938 \$6,584 \$5,875 \$6,092 \$7,627	\$5,718
9	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$3,199 \$3,312	\$4,416 \$4,861 \$5,590 \$5,615 \$5,581	\$5,567 \$5,609 \$5,680 \$5,722 \$5,792	\$5,765 \$5,901 \$5,918 \$5,970 \$6,144	\$6,085 \$6,160 \$6,247 \$6,304 \$6,398	\$6,282 \$6,504 \$6,680 \$6,465 \$6,681	\$7,022 \$7,088 \$6,946 \$8,106 \$6,325	\$5,941 \$7,520 \$11,328 \$6,763 \$8,935	\$5,638
S			\$4,664 \$5,346 \$5,385 \$5,394 \$5,304	\$5,288 \$5,369 \$5,340 \$5,425 \$5,500	\$5,488 \$5,517 \$5,672 \$5,824 \$5,819	\$5,803 \$5,913 \$5,708 \$6,123 \$6,313	\$5,974 \$5,979 \$6,292 \$6,534 \$7,544	\$6,820 \$6,344 \$6,907 \$6,317 \$0	\$5,777 \$9,063 \$5,762 \$5,398 \$7,908	\$5,368
4		\$0 \$3,553 \$3,730 \$4,193 \$4,631			\$5,581 \$5,568 \$5,642 \$5,783 \$5,486		\$6,046 \$6,110 \$6,529 \$6,723	\$5,888 \$5,748 \$8,258 \$6,426 \$6,766	\$7,832 \$5,953 \$7,094 \$0 \$6,969	\$5,286
3		\$0 \$3,813 \$3,930 \$4,250 \$4,570	\$4,602 \$4,661 \$4,630 \$4,737 \$4,791	\$4,819 \$4,799 \$4,945 \$5,064 \$5,255	\$5,345 \$5,212 \$5,419 \$5,485 \$5,470	\$5,456 \$5,782 \$5,444 \$5,705 \$5,578	\$6,113 \$5,648 \$5,882 \$6,162 \$6,338	\$7,147 \$7,812 \$5,988 \$7,404 \$6,947	\$11,106 \$0 \$10,319 \$9,947 \$6,094	\$4,702
2			\$4,184 \$4,170 \$4,300 \$4,452	\$4,448 \$4,611 \$4,722 \$4,766 \$4,851	\$4,791 \$5,014 \$4,894 \$5,178 \$5,025	\$5,327 \$5,020 \$5,171 \$5,120 \$5,900	\$5,840 \$6,163 \$7,063 \$6,126 \$6,135	\$5,512 \$7,095 \$0 \$6,584 \$5,887		\$4,185
_		\$3,012 \$3,093 \$3,086 \$3,165 \$3,165			\$4,463 \$4,463 \$4,465 \$4,686 \$4,341			\$0 \$7,490 \$0 \$6,584 \$4,603	8 8 8 8	\$3,377
0	\$0 \$0 \$2,989 \$2,986	\$3,044 \$3,054 \$3,054 \$3,069 \$3,125	\$3,395 \$3,614 \$3,642 \$3,622 \$3,727	\$3,879 \$4,046 \$3,952 \$4,066 \$4,037	\$3,976 \$4,145 \$4,014 \$4,460 \$4,179	\$3,750 \$4,518 \$4,153 \$4,806 \$3,953	\$4,956 \$4,683 \$5,547 \$5,234 \$5,253	\$5,334 \$5,445 \$6,699 \$7,026 \$4,047	\$0 \$0 \$0 \$5,334 \$0	\$3,241

Notes: Basic pay figures reflect the January, 2017, increase of 2.19 Age is age nearest birthday as of the end of the fiscal year.

DoD Enlisted Average Monthly Active Duty Basic Pay by Active Years of Service and Age for FY 2016 Valuation

Avg	\$0 \$1,649 \$1,677 \$1,747 \$1,858	\$1,991 \$2,119 \$2,218 \$2,300 \$2,390	\$2,501 \$2,620 \$2,742 \$2,859 \$2,996	\$3,148 \$3,295 \$3,443 \$3,578 \$3,702	\$3,834 \$3,974 \$4,084 \$4,178 \$4,283	\$4,381 \$4,494 \$4,586 \$4,691 \$4,803	\$4,912 \$4,989 \$5,080 \$5,094 \$5,107	\$5,167 \$5,216 \$5,258 \$5,247 \$5,347	\$5,377 \$5,249 \$5,158 \$5,405 \$5,394	\$2,815
30 <sup>+</sup>	8 8 8 8 8	8 8 8 8	8 8 8 8 8	8 8 8 8	8 8 8 8 8	8 8 8 8	\$0 \$6,900 \$6,967 \$7,112 \$7,084	\$7,072 \$7,155 \$7,213 \$7,120 \$6,487	\$7,204 \$6,083 \$7,115 \$7,277 \$7,277	\$7,077
29	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	\$ \$ \$ \$ \$ \$ \$ \$	\$6,778 \$6,778 \$6,778 \$6,78 \$6,825	\$6,838 \$6,868 \$6,849 \$6,854 \$6,829	\$6,834 \$6,776 \$6,844 \$6,776 \$7,028	\$6,804
28	8 8 8 8 8	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	20 20 20 20 20 20 20 20 20 20 20 20 20 2	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 \$0 \$0 \$0 \$0 \$6,634	\$6,634 \$6,652 \$6,687 \$6,643 \$6,594	\$6,621 \$6,778 \$6,612 \$6,747 \$6,594	\$6,582 \$6,571 \$6,484 \$6,776 \$6,814	\$6,652
27	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0 80 80 \$0 80 80	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0 80 80 \$0 80 80	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0 \$0 \$6,776 \$6,776 \$6,542	\$6,571 \$6,560 \$6,552 \$6,432 \$6,434	\$6,538 \$6,392 \$6,545 \$6,428 \$6,471	\$6,764 \$6,104 \$5,783 \$6,301 \$6,445	\$6,533
26	80 80 80 80 80 80	80 80 80 80 80 80	80 80 80 80 80 80	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80 80 80 80 80 80	\$6,776 \$6,776 \$6,776 \$6,431	\$6,471 \$6,472 \$6,405 \$6,514 \$6,353	\$6,504 \$6,322 \$6,361 \$6,495 \$6,244	\$6,560 \$6,815 \$7,395 \$6,470 \$5,373	\$6,455
25	\$0 80 80 \$0 80 80	\$0 80 80 \$0 80 80	\$0 80 80 \$0 80 80 \$0 80 80	\$0 80 80 \$0 80 80	\$0 80 80 \$0 80 80	\$5,735 \$5,735 \$5,735 \$5,865 \$5,829	\$5,807 \$5,872 \$5,862 \$5,902 \$5,744	\$5,756 \$5,855 \$5,874 \$6,015 \$5,793	\$5,979 \$5,707 \$5,894 \$5,613 \$5,323	\$5,829
24	8 8 8 8 8	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	20 20 20 20 20 20 20 20 20 20 20 20 20 2	\$0 \$0 \$0 \$0 \$0 \$0	\$5,937 \$5,723 \$5,680 \$5,661 \$5,615	\$5,651 \$5,627 \$5,728 \$5,662 \$5,636	\$5,674 \$5,744 \$5,646 \$5,531 \$5,503	\$5,235 \$5,472 \$5,556 \$5,311 \$7,845	\$5,662
23	\$ \$ \$ \$ \$ \$ \$ \$ \$	8 8 8 8	S S S S S	8 8 8 8 8	\$0 \$0 \$0 \$0 \$0 \$5,294	\$5,294 \$5,292 \$5,250 \$5,272 \$5,301	\$5,301 \$5,349 \$5,332 \$5,405 \$5,436	\$5,338 \$5,539 \$5,345 \$5,242 \$5,517	\$5,416 \$5,241 \$5,207 \$5,374 \$5,870	\$5,297
22	80 80 80 80 80 80	8 8 8 8 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	8 8 8 8 8	\$0 \$0 \$4,735 \$4,735 \$5,162	\$5,139 \$5,143 \$5,120 \$5,113 \$5,134	\$5,154 \$5,163 \$5,185 \$5,185 \$5,143	\$5,280 \$5,371 \$5,441 \$5,131 \$5,410	\$5,271 \$5,260 \$5,899 \$5,661 \$5,168	\$5,151
21	80 80 80 80 80 80 80 80 80 80 80 80 80 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$4,847 \$4,847 \$4,877	\$4,860 \$4,842 \$4,872 \$4,868 \$4,938	\$4,993 \$4,970 \$4,967 \$4,925 \$5,040	\$5,137 \$5,120 \$5,101 \$5,282 \$5,124	\$5,602 \$5,146 \$5,211 \$5,336 \$5,168	\$4,893
20	\$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0	\$4,885 \$4,885 \$4,763 \$4,733 \$4,739	\$4,737 \$4,742 \$4,760 \$4,771 \$4,792	\$4,850 \$4,824 \$4,953 \$5,000 \$5,008	\$5,050 \$4,895 \$5,157 \$5,235 \$4,961	\$5,048 \$5,197 \$4,970 \$5,734 \$4,913	\$4,773
19	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$ 80 80 80 80 80 80 80 80 80 80 80 80 80	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 \$0 \$0 \$0 \$4464	\$4,464 \$4,483 \$4,451 \$4,437 \$4,421	\$4,430 \$4,406 \$4,426 \$4,480 \$4,486	\$4,509 \$4,552 \$4,553 \$4,621 \$4,614	\$4,728 \$4,766 \$4,865 \$4,695 \$5,204	\$5,289 \$5,241 \$4,874 \$5,438 \$4,958	\$4,466
18	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$ 80 80 80 80 80 80 80 80 80 80 80 80 80	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$4,428 \$4,428	\$4,399 \$4,393 \$4,373 \$4,362 \$4,378	\$4,385 \$4,394 \$4,416 \$4,438 \$4,462	\$4,499 \$4,535 \$4,552 \$4,705 \$4,813	\$4,778 \$4,685 \$4,690 \$4,869 \$5,454	\$5,140 \$5,270 \$5,161 \$5,758 \$4,616	\$4,418
17	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$ 80 80 80 80 80 80 80 80 80 80 80 80 80	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$4,308 \$4,208	\$4,210 \$4,208 \$4,219 \$4,226 \$4,239	\$4,227 \$4,286 \$4,268 \$4,319 \$4,414	\$4,509 \$4,540 \$4,684 \$4,628 \$4,655	\$4,565 \$4,731 \$4,804 \$5,270 \$4,950	\$5,380 \$5,033 \$4,438 \$5,254 \$5,160	\$4,263
16	80 80 80 80 80 80 80 80 80 80 80 80 80 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$4,083 \$4,083 \$4,141 \$4,137	\$4,134 \$4,157 \$4,144 \$4,164 \$4,178	\$4,206 \$4,225 \$4,286 \$4,293 \$4,378	\$4,417 \$4,579 \$4,494 \$4,636 \$4,633	\$4,419 \$5,162 \$5,114 \$5,179 \$5,276	\$5,281 \$4,734 \$4,716 \$5,736 \$5,488	\$4,192
15	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$4,108 \$4,108 \$4,001 \$3,988 \$4,000	\$4,012 \$4,026 \$4,050 \$4,046 \$4,101	\$4,087 \$4,140 \$4,163 \$4,139 \$4,329	\$4,382 \$4,374 \$4,397 \$4,498 \$4,530	\$5,286 \$5,110 \$4,874 \$4,998	\$4,799 \$4,949 \$5,053 \$5,764 \$5,021	\$4,057
4	\$ 20 80 80 80 80 80 80 80 80 80 80 80 80 80	\$ 20 80 80 80 80 80 80 80 80 80 80 80 80 80	\$0 \$0 \$0 \$0 \$3,869	\$3,869 \$3,919 \$3,900 \$3,906 \$3,917	\$3,937 \$3,947 \$3,975 \$3,978 \$3,989	\$4,045 \$4,040 \$4,119 \$4,136 \$4,302	\$4,240 \$4,275 \$4,466 \$4,331 \$4,609	\$4,828 \$4,964 \$4,840 \$4,860 \$4,961	\$4,945 \$5,415 \$5,681 \$5,317 \$5,426	\$3,966
13	\$ 80 80 80 80 80 80 80 80 80 80 80 80 80	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 \$0 \$3,624 \$3,624	\$3,734 \$3,726 \$3,733 \$3,751 \$3,766	\$3,798 \$3,824 \$3,830 \$3,849 \$3,857	\$3,912 \$3,936 \$3,959 \$4,015 \$4,059	\$4,043 \$4,099 \$4,089 \$4,254 \$4,718	\$4,520 \$4,658 \$4,459 \$4,822 \$4,627	\$5,200 \$5,263 \$5,053 \$4,973 \$5,168	\$3,792
12	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ 20 80 80 80 80 80 80 80 80 80 80 80 80 80	\$0 \$3,734 \$3,734 \$3,656	\$3,658 \$3,656 \$3,678 \$3,703 \$3,714	\$3,749 \$3,763 \$3,779 \$3,788 \$3,768	\$3,809 \$3,820 \$3,932 \$3,966 \$3,975	\$4,012 \$4,042 \$4,246 \$4,480 \$4,386	\$4,461 \$4,556 \$4,654 \$4,633 \$4,404	\$5,084 \$3,852 \$4,272 \$4,787 \$3,542	\$3,714
=	80 80 80 80 80 80 80 80 80 80 80 80 80 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$3,449 \$3,449 \$3,434 \$3,442	\$3,449 \$3,466 \$3,502 \$3,537 \$3,556	\$3,598 \$3,601 \$3,606 \$3,662 \$3,667	\$3,692 \$3,693 \$3,814 \$3,801 \$3,745	\$3,853 \$4,115 \$4,071 \$4,390 \$4,301	\$4,354 \$4,069 \$4,258 \$4,500 \$4,923	\$4,266 \$4,965 \$4,825 \$5,533 \$5,168	\$3,515
10	80 80 80 80 80 80 80 80 80 80 80 80 80 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$3,401 \$3,401 \$3,372 \$3,371 \$3,369	\$3,388 \$3,410 \$3,425 \$3,453 \$3,493	\$3,499 \$3,543 \$3,562 \$3,574 \$3,573	\$3,641 \$3,642 \$3,624 \$3,763 \$3,645	\$3,866 \$4,073 \$4,205 \$4,018 \$4,250	\$4,312 \$4,303 \$4,669 \$4,748 \$5,074	\$5,352 \$5,970 \$5,533 \$0 \$5,168	\$3,430
6	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 \$0 \$0 \$0 \$0 \$2,536	\$3,059 \$3,182 \$3,181 \$3,189 \$3,199	\$3,223 \$3,248 \$3,266 \$3,311 \$3,337	\$3,349 \$3,370 \$3,426 \$3,416 \$3,446	\$3,410 \$3,542 \$3,455 \$3,651 \$3,721	\$3,686 \$3,678 \$3,628 \$3,827 \$3,594	\$3,892 \$4,258 \$4,530 \$5,308 \$6,124	\$5,168 \$0 \$4,510 \$5,899 \$5,168	\$3,248
∞	\$0 \$0 \$0 \$0 \$0	\$0 \$0 \$3,086 \$3,086	\$3,121 \$3,121 \$3,130 \$3,134 \$3,156	\$3,171 \$3,200 \$3,226 \$3,251 \$3,258	\$3,285 \$3,297 \$3,335 \$3,347 \$3,402	\$3,369 \$3,412 \$3,371 \$3,461 \$3,423	\$3,620 \$3,542 \$3,618 \$3,654 \$3,462	\$4,022 \$4,404 \$4,873 \$4,524 \$4,663	\$4,711 \$5,168 \$0 \$0 \$0 \$5,655	\$3,174
7	\$ 20 80 80 80 80 80 80 80 80 80 80 80 80 80	\$0 \$0 \$2,925 \$2,925 \$2,844	\$2,848 \$2,856 \$2,870 \$2,886 \$2,908	\$2,927 \$2,941 \$2,967 \$3,004 \$2,993	\$3,054 \$3,060 \$3,095 \$3,051 \$3,174	\$3,082 \$3,047 \$3,089 \$3,207 \$3,279	\$3,284 \$3,281 \$3,418 \$3,386 \$3,968	\$4,384 \$4,072 \$5,046 \$6,022 \$4,996	\$5,452 \$6,060 \$6,506 \$0 \$3,852	\$2,905
9	\$ 20 80 80 80 80 80 80 80 80 80 80 80 80 80	\$0 \$2,536 \$2,718 \$2,789 \$2,793	\$2,805 \$2,819 \$2,827 \$2,847 \$2,866	\$2,873 \$2,888 \$2,929 \$2,930 \$2,963	\$3,010 \$2,970 \$2,994 \$2,941 \$2,997	\$2,990 \$3,000 \$3,052 \$3,003 \$3,199	\$3,112 \$3,097 \$3,215 \$3,554 \$4,568	\$4,606 \$4,108 \$4,233 \$4,759 \$5,516	\$0 \$0 \$5,143 \$0 \$4,567	\$2,844
v.	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$2,551 \$2,551 \$2,567 \$2,567 \$2,570	\$2,578 \$2,598 \$2,617 \$2,633 \$2,643	\$2,671 \$2,687 \$2,707 \$2,751 \$2,756	\$2,742 \$2,807 \$2,843 \$2,775 \$2,736	\$2,833 \$2,845 \$2,854 \$3,005 \$2,935	\$2,914 \$2,875 \$3,321 \$4,379 \$4,614	\$4,166 \$4,459 \$4,641 \$5,661 \$6,443	\$5,256 \$4,735 \$4,508 \$5,560 \$5,783	\$2,609
4	\$0 \$0 \$0 \$0 \$0 \$2,432	\$2,432 \$2,481 \$2,488 \$2,496 \$2,506	\$2,520 \$2,541 \$2,559 \$2,571 \$2,582	\$2,608 \$2,612 \$2,661 \$2,673 \$2,718	\$2,692 \$2,767 \$2,749 \$2,706 \$2,959	\$2,986 \$3,007 \$3,374 \$3,067 \$3,415	\$3,328 \$3,541 \$3,938 \$4,617 \$3,733	\$4,099 \$4,495 \$4,826 \$0 \$6,319	\$7,471 \$0 \$6,281 \$0 \$6,776	\$2,527
3	\$0 \$0 \$2,308 \$2,308	\$2,285 \$2,296 \$2,310 \$2,319 \$2,330	\$2,345 \$2,362 \$2,374 \$2,374 \$2,401	\$2,412 \$2,418 \$2,465 \$2,506 \$2,486	\$2,508 \$2,477 \$2,442 \$2,676 \$3,476	\$3,274 \$3,308 \$3,073 \$3,424 \$3,696	\$3,173 \$3,719 \$4,492 \$3,706 \$3,328	\$5,655 \$3,852 \$6,027 \$7,115	\$0 \$0 \$6,173 \$7,115 \$2,315	\$2,328
2	\$0 \$0 \$2,141 \$2,141 \$2,092	\$2,106 \$2,122 \$2,131 \$2,131 \$2,144	\$2,172 \$2,184 \$2,204 \$2,214 \$2,225	\$2,237 \$2,277 \$2,286 \$2,298 \$2,323	\$2,355 \$2,287 \$2,549 \$2,965 \$3,073	\$3,217 \$3,058 \$3,122 \$3,447 \$3,747	\$4,134 \$3,352 \$3,743 \$3,787 \$5,168	\$3,303 \$5,085 \$5,483 \$0 \$3,798	\$0 \$5,621 \$0 \$0 \$3	\$2,140
-	\$0 \$1,874 \$1,874 \$1,866 \$1,880	\$1,897 \$1,905 \$1,916 \$1,930 \$1,948	\$1,964 \$1,975 \$1,989 \$1,998 \$2,034	\$2,041 \$2,090 \$2,100 \$2,105 \$2,122	\$2,173 \$2,297 \$2,636 \$2,555 \$2,593	\$2,854 \$3,264 \$2,902 \$3,041 \$3,139	\$4,038 \$3,551 \$3,224 \$3,233 \$0	\$3,533 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$3,542 \$3,233	\$1,912
0	\$1,649 \$1,649 \$1,676 \$1,709 \$1,754	\$1,770 \$1,791 \$1,821 \$1,844 \$1,861	\$1,873 \$1,888 \$1,900 \$1,917 \$1,935	\$1,931 \$1,950 \$2,008 \$1,966 \$2,011	\$1,998 \$2,248 \$1,960 \$2,295 \$2,282	\$2,299 \$3,330 \$0 \$3,443 \$0		\$3,810 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$3,852	\$1,766
Age	16 17 18 20	22 23 24 25 25	26 27 30 30	31 32 33 34 35	36 33 39 40	14 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	44 48 89 80 80 80 80 80 80 80 80 80 80 80 80 80	51 52 53 54 55	56 57 59 60+	Avg

dotes: Basic pay figures reflect the January, 2017, increase of 2.1% Age is age nearest birthday as of the end of the fiscal year.

All DoD Average Monthly Active Duty Basic Pay by Active Years of Service and Age for FY 2016 Valuation

50	0 0 1 1 8	8 2 0 1 1	2 = 8 0 =	1.9897	0-000	E C 8 C 5	E & = 8 F	00911	1 6 5 1 2	0
Av	\$ \$1,64 \$1,67 \$1,74 \$1,85	\$1,99 \$2,14 \$2,28 \$2,41 \$2,58	\$2,792 \$2,991 \$3,148 \$3,300 \$3,471	\$3,64 \$3,83 \$4,01 \$4,19 \$4,35	\$4,520 \$4,711 \$4,863 \$5,069 \$5,289	\$5,53 \$5,74 \$5,94 \$6,18 \$6,42	\$6,673 \$6,848 \$7,061 \$7,275 \$7,467	\$7,65 \$7,65 \$7,60 \$7,72 \$7,72	\$8,042 \$8,231 \$8,325 \$8,555 \$9,251	\$3,450
30+	\$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$8,734 \$8,028 \$8,102 \$8,357	\$8,692 \$9,818 \$10,455 \$10,947 \$10,997	\$11,859 \$12,073 \$12,074 \$12,592 \$11,466	\$10,082
29	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$				\$7,685 \$7,379 \$7,419 \$7,531 \$7,743	\$9,600 \$10,273 \$9,794 \$9,497 \$9,541	\$9,441 \$9,797 \$9,795 \$9,923 \$10,000	\$8,548
28	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	20 20 20 20 20 20 20 20 20 20 20 20 20 2	8 8 8 8 8	\$0 \$0 \$0 \$0 \$0 \$0	\$7,277 \$7,232 \$7,314 \$7,575 \$9,741	\$10,153 \$10,063 \$9,222 \$9,569 \$9,679	\$9,354 \$9,020 \$9,619 \$9,505 \$10,407	\$8,507
27	\$ \$0 \$ \$0 \$0 \$0	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0 \$0 \$7,079 \$7,124	\$7,138 \$7,154 \$7,359 \$9,512	\$9,871 \$9,072 \$9,089 \$9,393 \$9,238	\$9,300 \$9,043 \$9,610 \$7,860	\$8,417
26	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	\$0 \$0 \$6,776 \$7,026 \$7,021	**		**	\$8,285
25	80 80 80 80 80 80	8 8 8 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	8 8 8 8 8	\$ \$ \$ \$ \$ \$ \$ \$ \$	\$0 \$0 \$6,230 \$6,436 \$6,370	\$6,604 \$8,551 \$9,275 \$9,026 \$8,595	\$8,678 \$8,613 \$8,310 \$8,593 \$8,520	\$8,218 \$7,549 \$8,030 \$8,077 \$8,444	\$7,677
24	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$6,811 \$6,175 \$6,183 \$6,211 \$6,358	\$8,234 \$8,857 \$8,545 \$8,245 \$8,344	\$8,458 \$8,080 \$7,845 \$7,854 \$7,891	\$7,763 \$8,395 \$7,947 \$7,831 \$10,205	\$7,406
23	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	\$5,728 \$5,703 \$5,701 \$5,914 \$7,587	\$8,473 \$8,301 \$7,832 \$7,861 \$7,953	\$7,817 \$7,470 \$7,116 \$7,877 \$7,878	\$8,027 \$7,451 \$7,897 \$8,155 \$9,006	\$6,907
22	80 80 80 80 80 80 80 80 80 80 80 80 80 8	8 8 8 8 8		80 80 80 80 80 80 80 80 80 80 80 80 80 8		\$5,544 \$5,552 \$5,685 \$7,319 \$8,246	\$7,890 \$7,512 \$7,594 \$7,322 \$7,608	\$7,916 \$7,216 \$7,475 \$6,701 \$7,128	\$7,050 \$7,079 \$8,929 \$8,064 \$9,501	\$6,682
21	80 80 80	8 8 8 8	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	8 8 8 8 8	\$0 \$0 \$7,026 \$5,263 \$5,237	\$5,262 \$5,361 \$6,874 \$7,514 \$7,242	\$7,092 \$7,210 \$7,262 \$7,185 \$7,047	\$7,198 \$7,043 \$7,285 \$7,203 \$7,435	\$7,424 \$7,156 \$8,521 \$7,432 \$8,783	\$6,273
20	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0	\$0 \$4,885 \$5,125 \$5,067 \$5,103	\$5,226 \$6,461 \$7,141 \$6,916 \$6,675	\$6,733 \$6,904 \$6,563 \$7,017 \$6,846	\$6,924 \$6,604 \$6,938 \$6,765 \$6,761	\$6,737 \$7,581 \$7,522 \$7,395 \$8,552	85,969
19	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	\$4,765 \$4,792 \$4,722 \$4,685 \$4,759	\$5,829 \$6,402 \$6,265 \$6,015 \$6,228	\$6,235 \$6,039 \$6,126 \$6,178 \$5,833	\$6,270 \$6,204 \$6,321 \$6,087 \$6,517	\$6,758 \$6,484 \$6,821 \$7,112 \$7,719	\$5,424
18	80 80 80 80 80 80	8 8 8 8 8	80 80 80 80 80 80	\$0 \$0 \$0 \$0 \$0 \$4,915	\$4,700 \$4,649 \$4,602 \$4,649 \$5,715	\$6,462 \$6,315 \$6,008 \$6,142 \$6,101	\$5,810 \$6,104 \$6,178 \$6,346 \$6,066	\$6,056 \$5,748 \$5,681 \$6,367 \$6,871	\$6,654 \$6,355 \$6,382 \$7,094 \$7,850	\$5,352
17	8 8 8 8	8 8 8 8	\$ \$ \$ \$ \$ \$ \$ \$ \$	\$0 \$0 \$4,622 \$4,480	\$4,413 \$4,451 \$4,494 \$5,582 \$6,279	\$6,127 \$5,771 \$5,900 \$6,016 \$5,803	\$5,999 \$5,909 \$5,814 \$5,998 \$5,991	\$6,019 \$6,066 \$6,468 \$6,755 \$6,915	\$6,636 \$6,313 \$7,631 \$6,871 \$7,828	\$5,174
16	\$0 8 80 \$0 80 \$0 80	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0 \$0 \$4,349 \$4,344 \$4,339	\$4,338 \$4,478 \$5,472 \$6,166 \$5,977	\$5,664 \$5,814 \$5,909 \$5,807 \$5,799	\$5,983 \$5,795 \$5,985 \$6,007 \$5,846	\$5,999 \$6,445 \$6,064 \$6,733 \$6,616	\$6,768 \$7,000 \$5,989 \$6,898 \$8,488	\$5,075
15	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80	80 80 80 80 80 80	\$4,839 \$4,673 \$4,156 \$4,158 \$4,171	\$4,260 \$5,168 \$5,893 \$5,727 \$5,511	\$5,463 \$5,678 \$5,684 \$5,590 \$5,765	\$5,610 \$5,692 \$5,875 \$5,935 \$6,044	\$5,895 \$6,774 \$6,176 \$6,567 \$6,550	\$5,548 \$6,830 \$6,347 \$7,087 \$7,472	\$4,888
14	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$4,240 \$4,077 \$4,037 \$4,064 \$4,135	\$5,042 \$5,606 \$5,432 \$5,335 \$5,358	\$5,406 \$5,451 \$5,446 \$5,653 \$5,640	\$5,572 \$5,529 \$5,813 \$5,808 \$6,380	\$5,938 \$6,314 \$6,018 \$5,987 \$5,951	\$6,418 \$6,246 \$7,690 \$7,371 \$7,349	\$4,763
13	8 8 8 8	8 8 8 8	\$0 \$0 \$0 \$0 \$3,921	\$3,834 \$3,827 \$3,862 \$3,945 \$4,746	\$5,404 \$5,259 \$4,960 \$5,086 \$5,208	\$5,221 \$5,111 \$5,268 \$5,204 \$5,274	\$5,297 \$5,516 \$5,472 \$5,367 \$6,222	\$5,840 \$6,350 \$6,306 \$6,233 \$6,910	\$6,512 \$6,459 \$6,622 \$7,052 \$7,429	\$4,533
12	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	8 8 8 8	\$0 \$0 \$3,799 \$3,737	\$3,739 \$3,759 \$3,826 \$4,647 \$5,309	\$5,021 \$4,902 \$4,898 \$5,035 \$4,889	\$5,027 \$5,013 \$5,072 \$5,215 \$4,865	\$5,322 \$5,249 \$5,472 \$5,874 \$5,827	\$5,968 \$5,980 \$5,913 \$6,328 \$6,005	\$6,580 \$7,532 \$6,220 \$6,227 \$7,465	\$4,410
Ξ	8 8 8 8	8 8 8 8	\$0 \$0 \$3,696 \$3,503 \$3,495	\$3,519 \$3,604 \$4,506 \$5,219 \$4,895	\$4,641 \$4,828 \$4,831 \$4,843 \$4,975	\$4,941 \$4,922 \$5,054 \$4,829 \$5,197	\$5,008 \$5,347 \$5,673 \$5,607 \$5,635	\$6,057 \$5,680 \$5,905 \$6,123 \$6,408	\$6,556 \$5,567 \$6,720 \$8,352 \$7,798	\$4,257
10	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	8 8 8 8	\$0 \$3,401 \$3,403 \$3,406 \$3,413	\$3,471 \$4,332 \$4,967 \$4,618 \$4,518	\$4,549 \$4,665 \$4,655 \$4,657 \$4,634	\$4,687 \$4,846 \$4,856 \$4,838 \$4,883	\$5,087 \$5,313 \$5,573 \$5,367 \$5,121	\$5,638 \$5,805 \$5,800 \$6,788 \$6,487	\$6,849 \$7,337 \$7,152 \$7,447 \$10,904	\$4,081
6	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0 \$0 \$0 \$0 \$2,536	\$3,098 \$3,201 \$3,200 \$3,218 \$3,279	\$4,061 \$4,601 \$4,307 \$4,119 \$4,244	\$4,542 \$4,444 \$4,431 \$4,424 \$4,375	\$4,476 \$4,520 \$4,464 \$4,476 \$4,556	\$4,727 \$4,714 \$4,708 \$5,088 \$4,992	\$5,072 \$5,602 \$6,554 \$6,312 \$6,653	\$6,730 \$5,609 \$6,967 \$7,385 \$7,161	\$3,851
∞	\$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$3	\$3,132 \$3,130 \$3,149 \$3,197 \$3,940	\$4,512 \$4,239 \$4,048 \$4,145 \$4,331	\$4,248 \$4,214 \$4,379 \$4,371 \$4,371	\$4,332 \$4,333 \$4,195 \$4,592 \$4,408	\$5,102 \$4,874 \$4,756 \$5,070 \$4,715	\$5,620 \$5,744 \$5,971 \$6,134 \$5,351	\$6,857 \$5,668 \$3,504 \$8,192 \$8,329	\$3,749
7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0 \$0 \$2,925 \$2,848	\$2,854 \$2,869 \$2,917 \$3,574 \$4,169	\$3,917 \$3,698 \$3,795 \$3,952 \$3,886	\$3,973 \$4,051 \$3,899 \$4,024 \$4,001	\$3,825 \$3,976 \$4,033 \$4,035 \$4,278	\$3,961 \$4,461 \$4,520 \$4,508 \$5,743	\$5,492 \$5,432 \$5,624 \$6,811 \$6,784	\$5,779 \$6,145 \$6,163 \$2,419 \$7,627	\$3,440
9	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0 \$2,536 \$2,718 \$2,794 \$2,796	\$2,815 \$2,860 \$3,481 \$4,002 \$3,778	\$3,532 \$3,638 \$3,764 \$3,754 \$3,782	\$3,733 \$3,833 \$3,809 \$3,700 \$3,891	\$3,734 \$4,103 \$3,890 \$3,938 \$4,252	\$4,025 \$4,274 \$3,978 \$4,510 \$5,674	\$6,040 \$5,668 \$6,007 \$6,370 \$5,960	\$2,174 \$7,520 \$11,328 \$2,686 \$8,935	\$3,340
5	8 8 8 8 8	\$0 \$2,551 \$2,572 \$2,571 \$2,576	\$2,605 \$3,232 \$3,798 \$3,538 \$3,288	\$3,322 \$3,511 \$3,432 \$3,558 \$3,578	\$3,563 \$3,611 \$3,600 \$3,659 \$3,455	\$3,693 \$3,819 \$3,579 \$3,865 \$3,959	\$4,033 \$3,859 \$4,170 \$5,342 \$6,075	\$5,891 \$5,664 \$5,264 \$5,979 \$6,443	\$6,761 \$7,455 \$4,795 \$5,530 \$7,053	\$3,056
4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$2,432 \$2,482 \$2,488 \$2,498 \$2,522	\$3,102 \$3,670 \$3,367 \$3,094 \$3,163	\$3,320 \$3,311 \$3,334 \$3,348 \$3,510	\$3,478 \$3,574 \$3,493 \$3,307 \$3,675	\$4,289 \$4,002 \$4,109 \$4,502 \$4,571	\$4,827 \$5,010 \$5,261 \$5,761 \$5,763	\$5,112 \$5,047 \$5,942 \$1,531 \$6,766	\$7,745 \$3,168 \$7,094 \$0 \$6,969	\$2,901
ю	\$0 \$0 \$0 \$0 \$0 \$2,308	\$2,285 \$2,296 \$2,311 \$2,327 \$2,695	\$3,115 \$2,975 \$2,750 \$2,839 \$2,993	\$2,965 \$2,980 \$3,059 \$3,159 \$3,181	\$3,165 \$3,219 \$3,095 \$3,671 \$4,555	\$4,300 \$4,593 \$4,117 \$4,516 \$4,431	\$4,702 \$4,331 \$4,889 \$4,878 \$4,241	\$6,445 \$6,635 \$6,013 \$7,320 \$1,619	\$11,106 \$0 \$10,319 \$9,060 \$4,836	\$2,564
2	\$0 \$0 \$2,141 \$2,092	\$2,106 \$2,124 \$2,139 \$2,448 \$2,811	\$2,704 \$2,511 \$2,570 \$2,733 \$2,711	\$2,748 \$2,864 \$2,893 \$2,935 \$2,853	\$2,914 \$2,697 \$3,382 \$4,231 \$3,999	\$4,165 \$4,306 \$4,295 \$4,129 \$4,747	\$5,034 \$4,926 \$5,181 \$4,885 \$5,964	\$4,480 \$6,497 \$5,483 \$3,605 \$5,887	\$0 \$0 \$0,590 \$9,063	\$2,345
-	\$0 \$0 \$1,874 \$1,867 \$1,880	\$1,898 \$1,910 \$2,121 \$2,357 \$2,327	\$2,191 \$2,238 \$2,390 \$2,382 \$2,443	\$2,523 \$2,500 \$2,554 \$2,644 \$2,622	\$2,598 \$2,863 \$3,441 \$3,616 \$3,319	\$3,642 \$3,777 \$4,116 \$3,963 \$3,818	\$4,198 \$4,499 \$5,087 \$5,790 \$1,047	\$0 \$7,490 \$0 \$6,584 \$4,603	\$0 \$0 \$0 \$0 \$3,233	\$2,048
0	\$0 \$1,649 \$1,709 \$1,709	\$1,772 \$1,973 \$2,189 \$2,117 \$2,013	\$2,092 \$2,236 \$2,231 \$2,255 \$2,260	\$2,386 \$2,383 \$2,468 \$2,366 \$2,503	\$2,589 \$3,048 \$3,035 \$3,197 \$3,136	\$2,828 \$4,116 \$2,567 \$4,806 \$1,519	\$4,956 \$1,922 \$5,547 \$5,234 \$4,895	\$4,157 \$3,827 \$6,699 \$7,026 \$4,047	\$0 \$0 \$0 \$5,334 \$0	\$1,879
Age	16 17 19 20 20	21 23 24 25	26 27 30 30	31 32 34 34 35	36 37 39 40	14 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	44 48 49 50	51 52 53 54 55	56 57 58 59 60+	Avg

Notes: Basic pay figures reflect the January, 2017, increase of 2.1%. Age is age nearest birthday as of the end of the fiscal year.

Total	000-9	86 465 1,258 1,949 2,411	2,595 2,865 3,202 3,440 3,666	3,855 4,207 4,523 4,841 4,978	4,898 4,538 4,131 4,005 3,719	3,569 3,571 3,399 3,289 3,443	3,767 3,613 3,312 3,074 2,939	2,566 2,320 1,973 1,543 1,413	1,102 919 728 589 369	158 114 248	13,681	
4	00000	00000		00000	00000	00000	00000	00000	0 0 0 0 5	9 11 6	76	
40									0 32 10	4 4 6	80	
8	00000			00000		00000	00000	00000	c & & & Z	en en 40	138	
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37								0 0 0 0 6	80 21 38 19	4 - 0	259	
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29		00000	00000	00000	00000		13 304 252 198	300 269 155 79	25 22 22 21	9 7 9	2,096	
78	00000	00000	00000	00000	00000	00008	286 332 250 193 312	295 186 119 88 77	ម្នស្ន	4 6 6	2,329	
23	00000	00000	00000	00000	00000	300 0 0	394 278 223 380 405	203 139 115 64 10	88823	5 0	2,780	
26	00000	00000	00000	00000	00000	0 0 5 5 0 0 30 1 30 1 30 1 30 1 30 1 30	254 394 345 198	116 112 81 49 60	28 28 10	4 0 00	2,542	
25	00000	00000	00000	00000	00000	0 164 228 227	204 345 317 177 105	105 83 70 43 39	28 32 10 10	4 & Ξ	2,251	
24	00000	00000	00000	00000	00000	24 320 248 269	348 415 197 127	2 G 2 4 8	= 13 8 13 =	∞ 4 v	2,639	
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22			00000								2,618	
21	00000	00000	00000	00000	0 234 281	216 215 325 337 226	27.1 00.1 78	88.488	E 11 13 8	90 KM NA	2,729	
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19			00000							0 4 4	3,617	
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6			27 0 176 23 271 235 301 380 300 346							w = 4	55 4,090	
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7			238 1 307 2 278 2 2480 2							7 7 7	99 3,912	
9			368 2390 3488 588 402 5							13 2 4	36 4,299	
S			319 3467 3419 300 4							4 4 =	4,959 4,736	
4			240 241 241 240 34						v v v v -	2 - 2	4,314 4,9	
9			234 5 234 5 204 5 204 2						- 4 2 0 -	- 6 -	3,763 4,3	
61			345 219 153 143 153 153 153 153 153 153 153 153 153 15						w 01 4 01 01	8	3,277 3,7	
-			131 3 120 2 100 1 92 1						- 4 0	- 0 5	2,121 3,2	
0			53 50 57 50						s 0 s 0 0	5 - 0	1,175 2,1	
νŝν	8 2 8 2 8	28888	88828	28888	* # * * * *	4 4 4 4 8	* 2 * 8 8	28888	88828	268	Total	

DoD Officers Selected Reserve Personnel by PEBD Years of Service and Age for FY 2016 Valuation

	Total	0 942 10,984 23,033	34,801 35,509 36,663 34,689 34,159	33,169 30,785 27,945 25,002	20,967 19,649 18,460 17,848 15,993	14,391 12,877 11,330 10,163 8,784	7,812 7,186 6,604 6,551 6,624	6,834 6,298 5,765 5,302 4,896	4,506 4,233 3,885 3,524 3,000	2,349 1,732 1,438 1,066 471	2 12 83	621,381
	4									4 2 2 0 0		8
	40	00000	00000	00000	00000	00000	00000	00000	00000	0 6 77 31	- 0 0	88
	8									° ឌ <u>ឌ</u> ឧ ឌ	000	319
	×									25 25 85 17 15 86 17		440
	37									204 113 113 10 60 29		686
	36									132 216 22 216 22 216 22 216 22 216 22 21 21 21 21 21 21 21 21 21 21 21 21		
	8									8 5 8 4 5 5 5 5 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6		9 1,143
	en											1,249
	Ψ.									8 2 8 8 8 8		1,473
	33											0 1,645
	83											2,220
												2,071
	30									96 23 39 18		2,792
	53	00000	00000							58 88 13	-00	3,000
	88			00000			0000%				0 0 0	3,090
	27	00000	00000	00000	00000	00000	0 0 84 84	670 564 409 243 218	88 E E & &	8 8 6 1 1 2 2	-00	3,436
	26	00000	00000	00000	00000	00000	0 28 62 62	367 367 281 199 168	138 133 129 108 92	942 33 37 15	- 0 -	3,466
	25	00000	00000	00000	00000	00000	31 300 539 510	432 288 253 214 165	132 134 131 131	72 46 33 26	3 0 1 3	3,580
(YOS)	24	00000			00000		429 613 522 423	402 205 169 173	163 127 171 87	8 % 4 % 3	3 5	4,132
Service	23	00000				33 0 0 0	43.5 707 839 339 339	22 27 22 25 25 25 25 25 25 25 25 25 25 25 25	157 153 135 100 89	65 89 46 30	0 0	4,611
ears Of	22	00000	00000	00000	00000	0 0 472	757 472 360 280	275 244 240 179 194	170 148 104 113	91 64 33 23	9 - 0	5,102
PEBD) )	21	00000	00000	00000	00000	0 0 4 8 8 8 8	710 515 410 351 329	317 268 219 216 192	168	8856	0 - 13	6,140
e Date (	8	00000	00000	00000	00000	0 71 870 1,258 974	702 506 400 371 319	326 264 241 220 185	81 82 87 12 83 83 84 85 85 85 85 85 85 85 85 85 85 85 85 85	0 c 8 8 c	0 - 5	7,849
Completed Pay Entry Base Date (PEBD) Years Of Service (YOS)	19	00000	00000	00000	00000	97 1,132 1,665 1,297 868	678 499 451 373	382 278 266 224 194	191 178 169 170 150	101 67 24 8	0 - 5	9,842
ed Pay I	18	00000	00000	00000	0 0 0 0 90	1,342 1,895 1,351 956 631	501 372 345 345	346 274 239 239 205	192 188 160 116	25 20 21 11	000	10,506
Complet	17	00000	00000	00000	0 0 177 1,548	2,093 1,526 979 742 552	363 311 318 303	274 267 227 195 187	85 12 88 18 88	31 7 7 2	-00	11,261
	16	00000	00000	00000	238 2010 2,656	1,820 1,17 86 88 88 88 88 88	429 3 3 5 3 5 4 4 2 9 2 9 2 9 2 9 2 9 2 9 9 9 9 9 9 9	257 251 191 162	152 158 106 67	8 5 5 - 6	000	13,487
	15	00000	00000	00000	223 2,165 3,201 2,066	1,379 967 734 617 488	364 302 310 294	263 217 217 203	149 122 98 66 34	28 14 0	000	15,164
	77	00000	00000	00000	2,42 2,228 2,971 2,155 1,403	1,100 866 675 514 438	347 347 293 289	265 237 191 217 186	8 2 2 2 2	0 % 11 11 0	000	15,744
	13	00000	00000	75 0 0 0 0 0 0 0 0	2,108 2,906 2,183 1,549 1,102	855 664 468 361	325 250 252 261 261 231	21 8 1 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	88820	4 0 4 0 0	000	15,459
	12	00000	00000	0 0 233 2,012	2,328 1,540 1,145 931	702 595 446 356 325	262 253 193 177 185	165 169 117 67	58 44 10 00	4 - 0	000	15,214
	Ξ	00000	00000	0 2,42 2,058 2,818	2,174 1,481 1,065 875 743	53.8 24.5 27.6 27.1	211 190 180 158	152 119 91 66 62	22 7 4 0	0 0 5	000	14,827
	10	00000	00000	380 2,917 3,915 3,067	2,135 1,522 1,222 898 711	578 439 290 254	214 216 170 179	55 71 88 88	¥ 5 6		000	20,233
	6	00000	00000	457 3,228 4,197 3,186 2,348	1,791 1,377 1,043 805 667	546 418 349 287 254	222 183 167 180 151	75. 100 100 88	2, 28, 10, 10	00-00	000	22,462
	∞	00000	0 0 0 0 8	3,957 5,253 4,241 3,015 2,223	1,704 1,347 1,018 829 646	532 376 316 261	227 192 194 151	113 89 64 65	4 - 5 0 6	-0000	000	27,978
	r-	00000	0 0 224 3,726	5,654 4,764 3,480 2,628 2,039	1,654 1,205 997 798 633	531 418 330 287 271	210 229 170 151	121 122 68 67 27	~ 0 - 0 -	0 0 0	000	30,986
	9	00000	0 2.58 3,3.55 6,068	5,389 3,897 2,744 2,120 1,771	1,361 1,043 831 704 515	432 365 271 275 218	230 130 135 116	5 8 5 8 °C 1 8 °C 1	0 0 7 0 0		000	32,683
	S	00000	541 6,042 9,204 7,987	5,670 4,012 2,939 1,694	1,385 1,038 805 713 511	275 275 275 275 275	156 141 100 92	84 25 1	~ 0		000	47,243
	4	00000	774 6,979 10,266 8,000 5,491	3,902 2,840 2,165 1,589 1,243	996 815 681 389	293 241 268 136	64 35 39 17	3 0 0 5 3	0 0 0 - 5		000	48,119
	6						8885-					50,869
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	Se y	91 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ភពពភាព	* 5 * 8 8 8	* * * * *	* # # # # #	4 4 4 4 4	* 2 * 8 8	28822	88838	2 2 3	Total

DoD Enlisted Selected Reserve Personnel by PEBD Years of Service and Age for FY 2016 Valuation

2016 Valuation

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for

and Age

PEBD Years of Service

ð,

Reserve Personnel

Selected

DoD

DoD Officers Average Monthly Selected Reserve Personnel Basic Pay by PEBD Years of Service and Age for FY 2016 Valuation

Total	\$0 \$0 \$877 \$871	\$894 \$1,012 \$1,127 \$1,246 \$1,341	\$1,424 \$1,407 \$1,401 \$1,469	\$1,494 \$1,482 \$1,521 \$1,548 \$1,579	\$1,609 \$1,633 \$1,651 \$1,691 \$1,698	\$1,748 \$1,767 \$1,810 \$1,875 \$1,875	\$1,881 \$1,970 \$1,975 \$2,025 \$2,155	\$2,180 \$2,174 \$2,124 \$2,129 \$2,181	\$2,174 \$2,166 \$2,202 \$2,256 \$2,306	\$2,095 \$2,004 \$1,945	\$1,711
4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	\$0 \$0 \$2,711	\$2,986 \$2,189 \$3,347	\$2,837
9	88888	88888	88888	8888	88888	8888	88888	88888		\$2,773 \$3,258 \$3,604	\$2,851
R			88888							\$2,557 \$ \$4,442 \$ \$3,832 \$	\$2,595 \$
88	2 2 2 2 2		2 2 2 2 2 2						\$2,495 \$ \$2,425 \$ \$2,312 \$ \$2,385 \$ \$3,792 \$	\$3,976 \$ \$2,945 \$ \$2,577 \$	\$2,557 \$
37	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$				\$ \$ \$ \$ \$ \$ \$ \$		S2,343 S S2,369 S S2,367 S S2,863 S	\$3,402 \$ \$2,863 \$ \$0 \$	\$2,463 \$:
36	88888	88888	88888	88888	88888		88888		2,523 S 2,482 S 2,733 S 5,2835 S	54,408 S 53,172 S 51,838	\$2,493 \$
83	88888	88888	88888	88888	88888	88888	88888	\$3,036 \$2,160 \$2,528 \$2,334 \$	\$2,429 \$ \$2,639 \$ \$2,848 \$ \$2,619 \$ \$2,805 \$	\$1,843 \$ \$2,297 \$ \$2,472 \$	\$2,450 \$:
z	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	S1,904 S2,364 S2,061 S2,260 S2,420 S	\$2,753 \$ \$2,662 \$ \$2,696 \$ \$2,456 \$ \$2,026 \$	\$0 \$ \$0 \$ \$2,399 \$	\$2,349 \$
33	88888	88888	88888	88888	88888	88888		\$2,439 \$ \$2,292 \$ \$2,427 \$ \$2,057 \$ \$2,676 \$	\$2,633 \$2,467 \$2,169 \$2,449 \$2,449 \$2,444	S2,124 S1,485 S3,385 S	\$2,422 \$
R			88888			88888		\$2,187 \$ \$2,506 \$ \$2,276 \$ \$2,690 \$ \$2,539 \$	\$2,449 \$ \$2,491 \$ \$2,764 \$ \$2,924 \$ \$3,262 \$	\$1,857 \$ \$2,578 \$ \$1,708 \$	\$2,464 \$
31	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2			\$2,291 \$ \$2,334 \$ \$2,646 \$ \$2,543 \$	\$2,251 \$ \$2,501 \$ \$2,318 \$ \$2,449 \$ \$2,073 \$	\$2,805 \$0 \$2,171	\$2,369 \$
30	20 20 20 20 20 20 20 20 20 20 20 20 20 2		20 20 20 20 20 20 20 20 20 20 20 20 20 2					\$2,632 \$ \$2,660 \$ \$2,613 \$ \$2,332 \$	S2,401 S S2,283 S S2,637 S S2,522 S	S2,348 S S2,171 S2,234 S	2,303 S
59	88888	88888	88888	88888	88888	88888		\$2,600 \$ \$2,624 \$ \$2,380 \$ \$2,341 \$	22.262 S 22.357 S 22.142 S 22.24 S	52,464 S 51,989 S 53,058 S	\$2,362
28	88888	88888	88888	88888	88888	\$2,28 8 8 8 52,23 8 8 8 8	\$2,046 \$ \$2,211 \$ \$2,197 \$ \$2,291 \$	\$2,613 \$ \$2,440 \$ \$2,142 \$ \$2,286 \$ \$2,110 \$	\$2,100 \$2,161 \$2,166 \$2,560 \$2,354 \$	\$2,392 \$ \$3,099 \$ \$2,078 \$	\$2,291
23	8 8 8 8 8	8 8 8 8 8	2 2 2 2 2 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2		\$2,105 \$ \$2,249 \$ \$2,210 \$ \$2,336 \$ \$2,442 \$	\$2,357 \$2,294 \$2,292 \$2,188 \$2,289	\$2,460 \$ \$2,019 \$ \$2,125 \$ \$1,989 \$ \$2,781 \$	S2,100 S S1,841 S S2,453 S	\$2,257 \$
56			88888				S2,137 S2,186 S2,240 S2,346 S2,346 S2,346 S2,346	\$2,284 \$2,051 \$2,046 \$2,184 \$2,267	S2,030 S S2,106 S S2,178 S S2,398 S	S3,239 S S2,254 S S2,184 S	\$2,203
25	88888	88888	88888	88888		\$0 \$2,224 \$1,996 \$2,098 \$2,073	\$2,114 \$2,302 \$2,334 \$2,199 \$2,288	\$2,102 \$2,065 \$2,097 \$2,072 \$1,915	\$2,262 \$2,256 \$2,057 \$2,070 \$2,286	\$2,270 \$2,285 \$2,520	\$2,174
24	80 80 80 80 80 80 80 80 80 80 80 80 80 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			\$2,174 \$2,266 \$2,192 \$2,080 \$2,050	\$1,925 \$1,874 \$2,077 \$2,199 \$2,041	\$2,161 \$2,013 \$2,016 \$1,750 \$1,668	\$2,637 \$2,637 \$2,051	\$2,103
23	2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	\$0 \$0 \$0 \$1,885	S1,952 S1,910 S1,898 S2,022 S2,164	S2,233 S2,186 S2,009 S1,984 S1,992	S1,984 S2,000 S1,938 S1,817 S2,080	S2,050 S1,975 S1,889 S1,970 S2,264	\$2,329 \$1,863 \$2,100	\$2,045
33	88888	88888	88888	88888	08 08 08 81 8 08 08 81 83 00 08 81 83 00 08 81 83 00 08 81 83 00 00 81 81 81 81 81 81 81 81 81 81 81 81 81	S1,933 S2,014 S1,932 S2,106 S2,191	\$2,115 \$2,097 \$2,053 \$2,019 \$1,974	\$2,097 \$1,930 \$1,858 \$1,908 \$2,008	S1,948 S1,966 S1,881 S1,835 S2,077	\$2,018 \$2,408 \$1,813	620'28
21	88888	88888	88888	88888	\$0 \$1,807 \$1,897	\$1,937 \$1,910 \$2,059 \$2,117 \$2,015	\$2,020 \$2,006 \$1,844 \$1,717	\$1,882 \$1,857 \$1,905 \$1,718 \$1,807	\$2,017 \$1,489 \$1,892 \$1,841 \$1,816	\$1,920 \$1,843 \$2,123	\$1,955
8	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$			\$1,884 \$2,062 \$2,101 \$2,080 \$2,026	\$1,941 \$1,870 \$1,891 \$1,863	\$1,746 \$1,960 \$1,816 \$1,793 \$1,746	\$1,820 \$2,043 \$1,914 \$1,825 \$1,931	\$1,796 \$1,966 \$1,911	\$1,951
19	8 8 8 8 8	8 8 8 8 8	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	\$1,895 \$1,728 \$1,728 \$1,855 \$1,892	\$1,945 \$2,03 \$2,014 \$1,904 \$1,966	\$1,822 \$1,743 \$1,619 \$1,608 \$1,670	\$1,670 \$1,736 \$1,758 \$1,871	\$1,765 \$2,003 \$1,872 \$2,046 \$1,682	\$1,979 \$1,841 \$1,712	\$1,873
8	88888	88888	88888	8 8 8 8 8 8	\$1,771 \$1,808 \$1,760 \$1,856 \$1,908	\$1,971 \$1,982 \$1,936 \$2,008 \$1,825	\$1,722 \$1,570 \$1,685 \$1,573 \$1,769	\$1,688 \$1,723 \$1,646 \$1,756 \$1,636	\$1,617 \$1,657 \$1,917 \$1,773 \$1,993	\$2,194 \$1,473 \$1,895	\$1,842
17	\$ 80 80 80 80 80 80 80 80 80 80 80 80 80	\$0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$1,773 \$1,730	\$1,777 \$1,765 \$1,772 \$1,870 \$1,924	\$1,929 \$1,882 \$1,934 \$1,782 \$1,638	\$1,562 \$1,740 \$1,586 \$1,746 \$1,667	\$1,641 \$1,615 \$1,793 \$1,611 \$1,643	\$1,502 \$1,747 \$2,040 \$1,711 \$1,954	\$1,673 \$1,653 \$2,069	\$1,802
16	\$0 \$0 \$0 \$0	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 80 80 80 80 80 80 80 80 80 80 80 80 8	\$0 \$1,786 \$1,733 \$1,788	\$1,699 \$1,730 \$1,870 \$1,890	\$1,784 \$1,748 \$1,731 \$1,709 \$1,561	\$1,504 \$1,505 \$1,442 \$1,595 \$1,634	\$1,666 \$1,636 \$1,591 \$1,569 \$1,851	\$1,721 \$2,039 \$1,706 \$1,949 \$1,606	\$1,997 \$1,141 \$1,634	\$1,763
15	88888	88888	88888	\$0 \$1,706 \$1,745 \$1,722 \$1,716	\$1,748 \$1,847 \$1,845 \$1,814 \$1,753	\$1,804 \$1,734 \$1,536 \$1,646 \$1,503	\$1,421 \$1,537 \$1,536 \$1,536 \$1,536	\$1,601 \$1,504 \$1,530 \$1,522 \$1,625	\$1,868 \$1,720 \$1,546 \$1,596 \$1,666	\$1,775 \$1,919 \$1,245	\$1,733
4	88888	88888	88888	\$1,761 \$1,681 \$1,684 \$1,671 \$1,691	\$1,806 \$1,766 \$1,782 \$1,699 \$1,675	\$1,683 \$1,500 \$1,411 \$1,632 \$1,443	\$1,529 \$1,419 \$1,457 \$1,603 \$1,433	\$1,717 \$1,690 \$1,603 \$1,533 \$1,533	\$1,581 \$1,538 \$1,567 \$1,755 \$1,467	\$1,383 \$1,392 \$1,542	\$1,684
13	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$0 \$1,592	\$1,745 \$1,661 \$1,694 \$1,663 \$1,706	\$1,739 \$1,756 \$1,737 \$1,637 \$1,503	\$1,580 \$1,333 \$1,518 \$1,494 \$1,434	\$1,270 \$1,379 \$1,471 \$1,339 \$1,538	\$1,668 \$1,552 \$1,466 \$1,468 \$1,773	\$1,666 \$1,415 \$1,794 \$1,380 \$1,986	\$1,508 \$1,762 \$1,356	\$1,649
12	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$0 \$0 \$1,663	\$1,716 \$1,732 \$1,705 \$1,688 \$1,754	\$1,719 \$1,685 \$1,685 \$1,580 \$1,445	\$1,476 \$1,444 \$1,388 \$1,328 \$1,377	\$1,396 \$1,499 \$1,352 \$1,537 \$1,524	\$1,655 \$1,537 \$1,521 \$1,772 \$1,306	\$1,635 \$1,873 \$1,524 \$1,139 \$1,444	\$1,889 \$1,305 \$1,565	\$1,655
Ξ	88888	88888	\$0 \$1,543 \$1,750 \$1,750	\$1,687 \$1,705 \$1,610 \$1,632 \$1,566	\$1,623 \$1,582 \$1,493 \$1,363 \$1,256	\$1,376 \$1,421 \$1,366 \$1,361 \$1,400	\$1,278 \$1,278 \$1,371 \$1,299 \$1,107	\$1,313 \$1,461 \$1,770 \$1,662 \$1,363	\$1,655 \$807 \$1,536 \$1,565 \$1,565	\$1,643 \$1,294	\$1,568
10	88888	88888	\$0 \$1,698 \$1,557 \$1,714 \$1,719	\$1,747 \$1,524 \$1,580 \$1,563 \$1,509	\$1,493 \$1,360 \$1,330 \$1,333 \$1,428	\$1,190 \$1,358 \$1,471 \$1,248 \$1,294	\$1,226 \$1,465 \$1,305 \$1,292 \$1,210	\$1,137 \$1,738 \$1,687 \$1,501 \$1,087	\$1,008 \$1,460 \$1,492 \$2,300 \$1,218	\$1,512 \$0 \$1,272	\$1,545
0	8 8 8 8 8	8 8 8 8 8	\$1,461 \$1,493 \$1,580 \$1,543 \$1,580	\$1,430 \$1,465 \$1,517 \$1,304	\$1,379 \$1,334 \$1,334 \$1,337 \$1,329	\$1,335 \$1,338 \$1,202 \$1,277 \$1,150	\$1,205 \$978 \$1,144 \$1,108 \$1,222	\$1,311 \$949 \$1,408 \$1,020 \$1,202	\$1,073 \$1,104 \$1,654 \$1,163 \$0	\$1,221 \$1,172 \$1,150	\$1,434
∞	88888	S S S S S S	\$1,544 \$1,534 \$1,630 \$1,575 \$1,466	\$1,436 \$1,447 \$1,399 \$1,308	\$1,314 \$1,320 \$1,155 \$1,159 \$1,036	\$1,165 \$1,277 \$1,110 \$1,164 \$1,070	\$1,123 \$1,287 \$1,224 \$1,304 \$1,322	\$1,255 \$1,001 \$1,234 \$1,205 \$1,533	\$1,213 \$1,549 \$1,214 \$1,315 \$1,265	\$1,132 \$1,172 \$1,224	\$1,416
7	88888	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 9 8 9 8 9	\$1,597 \$1,540 \$1,415 \$1,377 \$1,375	\$1,427 \$1,427 \$1,440 \$1,291 \$1,251	\$1,161 \$1,146 \$1,159 \$1,052 \$1,136	\$1,110 \$1,069 \$1,124 \$1,052 \$1,107	\$1,107 \$1,274 \$1,195 \$871 \$1,266	\$1,061 \$1,287 \$1,039 \$1,518 \$1,518	\$1,303 \$1,021 \$1,289 \$1,101 \$1,099	\$1,089 \$995 \$1,103	\$1,346
9	8 8 8 8	\$0 \$1,446 \$1,469 \$1,515	\$1,494 \$1,540 \$1,368 \$1,353 \$1,493	\$1,421 \$1,366 \$1,334 \$1,161 \$1,206	\$1,116 \$1,007 \$1,047 \$1,164 \$1,120	\$1,136 \$1,162 \$1,043 \$1,001 \$1,098	\$1,218 \$991 \$1,015 \$978 \$1,134	\$1,233 \$1,062 \$1,121 \$1,188 \$1,715	\$1,106 \$1,192 \$1,114 \$959 \$1,108	\$1,153 \$1,089 \$1,121	\$1,340
8	8 8 8 8 8	SI,314 SI,321 SI,378 SI,378 SI,417	\$1,503 \$1,299 \$1,432 \$1,432 \$1,472	\$1,479 \$1,297 \$1,149 \$1,137 \$1,041	\$944 \$1,082 \$1,066 \$1,098 \$1,015	\$1,176 \$884 \$1,134 \$1,067 \$940	\$1,019 \$969 \$893 \$1,042 \$1,191	\$1,067 \$981 \$979 \$834 \$1,060	\$1,245 \$1,088 \$1,014 \$939 \$977	\$1,102 \$1,071 \$1,068	\$1,280
4	88888	\$776 \$1,053 \$1,266 \$1,380 \$1,378	\$1,440 \$1,347 \$1,464 \$1,385 \$1,338	\$1,266 \$1,190 \$1,099 \$1,107 \$9.59	\$1,087 \$1,047 \$1,134 \$1,074 \$1,151	\$1,206 \$1,010 \$1,156 \$1,102 \$907	\$1,088 \$1,065 \$969 \$776 \$1,219	\$1,155 \$1,101 \$1,008 \$984 \$1,047	\$1,028 \$989 \$1,040 \$976 \$915	\$1,039 \$1,102 \$1,052	\$1,285
6	88888	\$907 \$1,083 \$1,226 \$1,326 \$1,415	\$1,400 \$1,516 \$1,409 \$1,429 \$1,233	\$1,218 \$1,043 \$1,175 \$1,006 \$1,037	\$1,058 \$973 \$9.52 \$1,104 \$9.51	\$906 \$1,052 \$1,043 \$1,147 \$1,196	\$1,146 \$1,118 \$7.55 \$1,005 \$9.40	\$888 \$1,035 \$1,027 \$0 \$894	\$963 \$1,089 \$8.39	\$963 \$839 \$1,089	\$1,269
73	\$0 \$0 \$0 \$913	\$914 \$904 \$1,170 \$1,245	\$1,291 \$1,261 \$1,190 \$1,175 \$1,092	\$1,096 \$1,047 \$889 \$915 \$929	\$875 \$968 \$988 \$947 \$1,035	\$957 \$931 \$934 \$1,038 \$955	\$991 \$928 \$922 \$879 \$1,081	\$992 \$828 \$956 \$962 \$941	\$785 \$903 \$960 \$960 \$903	\$903 \$903 \$898	\$11,119
-	08 08 08 ET	\$868 \$910 \$995 \$1,042 \$1,085	\$1,103 \$1,036 \$1,030 \$952 \$945	\$863 \$792 \$827 \$822 \$787	\$827 \$817 \$824 \$847 \$803	\$1,035 \$771 \$853 \$794 \$844	\$7.75 \$7.93 \$8.55 \$9.52 \$1,036	\$831 \$909 \$748 \$780	878 878 878 80 80 80	\$748 \$0 \$780	\$973
0	88888	\$910 \$995 \$1,037 \$1,071	\$1,041 \$1,062 \$982 \$965 \$888	\$768 \$826 \$792 \$792 \$824	\$837 \$809 \$857 \$817 \$1,021	\$741 \$7741 \$7741 \$834 \$802	\$822 \$824 \$932 \$1,011 \$750	88 88 38 38 38 38 38 38 38 38 38 38 38 3	878 878 878 80 80 80	\$780 \$780	8935
89	9 12 88 21 89	20020	8 2 8 2 8	= 0 0 1 2	22222	= 0 0 2 2	86838	22222	8 2 2 2 2	= 01 S	=

iotes: Basic pay figures reflect the January, 2017, increase of 2.1%.
Age is age nearest birthday as of the end of the fiscal year.
Constructed using the Yverage Points Per Year rase displayed in Appe

 
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 <t FY PEBD Years of Service and Age for ģ Pay Basic Reserve Personnel DoD Enlisted Average Monthly Selected 

| 10 m |

Notes: Basic pay figures reflect the January, 2017, increase of 2.1%.

Age is age nearest brithday as of the end of the fiscal year.

Constructed using the 'Average Points Per Year' rates displayed in A

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2.2 (2.6 ) 1.5 (2.6 ) þ Pay DoD Average Monthly Selected 

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 $\frac{8}{8}$  682 8884 84832 84844 84844 84848 84848 88848 88848  $\frac{8}{8}$ 

53.6

Average Age:

Data taken from the actuarial valuation file created by the DoD Office of the Actuary. Age is age nearest birthday as of the end of the fiscal year.

DoD Officers Non-Selected Reserve Personnel With 20 Good Years by PEBD Years of Service and Age for FY 2016 Valuation

	Total	0 13 44 88	161 289 438 616 932	1,262 1,564 1,870 2,198 2,653	3,034 3,564 4,216 4,149 4,328	4,284 4,297 4,218 4,282 2,299	95 61 355 51,332
	41	00000	00000	00000	00000	0 0 111 219 212	7 10 224 683
	40	00000	00000	00000	00000	0 9 217 324 147	5 9 31 743
	33	00000	00000	00000	00000	18 254 347 263 136	21 19 22 1,081
	38	00000	00000	00000	0 0 0 71	221 292 243 229 363	16 7 13 1,403
	37	00000	00000	00000	0 0 0 35 251	315 272 250 889 562	111 3 15 2,605
	36	00000	00000	00000	0 0 36 300 353	316 313 848 878 276	3 2 4 3,330
	35	00000	00000	00000	0 44 405 374 388	334 877 860 430 146	6 9 3,874
	34	00000	00000	00000	37 349 413 340 372	874 856 441 272 128	5 0 6 4,093
(YOS)	33	00000	00000	30 0 0 0	333 398 378 284 887	948 521 309 227 81	3 0 4 4,403
f Service	32	00000	00000	0 0 0 54 292	339 309 333 846 826	417 251 208 136 63	3 1 2 4,082
Years O	31	00000	00000	0 0 31 263 299	279 273 851 962 491	283 218 151 116 32	3 1 7 4,262
Completed Pay Entry Base Date (PEBD) Years Of Service (YOS)	30	00000	00000	0 28 259 337 317	293 807 868 440 282	221 156 102 85 43	2 1 2 4,246
ase Date	29	00000	00000	13 253 330 257 250	622 700 407 201 163	124 85 57 57 33	3 2 2,562
Entry E	28	00000	0 0 0 0 28	212 226 179 178 561	571 306 207 141 106	60 51 58 47 21	2 1 6 2,963
leted Pay	27	00000	0 0 0 18 188	231 181 160 461 492	275 164 131 107	47 50 39 40	1 2 2 2,684
Comp	26	00000	0 0 113 110	151 129 364 371 202	95 73 74 75 74	28 29 23 13	2 1 4 1,992
	25	00000	0 10 67 109 103	109 327 315 148 91	84 53 45 22 23	22 24 20 16	2 0 0 1,607
	24	00000	6 79 110 98 87	220 250 120 54 58	37 28 20 22	20 12 14 14 14 13	0 1 2 1,302
	23	0 0 0 0 1	59 78 55 63 165	185 101 39 33 28	27 24 17 10	6 112 10 7	0 0 040
	22	0 0 3 8 8 8	58 53 33 88 121	95 29 34 22 18	13 8 8 11	01 10 4 4 4	0 0 2 674
	21	0 0 26 26 26	19 31 90 104 48	30 26 27 13 9	00400	2 6 - 2 -	0 0 0 497
	20	0 6 11 41	15 36 68 22 21	13 9 9 3	r 0 0 0 1	1 - 0 3 3	0 0 0 274
	19	04 % 0 0	7 7 - 8 -	1 0 1 1 3	7 0 1 7 1	00000	0 0 0
	<19	00000	00000	00000	00000	00000	000 0
	Age	53 77 88 89 40	14 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	46 47 49 50	51 52 54 55	58 59 80	61 62 63 Total

52.9

Average Age:

DoD Enlisted Non-Selected Reserve Personnel With 20 Good Years by PEBD Years of Service and Age for FY 2016 Valuation

	Total	0	142	212	449	874	1,280	1,826	2,195	2,940	4,152	5,263	5,912	6,819	7,533	8,436	9,272	10,783	11,925	12,422	12,673	12,782	12,148	11,693	11,811	6,029	348	193	1,040	161,152
	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	1,225	1,376	116	74	622	3,465
	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93	1,361	2,101	934	38	22	87	4,636
	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	1,631	2,265	1,858	7.76	32	17	99	6,784
	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	1,492	2,102	1,608	1,242	498	25	16	28	7,170
	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191	1,828	2,403	1,824	1,232	1,023	43	20	S	35	8,974
	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	229	2,060	2,834	2,159	1,488	1,055	892	454	20	4	33	11,238
	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	252	2,103	2,652	1,890	1,486	1,016	829	969	316	13	7	25	11,315
	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168	1,946	2,540	1,935	1,473	1,127	856	694	508	259	12	33	31	11,551
e (YOS)	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	178	1,693	2,447	1,947	1,387	1,086	912	629	530	486	220	4	10	21	11,590
Completed Pay Entry Base Date (PEBD) Years Of Service (YOS)	32	0	0	0	0	0	0	0	0	0	0	0	0	0	251	1,736	2,204	1,824	1,272	1,022	824	693	555	383	388	149	Ξ	10	12	11,335
Years C	31	0	0	0	0	0	0	0	0	0	0	0	0	125	1,379	1,693	1,358	1,048	905	736	543	487	428	349	299	132	15	4	10	9,510
(PEBD)	30	0	0	0	0	0	0	0	0	0	0	0	109	1,355	1,942	1,602	1,151	924	692	909	491	403	335	281	231	117	7	3	16	10,343
Base Date	29	0	0	0	0	0	0	0	0	0	0	89	1,218	1,848	1,420	1,061	292	959	564	470	388	348	281	253	199	<b>%</b>	4	2	∞	9,637
y Entry I	28	0	0	0	0	0	0	0	0	0	106	1,138	1,609	1,248	842	663	549	460	428	350	304	254	174	172	154	63	7	7	2	8,524
oleted Pa	27	0	0	0	0	0	0	0	0	26	1,005	1,537	1,188	833	574	490	426	345	352	254	228	206	159	141	124	43	4	3	7	8,015
Com	26	0	0	0	0	0	0	0	62	723	1,173	1,009	651	492	370	321	323	272	229	224	182	189	148	136	101	4	2	-	S	099'9
	25	0	0	0	0	0	0	39	429	781	788	595	411	345	258	236	211	190	196	178	153	179	113	107	66	45	2	0	7	5,357
	24	0	0	0	0	0	42	504	755	631	485	373	309	254	183	174	162	159	156	145	113	112	103	74	87	<del>2</del>	-	0	0	4,859
	23	0	0	0	0	39	393	617	492	364	288	263	506	140	145	136	106	119	93	108	80	69	9/	74	45	23	0	0	0	3,878
	22	0	0	0	24	297	486	430	280	198	161	155	128	87	86	80	83	73	77	63	59	45	62	45	26	7	-	0	7	2,966
	21	0	0	19	214	339	239	152	110	81	101	80	53	57	23	46	4	33	36	37	48	46	56	20	16	S	-	0	0	1,857
	20	0	27	158	187	177	100	70	23	99	36	37	27	30	15	17	25	25	20	21	17	27	13	4	10	7	0	0	0	1,191
	19	0	82	35	24	22	20	14	14	∞	6	∞	3	9	2	1	2	∞	7	12	ю	4	4	-	m c	0	0	0	0	296
	<19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Age	<37	37	38	39	40	41	42	43	4	45	46	47	48	49	50	51	52	53	54	55	99	27	28	59	9	61	62	63	otal

31.7

53.1

Average Age:

Data taken from the actuarial valuation file created by the DoD Office of the Actuary. Age is age nearest birthday as of the end of the fiscal year.

All DoD Non-Selected Reserve Personnel With 20 Good Years by PEBD Years of Service and Age for FY 2016 Valuation

	=	0 5	4 & 2	2 2 1	0 4	9	6 1 6	1 1 1 1	8312	£ 4 5 0	4
	Total	15	234 493 962	1,441 2,115	3,55	6,52	8,689 9,731 11,089	12,306 14,347 16,141 16,571 17,001	17,066 16,445 15,911 16,093 8,328	443 254 1,395 0	212,484
	41	0 0	000	000	000	0	000	00000	0 0 63 1,445 1,588	123 84 846	4,149
	40	0 0	000	000	000	0 0	000	00000	0 1,578 2,424 1,081	43 31 119	5,379
	39	0 0	000	000	000	0 0	000	00000	158 1,886 2,612 2,121 912	53 36 88	7,865
	38	0 0	000	000	000	00	0 0 0	0 0 0 0 145	1,714 2,395 1,851 1,472 862	41 23	8,573
ı	37	00	000	000	000	0 0	0 0 0	0 0 0 196 2,079	2,718 2,097 1,482 1,913 1,005	31 8 49	11,578
	36	00	000	000	000	0 0	0 0 0	0 0 265 2,360 3,187	2,475 1,801 1,903 1,770 730	23 16 37	14,568
	35	00	000	000	000	0 0	0 0 0	0 296 2,508 3,026 2,277	1,821 1,893 1,719 1,125 462	19 8 34	15,190
	34	0 0	000	000	000	0 0	0 0 0	205 2,295 2,953 2,275 1,844	2,001 1,713 1,135 780 387	17 3 37	15,645
Completed Pay Entry Base Date (PEBD) Years Of Service (YOS)	33	0 0	000	000	000	0 0	0 0 208	2,026 2,845 2,325 1,671 1,973	1,860 1,179 838 713 301	17 10 25	15,994
Of Servic	32	00	000	000	000	0 0	0 305 2,029	2,543 2,133 1,606 1,867 1,650	1,110 807 591 524 212	41 11 11	15,417
) Years	31	00	000	000	000	0 0	156 1,642 1,992	1,637 1,321 1,756 1,698 1,034	770 646 500 415 164	18 5 17	13,773
e (PEBD	30	00	000	000	000	0	1,614 2,279 1,919	1,444 1,731 1,637 1,046 774	624 492 384 316 160	9 4 81	14,589
Base Dat	29	00	000	000	000	81	2,178 1,677 1,311	1,388 1,356 971 671 551	473 366 310 256 117	r 4 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	13,198
ay Entry	28	0	000	000	0 134	1,350	1,427 1,020 1,225	1,120 766 636 491 410	314 225 230 201 84	9 6 7	11,486
pleted Pa	27	0	000	000	116	1,768	993 1,035 982	701 509 483 361 307	253 209 180 164 57	v v »	10,698
Com	26	0 0	000	0 0 %	833 1,343	1,159	856 742 523	418 345 308 276 224	230 176 165 124 57	r 7 6	8,652
	25	0	000	0 49 496	890	704	660 406 328	295 243 241 200 176	201 137 127 115 60	4 0 7	6,964
	24	0 0	000	583	729 572	593	374 237 232	211 196 184 165 135	132 115 86 101 37	7 1 1	6,162
	23	0 0	0 0 94	452 695	427 452	308	179 178 164	133 143 110 119 90	75 88 84 82 26	0 0 0	4,818
	22	0 0	0 26 336	544 482 313	286 283	251	121 120 98	96 87 85 68	55 69 46 30	1 0 3	3,640
	21	0 0	24 240 365	259	185	110	84 66 55	52 41 43 50	48 29 21 18 6	0 0	2,354
	20	0	171 200 191	116	78 57	50 38	39 20 20	32 27 20 23 18	30 16 4 111 8	0 0 0	1,465
	19	0 06	38 26 24	22 16	2 = 2	1 4	7 7 7	3 10 8 12 5	4 4 1 6 0	000	329
	<19	00	000	000	000	0 0	000	00000	00000	000	0
	Age	<37 37	38 40 40	14 4 4	4 4	46 47	48 49 50	51 52 53 54 55	56 57 58 59 60	62 63	Total

All Officers

-	CSB Dis	80	80	80 80	88	809	20 8	\$0 80	80 S	80	80 S	800	\$793	\$17,958	\$19,062	\$29,306	\$26,896	\$31,746	\$33,614	\$34,048	\$33,627	\$36,089	\$32,149	\$36,072	\$34,128 \$40,668	\$28,676	\$22,289	\$10,446	0S S	\$0	\$0 \$21,174	80	809	200
	CSB Non-Dis	08	\$0 \$0	0S S	800	888	80	80 80 80	80 S	80	S S	S S S	\$12,678	\$16,850 \$17,093	\$23,868	\$27,041	\$28,457	\$32,106	\$35,417	\$36,624	\$39,222	\$38,714	\$38,813	\$38,414	\$40,894 \$36,707	\$40,436	\$37,763	\$43,981	\$41,485	\$42,459	\$39,449 \$52,302	\$40,944	200	80
	TERA Res Ret	08	\$0 \$0	0S 80 80	08	989	20	80 80 80 80	8 80 8	80	S S	0S S	80 80	80 80	0S S	80	8 S	. S. S	80 80	08	80	80 80	0\$	8 80	80 80	\$81,225	808	\$20,334	\$20,470	\$20,892	\$19,690 \$19,635	\$18,210	\$17,412	\$16,463
ired Pay -	TERA Non-Dis	08	80	0S 80	08	889	80	80 S	80 S0	80	S S	\$25,312	\$20,768	\$24,903 \$23,973	\$27,255	\$29,447	\$31,743	\$33,219	\$34,990	\$33,592	\$36,393	\$33,971 \$34,986	\$31,250	\$27,746	\$24,334 \$25,804	\$24,767	\$27,346	\$28,979	\$29,682	\$31,958	\$32,701 \$33,187	\$33,047	\$34,796	\$36,126
Average Annual Net Retired Pay	Total			\$0 \$19,239		6113		\$6,945 \$8,231		-,				\$14,638				\$37,538				\$47,078			\$51,981 \$52,825	\$53,143	\$52,455	\$48,040	\$43,639	\$43,591	\$42,615 \$42,133	\$41,415	\$39,144	\$39,460
Average An	Reserve Retired	0\$	80	20 S	80	08.0	80	\$0 80 80	80 S	80	0S 0S	S S	80	80 80	S S	80	80 80 80	0\$	80	08	0\$	80 80	80	\$54,027	\$48,756 \$47,663	\$48,194	\$43,048	\$30,345	\$29,165	\$27,939	\$27,152 \$26,570	\$25,832	\$23,919	\$23,964
	Temp Disabled	80	80	80 80 80	80	\$00	\$8,075	\$7,259	\$8,759	\$15,499	\$14,696	\$14,813	\$12,947	\$18,143	\$23,091	\$23,173	\$26,981	\$28,826	\$31,430	\$36,390	\$33,854	\$34,981	\$42,096	\$38,181	\$44,642 \$43,927	\$52,383	\$50,061	\$37,000	\$50,515	\$40,290	80 80	80	808	08 80
	Perm Disabled	08	80	\$19,239	80	\$0	\$4,949	\$6,780	\$7,602	\$10,530	\$9,824	\$11,373	\$11,774	\$13,038 \$12,899	\$14,456	\$17,291	\$18,190	\$22,274	\$24,370	\$26,513	\$26,004	\$28,769	\$28,889	\$27,528	\$26,193 \$28,782	\$31,021	\$28,312	\$29,403	\$30,526	\$31,207	\$29,956 \$31,491	\$32,794	\$29,735	\$28,487
	Non Disabled	08	80	80 80 80	08	808	80	80 80 80	80 80 80	80	08 S	\$25,312	\$20,768	\$24,903 \$23,973	\$29,273	\$32,081	\$34,175	\$40,067	\$41,347	\$44,126	\$46,809	\$48,247	\$50,107	\$51,713	\$53,042	\$53,981	\$53,435	\$52,347	\$51,427	\$51,729	\$51,320 \$50,810	\$50,614	\$49,726	\$50,743
1		0.0																																
	CSB Dis						0	0 0	00	0	00	00		0 4	·	9	10	26	31	32	31	12	0.4	4 0	3		- 13		00	0	0 -	0	00	
	CSB CSB Non-Dis Dis	00	0	00	00	· o c	0	00	00	0	00	.00	1 0	8 4 4 0 4 4 0 4 4 0 4 4 9 4 9 4 4 9 9 4 9 4 9 9 4 9 9 4 9 9 4 9	22 8	46 6	83 10 118 20					260 19 188 12	145 9	74 5	48 3 35 1	26 1	10 2	12 1	, , , , , , , , , , , , , , , , , , ,	. 8	7 1	1 0		00
		00	000	0 0	0 0	» o o	0	0 0 0	0 0 0	0 0 0	00	.00	0 0 1	0 3 0	0 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 46 6							0 145 9	0 74 5	0 48 3 0 35 1		00		301 7 0	232 3 0 0	211 4 0 151 7 1	122 1 0	106 3 0	102 0 0
	A TERA CSB Dis Res Ret Non-Dis	000	0 0	0 0 0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		0 0 0 0	0 0 0	0 0 0	00	1 0 0 0	3 0 0	23 0 3 0 62 0 4 4 4	97 0	289 0	307 0 83 265 0 118	230 0 166	192 0 223 172 0 333	118 0 418	59 0 390	30 0 260 36 0 188	19 0	40 0	71 0 108 0	220 1 432 1	716 0	1,289	1,417	1,327	1,029	471	294	203
Number	TERA TERA CSB Non-Dis Res Ret Non-Dis	000		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	13 0 0 0 0	35 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0	151 0 0 0 0 0 168 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0	242 3 0 0 243 3 0 1	295 347	391 97 0 653 195 0	880 289 0	1,116 307 0 83 1,498 265 0 118	2,210 230 0 166	2,941 192 0 223 3,811 172 0 333	4,738 118 0 418 5,203 82 0 405	5,628 59 0 390	6,124     30     0     260       6,807     36     0     188	19 0	40 0	0 0	9,050 220 1 9,230 432 1	9,691 716 0	12,221 1,289	15,705 1,417	16,172 1,327	16,538 1,029 16,135 757	16,847 471	20,122 294	23,190 203
	TERA TERA CSB Non-Dis Res Ret Non-Dis	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					0 13 0 0 0 0	00	0 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 140 0 0 0	0 151 0 0 0 0 168 0 0 0	0 215 1 0 0	0 242 3 0 0 0 243 3 0 1	0 295 0 347	0 391 97 0 0 653 195 0	0 880 289 0	0 1,116 307 0 83 0 1,498 265 0 118	0 2,210 230 0 166	0 2,941 192 0 223 0 3,811 172 0 333	0 4,738 118 0 418 0 5,303 82 0 405	0 5,628 59 0 390	0 6,124 30 0 260 0 6,807 36 0 188	0 7,523 19 0	2 8,895 40 0	6 8,837 71 0 16 8,939 108 0	35 9,050 220 1 69 9230 432 1	307 10339 1.087 0	2,064 12,221 1,289	5,228 15,705 1,417 5,197 15,803 1,450	5,261 16,172 1,327	5,683 16,538 1,029 5,539 16,135 757	6,031 16,847 471 6,008 18,333 372	7,968 20,122 294	9,297 23,190 203
	TERA TERA CSB Total Non-Dis Res Ret Non-Dis						7 0 13 0 0 0 0	12 0 22 0	16 0 57 0 0 0 0 18 0 89 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	33 0 140 0 0 0	27 0 151 0 0 0 25 0 168 0 0 0	38 0 215 1 0 0	34 0 243 3 0 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	48 0 391 97 0 45 0 653 195 0	44 0 880 289 0	36 0 1,116 307 0 83 46 0 1,498 265 0 118	54 0 2,210 230 0 166	33 0 3,811 172 0 223 33 3 3,811 172 0 333	38 0 4,738 118 0 418 37 0 5,203 82 0 405	25 0 5,628 59 0 390	21 0 6,124 30 0 260 22 0 6,807 36 0 188	23 0 7,523 19 0	1/ 0 8,321 29 0 19 2 8,895 40 0	14 6 8,837 71 0 14 16 8,939 108 0	6 35 9,050 220 1 6 69 9,230 432 1	6 182 9,691 716 0	4 2,064 12,221 1,289	3 5,228 15,705 1,417 3 5197 15,803 1,450	4 5,261 16,172 1,327	0 5,683 16,538 1,029 0 5,539 16,135 757	0 6,031 16,847 471	0 7,968 20,122 294 0 8,754 21,830 256	0 9,297 23,190 203
	Reserve TERA TERA CSB Retired Total Non-Dis Res Ret Non-Dis						6 7 0 13 0 0 0 0	00	16 0 57 0 0 0 0 18 0 89 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	33 0 140 0 0 0	27 0 151 0 0 0 25 0 168 0 0 0	38 0 215 1 0 0	34 0 243 3 0 1	0 295 0 347	204 48 0 391 97 0 259 45 0 653 195 0	222 44 0 880 289 0	260 36 0 1,116 307 0 83 255 46 0 1,498 265 0 118	280 54 0 2,210 230 0 166	537 42 0 2,541 192 0 223 5 353 33 0 3,811 172 0 333	409 38 0 4,738 118 0 418 307 37 0 5,203 82 0 405	372 37 0 5,628 62 0 455 371 25 0 5,628 59 0 390	353 21 0 6,124 30 0 260 341 22 0 6,807 36 0 188	356 23 0 7,523 19 0	365 19 2 8,895 40 0	344 14 6 8,837 71 0 334 14 16 8,939 108 0	321 6 35 9,050 220 1 309 6 69 9,230 432 1	302 6 182 9,691 716 0	312 4 2,064 12,221 1,289	283 3 5,228 15,705 1,417 3.03 3 5,197 15,803 1450	312 4 5,261 16,172 1,327	310 0 5,683 16,538 1,029 297 0 5,539 16,135 757	310 0 6,031 16,847 471 358 0 6,008 18,333 373	365 0 7,968 20,122 294	570 0 9,297 23,190 203
	Temp Reserve TERA TERA CSB Disabled Retired Total Non-Dis Res Ret Non-Dis	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000		0 6 7 9 0	0 23 12 0 0 34 22 0	0 41 16 0 57 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 107 33 0 140 0 0 0	0 124 27 0 151 0 0 0 0 0 0 0 0 143 25 0 168 0 0 0	1 176 38 0 215 1 0 0	3 206 34 0 243 3 0 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	139 204 48 0 391 97 0 349 259 45 0 653 195 0	614 222 44 0 880 289 0	820 260 36 0 1,116 307 0 83 1,197 255 46 0 1,498 265 0 118	1,876 280 54 0 2,210 230 0 166	2,302 33/ 42 0 2,941 192 0 223 3,425 353 33 0 3,811 172 0 333	4,291 409 38 0 4,738 118 0 418 4,864 302 37 0 5,93 82 0 405	5,232 371 25 0 5,628 59 0 390	353 21 0 6,124 30 0 260 341 22 0 6,807 36 0 188	7,144 356 23 0 7,523 19 0	8,509 365 19 2 8,895 40 0	8,473 344 14 6 8,837 71 0 8,575 334 14 16 8,939 108 0	8,688 321 6 35 9,050 220 1 8,846 309 6 69 9,230 432 1	9,201 302 6 182 9,691 716 0	9,841 312 4 2,064 12,221 1,289	10,191 283 3 5,228 15,705 1,417 10,300 303 3 5,197 15,803 1,450	10,595 312 4 5,261 16,172 1,327	10,545 310 0 5,683 16,538 1,029 10,29 297 0 5,539 16,135 757	10,506 310 0 6,031 16,847 471	11,789 365 0 7,968 20,122 294	13,323 570 0 9,297 23,190 203

All Officers

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CSB Dis									
CSB Non-Dis	20000	8 8 8 8 8 8	2000	20000	20202	2020	2020	\$ 20 \$ 20 \$ 20	\$36,740 \$43,227 \$43,340 \$38,890
TERA Res Ret	\$16,031 \$19,079 \$17,549 \$14,361	\$15,259 \$14,939 \$16,475 \$16,082 \$14,574	\$12,843 \$12,376 \$13,631 \$17,785 \$21,511	\$0 \$17,483 \$19,096 \$19,740 \$0	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$9,348 \$0 \$0 \$0 \$0 \$0	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$18,971 \$18,940 \$18,617 \$17,426
red Pay - TERA Non-Dis	\$38,373 \$36,668 \$37,593 \$39,076 \$40,583	\$36,911 \$48,192 \$49,630 \$49,702 \$39,801	\$41,261 \$43,273 \$52,838 \$41,574 \$49,060	\$28,764 \$44,595 \$37,068 \$26,988 \$55,139	20202	\$ \$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	20200	\$ 20 \$ 20 \$ 20 \$ 20	\$31,031 \$31,982 \$33,061 \$34,683
ual Net Reti Total	\$39,661 \$39,976 \$40,272 \$39,903 \$40,118	\$40,898 \$41,779 \$41,152 \$41,768 \$42,025	\$42,373 \$43,525 \$44,311 \$44,471 \$44,145	\$43,821 \$43,518 \$44,609 \$45,943 \$45,382	\$45,545 \$42,855 \$42,256 \$40,765 \$41,787	\$40,613 \$41,923 \$40,780 \$38,831 \$39,831	\$39,295 \$40,349 \$42,055 \$34,217 \$60,573	\$38,478 \$19,220 \$0 \$0 \$0	\$43,203 \$41,748 \$41,472 \$41,222
Average Annual Net Retired Pay Reserve TerrA Retired Total Non-Dis	\$24,481 \$24,583 \$23,892 \$23,543 \$27,760	\$22,854 \$22,564 \$21,757 \$21,218 \$21,027	\$20,644 \$20,431 \$20,955 \$20,692 \$19,837	\$19,218 \$18,807 \$18,585 \$19,252 \$19,355	\$18,756 \$18,545 \$17,962 \$17,754 \$17,735	\$18,692 \$19,449 \$20,111 \$20,069 \$21,904	\$20,712 \$22,869 \$25,391 \$22,939 \$36,904	\$24,552 \$19,220 \$0 \$0 \$0 \$0	\$23,710 \$23,626 \$23,324 \$22,766
Temp Disabled	20202	2222	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ 20 \$ 20 \$ 20 \$ 20 \$ 20	\$ \$ \$ \$ 8 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ 200 \$ 200	\$ 20 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$25,240 \$40,878 \$38,964 \$0
Perm Disabled I	\$27,877 \$28,549 \$29,703 \$30,822	\$33,677 \$39,257 \$38,318 \$40,847 \$39,045	\$41,287 \$42,598 \$44,084 \$46,209 \$43,237	\$46,281 \$44,437 \$47,633 \$48,350 \$49,457	\$47,954 \$39,947 \$37,230 \$36,877 \$35,834	\$35,383 \$40,768 \$45,220 \$36,117 \$32,099	\$41,340 \$25,431 \$52,112 \$84,768 \$0	8 8 8 8 8 8	\$28,669 \$34,094 \$34,370 \$34,937
Non Disabled I	\$51,090 \$51,325 \$51,393 \$51,091 \$51,030	\$50,898 \$51,560 \$51,535 \$52,821 \$53,163	\$53,881 \$55,333 \$55,910 \$56,583 \$57,637	\$58,648 \$59,187 \$61,184 \$62,441 \$64,589	\$66,911 \$65,687 \$65,131 \$64,323 \$63,601	\$61,186 \$61,585 \$59,548 \$59,196 \$60,285	\$56,570 \$65,734 \$53,202 \$45,596 \$96,076	\$66,329 \$0 \$0 \$0 \$0 \$0	\$51,883 \$52,667 \$52,734 \$52,911
CSB Dis	0000	00000	00000	00000	00000	00000	00000	00000	311 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
CSB Non-Dis	00000	00000	00000	00000	00000	00000	00000	00000	3,280 47 28 14
TERA Res Ret N	55 41 40 40	31 35 37 28 14	13 9 9 8	0 7 4 - 0	00000	-0000	00000	0000	2,206 2,204 1,813 1,100
TERA Non-Dis	122 81 70 59 84	. E = 6 8 8	r 9 % % &		00000	00000	00000	00000	14,199 9,311 6,605 2,799
Number Total	16,248 16,203 15,834 15,541	12,453 12,030 11,469 10,833	9,524 9,638 8,711 8,557 7,935	7,637 6,656 5,271 3,432 2,689	2,739 2,878 2,642 2,301 2,002	1,608 1,140 774 468 253	155 87 43 19 5	9 6 0 0 0	538,772 413,802 385,876 337,363
Reserve Retired	6,608 6,500 6,081 6,007 4,812	3,947 3,896 3,711 3,420	3,228 3,199 2,838 2,841 2,764	2,825 2,516 2,007 1,279 1,114	1,183 1,336 1,202 1,075 860	705 487 348 220 115	70 71 71 8	4 % 0 0 0	150,080 149,463 142,171 126,030
Temp Disabled	00000	00000	00000	00000	00000	00000	00000	00000	989 14 7 0
Perm Disabled	442 442 408 414 605	302 261 232 206 198	184 169 155 161 179	149 183 138 98 83	82 106 134 151 146	121 91 56 40 27	11 8 9 0	00000	18,184 9,554 8,959 8,034
Non Disabled	9,215 9,261 9,345 9,120	7,896 7,822 7,341 6,916 6,501	6,112 6,270 5,718 5,555 4,992	4,663 3,957 3,126 2,055 1,492	1,474 1,436 1,306 1,075 996	782 562 370 208 111	74 35 20 4	0000	369,519 254,771 234,739 203,299
Age	17 27 47 47 77	77 77 78 79 80	82 83 84 84 85	88 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9	92 93 94 95	96 97 98 99	101 102 103 104 105	106 107 108 109 110	Total 60+ 62+ 65+

Notes: 1

Age is retiree's current age nearest birthday at end of fiscal year.

60+ is total for ages 60 and over.

62+ is total for ages 62 and over.

65+ is total for ages 62 and over.

165+ is total for ages 65 and over.

166- is total for ages 65 and over.

167- is total for ages 40 and over.

167- is total for ages 68 and over.

168- is total for ages 68 and over.

168- is total for ages 68 and over.

168- is total for ages 68 and over.

169- is total for ages 69 and over.

169- is total for

All Enlisted

	CSB Dis	\$0 \$0	0 S	80	08 S	S S	\$0 \$	\$0 \$0	80 80 80	80	S S	\$0 \$4.338	\$11,440	\$15,559 \$11,442	\$4,950	\$17,594	\$18,151	\$22,302	\$23,999	\$29,652 \$29,136	\$28,625	\$32,097	\$0 \$45.396	\$29,879	80,030	\$0 \$23,280	800	0 9	08 88 8	0 S	80	8 8 8	\$0 80 80
	CSB Non-Dis	80	S S	\$0 \$0	80	888	\$0 80	80 80 80	80 S	80	\$0 \$0	8 80 80	\$8,241	\$1,571	\$516	\$1,271	\$1,234	\$1,084	\$1,024	\$780 \$635	\$625 \$780	\$712	\$687	\$753	\$345	\$531 \$834	\$580 \$252	\$165	\$1,034	\$1,710 \$1,710	S S	80 S	8008
	TERA Res Ret	\$0 \$0	S S	80	808	809	80	800	8 S	80	\$0 80 80	80 S	80	80 80 80	08	80	8 S	800	80	80 80 80	80 S	80	\$12,833	808	80	80 80	\$9,340	58,090	\$7,622	\$7,765 \$7,765 \$7,356	\$7.318	\$7,066 \$7,024	\$7,288
stired Pay	TERA Non-Dis	80	0S S	80	808	S S	80	\$0 \$0	\$0 80 80	80	20 20 20 20	\$15,393	\$15,093	\$14,482	\$15,333	\$16,430	\$16,783	\$17,109	\$17,130	\$17,308	\$19,618	\$12,278	\$12,078	\$12,146	\$12,307	\$13,158 \$13,793	\$14,485	\$15,149	\$15,144	\$15,170 \$15,170 \$15,450	\$15,904	\$16,396	\$17,222
Average Annual Net Retired Pay	Total	\$0 \$0	\$6 897	\$6,041	\$4,099	\$3,825	\$3,066	\$3,287	\$3,749	\$4,125	\$4,231 \$4,713	\$5,224 \$5,819	\$6,837	\$7,790 \$9,176	\$11,478	\$17,862	\$19,273	\$21,030	\$22,255	\$22,482	\$23,177	\$24,193	\$24,360	\$23,959	\$23,476	\$22,936 \$22,743	\$22,503 \$22,198	\$21,0/4	\$19,513	\$19,079 \$19,079	\$18.681	\$18,440	\$18,467
Average An	Reserve Retired	\$0 \$0	0 S S	80	800	888	80\$	800	800	80	\$0 \$0	80 S	80	\$0 80 80	800	80	800	800	80	\$0 \$0	80 S	80	\$14,839	\$23,338	\$25,134	\$26,620 \$23,160	\$22,076 \$20,810	\$13,204	\$12,028	\$11,458	\$11,715	\$10,886	\$11,047
	Temp Disabled	\$0 \$0	0\$ 26 893	\$6,653	\$4,679	\$4,199	\$4,171	\$4,548 \$4,728	\$5,187	\$5,499	\$5,488	\$7,705	\$7,951	\$8,968	\$8,165			\$17,818	\$17,851	\$21,443	\$22,045	\$20,753	\$17,618	\$21,591	\$25,306	\$23,780 \$19,382	\$24,477 \$22,217			\$17,882		8 8 8	80
	Perm Disabled	80	800	\$5,467	\$3,023	\$3,498	\$2,581	\$2,770 \$3,123	\$3,349			\$4,812					\$9,738			\$12,748	\$13,323	\$12,781	\$12,693	\$13,088	\$13,083	\$12,258 \$12,633	\$12,590 \$12,736	\$13,113	\$13,220	\$13,300	\$11.881	\$10,333	\$9,353
	Non Disabled	\$0	S S	80	800	800	80	\$0 \$0	\$0 80	80	\$38,371 \$24,525	\$17,076	\$15,207	\$14,538	\$17,795	\$20,973	\$21,392	\$22,348	\$23,245	\$23,449	\$23,953 \$24,557	\$24,885	\$25,020	\$24,465	\$23,904	\$23,351 \$23,133	\$22,861	\$22,462	\$22,438	\$22,676 \$22,676 \$22,769	\$23,114	\$23,464	\$24,166 \$24,494
	CSB Dis	0 0	00	0	00		0	00	00	0	00	0 -	3	6 01	% <u>r</u>	30	35 48	30	17	222	17	∞	0 -	- 7 -	0 0	0 1	000	0 0	000	000	0		00
	CSB CSB Non-Dis Dis	0 0 0	0 0	0 0	00	000	0 0	0 0	0 0	0 0	0 0	0 0 1	5	50 9 117 10	287 8		2,122 35 3.096 48	4,013 38 5.015 30		7,510 22 7,944 22	6,507 17 4,459 10	2,924 8	2,088 0 1.545 1	1,128 2	625 0	412 0 316 1	204 0 173 0	0 671	88 88 0 0 0	27 0 0	0 0	000	000
		0 0 0 0	000	0 0 0	000	,00	0 0	0 0 0	000	0 0 0	0 0 0	0 0 0	0 5 3	0 50 9 0 117 10			0 2,122 35 0 3.096 48	0 4,013 38 0 5,015 30			0 6,507 17 0 4,459 10	0 2,924 8	1 2,088 0 0 1,545 1	0 1,128 2	0 625 0	$\begin{array}{ccc} 0 & 412 & 0 \\ 0 & 316 & 1 \end{array}$				348 27 0 351 7 0	310 0 0	344 0 0 0 400 0 0 0 0 0 0 0 0 0 0 0 0 0	406 0 0 362 0 0
	TERA TERA CSB Non-Dis Res Ret Non-Dis	0 0 0 0 0	0 0 0 0	0 0 0 0 0 0			0 0 0 0	2 0 0 0 0 0	8	0 0 0 0 0				583 0 884 0	945 0 287	746 0 1,352	542 0 375 0	252 0 175 0	132 0 6,159	104 0 7,510 59 0 7,944	44 40 0	48 0	166 1 376 0	839 0	2,850 0	3,894 0 4,494 0	4,790 0 4,652 2	3,948 134	2,192 405	1,530 580 1,090 348 884 351	675	523 429	366 303
	TERA TERA CSB Total Non-Dis Res Ret Non-Dis			$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0 60 0 0 0 0 0	0 238 0 0 0 0 0		0 850 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 2,540 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2,846 2,924	2,876	9 0 0	3,481 945 0 287 5,230 925 0 783	7,211 746 0 1,352	9,341 542 0 11,537 375 0	13,592 252 0 15,875 175 0	18,740 132 0 6,159	9 0 7,510 9 0 7,944	22,869 44 0 24,913 40 0	27,642 48 0	30,195 166 1 33,220 376 0	839 0	2,850 0	39,133 3,894 0 38,525 4,494 0	37,235 4,790 0 36,616 4,652 2	39,108 3,948 134 45,140 2,065 382	45,140 2,903 382 44,357 2,192 405	44,815 1,930 388 44,815 1,090 348 42,184 884 351	42,000 675	43,850 523 44,791 429	45,723 366 44,700 303
	Reserve TERA TERA CSB Retired Total Non-Dis Res Ret Non-Dis			0 3	39 0 60 0 0 0 0 0 0 80 0 143 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	, 0 0	0	1	00	0		0 2,846 0 2,924	0 2,876	2,970 583 0 3,069 884 0	0 3,481 945 0 287 0 5,230 925 0 783	0 7,211 746 0 1,352	0 9,341 542 0 0 11,537 375 0	13,592 252 0 15,875 175 0	0 18,740 132 0 6,159	0 21,220 104 0 7,510 0 21,578 59 0 7,944	0 22,869 44 0 0 24,913 40 0	0 27,642 48 0	2 30,195 166 1 1 33,220 376 0	1 35,330 839 0	7 38,466 2,850 0	39,133 3,894 0 38,525 4,494 0	105 37,235 4,790 0 285 36,616 4,652 2	39,108 3,948 134 45,140 2,065 382	45,140 2,903 382 44,357 2,192 405	1,530 580 1,090 348 884 351	14,021 42,000 675	43,850 523 44,791 429	17,010 45,723 366 16,816 44,700 303
	Temp Reserve TERA TERA CSB Disabled Retired Total Non-Dis Res Ret Non-Dis			0 3	00	111 0	179 0	247 0 280 0 1.	00	319 0	306 0 359 0	0 2,846 0 2,924	271 0 2,876	0 2,970 583 0 0 3,069 884 0	182 0 3,481 945 0 287 197 0 5,330 925 0 783	175 0 7,211 746 0 1,352	157 0 9,341 542 0 178 0 11,537 375 0	0 13,592 252 0 0 15,875 175 0	107 0 18,740 132 0 6,159	0 21,220 104 0 7,510 0 21,578 59 0 7,944	73 0 22,869 44 0 62 0 24,913 40 0	60 0 27,642 48 0	2 30,195 166 1 1 33,220 376 0	38 1 35,330 839 0	7 38,466 2,850 0	21 18 39,133 3,894 0 20 51 38,525 4,494 0	105 37,235 4,790 0 285 36,616 4,652 2	6 4,505 59,108 5,948 1.34	4 11,216 44,357 2,903 382 4 11,216 44,357 2,192 405	44,815 1,930 388 44,815 1,090 348 42,184 884 351	0 14.021 42.000 675	0 15,310 43,850 523 0 16,077 44,791 429	17,010 45,723 366 16,816 44,700 303
	Reserve TERA TERA CSB Retired Total Non-Dis Res Ret Non-Dis			0 3	21 39 0	111 0	408 179 0	247 0 280 0 1.	308 0 315 0	319 0	306 0 359 0	333 0 2,846 324 0 2,924	2,318 271 0 2,876	2,144 241 0 2,970 583 0 1,982 201 0 3,069 884 0	1,775 182 0 3,481 945 0 287	1,678 175 0 7,211 746 0 1,352	1,606 157 0 9,341 542 0 1,625 178 0 11,537 375 0	152 0 13,592 252 0 15,875 175 0	1,794 107 0 18,740 132 0 6,159	112 0 21,220 104 0 7,510 75 0 21,578 59 0 7,944	1,658 73 0 22,869 44 0 1,542 62 0 24,913 40 0	1,561 60 0 27,642 48 0	41 2 30,195 166 1 43 1 33,220 376 0	1,564 38 1 35,330 839 0	1,524 19 7 38,466 2,850 0	1,468 21 18 39,133 3,894 0 1,422 20 51 38,525 4,494 0	9 105 37,235 4,790 0 8 285 36,616 4,652 2	1,345 6 4,505 39,108 3,948 134	1,402 2 11,522 43,140 2,503 502 11,516 4 11,216 44,357 2,192 405	1 13,14 44,815 1,030 388 1 13,144 44,815 1,090 348 0 13,04 42,184 884 351	1.709 0 14.021 42.000 675	2,111 0 15,312 43,850 523 2.401 0 16,077 44,791 42,9	0 17,010 45,723 366 0 16,816 44,700 303

All Enlisted

SB	Dis	\$ 80 8 80 80 8	80	8 8 8	80	80	80	0 8 8	80 80	80	80	80 80 80	08	2 S	80 80 80	80	80	80 80	80	0S S	80 80 80	80	80	80 80 80	\$21,429 \$0	80	20
CSB	Non-Dis	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	80	80 S0	80	80	80	8 S	80 80	80	800	80 S	80	0S 80 S	80 80 80	80	08 80 80	80 80 80	80	0S S	80 80 80	80	800	80 S	\$836	\$888	20
TERA	Res Ret	\$7,192 \$6,948 \$7,375 \$7,331	\$6,563	\$6,643 \$5,948	\$6,192	\$5,552	\$6,268	\$5,964 \$6,242	\$5,183 \$8,876	\$5,028	S S	80 80 80	08	2 S	80 80	80	0s 8	80 80 80	80	08 80	80 80 80	08	80	20 20 20 20	\$7,159 \$7,157	\$7,091	\$6,934
ired Pay -	Non-Dis	\$18,180 \$19,203 \$19,256 \$19,097	\$20,203	\$21,056 \$22,006	\$21,292	\$20,996	\$23,816	2 S	80 80	80	S S	80 80 80	08	2 S	80 80	80	0s 8	80 80	80	08 80	80 80 80	08	80	20 20 20	\$14,649 \$15,559	\$15,871	\$16,801
nal Net Ret	Total	\$18,751 \$19,160 \$19,536 \$19,536	\$20,050	\$20,291 \$20,199	\$20,367	\$21,150	\$21,246	\$22,029	\$22,221 \$22,057	\$22,086	\$22,276	\$22,381 \$21,653	\$21,709	\$21,890	\$20,864 \$20,929	\$21,812	\$21,471	\$20,664	\$20,306	\$19,268	\$28,172 \$19,774	08	\$20,024	80 S	\$20,607 \$19,788	\$19,738	\$19,822
Average Annual Net Retired Pay Reserve	Retired	\$10,701 \$10,732 \$10,597 \$10,526	\$10,041	\$9,884 \$9,817	\$9,618	\$9,527	\$9,691	\$10,338	\$10,258 \$10,114	\$10,035	\$10,322	\$10,542 \$10,640	\$11,100	\$10,758	\$10,763 \$10,863	\$10,694	\$11,958	\$11,677	\$12,019	\$11,417	\$8.784	80	80	80 80 80	\$10,901 \$10,881	\$10,774	\$10,594
· ·	Disabled	8 8 8 80 80 80	80	80 S	08	80	80	2 S	80 80	80	S S	80 80 80	08	2 S	80 80	80	0s 8	80 80	80	08 80	80 80 80	08	80	20 20 20	\$9,545 \$23,968	\$24,612	20
Perm	Disabled	\$11,695 \$13,018 \$14,252 \$15,364	\$15,465	\$17,436	\$17,434	\$17,650	\$17,891	\$16,787	\$16,301 \$14,913	\$16,725	\$17,778	\$18,661 \$19,191	\$19,733	\$18,817	\$19,305 \$24,835	\$24,199	\$34,016	\$31,401 \$24,409	\$18,672	89,903 80	80 80 80	08	80	20 20 20	\$10,531 \$13,271	\$13,273	\$13,270
Non	Disabled	\$24,572 \$24,602 \$24,533 \$24,533	\$24,226	\$24,075 \$23,946	\$24,050	\$24,708	\$24,777	\$25,156	\$25,424 \$25,488	\$25,339	\$25,240	\$24,887 \$24,448	\$24,488	\$24,833 \$24,047	\$23,486 \$23,538	\$24,474	\$23,556	\$22,177 \$22,107	\$23,710	\$23,224	\$28,172 \$22,521	08	\$22,008	08 80	\$23,712 \$23,804	\$23,965	\$24,261
CSB	Dis	0000	0	00	00	0	0	0	00	0 0	0	0 0	0 0	0	00	0 9	00	00	0 (	00	00	0 0	00	00	336 0	0	0
CSB	.22	0000	0 0	00	000	00	0	00	0 0	0 0	0	0 0	0 0	00	0 0	0	0 0	0 0 0	0 0	00	0 0	0 0	00	0 0	60,031 336 362 0	155 0	0 /
CSB		239 0 0 203 0 0 175 0 0	128 0 0	93 0 0 94 0	107 0 0	93 0 0	103 0 0	55 0 0 0 0	3 0 0	0 0 0	0	0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000	0 0 0	000	000	0 0 0	0 0 0	000	0 0 0	000	0000	0 0 0			7. 0 1. 0
CSB	Res Ret Non-Dis	177 239 0 0 120 203 0 0 109 175 0 0 71 158 0 0					2 103 0 0	0 55 0 0	0 9 0 0	0 0 0	0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0 0 0		0 0 0 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0		0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0	0 0 0 0 0	60,031 362	4,954	
TERA	Res Ret Non-Dis		51		26	~ ∞	7.0	00	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	13,698 0 1 0 0	8,346 0 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,165 0 0 0 0 0	2,533 0 0 0 0 0 1,934 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	738 0 0 0 0 0	312 0 0 0 0	150 0 0 0 0 0 0 80 0 0 0 0 0 0 0 0 0 0 0	53 0 0 0 0 0	31 0 0 0 0 0 12 0 0 0 0 0	3 0 0 0 0 0 0 0 0 0				45,442 5,473 60,031 15,526 5,470 362	8,613 4,954	3,801
TERA TERA CSB	Total Non-Dis Res Ret Non-Dis	177 120 109 71	26,915 51	31	24,141 26	3 23,320 8	21,981 2	17,012 0	3,014 15,841 0 9 0 0 0 2,867 14,611 0 3 0 0			935 6,008 0 1 0 0 0 785 4,150 0 0 0 0						26 150 0 0 0 0 0 14 80 0 0 0 0			0 3 0 0 0 0 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0 0				45,442 5,473 60,031 15,526 5,470 362	808,866 8,613 4,954	676,371 3,801
NumberTERA CSB	Retired Total Non-Dis Res Ret Non-Dis	30,700 177 29,568 120 29,979 109 30,696 71	26,915 51	24,705 31 23,867 17	24,141 26	0 5,278 23,320 8	0 4,929 21,981 2	$0 + 4,144 + 19,528 & 0 \\ 0 3,313 + 17,012 & 0$	0 3,014 0 2,867	0 2,583	0 1,448	0 935 0 785	0 613	0 342	0 273 0 219	0 142	99 0	26 14	15	- 7	0 0 3 0 0 0 0 0				1,451,096 45,442 5,473 60,031 893,114 15,526 5,470 362	808,866 8,613 4,954	199,124 676,371 3,801
Reserve TERA TERA CSR	d Disabled Refired Total Non-Dis Res Ret Non-Dis	0 11,599 30,700 177 0 10,624 29,568 120 0 10,009 29,979 109 0 9,475 30,696 71	0 7,438 26,915 51	24,705 31 23,867 17	0 5,896 24,141 26	0 5,278 23,320 8	0 4,929 21,981 2	$0 + 4,144 + 19,528 & 0 \\ 0 3,313 + 17,012 & 0$	0 3,014 0 2,867	0 2,583	0 1,448	0 935 0 785	0 613	0 342	273 219	29 0 142	11 0 66	5 0 26 3 0 14	0 15	3 0 0 0	0 -		00	00	251,500 1,451,096 45,442 5,473 60,031 251,027 893,114 15,526 5,470 362	5 235,000 808,866 8,613 4,954	0 199,124 676,371 3,801
Tenn Reserve TERA TERA CSR	d Disabled Disabled Retired Total Non-Dis Res Ret Non-Dis	0 11,599 30,700 177 0 10,624 29,568 120 0 10,009 29,979 109 0 9,475 30,696 71	786 0 7,438 26,915 51	0 6,268 24,705 31 0 6,069 23,867 17	577 0 5,896 24,141 26	530 0 5,703 24,080 3 498 0 5,278 23,320 8	472 0 4,929 21,981 2	501 0 4,144 19,528 0 491 0 3,313 17,012 0	0 3,014 0 2,867	0 2,583	421 0 1,448	0 935 0 785	124 0 613	76 0 342	0 273 0 219	29 0 142	11 0 66	26 14	0 15	3 0 0 0	0 0 0	00	0	00	90,972 6,002 251,500 1,451,096 45,442 5,473 60,031 32,581 13 251,027 893,114 15,526 5,470 362	29,834 5 235,000 808,866 8,613 4,954	0 199,124 676,371 3,801

Notes: Age is retiree's current age nearest birthday at end of fiscal year.

60+ is total for ages 60 and over.

62+ is total for ages 65 and over.

65+ is total for ages 65 and over.

105+ is total retirees receiving payment from DoD.

116- Includes only retirees receiving payment from DoD.

117- Temporary Early Retirement Act (TERA) retirees and payments are shown for informational purposes only.

118- Career Status Bonuw (CSB) retirees and payments are shown for informational purposes only.

118- TERA and CSB numbers and payments are included in the appropriate categories.

128- Pay amounts do not include the 12/1/16 cost of living increase of 0.3%.

VII DoD

	CSB Dis	8888	S	2 8	2 2 2	8 80	2	800	\$4,338 \$8,778	\$15,559	\$10,998 \$16,665 \$19,546	\$20,094	\$26,138 \$27,081 \$30,209	\$32,257 \$32,881 \$31,856	\$34,214 \$31,693	\$32,149 \$48,993	\$34,302 \$26,554 \$40,668	\$28,676	\$22,289 \$38,844 \$10,446	888	\$0 \$0 \$21,174	288	80 S 80 S
	CSB Non-Dis	800 S	80	80 80	80 8 80 8	80	80 80 80 80 80	800	\$0 \$0 \$8.981	\$2,436	\$1,149 \$1,509 \$2,119	\$2,258 \$2,091	\$2,317 \$2,397 \$2,788	\$2,670 \$2,850 \$2,807	\$2,807 \$2,870 \$3,032	\$3,163 \$3,545	\$3,072 \$2,782 \$2,273	\$3,367	\$2,317 \$1,979 \$4,003	\$4,815 \$5,004	\$6,579 \$6,579 \$26,151	\$40,944 \$45,802	80 S
	TERA Res Ret	8888	80	S S	888	808	888	08	888	80 80 80	S S S	08 80 80 80	888	888	0 S S	\$12,833	888	\$81,225 \$25,357	\$9,340 \$13,010	\$13,323	\$12,266 \$11,049	\$10,394	\$9,200 \$9,081 \$9,123
red Pay	TERA Non-Dis	20000	80	S S	888	80 80	888	0 S	\$15,976 \$15,333 \$15,152	\$14,878	\$16,443 \$17,940 \$20.064	\$22,193	\$24,796 \$26,082 \$27,235	\$25,963	\$23,227 \$23,049 \$22,010	\$14,047	\$12,856 \$13,066 \$13,275	\$13,779	\$10,137 \$17,393 \$18,553	\$19,882	\$22,732 \$23,683 \$23,632	\$22,950	\$24,573 \$25,301
Average Annual Net Retired Pay	Total	80 80 80 80 80 80	\$6,453	\$. 4,099 4.1	\$3,825 \$3,539 \$3,143	\$3,431	\$3,911 \$4,042 \$4,576	\$4,593	\$5,703 \$6,312 \$7,264	\$8,409	\$12,418 \$16,470 \$18,954	\$20,441 \$21,734	\$23,339 \$24,469 \$25,429	\$26,144 \$26,807 \$27,562	\$28,449 \$28,913	\$29,290 \$29,564	\$29,336 \$29,158 \$29,010	\$28,610	\$28,744 \$27,494	\$25,776	\$25,424 \$25,424 \$25,317	\$25,190 \$24,851	\$25,153 \$25,725
Average Anr	Reserve Retired	2000	80	S S	888	80	888	08.08	888	800	888	08.08	888	888	888	\$14,839	\$43,797 \$43,235 \$40,832	\$40,867	\$32,966 \$32,966 \$18,590	\$17,461	\$16,315 \$16,195 \$15,896	\$15,605	\$15,281 \$15,501 \$15,430
	Temp Disabled	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,653	\$4,679 \$5,343	\$4,199 \$4,630 \$4,318	\$4,674 \$5,155	\$5,364 \$5,287 \$6,437	\$6,235	\$8,433 \$8,588 \$8,721	\$10,246	\$11,280 \$13,399 \$16,062	\$16,877	\$20,704 \$20,135 \$21,052	\$25,229 \$25,201 \$25,057	\$23,301 \$25,357	\$26,415	\$27,121 \$26,465 \$33,206	\$30,136	\$29,052 \$27,717	\$42,180	\$17,882	0808	08 8
	Perm Disabled	2222	\$6,277	\$3,023 \$3,297	\$3,498 \$2,792 \$2,615	\$2,917 \$3,257	\$3,501 \$3,774 \$4,248	\$4,347	\$5,244 \$5,647 \$6,169	\$6,525	\$7,226 \$8,177 \$9,352	\$10,915	\$13,319 \$14,110 \$15,057	\$15,189 \$15,532 \$15,642	\$16,472 \$15,446	\$15,653 \$16,132	\$15,820 \$15,493 \$15,905	\$15,624	\$15,373 \$15,084 \$16,180	\$16,248	\$16,212 \$16,212 \$16,261	\$15,092	\$12,542 \$12,542 \$13,809
	Non Disabled	88088	80	80 80	\$ 8 8 8	80	& & &	\$38,371	\$17,533 \$15,549 \$15,265	\$14,930	\$18,754 \$21,112 \$22,115	\$22,640	\$24,777 \$25,830 \$26,558	\$27,224 \$27,800 \$28,488	\$29,244 \$29,244 \$29,711	\$30,040	\$29,955 \$29,777 \$29,536	\$29,097	\$29,108 \$29,205 \$29,287	\$29,438	\$30,004 \$30,088 \$30,402	\$30,970	\$32,537 \$33,456
1	CSB Dis	0000	0	00	000	00	000	00	0 - 4	9 41	31 36	45	64 70 48 84	54 58 48	29 20	9 &	r 4 n	-24	<b>7</b> — —	000	0-	000	000
	CSB CSB Non-Dis Dis	0000	0 0	0 0	000	00	000	0 0	0 1 9 0 1 4 1 0		295 14 805 31 1.398 36		4,179 64 5,240 70 6,492 48			2,233 9 1,652 5	1,202 7 882 4 660 1	438 1 336 2	214 2 181 1 137 1	89 0 0	31 0 14 1	3 1 0 0	000
	CSB Non-Dis	0000	0 0	0 0 0	0 0 0	0 0 0 0	000	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							1 2,233 9 0 1,652 5	0 1,202 7 0 882 4 0 660 1	1 336 2		683 89 0 675 95 0		432 1 0 471 3 0	464 0 0 0
	A TERA CSB Dis Res Ret Non-Dis	0000	0 0 0			0 0 0 0		000	17 0 0 0 101 0 1 1 289 0 6 4	0 53 0 121		0 2,205 0 3,214		0 7,928 0 8,439 0 6,897	0 4,719 0 3,112	185 1 2,233 9 405 0 1,652 5	879 0 1,202 7 1,674 0 882 4 2,958 0 660 1			683 675 610	559 502	1,146 432 1 0 895 471 3 0	
	CSB Non-Dis		$3\overline{2}$ $0$ $0$ $0$ $0$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	238 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	885 0 0 0 0 0 1,208 0 0 0 0	1,471 0 0 0 0 0 1,1,377 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.691 0 0 0 0 0 2.984 0 0 0 0 0		606 0 53 946 0 121	0 295 0 805 0 1.398	849 0 2,205 640 0 3,214	0 4,179 0 5,240 0 6,492	222 0 7,928 141 0 8,439 103 0 6,897	0 4,719 0 3,112	185 1 405 0	000	4,114 1 4,926 1	22 2 2 2 4 2 2 2 4 2 2 2 4 2	4,382 683 3,642 675	2,119 559 1,641 502		622 622 506
Number	TERA TERA CSB Non-Dis Res Ret Non-Dis								3,061 3,166 3,119	3,265 606 0 53 3,416 946 0 121	1,042 0 295 1,120 0 805 1,035 0 1.398	10,457 849 0 2,205 13,035 640 0 3,214	15,802 482 0 4,179 18,816 367 0 5,240 22,551 304 0 6,492	25,958 222 0 7,928 26,871 141 0 8,439 28,407 103 6,807	2.0,777 70 0,577 70 34,449 84 0 3,112	37,718 185 1 41,541 405 0	879 0 1,674 0 2,958 0	4,114 1 4,926 1	46,956 5,739 2 46,955 5,739 2 51,329 5,237 224	4,382 683 3,642 675	53,475 2,837 618 61,353 2,119 559 58,319 1,641 502	58,847 1,146 62,183 895 64,613 723	04,713 /23 67,562 622 67,890 506
Number	TERA TERA CSB Total Non-Dis Res Ret Non-Dis		0	00		00	000	00	0 3,061 0 3,166 0 3,119	0 3,265 606 0 53 0 3,416 946 0 121	3,872 1,042 0 295 5,883 1,120 0 805 8,091 1,035 0 1,398	0 10,457 849 0 2,205 0 13,035 640 0 3,214	0 15.802 482 0 4.179 0 18.816 367 0 5.240 0 22.551 304 0 6.492	0 25,958 222 0 7,928 0 26,871 141 0 8,439 0 24,407 103 0 6,8439	0 26,477 103 0 6,007 0 31,037 70 0 4,719 0 34,449 84 0 3,112	2 37,718 185 1 1 41,541 405 0	44,225 879 0 45,988 1,674 0 47,405 2,958 0	53 48,183 4,114 1 12 47,755 4,926 1	592 46,952 5,390 0 592 46,955 5,399 2 6,569 51,329 5,237 224	60,845 4,382 683 60,160 3,642 675	18,743 58,319 1,641 502	58,847 1,146 62,183 895	25,764 67,562 622 26,113 67,890 506
Number	Reserve TERA TERA CSB Retired Total Non-Dis Res Ret Non-Dis		15 0	39 0 80 0	000	259 0 302 0	000	333 0 384 0	0 3,061 0 3,166 0 3,119	280 0 3,265 606 0 53 253 0 3,416 946 0 121	0 3.872 1,042 0 295 0 5.883 1,120 0 805 0 6,091 1,035 0 1,398	193 0 10,457 849 0 2,205 224 0 13,035 640 0 3,214	0 15.802 482 0 4.179 0 18.816 367 0 5.240 0 22.551 304 0 6.492	150 0 25,958 222 0 7,928 112 0 26,871 141 0 84,39 0.0 26,871 141 0 84,39 0.0 26,871 141 0 84,39	83 0 31,377 102 0 0,027 82 0 34,449 84 0 3,112	64 2 37,718 185 1 60 1 41,541 405 0	3 44,225 879 0 9 45,988 1,674 0 23 47,405 2,958 0	27 53 48,183 4,114 1 26 127 47,75 4,926 1 15 127 4,775 6,926 0	15 28/ 46/526 5,300 0 14 52 46/956 5,300 2 10 6,569 51,329 5,237 224	5 16,750 60,845 4,382 683 7 16,413 60,160 3,642 675 7 16,413 60,160 3,642 675	1 18,777 (1,5,777) (2,5,62) (11,6,777) (1,5,777) (1,5,777) (1,5,777) (1,5,777) (1,6,77	20,052 58,847 1,146 22,218 62,183 895	0 25,764 67,562 622 0 26,113 67,890 506
Number	Temp Reserve TERA TERA CSB Disabled Retired Total Non-Dis Res Ret Non-Dis		15 0	39 0 80 0	111 0 150 0 186 0	259 0 302 0	324 0 333 0 352 0	333 0 384 0	371 0 3,061 372 0 3,166 305 0 3,119	2,377 280 0 3,265 606 0 53 2,215 253 0 3,416 946 0 121	230 0 3,872 1,042 0 295 242 0 5,883 1,120 0 805 219 0 8,091 1,035 0 1,398	1,866 193 0 10,457 849 0 2,205 1,880 224 0 13,035 640 0 3,214	206 0 15.802 482 0 41.79 194 0 18.816 367 0 5.240 140 0 22.551 304 0 6,492	2,306 150 0 25,958 222 0 7,928 2,150 112 0 2,8871 41 0 8,439 2,70 98 0 2,8407 113 0 6,8439	1,895 83 0 34,449 84 0 3,112	1,948 64 2 37,718 185 1 1,954 60 1 41,541 405 0	57 3 44.225 879 0 44 4 45.988 1.674 0 33 23 47.405 2.958 0	1,789 27 53 48,183 4,114 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1,592 13 26, 49,326 5,300 0 1,690 14 592 46,955 5,739 2 1,657 10 6,569 51,329 5,237 224	1,685 5 16,750 60,845 4,382 683 1,713 7 16,413 60,160 3,642 675 1,713 7 16,413 60,160 3,642 675	1,773 1 18,774 5,352 2,597 6119 1,742 0 18,743 58,319 1,641 502	0 20,052 58,847 1,146 0 22,218 62,183 895 0 34,048 64,013 773	2,970 0.25,764 07,562 622 2,977 0.25,764 07,562 622 2,755 0.26,113 67,890 506

	Dis	80	2 6	3 5	88	\$0	\$	20	28	\$0	20	200	200	20	2 5	9 9	200	200	35	200	20	28	2 2	200	9 9	200	S 5	28	200	200	28	,537	810	4	
SB																																\$26	\$15,	\$21,174	
0	Non-Dis	80	0 6	99	80	80	20	80	0 8 8	80	80	089	80	80	0,9	9.9	80	80	2	80	80	08	80	80	0.0	80	08	80	80	80	208	\$2,696	\$5,692	\$25,927	
TERA	Res Ret	\$8,845	58,986	58,071	\$7,610	88,797	\$8,387	\$8,834	\$7,378	\$7,005	\$7,429	\$7,281	\$15,194	\$5,028	\$17,483	89,870	80	80	33	80	80	\$9,348	2 S	808	90	8 8	S S	8 8	0,5	808	0 S	\$10,552	\$10,541	\$9,282	
red Pay TERA	Non-Dis	\$26,419	\$26,241	520,427 \$78 164	\$28,355	\$25,741	\$32,293	\$28,579	\$32,981	\$37,385	\$43,273	\$52,838	\$49,060	\$28,764	637,068	\$27,000	\$55,139	80	99	80	80	80	0 8 8	0\$	09	0 8 8	08	80	800	80	80	\$18,550	\$21,715	\$24,384	
ual Net Reti	Total	\$25,988	\$26,529	\$26,703	\$26,584	\$27,197	\$27,431	\$27,061	\$27,164 \$27,467	\$27,633	\$28,780	\$29,575	\$29,831	\$29,867	\$30,067	\$30,921	\$30,983	\$32,767	\$33,041	\$33,191	\$34,643	\$34,699	\$35,233	\$34,421	634.467	\$34,811	\$37,920	\$40,173	\$38,478	80	80	\$26,725	\$26,741	\$26,944	
Average Annual Net Retired Pay Reserve TERA	Retired	\$15,702	\$15,990	515,621	\$15,037	\$15,128	\$14,840	\$14,447	\$14,135	\$14,025	\$14,524	\$15,236	\$14,886	\$14,832	\$14,981	\$15,122	\$15,752	\$16,143	\$16,421	\$16,338	\$16,180	\$17,351	\$18,200	\$19,182	\$20,924	\$21,298	\$23,938	\$29,874	\$24,552	80	80 8 * 0	\$15,688	\$15,637	\$15,312	
	Disabled	80	0.50	9	80	80	80	80	0 8 8	80	80	08	20%	20	069	09.9	80	80	0,0	80	\$0	08	08 08	0,5	0 9	0 0 8 8	S 5	20 80 80 80	88	. S	202	\$11,765	\$32,736	\$000	
	Disabled	\$15,501	\$17,779	\$20,710	\$19,849	\$22,415	\$24,336	\$23,423	\$24,248	\$24,453	\$24,009	\$23,337	\$21,664	\$22,741	525,422	\$26,698	\$30,209	\$30,967	\$30,18/	\$32,123	\$33,377	\$33,220	\$43,380	\$35,593	\$30,451	\$21,196	\$52,112	\$0. \$0.	08.08	888	08 80 80	\$13,552	\$17,992	\$18,451	
	Disabled	\$33,645	\$33,756	632,599	\$32,180	\$32,332	\$32,567	\$32,118	\$32,083	\$32,616	\$33,880	\$34,448	\$35,417	\$35,561	\$35,791	\$36,341	\$37,158	\$40,514	242,316	\$43,810	\$45,980	\$45,755	\$45,568	\$45,724	246,462	\$49,792	\$43,937	\$47,039	\$66,329	80	80	\$30,783	\$32,312	\$33,154	
		0	0 0		0	0	0	0 0	00	0	0	0 0	0	0			0	0	<b>.</b>	0	0	0 0	00	0 0		00	00	. 0	00	00	00	_	7 -		
CSB	Dis																															647			
CSB	Non-Dis	0	00		0	0	0	0	00	0	0	00	0	0		00	0	0	00	0	0	00	0	00		00	00	00	00	0	00	63,311	409	21	
TERA	Res Ret	294	244	198	156	124	129	144	107	116	70	64	9	- 0	7 5	† C	10	0		0	0	0	0	00	0 0	0	00	00	00	0	00	7,679	7,674	4,915	
TERA	Non-Dis	299	107	130	82	44	28	32	19	6	9	v v	n m				-	0	00	0	0	00	0	00	0	0	00	0	00	0 0	00	59,641	15 2 18	0,009	
nber	Total	46,948	45,771	45,615	39,909	37,158	35,897	35,610	33,439	31,505	29,166	25,723	22,546	21,335	18,042	9 440	6,839	5,904	2,411	3,715	3,045	2,346	1,031	618	333	118	55	10	9 4	0	00	1,989,868	1,306,916	1,013,734	
Reserve	Retired	18,207	17,124	15,482	12,250	10,523	10,016	9,792	9,414 8,698	8,157	7,343	6,151	5,631	5,408	3.455	2,433	1,899	1,796	1,83/	1,348	1,079	847	980 414	246	671	51 53	19	<u>7</u> 4	4 K	0 0	00	401,580	377 171	325,154	
Temp	Disabled	0	00		0	0	0	0 0	00	0	0	00	0	0	00	00	0	0	00	0	0	00	0	00		00	00	0	00	0	00	6,991	27	0	
1	Disabled D	1,807	1,611	1,412	1,081	985	829	808	/36 696	959	029	646	751	732	00/	362	228	206	216	207	188	150	67	45	30	7 ==	90	10	00	0	00	109,156	42,135	33,594	
1	Disabled	26,934	27,036	20,311	26,578	25,650	25,052	25,009	25,369	22,692	21,153	18,926	16,164	15,195	17,71	6,864 4,603	4,712	3,902	3,338	2,160	1,778	1,349	609	327	† T	26	30	9	- 7	0	00	1,472,141	864,264	654,986	
	Age	17	7.5	C 7	75	92	77	8 2	6/8	81	82	83	82	86	/00	0 0	86	91	76	95	95	96	86	96	100	102	103	105	106	108	110	Total	+ 69	+69	

Age is retiree's current age nearest birthday at end of fiscal year.

62+ is total for ages 60 and over.

65+ is total for ages 62 and over.

Includes only retrees receiving payment from DoD.

Tenchdes only retrees receiving payment from DoD.

Tenchdes only retrees receiving payment from DoD.

Tenchdes only restricted to the payment of the payments are shown for informational purposes only. Career Status Bonnas (CSB) retrieves and payments are rehavel for informational purposes only.

TERA and CSB numbers and payments are included in the appropriate categories.

Pay amounts do not include the 12/1/16 cost of living increase of 0.3%.

	Total	\$19,967	\$7,372	\$7,564	\$7,344	\$7,788	\$8,373	\$7,367	\$7.965	\$7,991	\$8,401	\$8,631	\$8,472	\$9,583	\$9,812	\$11,219	\$12,206	\$12,269	\$8,499	\$12,420	\$10,909	\$9,662	\$10,080	\$11,370	\$10,229	\$8,101 \$7,820	\$10,957	\$10,211	\$10,499	\$10,257	\$10,380	\$10,998	\$11,368	\$11,053	\$11,801	\$11,829 \$12,248	\$12,009	\$11,296	\$11,801	\$11,681	\$12,022	\$11,607	011,010
ıy	RSFPP	80	0.9	80	80	80	80	0 8 8 8	0\$	80	80	\$3,534 \$0	80	80	08	\$492	80	80	80	90	08 80	80	80 80	80	0 S	\$2,556 \$0	80	\$0	\$000	\$8.412	\$6,005	\$2,785	80	\$1,770 \$2.624	\$3,278	\$1,504 \$2,469	\$2,837	\$3,925	\$2,734 \$2,990 \$4,789	\$3,402	\$3,952	\$2,164 \$2,164 \$2,767	101,10
Average Annual Net Survivor Pay	Death on Active Duty	\$6,894	\$7,560	\$7,593	\$7,304	\$7,852	\$8,438	\$7,353	\$7,891	\$8,138	\$8,407	\$8,709	\$8,489	\$9,188	\$9,224	\$10,290	\$12,087	\$12,473	\$7,980	\$10,848	\$7,281	\$9,358	\$9,833	\$5,269	\$8,260	\$4,403 \$5,653	\$7,715	\$7,780	\$9,374	\$8.736	87,767	\$8,871	\$11,728	\$8,953	\$12,114	\$9,940 \$10,788	\$13,889	\$12,199	\$13,851	\$15,235	\$15,481	\$16,541	C716+10
ge Annual N	Minimum Income	80	0.5	80	80	080	80	0\$ 80	0\$	80	80	0 8 8	80	0\$	80	80	\$0	08	80	90	0\$ 80	80	80 80	80	0 9	\$0 80 80 80 80	80	80	808	80	80	08 80 80	80	\$ \$	80	80 S	80	80	Q Q Q	80	800	Q Q Q	>
Avera	RCSBP	\$10,404	0.50	\$3,966	80	0\$ \$0	\$4,056	\$4,265	\$4,706	\$6,253	\$3,777	\$6,294	\$5,038	\$6,238	\$7,145	\$4,388	\$6,029	\$3,634	\$4,935	\$8,739	\$7,056	\$5,040	\$6,839	89,887	\$5,342	\$6,344 \$5,719	\$7,001	\$5,891	\$6,736	\$7,500	\$7,258	\$9,588	\$6,570	\$6,266	\$7,887	\$7,601 \$8,632	\$7,456	\$7,867	\$7,606 \$7,606 \$8,287	\$7,163	\$7,592	\$8,145 \$8,145 \$7,594	
	SBP	\$28,803	\$2,286	\$11,210	\$10,956	\$6,304	\$6,789	\$8,390	\$9,325	\$6,691	\$8,942	\$8,333	\$9,092	\$11,557	\$11,670	\$13,651	\$13,452	\$12,605	\$9,787	\$14,388	\$12,440	\$10,637	\$11,205	\$15,572	\$11,924	\$12,034	\$13,094	\$13,351	\$11,938	\$12,730	\$13,100	\$12,487	\$13,205	\$13,535	\$13,481	\$14,352	\$13,457	\$12,619	\$13,888	\$13.250	\$13,432	\$12,864 \$12,864 \$17,624	. 10,110
	Total	12	7 58	125	181	381	399	539	<u>4</u>	632	687	764 675	673	667	448	237	158	86	39	6 6	34 3	39	22 23	52	54	62 73	86	106	113	2 2	146	213	210	248 327	353	402 411	200	809	895 912	1.053	1,216	1,492	1,110
	RSFPP	0	00	0	0	00	0	0 0	• 0	0	0 .	- 0	0	00	0	1	0 0	0 0	0 0	0 0	0	0	0 0	0	0 0	0 - 0	0	0 -	- 0 0	e en	∞ ‹	3 6	0	4 1	6	9	7	10	34 7	12	16	0 Q Z	3
ber	Death on Active Duty	4 !	27	124	179	364	385	516	868	699	618	962 556	524	513	296	118	79	35	6	× :	9	21	18	19	34	24 36	31	41	35	59	43	28 28	89	86 86	80	8 8 8 8	80	91	2,4 7 4 4 8	68	81	8 8 8	3
Number	Minimum Income	0	00	0	0	0 0	0	00	0	0	0	00	0	0 0	0	0	0	0	0	0 0	0	0	00	0	0 0	00	0	0 0	000	0	0	0 0	0	00	0	00	0	0 0	000	0	00	000	>
	RCSBP		0 0	-	0	0 0		4 4		\$	<b>∞</b> (	9 1-		16	1 (4		. 12	5	L 2	17	n vn	2	∞ v∩	4	vo v	, 6 6	7		41 4			27				81	1		238			426	
	SBP	7	- "	0	2	10	13	19	. 4	28	19	92	124	135	128	100	19	98	23	67 6	7 02	16	33	29	£ %	288	09	51	2 2 4	72	97	125	66	144	194	224 242	299	364	549 549 560	671	823	994	
	Age	0	- (	3 6	4	8 9	7	∞ o	10	Ξ	12	E 4	15	16	18	19	20	22	23	7 7	7 7 7 8	27	3 8 3 8	30	33	3 8 8	35	36	38.5	9 4	4 5	4 4 43	4	45 46	47	8 4 8 4	50	51	53 54 54	55	56	. 85 E	,

### DoD Survivor Valuation Data as of Year-End FY 2016

		,	ım	er				Averag	ge Annual N	Average Annual Net Survivor Pay	м	
Age	SBP	RCSBP	Minimum Income A	Death on Active Duty	RSFPP	Total	SBP	RCSBP	Mnimum Income	Death on Active Duty	RSFPP	Total
90 19	1,264	638	00	76 56	19 8	1,997 2,138	\$13,364	\$8,267	\$0	\$15,365 \$17,896	\$4,407 \$5,356	\$11,727
62	1,617	864	0 0	54	9 :	2,541	\$13,131	\$7,833	80	\$14,305	\$6,042	\$11,338
8 2	1,806	908 1,137	00	59 49	10	3,164	\$13,065	\$7,387	8 80	\$15,637	\$5,723	\$11,282
65	2,089	1,299	0	49	7	3,444	\$13,285	\$7,707	80	\$14,154	\$2,290	\$11,171
9 5	2,349	1,427	0 0	52 46	9 =	3,834	\$13,471	\$7,704 \$7,604	0S S	\$13,942	\$4,193	\$11,316
8 8	2,978	1,876		35	17	4,907	\$13,555	\$7,632	\$7,801	\$14,929	\$3,398	\$11,264
8 8	3,772	2,172	> -	43	. e	6.190	\$13.895	\$7.856	\$8.628	\$12,896	\$1,328	\$11.568
17	3,283	1,843	0	33	10	5,169	\$14,000	\$7,812	80	\$13,593	\$2,417	\$11,769
27 25	3,818	2,103	0 0	37	2 2	5,971	\$13,913	87,716	S 5	\$11,866	\$2,112	\$11,692
5 47	5,110	2,550	0	20	18	7,728	\$13,933	\$7,836	\$0 \$0	\$13,562	\$2,055	\$11,891
75	5,274	2,502	0	14	17	7,834	\$13,953	\$7,855	80	\$11,209	\$2,157	\$11,965
92 5	5,606	2,512	- 0	39	36	8,194	\$14,064	\$7,748	\$8,628	\$9,349	\$2,146	\$12,052
. e	6,132	2,656	0 6	5 6	04 6	9,664	\$14,118	57.878	\$8.628	\$10,632	\$1,534	\$12,130
79	7,023	2,800	5	4	19	9,927	\$14,506	\$8,002	\$7,915	\$13,611	\$2,276	\$12,591
80	7,297	2,921	3	28	117	10,396	\$14,742	\$7,955	\$7,785	\$11,658	\$2,276	\$12,676
81	7,795	3,146	9	45	137	11,129	\$15,047	\$7,939	\$7,477	\$11,476	\$2,377	\$12,863
85	1,198	3,109	7 (	20	195	11,160	\$15,242	\$8,088	57,884	\$13,771	\$2,121	\$13,011
8 8	7,738	3,084	7	48	310	11,181	\$15,038	\$8,269	\$7,038	\$12,474	\$2,203	\$13,466
85	7,446	3,035	-	48	300	10,830	\$16,703	\$8,372	\$5,602	\$12,683	\$2,719	\$13,962
98	7,211	2,868		14.5	366	10,487	\$16,927	\$8,702	\$8,628	\$14,308	\$2,446	\$14,161
× ×	6,457	2,739	n v	31 57	352	9,384	\$17,194	88,539	100,10	\$13,299	\$2,287	\$14,169
68	5,474	2,581	9	20	372	8,453	\$17,821	\$9,030	\$8,289	\$11,272	\$2,639	\$14,447
06	5,247	2,506	4 (	24	394	8,175	\$18,770	\$9,210	\$9,536	\$13,558	\$2,661	\$15,043
166	5,120	2,439	<i>v</i> c	/7	382	7,971	\$19,409	\$9,235	\$8,628	\$15,808	\$2,889	\$15,488
93	4,165	2,084	14	61	360	6,632	\$20,670	\$9,550	\$7,451	\$17,600	\$3,416	\$16,222
94	3,268	1,822	2	=	327	5,430	\$21,147	\$9,807	\$7,002	\$11,299	\$2,927	\$16,219
95	2,741	1,624	e -	16	252	4,636	\$21,125	\$10,057	\$8,628	\$18,851	\$3,435	\$16,270
97	1,721	798	2	0 4	153	2,156	\$22,274	\$10,004	\$7,683	\$8,305	\$4,146	\$16,704
86	780	349	- 7	ю c	99	1,383	\$21,262	\$10,810	\$3,926	\$14,370	\$3,251	\$16,167
001	1 1	163	٠ -	4 0	3 6	100	\$21,30g	611,476	\$6,703	00,010	070,730	616.541
101	170	105	- 0	0	25	300	\$22,118	\$11,042	\$0,949 \$0	08	\$2,929	\$16,541
102	86	67	0 0	0	= °	176	\$20,174	\$10,979	S 80	80	\$1,597	\$15,513
103	33	43 32	00	0	6 9	71	\$17,662	\$11,490	0 8 8	8 8	\$5,845	\$10,872
105	20	6	0	0	3	32	\$15,447	\$9,585	80	80	\$7,448	\$13,049
106	= '	ς.	0 -	0	- (	17	\$25,177	\$12,324	80	80	\$3,852	\$20,142
108	4 %	2	- 0	0 0	7 0	× 4	\$13.581	\$7,800	\$8,364	Q 9	\$1,818	\$7,101
109	ı m	2 2	2	0	0	7	\$17,004	\$11,220	\$8,628	80	80	\$12,958
110	0	0	0	0	0	0	80	80	80	80	80	80
ΞΞ	0 0	0 0	0 0	0 0	0 0	0 0	0\$	80	80	0\$	80	0\$ \$0
113	0	00	0 0	0	0	0 0	0	0 0		0 0	0 0	9
114	0	0	0	0	0	0	0	0	0	0	0	80
Total	183,807	86,036	89	10,874	5,945	286,730	\$15,779	\$8,351	\$7,875	29,667	\$2,771	\$13,047
+09	173,668	82,349	89	1,501	5,754	263,340	\$15,950	\$8,384	\$7,875	\$13,588	\$2,752	\$13,280
62+	170,994	81,047	<b>8</b> 8	1,369	5,727	259,205	\$15,991	\$8,390	\$7,875	\$13,313	\$2,742	\$13,305
+60	165,603	/8,138	89	1,20/	5,695	250,711	\$16,086	\$8,414	\$7,875	\$13,010	\$2,732	\$13,374
Notes: Ag	ge is survivor's + is total for as	current age nees 60 and over	Notes: Age is survivor's current age nearest birthday at end of fiscal year. 60+ is total for ages 60 and over.	at end of fisc	ıl year.							

604 is total for ages 60 and over.

65 - is total for ages 60 and over.

65 - is total for ages 62 and over.

65 - is to all for ages 62 and over.

66 - is to all for ages 63 and over.

67 - is to all for ages 63 and over.

68 - is to all for ages 67 and over.

69 - is to all for ages 67 and over.

Two-life survivors are given by the age of the adult survivor. For the survivor sare given by the age of the adult survivor. Benefit payments are counted individually.

RCSBP includes all reserve survivors, whether or not the reserve retiree elected RCSBP.

RCSBP includes all reserve survivors, whether or not the reserve retiree elected RCSBP.

Amounts do not include the 12/1/16 cost of living increase of 0.3%.

Amounts do not include increased survivor benefits as part of Special Survivor Indemnity Allowance (NDAA 2008 and P.L. 111-31).

The liability calculated in this valuation, however, reflects the increased benefits.

### APPENDIX D

### **ECONOMIC ASSUMPTIONS**

	<u>Page</u>
Inflation	90
Interest Rate	91
Wage Growth	92
Table D-1: DoD Board of Actuaries' Long-Term Economic Assumptions	93
Table D-2: Average Consumer Price Index (CPI-W) Increases	94
Table D-3: Average Real Yield Rates on New Purchases	95
Table D-4: Average Real Military Retirement Fund Effective Yield	96
Table D-5: Average Real Military Personnel Basic Pay Increases	97

### **ECONOMIC ASSUMPTIONS**

In July 2016, the DoD Board of Actuaries adopted the following economic assumptions for use in the valuation as of September 30, 2016: the rate of inflation (CPI) is assumed to be 2.75 percent per year; the investment return (interest rate) is 5.25 percent per year; and the basic pay scale increases are 3.25 percent per year. As noted in the "Valuation Data and Procedure" section in the main text, the valuation results are highly sensitive to changes in these three primary economic assumptions. As background for determining the economic assumptions, the Board receives information from economists and actuaries and is provided with extensive historical data on inflation, interest rates, and wage growth. The Board analyzes past trends, current environment, and future expectations. As part of their assessment of the current environment, the Board also considers what other federal retirement and social insurance systems are assuming as well as other government agencies and financial experts. Table D-1 shows the DoD Board of Actuaries' long-term economic assumptions by valuation year since the Fund's inception in 1984.

The comparisons to Civil Service and Social Security in this appendix are not meant to imply an expectation that all three systems should use the same assumptions. There are differences in terms of the trust funds themselves and the programs financed by the trust funds.

### Inflation

The CPI-W, one of the consumer price indexes published by the Bureau of Labor Statistics (BLS), is emphasized as an inflation measure since it is used in calculating military retired pay cost-of-living increases. The CPI-W measures the average price change for Urban Wage Earners and Clerical Workers and covers approximately 29 percent of the U.S population. (The CPI-W is a subset of the broader CPI-U measure which computes the average price change for All Urban Consumers and covers approximately 93 percent of the U.S. population). The CPI-W is the common index used to make cost-of-living adjustments for labor contracts.

Table D-2 shows the average annual CPI-W changes over various periods of time since 1940. Different periods experienced different rates of change. The average annual CPI change during successive 30-year periods since World War II has risen from 3.79 percent for the period ending in 1975 to 5.20 percent for the period ending in 1995. This reflects the high inflation during the 1970s. The average annual CPI change during the 36-year period ending in 2016 is 2.73 percent.

The DoD assumption for CPI is reasonably consistent with what is used in other parts of the government. In its 2016 report, the Civil Service Retirement System (CSRS) assumes a 3.00 percent CPI increase. The Trustees of the Social Security Administration (SSA) in their 2016

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The notes and transcript from the July 2016 meeting can be found at: <a href="http://facadatabase.gov/committee/meetingdocuments.aspx?flr=141815&cid=2191&fy=2016">http://facadatabase.gov/committee/meetingdocuments.aspx?flr=141815&cid=2191&fy=2016</a>

Annual Report made projections under three alternative sets of assumptions. Their intermediate assumption for CPI was 2.6 percent (other assumptions: low  $\cos t - 3.2$  percent; high  $\cos t - 2.0$  percent). The Board has noted that in certain respects, the effect of the CPI on the valuation is relatively minor in a system where retirement benefits are fully indexed and expressed as a percentage of payroll.

### **Interest Rate**

The Board analyzes Tables D-3 and D-4, as well as other material presented to them, when setting the interest assumption. The Board focuses on real interest rates. To simplify discussion, the real interest rate is defined as the difference between the nominal interest rate and the CPI. Other things being equal, a lower element of risk in an investment will give a lower real interest rate. Because the Military Retirement Fund must be invested in obligations of the U.S. Government, a highly secure investment, the real interest rates are expected to be relatively low. As noted in the "Assets" section in the main text, the Fund is currently heavily investing in Treasury Inflation-Protected Securities (TIPS). TIPS allow the investor/institution to lock in the real interest rate for the given period of time.

The Board examines past real interest rates that would have been earned by the types of public debt securities in which the Fund is invested. The Board recognizes the importance of selecting a real interest rate that would prevail on average over a long period of time and that would not unduly weight recent experience or expected results during the near-term future.

Table D-3 depicts the average real yield rates on new purchases of the Fund. Because the Fund was established in 1984, the DoD Office of the Actuary constructed a Composite Series to simulate what new purchases would have yielded in the past.

Table D-4 shows the average real Military Retirement Fund effective yield. The effective yield calculation uses a "dollar-weighted yield," which is computed by dividing the investment income by the average amount of principal invested throughout the year. Since the Fund's inception, the average annual real yield is 4.42 percent.

After analyzing past trends and forecasts of government trust fund earnings, 2.50 percent was adopted as the assumed rate of real interest. Since 2.75 percent had been adopted as the inflation rate, the assumed nominal rate of interest is 5.25 percent (5.25 = 2.50 + 2.75). This is commonly known as the "building block method" in setting actuarial assumptions.

It is relevant to note the real interest rates being assumed by the other two major public benefit systems. The SSA Trustees used an intermediate ultimate real interest rate assumption of 2.7 percent in their 2016 report (other assumptions: low  $\cos t - 3.2$  percent; high  $\cos t - 2.2$  percent). The Board of Actuaries of the CSRS used a 2.25 percent real interest rate assumption in its 2016 valuation.

### Wage Growth

For the salary increase assumption, recent historical data is used as well as expectations for the future. The Career Compensation Act of 1949 revamped the military compensation structure to provide an equitable pay and allowance system. Associated with this change was a large basic pay increase designed to establish rough comparability with the private sector. Additionally, the Army and Air Force Vitalization and Retirement Equalization Act of 1948 established for the first time a uniform voluntary retirement system authority among all branches of Service. The reserve retirement program was also established at this time. These two Acts provided the start of the modern-day compensation structure designed to attract and retain the number of Service members needed. In the analysis of basic pay scale increases, the Board looks at all data from this point forward.

The Military Pay Comparability Act of 2003 ensures that military pay increases are comparable to private sector pay growth, as measured by the Employment Cost Index (ECI) – Wages and Salaries index on a 15-month lag. ("Wages and Salaries" account for about 70 percent of the broader "Compensation" costs, with "Benefits" making up the remaining 30 percent.) Covenants are embedded within the Act which give the President the authority to propose an alternate basic pay adjustment. This Act specifically referenced fiscal years through 2006. However, Congress has continued to use the basic framework of the Act in the subsequent fiscal years.

Table D-5 displays real military basic pay increases over various periods of time during the post-World War II era. From the early 1950s to the early 1970s, the average annual real military pay increase was approximately 1.79 percent. From the early 1950s to the present, the increase has averaged approximately 0.92 percent a year. Since the Vietnam War (~1970), annual real pay increases have averaged only 0.54 percent. (There was negative real pay growth in the late 1970s and late 1980s as well as numerous years since 2005.)

In making its recommendation for the real rate of the annual basic pay scale increase, the Board considered information presented and adopted a real basic pay growth assumption of 0.50 percent, leading to a nominal growth of 3.25 percent (3.25 = 0.50 + 2.75). The Board of Actuaries of the CSRS assumed 0.25 percent real wage growth for its 2016 valuation. The Social Security Trustees' 2016 report had an intermediate ultimate assumption for real wage growth of 1.2 percent (other assumptions: low cost -1.8 percent; high cost -0.5 percent). (For the Military Retirement System and CSRS, wage increase relates to "across-the-board" salary increase which excludes merit and certain longevity increases, whereas for Social Security, wage increase generally relates to the total salary increase.)

TABLE D-1 DOD BOARD OF ACTUARIES' LONG-TERM ECONOMIC ASSUMPTIONS

Fiscal Year	Inflation (1)	Interest (2)	Salary Growth (3)	Real Interest (4)	Real Salary (5)
1984	5.00%	6.60%	6.20%	1.60%	1.20%
1985	5.00	6.60	6.20	1.60	1.20
1986	5.00	6.60	6.20	1.60	1.20
1987	5.00	6.60	6.20	1.60	1.20
1988	5.00	7.00	5.75	2.00	0.75
1989	5.00	7.00	5.75	2.00	0.75
1990	5.00	7.00	5.75	2.00	0.75
1991	5.00	7.50	5.50	2.50	0.50
1992	5.00	7.50	5.50	2.50	0.50
1993	5.00	7.50	5.50	2.50	0.50
1994	4.00	6.75	4.50	2.75	0.50
1995	4.00	6.75	4.50	2.75	0.50
1996	3.50	6.50	4.00	3.00	0.50
1997	3.50	6.50	4.00	3.00	0.50
1998	3.50	6.50	4.00	3.00	0.50
1999	3.00	6.25	3.50	3.25	0.50
2000	3.00	6.25	3.50	3.25	0.50
2001	3.00	6.25	3.50	3.25	0.50
2002	3.00	6.25	3.50	3.25	0.50
2003	3.00	6.25	3.75	3.25	0.75
2004	3.00	6.25	3.75	3.25	0.75
2005	3.00	6.25	3.75	3.25	0.75
2006	3.00	6.00	3.75	3.00	0.75
2007	3.00	6.00	3.75	3.00	0.75
2008	3.00	5.75	3.75	2.75	0.75
2009	3.00	5.75	3.75	2.75	0.75
2010	3.00	5.75	3.75	2.75	0.75
2011	3.00	5.75	3.75	2.75	0.75
2012	3.00	5.50	3.50	2.50	0.50
2013	3.00	5.50	3.50	2.50	0.50
2014	3.00	5.50	3.50	2.50	0.50
2015	2.75	5.25	3.25	2.50	0.50
2016	2.75	5.25	3.25	2.50	0.50

- NOTES:

  (1) Board Assumption
  (2) Board Assumption
  (3) Board Assumption
  (4) = (2) (1)
  (5) = (3) (1)

TABLE D-2

AVERAGE CONSUMER PRICE INDEX (CPI-W) INCREASES

	1940	1945	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2014
TO END OF:	JF:																							
1945	5.25																							
1945	5.91	6.57																						
1955	4.39	3.96	1.43																					
1960	3.82	3.35	1.77	2.12																				
1965	3.32	2.84	1.63	1.73	1.33																			
1970	3.52	3.18	2.35	2.65	2.92	4.54																		
1975	4.00	3.79	3.24	3.70	4.23	5.71	06.9																	
1980	4.64	4.55	4.22	4.79	5.46	88.9	8.07	9.24																
1985	4.55	4.46	4.16	4.62	5.13	6.10	6.63	6.50	3.82															
1990	4.48	4.40	4.13	4.52	4.93	99.5	5.95	5.63	3.87	3.91														
1995	4.34	4.25	4.00	4.32	4.64	5.20	5.34	4.95	3.56	3.42	2.94													
2000	4.18	4.08	3.84	4.11	4.36	4.80	4.85	4.4	3.28	3.09	2.69	2.44												
2005	4.06	3.96	3.72	3.96	4.16	4.52	4.52	4.13	3.14	2.96	2.65	2.51	2.58											
2006	4.05	3.95	3.72	3.94	4.14	4.49	4.49	4.10	3.14	2.98	2.69	2.58	2.70	3.30										
2007	4.02	3.92	3.69	3.91	4.10	4.44	4.43	4.04	3.11	2.95	2.67	2.56	2.64	2.80	2.30									
2008	4.05	3.95	3.73	3.95	4.14	4.47	4.46	4.10	3.20	3.07	2.84	2.80	3.03	3.79	4.04	5.80								
2009	3.99	3.89	3.66	3.87	4.05	4.37	4.35	3.97	3.09	2.94	5.69	2.60	5.69	2.83	2.67	2.86	0.00							
2010	3.93	3.83	3.60	3.80	3.97	4.27	4.23	3.86	2.99	2.82	2.55	2.42	2.42	2.26	2.00	1.90	0.00	0.00						
2011	3.92	3.82	3.60	3.80	3.96	4.25	4.22	3.85	3.01	2.85	2.60	2.50	2.52	2.48	2.32	2.32	1.19	1.78	3.60					
2012	3.89	3.79	3.57	3.76	3.92	4.20	4.16	3.79	2.97	2.81	2.56	2.45	2.45	2.37	2.21	2.20	1.31	1.76	2.65	1.70				
2013	3.86	3.76	3.54	3.72	3.87	4.14	4.10	3.73	2.92	2.76	2.51	2.40	2.38	2.26	2.11	2.08	1.35	1.69	2.26	1.60	1.50			
2014	3.83	3.73	3.51	3.69	3.83	4.09	4.04	3.68	2.89	2.73	2.48	2.36	2.33	2.20	5.06	2.03	1.41	1.69	2.12	1.63	1.60	1.70		
2015	3.78	3.67	3.45	3.62	3.76	4.01	3.95	3.59	2.80	2.63	2.38	2.24	2.17	1.97	1.83	1.77	1.21	1.41	1.69	1.22	1.06	0.85	0.00	
2016	3.73	3.62	3.40	3.57	3.70	3.93	3.87	3.50	2.73	2.56	2.30	2.15	2.06	1.82	1.67	1.61	1.09	1.25	1.46	1.04	0.87	99.0	0.15	0.30

All figures are average annual percentage increases

Source: Bureau of Labor Statistics

\*\*\* CPL-W SERIES: DECEMBER TO DECEMBER INCREASES FROM 1930 TO 1984;
ACTUAL COST-OF-LIVING ADJUSTMENTS GIVEN TO MILITARY RETIREES BEGINNING FISCAL YEAR 1985.
- MRF COLAS ARE CALCULATED AS THE INCREASE FROM 3RD QUARTER TO 3RD QUARTER.

TABLE D-3

	2015																									29.0
	2014 20																								2.38	1.52 0.
																								3		
	2013																									1.42
	2012																						1.41	1.32	1.67	1.42
	2011																					0.19	0.80	0.94	1.30	1.17
	2010																				-0.64	-0.22	0.32	0.54	0.91	0.87
	2009																			1.26	0.31	0.27	0.55	69.0	0.97	0.92
	2008																		2.01	1.64	0.87	0.70	0.84	0.91	1.12	1.06
	2007																	1.94	1.98	1.74	1.14	0.95	1.02	1.05	1.22	1.16
HASES	2006																2.20	2.07	2.05	1.85	1.35	1.16	1.19	1.20	1.33	1.26
W PURC	2005															2.27	2.24	2.14	2.11	1.94	1.50	1.32	1.33	1.32	1.42	1.35
ON NE	2000														1.32	1.48	1.58	1.63	1.67	1.63	1.42	1.32	1.32	1.32	1.39	1.34
RATES	1995													3.31	2.31	2.31	2.30	2.27	2.25	2.19	2.01	1.90	1.87	1.84	1.87	1.81
YIELD	1990												2.93	3.12	2.52	2.50	2.48	2.45	2.43	2.37	2.23	2.13	2.10	2.06	2.08	2.02
AVERAGE REAL YIELD RATES ON NEW PURCHASES	1985											5.06	3.99	3.76	3.15	3.10	3.06	3.01	2.97	2.90	2.76	2.67	2.62	2.57	2.57	2.51
VERAG	1980										8.31	29.9	5.41	4.88	4.16	4.09	4.02	3.94	3.87	3.79	3.64	3.53	3.47	3.40	3.37	3.29
Ą	1975									-0.51	3.81	4.22	3.90	3.78	3.37	3.33	3.30	3.25	3.22	3.16	3.05	2.98	2.93	2.89	2.88	2.82
	1970								0.10	0.30	2.49	3.13	3.09	3.12	2.86	2.85	2.83	2.81	2.79	2.75	5.66	2.60	2.58	2.55	2.54	2.50
	1965							1.34	0.62									2.63					2.45	2.42	2.42	2.39
	1 0961						5.64		1.29									2.64					2.46		2.44	2.41
	1955 1							1.82										2.53 2					2.38 2	2.36 2		2.33 2
	1950				02																		2.27 2			
	51			41																						
	BER 31 OF: 40 1945	31 OF:	œ		·	•		94 0.38					6 1.73					5 1.84					1.76	1.76		1.75
	FROM DECEMBER 31 OF: 1940 194	TO DECEMBER 31 OF:	5 -3.28							0 -0.25			5 1.26				7 1.45		9 1.46		1.43		3 1.41	1.41		5 1.41
	FROM	TO DE	1945	1950	1955	1960	1965	1970	197	1980	1985	199(	1995	2000	2005	2000	200,	2008		2010	201	2012	2013	201	201	2016

<sup>- &</sup>quot;Real" rates defined as the difference between the associated nominal rate and the CPI-W (Table D-2).

\*\*\* COMPOSITE SERIES: TREASURY LONG TERM SECURITIES WITH REMAINING MATURITIES OF 10 OR MORE YEARS FROM 1941; OF 1941; AYEARS REMAINING MATURITY FROM 1941 TO 1941; SPECIAL TREASURY CERTHECATES (CR85) FROM 1952 TO 1954 MILITARY RETIREMENT SUSTEM TRUST FUND NEW INVESTMENTS BEGINNING WITH 1985

 <sup>-</sup> All figures are average annual percentages.
 - Real yields for non-TIPS securities are computed as the nominal yield at purchase offset by inflation in the year of purchase.
 For TIPS securities, the real yield is known and constant throughout the life of the security.

Source: Office of the Actuary, Office of Personnel Management; Office of the Actuary, Department of Defense

TABLE D-4

	2008 2009 2010 2011 2012 2013 2014 2015																								00.0	2.10 3.22	2.23	1.89 1.23	1.81 1.35 1.40	1.74 1.37 1.41 1.51	1.75 1.45	1.79 1.55 1.61 1.71 1.75	
	2004 2005 2006 2007																						2.55	2.45 2.34	1.6/ 1.76 1.3/ 0.40	1.90	1.79 1.63	1.71 1.57	1.69 1.57	1.66 1.55	1.67 1.58	1.71 1.62	
UND EFFECTIVE YIELD	2001 2002 2003 20																			3.34	2.99 2.64	2.45 2.01	2.48 2.19	2.45 2.23	2.40 1.95 1.71 1	2.10 1.93	2.01 1.84	1.93	1.90 1.75	1.86 1.72	1.85 1.73	1.87 1.75	
ERAGE REAL MILITARY RETIREMENT FUND EFFECTIVE YIELD	1997 1998 1999 2000														76	5.56	4.96	5.05 4.80	5.21 5.09	4.83 4.65	4.46 4.25	4.02 3.76	3.83 3.59	3.67 3.43	3.44 3.17 7.88 7.71	3.13 2.91	2.98 2.77	2.86 2.65	2.77 2.57	2.69 2.50	2.63 2.45	2.60 2.43	
AVERAGE REAL M	1994 1995 1996 19													6.29	6.26 6.63	6.09 6.27	5.74 5.79	5.66 5.68	2.68	5.37 5.34	5.06 5.00	4.69 4.59	4.49 4.39	4.31 4.20	397 379 3.65 3	3.75 3.62	3.59 3.46	3.45 3.32	3.34 3.22	3.12	3.05	3.11 3.00	
	1990 1991 1992 1993							5.90	6.27	6.29 6.32	6.10 6.02		5.94 5.86	6.00 5.95	6.12		5.88 5.83	5.81 5.76	5.80 5.75	5.59 5.53	5.36	5.07 4.98	4.90 4.81	4.81 4.74 4.64 4.52	4.48	4.23 4.11	3.96	3.82	3.92 3.83 3.71 3.59	3.81 3.72 3.61 3.48	3.73 3.64 3.53 3.41	3.67 3.58 3.47 3.35	able D-2).
	1989				6.24		5.22 4.72 4.29	5.11 5.09	5.40 5.48		5.61 5.70		5.63 5.70	5.70 5.77	5.83 5.90	5.87	5.68 5.73	5.65 5.69	5.65 5.69	5.52	5.31 5.33	5.08 5.07	4.94 4.92	4.87 4.80 4.78 4.	4.5/ 4.34	4.35 4.31	4.29 4.21 4.17 4.	4.17 4.08 4.04 4.0	4.07 3.98 3.93 3.9	3.97 3.88 3.83 3.1	3.89 3.81 3.75 3.7	3.83 3.74 3.69 3.0	he associated nominal rate and the CPI-W (Tai
	FROM PERIOD CORRESPONDING TO END OF FISCAL YEAR. 1984 1985 1986 1987 1988	TO END OF FISCAL YEAR:	1985 1427	 1987 10.35 8.45 6.52	9.31 7.71	8.47 7.06	7.76		7.34 6.38		7.07 6.30	6.96 6.26	6.84 6.19	6.80 6.20	6.81 6.26	6.73 6.21	6.58 6.09	6.50 6.03		6.29 5.86	6.10 5.69	5.87 5.47	5.72 5.33			5.10 4.74	4.95	2012 4.82 4.48 4.26	4.70	2014 4.59 4.27 4.06	2015 4.50 4.19 3.98	2016 4.42 4.12 3.92	- "Real" rates defined as the difference between the associated nominal rate and the CPI-W (Table D-2)

Source, Office of the Actuary, Department of Defense \*\*\* THE EFFECTIVE VIELD CALCULATION USES A "DOLLAR-WEIGHTED VIELD", "DOLLAR-WEIGHTED VIELDS" ARE COMPUTED BY

TABLE D-5

)								AVI	ERAGE	REAL N	AVERAGE REAL MILITARY PERSONNEL BASIC PAY INCREASES	XY PER	SONNEI	BASIC	PAY IN	CREAS	ES							
-	FROM DE	FROM DECEMBER 31 OF: 1945 19.	31 OF: 1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	TO DECE	TO DECEMBER 31 OF:	JF:																					
	1950	-2.21																						
	1955	-0.48	1.28																					
	1960	-0.49	0.39	-0.50																				
	1965	0.58	1.52	1.65	3.84																			
	1970	0.97	1.79	1.96	3.21	2.58																		
	1975	1.31	2.03	2.22	3.14	2.80	3.02																	
	1980	0.79	1.30	1.31	1.76	1.08	0.34	-2.26																
	1985	0.93	1.39	1.40	1.79	1.28	0.85	-0.21	1.89															
	1990	0.77	1.14	1.12	1.40	0.92	0.51	-0.32	19.0	-0.53														
	1995	0.70	1.03	0.99	1.21	0.78	0.42	-0.22	0.47	-0.23	80.0													
	2000	0.73	1.03	1.01	1.20	0.82	0.54	0.05	0.63	0.22	0.59	1.11												
	2005	0.77	1.05	1.02	1.20	0.87	0.63	0.24	0.74	0.46	0.79	1.15	1.19											
	2006	0.74	1.01	0.98	1.15	0.82	0.58	0.19	19.0	0.39	89.0	0.95	0.81	-1.07										
_	2007	0.75	1.01	0.99	1.15	0.83	09:0	0.22	69.0	0.42	0.70	0.97	98.0	0.05	1.17									
9	2008	0.71	96.0	0.93	1.08	0.77	0.53	0.16	09.0	0.32	0.56	0.75	0.53	-0.57	-0.32	-1.80								
7	2009	0.75	1.00	0.98	1.13	0.83	0.61	0.26	0.70	0.45	0.71	0.94	0.84	0.41	06.0	0.77	3.40							
_	2010	92.0	1.01	0.99	1.14	0.84	0.63	0.29	0.72	0.49	0.75	0.97	06.0	0.61	1.03	0.98	2.40	1.40						
	2011	0.72	96.0	0.93	1.08	0.78	0.56	0.23	0.63	0.39	0.62	0.79	0.64	0.18	0.43	0.24	0.93	-0.28	-1.93					
	2012	0.71	0.95	0.92	1.05	92.0	0.55	0.22	0.61	0.38	0.59	0.74	0.58	0.15	0.36	0.19	0.70	-0.19	-0.97	0.00				
	2013	69.0	0.92	0.89	1.03	0.74	0.52	0.20	0.58	0.35	0.54	0.67	0.50	0.07	0.24	0.08	0.46	-0.26	-0.81	-0.25	-0.49			
	2014	0.67	0.90	0.87	0.99	0.71	0.50	0.18	0.54	0.31	0.49	09.0	0.42	-0.01	0.12	-0.03	0.27	-0.35	-0.78	-0.39	-0.59	-0.69		
	2015	89.0	0.90	0.87	1.00	0.72	0.51	0.21	0.56	0.35	0.52	0.63	0.47	0.12	0.25	0.14	0.41	-0.08	-0.37	0.03	0.04	0.30	1.30	
	2016	69.0	0.92	0.89	1.01	0.74	0.54	0.24	09.0	0.39	0.57	69.0	0.56	0.27	0.40	0.32	0.59	0.19	-0.01	0.38	0.47	08.0	1.55	1.79
	=	2	(V V - 11 - 11 / 11 M / 11 M / 11 - 11 - 11			-	5	1 - 1-	ć															

<sup>- &</sup>quot;Real" rates defined as the difference between the associated nominal rate and the CPI-W (Table D-2).

<sup>-</sup> All figures are average annual percentage increases. - Excludes annual, year-specific targeted adjustments.

### APPENDIX E

### NORMAL COST WEIGHTING FACTORS

	<u>Page</u>
Normal Cost Weighting Factors	99
Table E-1: Basic Payroll Percentage Distribution by Completed Years of Service	100

### NORMAL COST WEIGHTING FACTORS

There are four different retirement benefit formulas that apply to different populations within the Military Retirement System<sup>1</sup>. (See Appendix A for a discussion of *Final Pay*, *High-3*, *CSB/Redux*, *and BRS* benefit formulas.) A single normal cost percentage (NCP) for the entire population is obtained by weighting the NCP for each retirement group by its expected percentage of payroll in the relevant year<sup>2</sup>.

In order to continue to budget for NCPs well in advance of the valuation date, the DoD Board of Actuaries decided to create a set of projected weighting factors. The relative stability of past experience indicates that this method gives reasonable results.

Current rates were created using 2010 data. Table E-1 displays the active duty and reserve basic payroll percentage distributions by completed years of service at the end of FY 2010.

<sup>&</sup>lt;sup>1</sup> The Blended Retirement System (enacted in NDAA 2016) is the fourth tier, effective January 1, 2018, for those who enter military service on or after January 1, 2018, or opt-in with fewer than 12 years of service during the 1 year open season starting January 1, 2018. NDAA 2016 also sunsets CSB/Redux and repeals all aspects of BBA 2013 (reduced annual cost-of-living adjustments for "working age" retirees), as amended.

 $<sup>^2</sup>$  For BRS, assumptions for the proportions of eligible members who will "opt-in" to the new plan are also needed. These assumptions are shown in Appendix F.

TABLE E-1

BASIC PAYROLL PERCENTAGE DISTRIBUTION
BY COMPLETED YEARS OF SERVICE

Completed	Percentage of Pay	roll on 9/30/2010:
Years of Service	Full-time	Part-time
Service	run-ume	rait-tille
0	3%	0.5%
1 or less	8%	6%
2 or less	13%	11%
3 or less	18%	16%
4 or less	24%	20%
5 or less	28%	24%
6 or less	32%	27%
7 or less	37%	31%
8 or less	41%	35%
9 or less	45%	38%
10 or less	49%	41%
11 or less	53%	44%
12 or less	56%	46%
13 or less	59%	49%
14 or less	63%	51%
15 or less	66%	53%
16 or less	68%	55%
17 or less	71%	58%
18 or less	75%	60%
19 or less	78%	64%
20 or less	81%	67%
21 or less	84%	70%
22 or less	86%	74%
23 or less	89%	77%
24 or less	91%	80%
25 or less	93%	83%
26 or less	95%	86%
27 or less	96%	89%
28 or less	97%	91%
29 or less	98%	93%
30 or less	98%	94%
31 or less	99%	95%
32 or less	99%	96%
33 or less	99%	97%
34 or less	100%	98%
35 or less	100%	98%
36 or less	100%	99%
37 or less	100%	99%
38 or less	100%	100%
39 and greater	:::	:::
TOTAL FORCE	100%	100%

Figures are assumed to represent fiscal year payroll proportions by year of entry. For example, for full-time members 3% of payroll in a fiscal year is assumed to apply to members who entered in that fiscal year; 8% of payroll is assumed to apply to members who entered in that fiscal year or the year prior; etc.

### APPENDIX F

### VALUATION PROGRAM PARAMETERS

	<u>Page</u>
Valuation Program Parameters Description	102
Table F-1: Economic Factors	103
Table F-1: Active Duty	103
Table F-1: Reserve Duty	107
Table F-1: Retiree.	108
Table F-1: Survivor.	109

### VALUATION PROGRAM PARAMETERS DESCRIPTION

GORGO is an actuarial projection model run in a spreadsheet environment with embedded Visual Basic programming. The purpose is to simulate future cash flows impacting the Military Retirement Fund. The model is used to compute the aggregate entry-age normal cost percentage, unfunded liability, and make long-term projections; in some cases slight adjustments to GORGO cash flow projection are made outside of GORGO. In addition to being affected by the decrement rates, GORGO has a number of parameters which affect its results. These parameters are generally summaries of recent experience and/or future expectations. Examples include the rates of election of the Survivor Benefit Plan and member-spouse age differences.

Public Law (P.L.) 108-136 ("Concurrent Receipt") requires additional breakouts of some parameters in order to calculate the DoD and Treasury normal cost components. Subsequent legislation required further breakouts.

A description of major valuation program parameters is given in Table F-1. The table is organized by population group with the economic factors reproduced for user convenience. Numerical values are also shown for selected items. To keep this report manageable and prevent unintentional misuse, other parameters not described as well as numerical values not shown in the table may be requested if needed.

### TABLE F-1

### DESCRIPTION OF THE MAJOR VALUATION PROGRAM PARAMETERS

### **Economic Factors**

<u>Item</u> <u>Description/Value</u>

1) Salary Increase A parameter for each of the next ten fiscal years

specifies the annual percentage increase in basic pay for the active duty and reserve duty members. An 11th parameter specifies the percentage

increase for subsequent years. The value for the

valuation is 3.25 percent.

2) CPI (Inflation) A parameter for each of the next nine fiscal years

specifies the annual inflation (Consumer Price Index - CPI) rate for that year. A tenth parameter specifies the inflation rate for all subsequent years. The value

for the valuation is 2.75 percent.

3) Interest Rate A parameter for each of the next nine fiscal years

specifies the annual interest rate for that year. A tenth parameter specifies the interest rate for all

subsequent years. The value for the

valuation is 5.25 percent.

4) Lump Sum Discount Rate A parameter that specifies the assumed annual

interest rate (in real economic terms) used to calculate BRS lump sums. The value for the

valuation is 7.3%.

### **Active Duty**

<u>Item</u> <u>Description/Value</u>

1) Member Election of Spouse or This gives the percentage of members by age, Spouse/Child SBP Coverage officer/enlisted status, and Career Status Bonus (CSB)

election status who have elected spouse or

spouse/child coverage under the Survivor Benefit Plan

*DoD Office of the Actuary* 

(SBP).

Item

### Description/Value

2) Full Offsets

A member who is disabled may waive all or part of his or her retired pay to receive benefits from the Veterans Administration (VA). Furthermore, a member who decides to convert his or her military service to receive a federal civilian retirement also waives his or her right to a military pension. These amounts are not included when computing normal costs or unfunded liabilities. The percent of retired pay of new retirees that is fully offset is given by officer/enlisted status, benefit tier, and type of retirement (disability/nondisability). Disability status is given further by those with over and under 20 years of service.

3) Partial VA Offsets

It is possible to have part of DoD retired pay offset by VA compensation. The parameter is defined as the percent of retired pay out of the total paid new retirees. They are given by officer/enlisted status, benefit tier, and disability/nondisability status. Disability status is given further by those with over and under 20 years of service.

4) Disability Factor

When an active duty member is disabled and receives DoD disability retirement, retired pay is based on a minimum (30%), a maximum (given by the conditions discussed in Appendix A regarding Disability Retirement), and a disability rating. These are combined into a single officer/enlisted factor, expressed as a percentage of Final, or High-3, pay and given by length of service and temporary disability or permanent disability retirement.

### Item

### Description/Value

5) Percent Active Duty with Beneficiary

When a member dies from a Service-connected disability or on active duty, any surviving spouse is eligible for Dependency and Indemnity Compensation (DIC) from the Veterans Administration. In addition, if the member dies in the line of duty or after completing 20 years of service, the surviving spouse is eligible for an SBP annuity from DoD which would bring the total amount of the benefit up to 55 percent of the member's retired pay. The excess of the SBP annuity over DIC comes from the Military Retirement Fund. If no spouse is present, the benefit passes on to an eligible child. If both spouse and eligible child are present then, under certain tax provisions, it is advantageous for the spouse to pass the benefits to the child. Thus, it is necessary to estimate the percent of active duty members with beneficiaries. The percentages are given by officer/enlisted status, and further allocated by spouse/child.

- 6) Reduction Factors for SBP
- Premium amounts, as a percent of retired pay, by age, officer/enlisted status, and benefit tier.
- 7) Rounding Assumptions for Partially Completed Years of Service
- When retired pay is computed, years of service are rounded down to the nearest completed month. An assumption must be made for the computation. The value for the valuation is 0.017.

8) CSB/Redux election proportion

The proportion of members who elect CSB/Redux. For the unfunded liability and open group valuations, the proportion varies by entry year and officer/enlisted status. For the normal cost (new entrant) valuation, the proportion is 10 percent. This value is essentially a representative rate needed to approximate the floating proportions (of CSB/Redux electors) used in the unfunded liability and open group valuations.

### Item

### Description/Value

9) Initial Annual Pay of 16-year-old Active Duty Officer This value is used to allocate a portion of part-time benefits to full-time in normal cost valuations, thus linking the radixes (i.e., notional starting populations) and pay of full- and part-time members. The value for the valuation is \$36,189.

10) Accumulated Value of Partial Pay in the First Year of Service

This amount is used to properly align the decrement rates with the assumption, in a normal cost run, of a new entrant cohort starting with zero years of service.

11) BRS Opt-In Rates

Rates used to determine the portion of members with fewer than 12 years of service as of December 31, 2017, electing, during the calendar year 2018 Open Season, to opt-in to BRS. Varies by years of service and officer/enlisted. Rates are based on results from a RAND Corp. analytical model approved with minor adjustments by the Board. Separate rates are used for NCP weighting and census purposes to reflect timing differences in the respective modeling needs. Reservists are assumed to have opt-in rates equal to half of the active duty rates (i.e., multiply the below rates by 0.5).

	NCP	Ce	nsus
YOS	Off / Enl	Officer	Enlisted
0	100.0%	100.0%	100.0%
1	98.4%	85.5%	95.0%
2	93.5%	85.6%	95.0%
3	93.3%	85.2%	95.0%
4	92.5%	83.5%	93.3%
5	90.5%	80.2%	92.9%
6	88.9%	79.9%	90.2%
7	84.8%	79.1%	76.8%
8	74.1%	77.4%	57.5%
9	61.1%	70.9%	45.0%
10	46.3%	45.8%	17.4%
11	24.1%	28.5%	10.2%
12	12.4%	0.0%	0.0%
13+	0.0%	0.0%	0.0%

### Item

### Description/Value

12) BRS Lump Sum Election Rates

This is the rate of election of lump sums by those who are covered under BRS. The value is based on a study completed by an external organization and represents members having a "Low Personal Discount Rate and Aware of Tax and VA Offset Implications." It is an interpolated value for active duty using an assumed lump sum discount rate (used to calculate lump sums) of 7.3%; the assumptions are 5.2% for officers and 22.8% for enlisted. Of those who elect lump sums, all are assumed to elect the 50% lump sum option.

### **Reserve Duty**

### Item

### Description/Value

1) Ratio of Net to Gross Retired Pay For Reserves This is the ratio of reserve net retired pay to gross retired pay. This is given by officer/enlisted status, age, and benefit tier.

2) Proportion of Points Based on Active Service

This amount is used to allocate the part of the reserve normal cost that should be paid for as a part of the active duty normal cost. The value for the valuation is 51%.

3) Initial Annual Pay of new Selected Reserve member

This array is used to set initial pay for a new Selected Reserve member in a normal cost run. The values for the valuation are updated with an across-the-board salary increase each year.

4) Reserve Retirement Age FYs

An assumption is made to reflect the number of years, on average, reservists retire early due to performing certain active service, per P.L. 110-181. An average reduction of two years (age 58) is assumed. Fiscal years are needed to phase into this earlier retirement over time. The transition to an average retirement age of 59 is assumed to occur in 2024, and the transition to age 58 is assumed to occur in 2033. See also the 'Retiree Gain Statement' in Appendix K.

### Item

### Description/Value

5) Ratio of Reserve to Active Payroll

For the purposes of the allocation referred to in item 2) above, this value represents the assumed ratio of reserve duty to active duty basic payroll. The value for the valuation is 10%.

6) BRS Opt-In Rates

Rates used to determine the portion of members with fewer than 4,320 points as of December 31, 2017, opting into BRS during the calendar year 2018 Open Season. Varies by years of service and officer/enlisted. They are equal to ½ of the Opt-In Rates for Active Duty (Item 11).

7) BRS Lump Sum Election Rates

This is the rate of election of lump sums by those who are covered under BRS. The value is based on a study done by an external organization and represents members having a "Low Personal Discount Rate and Aware of Tax and VA Offset Implications." It is an interpolated value for reserves using an assumed lump sum discount rate (used to calculate lump sums) of 7.3%; the assumptions are 2.0% for officers and 8.4% for enlisted. Of those who elect lump sums, all are assumed to elect the 50% lump sum.

### **Retiree**

<u>Item</u>

### Description/Value

1) Retired Pay Adjustment Factors

Retired pay of current retirees is adjusted for VA compensation, SBP offset changes, and other non-COLA effects during the year. They are given by officer/enlisted status, disability/nondisability, and whether or not the member has elected SBP spouse or spouse/child coverage.

# **TABLE F-1 (continued)**

# Item

# Description/Value

2) Retired Pay Adjustment to Members With SBP Spouse Coverage

These factors model data that show mortality is better (or less), and non-death loss from paid status is generally higher, for those retired members who elect SBP spouse coverage. Rather than develop additional sets of mortality and loss rates, the respective retiree death and loss rates (Appendix I) are adjusted with these factors. This impacts retirees with SBP spouse coverage. The factors are given by active/reserve, disability/nondisability status, and officer/enlisted status.

# **Survivor**

# Item

# Description/Value

1) Member-Survivor Age Difference

When a member dies, a survivor is assumed to be a certain number of years younger (or older) than the member. This is given by active/reserve, age, officer/enlisted status, type of retirement (i.e., nondisability, temporary disability, permanent disability), and type of survivor (i.e., spouse, child, insurable interest).

2) Ratio of SBP Base Amount to Net Retired Pay

Under SBP the retiree may elect an amount less than his or her gross retired pay as a base in computing the survivor annuity. Base amounts can also exceed net retired pay because of factors that reduce gross retired pay to net retired pay. This is expressed as a percentage of net retired pay and is given by age, officer/enlisted status, benefit tier, and type of retirement (disability/nondisability/reserve). Additional adjustments are made to the factors as part of Concurrent Receipt.

3) Ratio of RSFPP Survivor Benefit To Net Retired Pay For RSFPP (Retired Servicemen's Family Protection Plan), this gives the ratio of the survivor payment to the net amount of retired pay.

4) Reservists' Election of RCSBP

Proportion of reservists who have elected the Reserve Component Survivor Benefit Plan (RCSBP) by immediate and deferred annuity, age, and officer/enlisted status.

# TABLE F-1 (continued)

<u>Item</u>	Description/Value
5) Partial DIC Offsets	The percent of survivor pay of new survivors whose pay is partially offset by DIC. They are given by the member's active/reserve status.
6) Full DIC Offsets	The percent of survivor pay of new survivors whose pay is fully offset by DIC. They are given by the member's active/reserve status.
7) Rates for Electing SBP Options	Given that a member elects SBP, there is still a choice of options: spouse only, child only, spouse and child, or insurable interest (some other designated beneficiary in the absence of a spouse or child). These are expressed as ratios to those electing spouse only or spouse/child coverage, and are given by age, officer/enlisted status, and type of retirement (disability/nondisability/reserve).
8) Rates for Election of RSFPP Options	Given that a member elected an RSFPP option, there was a choice of options: spouse only, child only, or spouse and child. These are expressed as ratios to those electing spouse only or spouse/child coverage, and are given by age and officer/enlisted status.
9) Survivor Pay Adjustment Factors	Survivor pay of current survivors is adjusted for changes in DIC and other non-COLA effects during the year.
10) DIC Base Amount	Monthly amount by which DoD annuitant pay is offset by DIC. Future values are indexed to CPI. The first-year value for the valuation is \$1,259.

# APPENDIX G

# ACTIVE DUTY RATES

	<u>Page</u>
Active Duty Rate Description	112
Active Duty Rate Formulas	114
Summary of Years On Which Active Duty Rates Are Based	115
Death for Nonretired Military	116
Officer Nondisability, Temporary Disability and Permanent Disability Retirement	117
Enlisted Nondisability, Temporary Disability and Permanent Disability Retirement	118
Officer Withdrawal, Reentrant and Net Loss	119
Enlisted Withdrawal, Reentrant and Net Loss	120
Percentage Distribution of New Entrants	121
Paygrade Transfer	122
Officer Promotion and Merit Basic Pay Increase Scales	123
Enlisted Promotion and Merit Basic Pay Increase Scales	124

# ACTIVE DUTY RATE DESCRIPTION

The active duty rates consist principally of decrement rates related to the probabilities of a member leaving a category of military service for a specific cause. In addition, they include a new entrant distribution, a set of reentrant ratios, and ratios for promotion and merit pay increases. For the purposes of active duty rate development, full-time support reservists (excluding Army National Guard) are included in the underlying data.

The active duty decrement rates are used to project active duty deaths, temporary and permanent disability retirements, nondisability retirements, and withdrawals (i.e., other active duty losses). As noted in the "Valuation Data and Procedure" section, as well as Table 6B, in the main text, the valuation results for active duty members and the full-time normal cost are highly sensitive to the withdrawal rates. In addition, the active duty decrements include rates of transfer between officer and enlisted status. The death rates are given by age nearest birthday for officers and enlistees separately. The remaining decrement rates are given by completed years of active service for officers and enlistees separately. The formulas used to derive the active duty rates are given on the following page. The fiscal years on which various rates are based are given on the subsequent page. The experience period was selected such that the sum of the active force size changes for the included periods was near zero, and the experience period intentionally excludes the significant downsizing of the early 1990s, which is not considered a representative basis upon which to develop long-run actuarial assumptions. Full-time reservist experience is included in the data used to develop the rates.

Active duty disability retirement rates were updated in last year's (September 30, 2015), valuation using an underlying experience period from FY 2010 – FY 2014 for years of service less than 19. These rates recognize the increase in disability retirements resulting from implementing a new Integrated Disability Evaluation System (IDES, operated jointly by DoD and the VA since 2007), as well as a notable increase in combat-related disability retirements. The data available for study could not fully explain the reasons for the increased disability retirement experience (i.e., the inability to separate combat-related injuries by incidence year due to some backlogs created by moving to the IDES). In order to recognize this inherent uncertainty in the data, and also to acknowledge potential future improvements to reduce the severity of combat-related injuries and potential reductions to combat exposure, the Board agreed to remove half of the combat-related disabilities from the FY 2010 – FY 2014 experience period. However, the Board also agreed that OACT should add an additional amount of accrued liability to recognize the higher number of disability retirements expected in the near term (phased out over the next four years) compared to what the new disability rates produce.

Generally, the decrement rates were graduated (smoothed) using Whittaker-Henderson graduations. The typical active duty career has inherent discontinuities at select points (reenlistment, promotion, retirement, etc). Rates were separated into ranges where assumptions of continuity were reasonable. Where actual discontinuities exist, the rates were not smoothed.

A reentrant is defined as someone who is on active duty at year end, who was not on active duty a year earlier, and who is not a new entrant. The reentrant ratios give the expected

number of reentrants per year, per active member, in each cell. The cells are defined by length of active service and by officer/enlisted status.

The new entrant distribution gives the percentages of new entrants to the military by age and by officer/enlisted status. This distribution is only used in the normal cost (new entrant) valuation and the open-group projection.

The promotion and merit increase scales (PAMS) give the expected annual percentage increase in pay regardless of whether or not there are across-the-board increases in the active duty pay table. The PAMS do not include adjustments for inflation or productivity increases. They are defined by length of service, by entry age, and by officer/enlisted status. The PAMS were created by first arraying the average pay for each entry age along a dimension of increasing years of service. The PAMS were then computed by dividing the average pay at the next year of service by the average pay at the current year of service.

# ACTIVE DUTY RATE FORMULAS

ACTIVE DEATH (by age nearest birthday)

Deaths during year

[Number at beginning of year - ½ (withdrawals + nondisability retirements during year)]

NONDISABILITY RETIREMENT (by completed years of service)

New retirees during year Number at beginning of year

TEMPORARY DISABILITY RETIREMENT (by completed years of service)

New temporary disabilities during year

[Number at beginning of year - ½ (withdrawals + nondisability retirements during year)]

PERMANENT DISABILITY RETIREMENT (by completed years of service)

New permanent disabilities during year

[Number at beginning of year - ½ (withdrawals + nondisability retirements during year)]

WITHDRAWAL (by completed years of service)

Withdrawals during year Number at beginning of year

REENTRANT RATIOS (by completed years of service)

Number reentering during year Number at beginning of year

PERCENTAGE DISTRIBUTION OF NEW ENTRANTS (by age nearest birthday)

New entrants during year
Total new entrants

PAYGRADE TRANSFER (by completed years of service)

Transfers to category during year

[Number at beginning of year - ½ (withdrawals + nondisability retirements during year)]

PROMOTION AND MERIT SCALES (by entry age and completed years of service)

Average basic pay at next year of service using current year pay table

Average basic pay at current year of service

# SUMMARY OF YEARS ON WHICH ACTIVE DUTY RATES ARE BASED

# By Fiscal Year

<u>RATE</u>	<u>1982-1989</u>	<u>1997-1999</u>	2000-2008	2010-2014*	<u>2015</u>
Death				X	X
Nondisability Retirement	X	X	X		
Temporary Disability Retirement				X	
Permanent Disability Retirement				X	
Withdrawal (other losses)	X	X	X		
Reentrant Ratios	X	X	X		
New Entrant Distribution	X	X	X		
Paygrade Transfer	X	X	X		
Promotion and Merit Scales (PAMS)	X	X	X		

<sup>\*</sup> In the construction of the disability-related rates, we removed one half of the combat-related disability retirements occurring during the the FY 2010-2014 experience period. This removal only affects rates less than 19 years of service. We subtracted additional disability retirements from withdrawals, thereby affecting withdrawal rates and not impacting the percentage making 20 year retirement.

# DEATH RATES FOR NONRETIRED MILITARY

(AGE NEAREST BIRTHDAY)

Age	Officer	Enlisted
16	0.00048	0.00067
17	0.00047	0.00069
18	0.00046	0.00070
19	0.00045	0.00071
20	0.00044	0.00073
21	0.00043	0.00074
22	0.00043	0.00075
23	0.00042	0.00075
24	0.00042	0.00073
25	0.00041	0.00072
26 27	0.00040 0.00039	$0.00070 \\ 0.00068$
28	0.00039	0.00067
28 29	0.00039	0.00067
30	0.00039	0.00064
31	0.00038	0.00063
32	0.00038	0.00062
33	0.00037	0.00061
34	0.00037	0.00062
35	0.00037	0.00062
36	0.00038	0.00062
37	0.00038	0.00061
38	0.00039	0.00062
39	0.00039	0.00062
40	0.00040	0.00062
41	0.00040	0.00064
42	0.00041	0.00064
43	0.00042	0.00066
44	0.00044	0.00067
45	0.00046	0.00070
46	0.00049	0.00073
47 48	0.00051 0.00055	0.00077 $0.00081$
48 49	0.00059	0.00081
50	0.00063	0.00089
51	0.00068	0.00089
52	0.00073	0.00099
53	0.00078	0.00105
54	0.00084	0.00110
55	0.00089	0.00116
56	0.00095	0.00122
57	0.00100	0.00129
58	0.00107	0.00135
59	0.00113	0.00141
60	0.00119	0.00147

Note: These death rates should not be compared to other published rates or used for other purposes without examining the exposure formula used in the derivation.

# NONDISABILITY, TEMPORARY DISABILITY & PERMANENT DISABILITY RETIREMENT RATES

# OFFICERS (BY COMPLETED YEARS OF SERVICE)

Service         disability         Disability ****         Disability ****           0         0.00000         0.00033         0.00037           1         0.00000         0.00064         0.00038           2         0.00000         0.00091         0.00096           3         0.00000         0.00101         0.00096           4         0.00000         0.00107         0.00154           5         0.00000         0.00107         0.00154           7         0.00000         0.00112         0.00103           8         0.00000         0.00115         0.00152           9         0.00000         0.00115         0.00152           9         0.00000         0.00103         0.0171           10         0.00000         0.00105         0.00153           11         0.00000         0.00105         0.00153           12         0.00000         0.00098         0.0013           13         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00154           15         0.00000         0.00080         0.00154           15         0.00000         0.00077         0.0	Years of	Non-	Temporary	Permanent
1         0.00000         0.00064         0.00038           2         0.00000         0.00083         0.00074           3         0.00000         0.00091         0.00096           4         0.00000         0.00101         0.00087           5         0.00000         0.00107         0.00154           7         0.00000         0.00112         0.00103           8         0.00000         0.00115         0.00152           9         0.00000         0.00103         0.00171           10         0.00000         0.00103         0.00171           10         0.00000         0.00105         0.00153           11         0.00000         0.00098         0.00135           12         0.00000         0.00090         0.00148           13         0.00000         0.00090         0.00148           13         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00154           15         0.00000         0.00080         0.00154           16         0.00000         0.00069         0.00202	Service	<u>disability</u>	Disability ***	Disability ***
1         0.00000         0.00064         0.00038           2         0.00000         0.00083         0.00074           3         0.00000         0.00091         0.00096           4         0.00000         0.00101         0.00087           5         0.00000         0.00107         0.00154           7         0.00000         0.00112         0.00103           8         0.00000         0.00115         0.00152           9         0.00000         0.00103         0.00171           10         0.00000         0.00103         0.00171           10         0.00000         0.00105         0.00153           11         0.00000         0.00098         0.00135           12         0.00000         0.00090         0.00148           13         0.00000         0.00090         0.00148           13         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00154           15         0.00000         0.00080         0.00154           16         0.00000         0.00069         0.00202	0	0.00000	0.00033	0.00037
2         0.00000         0.00091         0.00074           3         0.00000         0.00091         0.00096           4         0.00000         0.00101         0.00087           5         0.00000         0.00107         0.00154           7         0.00000         0.00112         0.00103           8         0.00000         0.00115         0.00152           9         0.00000         0.00103         0.00171           10         0.00000         0.00105         0.00153           11         0.00000         0.00105         0.00153           12         0.00000         0.00098         0.00135           12         0.00000         0.00080         0.00154           13         0.00000         0.00080         0.00154           14         0.00000         0.00080         0.00154           15         0.00000         0.00080         0.00154           15         0.00000         0.00069         0.00202           17         0.00000         0.00059         0.00224           18         0.00000         0.00059         0.00224           18         0.00000         0.0048         0.00204				
3         0.00000         0.00091         0.00096           4         0.00000         0.00101         0.00087           5         0.00000         0.00095         0.00093           6         0.00000         0.00107         0.00154           7         0.00000         0.00112         0.00103           8         0.00000         0.00115         0.00152           9         0.00000         0.00103         0.00171           10         0.00000         0.00105         0.00153           11         0.00000         0.00098         0.00135           12         0.00000         0.00099         0.00148           13         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00154           15         0.00000         0.00080         0.00154           15         0.00000         0.00077         0.00159           16         0.00000         0.00069         0.0022           17         0.00000         0.00069         0.00224           18         0.00000         0.00059         0.00224           19         0.24556         0.00192         0.0141				
4         0.00000         0.00101         0.00087           5         0.00000         0.00095         0.00093           6         0.00000         0.00107         0.00154           7         0.00000         0.00112         0.00103           8         0.00000         0.00115         0.00152           9         0.00000         0.00103         0.00171           10         0.00000         0.00105         0.00153           11         0.00000         0.00098         0.00135           12         0.00000         0.00098         0.00135           13         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00154           15         0.00000         0.00080         0.00154           15         0.00000         0.00077         0.00159           16         0.00000         0.00069         0.00202           17         0.00000         0.00059         0.00224           18         0.00000         0.00048         0.00204           19         0.24556         0.00192         0.00141           20         0.20352         0.00231         0.00178 <td></td> <td></td> <td></td> <td></td>				
5         0.00000         0.00095         0.00093           6         0.00000         0.00107         0.00154           7         0.00000         0.00112         0.00103           8         0.00000         0.00115         0.00152           9         0.00000         0.00103         0.00171           10         0.00000         0.00105         0.00153           11         0.00000         0.00098         0.00135           12         0.00000         0.00090         0.00148           13         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00154           15         0.00000         0.00080         0.00154           15         0.00000         0.00069         0.00252           17         0.00000         0.00069         0.00202           17         0.00000         0.00059         0.00224           18         0.00000         0.00048         0.00204           19         0.24556         0.00192         0.00141           20         0.20352         0.00231         0.00198           21         0.16113         0.00169         0.00178 <td></td> <td></td> <td></td> <td></td>				
6         0.00000         0.00107         0.00154           7         0.00000         0.00112         0.00103           8         0.00000         0.00115         0.00152           9         0.00000         0.00103         0.00171           10         0.00000         0.00105         0.00153           11         0.00000         0.00098         0.00135           12         0.00000         0.00090         0.00148           13         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00154           15         0.00000         0.00077         0.00159           16         0.00000         0.00069         0.00202           17         0.00000         0.00069         0.00224           18         0.00000         0.00048         0.00204           19         0.24556         0.00192         0.00141           20         0.20352         0.00231         0.00198           21         0.16113         0.00169         0.00178           22         0.14428         0.00204         0.00150           23         0.14541         0.00222         0.00187 </td <td></td> <td></td> <td></td> <td></td>				
7         0.00000         0.00112         0.00103           8         0.00000         0.00115         0.00152           9         0.00000         0.00103         0.00171           10         0.00000         0.00105         0.00153           11         0.00000         0.00098         0.00135           12         0.00000         0.00090         0.00148           13         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00154           15         0.00000         0.00077         0.00159           16         0.00000         0.00069         0.00202           17         0.00000         0.00059         0.00224           18         0.00000         0.00048         0.00204           19         0.24556         0.00192         0.00141           20         0.20352         0.00231         0.00198           21         0.16113         0.00169         0.00178           22         0.14428         0.00204         0.00150           23         0.14541         0.00222         0.00187           24         0.14305         0.00209         0.00176     <				
8         0.00000         0.00115         0.00152           9         0.00000         0.00103         0.00171           10         0.00000         0.00105         0.00153           11         0.00000         0.00098         0.00135           12         0.00000         0.00090         0.00148           13         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00154           15         0.00000         0.00077         0.00159           16         0.00000         0.00069         0.00202           17         0.00000         0.00059         0.00224           18         0.00000         0.00048         0.00204           19         0.24556         0.00192         0.00141           20         0.20352         0.00231         0.00198           21         0.16113         0.00169         0.00178           22         0.14428         0.00204         0.00150           23         0.14541         0.00222         0.00187           24         0.14305         0.00209         0.00176           25         0.18396         0.00214         0.00140				
9         0.00000         0.00103         0.00171           10         0.00000         0.00105         0.00153           11         0.00000         0.00098         0.00135           12         0.00000         0.00080         0.00148           13         0.00000         0.00080         0.00154           15         0.00000         0.00077         0.00159           16         0.00000         0.00069         0.00202           17         0.00000         0.00059         0.00224           18         0.00000         0.00048         0.00204           19         0.24556         0.00192         0.00141           20         0.20352         0.00231         0.00198           21         0.16113         0.00169         0.00178           22         0.14428         0.00204         0.00150           23         0.14541         0.00222         0.00187           24         0.14305         0.00209         0.00176           25         0.18396         0.00214         0.00140           26         0.19135         0.00361         0.00210           27         0.22470         0.00322         0.00166				
10         0.00000         0.00105         0.00153           11         0.00000         0.00098         0.00135           12         0.00000         0.00090         0.00148           13         0.00000         0.00080         0.00175           14         0.00000         0.00080         0.00154           15         0.00000         0.00077         0.00159           16         0.00000         0.00069         0.00202           17         0.00000         0.00059         0.00224           18         0.00000         0.00048         0.00204           19         0.24556         0.00192         0.00141           20         0.20352         0.00231         0.00198           21         0.16113         0.00169         0.00178           22         0.14428         0.00204         0.00150           23         0.14541         0.00222         0.00187           24         0.14305         0.00209         0.00176           25         0.18396         0.00214         0.00140           26         0.19135         0.00361         0.00210           27         0.22470         0.00322         0.00166				
11       0.00000       0.00098       0.00135         12       0.00000       0.00090       0.00148         13       0.00000       0.00080       0.00175         14       0.00000       0.00080       0.00154         15       0.00000       0.00077       0.00159         16       0.00000       0.00069       0.00202         17       0.00000       0.00059       0.00224         18       0.00000       0.00048       0.00204         19       0.24556       0.00192       0.00141         20       0.20352       0.00231       0.00198         21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00361       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         3				
12       0.00000       0.00090       0.00148         13       0.00000       0.00080       0.00175         14       0.00000       0.00080       0.00154         15       0.00000       0.00077       0.00159         16       0.00000       0.00069       0.00202         17       0.00000       0.00059       0.00224         18       0.00000       0.00048       0.00204         19       0.24556       0.00192       0.00141         20       0.20352       0.00231       0.00198         21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         3				
13       0.00000       0.00080       0.00175         14       0.00000       0.00080       0.00154         15       0.00000       0.00077       0.00159         16       0.00000       0.00069       0.00202         17       0.00000       0.00059       0.00224         18       0.00000       0.00048       0.00204         19       0.24556       0.00192       0.00141         20       0.20352       0.00231       0.00198         21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         3				
14       0.00000       0.00080       0.00154         15       0.00000       0.00077       0.00159         16       0.00000       0.00069       0.00202         17       0.00000       0.00059       0.00224         18       0.00000       0.00048       0.00204         19       0.24556       0.00192       0.00141         20       0.20352       0.00231       0.00198         21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         3				
15       0.00000       0.00077       0.00159         16       0.00000       0.00069       0.00202         17       0.00000       0.00059       0.00224         18       0.00000       0.00048       0.00204         19       0.24556       0.00192       0.00141         20       0.20352       0.00231       0.00198         21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
16       0.00000       0.00069       0.00202         17       0.00000       0.00059       0.00224         18       0.00000       0.00048       0.00204         19       0.24556       0.00192       0.00141         20       0.20352       0.00231       0.00198         21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
17       0.00000       0.00059       0.00224         18       0.00000       0.00048       0.00204         19       0.24556       0.00192       0.00141         20       0.20352       0.00231       0.00198         21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
18       0.00000       0.00048       0.00204         19       0.24556       0.00192       0.00141         20       0.20352       0.00231       0.00198         21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
19       0.24556       0.00192       0.00141         20       0.20352       0.00231       0.00198         21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
20       0.20352       0.00231       0.00198         21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
21       0.16113       0.00169       0.00178         22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
22       0.14428       0.00204       0.00150         23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
23       0.14541       0.00222       0.00187         24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
24       0.14305       0.00209       0.00176         25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
25       0.18396       0.00214       0.00140         26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
26       0.19135       0.00361       0.00210         27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
27       0.22470       0.00322       0.00166         28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
28       0.20692       0.00367       0.00262         29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
29       0.49853       0.00505       0.00341         30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
30       0.37879       0.00692       0.00435         31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
31       0.28016       0.00534       0.00334         32       0.25438       0.00534       0.00334         33       0.26999       0.00534       0.00334				
32 0.25438 0.00534 0.00334 33 0.26999 0.00534 0.00334				
33 0.26999 0.00534 0.00334				

<sup>\*\*\*</sup> The increase in disability rates shown between 18 and 19 years of service may be due to the removal of the 30% disability rating minimum for members with 20 years of service. The tax advantages accorded disability retired pay described in Appendix A may result in members choosing disability over nondisability retirements. Disabilities were increased to reflect recent trends.

# NONDISABILITY, TEMPORARY DISABILITY & PERMANENT DISABILITY RETIREMENT RATES

# ENLISTED (BY COMPLETED YEARS OF SERVICE)

Years of	Non-	Temporary	Permanent
Service	disability	Disability ***	Disability ***
0	0.00000	0.00107	0.00054
	0.00000	0.00187 0.00307	0.00054 0.00179
1	0.00000		0.00179
2 3	0.00000	0.00383 0.00450	0.00291
4	0.00000	0.00430	0.00396
5	0.00000	0.00422	0.00425
6	0.00000	0.00415	0.00497
7	0.00000	0.00440	0.00521
8	0.00000	0.00441	0.00614
9	0.00000	0.00448	0.00645
10	0.00000	0.00429	0.00688
11	0.00000	0.00423	0.00776
12	0.00000	0.00398	0.00757
13	0.00000	0.00387	0.00785
14	0.00000	0.00380	0.00737
15	0.00000	0.00281	0.00749
16	0.00000	0.00186	0.00601
17	0.00000	0.00132	0.00492
18	0.00000	0.00075	0.00352
19	0.42256	0.00541	0.00551
20	0.30241	0.00521	0.00634
21	0.26793	0.00422	0.00482
22	0.23110	0.00433	0.00508
23	0.29343	0.00417	0.00419
24	0.18735	0.00362	0.00359
25	0.33712	0.00437	0.00322
26	0.24102	0.00511	0.00333
27	0.24118	0.00523	0.00343
28	0.19147	0.00545	0.00466
29	0.77601	0.00999	0.00586
30	0.64842	0.01644	0.00795
31	0.42640	0.01399	0.00340
32	0.50641	0.01399	0.00340
33	0.40749	0.01399	0.00340
34	1.00000	0.01399	0.00340
· .	2.00000	0.010,	0.002.0

<sup>\*\*\*</sup> The increase in disability rates shown between 18 and 19 years of service may be due to the removal of the 30% disability rating minimum for members with 20 years of service. The tax advantages accorded disability retired pay described in Appendix A may result in members choosing disability over nondisability retirements. Disabilities were increased to reflect recent trends.

# WITHDRAWAL, REENTRANT, AND NET LOSS RATES FOR ACTIVE DUTY PERSONNEL

# OFFICERS (BY COMPLETED YEARS OF SERVICE)

Years of Service	Withdrawal	Reentrant ***	Net Loss
0	0.01797	0.11937	-0.10140
1	0.02185	0.03298	-0.01113
2	0.07016	0.02574	0.04442
3	0.12152	0.02898	0.09254
4	0.10811	0.01964	0.08847
5	0.09269	0.01703	0.07566
6	0.09609	0.01444	0.08165
7	0.08410	0.01400	0.07010
8	0.07614	0.01200	0.06414
9	0.06734	0.01155	0.05579
10	0.06538	0.00872	0.05666
11	0.05271	0.00798	0.04473
12	0.03476	0.00656	0.02820
13	0.02376	0.00557	0.01819
14	0.01562	0.00467	0.01095
15	0.00947	0.00368	0.00579
16	0.00629	0.00291	0.00338
17	0.00326	0.00252	0.00074
18	0.00122	0.00246	-0.00124
19	0.00000	0.00223	-0.00223
20	0.00000	0.00247	-0.00247
21	0.00000	0.00259	-0.00259
22	0.00000	0.00230	-0.00230
23	0.00000	0.00237	-0.00237
24	0.00000	0.00229	-0.00229
25	0.00000	0.00268	-0.00268
26	0.00000	0.00276	-0.00276
27	0.00000	0.00284	-0.00284
28	0.00000	0.00329	-0.00329
29	0.00000	0.00419	-0.00419
30	0.00000	0.00912	-0.00912
31	0.00000	0.00803	-0.00803
32	0.00000	0.01145	-0.01145
33	0.00000	0.01084	-0.01084
34	0.00000	0.00000	0.00000

<sup>\*\*\*</sup> The reentrant (and all other) rates are developed for valuation purposes to be consistent with the data sources used in the valuation. For example, high reentrant rates for members with zero completed years of service at the beginning of the year reflect members showing up on the valuation data files with one completed year of service at year end, who were not on the data files at the beginning of the year, and who were not new entrants. For this reason, the above rates should not be used for other purposes.

# WITHDRAWAL, REENTRANT, AND NET LOSS RATES FOR ACTIVE DUTY PERSONNEL

# **ENLISTED (BY COMPLETED YEARS OF SERVICE)**

Years of Service	Withdrawal	Reentrant ***	Net Loss
0	0.10397	0.03043	0.07354
1	0.10110	0.00769	0.09341
2	0.18122	0.01394	0.16728
3	0.35270	0.02745	0.32525
4	0.15681	0.01394	0.14287
5	0.15456	0.01128	0.14328
6	0.11141	0.00966	0.10175
7	0.12239	0.00918	0.11321
8	0.09056	0.00761	0.08295
9	0.08561	0.00682	0.07879
10	0.05092	0.00540	0.04552
11	0.04076	0.00453	0.03623
12	0.03078	0.00347	0.02731
13	0.01845	0.00282	0.01563
14	0.01548	0.00223	0.01325
15	0.00712	0.00188	0.00524
16	0.00476	0.00154	0.00322
17	0.00314	0.00145	0.00169
18	0.00157	0.00139	0.00018
19	0.00000	0.00126	-0.00126
20	0.00000	0.00157	-0.00157
21	0.00000	0.00148	-0.00148
22	0.00000	0.00167	-0.00167
23	0.00000	0.00156	-0.00156
24	0.00000	0.00212	-0.00212
25	0.00000	0.00169	-0.00169
26	0.00000	0.00247	-0.00247
27	0.00000	0.00180	-0.00180
28	0.00000	0.00212	-0.00212
29	0.00000	0.00168	-0.00168
30	0.00000	0.01403	-0.01403
31	0.00000	0.03693	-0.03693
32	0.00000	0.04974	-0.04974
33	0.00000	0.09762	-0.09762
34	0.00000	0.00000	0.00000

<sup>\*\*\*</sup> The reentrant (and all other) rates are developed for valuation purposes to be consistent with the data sources used in the valuation. For example, high reentrant rates for members with zero completed years of service at the beginning of the year reflect members showing up on the valuation data files with one completed year of service at year end, who were not on the data files at the beginning of the year, and who were not new entrants. For this reason, the above rates should not be used for other purposes.

# PERCENTAGE DISTRIBUTION OF NEW ENTRANTS

(AGE NEAREST BIRTHDAY)

Age	Officers	Enlisted	Total
16	0.00000	0.00000	0.00000
17	0.00000	0.00142	0.00142
18	0.00000	0.12146	0.12146
19	0.00001	0.25484	0.25485
20	0.00008	0.19288	0.19296
21	0.00045	0.11431	0.11476
22	0.01188	0.07357	0.08545
23	0.01920	0.05093	0.07013
24	0.01025	0.03619	0.04644
25	0.00470	0.02550	0.03020
26	0.00386	0.01783	0.02169
27	0.00327	0.01252	0.01579
28	0.00216	0.00929	0.01145
29	0.00163	0.00663	0.00826
30	0.00127	0.00475	0.00602
31	0.00097	0.00358	0.00455
32	0.00075	0.00285	0.00360
33	0.00058	0.00226	0.00284
34	0.00046	0.00187	0.00233
35	0.00038	0.00165	0.00203
36	0.00028	0.00063	0.00091
37	0.00020	0.00030	0.00050
38	0.00017	0.00024	0.00041
39	0.00015	0.00020	0.00035
40	0.00013	0.00018	0.00031
41	0.00010	0.00014	0.00024
42	0.00008	0.00014	0.00022
43	0.00007	0.00007	0.00014
44	0.00006	0.00004	0.00010
45	0.00005	0.00004	0.00009
46	0.00005	0.00003	0.00008
47	0.00004	0.00003	0.00007
48	0.00004	0.00003	0.00007
49	0.00003	0.00002	0.00005
50	0.00003	0.00002	0.00005
51	0.00002	0.00001	0.00003
52	0.00002	0.00001	0.00003
53	0.00002	0.00001	0.00003
54	0.00002	0.00001	0.00003
55	0.00002	0.00001	0.00003
56	0.00001	0.00000	0.00001
57	0.00001	0.00000	0.00001
58	0.00001	0.00000	0.00001
59	0.00001	0.00000	0.00001
60	0.00000	0.00000	0.00000
Total	0.06352	0.93648	1.00000

# **PAYGRADE TRANSFER RATES**

# STATUS (BY COMPLETED YEARS OF SERVICE)

Years of	Officer to	Enlisted to
Service	Enlisted	Officer
0	0.00042	0.00204
	0.00042	0.00304
1	0.00010	0.00096
2	0.00006	0.00112
3	0.00013	0.00145
4	0.00013	0.00227
5	0.00008	0.00282
6	0.00014	0.00393
7	0.00014	0.00515
8	0.00013	0.00718
9	0.00013	0.00874
10	0.00012	0.00968
11	0.00039	0.00969
12	0.00058	0.00907
13	0.00047	0.00778
14	0.00077	0.00613
15	0.00094	0.00472
16	0.00112	0.00306
17	0.00055	0.00179
18	0.00014	0.00137
19	0.00017	0.00096
20	0.00010	0.00115
21	0.00005	0.00105
22	0.00006	0.00093
23	0.00002	0.00088
24	0.00000	0.00044
25	0.00000	0.00005
26	0.00000	0.00002
27	0.0000	0.00007
28	0.0000	0.00000
29	0.00000	0.00000
30	0.00000	0.00000
31	0.00000	0.00000
32	0.00000	0.00000
33	0.00000	0.00000
34	0.00000	0.00000
JТ	0.00000	0.0000

# PROMOTION AND MERIT BASIC PAY INCREASE SCALES

# OFFICERS (BY ENTRY AGE)

Years of						Entry Age					
Service	16	17	18	19	20	21	22	23	24	25	26
-	1.01406	1.01406	1.01406	1.01406	1.01406	1.01406	1.01406	1.03788	1.06850	1.06863	1.03084
2	1.26101	1.26101	1.26101	1.26101	1.26101	1.26101	1.26101	1.26733	1.24639	1.22059	1.12813
3	1.16436	1.16436	1.16436	1.16436	1.16436	1.16436	1.16436	1.15592	1.14107	1.13118	1.08444
4	1.12838	1.12838	1.12838	1.12838	1.12838	1.12838	1.12838	1.12854	1.10999	1.09523	1.06425
5	1.01427	1.01427	1.01427	1.01427	1.01427	1.01427	1.01427	1.02410	1.02904	1.03108	1.02871
9	1.03943	1.03943	1.03943	1.03943	1.03943	1.03943	1.03943	1.04289	1.03995	1.04497	1.05461
7	0.99489	0.99489	0.99489	0.99489	0.99489	0.99489	0.99489	1.01191	1.02020	1.02535	1.02334
&	1.03290	1.03290	1.03290	1.03290	1.03290	1.03290	1.03290	1.04169	1.03766	1.04233	1.04014
6	0.99442	0.99442	0.99442	0.99442	0.99442	0.99442	0.99442	1.01394	1.02086	1.02143	1.02062
10	1.03956	1.03956	1.03956	1.03956	1.03956	1.03956	1.03956	1.05820	1.05017	1.04618	1.03943
111	1.01571	1.01571	1.01571	1.01571	1.01571	1.01571	1.01571	1.04944	1.05558	1.04535	1.02645
12	1.05143	1.05143	1.05143	1.05143	1.05143	1.05143	1.05143	1.05911	1.04767	1.04470	1.03802
13	1.00603	1.00603	1.00603	1.00603	1.00603	1.00603	1.00603	1.01511	1.01989	1.02090	1.01887
14	1.03458	1.03458	1.03458	1.03458	1.03458	1.03458	1.03458	1.02798	1.02367	1.02606	1.02729
15	1.01346	1.01346	1.01346	1.01346	1.01346	1.01346	1.01346	1.01512	1.02064	1.02177	1.01984
16	1.03810	1.03810	1.03810	1.03810	1.03810	1.03810	1.03810	1.04225	1.03899	1.03557	1.03369
17	1.02706	1.02706	1.02706	1.02706	1.02706	1.02706	1.02706	1.03034	1.02876	1.02850	1.02258
18	1.03826	1.03826	1.03826	1.03826	1.03826	1.03826	1.03826	1.02671	1.02287	1.02382	1.02758
19	1.01543	1.01543	1.01543	1.01543	1.01543	1.01543	1.01543	1.01051	1.01301	1.01426	1.01488
20	1.03350	1.03350	1.03350	1.03350	1.03350	1.03350	1.03350	1.03628	1.03721	1.03951	1.04114
21	1.02310	1.02310	1.02310	1.02310	1.02310	1.02310	1.02310	1.03595	1.03778	1.03563	1.02747
22	1.04475	1.04475	1.04475	1.04475	1.04475	1.04475	1.04475	1.06061	1.05316	1.04753	1.03385
23	1.02847	1.02847	1.02847	1.02847	1.02847	1.02847	1.02847	1.03169	1.03022	1.03020	1.02115
24	1.03200	1.03200	1.03200	1.03200	1.03200	1.03200	1.03200	1.02880	1.02749	1.02601	1.01918
25	1.02086	1.02086	1.02086	1.02086	1.02086	1.02086	1.02086	1.02065	1.02561	1.02340	1.01420
26	1.03961	1.03961	1.03961	1.03961	1.03961	1.03961	1.03961	1.03981	1.03084	1.02729	1.02475
27	1.01440	1.01440	1.01440	1.01440	1.01440	1.01440	1.01440	1.01278	1.00986	1.01164	1.00971
28	1.01850	1.01850	1.01850	1.01850	1.01850	1.01850	1.01850	1.02795	1.02738	1.02510	1.01871
29	1.01886	1.01886	1.01886	1.01886	1.01886	1.01886	1.01886	1.02296	1.01666	1.01419	1.00772
30	1.04665	1.04665	1.04665	1.04665	1.04665	1.04665	1.04665	1.06930	1.05109	1.04079	1.02158
31	1.03553	1.03553	1.03553	1.03553	1.03553	1.03553	1.03553	1.07120	1.05099	1.05582	1.01283
32	1.02979	1.02979	1.02979	1.02979	1.02979	1.02979	1.02979	1.04555	1.04030	1.04734	1.02783
33	1.02118	1.02118	1.02118	1.02118	1.02118	1.02118	1.02118	1.02422	1.02166	1.03341	1.02317
34	0.98796	0.98796	0.98796	96286.0	0.98796	0.98796	96286.0	0.94853	0.99750	1.00271	1.03332

Note: The number that appears, for example, in the column marked '20' and the row marked '2' is the ratio of basic pay at two years of service to basic pay at one year of service for a member who entered at age 20.

Appendix G

# PROMOTION AND MERIT BASIC PAY INCREASE SCALES

# ENLISTED (BY ENTRY AGE)

ears of						Entry Age					
Service	16	17	18	19	20	21	22	23	24	25	26
-	1.14463	1.14463	1.15192	1.13066	1.10499	1.09967	1.09485	1.08803	1.08174	1.07784	1.04388
2	1.11460	1.11460	1.11454	1.111191	1.11084	1.11190	1.11330	1.11410	1.11451	1.11391	1.10682
3	1.10585	1.10585	1.10336	1.10136	1.09840	1.09751	1.09578	1.09395	1.09251	1.09236	1.09052
4	1.09187	1.09187	1.08458	1.07787	1.07474	1.07408	1.07363	1.07388	1.07381	1.07393	1.07417
5	1.03813	1.03813	1.03342	1.03727	1.03777	1.03740	1.03826	1.03842	1.03976	1.04040	1.03887
9	1.08603	1.08603	1.08305	1.07612	1.07386	1.07369	1.07362	1.07384	1.07273	1.07226	1.06800
7	1.02569	1.02569	1.02685	1.03172	1.03395	1.03440	1.03456	1.03495	1.03490	1.03383	1.03581
&	1.08945	1.08945	1.08981	1.08241	1.07796	1.07646	1.07554	1.07405	1.07357	1.07271	1.06366
6	1.02372	1.02372	1.02136	1.02525	1.02709	1.02798	1.02772	1.02775	1.02740	1.02875	1.03084
10	1.05618	1.05618	1.06018	1.05735	1.05554	1.05409	1.05344	1.05256	1.05125	1.05021	1.04647
11	1.02443	1.02443	1.01796	1.02035	1.02207	1.02316	1.02245	1.02319	1.02343	1.02383	1.02399
12	1.06395	1.06395	1.06126	1.05530	1.05231	1.04959	1.04767	1.04687	1.04545	1.04561	1.03990
13	1.02883	1.02883	1.02147	1.02384	1.02456	1.02460	1.02476	1.02412	1.02438	1.02418	1.02288
14	1.03612	1.03612	1.04314	1.04047	1.03940	1.03772	1.03657	1.03541	1.03583	1.03424	1.03081
15	1.01461	1.01461	1.02312	1.02476	1.02479	1.02538	1.02514	1.02551	1.02446	1.02450	1.02351
16	1.03567	1.03567	1.03907	1.03689	1.03592	1.03480	1.03388	1.03283	1.03144	1.03022	1.02680
17	1.01696	1.01696	1.02141	1.02410	1.02454	1.02478	1.02413	1.02380	1.02323	1.02202	1.01908
18	1.04477	1.04477	1.04392	1.04034	1.03856	1.03586	1.03521	1.03422	1.03362	1.03169	1.02626
19	1.01797	1.01797	1.01812	1.01892	1.01876	1.01881	1.01845	1.01842	1.01786	1.01906	1.01495
20	1.04784	1.04784	1.05683	1.05989	1.06321	1.06664	1.06815	1.06936	1.07225	1.07401	1.08248
21	1.04156	1.04156	1.03878	1.04043	1.03946	1.03837	1.03962	1.04139	1.03968	1.04195	1.04150
22	1.06034	1.06034	1.06287	1.05641	1.05425	1.05316	1.05374	1.05449	1.05673	1.05100	1.04776
23	1.02863	1.02863	1.02731	1.03243	1.03388	1.03447	1.03473	1.03259	1.03274	1.03491	1.02869
24	1.05285	1.05285	1.06189	1.05931	1.05994	1.06183	1.06077	1.06046	1.06050	1.06188	1.05705
25	1.02562	1.02562	1.02998	1.03604	1.03767	1.03327	1.03183	1.03066	1.03112	1.03306	1.03074
26	1.08867	1.08867	1.09105	1.08810	1.08584	1.08542	1.08566	1.08473	1.07945	1.07139	1.05590
27	1.02419	1.02419	1.02080	1.02143	1.02065	1.02253	1.02540	1.02172	1.02343	1.02752	1.02455
28	0.99741	0.99741	1.01810	1.01911	1.02082	1.02168	1.02324	1.02113	1.02044	1.02451	1.02800
29	1.00414	1.00414	1.00950	1.01334	1.01506	1.01463	1.01298	1.01340	1.01243	1.01383	1.01924
30	1.02632	1.02632	1.05110	1.04098	1.03000	1.03513	1.02915	1.02501	1.02043	1.01257	1.00996
31	1.00002	1.00002	0.99460	0.98261	0.98840	1.00386	1.00729	1.00439	0.99995	0.99713	1.01452
32	0.99875	0.99875	1.00633	1.00144	1.00387	0.99960	1.02260	0.99998	1.00059	0.98624	0.99341
33	0.99973	0.99973	1.00337	0.99297	1.00241	1.01097	1.01385	0.99310	0.99612	0.97424	0.98173
34	0.99950	0.99950	1.02324	1.02368	1.00965	1.00437	1.01341	0.98561	0.99206	0.95993	0.98570

Note: The number that appears, for example, in the column marked '20' and the row marked '2' is the ratio of basic pay at two years of service to basic pay at one year of service for a member who entered at age 20.

Appendix G

# APPENDIX H

# RESERVE DUTY RATES

<u>Page</u>
Reserve Duty Rates Description
Summary of Years On Which Reserve Rates Are Based
Officer and Enlisted New Entrant Distribution
Officer and Enlisted, Selected and Non-Selected, Reserve Death
Officer Selected Reserve Non-Transfer/Retirement Separation
Enlisted Selected Reserve Non-Transfer/Retirement Separation
Officer Selected Reserve Reentrant
Enlisted Selected Reserve Reentrant
Officer Selected Reserve Non-Transfer/Retirement Net Separation
Enlisted Selected Reserve Non-Transfer/Retirement Net Separation
Officer Selected Reserve Paygrade Transfer
Enlisted Selected Reserve Paygrade Transfer
Officer Non-Selected Reserve with 20 Good Years Non-Retirement Separation141
Enlisted Non-Selected Reserve with 20 Good Years Non-Retirement Separation142
Officer Selected Reserve to Non-Selected Reserve with 20 Good Years Transfer143
Enlisted Selected Reserve to Non-Selected Reserve with 20 Good Years Transfer144
Officer Selected Reserve Retirement
Enlisted Selected Reserve Retirement
Officer and Enlisted Selected Reserve Temporary and Permanent Disability Retirement147

# RESERVE DUTY RATES (continued)

	<u>Page</u>
Officer and Enlisted Non-Selected Reserve with 20 Good Years Retirement	148
Officer Selected Reserve Average Points Per Year	149
Enlisted Selected Reserve Average Points Per year	150
Officer Selected Reserve Career Points Adjustment	151
Enlisted Selected Reserve Career Points Adjustment	152
Officer Non-Selected Reserve with 20 Good Years Average Points Per Year.	153
Enlisted Non-Selected Reserve with 20 Good Years Average Points Per Year	154
Officer Reentering Selected Reserve Average Points.	155
Enlisted Reentering Selected Reserve Average Points.	156
Officer and Enlisted Non-Selected Reserve with 20 Good Years Blow-up	157
Officer Selected Reserve to Non-Selected Reserve with 20 Good Years Transfer Blow-up	158
Enlisted Selected Reserve to Non-Selected Reserve with 20 Good Years Transfer Blow-up.	159
Officer Non-Selected Reserve with 20 Good Years Adjustment due to Transfer Blow-up	160
Enlisted Non-Selected Reserve with 20 Good Years Adjustment due to Transfer Blow-up	161
Officer Selected Reserve Promotion and Merit Basic Pay Increase Scales (PAMS)	162
Enlisted Selected Reserve Promotion and Merit Basic Pay Increase Scales (PAMS)	163
Officer Non-Selected Reserve with 20 Good Years PAMS	164
Enlisted Non-Selected Reserve with 20 Good Years PAMS	165

# RESERVE DUTY RATES DESCRIPTION

Modeling reserves is similar in some respects to modeling active duty. There are, however, additional challenges due to the complexities of the reserve career (multiple breaks in service of varying durations, movement between active and reserve components, etc.); the structure of the reserve force; limitations of the reserve data; and evolving changes in how the reserves are used.

Reserves are modeled in two population categories in the portion of their career prior to receiving retired pay – Selected Reserves and non-Selected Reserves with 20 good years. The Selected Reserves include only part-time members (full-time Reservists are included in the active-duty (full-time) portion of this valuation) and are the reservists for whom normal costs are paid. The non-Selected Reserves with 20 good years<sup>1</sup> are modeled because they have enough service to qualify for retirement.

The reserve rates consist primarily of decrement rates related to the probabilities of a member leaving a category of military service for a specific reason. In addition, they include a new entrant distribution; a set of reentrant ratios; ratios for promotion and merit pay increases; average points per year; transfer to 20-year non-Selected Reserve status; and blow-up<sup>2</sup> factors. The decrement rates are mainly given by age nearest birthday at entry and completed years of service since Pay Entry Base Date (PEBD), for officers and enlisted separately. "Entry Age" is constructed on an assumption of no breaks in service; e.g., an "entry age" of 57 could represent a member who started at a much earlier age with a long break in service. As noted in the "Valuation Data and Procedure" section, as well as Table 6B, in the main text, the valuation results are highly sensitive to the separation rates and reentrant ratios<sup>3</sup>. Below is a description of the rates used in the reserve valuation process.

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This includes the category commonly referred to as the "grey area" as well as other non-Selected Reservists with 20 qualifying retirement years.

These are used to adjust for persistent patterns of actual outcomes not conforming to expectations based on known data. For example, some new reserve retirees show up in the data each year who were not in the data as eligible-to-retire reservists the year before. The need for such "blow up" factors is one of many challenges in modeling reservists.

Another challenge in modeling reserves relates to the fact that many reservists start their career in the active duty component or have breaks in service throughout their career. Their movements back into the Selected Reserves (from the active duty component, from civilian status, etc.) are modeled as implicit flows via reentrant ratios. However, in some cases these ratios are unusually high, and population cells with small numbers of members initially are then augmented throughout the actuarial projection by large numbers of reentrants. This creates the potential for volatility of results, to the extent small population cell counts experience variations over time. Additionally, patterns of reservist population flows (between the Selected Reserves and the active duty component and between civilian status and the Selected Reserve) are changing, given external and internal factors such as changes in how reserves are used by the military.

The data for the rates was taken from the Reserve Component Common Personnel Data System (RCCPDS) files as of September 30 for the years 2005 through 2009, generally. The experience period was selected such that the sum of the part-time Selected Reserve force size changes for the included period was near zero. The fiscal years on which the rates are based is given on a subsequent page. A summary qualitative description follows in the below text, in addition to being displayed at the bottom of the respective rate tables in this appendix. The general formula derivation is similar to those of the Active Duty rates (Appendix G) and Retiree/Survivor rates (Appendix I). The reserve rate formulas are not shown, but may be requested from the Office of the Actuary.

The separation rates give the probability that a member in a given status at the beginning of the fiscal year leaves that status during the fiscal year. Separation rates from the Selected Reserve include standard losses, transfers to active duty, transfers to the full-time reserves, discharge, and death. They do not include transfers to non-Selected Reserves with 20 good years, or retirement. Separation rates from the non-Selected Reserve with 20 good years include transfer to Selected Reserve, death, discharge, and file corrections and timing delays. They do not include transfer to retirement status.

A reentrant is defined as someone who is in the Selected Reserves at year end, who was not in the same status a year earlier, and who is not a new entrant (as defined by having greater than zero completed years of PEBD service). It can include transfers from active duty; former Selected Reserve or active members returning after breaks in service; reserve members returning after being attached to a non-selected reserve component (Individual Ready Reserve or Inactive National Guard); and members transferring to the part-time Selected Reserves from the full-time reserves.

The new entrant distribution gives the percentages of new entrants (as defined by having zero completed years of PEBD service) to the part-time Selected Reserves by age and by officer/enlisted status. The distribution is only used in the normal cost (new entrant) valuation and the open group projection.

Due to Public Law (P.L.) 110-181 (see Appendix A), the set of separation rates shown apply only in the early years of the projection, and then phase in to an average age of 58 for reserve retirement. (See Item 4 in the Reserve Duty section in Appendix F for a description of the parameter used to model the phase-in.) As the transitions to earlier average retirement ages occur, the ages applicable to some of the rates change.

In most cases the separation and reentrant rates and ratios are not smoothed (graduated). However, cells with numerators of fewer than 10 cases are combined with other cells.

The promotion and merit increase scales (PAMS) give the expected annual percentage increase in pay independent of the across-the-board increases in the active duty pay scale. The PAMS do not include adjustments for inflation or productivity increases. The PAMS are defined by length of PEBD service, by age, and by officer/enlisted status. They are computed by dividing the average pay at age (x+1), years of service (y+1) by the average pay at age (x), years

of service (y) one year earlier. An adjustment is made to compute the averages for the numerator and denominator based on the same pay table, and cells based on few observations are combined with other cells.

# SUMMARY OF YEARS ON WHICH RESERVE RATES ARE BASED

# By Fiscal Year

<u>RATE</u>	<u>2005</u>	<u>2006</u>	2007	2008	2009	2010-2014*	<u>2015</u>
New Entrant Distribution (Officer/Enlisted)	X	X	X	X	X		
Death (Officer/Enlisted; Selected/Non-Selected)						X	X
Separation* (Officer/Enlisted; Selected/Non-Selected)	X	X	X	X	X		
Reentrant (Officer/Enlisted; Selected)	X	X	X	х	X		
Paygrade Transfer (Officer/Enlisted; Selected)	X	X	X	х	X		
Status Transfer (Officer/Enlisted; Selected-to-Non-Selected)	X	X	X	x	X		
Retirement (Officer/Enlisted; Selected/Non-Selected)	X	X	X	X	X		
Disability Retirement (Permanent/Temporary; Officer/Enlisted; Selected)						X	
Average Points Per Year (Officer/Enlisted; Selected/Non- Selected)	X	X	X	X	X		
Career Points Adjustment (Officer/Enlisted; Selected)	X	X	X	X	X		
Reentering Average Points (Officer/Enlisted; Selected)	X	X	X	х	X		
Retirement Ratios (Officer/Enlisted; Non-Selected)	X	X	Х	х	X		
Transfer Ratios (Officer/Enlisted; Selected-to- Non-Selected)	X	X	X	X	X		
Transfer Ratio Adjustment (Officer/Enlisted; Selected-to- Non-Selected)	X	X	X	X	X		
Selected Reserve PAMS (Officer/Enlisted)	X	X	X	X	X		
Non-Selected Reserve PAMS (Officer/Enlisted)	x	X	X	X	X		

<sup>\*</sup> In the construction of the disability-related rates, we removed one half of the combat-related disability retirements occurring during the FY 2010-2014 experience period. We subtracted additional disability retirements from separations, thereby affecting separation rates and reducing the impact on the percentage making 20 year retirement. The adjustment did not impact Officer Temporary Disability Rates.

# **New Entrant Distribution**

By Paygrade (Officer/Enlisted)

Entry Age	Officer	Enlisted	Total
		Limotou	10141
17	0.00000	0.02350	0.02350
18	0.00000	0.19427	0.19427
19	0.00001	0.20176	0.20177
20	0.00018	0.14591	0.14609
21	0.00028	0.10208	0.10236
22	0.00072	0.07088	0.07160
23	0.00072	0.07008	0.07100
24	0.00149	0.03949	0.03337
25	0.00074	0.03018	0.03092
26	0.00069	0.02308	0.02377
20	0.00003	0.02000	0.02011
27	0.00071	0.01890	0.01961
28	0.00063	0.01535	0.01598
29	0.00061	0.01341	0.01402
30	0.00070	0.01077	0.01147
31	0.00064	0.00925	0.00989
32	0.00052	0.00773	0.00825
33	0.00055	0.00687	0.00742
34	0.00054	0.00607	0.00661
35	0.00067	0.00633	0.00700
36	0.00048	0.00518	0.00566
37	0.00054	0.00474	0.00528
38	0.00000	0.00000	0.00000
39	0.00000	0.00000	0.00000
40	0.00000	0.00000	0.00000
41	0.00000	0.00000	0.00000
42	0.00000	0.00000	0.00000
43	0.00000	0.00000	0.00000
44	0.00000	0.00000	0.00000
45	0.00000	0.00000	0.00000
46	0.00000	0.00000	0.00000
47	0.00000	0.00000	0.00000
48	0.00000	0.00000	0.00000
49	0.00000	0.00000	0.00000
50	0.00000	0.00000	0.00000
51	0.00000	0.00000	0.00000
50	0.00000	0.0000	0.00000
52	0.00000	0.00000	0.00000
53	0.00000	0.00000	0.00000
54	0.00000	0.00000	0.00000
55	0.00000	0.00000	0.00000
56	0.00000	0.00000	0.00000
57	0.00000	0.00000	0.00000
58	0.00000	0.00000	0.00000
59	0.00000	0.00000	0.00000
60	0.00000	0.00000	0.00000
61	0.00000	0.00000	0.00000
>62	0.00000	0.00000	0.00000
Total	0.01177	0.98823	1.00000

**DESCRIPTION**: New Entrant distribution for a normal cost valuation (as well as open group), where a new entrant is defined as: a part-time selected reserve on the file as of year-end, who was not in that status in the prior year, and has zero completed PEBD years of service.

> Arrayed by entry age and paygrade (officer/enlisted). Populates age scatter of new entrant cohort. Model assumes no new entrants older than age 37.

# **Reserve Death Rates**

By Reserve Status and Paygrade

	Selec	cted	Non-Selected	
Age	Officer	Enlisted	Officer	Enlisted
16	0.00028	0.00046		
17	0.00028	0.00052		
18	0.00028	0.00059		
19	0.00028	0.00068		
20	0.00028	0.00074		
		0.00074		
21	0.00028	0.00078		
22	0.00028	0.00080		
23	0.00028	0.00080		
24	0.00028	0.00078		
25	0.00028	0.00076		
26	0.00029	0.00072		
27	0.00029	0.00068		
28	0.00029	0.00067		
29	0.00030	0.00065		
30	0.00030	0.00064	0.00023	0.00043
31	0.00031	0.00063	0.00023	0.00042
32	0.00031	0.00064	0.00024	0.00042
33	0.00032	0.00062	0.00024	0.00042
34	0.00033	0.00062	0.00024	0.00041
35	0.00034	0.00061	0.00025	0.00040
36	0.00035	0.00061	0.00026	0.00039
37	0.00034	0.00060	0.00026	0.00039
38	0.00035	0.00061	0.00027	0.00039
39	0.00036	0.00062	0.00027	0.00039
40	0.00036	0.00064	0.00027	0.00040
41	0.00037	0.00067	0.00028	0.00049
42	0.00037	0.00069	0.00028	0.00059
43	0.00039	0.00072	0.00033	0.00069
44	0.00039	0.00074	0.00038	0.00078
45	0.00041	0.00075	0.00043	0.00088
46	0.00043	0.00076	0.00048	0.00098
47	0.00044	0.00077	0.00054	0.00107
48	0.00047	0.00077	0.00060	0.00120
49	0.00049	0.00078	0.00068	0.00133
50	0.00052	0.00080	0.00077	0.00149
51	0.00055	0.00084	0.00089	0.00168
52	0.00057	0.00088	0.00103	0.00190
53	0.00060	0.00096	0.00121	0.00218
54	0.00063	0.00106	0.00145	0.00252
55	0.00066	0.00119	0.00174	0.00294
56	0.00069	0.00135	0.00211	0.00347
57	0.00003	0.00152	0.00211	0.00347
58	0.00071	0.00132	0.00230	0.00413
59	0.00075	0.00172	0.00374	0.00590
		0.00194		
60 61	0.00079		0.00441	0.00688
61	0.00082	0.00245	0.00508	0.00787
62	0.00083	0.00275	0.00576	0.00883
63	0.00085	0.00308	0.00643	0.00977

DESCRIPTION: Reserve Death Rates
Arrayed by reserve status (Selected/Non-Selected), age (nearest birthday),

and paygrade (officer/enlisted).

Probability that a member dies in the next year. Should not be compared to other published rates or used for other purposes without examining how they are derived.

# Officer Selected Reserve Separation Rates (Non-Retirement Causes)

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	90.1.								
	33 1.000 00 1.000								
	0 0.333 0 0.333 0 1.000 0								
	2 0.100 2 0.100 2 0.100 2 1.000								
1	3 0.182 3 0.182 3 0.182 3 0.182 3 1.000								
١	0.048	1.00							
١	0.053 0.053 0.053 0.053	1.000							
١	0.095 0.095 0.095 0.095	0.095 1.000							
١	0.106 0.106 0.106 0.106	0.106 0.106 0.106 1.000							
١	0.099 0.099 0.099 0.099	0.099 0.099 0.099 1.000							
	0.094 0.094 0.094 0.094	0.094 0.094 0.094 0.094	1.000						
۱	0.058 0.058 0.058 0.058	0.058 0.058 0.058 0.058 0.058	1.000						
١	0.087 0.087 0.087 0.087	0.087 0.087 0.087 0.087	0.087 0.087 1.000						
۱	0.051 0.051 0.051 0.051	0.051 0.051 0.051 0.051	0.051 0.051 1.000						
۱	0.080 0.080 0.080 0.080	0.080 0.080 0.080 0.080	0.080 0.080 0.080 1.000						
۱	0.118 0.118 0.118 0.118	0.118 0.118 0.118 0.118	0.118 0.118 0.118 0.118	1.000					
۱	2 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	22222	222222	1.000					
۱	01.0 01.0 01.0 01.0 01.0	0.110 0.110 0.110 0.110	0.110 0.110 0.110 0.110	0.110					
۱	0.089 0.089 0.089 0.089	0.089 0.089 0.089 0.089	0.089 0.089 0.089 0.089	0.089 0.089 0.089					
١	0.099 0.099 0.099 0.099	0.099 0.099 0.099 0.099	0.099 0.099 0.099 0.099	0.099					
۱	0.098 0.098 0.098 0.098	0.098 0.098 0.098 0.098	0.098 0.098 0.098 0.098	0.098 0.098 0.098 0.098					
۱	0.040 0.040 0.080 0.110	0.065 0.065 0.065 0.065	0.065 0.065 0.065 0.065	0.065 0.065 0.065 0.065	0.065				
١	0.036 0.036 0.069 0.135 0.083	0.063 0.063 0.063 0.063	0.063 0.063 0.063 0.063	0.063 0.063 0.063 0.063	0.063				
۱	0.064 0.065 0.094 0.060	0.062 0.086 0.081 0.134 0.059	0.060 0.117 0.067 0.042 0.042	0.042 0.042 0.042 0.042	0.042				
	0.039 0.065 0.113 0.084	0.119 0.089 0.091 0.124 0.087	0.091 0.072 0.044 0.044	0.044 0.044 0.044 0.044 0.044	0.044 0.044 0.044 0.044				
	0.079 0.082 0.068 0.070 0.070	0.130 0.053 0.157 0.152 0.152	0.110 0.049 0.049 0.049	0.049 0.049 0.049 0.049	0.049 0.049 0.049 0.049				
١	0.058 0.067 0.075 0.094 0.088	0.089 0.090 0.144 0.133 0.130	0.117 0.106 0.066 0.042 0.042	0.042 0.042 0.042 0.042 0.042	0.042 0.042 0.042 0.042 0.042	0.042			
١	0.048 0.074 0.066 0.065	0.095 0.057 0.113 0.132 0.093	0.128 0.114 0.037 0.037 0.037	0.037 0.037 0.037 0.037 0.037	0.037 0.037 0.037 0.037 0.037	0.037			
	0.063 0.075 0.075 0.078 0.102	0.086 0.064 0.144 0.082 0.099	0.101 0.070 0.069 0.061 0.057	0.052 0.051 0.044 0.065 0.065	0.024 0.024 0.024 0.024 0.024	0.024 0.024 0.024			
١	0.050 0.050 0.089 0.065 0.065	0.090 0.077 0.134 0.114 0.083	0.101 0.094 0.078 0.036 0.064	0.040 0.037 0.047 0.047 0.045	0.039 0.037 0.018 0.018 0.018	0.018 0.018 0.018			
۱	0.063 0.077 0.078 0.079 0.057	0.052 0.061 0.115 0.156 0.097	0.086 0.123 0.086 0.096	0.065 0.035 0.031 0.046	0.021 0.020 0.029 0.029	0.029 0.029 0.029 0.029			
۱	0.064 0.074 0.088 0.088	0.101 0.076 0.170 0.158 0.049	0.118 0.075 0.073 0.073	0.057 0.058 0.049 0.030 0.054	0.047 0.030 0.029 0.029	0.029 0.029 0.029 0.029	0.029		
١	0.065 0.079 0.086 0.100	0.065 0.101 0.116 0.189 0.087	0.102 0.091 0.090 0.070 0.050	0.083 0.032 0.022 0.040	0.029 0.025 0.041 0.042 0.025	0.019 0.019 0.019 0.019	0.019		
١	0.037 0.064 0.057 0.084 0.065	0.093 0.093 0.142 0.125 0.114	0.084 0.097 0.110 0.056 0.063	0.060 0.072 0.044 0.045	0.027 0.037 0.016 0.028 0.023	0.026 0.027 0.038 0.037 0.024	0.024 0.024 0.024		
١	0.073 0.065 0.042 0.079 0.073	0.082 0.095 0.148 0.142 0.116	0.087 0.088 0.098 0.090	0.085 0.058 0.065 0.059	0.061 0.029 0.054 0.059 0.031	0.021 0.030 0.046 0.019 0.019	0.019 0.019 0.019		
١	0.053 0.059 0.069 0.071	0.119 0.079 0.134 0.137 0.113	0.094 0.090 0.091 0.076 0.080	0.065 0.061 0.051 0.043	0.058 0.033 0.054 0.044	0.033 0.037 0.026 0.042	0.015 0.015 0.015 0.015		
۱	0.039 0.039 0.071 0.052 0.052	0.076 0.099 0.113 0.134 0.109	0.100 0.092 0.099 0.079 0.087	0.059 0.056 0.065 0.062 0.049	0.045 0.038 0.038 0.041 0.037	0.020 0.041 0.056 0.032 0.032	0.040 0.016 0.016 0.016 0.016	0.016	
۱	0.033 0.033 0.042 0.069 0.060	0.120 0.086 0.129 0.154 0.103	0.096 0.102 0.094 0.083 0.083	0.072 0.068 0.058 0.047 0.056	0.050 0.049 0.035 0.022 0.029	0.029 0.039 0.047 0.023 0.025	0.052 0.032 0.028 0.028	0.028	
۱	0.023 0.023 0.055 0.051 0.067	0.083 0.101 0.156 0.124 0.146	0.127 0.097 0.103 0.089 0.069	0.060 0.064 0.053 0.058	0.047 0.051 0.050 0.040 0.024	0.035 0.031 0.036 0.034 0.032	0.022 0.025 0.047 0.026 0.021	0.021	
۱	0.028 0.039 0.056 0.070 0.061	0.127 0.124 0.138 0.169 0.153	0.135 0.113 0.094 0.086	0.085 0.076 0.065 0.068 0.046	0.045 0.039 0.040 0.040	0.032 0.034 0.038 0.025 0.032	0.035 0.035 0.051 0.032 0.031	0.021 0.021 0.021 0.021	
۱	0.035 0.057 0.059 0.073 0.092	0.116 0.168 0.175 0.168 0.167	0.134 0.131 0.097 0.089	0.078 0.065 0.068 0.062 0.058	0.056 0.045 0.042 0.036 0.031	0.031 0.040 0.030 0.030 0.023	0.030 0.041 0.022 0.050 0.057	0.033 0.011 0.011 0.011	
۱	0.038 0.038 0.069 0.052 0.085	0.094 0.146 0.172 0.168 0.149	0.136 0.124 0.112 0.100 0.094	0.082 0.074 0.068 0.063 0.063	0.055 0.045 0.042 0.041 0.031		0.036 0.033 0.036 0.034 0.027	0.030 0.016 0.013 0.024 0.024	0.024
۱	0.044 0.044 0.068 0.060 0.056	0.073 0.074 0.116 0.110 0.112	0.116 0.117 0.106 0.084	0.075 0.083 0.068 0.088 0.075	0.073 0.069 0.055 0.054 0.037		0.024 0.013 0.031 0.021 0.032	0.047 0.033 0.028 0.014 0.014	0.014
١	0.029 0.029 0.118 0.076 0.065	0.059 0.087 0.096 0.098	0.113 0.104 0.112 0.108 0.081	0.080 0.082 0.073 0.061 0.073	0.064 0.063 0.052 0.048	0.040 0.028 0.046 0.041	0.039 0.029 0.027 0.027	0.055 0.033 0.034 0.045 0.010	0.010
١	0.054 0.054 0.054 0.051 0.085	0.069 0.060 0.090 0.085	0.097 0.086 0.102 0.083 0.083	0.088 0.076 0.070 0.062 0.077	0.092 0.083 0.053 0.053	0.060 0.053 0.051 0.041	0.027 0.038 0.032 0.031	0.030 0.052 0.049 0.066 0.013	0.013
١	0.047 0.047 0.047 0.067	0.063 0.046 0.051 0.065 0.074	0.091 0.089 0.087 0.097	0.082 0.081 0.057 0.081	0.100 0.076 0.084 0.081 0.059	0.072 0.052 0.037 0.044 0.045	0.034 0.020 0.047 0.019 0.041	0.037 0.037 0.037 0.037 0.037	0.037
١	0.054 0.054 0.054 0.054	0.054 0.054 0.056 0.056	0.090 0.092 0.081 0.059 0.105	0.090 0.085 0.060 0.060 0.075	0.110 0.062 0.078 0.081 0.077	0.030	0.030	0.030	0.030
	000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	0.000
١	Under 1 2 3 4		0 = 2 % +	99490	0 = 2 % +	99499	0 = 2 * 1	99490	0-
J	7 - 4 € 4	9 8 4 6 5	5 = 5 5 4	51 7 7 8 1 8 1 8	42222	2222	8 2 2 2 2	88488	9 4

Selected Reserve Separation Rates
Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).
Probability that a member exits the status (due to non-retirement causes) during the fiscal year.
Values for certain coalis in above rate table may represent little to no exposure in the population, hence have minimal or no impact on results.
Blank cells should be considered a value of zero (\*0.000\*).

# Enlisted Selected Reserve Separation Rates (Non-Retirement Causes)

By Entry Age	

0.169 0.164 0.153 0.156 0.159 0.167 0.164 0.175 0.177 0.190 0.190 0.198 0.192 0.203 0.171 0.192 0.192 0.199 0.199 0.199 0.199 0.199 0.199 0.190 0.140	0.233 0.244 0.149 0.144 0.144 0.148 0.149 0.148 0.151 0.159 0.152 0.155 0.155 0.155 0.155 0.157 0.157 0.157 0.157 0.157 0.157 0.157 0.157 0.157 0.157 0.159 0.159 0.149 0.140 0.140 0.140 0.140 0.159 0.159 0.140 0.140 0.159 0.140 0.150 0.152 0.153 0.152	227 024 025 032 032 034 035 035 035 025 024 027 028 025 027 028 027 027 028 027 027 028 035 037 037 038 035 049 035 049 035 035 035 035 035 035 035 035 035 035	0.45 0.44 0.47 0.16 0.17 0.17 0.45 0.45 0.45 0.45 0.17 0.44 0.42 0.43 0.43 0.43 0.43 0.43 0.44 0.42 0.44 0.44 0.45 0.44 0.45 0.44 0.44 0.45 0.44 0.44	0.095 0.094 0.097 0.099 0.090 0.090 0.090 0.091 0.096 0.111 0.092 0.095 0.097 0.075 0.090 0.091 0.095 0.091 0.095 0.097 0.095 0.097 0.097 0.099 0.097 0.099 0.097 0.099 0.097 0.099 0.099 0.097 0.099	0.154 0.175 0.100 0.100 0.100 0.100 0.000 0.101 0.000	0.079 0.081 0.086 0.085 0.088 0.073 0.070 0.075 0.084 0.077 0.087 0.084 0.052 0.077 0.085 0.082 0.080 0.025 0.037 0.040 0.075 0.087 0.040 0.075 0.087 0.040 0.075 0.087 0.040 0.075 0.087 0.040 0.075 0.087 0.040 0.075 0.087 0.040 0.075 0.087 0.040 0.075 0.087 0.040 0.075 0.087 0.040 0.075 0.087 0.040 0.075 0.087	0.082 0.040 0.086 0.038 0.038 0.044 0.051 0.044 0.055 0.047 0.047 0.047 0.047 0.047 0.047 0.053 0.083 0.047	0.082 0.037 0.027 0.042 0.048 0.048 0.026 0.000 0.019 0.021 0.022 0.025 0.020 0.021	
0.156 0.150 0.153 0.171 0.154 0.175 0.177 0.170 0.190 0.189 0.182 0.203 0.171 0.192 0.192 0.199 0.199 0.199 0.199 0.199 0.199 0.159 0.159 0.159 0.159 0.140 0.140	0.144 0.148 0.148 0.148 0.148 0.145 0.152 0.155 0.155 0.155 0.155 0.157 0.157 0.157 0.157 0.157 0.157 0.158 0.158 0.147 0.157 0.157 0.159 0.158	0.236 0.319 0.310 0.385 0.384 0.286 0.289 0.277 0.278 0.22 0.22 0.28 0.20 0.38 0.395 0.495 0.489 0.489 0.489 0.899 0.899 0.899 0.299 0.277 0.289 0.299	0.086 0.177 0.776 0.086 0.175 0.175 0.086 0.175 0.177 0.086 0.175 0.185 0.185 0.086 0.087	0.097 0.086 0.080 0.086 0.080 0.086 0.081 0.082 0.085 0.087 0.087 0.089 0.089 0.089 0.091 0.075 0.089 0.075 0.187 0.187 0.187 0.189	0.100 0.0590 0.101 0.0580 0.080 0.080 0.080 0.080 0.080 0.080 0.097 0.095 0.084 0.080 0.082 0.087 0.085 0.041 0.045 0.137 0.089 0.041 0.045 0.137 0.089 0.041 0.045 0.137 0.089 0.041 0.045 0.137 0.089 0.041 0.045 0.137 0.089 0.045 0.04	0.089 0.073 0.079 0.075 0.084 0.077 0.087 0.084 0.082 0.077 0.086 0.082 0.080 0.025 0.097 0.040 0.098 0.099	0.038 0.040 0.031 0.044 0.056 0.053 0.047 0.020 0.011 0.011 0.025 0.035 0.047 0.025 0.047 0.025 0.047 0.025 0.047 0.025 0.047 0.025 0.047 0.025 0.047 0.025 0.047 0.025 0.047 0.025 0.047 0.025 0.047 0.027 0.047 0.027 0.047 0.077 0.027 0.027	0.034 0.043 0.029 0.026 0.010 0.019 0.028 0.003 0.017 0.018 0.010 0.019 0.028 0.008 0.003 0.018 0.010 0.011 0.008 0.023 0.018	0.013 0.011 0.008
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0.137 0.137 0.159 0.159 0.159 0.140 0.140 0.140	0.137 0.137 0.159 0.159 0.159 0.159 0.159 0.159 0.137 0.137 0.159 0.159 0.159 0.159 0.159 0.137 0.137 0.159 0.159 0.159 0.159	0.137 0.137 0.159 0.159 0.159 0.159 0.137 0.137 0.159	0.137 0.137 0.169 0.159 0.159 0.159 0.137 0.137 0.150 0.159 0.159 0.159 0.159 0.159 0.159 0.137 0.137 0.159 0.159 0.159 0.159 0.159 0.159	0.137 0.137 0.159 0.159 0.159 0.159 0.137 0.137 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.137 0.137 0.159 0.159 0.159 0.137 0.137 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159	0.137				
0.137 0.159 0.159 0.159 0.140 0.140 0.140	0.137 0.159 0.159 0.159 0.137 0.159 0.159 0.159 0.137 0.159 0.159 0.159 0.137 0.159 0.159 0.159	0.137 0.159 0.159 0.159 0.159 0.137 0.159 0.159 0.159 0.159 0.159 0.137 0.137 0.159 0.159 0.159 0.137 0.139 0.159 0.159	0.137 0.159 0.159 0.159 0.159 0.137 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159	0.137 0.159 0.159 0.159 0.159 0.137 0.159 0.159 0.159 0.137 0.130 0.159 0.159 0.159 0.137 0.159 0.159 1.000 0.137 0.159					
0.159 0.159 0.159 0.140 0.140 0.140	0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159	0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159	0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159	0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 0.159 1.000 0.159					
0.159 0.140 0.140 0.140	0.159 0.159 0.159	0.159 0.159 0.159 0.159	0.159 0.159 0.159 0.159	0.159 0.159 0.159					
0.140 0.140 0.140									
0.140 0.140	5 5 5 5	5555	2 2 2 2 2 2						
0.140	0.140 0.140 0.140 0.140	041.0 041.0 041.0 041.0	0 0.140 0 0.140 0 0.140 0 0.140	0.140 0.140 0.140 1.000 1.000					
	40 0.140 40 0.140 40 0.140 40 0.140	40 0.140 40 0.140 40 0.140 40 0.140 40 0.140	40 0.140 40 0.140 40 0.140 40 0.140 40 0.140	00 1.000					
	0 0.140 0 0.140 0 0.140 0 0.140	0 0.140 0 0.140 0 0.140 0 0.140	0 0.140 0 0.140 0 0.140 0 0.140 0 1.000	0					
	0.140 0.140 0.140 0.140	0.140 0.140 0.140 0.140	0.140 0.140 0.140 1.000						
	0.140 0.140 0.140 0.140	0.140 0.140 0.140 0.140 0.140	0.140 0						
	0.140 0.140 0.140 0.140	0.140 0.441.0 0.441.0 0.00 0.00 0.00	1.000						
	0.140 0.1 0.140 0.1 0.140 0.1	0.140 0.140 0.140 0.140 0.140 0.140 0.140 0.140 0.140 1.000	1.000						
	0.140 0.140 0.140 0.140 0.140 0.140 0.140 0.140	140 0.140 140 0.140 140 0.140 140 1.000							
	0 0.140 0 0.140 0 0.140	0.0.140 0.0.140 0.0.1000							
	0 0.140 0 0.140 0 0.140	0.140							
0.140	0.140 0.140 0.140 0.140	1.000							
	0.140 0.140 0.140 1.000								
	0.140 0.1 0.140 1.0 1.000								
	0.140 1.000								
0 1.000									

DESCRIPTION: Selected Reserve Separation Rates
Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).
Probability that a member exits the status (due to non-retirement causes) during the fiscal year.
Values for certain cells in above rate table may represent little to no exposure in the population, hence have minimal or no impact on results.

Blank cells should be considered a value of zero (0,000).

# Officer Selected Reserve Reentrant Rates

By Entry Age

0.267 0.267 0.028

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	
1	
1	
1	
1	
1   2   2   2   2   2   2   2   2   2	
1	
1	
1	
1	
1	
1   20   20   20   20   20   20   20	
18   18   18   18   18   18   18   18	
1	
1	
141 50 21 22 22 22 24 25 24 24 24 24 24 24 24 24 24 24 24 24 24	
19 0. 21 12 22 12 22 12 22 12 2 2 2 2 2 2 2	
19	
1	
19	
19	
19 20 21 21 22 22 21 22 21 22 21 22 21 22 21 22 21 22 21 22 22	
19 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	
1,000, 1,000,	
19 0.27 0.21 0.22 0.22 0.24 0.25 0.25 0.24 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	
1, 20, 21, 22, 23, 24, 25, 24, 24, 24, 24, 24, 24, 24, 24, 24, 24	
19	
19 20 21 22 22 24 25 26 26 27 22 27 22 24 25 25 25 25 25 25 25 25 25 25 25 25 25	
19	
19 20 21 22 22 24 25 26 26 26 27 22 27 25 24 25 26 26 26 26 26 26 26 26 26 26 26 26 26	
19 20 21 22 23 4 26 26 27 27 27 27 27 28 27 28 27 27 27 27 27 27 27 27 27 27 27 27 27	
19	
19 20 21 22 22 24 25 26 26 26 26 26 26 26 26 26 26 26 26 26	
0669 0.187 0.21 0.22 0.28 0.28 0.28 0.28 0.28 0.28 0.28	
19	
19	
19	
19	
19 20 21  (200 147) (201 201 201 201 201 201 201 201 201 201	o o
19   20	8 0.009 8
0.0559 0.0591 0.0591 0.0591 0.0591 0.0592 0.0593 0.	8 0.008
	3 0.008
L 88882 88448 88884 44888 88884 48844 89898 99999	3 0.013
	0.013
	0.030
<u> </u>	0.000
CLU	0 4 4
□ → − 1 0 0 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4.4

DESCRIPTION: Selected Reserve Reentrant Rates -- Members have a prior entry date.

Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).

Increment rate that a member enters reserve status during the fiscal year.

For PEBD YOS greater than 15, if the reentrant rate > loss rate then set the reentrant rate equal to the loss rate.

Additional adjustments are made in an open group valuation in order to prevent the population. from becoming "over-strengthed" relative to DoD-Comptroller projected endstrengths. Values for certain cells in above rate table may represent little to no exposure in the population, hence have minimal or no impact on results.

Blank cells should be considered a value of zero ('0.000').

PEBD Years of

# **Enlisted Selected Reserve Reentrant Rates**

ĺ									
١	0.168								
	0.168 0.168 0.168								
	0.168 0.168 0.168								
	0.168 0.168 0.168 0.168 0.168								
	0.168 0. 0.168 0. 0.168 0. 0.168 0.	8							
l		8 0.1							
	0.168	0.168							
	0.168 0.168 0.168 0.168	0.168 0.168 0.168							
	0.168 0.168 0.168 0.168	0.168 0.168 0.168							
	0.168 0.168 0.168 0.168	0.168 0.168 0.168 0.168							
	0.168 0.168 0.168 0.168	0.168 0.168 0.168 0.168	0.168						
١	0.168	0.168 0.168 0.168 0.168	0.168						
	0.168 0.168 0.168 0.168 0.168	0.168 0.168 0.168 0.168 0.168	0.168 0						
	0.168 0. 0.168 0. 0.168 0. 0.168 0.	0.168 0. 0.168 0. 0.168 0. 0.168 0.	0.168 0. 0.168 0. 0.168 0. 0.168						
l	8 0.168 8 0.168 8 0.168 8 0.168	8 0.168 8 0.168 8 0.168 8 0.168	8 0.168 8 0.168 8 0.168 8 0.168	60					
	0.168 0.168 0.168 0.168	0.168 0.168 0.168 0.168	0.168 0.168 0.168 0.168	0.168					
1	0.168 0.168 0.168 0.168	0.168 0.168 0.168 0.168	0.168 0.168 0.168 0.168	0.168					
۱	0.168 0.168 0.168 0.168	0.168 0.168 0.168 0.168	0.168 0.168 0.168 0.168	0.168 0.168 0.168					
۱	0.169 0.143 0.364 0.267 0.286	0.960 0.412 0.171 0.240 0.107	0.107 0.107 0.107 0.107	0.107 0.107 0.107 0.107					
	0.088 0.136 0.344 0.563 0.240	0.896 0.171 0.234 0.234 0.073	0.073 0.073 0.073 0.073	0.073 0.073 0.073 0.073					
۱	0.084 0.075 0.397 0.603 0.317	1.155 0.175 0.258 0.153 0.203	0.075 0.075 0.075 0.075	0.075 0.075 0.075 0.075	0.075				
l	0.092 0.105 0.236 0.452 0.231	0.238 0.251 0.105 0.110	0.165 0.096 0.138 0.099 0.028	0.028 0.028 0.028 0.028	0.028				
	0.081 0 0.057 0 0.117 0 0.207 0	0.880 1 0.219 0 0.194 0 0.153 0 0.166 0	0.082 0.082 0.099 0.046 0.043	0.015 0.015 0.015 0.015 0.015	0.015 0				
	0.086 0. 0.051 0. 0.099 0. 0.133 0.	0.657 0. 0.188 0. 0.233 0. 0.131 0.	0.076 0. 0.072 0. 0.053 0. 0.061 0.	0.0444 0.0111 0.0111 0.0111 0.0111	0.011 0.0011 0.0011 0.0011				
l	01 0.082 01 0.089 01 0.081 02 0.127 09 0.104	35 0.544 35 0.181 37 0.220 34 0.140 78 0.096	79 0.090 37 0.054 32 0.074 35 0.060 42 0.052	38 0.023 32 0.021 32 0.020 17 0.009	0000 0000 0000 0000 0000 0000	8			
	3 0.101 8 0.101 2 0.102 3 0.079	6 0.336 9 0.237 6 0.084 2 0.078	1 0.079 9 0.087 8 0.062 4 0.035 5 0.042	7 0.038 7 0.032 7 0.032 0 0.017 3 0.021	2 0.006 4 0.006 0.006 0.006	4 0.006			
	0.068	0.146 0.146 0.0229 0.086	0.061 0.079 0.058 0.044 0.045	0.037 0.021 0.020 0.020 0.013	0.0012	400.0			
١	0.081 0.051 0.066 0.110 0.081	0.155 0.161 0.284 0.090 0.073	0.063 0.069 0.059 0.053	0.038 0.025 0.024 0.010 0.016	0.012 0.011 0.006 0.006	0.006			
	0.085 0.058 0.082 0.128 0.091	0.154 0.178 0.347 0.106 0.093	0.067 0.080 0.071 0.044 0.040	0.030 0.025 0.026 0.018 0.022	0.011 0.005 0.005 0.005	0.005			
	0.073 0.057 0.060 0.142 0.088	0.109 0.208 0.430 0.108 0.092	0.074 0.091 0.076 0.065 0.064	0.033 0.033 0.028 0.028	0.020 0.009 0.010 0.012	0.003 0.003 0.003			
	0.063 0.063 0.074 0.137 0.093	0.093 0.206 0.566 0.116 0.097	0.073 0.085 0.081 0.066 0.054	0.038 0.027 0.020 0.015 0.014	0.017 0.016 0.015 0.011	0.005 0.005 0.005 0.005	0.005		
١	0.064 0.057 0.078 0.138 0.083	0.089 0.205 0.605 0.119 0.084	0.074 0.095 0.080 0.060 0.073	0.037 0.035 0.032 0.028 0.021	0.015 0.015 0.010 0.000	0.007 0.007 0.007 0.007	0.007		
	0.070 0.048 0.066 0.121 0.097	0.097 0.189 0.593 0.099	0.068 0.092 0.078 0.064 0.063	0.036 0.029 0.031 0.031	0.023 0.018 0.018 0.019	0.005	0.005		
ì	0.060 0.046 0.077 0.128 0.105	0.097 0.230 0.536 0.114 0.098	0.086 0.070 0.069 0.060 0.057	0.047 0.038 0.026 0.025 0.023	0.013 0.018 0.013 0.012	0.009 0.008 0.010 0.010	0.004 0.004 0.004		
		0.108 0.234 0.492 0.114 0.083							
ı		0.112 0 0.220 0 0.433 0 0.107 0			0.016 0.019 0.015 0.013 0.012	0.010 0.015 0.018 0.009 0.010		0.004	
		0.129 0 0.198 0 0.435 0 0.118 0	0.079 0 0.073 0 0.057 0 0.057 0	0.045 0 0.039 0 0.033 0 0.023 0	0.025 0 0.016 0 0.019 0 0.017 0	0.013 0 0.003 0 0.008 0 0.019 0		0.007	
		0.133 0. 0.185 0. 0.368 0. 0.108 0.	0.086 0.0 0.079 0.0 0.067 0.0 0.063 0.0	0.039 0.0 0.038 0.0 0.026 0.0 0.027 0.0	0.020 0.020	0.013 0.0014 0.0017 0.0015 0.0015 0.0015		0.010 0.000 0	
l									
	0 0.053 7 0.083 4 0.186	4 0.131 0 0.318 0 0.318 5 0.089	8 0.087 0 0.077 3 0.062 0 0.056 3 0.052	9 0.035 7 0.034 7 0.030 7 0.025 8 0.025	5 0.021 8 0.023 0 0.020 1 0.018	9 0.017 8 0.015 3 0.012 9 0.012	1 0.008 6 0.013 7 0.011 2 0.004	2 0.004 2 0.004 2 0.004	
	8 0.050 1 0.051 3 0.087 0 0.194 2 0.141	7 0.134 7 0.290 7 0.290 0 0.103	5 0.078 5 0.070 1 0.063 9 0.060 3 0.053	2 0.039 2 0.037 8 0.027 6 0.028	9 0.015 7 0.020 2 0.018 7 0.020 6 0.021	7 0.019 6 0.015 5 0.013 6 0.009	9 0.011 5 0.016 1 0.007 8 0.009 3 0.012	3 0.013 7 0.002 7 0.002 7 0.002	_
1	0.048 0.051 0.083 0.190 0.142	0.137 0.257 0.100 0.091	0.075 0.075 0.061 0.049 0.053	0.032	0.019	0.017 0.020 0.020 0.015 0.015	0.009 0.0015 0.0016 0.016	0.003	3 0.007
۱	0.043 0.080 0.080 0.187 0.139	0.135 0.173 0.098 0.098 0.090	0.064 0.066 0.059 0.051 0.050	0.037 0.023 0.029 0.022 0.022	0.018 0.019 0.016 0.022 0.022	0.015 0.014 0.013 0.017 0.016	0.018 0.008 0.009 0.009	0.008 0.008 0.008 0.008 0.008	0.008
l	0.038 0.041 0.070 0.176 0.144	0.133 0.166 0.167 0.088 0.082	0.071 0.065 0.053 0.049 0.047	0.035 0.033 0.028 0.024 0.021	0.019 0.022 0.018 0.015	0.025 0.018 0.014 0.012 0.016	0.011 0.017 0.010 0.010	0.011 0.008 0.008 0.003	0.003
	0.029 0.030 0.048 0.139 0.134	0.124 0.144 0.117 0.069 0.070	0.060 0.053 0.051 0.042 0.042	0.036 0.030 0.026 0.025 0.025	0.021 0.021 0.020 0.021 0.019	0.018 0.021 0.027 0.017	0.013 0.014 0.020 0.009	0.005 0.008 0.010 0.010	0.010
١	0.030 0.012 0.021 0.066 0.077	0.074 0.099 0.074 0.041	0.046 0.037 0.038 0.038	0.027 0.030 0.027 0.024 0.021	0.022 0.024 0.022 0.022 0.023	0.023 0.023 0.019 0.023 0.017	0.016 0.017 0.010 0.010	0.011 0.011 0.011 0.011	0.011
I	0.121 0.006 0.004 0.012 0.022	0.026 0.050 0.052 0.027 0.028	0.032 0.027 0.030 0.030	0.035 0.034 0.029 0.046	0.021 0.025 0.030 0.035	0.020 0.024 0.030 0.022 0.026	0.026 0.026 0.026 0.026	0.026 0.026 0.026 0.026	0.026
١	00000	000000	000000	00000	00000	00000	00000	00000	0.000
1	Under 1 1 2 3 4								
1	D - 2 & 4	9 8 4 9 8	0 1 2 2 4	15 17 19 19	8 2 2 2 2	88488	8 2 2 2 2	8 8 3 8 8	6 4

DESCRIPTION: Selected Reserve Reentrant Rates -- Members have a prior entry date.

Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).

Increment rate that a member enters reserve status during the fiscal year.

For PEBD YOS greater than 15, if the reentrant rate > loss rate then set the reentrant rate equal to the loss rate.

Additional adjustments are made in an open group valuation in order to prevent the population from becoming "over-strengthed" relative to Dob-Comptroller projected endstrengths.

Values for certain cells in above rate table may represent little to no exposure in the population, hence have minimal or no impact on results.

Blank cells should be considered a value of zero ('0.000').

offset by the rate that a member reenters during the fiscal year.

For PEBD YOS greater than 15, if reentrant rate > loss rate, then reentrant is set equal to the loss rate (i.e., to not allow any negative net loss).

Blank cells should be considered a value of zero ('0.000').

Selected Reserve Net Separation Rates
Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).
Probability that a member exits the status (due to non-retirement causes)

0.002 0.006

DESCRIPTION:

# Officer Selected Reserve Net Separation Rates (Non-Transfer/Retirement)

By Entry Age

rears of	Service	nder 1		0=0.00	10 10 10 10 10	0=0.00	10 10 10 10 10	0=0.0.+	10.00 & 00.00	0
	16	00000	00000	00000	00000	00000	00000	00000	00000	0.000
	17	0.012 0.012 0.012 0.012	0.012 0.012 0.014 0.014	0.048 0.050 0.039 0.017 0.063	0.048 0.043 0.018 0.018 0.033	0.068 0.020 0.036 0.039 0.035	0.021			
	18	-0.306 -0.306 -0.234 -0.061	0.008 0.008 0.024 0.019	0.032	0.040	0.041	0.024 0.004 0.001 0.001	0.003	0.024 0.024 0.024 0.024	0.024
	3 19	5 -0.605 5 -0.605 5 -0.507 4 -0.180	3 0.028 3 0.013 4 0.031 9 0.021	2 0.031 2 0.014 9 0.033 5 0.024 4 0.027	0.041 0.030 0.030 0.024 0.040	0.060 0.044 0.047 0.014	3 0.018 1 0.008 1 0.008	0.001	4 0.031 4 0.020 4 0.033	_
		15 -0.128 15 -0.307 17 -0.182 10 -0.050 10 0.015	8 0.015 3 0.015 13 0.011 11 0.031	11 0.047 4 0.019 13 0.034 14 0.043 17 0.015	.1 0.010 10 0.031 10 0.030 14 0.023	0 0.036 .4 0.024 .7 0.029 4 0.007 .3 0.019	11 8 0.006 16 0.006	0.006	0.035 0.003 0.003 0.002	0.002
	20	28 -0.269 37 -0.250 32 -0.051 50 -0.003 15 0.008	15 0.004 15 -0.015 11 -0.014 31 0.007 23 0.026	17 0.041 19 0.020 34 0.009 13 0.028 15 0.021	10 0.026 31 0.029 30 0.019 23 0.040 41 0.035	36 0.028 24 0.034 29 0.020 07 0.025	0.020	0.009	35 0.019 38 0.025 33 0.020 32 0.006	0.006
	21	69 -0.542 50 -0.240 151 -0.077 103 -0.278 108 -0.337	04 -0.175 115 -0.124 114 -0.047 107 -0.037 126 -0.022							
	22	240 -0.: 240 -0.: 377 -0.: 378 -0.5	175 -0.226 124 -0.120 047 -0.047 037 -0.021 022 -0.057	0.015 -0.0 0.005 0.0 0.009 0.0 0.031 0.0	0.041 0.0 0.034 0.0 0.035 0.0 0.025 0.0	0.022 0.0 0.009 0.0 0.010 0.0	0.003 0.0	0.006 0.006 0.010 0.019 0.019 0.010	0.012 0.0 0.003 0.0 0.015 0.0	0.015
	23	-0.294 -0.3 -0.126 -0.0 -0.161 -0.1 -0.496 -0.3		0.028 -0.0 0.018 0.0 0.016 0.0 0.029 0.0	0.041 0.0 0.032 0.0 0.034 0.0 0.027 0.0	0.024 0.0 0.012 0.0 0.0016 0.0 0.003 0.0	0.014 0.009 0.004 0.004	0.006 0.020 0.030 0.036 0.00 0.006	0.012 0.003 0.003 0.003	
	24	0.323 0.134 0.321 0.333 0.333	0.089 0.099 0.077 0.018 0.020	0.012 0.0035 0.0035 0.0021 0.0020 0.0	0.034 0.0030 0.0030 0.0028 0.0030 0.0030 0.0030 0.0030 0.0034 0.0030 0.0034 0.0034 0.0034 0.0034 0.0034 0.0034	0.009 0.018 0.011 0.014 0.003	0.005	0.012 0.008 0.034 0.015 0.014	0.004	
	52	0.323 0 0.064 0 0.073 0 0.205 0	0.085 0 0.093 0 0.046 0 0.052 0	0.012 0 0.015 0 0.018 0 0.022 0	0.041 0.013 0.035 0.024 0.028	0.010 0.019 0.018 0.009	900'0	0.003 0.033 0.012 0.007	0.007 0	
	82	0.335 0.022 0.063 0.057 0.142	0.017 0.049 0.0049 0.045	0.009 0.029 0.023 0.023 0.012	0.033 0.028 0.024 0.010 0.025	0.019	0.021	0.021 0.017 0.018 0.013	0.013	
	27	-0.226 -0.018 -0.025 -0.126	0.040 0.040 0.008 0.008	0.015 0.041 0.037	0.016 0.027 0.028 0.040 0.013	0.014 0.014 0.009 0.009	0.007	0.016		
	28	-0.046 -0.029 -0.064 -0.064	0.028 -0.071 0.040 0.022	-0.002 0.008 0.032 0.033	0.019 0.033 0.035 0.030	0.032 0.017 0.024 0.007	0.003 0.012 0.005 0.005			
	29	0.033 0.015 0.010 0.010	0.008 0.027 0.036 0.029	0.013 0.030 0.047 0.033	0.046 0.025 0.030 0.025 0.020	0.026 0.004 0.023 0.026	0.008	0.017 0.017 0.017 0.017		
	30	0.002 0.002 0.018 0.018	0.036 0.015 0.032 0.019 0.025	-0.006 0.035 0.058	0.003 0.042 0.005 0.014 0.015	0.021	0.001 0.002 0.013 0.012			
	31	7 -0.218 2 0.010 9 0.030 8 -0.003 7 0.012	5 0.006 5 0.018 2 0.035 9 0.124 5 0.021	6 0.055 6 0.028 8 0.033 1 0.027	3 0.045 5 0.005 5 0.023	0.002	2352			
		8 -0.128 0 0.028 0 0.045 3 0.019 2 -0.019	6 0.048 8 0.006 5 0.043 4 0.094 1 0.009	5 0.076 8 -0.005 0.014 3 0.028 7 0.004	5 0.029 0.038 5 0.029 0.010 3 0.034	2 0.027 0.010 9 0.009 0 0.009 3 0.009	0.009	0.009		
	32	28 -0.159 28 0.025 45 0.045 19 0.044 19 0.021	18 -0.009 06 0.012 13 0.004 09 0.042	76 0.014 05 0.040 14 0.045 28 0.048 04 0.056	29 0.033 28 0.008 29 0.007 10 0.026	27 0.005 10 0.004 09 0.013 09 0.013	00 0.013 00 0.013 00 0.013 00 0.013	8		
	88	59 -0.100 25 -0.009 45 0.041 21 0.025	09 0.023 12 0.003 04 0.004 74 0.042 42 0.029	14 0.062 40 0.016 45 0.011 48 -0.035 56 0.040	33 0.016 08 0.013 07 0.023 26 0.021	05 0.015 04 0.013 13	13 to			
	34	00 -0.196 09 0.048 41 0.048 11 0.051 25 0.046	23 0.046 03 0.020 04 0.051 29		16 0.009 13 0.025 23 0.016 21 0.010	15 0.003 13 0.003 0.003 0.003	0.0			
	38			0.031 0.0 0.006 0.0 0.019 0.0 0.026 0.0	09 25 16 40	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0.003			
	88	0.291 -0.1 0.047 0.0 0.039 0.0 0.038 0.0	0.053 0.0 0.015 0.0 0.071 0.1 0.090 0.0	0.086 0.0 0.072 0.0 0.005 0.0 0.005 0.0	5 5 5 5 5	00000	õ			
	37	0.027 0.0 0.035 0.0 0.054 0.0	0.049 0.0 0.050 0.0 0.104 0.0 0.093 0.0	0.077 0.0 0.066 0.0 0.026 0.0 0.002 0.0	0.002 0.002 0.002 0.002 0.002 0.002	0.002 0.002 0.002 0.002 0.002	0.002			
	æ	0.135 -0. 0.044 0. 0.032 0. 0.043 0.	0.092 0. 0.015 0. 0.119 0. 0.137 0.	0.072 0.0011 0.0011 0.0011 0.0011 0.0011	0.0011	0.0011				
	38	0.195 -0. 0.007 0. 0.081 0. 0.052 0.	0.087 0. 0.057 0. 0.059 0. 0.092 0.	0.059 0. 0.040 0. 0.012 0. 0.012 0.	0.012 0. 0.012 0. 0.012 0. 0.012 0.	0.012 0. 0.012 0. 0.012 0.				
	40	0.035 0 0.036 0 0.065 0	0.033 0 0.057 0 0.052 0 0.105 0	0.031 0.088 0.038 0.013 0.013	0.013 0.013 0.013 0.013 0.013	0.013 0 0.013 0				
	41	0.008 0.008 0.041 0.107 0.055	0.035 0.035 0.035 0.035 0.035	0.035 0.035 0.035 0.035 0.035	0.035	0.035 (				
	45	0.012 0.032 0.082 0.115	0.037 0.037 0.037 0.037	0.037 0.037 0.037 0.037	0.037 0.037 0.037 0.037 0.037	0.037				
	43	0.070 0.070 0.070 0.070	0.070 0.070 0.070 0.070	0.070 0.070 0.070 0.070	0.070 0.070 0.070 0.070					
	44	0.071 0.071 0.071 0.071	0.071 0.071 0.071 0.071	0.071 0.071 0.071 0.071	0.071					
	42	0.061 0.061 0.061 0.061	0.061 0.061 0.061 0.061	0.061 0.061 0.061 0.061	0.061 0.061 1.000					
	46	0.082 0.082 0.082 0.082 0.082	0.082 0.082 0.082 0.082 0.082	0.082 0.082 0.082 0.082 0.082	0.082					
	3 47	7 -0.251 2 0.076 2 0.076 2 0.076	2 0.076 2 0.076 2 0.076 2 0.076	2 0.076 2 0.076 2 0.076 2 0.076	0.076					
		71 -0.093 76 0.090 76 0.090 76 0.090	6 0.090 6 0.090 6 0.090 6 0.090	6 0.090 6 0.090 6 0.090 6 0.090	00 1.000					
	48 4	33 -0.133 90 0.052 90 0.052 90 0.052	00 0.052 00 0.052 00 0.052 00 0.052	00 0.052 00 0.052 00 0.052 00 0.052 00 1.000	8					
	49	33 -0.187 52 0.023 52 0.023 52 0.023 52 0.023	52 0.023 52 0.023 52 0.023 52 0.023 52 0.023	52 0.023 52 0.023 52 0.023 52 1.000						
	20	87 -0.180 23 0.059 23 0.059 23 0.059 23 0.059	23 0.059 23 0.059 23 0.059 23 0.059 23 0.059							
	21	80 -0.209 159 0.030 159 0.030 159 0.030		0.059 0.0 0.059 1.0 1.000						
	25		0.030 0.0 0.030 0.0 0.030 0.0 0.030 0.0	0.030 1.0						
	23	0.086 0.0 0.086 0.0 0.086 0.0 0.086 0.0	0.086 0.0 0.086 0.0 0.086 0.0 0.086 0.0	1.000						
	54	0.168 -0 0.071 0 0.071 0 0.071 0	0.071 0.0071 0.0071 0.0071 1.0001							
	22	0.161 0.078 0.078 0.078 0.078	0.078 0.078 0.078 1.000							
	98	0.067 0.067 0.067 0.067 0.067	0.067 0.067 1.000							
	27	0.025 0.025 0.025 0.025 0.025	1.000							
	28	0.020 0.020 0.020 0.020	1.000							
	28	-0.085 - 0.154 0.154 1.000								
	8	0.072 0.072 0.072 1.000								
	61	0.305								
	62	1.000								
	>62	1:000								

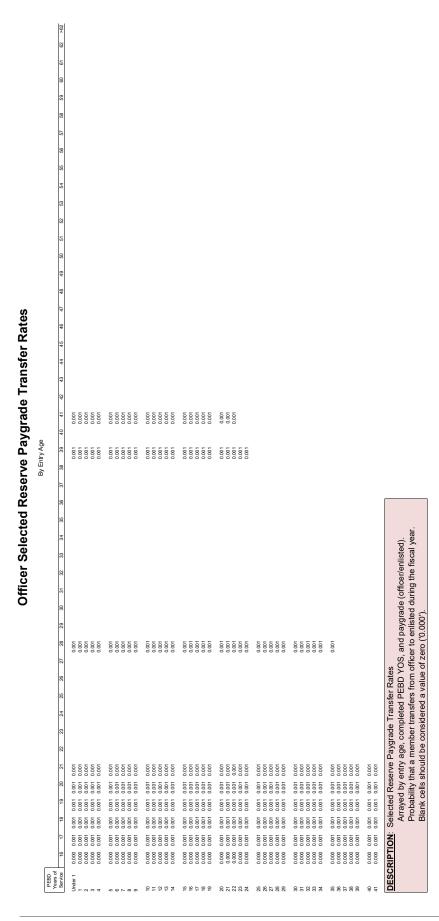
# Enlisted Selected Reserve Net Separation Rates (Non-Transfer/Retirement)

ge	
ntry A	
B,	

	>62	1.000								
	62	1.000								
	61	-0.028 -0.028 1.000								
	09	-0.028 -0.028 -0.028 1.000								
	28	0.028 0.028 0.028 0.028 1.000								
	28	-0.028 -0 -0.028 -0 -0.028 -0 -0.028 -0 -0.028 -1	1.000							
	22	0.028 -0.	1.000							
	26									
	22	28 -0.028 28 -0.028 28 -0.028 28 -0.028 28 -0.028	28 -0.028 28 -0.028 28 1.000							
	24	18 0.028 18 0.028 18 0.028 18 0.028	8 -0.028 8 -0.028 8 -0.028 1.000							
		8 -0.028 8 -0.028 8 -0.028 8 -0.028	8 -0.028 8 -0.028 8 -0.028 8 -0.028	0						
	53	3 -0.028 3 -0.028 3 -0.028 3 -0.028	3 -0.028 3 -0.028 3 -0.028 3 -0.028	1.000						
	52	-0.028 -0.028 -0.028 -0.028	0.028 0.028 0.028 0.028	1.000						
	51	0.028 0.028 0.028 0.028	0.028 0.028 0.028 0.028	-0.028 -0.028 1.000						
	20	0.028 0.028 0.028 0.028	0.028 0.028 0.028 0.028	-0.028 -0.028 -0.028 1.000						
	49	0.028 0.028 0.028 0.028	0.028 0.028 0.028 0.028	0.028 0.028 0.028 1.000						
	48	-0.028 -0.028 -0.028 -0.028	-0.028 -0.028 -0.028 -0.028	-0.028 -0.028 -0.028 -0.028	1.000					
	47	0.028	0.028 0.028 0.028 0.028	0.028 0.028 0.028 0.028	1.000					
	46	0.028	0.028	0.028	1.000					
	45	000000	0.00000	00000	0.009					
	44	0.016 0.016 0.205 0.108 0.127	0.801 0.253 0.012 0.081 0.052	0.052 4 0.052 4 0.052 4 0.052 4 0.052 4	0.052 -6					
	43	0.071 0 0.023 0 0.185 0 -0.404 0	0.737 0 -0.012 0 -0.075 0 -0.075 0 0.086 0	0.086 0.086 0.086 0.086 0.086	0.086 0.086 0.086 0.086 0.086					
	42	0.053 0 0.062 0 -0.280 0 -0.466 0	-1.018 -0 -0.038 -0 -0.121 -0 -0.016 -0 -0.066 0	0.062 0 0.062 0 0.062 0 0.062 0	0.062 0 0.062 0 0.062 0 0.062 0	0.062				
	41	0.045 0. 0.032 0. 0.315 0. 0.034 0.	-1.003 -1. -0.111 -0. -0.032 -0. -0.027 -0.	0.028 0.0041 0.0001 0.0038 0.00109 0.109	0.109 0.109 0.109 0.109 0.009	0.109 0.				
	40	0.093 0.000 0.090 0.000 0.104 0.000 0.015 0.000		0.034 -0.036 0.0016 -0.017 0.0017 0.0014 0.0014	0.060 0.064 0.0047 0.030 0.030 0.030	0.030 0.030				
Age	39		17 -0.732 54 -0.054 73 -0.039 22 0.003 32 -0.012	0.048 -0.0 0.052 0.0 0.032 0.0 0.042 0.0	0.005 0.0 0.045 0.0 0.028 0.0 0.037 0.0					
By Entry Age	38	09 0.114 03 0.107 03 0.029 05 0.002 13 0.016	34 -0.517 37 -0.054 38 -0.073 36 0.022 41 0.032			47 0.030 12 0.058 17 -0.001 17				
ð.		8 0.109 2 0.103 2 0.063 4 0.025	7 -0.384 0 -0.037 8 -0.058 6 0.006 4 0.041	1 0.034 2 0.050 3 0.015 2 0.005 5 0.036	2 0.052 8 0.038 3 0.047 9 0.038 7 0.081	7 0.047 7 0.012 8 0.017 2 0.017 8 0.017	Ω.			
	37	7 0.088 9 0.130 2 0.032 5 0.034 5 0.031	2 -0.177 1 -0.068 2 0.066 8 0.064	2 0.031 9 0.012 4 0.053 9 0.042 0 0.045	8 0.042 4 0.038 4 0.033 5 0.029 9 0.067	0 0.067 9 0.047 9 0.026 4 0.022 7 0.069	690:00			
	38	0.107 0.089 0.062 0.015 0.045	2 -0.022 2 -0.061 3 -0.061 8 0.062 8 0.028	0.042 0.039 0.054 0.059 0.030	3 0.038 0.024 0.026 0.026	0.050 0.059 0.049 0.014 7.0.037	0.036			
	32	0.111	0.022 -0.092 0.058	0.041 0.053 0.040 0.033	0.053 0.026 0.049 0.057	0.049	0.057			
	34	0.112 0.099 0.047 0.006 0.030	0.051 -0.028 -0.160 0.058 0.040	0.053 0.046 0.026 0.037 0.050	0.059 0.032 0.039 0.021 0.044	0.079 0.091 0.086 0.049	0.020 0.015 0.015 0.015			
	33	0.098 0.086 -0.012 0.041	0.096 -0.056 -0.235 0.044 0.037	0.057 0.047 0.034 0.043 0.032	0.065 0.024 0.029 0.027 0.047	0.067 0.082 0.087 0.087	0.009 0.013 0.013 0.013			
	32	0.130 0.084 0.064 0.029	0.119 -0.053 -0.368 0.037 0.065	0.062 0.042 0.048 0.050 0.045	0.037 0.034 0.051 0.059	0.078 0.094 0.076 0.074 0.100	0.087 0.020 0.025 0.025	0.078		
	31	0.118 0.054 0.06 0.042	0.137 -0.018 -0.401 0.044 0.055	0.064 0.053 0.027 0.052 0.012	0.060 0.023 0.034 0.035 0.051	0.083 0.071 0.079 0.084	0.078 0.084 0.049 0.003 0.018	0.018		
	30	0.119 0.107 0.071 0.007 0.043	0.120 -0.018 -0.343 0.045 0.059	0.084 0.041 0.037 0.057 0.025	0.046 0.049 0.032 0.039 0.053	0.072 0.069 0.056 0.066	0.072 0.089 0.077 0.057 0.015	0.006		
	59	0.130 0.109 0.075 0.010	0.161 -0.048 -0.309 0.056	0.063 0.071 0.053 0.053	0.038 0.038 0.042 0.053	0.083 0.090 0.071 0.077	0.043 0.047 0.064 0.040 0.032	0.007		
	28	0.105 0.107 0.072 0.019	0.154 -0.243 0.073	0.057 0.059 0.045 0.065	0.047 0.053 0.022 0.060	0.075 0.069 0.076 0.068 0.072	0.073 0.055 0.051 0.068 0.036	0.017 0.007 0.007 0.007		
	27	0.110 0.100 0.068 -0.017	0.146 -0.022 -0.174 -0.086	0.088 0.072 0.060 0.076	0.065 0.044 0.038 0.042 0.050	0.076 0.089 0.078 0.078 0.066	0.057 0.050 0.056 0.042 0.053	0.034 0.020 0.017 0.017	0.017	
	58	0.116 0.007 0.005 0.004	0.156 0.008 0.181 0.085 0.083	0.086 0.084 0.058 0.062 0.063	0.051 0.047 0.035 0.047	0.086 0.086 0.072 0.064 0.065	0.064 0.045 0.057 0.022 0.048	0.043 0.029 0.014 0.016 0.012	0.012	
	52				0.054 0 0.040 0 0.046 0 0.028 0	0.079 0.080 0.069 0.060 0.046	0.051 0.040 0.038 0.036 0.040	0.048 0 0.029 0 0.036 0 0.017 0	• •	
	24				0.061 0.0044 0.0039 0.0047 0.0056 0.0050	0.075 0. 0.069 0. 0.054 0. 0.068 0.	0.058 0. 0.034 0. 0.038 0. 0.035 0.	0.036 0.0026 0.0026 0.0024 0.0023 0.0023	0.022 0.014 0.014 0.014	
	23	0.113 0. 0.098 0. 0.048 0. 0.001 -0.	0.176 0. 0.045 0. 0.002 -0. 0.121 0.	0.098 0. 0.092 0. 0.085 0. 0.083 0.	0.061 0. 0.046 0. 0.049 0. 0.035 0.	0.086 0. 0.067 0. 0.064 0. 0.057 0.	0.051 0. 0.046 0. 0.030 0. 0.031 0.	0.020 0. 0.024 0. 0.032 0. 0.032 0.	0.016 0. 0.015 0. 0.021 0. 0.021 0.	
	22	0.112 0. 0.097 0.0 0.058 0.0 0.057 -0.0		0.096 0.0 0.087 0.0 0.079 0.0 0.095 0.0	0.053 0.0 0.054 0.0 0.037 0.0	0.080 0.0 0.080 0.0 0.052 0.0 0.054 0.0	0.056 0.0 0.047 0.0 0.033 0.0 0.029 0.0	0.040 0.0 0.020 0.0 0.027 0.0		10
	21		01 0.182 66 0.042 89 0.051 33 0.124 97 0.090						26 0.030 30 0.022 20 0.001 03 0.001	03 0.001
	20	5 0.113 10 0.098 17 0.054 17 0.056 19 0.001	19 0.201 12 0.066 18 0.089 15 0.133 12 0.097	0 0.105 6 0.094 12 0.076 13 0.087 15 0.058	12 0.060 16 0.053 17 0.040 15 0.045	11 0.082 5 0.071 12 0.070 11 0.069	0 0.053 4 0.047 6 0.044 11 0.031 5 0.035	7 0.020 8 0.021 9 0.030 12 0.027 10 0.041	11 0.026 10 0.030 19 0.020 12 0.003	0 0.003
	19	5 0.115 9 0.100 8 0.057 8 -0.047 5 -0.009	1 0.209 1 0.072 2 0.138 4 0.145 9 0.102	1 0.100 2 0.096 6 0.082 0 0.093 2 0.065	8 0.062 6 0.056 6 0.047 6 0.035 2 0.065	2 0.081 4 0.075 6 0.062 9 0.071 0 0.059	8 0.040 2 0.044 9 0.036 2 0.031	3 0.027 0 0.018 6 0.019 2 0.022 4 0.030	2 0.031 4 0.020 0 0.029 7 0.002 7 0.010	7 0.010
		0.135 0.068 0.008 0.0028	0.201 0.091 0.182 0.164	0.101 0.076 0.090 0.072	0.058	0.082	0.042	0.020 0.020 0.016 0.002	0.022 0.024 0.020 0.017	0.017
	18	0.139	0.220 0.112 0.205 0.191 0.122	0.098 0.096 0.095 0.073	0.052	0.099	0.058 0.040 0.039 0.021	0.024 0.021 0.015 0.017	0.020 0.014 0.026 0.015	0.015
	17	0.007 0.227 0.151 0.091	0.201 0.183 0.177 0.212 0.151	0.113 0.151 0.129 0.118 0.071	0.060 0.071 0.056 0.017	0.133 0.097 0.081 0.090	0.059 0.075 0.048 0.035	0.026 0.026 0.026 0.026	0.026 0.026 0.026 0.026	0.026
	16	00000	00000	0.000	0.000	00000	00000	00000	00000	0.000
PEBD Years of	Service	Under 1 2 3 4	9 8 7 8 9	0 1 2 2 4	5 7 8 8 9	82828	287.80	8 8 8 8 8 8	38 34 38 38	40
		7 - 4 8 4	2979			NNNNN	~ ~ ~ ~ ~ ~	<i>୍</i> ଟ୍ଟ୍ଟ୍ଟ୍ଟ୍ଟ୍	<i>ପ</i> ଅ ଅ ଅ ଅ ଅ	44

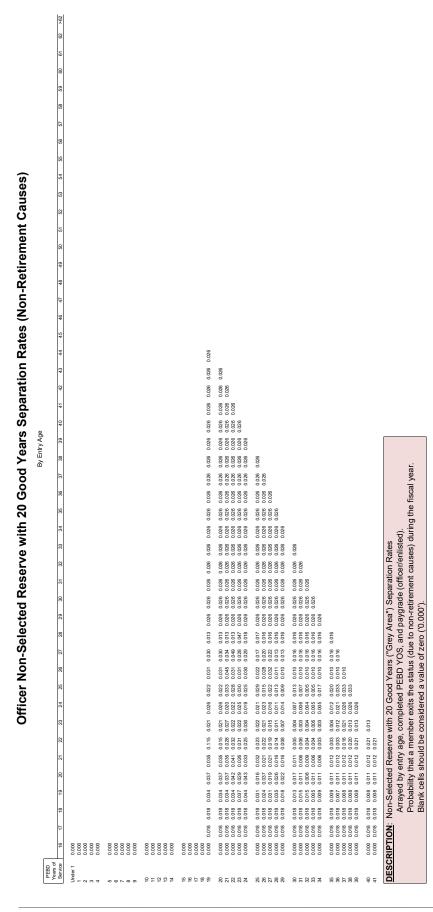
0.000 0.026 0.015 0.017 0.010 0.003 DESCRIPTION

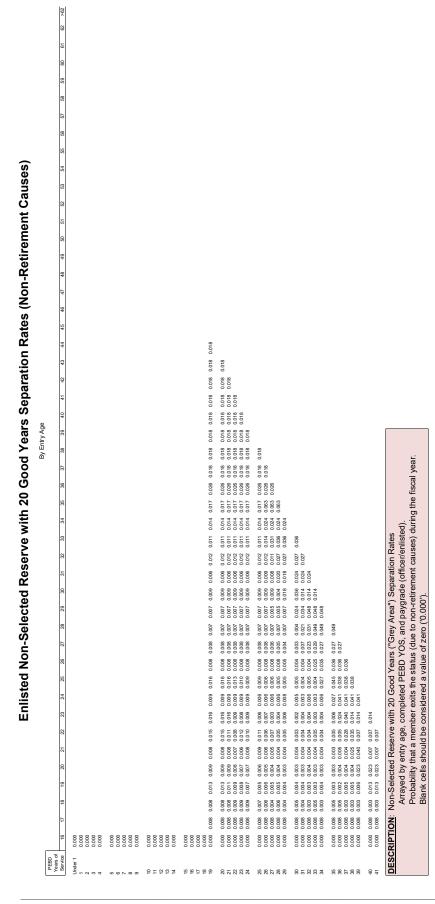
Selected Reserve Net Separation Rates
Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).
Probability that a member exits the status (due to non-retirement causes)
offset by the rate that a member reenters during the fiscal year.
For PEBD YOS greater than 15, if reentrant rate > loss rate, then reentrant is set equal to the loss rate (i.e., to not allow any negative net loss).
Blank cells should be considered a value of zero (0.000).



# Enlisted Selected Reserve Paygrade Transfer Rates

0.013 0.011 0.015 0.008 0.014 0.020 0.011									
0.009 0.000 0.010 0.012 0.015	0.006 0.006 0.007 0.007 0.010 0.008 0.009 0.009 0.009 0.009 0.008 0.009 0.010 0.010 0.009 0.011 0.007 0.009 0.009 0.012 0.011 0.007 0.009 0.009 0.009 0.012 0.011	0.010 0.011 0.001 0.000 0.010 0.010 0.010 0.001 0.001 0.001 0.000	0.008 0.006 0.007 0.007 0.004 0.004 0.005 0.004 0.009 0.000	003 0.003 0.004 0.004 0.005 0.005	800				Selected Reserve Paygrade Transfer Rates Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted). Probability that a member transfers from enfilted to officer during the fiscal year Blank cells should be considered a value of year (10 n/n).
Under1 0,000 0,001 0,001 0,002 0,0 1 0,000 0,001 0,001 0,001 0,005 0,0 3 0,000 0,001 0,002 0,004 0,005 0,009 0,0 4 0,000 0,004 0,005 0,006 0,007 0,0	0,000 0,007 0,008 0,006 0,005 0,005 0,005 0,007	0,000 0,016 0,013 0,011 0,009 0,0 0,000 0,015 0,012 0,011 0,009 0,0 0,000 0,017 0,016 0,012 0,011 0,0 0,000 0,012 0,013 0,013 0,011 0,0 0,000 0,017 0,014 0,010 0,011 0,0	0,000 0,012 0,010 0,009 0,008 0,0 0,000 0,011 0,012 0,009 0,008 0,0 0,000 0,009 0,008 0,005 0,0 0,000 0,008 0,006 0,005 0,0 0,000 0,008 0,006 0,005 0,0	0,000 0,005 0,004 0,003 0,0 0,000 0,005 0,003 0,002 0,0 0,000 0,004 0,003 0,002 0,0 0,000 0,004 0,003 0,0 0,000 0,005 0,003 0,0	0,000 0,003 0,002 0,0 0,000 0,	0000 0000 0000	0000 0000 0000	0,000	DESCRIPTION: Selected Resen Arrayed by eni Probability the
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.001 0.001 0.005 0.005 0.005 0.007 0.001 0.001 0.001 0.001 0.002 0.005	0.000 0.001 0.001 0.002 0.002 0.002 0.001	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0000 0007 0007 0008 0009 0009 0009 0009	Control   Cont





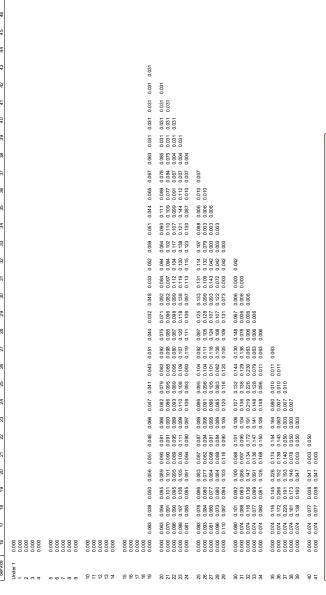
# Officer Selected Reserve to Non-Selected Reserve with 20 Good Years Transfer Rates By Entry Age

	4										
	46										
40 41 42 43	45										
	44										
	43				0.016						
	42				0.016	0.016					
	41				0.016 0	0.016 0					
	40				0.016 0	0.016 0					
	39				0.101 0	0.009 0					
By Entry Age	38				0.076 0	0.189 0.036 0.036 0.036 0.036					
ш	37				0 9200	0.122 0.024 0.024 0.024 0.024	0.024				
	36				0 780:0	0.132 0 0.070 0 0.074 0 0.048 0	0.048 0				
	32				0.074 0	0.151 0 0.116 0 0.051 0 0.129 0	0.007 0				٠
	34				0.071 0.	0.109 0.0099 0.0111 0.0135 0.0779 0.013	0.037 0. 0.037 0. 0.037 0.				1
	33				0.080	0.093 0.095 0.0095 0.0095 0.0095 0.0000000000	0.070 0.029 0.029 0.029 0.029				
	32				0.054 0.	0.070 0.083 0.083 0.093 0.114	0.104 0.043 0.043 0.043	0.043			
	31				0.072 0.	0.082 0.0088 0.0088 0.0088 0.0088 0.0088 0.0084 0.0084 0.0084 0.0084 0.0084 0.0084 0.0084	0.110 0.112 0.157 0.008	0.008			0 11
	30				0.074 0	0.075 0 0.098 0 0.099 0 0.111 0	0.127 0 0.105 0 0.164 0 0.150 0	0.007 0			
	29				0.037	0.066 0.008 0.0083 0.0083 0.0055 0.0055 0.00	0.097 0.0116 0.0147 0.0110 0.0113 0.0193	0.084 0. 0.028 0. 0.028 0. 0.028			
	28				0.047 0.	0.070 0.0062 0.0098 0.00944 0.0091 0.0091	0.106 0. 0.121 0. 0.136 0. 0.165 0.	0.167 0.086 0.009 0.009 0.009			
	27				0.055 0.	0.077 0. 0.096 0. 0.095 0. 0.072 0.	0.116 0. 0.102 0. 0.190 0. 0.137 0.	0.170 0.151 0.042 0.042 0.042	0.042		3
	28				0.044	0.090 0.000 0.083 0.000 0.095 0.000	0.110 0. 0.110 0. 0.185 0. 0.147 0.	0.197 0. 0.146 0. 0.163 0. 0.059 0.	0.059 0.059		
	25				0.054 0	0.073 0 0.071 0 0.086 0 0.081 0	0.094 0 0.101 0 0.185 0 0.119 0	0.189 0 0.166 0 0.136 0 0.129 0	0.044		
	24				0.048	0.077 0.0.089 0.0.075 0.0.112 0.0.101 0.0.101	0.088 0. 0.116 0. 0.210 0. 0.142 0. 0.271 0.	0.176 0. 0.159 0. 0.157 0. 0.150 0.	0.051 0.051 0.0051 0.0051 0.0051		
	23				0.047 0	0.088 0 0.080 0 0.090 0 0.105 0	0.105 0 0.098 0 0.227 0 0.148 0 0.380 0	0.192 0 0.160 0 0.196 0 0.176 0	0.193 0.048 0.048 0.048 0.048		
	22				0.038 0.	0.065 0.080 0.085 0.095 0.085 0.088	0.106 0. 0.110 0. 0.198 0. 0.367 0.	0.201 0.139 0.170 0.240 0.164	0.189 0. 0.053 0. 0.053 0.	0.053	
	21				0.028 0.	0.052 0. 0.063 0. 0.067 0. 0.064 0.	0.077 0. 0.093 0. 0.105 0. 0.122 0.	0.140 0.1126 0.132 0.132 0.148	0.133 0. 0.134 0. 0.115 0. 0.035 0.	0.035 0.035	
	20				0.029 0	0.059 0 0.064 0 0.057 0 0.051 0	0.062 0 0.057 0 0.084 0 0.083 0	0.085 0 0.114 0 0.120 0 0.101 0 0.139 0	0.144 0 0.161 0 0.119 0 0.134 0	0.035 0	١.
	19				0.025 0.	0.054 0.0056 0.0047 0.0058 0.0048 0.0048	0.053 0.0058 0.0	0.099 0. 0.089 0. 0.087 0. 0.102 0.	0.137 0. 0.164 0. 0.123 0. 0.148 0.	0.026 0.026 0.	
	18				0.022 0.	0.049 0.0053 0.0053 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0047 0.0050 0.0	0.049 0.0056 0.0058 0.0058 0.0072 0.0072	0.078 0.0061 0.0092 0.0112 0.0091 0.0091	0.085 0. 0.121 0. 0.133 0. 0.210 0.	0.095 0.	
	17				0.068	0.088 0. 0.035 0. 0.037 0. 0.065 0.	0.045	0.045 0.045 0.045 0.045	0.045 0.0045 0.0045 0.0045 0.0045	0.045 0.	:
	16	000000	000000000000000000000000000000000000000	000000	0.000	000000	000000000000000000000000000000000000000	000000	000000	0.000.0	Ì
ن ق	8		00000	00000	00000	00000	00000	00000	00000	0 0	
PEBD Years of	Service	Under 1 1 2 3 4	9 8 4 9 2	0 1 2 2 4	15 18 19	8 2 2 2 2	88788	8 2 2 2 2	38338	6 4	Ì

DESCRIPTION: Selected Reserve to Non-Selected Reserve with 20 Good Years ("Grey Area") Transfer Rates Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted). Probability that a member transfers to the Grey Area from the Selected Reserve status during the fiscal year. Blank cells should be considered a value of Zero ("0.000").

- 143 -

# Enlisted Selected Reserve to Non-Selected Reserve with 20 Good Years Transfer Rates



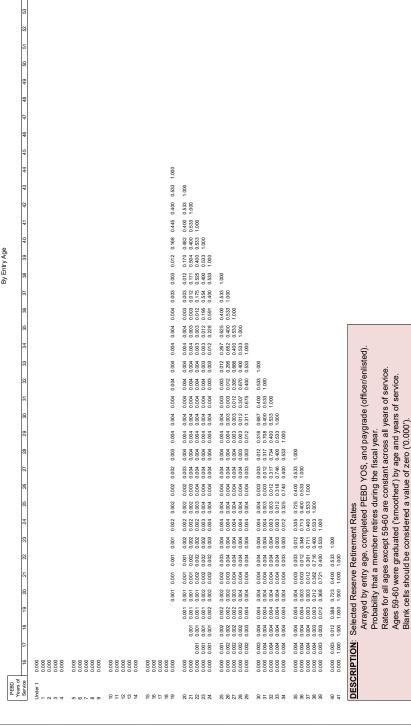
PTION: Selected Reserve to Non-Selected Reserve with 20 Good Years ("Grey Area") Transfer Rates Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).

Probability that a member transfers to the Grey Area from the Selected Reserve status during the fiscal year.

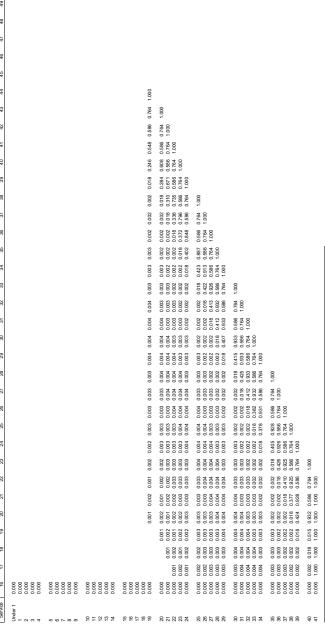
Blank cells should be considered a value of zero (0.000').

Appendix H

### Officer Selected Reserve Retirement Rates



### **Enlisted Selected Reserve Retirement Rates**



### **Selected Reserve Disability Retirement Rates**

By Disability Type and Paygrade

PEBD Years of	Perma	anent	Temporary				
Service	Officer	Enlisted	Officer	Enlisted			
Under 1	0.00000	0.00008	0.00000	0.00028			
1	0.00000	0.00017	0.00000	0.00020			
2	0.00000	0.00017	0.00000	0.00021			
3	0.00000	0.00038	0.00000	0.00050			
4	0.00065	0.00074	0.00000	0.00055			
·	0.0000	0.000.0	0.000.	0.0000			
5	0.00065	0.00110	0.00026	0.00065			
6	0.00063	0.00129	0.00039	0.00070			
7	0.00070	0.00111	0.00051	0.00073			
8	0.00069	0.00122	0.00058	0.00071			
9	0.00074	0.00165	0.00057	0.00078			
10	0.00096	0.00201	0.00055	0.00093			
11	0.00098	0.00227	0.00047	0.00115			
12	0.00076	0.00242	0.00042	0.00124			
13	0.00075	0.00253	0.00039	0.00115			
14	0.00092	0.00247	0.00037	0.00106			
15	0.00099	0.00224	0.00035	0.00109			
16	0.00087	0.00210	0.00039	0.00102			
17	0.00077	0.00210	0.00049	0.00101			
18	0.00089	0.00220	0.00048	0.00100			
19	0.00126	0.00292	0.00046	0.00107			
20	0.00177	0.00384	0.00052	0.00109			
21	0.00215	0.00403	0.00043	0.00118			
22	0.00228	0.00486	0.00043	0.00140			
23	0.00188	0.00582	0.00060	0.00149			
24	0.00175	0.00628	0.00090	0.00153			
25	0.00237	0.00669	0.00101	0.00156			
26	0.00302	0.00706	0.00096	0.00172			
27	0.00342	0.00745	0.00086	0.00185			
28	0.00333	0.00810	0.00088	0.00178			
29	0.00317	0.00831	0.00090	0.00164			
30	0.00331	0.00874	0.00091	0.00156			
31	0.00327	0.00907	0.00090	0.00151			
32	0.00321	0.00869	0.00094	0.00142			
33	0.00311	0.00786	0.00096	0.00132			
34	0.00259	0.00744	0.00091	0.00127			
35	0.00157	0.00785	0.00087	0.00132			
36	0.00000	0.00807	0.00093	0.00144			
37	0.00000	0.00753	0.00108	0.00155			
38	0.00000	0.00643	0.00120	0.00158			
39	0.00000	0.00504	0.00127	0.00152			
40	0.00000	0.00000	0.00000	0.00000			
41	0.00000	0.00000	0.00000	0.00000			

**DESCRIPTION**: Selected Reserve Disability Retirement Rates

Arrayed by disability type (Permanent/Temporary), completed PEBD YOS, and paygrade (officer/enlisted).

Probability that a member receives a disability retirement during the fiscal year.

### Non-Selected Reserve with 20 Good Years Retirement Rates

By Paygrade

Age	Age Officer					
17	0.000	0.000				
18	0.000	0.000				
19	0.000	0.000				
20	0.000	0.000				
21	0.000	0.000				
22	0.000	0.000				
23	0.000	0.000				
24	0.000	0.000				
25	0.000	0.000				
26	0.000	0.000				
27	0.000	0.000				
28	0.000	0.000				
29	0.000	0.000				
30	0.000	0.000				
31	0.000	0.000				
32	0.000	0.000				
33	0.000	0.000				
34	0.000	0.000				
35	0.000	0.000				
36	0.000	0.000				
37	0.000	0.000				
38	0.000	0.000				
39	0.000	0.000				
40	0.000	0.000				
41	0.001	0.000				
42	0.000	0.000				
43	0.002	0.000				
44	0.002	0.000				
45	0.001	0.000				
46	0.001	0.000				
47	0.001	0.000				
48	0.001	0.000				
49	0.001	0.000				
50	0.002	0.000				
51	0.001	0.000				
52	0.002	0.000				
53	0.001	0.000				
54	0.001	0.000				
55	0.001	0.000				
56	0.000	0.000				
57	0.000	0.000				
58	0.001	0.001				
59	0.470	0.450				
60	0.950	0.930				
61	0.289	0.303				
62	0.199	0.186				
>62	0.177	0.133				

<u>DESCRIPTION</u>: Non-Selected Reserve with 20 Good Years ('Grey Area') Retirement Rates Arrayed by age and paygrade (officer/enlisted).

Probability that a member retires from the Grey Area during the fiscal year.

## Officer Selected Reserve Average Points Per Year

By Entry Age	

	×62	74								
	62	4 4 4								
	61	4 4 4								
	8	¥ ¥ ¥ ¥								
	69	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4								
	28	<b>4444</b>	4							
	22	4 4 4 4 4 4 4	74 4 4							
	26	¥ ¥ ¥ ¥ ¥	¥ ¥ ¥							
	22	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4							
	客	¥ ¥ ¥ ¥ ¥	2 2 2 2 2 Z							
	53	* * * * *	* * * * *	42						
	25	8 8 8 8 8	8 8 8 8 8 8	8 82						
	51	88888	88888	888						
	99	8 8 8 8 8	8 8 8 8 8 8	8 8 8 8						
	49	22222	67 116 104 104	118 82 103 95						
	48	94 94 78 84	75 89 82 73	94 96 82 85 75	0.2					
	47	87 87 76 89	77 82 87 87 87 87 87 87 87 87 87 87 87 87 87	98 10 80	0 2					
	46	88 88 88 88 83 88	8 2 2 3 3	66 56 88 81 79	96					
	45	87 87 87 65 65	90 85 72	8 6 2 8 3	97					
	44	1 5 8 8 8								
		88 88 88 82 82				98				
	42		76 67 88 88							
	41		88 28 88 88 88 88 88 88 88 88 88 88 88 8							
	40 4									
_			85 98 85							
Entry Age		90 83					40			
By En		98 87 84 84 84 84 84 84 84 84 84 84 84 84 84								
		22222								
	36	97 97 96 92	95 86 87 88	28888	8 2 8 8 8	98 91 90 90	000			
	35	88888								
	æ	8 8 8 8	88888	88 88 88 87	93 83 84 84 84 84 84 84 84 84 84 84 84 84 84	95 99 93 9	121 120 120 120			
	33	97 97 97 89	88 88 88	101 89 82 88	93 93 94	9 00 1 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0	99 102 119 97	2		
	32	88882	98 82 89 97	8 8 8 8 8	8 9 8 8 8	98 8 6 50 45 2 50 45 2 50 45 3 50 45 4 50 45 5 50 5 5 50 5	26 20 50 20	82 8		
	31	96 96 93 83	81 82 90 87 97	86 97 89 95 89	88 89 90 91	93 97 93 102	103 103 105 105 90	93		
	30	801 701 893	88888	97 93 97	8888	98 97 98 105	88484	8 4 4 4 4 T		
	58	116 116 97	96 90 97 97	86 94 87 86 94 87	97 90 90 91	99 101 101 102	0 1 1 8 10 1 1 8	108 22 22 22 22		
	28	120 120 110 101	97 97 97	93 88 84 84	8 8 8 8 8	101 101 95 86	100 00 100 100 100 100 100 100 100 100	98 10 10 88 83 83 83 84 85 85 85 85 85 85 85 85 85 85 85 85 85	8	
	27	131 131 116 107	100 100 95 99	95 99 94 101	103 101 100 97	98 97 102 103 97	101 94 97 93	101 115 105	8 8 8	
	56	¥ ¥ ¥ £ 5 16	122 108 111 107	105 105 103 101	105 107 105 105	105 105 99 101	98 101 101	105 113 104 91	9 9 9	
	25	142 142 130 120	122 112 110 105	108 107 107	102 105 105 105	105 102 101	9 4 5 76 8 40 8 40 8 40 8 40 8 40 8 40 8 40 8 40	101 97 98 105	2 <del>4</del> 4 4 4	
	24	140 140 137 128	119 109 106	102 102 107 105	106 105 105 105	107 105 107 105	106 103 103 103	107 107 114 110	121 123 130 130	
	23	136 136 127 117	108 106 104 104	105 105 104 103	105 103 104 105	105 105 105 104	90 100 108 108	108 108 112 110	112 111 125 125	125
	22	131 131 132 127	110 108 107 104	20 to	80 20 10 40 40	201 201 201 201 201	107 103 102 110	109 113 109	110 113 111 111	E E
	21	121 121 135 132	130 120 120 120	126 121 116 110	108 119 119 119 119 119 119 119 119 119 11	100 100 1100	108	115 106 102 97	8 6 8 8 8	124
	20	116 116 28 38	132 131 121 121	27 24 16 116	113 009 07 110	11 11 11 11 11 11 11 11 11 11 11 11 11	01010	1 8 4 1 9	03 08 16	32
	19	117			117			105 105 106 94		1111
	18		127 139 137 126							117 1
	17 1		25 24 25 25 25 25 25 25 25 25 25 25 25 25 25							
	16 1			4 2 2 2 2 2					00000	0 0
. ~	Ц									
PEBD Years of	Service	Under 1 2 3 4	5 Q L & 5	0 1 2 2 4	15 17 19	22 22 24 24 24 24 24 24 24 24 24 24 24 2	28 28 29 29	¥ 33 53 33 93	38 33 38	6 1
										. •

Selected Reserve Average Points Earned Per Year
Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).
Annual retirement points (for benefit purposes) accumulated by a Selected Reserve during a fiscal year.
The Average Points Earned Per Year above appear after a 21.1% reduction due to a "half-mobilization" assumption.
Blank cells should be considered a value of zero (°0').

Appendix H

## Enlisted Selected Reserve Average Points Per Year

	>62	06								
	62	8 8								
	61	06								
	89	8 8 8 8								
	29	06 06 06 06 06 06 06 06 06 06 06 06 06 0								
	28	8 8 8 8 8	06							
	22	06 06 06	06							
	99	88888	8 8 8							
	22	06 6 6 6	06 06							
	22	88888	88888							
	53	88888	88888	8						
	25	88888	88888	8 8						
	51	88888	88888	8 8 8						
	92	88888	88888	8888						
	49	88888	88888	88888						
	48	06 06 06	06	066	06					
	47	88888	88888	88888	88					
	46	88888	88888	88888	8 8 8					
	42	105 105 105 105	105 105 105 105	105 105 105 105	105 105 105					
	44	92 47 115 103	102 109 96 105	101 121 128	128 128 128 128					
	43	102 87 94	103 78 103 136	130 177 118 97 97	85 85 85 85	8				
	45	12 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 1 1	93 11 102	120 120 130 142 143	88888	2 2				
	41	82 11 83 88	50 to	71 101 201 501	2 ± 8 8 8	888				
	40	2 6 8 8 8	90 110 119 97	95 108 100 101	88 88 88	82 82 82				
ge	39	103 96 89 88	89 105 103	103 106 100 96 106	95 97 98	00000				
Entry Age	38	2 6 8 8 8 8	95 106 107	20 4 50 TO	8 8 8 8 8	8 8 8 8	98			
By	37	101 98 89	85 95 101	105 105 97 87	90 93 98	103 95 95 95	96			
	38	10.7 10.2 10.2 10.3 10.3 10.3	97 97 101 102	102 96 103 95	96 97 97	101 97 97 97	97			
	32	00 4 58 88	8 2 2 2 2 5	101 99 100	96 97 97	88 50 103 103	£ 50 103 103			
	æ	98 2 2 8 9	95 104 105	00 0 00 00 00 00 00 00 00 00 00 00 00 0	00 88 20 88 98	91 101 102 101	00000			
	33	00 05 07 09	28882		95 97 101 93			10		
	32		98 20 104 107 1				97.			
	31				98 98 97	104		222		
	30	123 108 101 101 101 101 101 101 101 101 101	88 88 80 80 80 80 80 80 80 80 80 80 80 8		90 90 90 90 90 90 90 90 90 90 90 90 90 9	97 99 10		8888		
	29						-	88888		
		119 100 100 100 100 100 100 100 100 100		201 05 00 00 00 00 00 00 00 00 00 00 00 00		98 28 105 105			_	
	28	112 109 1			50000		103		2	
	27	121 108 109 101 101 101 101 101 101 101 101 101			102 100 99 97	99 99 104		98 100 100 100	8 6	
	28	801 801 101 95	99 102 105	20 20 20 20 20 20 20 20 20 20 20 20 20 2				900000	5 5 5	
	25	125 108 101 95	95 101 106	201 201 201 101	98 100 100 88	001 86 101 001	100 99 97 95	102 103 103 88	8888	
	24	22 22 24 88	86 8 10 10 S	105 201 201 201 201	00 88 00 100 88 00	86 00 00 00 100 100	103 97 101	8 50 50 50	£01 £01 £01	
	23	121 107 109 103 97	100 97 101 103	105 102 103 103	101 101 98 100 98	101 101 103	101 101 99 97	99 101 101 98	97 99 100 88 88	88
	22	50 to 10 8 8	8 4 5 5	00 00 00 00 00 00 00 00 00 00 00 00 00	103 102 97 98	98 102 103 104	5 5 5 5	8 8 2 6 9	98 102 112 112	112
	21	101 109 109 109	0 1 1 2 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	105 103 103	102 88 88 100 100	101 103 101	102 103 103 103	00 10 86 10 10 10 10 10 10 10 10 10 10 10 10 10	<u> </u>	5 5
	20	02 10 103 88	06 to 50 to 104	20 10 10 10 10 10	00 to	00 10 10 10 10 10 10 10 10 10 10 10 10 1	06 00 00 100 00 100 100 100 100 100 100	100 98 90 76	0 4 5 5 9 9 9 P	117
	19	135 109 107 107	102 101 105 107	105 103 103 102	101 100 99 99	101 102 104 105	102 102 102 102	101 102 103 99	96 100 102 104	120
	18	151 111 103	105 106 108 107	90 50 10 80 10 90	103 102 101 101	103 105 106 106	00 100 401 401 401 401 401 401 401 401 4	<b>2</b> 2 2 8 5	97 106 107 107	93
	17	123 12 14 15 15	102 102 107 107	105 107 105 105	701 801 105 105	10 10 10 10 10 10 10 10	00 108 108 108 108	5 8 8 8 8	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	112
	16	00000	00000	00000	00000	00000	00000	00000	00000	00
PEBD Vears of	vice	-								
Y PE	Ser	Under 1 2 3 4	8 9 1 8 6	0 1 2 5 4	15 71 18 19	8 2 2 2 8	28288	8 23 23 28	38 34 38 38	4 4

DESCRIPTION: Selected Reserve Average Points Eamed Per Year
Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).
Annual retirement points (for benefit purposes) accumulated by a Selected Reserve during a fiscal year.
The Average Points Eamed Per Year above appear after a 21.1% reduction due to a "half-mobilization" assumption.
Blank cells should be considered a value of zero ('0').

## Officer Selected Reserve Career Points Adjustment

y Entry Age

705	1.606								
70	1.606								
5	1.606 1.606								
3	0.951 0.951 0.951 0.951								
9	0.396 0.396 0.396 0.396								
3	000000	000:1							
ò	000000	000							
3	0.919 0.919 1.019 0.919	0.919							
3	1043	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9							
5	1.000 1.000 0.925 1.000 1.000	1.071 1.420 1.420 1.420							
3	1.000 0.908 0.926 0.926 1.163 1.000	1.002	0001						
70	0001	1.051 1.055 1.055 1.055	1.055						
5	1,000 1,000 0,968 1,013	0.998 1 1.062 1 0.951 1 0.951 1	0.951 1						
3	0.999 1 0.999 1 1.013 0 1.030 1	1.053 1.053 1.000 1.000 1.000	00001						
64	1.000 0.914 1.018 1.019 1.004	0.978 1 1.049 1 1.052 1 0.987 1	1,025 1,025 1,025 1,025 1,025						
2	1,000	1,000 0,999 1,049 1,031 1,009	1,026 1,026 1,026 1,026 1,026	1.026					
744		1,015 1,013 0,002 1,002 1,002	0.979 1 1.048 1 1.091 1 1.091 1	1.091					
2		1.023 1 1.042 1 1.016 1 0.998 0	1.044 0 0.997 1 1.011 1 1.060 1	1.060.1					
2		1,023 1 0,955 1 1,033 1 1,028 0 0,995 0	1,000 1,000 1,006 1,006 1,013	0.995 1 0.995 1 0.995 1					
	0.758 1. 1.090 1. 0.943 1. 0.988 1.	1.001 1.069 0.177 1.009 1.005	0.994 0. 1.040 1. 1.016 1. 1.027 0.	1.006 0. 1.052 0. 1.039 0. 1.039 0.					
2	1,159 0. 1,014 0. 1,099 0. 0,983 1.	0.971 1. 0.942 1. 1.089 1.	0.999 0. 1.009 1. 1.013 1. 0.990 1.	1.023 1. 1.035 1. 1.028 1. 0.973 1.	0.973				
74	1.000 1 0.924 1 0.979 1 1.042 1 0.953 0	1.004 0 0.994 1 1.042 0 0.995 1	1,020 1,024 1,010 1,010 1,010 0	1,000 1,009 1,009 1,058 0,977	0.977 0				
-	1,000 1 0,983 0 1,043 0 0,985 1	1.003 1 1.048 0 0.992 1 0.975 0	1.057 1 0.987 1 0.998 1 1.014 1	0.975 1 1.018 1 0.978 1 1.024 1	1.030 0				
2	1.000 1 1.008 0 0.986 1 1.024 0 0.999 1	1.026 1 0.967 1 0.981 0 1.017 0	1.008 1 0.994 0 1.027 0 0.999 0 1.009 1	1,002 0 1,003 1 1,005 0 0,997 1 1,011 1	0.921				
90	1.000 1. 0.986 1. 0.993 0. 1.027 1.	0.987 1. 1.009 0. 1.029 0. 1.018 1. 0.989 1.	0.991 1. 1.017 0. 1.008 1. 1.000 1.	1.002 1.006 1.006 1.000 1.028	0.984 0. 1.018 0. 1.097 0. 1.097 0.				
3	0.809 1. 0.996 0. 1.020 1. 1.031 1.	0.999 0. 1.011 1. 1.053 1. 1.058 0.	1.003 1.003 1.003 1.010 1.006	1.008 1. 0.999 0. 0.994 1.	0.991 0. 0.948 1. 1.035 1. 0.981 1.	0.981			
ò	1.086 1.036 1.026 1.013 1.013	1.006 1.024 1.029 1.070 1.050	1,027 1,016 1,003 1,003 1,002	1,008 1, 1,021 0, 0,997 0,	0.987 0. 0.980 0. 1.021 1. 0.965 0.	0.965 0.965			
3	1,000	1,003 1,003 1,039 1,017 1,023	1,035 1 0,960 1 1,003 1 1,011 1	1,006 1 0,998 1 0,984 1 1,002 0	0.992 0 1.009 0 1.004 1 0.995 0	1.040 1.040 1.040			
3	1.029 1.010 1.006 1.009 1.019	0.995 1 0.997 1 1.005 1 1.026 1	0.982 1 1.011 0 1.019 1 0.996 1	0.992 1 1.015 0 0.996 0 1.008 1	0.996 1 0.999 1 0.997 0 1.009 0	0.955 1 0.980 1 0.980 1 0.980			
+	1.008 1.024 1.020 1.010	1,000 0 0,997 0 0,980 1 1,032 1	0.993 1 0.975 1 1.000 0	0.995 1 0.997 0 1.001 1 0.989 1	1.012 1 0.985 0 1.005 0 0.983 0	1.005 0.960 1.046 0.1046			
3	1.076 0.979 1.011 1.017 1.099	0.986 0 1.004 0 1.019 1	1.005 1 0.999 0 0.999 0 1.023 1	0.978 1 0.996 0 0.995 0 1.006 1 0.982 0	0.983 0 0.990 1 1.005 0 0.993 0	1.008 1 0.990 0 0.942 1 0.962 1	0.962		
20	1.080 1.018 1.012 1.092 1.001	1,000 0,992 1,028 1,010 1,010	0.968 1.013 1.018 1.022 1.022 1.022	0.993 0.999 0.1003 0.1009	1.007 0.987 0.969 0.969 0.998	0.994 1 0.991 0 0.951 0 0.945 0	0.856 0.856		
5	1.024 1.043 1.000 1.008 0.980	0.995 1 1.013 0 1.026 1 1.010 1 0.997 0	0.986 1 0.983 1 0.983 1	1.026 0 1.000 0 0.998 1 0.996 1	1.013 1 0.981 0 0.992 1 0.993 0	0.986 0.988 0.998 0.998	0001		
3					0.997 1 0.988 0 1.009 0 1.001 0 0.996 0				
6.7			1.020 1.006 0.996 0.996 1.006		0.988 0 0.990 0 0.990 1 0.998 1	0.987 1 0.983 0 0.979 0 0.970 0	0.939 0 0.917 1 0.924 1 0.924 1		
07	1.048 0.979 1.028 1.005 1.005		1.007 0.996 0.998 0.984 1.017		0.994 0.988 0.985 0.985	0.994 0 0.997 0 0.975 0 1.009 0	0.999 0.962 0.990 0.884 0.884	0.884	
17	1.000 0.999 0.987 1.016	0.988 0.994 1.006 0.994 1.013	1.003 0.995 0.988 0.988 0.999	0.992 0.992 0.999 0.990 0.995	0.997 0.997 0.995 0.990	0.989 ( 0.993 ( 0.980 ( 0.993 1	0.985 ( 0.958 ( 0.995 ( 0.993 (	0.876	
02		0.980 0.989 0.997 1.012	0.997	1.000 1.002 0.997 0.994 0.998	0.995 0.995 0.993 0.999 0.996	0.976 0.998 1.003 0.978 0.962	0.937 0.995 1.005 0.922	0.841 (0.841 (0.841	
22		0.994 0.995 1.012 0.999	0.989 0.998 0.996 1.003	0.996 0.992 0.994 0.992	0.997 0.988 0.993 0.997 0.981	0.996 0.985 0.984 0.985 0.989	0.968 0.998 0.997 1.003	0.898 1.009 1.009 1.009	
4.7	1.000 0.993 1.004 1.016	0.987 0.991 1.000 1.013	1.001 1.002 1.007 0.996 1.002	0.997 1.000 0.994 0.991	0.998 0.997 0.996 0.996	0.994 0.996 0.980 0.983 0.977	0.994 0.980 0.997 1.001	0.990 0.940 0.980 0.797	
2	1.000 0.992 1.008 1.003	0.992 0.976 1.005 1.013	0.998 0.994 1.004 1.001	0.998 0.998 0.998 0.996	0.994 0.993 0.997 0.995	0.994 0.999 0.995 0.995 0.975	0.992 0.999 0.973 0.991	0.997 1.002 1.053 0.928 0.928	0.928
77	0.984 (0.9	0.997 0.971 0.995 0.995	1000	0.998 0.998 0.997 0.998	0.997 0.995 0.991 0.993	0.995 0.992 0.990 0.992 0.981	0.996 1.005 1.012 0.976 0.999	0.976 0.998 0.955 0.918	1.044
17		0.997 1.000 1.008 1.010	1,009 1,000 0,991 0,995	0.994 0.995 0.990 0.988 0.988	0.990 0.983 0.980 0.989	0.988 0.987 0.989 0.981 0.979	0.988 1 0.989 1 0.980 0	0.985 ( 0.995 ( 0.995 ( 1.015 (	0.945
2		0.994 1 0.997 1 0.999 1 1.011 1	0.989 1 0.989 0 0.996 0 0.990 0	0.997 0 0.986 0 0.984 0 0.989 0	0.991 0 0.987 0 0.987 0 0.987 0	0.984 0 0.996 0 0.985 0 0.996 0		0.996 0 0.998 0 0.984 0 0.990 1	1.013 0
0		1.008 0.999 0.099 1.005 1.007	1.001 1.000 1.003 0.995 0.993	0.997 0 0.996 0 0.993 0 0.990 0	0.990 0.989 0.980 0.984 0.981	0.983 0 0.985 0 0.985 0 0.985 0	0.983 0 0.984 0 0.977 0 0.982 0	0.989 0 0.980 0 0.975 0 1.000 0	1.047
2	1,000	1.008 1.009 1.002 1.002	0.992 1 0.998 1 1.006 1 0.995 0	0.990 0.990 0.981 0.990 0.986	0.988 0.987 0.984 0.990 0.990	0.984 0.984 0.987 0.992 0.989	0.979 C 0.974 C 0.983 C 0.983 C	0.992 0.988 0.964 0.986 1.010	0.947
	1.002	1.025 0.997 1.006 0.993 1.012	0.986 0 1.007 0 1.000 0 0.961 0	0.995 ( 0.978 ( 0.959 ( 0.959 (	0.975 0.985 0.979 0.983 0.971	0.981 0.970 0.990 0.977 0.1015	0.983 0.886 0.994 0.986	0.986 0.986 0.986 0.986 0.986	0.986 (
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3									-
Š	Under 1 2 3 4	0 8 4 9 0	0 1 2 5 4	15 17 19 19	82888	28228	82828	38 34 38 38	4 4

DESCRIPTION: Selected Reserve Career Points Adjustment
Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).
Adjustment to Average Career Points for Selected Reserve members to capture the effect of losses (e.g., separation, retirement, transfer) during the fiscal year.
Blank cells should be considered a value of zero ('0.000').

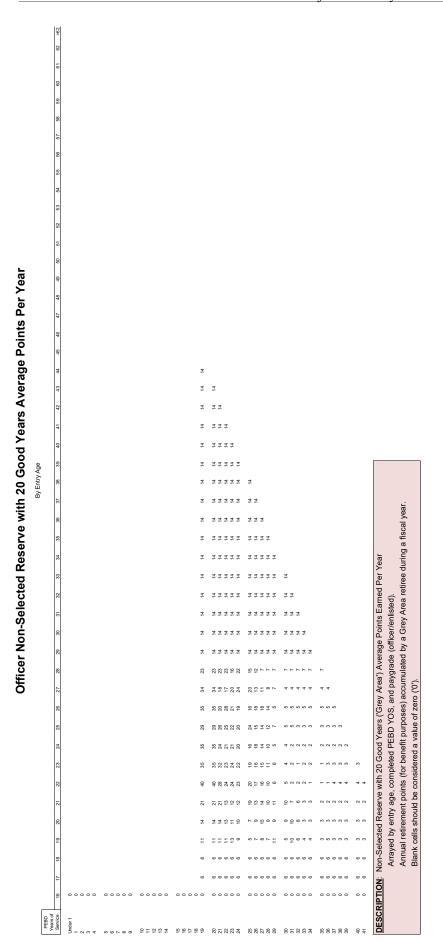
## **Enlisted Selected Reserve Career Points Adjustment**

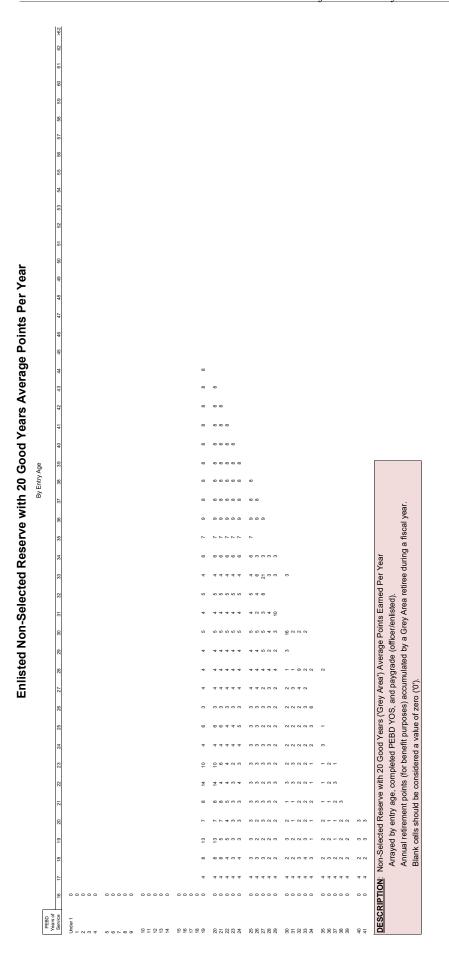
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1.093 1.003 1	1,093	1.093						
1.000 1 1.000 1 0.618 1 1.769 1	1,769 1,769 1,769 1,769 1,769	1.769 1						
1,000 1,126 1,000 1,000 1,114	44444	4 4 4						
1.000 1	0.770 0.770 0.770 0.770 1.	0.770 0.770 0.770 0.770						
1,000 0,705 1,190 1,190 1,739 1,739	1.000 0.949 0.06 0.1006 0.1006 0.1006	1.006 1.006 1.006 0.006 1.006						
1.134 1.0 1.000 0.1 1.000 1.2 0.868 0.4	0.868 110 0.868 0.9 0.868 110 0.868 110	0.868 1.0 0.868 1.0 0.868 1.0 0.868 1.0	0.868					
0.982 1.7 1.057 1.0 1.000 1.0 0.844 0.0 1.000 0.0	1026 1028 1030 1030 1030 1030 1030	98988	9011					
1,000 0.5 0,907 1.0 1,085 1.0 0,966 0.5 1,000 1.0	0.858 1.0 0.550 1.2 1.000 1.0 1.000 1.1	1058 1058 11058 11058 11058 11058	1.058 1.1					
0.845 1.0 1.109 0.9 1.106 1.0 1.003 0.9 1.000 1.0	0.726 0.5 0.726 0.5 1.169 1.0 0.905 1.2 0.996 1.0	1.023 1.0 1.054 1.0 1.054 1.0 1.054 1.0						
1.001 0.8 1.072 1.1 1.089 1.1 1.034 1.0	1.101 1.1 1.015 0.7 1.061 1.1 0.977 0.9	1,309 1,0 1,023 1,0 0,953 1,0 0,953 1,0	0.953 1.054 0.953 1.054 0.953 1.054 0.953 1.054					
	_			47				
20 0.859 11 1.083 20 1.045 02 0.904 88 1.045	79 1.015 22 0.977 85 0.960 81 1.036 18 0.951	76 1.035 00 1.041 18 0.994 40 1.016 02 0.977	19 0.987 13 1.074 13 1.074 13 1.074	13 1.074				
13 1.020 93 1.011 71 1.020 86 1.102 29 0.968	00 0.979 94 1.022 02 1.065 24 0.981 33 1.018	76 1.076 98 1.000 97 1.018 12 1.040 78 1.002	99 1.019 10 0.986 05 1.013 27 1.013	27 1.013 27 1.013 27				
04 1.013 12 0.993 08 0.971 96 0.986 84 0.929	17 0.994 10 1.002 36 1.024 18 1.033	11 0.976 51 0.998 39 0.997 04 1.012 07 0.978	29 0.999 74 1.010 17 1.005 78 1.013	31 1.127 31 1.127 31 1.127				
11.004 15. 1.012 12. 1.008 16. 0.996 17. 0.984	1001 13 1.000 14 1.036 19 1.018	55 1.011 12 1.051 39 0.999 37 1.004	00 1.029 10 0.974 35 1.017 20 0.978 18 1.006	55 1.031 14 1.031 14 1.031				
11 1.051 6 1.035 6 1.022 6 0.986 9 1.007	1 1.008 2 0.983 8 1.013 9 1.004	5 0.965 5 0.999 3 0.987 9 0.992	2 1,000 4 1,010 0 0,995 7 1,002 3 1,018	7 0.914 7 0.914 7 0.914 7 0.914	<b>~</b>			
7 1.034 9 1.016 0 1.016 1 0.989	4 0.992 3 1.008 1 0.999	6 0.985 0 0.995 4 1.015 6 0.993 4 0.999	9 0.992 4 1.000 9 0.997 8 1.013	9 1.014 4 0.975 5 0.917 0 0.917	0 0.917			
9 0.980 2 1.027 1 1.009 8 1.010 7 0.991	8 0.994 8 0.994 5 1.013 8 1.011	9 1,006 5 1,000 7 0,984 2 1,016 0 0,984	4 0.989 9 0.995 0 0.994 0 0.988 9 0.988	1 1,009 5 0,994 8 0,985 1 0,960 9 0,960	9 0.960 9 0.960 9			
1 1.049 7 1.022 2 1.011 8 0.998 5 0.997	2 0.998 0 0.998 7 1.015 3 1.008	1 1.009 1 1.015 0 1.017 8 1.002 5 1.000	6 1.004 5 0.999 0 1.010 4 1.000 8 0.989	7 0.991 5 1.005 5 0.998 6 0.981 6 0.979	8 0.979 8 0.979 8 0.979			
3 1.031 3 1.027 6 1.012 8 1.008 4 0.995	1 1.002 0 1.000 6 1.027 1 0.993 8 0.991	6 1.001 7 1.001 1 1.000 0 0.998 4 0.985	5 0.986 2 0.995 1 1.000 6 0.984 4 0.998	3 0.997 3 0.985 4 0.995 6 1.016 5 0.996	9 0.968 2 0.968 2 0.968 2 0.968			
9 0.993 1.033 4 1.016 0 1.008 3 0.994	1000	3 0.996 3 0.997 9 1.001 4 0.994	3 1.012 3 0.991 5 0.996 5 0.996	5 0.983 5 0.983 1 0.994 1 0.985	0.999 0.952 0.952 0.952	10		
0.999 1.030 1.014 1.010 1.010	1,009	0.998 0.998 0.999 0.1009	0.995 0.998 0.995	0.995 0.985 0.991 0.993	1.106	1.106		
3 1.075 3 1.030 5 1.012 0 1.010	0.996 1.006 1.014 0.995	0.998 1.000 1.001 1.001	0.993 1.001 1.000	1.004 0.979 0.985 1.010	0.982 1.012 0.996 1.014	1.014		
1.038 1.038 1.026 1.010 1.002	2 0.990 7 0.998 7 0.996 7 0.996	3 1.010 4 0.988 5 1.005 4 0.996 1 1.008	2 1,000 7 1,000 1 0,992 3 0,983	3 0.994 5 0.997 0 0.990 1 1.002 9 0.992	0.998 1.004 5.0.986 7.0.904	0.904		
	0.992 0.997 1.020 1.007							
1.067 1.037 1.016 1.012 1.004	1.009	0.997 1.002 0.999 0.995	1.000 1.000 0.998 0.997	0.984	0.996 0.993 0.990 0.990	0.989 1.032 1.032 1.032	_	
1.059 1.042 1.013 1.006 0.998	0.989 1.001 1.004 0.997	1.011 0.995 0.995 1.004 0.999	1.007 0.993 1.005 0.998 0.993	0.990 0.983 0.983 1.001	0.995 1.000 0.998 0.991	1.000 1.002 1.019 1.019	1.019	
1.053 1.032 1.014 1.014 0.994	0.993 0.995 0.995 0.998	0.996 1.001 0.995 0.999	0.999 0.997 0.998 0.993	0.985 0.986 0.986 0.994	0.993 1.008 0.996 0.999	0.993 0.989 1.040 1.040	1.040	
1.027 1.032 1.019 1.005 0.995	1.008 0.996 0.996 1.007 0.996	1.002 1.006 0.997 1.002	0.987 0.995 0.995 0.989	0.991 0.991 0.992 0.996	0.979 0.990 0.995 1.001	0.995 0.996 0.981 1.001	1.092 1.092 1.092	
1.024 1.031 1.018 1.002 0.987	1.011 0.998 0.994 1.007 0.998	1.009 1.006 0.991 0.996 0.990	0.997 0.998 0.998 0.993	0.999 0.985 0.984 0.987	0.985 0.992 0.986 0.986	0.984 0.995 0.967 0.989 0.994	0.985 0.985 0.985 0.985	
1.039 1.029 1.020 1.003 0.988	1.013 0.991 1.003 1.002 0.995	1.002 1.002 0.996 0.999 1.003	1.002 0.991 0.996 0.989	0.989 0.989 0.989 0.980	0.991 0.988 0.982 0.985	0.992 0.995 0.969 0.976 0.985	0.964 1.019 1.019 1.019	
1.033 1.031 1.002 1.002 0.987	1.016 0.999 1.005 0.986	0.997 0.998 1.002 1.003	0.998 0.998 0.998 0.992	0.988 0.985 0.985 0.992	0.984 0.982 0.995 0.989	0.992 1.000 0.977 0.993 0.976	0.982 0.978 0.972 0.972 0.972	0.972
1.015 1.032 1.019 1.002 0.988	1.020 0.999 1.005 0.989	0.991 0.996 1.006 0.997	1.000 0.997 1.000 0.998 0.990	0.987 0.989 0.987 0.985 0.980	0.986 0.992 0.993 0.995 0.999	0.984 0.933 0.971 0.973 0.985	0.987 0.987 0.986 1.058 1.058	1.058
1.014 1.028 1.019 1.004 0.986	1.021 0.998 1.006 1.003 0.990	0.993 0.998 0.993 0.996 0.997	0.993 0.995 0.997 0.989	0.990 0.986 0.988 0.985 0.993	0.990 0.990 0.987 0.987	0.995 0.990 0.977 0.978 0.994	0.989 0.984 0.979 0.998 1.171	1.171
1.008 1.027 1.013 1.003 0.986	1.019 0.998 1.005 1.008 0.994	0.989 0.997 0.996 1.001	0.995 0.998 0.996 0.992 0.991	0.992 0.993 0.987 0.980 0.986	0.986 0.986 0.983 0.983	0.987 0.996 0.990 0.990 0.990	0.984 0.987 0.975 0.985 0.989	0.989
1.007 1.034 1.014 1.004 0.987	1.015 0.995 1.003 1.008 0.995	0.985 0.998 0.992 0.995 0.996	0.997 0.995 0.995 0.992	0.982 0.988 0.987 0.987 0.990	0.984 0.988 0.987 0.987 0.988	0.983 0.977 0.989 0.989	0.987 0.990 0.992 0.992 0.982	0.982
1.007 1.050 1.018 1.008 0.996	1.003 0.997 1.005 1.010 0.995	0.988 0.993 0.998 0.998	0.993 0.992 0.988 0.983	0.995 0.982 0.986 0.986	0.983 0.987 0.983 0.983	0.986 0.992 0.993 0.993	0.985 0.985 0.984 0.999 0.973	0.973
1.058 1.026 1.026 1.009	1.003 1.015 1.015 0.995	0.989 0.992 1.009 0.998 0.990	0.980 0.993 0.987 0.987	1.004 0.991 0.966 0.990	0.994 0.991 0.980 0.983	0.994 0.984 0.947 0.988	0.988 0.988 0.988 0.988	0.988
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Under 1 1 2 3 4								
1 Lmd	9 8 4 8 9	5 1 5 5 4	5 5 7 8 6	82882	2222	82888	88388	6 4

DESCRIPTION: Selected Reserve Career Points Adjustment
Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).
Adjustment to Average Career Points for Selected Reserve members to capture the effect of losses (e.g., separation, retirement, transfer) during the fiscal year.
Blank cells should be considered a value of zero ('0.000').

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## Officer Reentering Selected Reserve Average Points

By Entry Age

54 241 415 689 618

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Service	Under	5 O F S O	0 1 2 2 4	5 7 7 8 8 9	82284	38788	8 2 2 2 2	38 34 38	4 4
rice	E								
16	00000	0000	0 0 0 0 0 8 4 8 8 4 4	0 3,136 0 3,294 0 1,788 0 3,085 0 3,498	0 3,378 0 3,297 0 4,080 0 4,295 0 4,402	0 3,796 0 4,387 0 3,158 0 2,646 0 6,154	0 8,691 0 4,014 0 6,949 0 7,008 0 4,137	0 4,137 0 4,137 0 4,137 0 4,137 0 4,137	0 4,137
17 1	24 34 34 34 34 34 34 34 34 34 34 34 34 34	695 66 972 87 791 1,37 (087 1,28 (367 1,52	896 1,726 1,449 1,801 869 2,076 3,388 2,452 1,406 2,753	136 2,813 134 3,088 188 3,165 185 3,486 198 3,526	3,900 97 4,050 80 4,081 95 4,619 102 4,574	96 4,866 87 4,517 158 5,592 246 5,496 154 5,511	591 5,692 314 6,249 349 5,988 308 4,329 37 5,713	37 7,181 37 4,667 37 6,535 37 4,359 37 6,307	37 5,928 37 5,928
18 1	24 3 70 77 7 71 176 17	695 695 871 955 ,370 1,203 ,284 1,683 ,523 1,774	26 1,776 01 2,046 76 2,591 52 2,475 53 2,744	13 2,845 88 2,973 65 3,459 86 3,170 26 3,962	00 3,808 50 3,660 81 4,246 119 4,064 74 5,202	66 4,694 17 4,906 92 4,838 96 5,077 11 4,833	92 5,376 49 4,590 68 5,193 29 4,886 13 6,574	81 5,086 67 5,509 35 6,014 59 5,828 07 5,284	28 5,390 28 5,390
19 2	34 3 79 7 116 11 176 17 843 34	95 695 55 920 03 1,365 83 1,775 74 2,039	76 1,869 46 2,144 91 2,602 75 2,874 44 2,441	45 2,947 73 3,336 59 3,413 70 3,271 62 3,630	08 3,721 60 3,813 46 3,564 64 3,672 02 4,140	94 4,399 06 5,178 38 4,898 77 4,542 33 5,005	76 4,967 90 6,126 93 5,223 86 6,222 74 5,414	86 5,170 09 4,602 14 4,973 28 4,974 84 5,760	90 5,744 90 5,744
20 2	343 843 843 843 843 843 843	95 1,127 20 1,179 85 1,444 75 1,652 39 1,984	59 2,384 44 2,384 02 2,515 74 2,657 41 2,915	47 3,196 36 3,230 13 3,396 71 3,449 30 3,866	21 3,388 13 3,863 54 3,900 40 4,370	99 4,560 78 4,446 98 4,988 42 5,038 05 5,229	57 5,011 26 5,887 23 5,403 22 4,701 14 5,348	70 5,032 02 5,168 73 5,376 74 3,505 80 3,505	44 3,505 44 3,505
21 2	124 152 142 360 174 638 512 1,192 813 1,381	27 1,674 44 2,148 52 2,474 84 2,854	94 2,989 94 3,083 15 3,346 57 3,152 15 3,175	96 3,457 30 3,303 96 3,638 49 3,749 86 3,845	88 3,910 83 4,175 22 4,257 70 4,733	50 4,988 46 4,536 88 5,219 38 5,372 29 4,789	11 4,802 87 5,952 03 5,446 01 5,483 48 5,473	32 4,828 68 4,872 76 5,553 05 5,553 05 5,553	05 5,553 05 5,553
22 2		74 1,606 27 1,982 48 2,215 74 2,508 54 3,082	89 3,008 83 3,238 46 3,487 52 3,477 75 3,436	57 3,528 03 3,662 38 3,802 49 3,859 45 3,734	10 3,937 75 4,202 57 4,165 77 4,510 33 4,743		52 4,462 46 4,489 83 4,004 73 4,205	28 4,118 72 5,417 53 6,217 53 6,217 53 6,217	53 6,217
23 24	164 209 433 402 745 700 1,182 1,182 1,408 1,411	06 1,598 82 2,015 15 2,281 08 2,461 82 2,883	38 3,151 38 3,298 87 3,188 77 3,059 36 3,518	28 3,530 52 3,378 52 3,656 59 3,748 34 3,542	37 3,422 02 3,875 65 4,276 10 4,389 43 4,606	11 4,762 24 4,921 91 4,415 84 4,882 40 4,752	.,	18 3,998 17 8,428 17 8,428 17 8,428	17
24 25	22 415 22 415 30 830 22 1,034 11 1,431				22 3,553 75 3,883 76 4,094 79 4,795 76 4,626		3,861 1 3,427 1 4,675 16 4,804 5 4,804	88 4,804 88 4,804 88 4,804 89 4,804	
25 26		72 1,898 73 1,967 70 2,443 70 2,555	3,006 3,006 3,006 3,755 39 3,755	3,804 3,132 9 3,562 96 3,960 94 3,626	33 3,463 33 4,112 34 4,138 35 4,527 36 4,139		77 4,218 77 4,923 75 6,080 74 6,080	4 4 4 4 6,080 80,080	
26 27			75 3,045 3,273 35 3,273 35 2,614 38 2,986			55 4,288 50 5,048 52 4,337 14 4,515 13 4,366		3,863	
27 28	58 217 53 370 59 594 75 1,145 68 1,273		45 2,430 27 2,472 73 2,431 14 2,503 86 2,775	44000	40004	88 4,276 48 5,445 37 4,366 15 4,185 86 3,291		83 4,40	
28 2				36 2,867 30 3,208 39 3,412 10 2,777		44044	4 4,032 4,032 4,032 4,032	×	
29 3	42 83 70 723 71 843 864		1,316 2,436 36 2,942 32 2,494 11 3,233	2, 2,910 3,238 12 2,494 77 2,709 88 2,726			32 3,923 3,923 3,923 3,923		
30 3			16 1,948 36 1,984 12 2,556 34 2,977				23 3,927 23 3,927 23 3,927		
31 32			18 2,081 2,148 36 2,385 77 2,370 0 3,270			2 3204 77 3204 77 3204 77 3204			
2 33			11 2,072 8 1,831 15 1,997 7 2,900 0 2,003				2,722		
3 34			2 1,475 11 2,062 17 2,783 10 2,112 1075			2 5,592 2 5,592 2 5,592 2 5,592 2 5,592	84		
4 35	3 46 4 176 7 179 11 871 3 1,107					2 5,729 2 5,729 2 5,729 2 5,729			
5 36			6 2,464 5 2,674 5 1,070 8 2,108 9 2,206			9 1,938 9 1,938 9 1,938			
37			1,185 1,3807 3,102 3,2483 1,480			8 4,751 8 4,751 8			
38			3,930 3,930 3,175			2,750			
39			1,704 1,560 3,498 1,193						
40			2,173 1,884 2,643 1,938 2,639						
41	54 241 415 689 618		2,173 1,884 2,643 1,938 1,972	1,972 1,972 1,972 1,972	1,972 1,972 1,972				
42		1,014 743 1,399 1,487 2,058		1,603 1,603 1,603 1,603					
43			2,173 1,884 2,643 2,643 3,349						
44			2,173 1,884 2,643 2,489 1,226						
45	54 241 415 689 618	1,014 743 1,399 1,487 2,058	2,173 1,884 2,643 2,489 1,690	1,690 1,690 1,690 1,690					
46	54 241 415 689 618	1,014 743 1,399 1,487 2,058	2,173 1,884 2,643 2,489 1,638	1,638 1,638 1,638					
47	54 241 415 689 618	1,014 743 1,399 1,487 2,058	2,173 1,884 2,643 2,489 1,638	1,638					
48			2,173 1,884 2,643 2,489 1,638	1,638					
49		1,014 1 743 1,399 1 1,487 1 2,058 2							
20		743 743 1,399 1,487 2,058 2							
51		743 743 1,399 1,3 1,487	24						
52			173 2,1						
53			2,173						
54 55	54 54 241 241 415 415 689 689 618 618								
2 56	4 54 1 241 5 415 9 689 8 618								
57	241 241 689 618	-							
2	6 4 4 8 9 19								

DESCRIPTION: Average Career Points Transferred to the Selected Reserve via Reentering Members Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).

Career retirement points (for benefit purposes) accumulated by reentrants transferring to the Selected Reserve during a fiscal year.

Blank cells should be considered a value of zero (°0).

## **Enlisted Reentering Selected Reserve Average Points**

321

321 321 30 321 111 954 528 249 908 908 908 1,014 1,075 1,38 1,76 2,218 2,2218 2,2218 2,2218 2,2318 2,633 1,766 1,766 1,348 1,766 1,348 1,766 1,348 1,766 1,348 1,768 255 451 10875 1.180 1.114 1.144 1.144 1.176 1.178 1.17 1,268 1,346 1,347 1,204 1,934 1,937 1,901 4,304 4,280 4,958 4,910 4,910 5,363 5,363 5,269 6,520 6,508 7,007 5,007 5,007 4,946 3,074 5,164 6,968 7,132 5,089 5,500 4,504 4,332 5,271 5,271 5,271 

Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).

Career retirement points (for benefit purposes) accumulated by reentrants transferring to the Selected Reserved uning a fiscal year.

### Non-Selected Reserve with 20 Good Years Blow-up Factors

By Modeling Type and Paygrade

	Pers	son	Pay				
Age	Officer	Enlisted	Officer	Enlisted			
17	0.000	0.000	0.000	0.000			
18	0.000	0.000	0.000	0.000			
19	0.000	0.000	0.000	0.000			
20	0.000	0.000	0.000	0.000			
21	0.000	0.000	0.000	0.000			
22	0.000	0.000	0.000	0.000			
23	0.000	0.000	0.000	0.000			
24	0.000	0.000	0.000	0.000			
25	0.000	0.000	0.000	0.000			
26	0.000	0.000	0.000	0.000			
27	0.000	0.000	0.000	0.000			
28	0.000	0.000	0.000	0.000			
29	0.000	0.000	0.000	0.000			
30	0.000	0.000	0.000	0.000			
31	0.000	0.000	0.000	0.000			
32	0.000	0.000	0.000	0.000			
33	0.000	0.000	0.000	0.000			
34	0.000	0.000	0.000	0.000			
35	0.000	0.000	0.000	0.000			
36	0.000	0.000	0.000	0.000			
37	0.000	0.000	0.000	0.000			
38	0.000	0.000	0.000	0.000			
39	0.000	0.000	0.000	0.000			
40	0.000	0.000	0.000	0.000			
41	0.000	0.000	0.000	0.000			
42	0.000	0.000	0.000	0.000			
43	0.000	0.000	0.000	0.000			
44	0.000	0.000	0.000	0.000			
45	0.000	0.000	0.000	0.000			
46	0.000	0.000	0.000	0.000			
47	0.000	0.000	0.000	0.000			
48	0.000	0.000	0.000	0.000			
49	0.000	0.000	0.000	0.000			
50	0.000	0.000	0.000	0.000			
51	0.000	0.000	0.000	0.000			
52	0.000	0.000	0.000	0.000			
53	0.000	0.000	0.000	0.000			
54	0.000	0.000	0.000	0.000			
55	0.000	0.000	0.000	0.000			
56	0.000	0.000	0.000	0.000			
57	0.000	0.000	0.000	0.000			
58	0.000	0.000	0.000	0.000			
59	1.083	1.154	0.990	0.977			
60	1.105	1.190	0.986	0.977			
61	2.331	2.589	0.910	0.917			
62	4.536	4.919	0.823	1.045			
>62	4.026	4.888	0.969	0.976			

DESCRIPTION: Non-Selected Reserve with 20 Good Years ('Grey Area') Nondisabled Retirement Ratios ("Blow-up" factors or "Loads")

Arrayed by modeling type (person/pay), age, and paygrade (officer/enlisted).

Arrayed by modeling type (person/pay), age, and paygrade (officer/enlisted).

These factors are applied to each year's new-retirement-from-the-Grey-Area projections to account for new retirees who were not present in the prior year's reserve data files.

# Officer Selected Reserve to Non-Selected Reserve with 20 Good Years Transfer Blow-up Factors

51 52 53 54										
44 45 46 47 48 49 50				8						s") Count-Based.
39 40 41 42 43				פרום מדום מדום מדום מיחם מדום מדום מדום מדום מדום מדום מפום	0.173 0.173					Selected Reserve to Non-Selected Reserve with 20 Good Years ('Grey Area') Transfer Rate Ratios ("Blow-up" factors or "Loads") Count-Based Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted). Increment rates to account for "unanticipated" (i.e., not in the Selected Reserve the prior year) transfers to Grey Area.
34 35 36 37 38				73 0.173 0.173 0.173 0.	0.173 0.173 0.173 0.173 0.173 0.173 0.0173 0.0173 0.0173 0.1	0.473 0.473				serve to Non-Selected Reserve with 20 Good Years ('Grey Area') Transfer Rate Ratios ("Blow-up" factors centry age, completed PEBD YOS, and paygrade (officer/enlisted).  rates to account for "unanticipated" (i.e., not in the Selected Reserve the prior year) transfers to Grey Area.
29 30 31 32 33				0.917 0.141 0.127 0.158 0.183 0.1	0.141 0.127 0.158 0.183 0.141 0.127 0.158 0.183 0.141 0.127 0.158 0.183 0.141 0.127 0.158 0.183 0.141 0.127 0.158 0.183	0.141 0.127 0.158 0.183 0.1441 0.127 0.158 0.183 0.141 0.127 0.158 0.183 0.141 0.127 0.158 0.183 0.141 0.127 0.158 0.183	7 0.141 0.127 0.158 0.183 7 0.141 0.127 0.158 7 0.141 0.127 7 0.141			serve to Non-Selected Reserve with 20 Good Years ('Grey Area') entry age, completed PEBD YOS, and paygrade (officer/enlisted) ates to account for "unanticipated" (i.e., not in the Selected Reser
25 26 27 28				0.828 0.830 0.700 0.667 0.700 0.830 10.91	0.513 0.309 0.245 0.278 0.400 0.342 0.303 0.241 0.333 0.308 0.136 0.177 0.298 0.092 0.107 0.288 0.141 0.333 0.092 0.107 0.182 0.224 0.188 0.092 0.107	0.127 0.136 0.115 0.032 0.107 0.127 0.138 0.115 0.032 0.107 0.127 0.138 0.115 0.032 0.107 0.127 0.136 0.115 0.032 0.107 0.127 0.136 0.115 0.032 0.107	0.127 0.136 0.115 0.092 0.107 0.127 0.136 0.115 0.092 0.107 0.127 0.136 0.115 0.092 0.107 0.127 0.136 0.115 0.092 0.107 0.127 0.136 0.115 0.092 0.107	0.127 0.136 0.115 0.092 0.127 0.136 0.115 0.127 0.136 0.115 0.127 0.136		ted Reserve with 20 Goed PEBD YOS, and pa "unanticipated" (i.e., n
20 21 22 23 24				0.298 0.367 0.925 0.928 0.830	0.135 0.325 0.620 0.697 0.411 0.155 0.226 0.348 0.392 0.310 0.153 0.108 0.211 0.202 0.248 0.174 0.212 0.218 0.197 0.132 0.132 0.104 0.200 0.172 0.115	0.252 0.192 0.114 0.112 0.212 0.252 0.209 0.149 0.138 0.100 0.252 0.243 0.049 0.071 0.096 0.252 0.204 0.175 0.114 0.122 0.252 0.204 0.046 0.059 0.049	0.252 0.204 0.161 0.152 0.234 0.252 0.204 0.135 0.181 0.234 0.235 0.204 0.221 0.146 0.234 0.252 0.204 0.210 0.275 0.234 0.252 0.204 0.186 0.409 0.234	0.252 0.204 0.258 0.133 0.234 0.252 0.204 0.329 0.788 0.234 0.252 0.204 0.364 0.788 0.234 0.252 0.204 0.364 0.788 0.234 0.252 0.204 0.364 0.788 0.234	0.252 0.204 0.364 0.788 0.252 0.204 0.364	Reserve to Non-Selectory by entry age, complete entry age, complete entrates to account for
of 16 17 18 19	000°0 000°0 000°0	000°0 000°0 000°0	000°0 000°0 000°0	0.000 0.000 0.000 0.000 0.000 0.247 0.390 0.411	0.000 0.247 0.126 0.148 0.000 0.247 0.129 0.112 0.000 0.247 0.143 0.217 0.000 0.247 0.179 0.189 0.000 0.247 0.127 0.153	0.000 0.247 0.217 0.159 0.000 0.247 0.217 0.125 0.000 0.247 0.217 0.161 0.000 0.247 0.217 0.360 0.000 0.247 0.217 0.300	0.000 0.247 0.217 0.108 0.000 0.247 0.217 0.157 0.000 0.247 0.217 0.200 0.000 0.247 0.217 0.268 0.000 0.247 0.217 0.278	0.000 0.247 0.217 0.340 0.000 0.247 0.217 0.340 0.000 0.247 0.217 0.340 0.000 0.247 0.217 0.340 0.000 0.247 0.217 0.340	0.000 0.247 0.217 0.340 0.000 0.247 0.217 0.340	DESCRIPTION: Selected Res Arrayed by Increment r
Years of Service	Under 1 1 2 3 4	98799	0 1 2 5 4	51 57 51 51 51 51 51 51 51 51 51 51 51 51 51 51 51 5	82888	88888	8 8 8 8 8	38 33 38	0 4	DES

# Enlisted Selected Reserve to Non-Selected Reserve with 20 Good Years Transfer Blow-up Factors

55										
54										
53										
25										
51										
99										
49										
48										Ti.
47										sase
46										unt-E
45										Ō.
44				4						- ("sp
43				м 0.104	4					Load
42 4				0.104	4 4 40.10					s or "
41				0.104	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4					actors y Are
40 4				4 0.104	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4					g "qu
				4 0.104	4 0.104 0.104 0.104 0.104					low-u
39				3 0.104	0.104 401.0 0.104 401.0 0.104	0				s ("B ansfe
38				0.133	0.100	0.10				Ratio ar) tra
37				8 0.182	0.182 0.182 0.182 0.182 0.182	0.182				ate F
38				0.083	0.083 0.083 0.083 0.083	0.083				to Non-Selected Reserve with 20 Good Years ('Grey Area') Transfer Rate Ratios ("Blow-up" factors or "Loads") Count-Based, age, completed PEBD YOS, and paygrade (officer/enlisted). to account for "unanticipated" (i.e., not in the Selected Reserve the prior year) transfers to Grey Area.
32				0.081	0.08 0.08 0.08 0.08 0.08	0.081 0.081 0.081				rans e the
34				0.067	0.067 0.067 0.067 0.067 0.067	0.067 0.067 0.067 0.067				a') T ed). serv
33				0.083	0.083 0.083 0.083 0.083	0.083 0.083 0.083 0.083	0.083			y Are enlist ed Re
32				0.102	0.102 0.102 0.102 0.102 0.102	0.10 0.10 0.10 0.10 0.10 0.10	0.102			'Grey icer/e lecte
31				0.094	0.094 0.094 0.094 0.094	0.094 0.094 0.094 0.094	0.094 0.094 0.094			e Se
30				0.096	0.096 0.096 0.096 0.096	0.096 0.096 0.096 0.096	0.096 0.096 0.096 0.096			od Ye grade in th
29				0.075	0.075 0.075 0.075 0.075 0.075	0.075 0.075 0.075 0.075	0.075 0.075 0.075 0.075			Goc pay
28				0.084	0.084 0.084 0.084 0.084 0.084	0.084 0.084 0.084 0.084 0.084	0.084 0.084 0.084 0.084 0.084	0.084		to Non-Selected Reserve with 20 Good Years (Grey Area) age, completed PEBD YOS, and paygrade (officer/enlisted) to account for "unanticipated" (i.e., not in the Selected Reserve
27				0.090	060.0	060.0	00000	060:0		ve wi YOS ated
88				0.100	0.100	0.00000	001000000000000000000000000000000000000	0.100		eserv EBD '
52				0.092	0.092 0.092 0.092 0.092 0.092	0.092 0.092 0.092 0.092 0.092	0.092 0.092 0.092 0.092 0.128	0.128 0.128 0.128		ed Red PE
24				0.095	0.052 0.049 0.038 0.034 0.059	0.047 0.088 0.093 0.151 0.126	0.098 0.239 0.059 0.181 0.284	0.256 0.256 0.256 0.256 0.256		electe
23				0.066	0.039 0.058 0.075 0.075	0.085 0.106 0.148 0.125 0.130	0.121 0.134 0.089 0.195 0.253	0.138 0.270 0.270 0.270 0.270	0.270	com
22				0.070	0.043 0.051 0.059 0.059	0.072 0.103 0.190 0.180	0.173 0.160 0.088 0.206 0.149	0.218 0.310 0.310 0.310	0.310	to No age, o acc
21				0.042	0.023 0.040 0.052 0.044 0.065	0.083 0.070 0.065 0.203 0.092	0.295 0.212 0.157 0.156 0.124	0.137 0.255 0.258 0.258 0.258	0.258	
8				0.048	0.069 0.033 0.048 0.052 0.081	0.072 0.101 0.134 0.153 0.109	0.187 0.200 0.140 0.225 0.119	0.085 0.223 0.149 0.315 0.315	0.315	Rese by e
19				0.066	0.053 0.046 0.060 0.035 0.069	0.060 0.128 0.144 0.193 0.168	0.140 0.303 0.123 0.156 0.253	0.113	0.113 (0.113 (	Selected Reserve Arrayed by entry Increment rates
18				0.088	0.029 0.059 0.077 0.062 0.070	0.075 0.092 0.163 0.141 0.192	0.158 0.211 0.211 0.130 0.194	0.122 0.118 0.233 0.182 0.182	0.182 (0.182 (	Sele Arr
17				0.105	0.105	0.105	0.105	0.105	0.105 0	
16	00000	00000	00000	00000	00000	00000	00000	00000	00000	IPTI
PEBD Years of Service		20300	55568	20300	55556	55555	55566	55556	- 5	DESCRIPTION:
Yes.	Under 1 2 3 4	9 8 4 9 9	0 1 2 5 4	15 71 81 81	82884	28288	8 2 2 2 2 3	38 34 88 88	4 4	삠

Appendix H

- 159 -

## Officer Non-Selected Reserve with 20 Good Years Career Points Adjustment Due To Transfer Blow-ups By Entry Age

	48										
	47										
	46										
	45										
	44				1.033						
	43				1.033	1.033					
	45				1.033	0.982					
	41				1.033	0.982 1.023 1.023					
Ф	40				1.033	0.982 1.023 0.896 0.896					
By Entry Age	38				1.033	0.982 1.023 0.896 1.000					
g L	38				1.033	0.982 1.023 0.896 1.000 0.954	0.954				
	37				1.033	0.982 1.023 0.896 1.000 0.954	0.954				
	38				1.033	0.982 1.023 0.896 1.000 0.954	0.954 0.954 0.954				
	32				1.033	0.982 1.023 0.896 1.000 0.954	0.954 0.954 0.954 0.954				
	34				0.992	1.023 0.992 1.013 1.000	0001100001				
	33				0.985	0.825 0.980 1.000 1.000	4 4 0 1 4 4 0 1 1 0 1 4 4 1 0 1 1 1 0 1 1 1 1	1.014			
	32				0.959	0.908 0.956 0.968 0.999 0.943	0.998 0.998 0.998 0.998	0.998			
	31				776:0	0.927 1.017 1.003 1.000 0.968	1.007 0.922 0.990 1.000 1.000	1,000			
	30				1.036	1.016 0.993 0.995 1.006	0.981 0.947 0.989 1.000 0.965	0.965 0.965 0.965 0.965			
	29				0.996	0.922 1.036 0.994 1.000 1.003	0.975 0.958 0.979 1.000 0.990	0.990 0.990 0.990 0.990			
	28				0.956	0.908 1.040 0.998 0.994 0.976	1.011 1.007 0.974 0.992 1.000	0.958 1.000 1.000 1.000	1:000		
	27				0.938	0.958 0.981 0.961 0.995	1.022 0.988 0.991 0.989 0.953	1.022 0.966 1.059 1.059	1.059		
	28				0.957	0.980 0.974 0.989 0.989	1.007 0.966 1.014 0.981	1.009 1.004 0.986 0.986 0.986	0.986 0.986 0.986		
	52				0.958	1.001 0.979 1.003 0.995 1.030	0.996 1.009 0.977 0.966 0.999	1.000 0.998 1.038 0.965	0.965 0.965 0.965 0.965		
	24				0.976	0.978 0.973 0.995 1.002	0.985 0.988 1.002 0.991	0.996 0.991 1.005 0.995 1.035	1.035 1.035 1.035 1.035		
	23				0.957	1.001 1.002 1.002 0.998 0.994	1.003 0.998 0.987 1.000	1.002 1.018 0.982 1.008	1.005 1.057 1.057 1.057	1.057	
	22				0.943	1.001 0.994 1.002 0.992 1.024	1.009 1.015 0.999 0.994 0.996	1,009 1,006 1,010 1,010	1,010 1,010 1,010 1,010	1.010	
	21				0.869	0.933 0.936 0.989 0.989	0.972 0.971 1.009 0.976 0.989	1,016 1,013 1,027 1,016	0.985 1.024 1.024 1.024	1.024	
	20				0.901	0.923 1.000 1.003 1.003	0.993 0.998 0.986 1.008	1.005 1.015 0.997 1.026 0.997	1.013 1.014 0.999 0.999	0.999	
	19				0.920	0.924 0.985 0.972 0.964 0.994	0.978 1.027 1.009 0.966 1.005	1.001 1.036 1.046 0.945	1.004 1.008 0.999 1.001	1.001	
	18				0.907	0.968 0.958 0.962 0.962 0.980	0.984 1.001 0.995 0.992 1.002	1.000 0.970 1.061 1.036	1.043 0.968 1.018 1.003 0.817	1.000	
	17				0.907	0.968 0.958 0.962 0.962	0.984 1.001 0.995 1.002	1.000 0.970 1.061 1.036	1.043 0.968 1.018 1.003 0.817	1.000	
	16	000000	00000	000000	00000	000000	000000	000000	00000	0.000	
PEBD Years of	Service	Under 1 2 3 4	10 @ <b>&gt;</b> @ Ø	0 1 2 2 2 4	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	82884	88588	88838	38 8 4 8 8	40	

DESCRIPTION: Non-Selected Reserve with 20 Good Years ('Grey Area') Career Points Adjustment due to Transfer Blow-up factors
Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).
Adjustment to Average Career Points for Grey Area retirees — effect on Average Career Points of "unanticipated" (i.e., not in the Selected Reserve the prior year) transfers to Grey Area due to transfer blow-up factors.
Blank cells should be considered a value of zero ('0.000').

# Enlisted Non-Selected Reserve with 20 Good Years Career Points Adjustment Due To Transfer Blow-ups

By Entry Age

	48										
	47										
	46										
	45										
	44				0.937						n the
	43				0.937	0.937					not i
	42				0.937	0.937					(i.e.,
	41				0.937	0.937 0.937 0.937					ctors
	40				1.046	1.046					up fa ticipa
By Entry Age	39				0.951	0.825 1.421 1.421 1.421 1.421					slow-
By Ent	38				1.254	0.910 ( 1.007 0.953 0.953	0.953				sfer E
	37				0.918	0.918 0.941 0.941 1.413 1.413	1413				Trans
	38				961:1	1.069 1.014 0.978 0.923	1.123				e to '
	32				0.991	1.038 1.036 1.021 0.975	1.652				nt du Car facto
	34				0.977	0.975 0.886 1.007 1.083 0.985	1.022				stme d). erage v-up
	33				0.987	0.960 1.001 0.938 1.024	0.981 1.001 1.455 1.455	1.455			Adju n Ave r blov
	32				1.006	0.993 0.979 0.997 1.020 0.935	0.948 1.028 0.962 0.962 0.962	0.962			oints ser/er ect o ansfe
	31				0.982	1.006 0.932 0.991 1.007	1.050 0.979 1.010 0.994 0.994	0.994 0.994 0.994			er Po (offic eff to tra
	30				0.985	0.997 0.997 0.986 0.986	1.026 0.939 0.996 1.001	1.158 1.158 1.158			Care rade rees due ()').
	29				1.006	0.993 1.004 0.997 1.000	0.985 1.010 0.951 1.002 0.998	0.981 1.073 1.073 1.073			rea') payg a reti Area
	28				0.988	1.010 1.000 1.008 1.001 0.991	0.994 0.998 0.985 1.035	0.999 1.000 0.824 0.824 0.824	0.824		ey A and / Are: / Are: Srey
	27				0.999	0.995 0.989 0.994 1.001 0.998	0.998 1.006 1.011 1.006	0.982 0.981 1.040 1.040	1.040		s ('Gr (OS, Gre) s to (
	58				0.983	0.972 0.999 0.981 0.998	0.994 0.984 0.990 0.987 0.994	0.987 1.024 0.996 0.980 1.170	1170		Years BD \ s for nsfer
	52				0.970	0.999 0.992 0.994 1.009 0.996	0.987 0.997 1.004 1.007	1.005 1.001 1.014 0.966	1. 148 1. 148 1. 148 1. 148		ood ' d PE Point r) tral
	24				1.007	0.984 0.995 0.995 0.999	0.994 0.975 0.995 0.991	0.997 0.991 1.015 1.100	1.019 1.070 1.070 1.070		20 G plete reer l year
	23				0.994	0.991 0.993 0.989 1.007	0.998 0.999 1.006 1.004	1.011 1.007 0.992 1.015 1.009	1.039 1.035 1.035 1.035	1.035	Non-Selected Reserve with 20 Good Years ('Grey Area') Career Points Adjustment due to Transfer Blow-up factors Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted). Adjustment to Average Career Points for Grey Area retirees – effect on Average Career Points of "unanticipated" (i.e., not in the Selected Reserve the prior year) transfers to Grey Area due to transfer blow-up factors. Blank cells should be considered a value of zero ('0.000').
	22				0.987	0.996 0.993 0.994 0.994	1.005 0.992 1.017 1.002 0.995	1.009 0.982 1.004 1.012	1.012 1.053 0.992 0.992 0.992	0.992	age, age, rerag e the
	21				0.997	1.002 0.996 1.000 0.995 0.997	0.997 1.001 0.990 0.996	1.003 0.993 1.010 1.011	1.021 1.024 0.981 1.029 0.992	1.309 0.992 1.309 0.992	I Resentry to Avery
	20				0.999	0.996 1.001 1.001 0.997	0.996 0.997 1.001 0.997	1.019 1.015 0.998 1.029 1.015	1.019 1.027 1.048 0.983	1.309	d by onent nent sed Re
	19				0.988	0.991 0.995 0.997 1.000 1.004	0.998 0.989 1.001 1.002	0.993 1.009 1.020 1.041	0.995 1.006 1.010 1.131	1.009	n-Sel raye djustr electe
	18				0.998	0.996 0.992 0.993 1.000 1.000	0.999 1.005 1.007 0.994 0.992	1.005 1.008 0.987 1.012 0.991	1.017 1.000 1.024 1.000 0.996	0.939	Ž
	17				0.998	0.996 0.992 0.993 1.000 1.000	0.999 1.005 1.007 0.994 0.992	1.005 1.008 0.987 1.012 0.991	1.017 1.024 1.026 0.996	0.939	NO NO
	16	000000	000000	000000	000000	000000	000000	000000	000000	0.000	RIPT
PEBD	Service	Under 1 1 2 3 4	59786	0 1 2 2 4	5 2 2 2 6 6	82884	88788	8 2 2 2 2	383383	4 4	DESCRIPTION:

## Officer Selected Reserve Promotion and Merit Increase Scales (PAMS)

ntry A	
By E	

1.000									
1.000									
1.095 1.095									
1.048 840.1 840.1 840.1									
1.067 1.067 1.067 1.067									
1.038 1.038 1.038 1.038	1.038								
1.096 1.096 1.096 1.096	1.096								
1.024 1.024 1.024 1.024	1.024 1.024 1.024								
1.072 1.072 1.072 1.072	1.072 1.072 1.072 1.072								
1.031 1.082 1.051 1.040	1.057 1.037 1.037 1.037								
1.018 1.107 1.072 1.000	1.088 1.054 1.000 0.967	1.000							
1.006 1.228 1.087 1.078	1,064 1,025 1,025 1,025	1.025							
1.007 1.199 1.110 1.054	1,095 1,033 1,033 1,033	1.033 1.033							
1.013 1.203 1.106 1.050	1.082 1.032 1.041 1.016	1.016 1.016 1.016							
1.044 1.173 1.094 1.016	1.065 1.035 1.046 1.041	<u>4</u> 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4							
1.056 1.163 1.070 1.035	1.062 1.016 1.071 1.008	1.038 1.038 1.038 1.038	1.038						
1.033 1.135 1.066 1.019	1.069 1.016 1.008 1.004	1.021 1.051 1.035 1.035	1.035						
1.053 1.208 1.153 1.078	1.066 1.006 1.012 1.012	1.030 1.046 0.998 1.040	1.040 1.040 1.040						
1.041 1.205 1.129 1.078 1.012	1.058 1.012 1.047 1.034 1.075	1.068 1.068 1.046 1.046	1.053 1.053 1.053						
1.037 1.182 1.125 1.075 1.015	1.075 1.015 1.061 1.037 1.072	1.022 1.030 1.037 1.046 1.003	1.021 1.021 1.044 1.044 1.044						
1.045 1.193 1.077 1.026	1.067 1.006 1.050 1.023 1.059	1.023 1.047 1.047 1.047	1.049 1.014 1.023 1.023	1.023					
1.060 1.199 1.142 1.086 1.015	1.066 1.012 1.062 1.016 1.076	1.019 1.071 1.041 1.012	1.050 1.010 1.030 1.017	1.035					
1.063 1.144 1.083 1.017	1.058 1.010 1.065 1.007 1.068	1.028 1.054 1.010 1.042 1.012	1.044 1.015 1.039 1.005	1.033 1.033					2
1.065 1.176 1.153 1.088 1.014	1.070 1.012 1.051 1.022 1.057	1.013 1.064 1.045 1.045	1.048 1.008 1.010 1.042	1.053 1.053 1.053					l yea
1.049 1.216 1.152 1.089 1.010	1.065 1.024 1.052 1.018 1.058	1.024 1.061 1.014 1.039 1.009	1.049 1.008 1.010 1.040	1.024 1.043 1.059 1.059					Reserve during a fiscal year.
1.055 1.187 1.137 1.088 1.018	1.071 1.008 1.057 1.010 1.046	1.032 1.055 1.062 1.052 1.012	1.056 1.018 1.035 1.012 1.037	1.021 1.043 1.035 1.035	1.035				ng a
1.043 1.179 1.073 1.018	1.071 1.014 1.056 1.009 1.074	1.019 1.071 1.019 1.052 1.010	1.045 1.022 1.038 1.011 1.045	1.018 1.048 1.022 1.058	1.040				duri
1.032 1.168 1.088	1,021 1,021 1,060 1,023 1,074	1.014 1.065 1.007 1.040	1.045 1.005 1.040 1.015	1.024 1.043 1.040 1.000	1.0.1 410.1 410.1				serve
1.039 1.162 1.109 1.026	1.068 1.016 1.062 1.013 1.064	1.027 1.058 1.016 1.053 1.020	1.048 1.012 1.037 1.010 1.036	1.020 1.036 1.013 1.018 1.019	1.068 1.003 1.003				
1.041 1.190 1.100 1.028	1.069 1.018 1.053 1.015	1.021 1.058 1.043 1.022	1.051 1.014 1.039 1.039	1.016 1.033 1.015 1.034 1.017	1.034 1.064 1.064 1.064				ed). lecte ided.
1.042 1.194 1.104 1.027	1.062 1.023 1.047 1.021 1.063	1.017 1.071 1.015 1.051	1.045 1.040 1.046 1.035	1.019 1.029 1.014 1.041	1.024 0.996 1.014 1.046	1.046			(PAMS) (grade (officer/enlisted). ard) earned by a Select Reentrants are included 00').
1,030 1,185 1,178 1,093	1.068 1.022 1.020 1.020 1.070	1.019 1.027 1.051 1.051	1.020 1.034 1.018 1.039	1.024 1.007 1.020 1.010	1.031 0.999 1.023 1.016 1.017	1.017			icer/e d by s are
1.030 1.183 1.106 1.030	1,067 1,030 1,053 1,017 1,064	1.026 1.061 1.021 1.055 1.017	1.039 1.013 1.037 1.038	1.023 1.042 1.006 1.021	1.030 1.017 1.018 1.013 1.022	1.026			1S) e (offi earne trants
1.032 1.191 1.185 1.105	1.076 1.019 1.053 1.019 1.063	1.035 1.065 1.023 1.053 1.017	1.046 1.014 1.039 1.012	1.020 1.035 1.019 1.025 1.011	1.037 1.006 1.019 1.007 1.004	0.969 1.005 1.005			(PAMS) grade (c ard) eari Reentra (0').
1.018 1.182 1.200 1.101 1.043	1.069 1.027 1.028 1.028	1.038 1.072 1.021 1.044 1.020	1.050 1.023 1.037 1.016 1.031	1.025 1.035 1.012 1.029 1.008	1.033 1.020 1.020 1.010	0.996 1.044 1.066 1.066			ales I pay 9-bog ent; F
1.022 1.178 1.108 1.041	1.024 1.024 1.029 1.029	1.040 1.068 1.025 1.049 1.023	1.045 1.016 1.037 1.014 1.036	1.019 1.020 1.026 1.026	1.033 1.014 1.015 1.007	0.997 1.007 1.082 1.082	1.082		se sc , and ss-the opmi
1.040 1.160 1.114 1.056	1.076 1.034 1.057 1.025 1.067	1.039 1.029 1.029 1.024	1.020 1.020 1.038 1.018	1.023 1.041 1.014 1.021	1.031 1.018 1.015 1.003	1.003 1.009 0.989 0.989 1.063	1.063		rreas YOS acros devel
1.022 1.165 1.251 1.101	1.035 1.035 1.062 1.030	1.032 1.072 1.033 1.055	1.046 1.023 1.037 1.017	1.014 1.042 1.015 1.025	1.032 1.018 1.011 1.008	1.012 1.002 1.002 0.997 0.964	0.988		EBD ond the cond
1.022 1.168 1.266 1.113 1.061	1.032 1.032 1.061 1.030 1.073	1.040 1.076 1.030 1.056	1.041 1.020 1.030 1.019	1.022 1.046 1.015 1.025 1.013	1.030 1.010 1.018 0.996	0.992 1.003 1.018 1.016	1.010 1.028 1.028		d Meed P (be) (ed in ed in ed a
1.016 1.175 1.264 1.136 1.075	1.027 1.027 1.064 1.026 1.079	1.038 1.074 1.024 1.052 1.022	1.041 1.017 1.034 1.019 1.032	1.023 1.042 1.019 1.023 1.017	1.029 1.013 1.023 1.015 0.998	0.997 1.014 1.004 1.018 0.995	1.021 1.022 1.016 1.086 1.086		on an nplet ases cclud sider
1.012 1.199 1.142 1.071	1.072 1.018 1.060 1.023 1.084	1.037 1.068 1.021 1.046 1.046	1.043 1.034 1.035 1.035	1.023 1.045 1.018 1.024 1.014	1.032 1.011 1.028 1.016 0.996	1.007 1.016 1.012 1.010 1.010	1.009 1.009 1.058 1.058	1.058	motice, cor incre
1.007 1.141 1.262 1.141 1.081	1.080 1.032 1.064 1.028	1.040 1.070 1.021 1.048	1.043 1.034 1.035	1.023 1.026 1.026 1.026	1.031 1.014 1.021 1.013 0.993	1.005 1.011 1.019 1.001	0.992 0.991 1.012 1.041	1.137	Pro / age pay ers a
1.011 1.096 1.242 1.093	1.074 1.061 1.078 1.056 1.070	1.051 1.081 1.054 1.070 1.044	1.050 1.035 1.028 1.028 1.030	1.024 1.026 1.026 1.027	1.032 1.024 1.015 1.015	1.003 1.013 1.006 1.007	0.999 1.013 0.990 1.007	1.053	serve entri pasic ransf
1.007 1.104 1.211 1.057	1.065 1.065 1.055 1.055	1.063 1.063 1.067 1.067	1.051 1.038 1.046 1.031	1.025 1.038 1.025 1.025	1.033 1.023 1.017 1.017 1.020	1.012 1.014 1.007 1.011	1.012 1.013 1.007 0.997 0.995	0.999	d Regard by Sonal Bade t
1.053 1.053 1.083	1.086 1.073 1.069 1.080	1.065 1.080 1.061 1.074	1.046 1.052 1.052 1.035	1.039 1.030 1.032 1.032	1.034 1.019 1.023 1.023	1.020 1.016 1.010 1.019	1.009	1.032	Selected Reserve Promotion and Merit Increase scales (PAMS) Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted). Additional basic pay increases (beyond across-the-board) earned by a Selected Paygrade transfers are excluded in the development; Reentrants are included. Blank cells should be considered a value of zero (0.000).
1.161 1.161 1.045 1.037	1.077 1.076 1.086 1.076	1.087 1.087 1.063 1.077	1.057 1.045 1.039 1.038	1.033	1.025 1.025 1.026 1.026	1.020	1.012 1.009 1.010 1.012 0.985	1.007	(V)
2011	1.072 1.099 1.096	1.075 1.102 1.070 1.067 1.067	1.044 1.026 1.035 1.045	1.027 1.027 1.028 1.026	1.021	1.024 0.994 1.042 1.025	1,025	1.025	NOIL
000000	000000000000000000000000000000000000000	000000	000000	000000	000000	000000	000000	0.000	CRIP
Under 1 2 3 4	98 4 9	0 1 2 2 4	15 17 19	82828	28288	24 23 23 23 28	38 33 38 38	4 4	DESCRIPTION:
						, ., ., .,		. 4	

## Enlisted Selected Reserve Promotion and Merit Increase Scales (PAMS)

By Entry Age	

1.231							
1231							
1231							
1231							
222222							
22222							
231 231 231 231 231 231 231 231 231 231							
1231 1231 1231 1231 1231 1231							
22222							
22222	3						
22222 2222							
1.275 1.352 1.352 0.999 0.999 0.999							
1063 1206 1206 1218 1218 1218 1218 1218 1218 1218 121							
1.261 1.199 1.113 1.246 1.018 1.018							
1.233 1.290 1.154 1.024 1.026 1.120 1.056							
1,20 1,20 1,20 1,00 1,00 1,00 1,00 1,00		1.089					
1211 1.164 1.095 1.050 1.025 1.049 1.067		1.024					
1.154 1.140 1.140 1.140 1.026 1.026 1.047		0.994					
1.152 1.152 1.153 1.1068 1.0068 1.0068 1.0068 1.0068 1.0068		988					
1.108 1.088 1.089 1.089 1.024 1.024 1.028		0.992 0.992 0.992 0.992					
1.140		888888	1.000				
1.097 1.038 1.038 1.038 1.041		1.067 1.002 0.997 0.997	0.997				
1.097 1.082 1.082 1.045 1.019 1.076	_	1012 1018 1023 1023 1033	1,033				
1.075 1.038 1.038 1.038 1.038 1.038		089 2000	1.028				
1.077 1.082 1.089 1.028 1.028 1.023 1.070		1.021	1.024				
1.074 1.083 1.028 1.028 1.028 1.054 1.054		1.027 1.024 1.029 1.029	1.027 1.016 0.917 0.917 0.917	0.917			
1.069 1.1069 1.077 1.025 1.025 1.024 1.024		1,024 1,020 1,029 1,024	1.027 1.037 0.980 0.980	0.980			
1079 11082 11082 11057 11058		1,034	1,021	1.042			
1.073 1.083 1.068 1.024 1.019 1.019 1.033	1.028	1.027 1.020 1.035 1.019	1.020 1.050 1.023 1.046	1.028 1.028 1.028			
1.074 1.086 1.074 1.024 1.046 1.048	1.028	1.033 1.024 1.022 1.027	1.021 1.049 1.030 1.026	1.067 0.906 0.906 0.906 0.906			
1.074 1.084 1.088 1.023 1.074 1.074 1.034	1.027	1.041 1.039 1.039 1.021	1.026 1.023 1.025 1.025	1.067 1.001 0.881 0.881	0.881		
1.072 1.112 1.079 1.070 1.023 1.023 1.012 1.027	1.027 1.027 1.023 1.024	1,033 1,021 1,042 1,019	1.041 1.045 1.022 1.022	1.056 1.022 1.045 1.045	1.045		
1.074 1.082 1.082 1.024 1.029 1.029	1023 1023 1038 1019	1,035 1,039 1,021 1,020	1.019 1.024 1.029 1.029	1,069 1,025 1,016 1,024	1.024 1.024 1.024		
1.072	1,028 1,023 1,036 1,036	1.032 1.025 1.035 1.018 1.026	1.045 1.023 1.046 1.046	1.057 1.023 1.018 1.017 1.013	0.923 0.923 0.923 0.923		
1.074 1.109 1.078 1.073 1.076 1.009 1.035	1.030 1.026 1.026 1.025	1.025 1.040 1.040 1.028	1.021 1.023 1.039 1.031	1.064 1.019 1.027 1.020 1.028	1,003 1,030 1,030 1,030 1,030		
1.074 1.110 1.081 1.024 1.026 1.012 1.033	1.030 1.025 1.025 1.025 1.024	1.035 1.023 1.023 1.023	1.027 1.027 1.037 1.031	1.064 1.020 1.018 1.019 1.035	1.043 1.043 1.043	1.043	
1.075 1.1082 1.024 1.028 1.034 1.034	1028 1029 1029 1036	1,036 1,023 1,028 1,028	1.024 1.025 1.025 1.026	1,061 1,020 1,024 1,013	1.021 1.008 0.995 1.050 1.050	1.050	
1,075 1,110 1,081 1,077 1,077 1,012 1,037	1034 1029 1028 1038	1,033 1,024 1,024 1,025	1.023 1.042 1.031 1.025	1.061 1.027 1.016 1.016	1,024 1,017 1,013 0,936	0.936	
1.074 1.108 1.082 1.082 1.073 1.023 1.014 1.045	1.030 1.052 1.023 1.041 1.025	1.040 1.022 1.040 1.027	1.021 1.023 1.023 1.028	1.068 1.020 1.020 1.018 1.031	1.013 1.009 1.017 1.017	0.938 0.938 0.938 0.938	
1.097 1.109 1.081 1.024 1.024 1.050 1.050	1.029 1.023 1.040 1.040	1.035 1.023 1.026 1.026	1.021 1.023 1.023 1.024	1.065 1.019 1.024 1.017	1.012 1.008 1.008 1.002 1.006	0.993 1.024 1.024 1.024	
1.080 1.080 1.080 1.025 1.025 1.026 1.029	1.029	1.036 1.041 1.025 1.025	1.023 1.025 1.026 1.026	1.065 1.018 1.021 1.017	1.013 1.005 1.025 1.006	1.005 1.007 0.973 0.973 0.973	0.973
1.082 1.080 1.080 1.084 1.024 1.026 1.026 1.026		1,036 1,025 1,020 1,025	1,022 1,047 1,027 1,041	1.068 1.022 1.021 1.021		1.011 1.007 1.009 1.040	1.040
1.084 1.070 1.070 1.073 1.073 1.067		1,034 1,022 1,037 1,023	1,025 1,028 1,028 1,026	1.067 1.024 1.022 1.034	1,014 1,015 1,027 1,009	1,008 1,010 1,019 1,009 1,087	1.087
1.090 1.111 1.080 1.070 1.079 1.073 1.073		1.035 1.040 1.021 1.027	1.022 1.026 1.026 1.039	1.067 1.023 1.023 1.017 1.031	1.010 1.018 1.012 1.024 1.015	1.008 1.025 0.999 1.009	1.009
1.095 1.118 1.068 1.068 1.079 1.079 1.076		1.036 1.023 1.042 1.021 1.028	1.024 1.027 1.039 1.027	1.066 1.022 1.019 1.019	1.015 1.016 1.027 1.027	1.009 1.008 1.008 1.008	1.008
1.090 1.133 1.085 1.085 1.085 1.020 1.020 1.075		1.039 1.023 1.021 1.029	1.024 1.031 1.041 1.025	1.020 1.020 1.020 1.030 1.031	1.014 1.013 1.027 1.007	1.006 1.019 1.019 1.006	1.006
1.086 1.148 1.148 1.065 1.065 1.022 1.022 1.069 1.069		1034 1025 1036 1025	1.048 1.034 1.028	1.065 1.019 1.021 1.023 1.011	1.028 1.015 1.030 0.938 1.000	000000	1.000
000000000000000000000000000000000000000	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	00000	00000	000.0	00000	000.0	0.000
Under	0 1 2 2 2 4	5 5 7 5 5 6 5 7 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6	82882	88288	88888	88388	04 4

DESCRIPTION: Selected Reserve Promotion and Merit Increase scales (PAMS)

Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).

Additional basic pay increases (beyond across-the-board) earned by a Selected Reserve during a fiscal year.

Paygrade transfers are excluded in the development, Reentrants are included.

Blank cells should be considered a value of zero ('0.000').

## Officer Non-Selected Reserve with 20 Good Years Promotion and Merit Increase Scales (PAMS) By Entry Age

	49										
	48 4										
	47										
	46										
	45										
	44				0.992						
	43				0.992 0.	0.992					
	42				0.992 0	0.992 0.					
	41				0.992 0	0.992 0 0.992 0 0.992					
	40				0.992 0	0.992 0 0.992 0 0.992 0					Ę.
By Entry Age	39				0.992	0.992 0.992 0.992 0.992 0.992					S)
By Ent	38				0.992	0.992 0.992 0.992 0.992 0.992	0.992				PAM:
	37				1.000	1,000 1,015 1,029 1,029	1.029				ales (
	38				1.000	1.000 1.015 1.002 1.009	1.009				e sca is dui nt.
	32				1.007	1.007 1.020 1.000 0.999 1.005	1.005 1.005 1.005				Non-Selected Reserve with 20 Good Years ('Grey Area') Promotion and Merit Increase scales (PAMS) Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted). Additional basic pay increases (beyond across-the-board) earned in Grey Area status during a fiscal year. Paygrade transfers and Grey Area transfer blow-ups are excluded in the development. Blank cells should be considered a value of zero ('0.000').
	34				1.008	1.008 1.027 1.000 1.005 0.998	0.999 0.999 0.999 0.999				rit Ind ed). Area evelo
	33				1.007	1.007 1.019 1.003 0.995	1.009 0.998 0.998 0.998	0.998			d Me inliste Grey , the d
	32				1.002	1.002 1.001 1.004 0.998	1.000 1.001 0.996 0.996	0.996			on-Selected Reserve with 20 Good Years ('Grey Area') Promotion and Merit Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted) Additional basic pay increases (beyond across-the-board) earned in Grey Ar Paygrade transfers and Grey Area transfer blow-ups are excluded in the dev Blank cells should be considered a value of zero ('0,000').
	31				1.002	1.002 1.027 0.998 1.005 1.000	1.011 1.002 0.993 0.993 0.993	0.993 0.993 0.993			motic e (offi arne clude
	30				1.009	1.009 1.015 0.999 1.003 0.998	1.007 1.002 0.995 0.997 0.995	0.995 0.995 0.995			) Prograde and) e
	29				0.997	0.997 1.018 0.999 1.001	1.003 0.999 0.996 1.004	0.991 0.991 0.991 0.991			Area' I pay e-bos Ips a
	28				1.002	1.002 1.015 1.000 1.000 0.998	1.006 0.999 1.002 0.998 1.001	0.999 1.002 1.002 1.002	1.002		srey / ss-the low-u
	27				1.005	1.005 1.018 1.004 0.999	1.009 1.000 0.998 0.997 1.003	0.999 1.000 1.000 1.000	1.000		rs ('G YOS acros fer b
	28				1.007	1.007 1.019 1.002 1.001 0.999	1.006 0.998 0.996 0.999 1.002	1.000 1.001 0.997 1.068	1.068		FBD /ond trans
	. 25				1.008	1.008	1.003	1.000	1.017		Good ed Post s (be) Area red a
	24				1.005	1.005	1.004 0.998 0.998 1.002	1.000	1.006 1.028 0.977 1.011	_	on-Selected Reserve with 20 Good Years ('Grey Area') F Arrayed by entry age, completed PEBD YOS, and paygra Additional basic pay increases (beyond across-the-board Paygrade transfers and Grey Area transfer blow-ups are Blank cells should be considered a value of zero ('0.000')
	23				1.005	1.005 1.019 1.001 1.002 1.002	0.998 0.998 0.998 1.003	1,000	1.000 1.006 1.051 0.977	0.990	e with
	22				1.005	1,005 1,001 1,002 1,002 0,999	1.005 0.998 0.998 0.998 1.003	0.999 1.000 1.000 1.000	1,000 1,000 0,997 1,037 0,982	1.020	y age y age pay fers a
	21				1.001	1,001 1,002 1,002 1,004 1,000	1.002 0.998 0.996 0.996	0.000 0.998 0.999 0.999 1.001	1,000 1,000 1,000 1,052	1.007	ed Re
	9 20				9 1:006	8 1.006 8 1.011 1 1.000 4 1.003 0 0.999	1.006 0.995 8 0.998 8 0.996 8 0.997	9 0.999 7 0.998 0 0.999 9 0.999	1.000 1.000 1.000 1.000	0 1.038	electe ed by onal ade cells
	8 19				1.008	5 1.008 3 1.001 5 1.000 2 1.000	2 1.004 7 1.000 9 0.998 8 0.998 1 0.998	9 0.999 9 0.998 9 0.997 8 1.000 9 0.999	0 0.998 1 1.000 1 1.000 9 0.999	1 0.990	Array Additi Paygi
	17 18				1:00	3 1.006 3 1.002 6 1.003 6 1.006	3 1.002 2 0.997 5 0.999 3 0.998 3 1.001	6 0.999 0 0.999 1 0.999 8 0.998 4 0.999	0 1.000 0 1.001 0 1.001 8 0.999	1.001	Ž
	16 1	88889	2222	2222	0.0000	00 0.983 00 0.983 00 0.989 00 0.999	00 1.002 00 1.002 00 1.003 00 1.003	00 0.996 00 1.000 00 0.978 00 0.978	000000000000000000000000000000000000000	00 0.994	OIL
-	Ш	00000	00000	00000	000000	000000	000000	000000	00000	0.000	DESCRIPTION:
PEBD	Service	Under 1 2 2 4 4 4	u ⊕ ≻ ∞ o	0 1 2 2 4	15 17 18 19	82884	88388	82882	88388	0 4 4	DES

# Enlisted Non-Selected Reserve with 20 Good Years Promotion and Merit Increase Scales (PAMS)

By Entry Age

	49										
	48										
	47										
	46										
	45										
	44				0.946						
	43				0.946	0.946					
	42				0.946	0.946					
	41				0.946	0.946 0.946 0.946					
Ф	40				0.946	0.946 0.946 0.946					
By Entry Age	39				0.975	0.975 0.975 0.975 0.975					
<u>а</u> п	38				1.002	1.000 0.976 0.976 0.976 0.976	0.976				:
	37				1.003	0.995 1.013 1.019 0.939 0.902	0.975				
	38				776:0	0.996 1.017 1.000 1.005 0.977	0.927 1.000 1.000				
	32				1.004	1.001 1.019 0.999 0.990	0.966 0.962 0.962 0.962				
	34				1.002	1.003 1.017 0.998 1.010 1.000	1.029 0.925 0.965 0.994 0.994				
	33				0.964	1.000 1.004 1.004 1.001	1.035 0.997 0.961 0.960	0.980			
	32				1.000	0.995 1.014 0.996 1.009 1.002	1.033 0.999 0.956 1.000	0.997			
	31				1.003	1,003 1,018 1,010 1,010	1.034 1.000 0.998 0.915	1.069			1
	30				1.012	0.989 1.023 1.010 0.999	1.031 1.000 1.000 0.994	0.935 0.978 1.006 1.006			1
	29				1.000	1.000 1.016 0.999 1.008	1.027 1.000 1.000 1.005	0.993 0.981 0.971 1.022			
	28				1.005	1.000 1.015 0.999 1.006	1.030 1.000 0.999 0.999 1.005	1.000 0.990 0.992 0.990 1.024	1.024		
	27				1.016	1,001 1,010 1,010 1,000	1.031 1.000 0.999 1.005	0.999 0.987 0.911 1.033	1.025		
	58				0.992	0.997 1.016 1.010 0.999	1.029 0.999 0.999 1.000	0.999 1.000 0.999 0.927	1.015 0.987 0.987		
	52				1.001	1.001 1.000 1.000 0.999	1.030 1.000 0.999 1.003	0.999 0.999 1.003 0.999	1.009		,
	3 24				1.008	1.001	1.031 0.999 0.999 1.003	1.000	0.933 0.966 1.012		
	23				1.012	1.000	1.003	1,000	0.997 0.922 0.981 1.002	1.002	
	22				1.003	1.001	1.032 0.999 1.000	1,000	1,000 1,000 1,000 0,917	0.992	
	21				1.011	1.000 1.017 1.011 0.999	2 1.033 9 1.000 0 1.000 1 0.999 4 1.003	0.999 0.999 0.1000 1.000	1.000 1.000 5 1.005 0.996 5 0.911	9 0.999	!
	3 20				1.012	1.000	1.032 0.999 0.1.000 1.000	1,000	1,000 1,000 1,000 0,996	0.889	
	3 19				1.002	1.000	1.034 1.000 1.000 9.0999 1.004	0.999 0.999 0.999 0.999	00011000	0.996	•
	7 18				0 1.010	1 0.999 1 1.020 9 0.999 4 1.011 0 1.000	7 1.035 1 0.999 2 1.000 0 0.999 5 1.005	2 1.000 2 1.000 1.000 1.000 1.000	7 0.999 5 1.000 6 0.999 0 1.000	0 1.000	
	16 17	00000	00000	00000	0001	0 1.021 0 0.999 0 1.000	0 1.007 0 1.002 0 1.000 0 1.005	0 0.999 0 0.997 0 1.002 0 1.000	000100001000000000000000000000000000000	0 1.000	i
-		000000	000000	000000	00000	00000	00000	00000	00000	0.000	
PEBD Years of	Service	Under 1 1 2 3 4	£ 6 7 8 9 9	0 1 2 2 4	51 91 th 61 61 61 61 61 61 61 61 61 61 61 61 61	82888	88488	82883	88488	4 4	

DESCRIPTION: Non-Selected Reserve with 20 Good Years ('Grey Area') Promotion and Merit Increase scales (PAMS)
Arrayed by entry age, completed PEBD YOS, and paygrade (officer/enlisted).
Additional basic pay increases (beyond across-the-board) earned in Grey Area status during a fiscal year.
Paygrade transfers and Grey Area transfer blow-ups are excluded in the development.
Blank cells should be considered a value of zero ('0.000').

### APPENDIX I

### RETIREE AND SURVIVOR RATES

	<u>Page</u>
Retiree and Survivor Rates Description	167
Retiree and Survivor Decrement Rate Formulas	168
Summary of Years On Which Retiree and Survivor Rates Are Based	170
Officer Retired Death (Non-, Permanent, and Temporary Disability)	171
Enlisted Retired Death (Non-, Permanent, and Temporary Disability)	173
Active Duty Other Losses from Nondisability	175
Reserve Duty Other Losses from Nondisability	176
Other Loss and Nontransfer Losses from Temporary Disability	177
Transfer from Temporary Disability to Permanent Disability	178
Other Losses from Permanent Disability	179
Retiree Divorce	180
Surviving Spouse Remarriage	181
Surviving Child Coverage Termination	182
Surviving Spouse Death	183
Spouse Death	184
Surviving Spouse Other Loss	185

### RETIREE AND SURVIVOR RATES DESCRIPTION

The military retiree and survivor decrement rates are used to project death, "other" losses from pay status, and rates of transfer from temporary disability to permanent disability. The "other" losses consist primarily of returns to active duty and full waiver of retired pay to receive a higher annuity from the Veterans Affairs or Civil Service. In order to compute the normal cost contributions with and without regard to Concurrent Receipt benefits (Public Law (P.L.) 108-136), DoD- and Treasury-specific "other" loss rates, among others, are developed. The rates are arrayed by age nearest birthday for officers and enlisted separately, and by retirement type--nondisability, temporary disability, and permanent disability. For temporary disability retirees, select rates were created for each of the first five years of retirement. After a certain number of years, those who are still in the temporary disability status are transferred to a permanent disability status.<sup>1</sup>

The data for the retiree and survivor rates were taken from files maintained by the Defense Manpower Data Center (DMDC) as of September 30 for the years 2006 through 2012. These files were created by the Defense Finance and Accounting Service (DFAS), which has responsibility for sending monthly retired pay checks to military retirees. A military retiree can be in "paid status" or "nonpaid status." Nonpaid status indicates that a retiree has an entitlement to an annuity, but the annuity is fully reduced by offsets. Retirees who terminate from paid status during a fiscal year are on the retiree file at the end of that fiscal year with a termination code indicating the type of termination.

The rate development process begins by matching two consecutive fiscal year-end files by Social Security number. Cases no longer in paid status are categorized by type of loss. Cases returned to paid status (from non-paid status at the start of the year) are subtracted from a given type of loss. After following the above procedures, crude rates are created using the formulas given on the following pages. These rates are smoothed using a Whittaker-Henderson type B ("Method B") graduation, or by fitting a polynomial to the crude rates. Where there is reason to suspect valid discontinuities in the underlying rates, those segments are not smoothed. A summary of the years on which various rates are based is given on the page following the formulas.

### **Note to Reader:**

Some death rates are greater than 1.00000 in this appendix because the death rates are expressed as central rates. These death rates should not be compared to other published rates or used for other purposes without carefully examining the exposure formula used in their derivation.

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NDAA 2017 changed the maximum temporary disability period from five years to three years.

### RETIREE AND SURVIVOR DECREMENT RATE FORMULAS

<u>DEATH OF NONDISABILITY RETIRES</u> (by age nearest birthday and retired from active/reserve duty)

Nondisability deaths during the year
[Number at beginning of year - ½ (Nondisability deaths + other losses)]

<u>DEATH OF PERMANENT DISABILITY RETIREES</u> (by age nearest birthday)

Permanent disability deaths during the year
[Number at beginning of year - ½ (Permanent disability deaths + other losses)]

DEATH OF TEMPORARY DISABILITY RETIREES (by age nearest birthday and years retired)

Temporary disability deaths in category during the year<sup>2</sup> [Number at beginning of year - ½ (Deaths + transfers + other losses)]

OTHER LOSSES FROM NONDISABILITY (by age nearest birthday and retired from active/reserve duty)

Losses other than death during the year

Number at beginning of year

OTHER AND NON-TRANSFER LOSSES FROM TEMPORARY DISABILITY (by age nearest birthday and years retired)

Losses other than death or transfers to permanent disability during the year

Number at beginning of year

TRANSFER FROM TEMPORARY TO PERMANENT DISABILITY (by age nearest birthday and years retired)

<u>Transfers to permanent disability during the year</u>
Number at beginning of year

OTHER LOSSES FROM PERMANENT DISABILITY (by age nearest birthday)

Losses other than death during the year Number at beginning of year

\_\_\_

Includes deaths of members who were temporarily disabled at the beginning of the year, then transferred to permanent disability, and later died before the end of the year. Determined for each year of the temporary disability retirement category (1-5).

### RETIREE AND SURVIVOR DECREMENT RATE FORMULAS (cont.)

<u>DIVORCE OF RETIREE</u> (weighted by coverage amount, by age nearest birthday)

Net retiree divorces during the year
Number at beginning of year

REMARRIAGE OF SURVIVING SPOUSE (by age nearest birthday)

Surviving spouse remarriages during the year Number at beginning of year

TERMINATION OF SURVIVING CHILD (by age nearest birthday)

Child terminations during the year Number at beginning of year

DEATH OF SURVIVING SPOUSE (by age nearest birthday)<sup>3</sup>

Surviving spouse deaths during the year

Number at beginning of year

OTHER LOSS OF SURVIVING SPOUSE (by age nearest birthday)

Survivor losses other than deaths during the year
Number at beginning of year

Death rates of spouses of living retirees who elected SBP spouse, or spouse & child, coverage are based on a standard actuarial mortality table based on female group annuitant, federal Civil Service Retirement System, and U.S. general population experience with margin. This table is published by the Society of Actuaries (SOA) as 1994 GAM Static - Female, ANB.

### SUMMARY OF YEARS ON WHICH RETIREE AND SURVIVOR RATES ARE BASED

### By Fiscal Year

<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	2010 Y	2011 Y	2012 X
X	X	X		Λ	Λ	Λ
	X	X	X	X		
				X	X	X
X	X	X				
	X	X	X	X		
	X	X	X	X		
		X	X			
			X	X		
			X	X		
			X	X		
			X	X		
	X	X X X X X X	X X X X X X X X X X X X X X X X X X X	X	X X X X X X X X X X X X X X X X X X X	X       X       X       X         X       X       X       X         X       X       X       X         X       X       X       X         X       X       X       X         X       X       X       X         X       X       X       X         X       X       X       X         X       X       X       X         X       X       X       X         X       X       X       X         X       X       X       X

<u>Key</u>: ND = Nondisabled

PD = Permanently Disabled

TD = Temporarily Disabled

### OFFICER RETIRED DEATH RATES

	Non-Di	cahility	Permanent	Temporary Disability Year of Retirement				
Age	Active	Reserve	Disability	One	Two	Three	Four	Five
Age	Active	Reserve	Disability	One	1 WU	111166	roui	Five
16	0.00035	0.00035	0.00352	0.00939	0.00890	0.00841	0.00792	0.00742
17	0.00035	0.00035	0.00352	0.00939	0.00890	0.00841	0.00792	0.00742
18	0.00035	0.00035	0.00352	0.00939	0.00890	0.00841	0.00792	0.00742
19	0.00035	0.00035	0.00352	0.00939	0.00890	0.00841	0.00792	0.00742
20	0.00035	0.00035	0.00352	0.00939	0.00890	0.00841	0.00792	0.00742
21	0.00035	0.00035	0.00360	0.00939	0.00890	0.00841	0.00792	0.00742
22	0.00035	0.00035	0.00370	0.00939	0.00890	0.00841	0.00792	0.00742
23	0.00035	0.00035	0.00380	0.00939	0.00890	0.00841	0.00792	0.00742
24	0.00035	0.00035	0.00391	0.00939	0.00890	0.00841	0.00792	0.00742
25	0.00035	0.00035	0.00403	0.00939	0.00890	0.00841	0.00792	0.00742
26	0.00035	0.00035	0.00415	0.00939	0.00890	0.00841	0.00792	0.00742
27	0.00035	0.00035	0.00427	0.00939	0.00890	0.00841	0.00792	0.00742
28	0.00035	0.00035	0.00440	0.00939	0.00890	0.00841	0.00792	0.00742
29	0.00035	0.00035	0.00451	0.00939	0.00890	0.00841	0.00792	0.00742
30	0.00035	0.00035	0.00461	0.00939	0.00890	0.00841	0.00792	0.00742
31	0.00037	0.00038	0.00468	0.00939	0.00890	0.00841	0.00792	0.00742
32	0.00039	0.00041	0.00473	0.00939	0.00890	0.00841	0.00792	0.00742
33	0.00041	0.00044	0.00474	0.00939	0.00890	0.00841	0.00792	0.00742
34	0.00043	0.00048	0.00473	0.00939	0.00890	0.00841	0.00792	0.00742
35	0.00045	0.00051	0.00470	0.00939	0.00890	0.00841	0.00792	0.00742
36	0.00047	0.00055	0.00463	0.00939	0.00890	0.00841	0.00792	0.00742
37	0.00048	0.00059	0.00453	0.00939	0.00890	0.00841	0.00792	0.00742
38	0.00049	0.00062	0.00441	0.00939	0.00890	0.00841	0.00792	0.00742
39	0.00051	0.00066	0.00429	0.00939	0.00890	0.00841	0.00792	0.00742
40	0.00052	0.00070	0.00418	0.00939	0.00890	0.00841	0.00792	0.00742
41	0.00054	0.00074	0.00408	0.00939	0.00890	0.00841	0.00792	0.00742
42	0.00056	0.00078	0.00400	0.00939	0.00890	0.00841	0.00792	0.00742
43	0.00058	0.00083	0.00396	0.00939	0.00890	0.00841	0.00792	0.00742
44	0.00060	0.00089	0.00394	0.00939	0.00890	0.00841	0.00792	0.00742
45	0.00062	0.00095	0.00394	0.00939	0.00890	0.00841	0.00792	0.00742
46	0.00065	0.00102	0.00397	0.00939	0.00890	0.00841	0.00792	0.00742
47	0.00068	0.00110	0.00402	0.00939	0.00890	0.00841	0.00792	0.00742
48	0.00076	0.00119	0.00409	0.00939	0.00890	0.00841	0.00792	0.00742
49	0.00086	0.00129	0.00417	0.00939	0.00890	0.00841	0.00792	0.00742
50	0.00099	0.00140	0.00460	0.00939	0.00890	0.00841	0.00792	0.00742
51	0.00112	0.00153	0.00490	0.00939	0.00890	0.00841	0.00792	0.00742
52 52	0.00129 0.00150	0.00167	0.00525 0.00563	0.00939	0.00890	0.00841 0.00841	0.00792	0.00742
53 54		0.00182 0.00199	0.00563	0.00939 0.00939	0.00890 0.00890	0.00841	0.00792 0.00792	0.00742
55	0.00172							0.00742
	0.00197 0.00225	0.00217 0.00237	0.00648 0.00694	0.00939 0.00939	0.00890 0.00890	0.00841 0.00841	0.00792 $0.00792$	0.00742 0.00742
56 57	0.00223	0.00257	0.00694	0.00939	0.00890	0.00841	0.00792	0.00742
58	0.00230	0.00237	0.00744	0.00939	0.00890	0.00841	0.00792	0.00742
59	0.00290	0.00278	0.00797	0.00939	0.00890	0.00841	0.00792	0.00742
60	0.00327	0.00300	0.00834	0.00939	0.00890	0.00841	0.00792	0.00742
61	0.00413	0.00354	0.00918	0.00939	0.00890	0.00841	0.00792	0.00742
62	0.00413	0.00334	0.01073	0.00939	0.00890	0.00841	0.00792	0.00742
63	0.00518	0.00373	0.01168	0.00939	0.00890	0.00841	0.00792	0.00742
64	0.00510	0.00499	0.01278	0.00939	0.00890	0.00841	0.00792	0.00742
65	0.00650	0.00564	0.01405	0.00939	0.00890	0.00841	0.00792	0.00742

<sup>\*\*\*</sup> As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

### **OFFICER RETIRED DEATH RATES (continued)**

				Temporary Disability  Year of Retirement				
	Non-D	isability	Permanent					
Age	Active	Reserve	Disability	One	Two	Three	Four	Five
	0.00=00	0.00/2.5	0.04.550					
66	0.00729	0.00635	0.01552					
67	0.00819	0.00718	0.01717					
68	0.00921	0.00810	0.01900	_	1			
69	0.01038	0.00914	0.02101	_	7			
70	0.01172	0.01034	0.02320	4	$\longrightarrow$			
71	0.01328	0.01170	0.02555					
72	0.01508	0.01326	0.02808					
73	0.01716	0.01505	0.03079		()			
74	0.01955	0.01711	0.03368					
75	0.02230	0.01950	0.03680		. 1			
76	0.02548	0.02228	0.04019		Z			
77	0.02910	0.02551	0.04388					
78	0.03326	0.02927	0.04795					
79	0.03799	0.03365	0.05250					
80	0.04336	0.03873	0.05765		$I \perp I$			
81	0.04947	0.04461	0.06349		_			
82	0.05638	0.05138	0.07013					
83	0.06420	0.05913	0.07764					
84	0.07303	0.06799	0.08600					
85	0.08293	0.07801	0.09517			>		
86	0.09401	0.08929	0.10515					
87	0.10635	0.10187	0.11594			1		
88	0.12000	0.11575	0.12759		-	abla		
89	0.13503	0.13093	0.14025			~7		
90	0.15150	0.14737	0.15416			_		
91	0.16937	0.16495	0.16954		,	$\Box$		
92	0.18870	0.18366	0.18673					
93	0.20948	0.20342	0.20600					
94	0.23171	0.22419	0.22760					
95	0.25536	0.24589	0.25174			/ <del>-</del> 7		
96	0.28182	0.26984	0.27986			_		
97	0.31293	0.29853	0.31093					
98	0.35055	0.33419	0.34505			· /		
99	0.39573	0.37797	0.38240			<b>Y</b> -		
100	0.44866	0.43005	0.41196					
101	0.50904	0.48996	0.44193					
102	0.57629	0.55692	0.47224					
103	0.64966	0.62998	0.50306			<b>—</b>		
104	0.72854	0.70836	0.53428				<b>→</b>	
105	0.81238	0.79145	0.56582					
106	0.90161	0.87982	0.59783					
107	0.99686	0.97447	0.63020				1	
108	1.09736	1.07471	0.63471				<b>→</b>	
109	1.20181	1.17929	0.63917					
110	1.30854	1.28663	0.64373			•	$\Box$	
111	1.41510	1.39433	1.94464				( <del>-</del>	
112	1.51909	1.49997	1.95845					
113	1.61762	1.60060	1.97239					
113	1.70796	1.69339	1.98604					
115	1.78853	1.77657	2.00000					
115	1.84922	1.83991	2.00000					
117	1.84922	1.89055	2.00000				<b>\</b>	
	1.89743	1.89055	2.00000				( )	
118							<u> </u>	
119	1.95961	1.95647	2.00000					
120	2.00000	2.00000	2.00000					

<sup>\*\*\*</sup> As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

### ENLISTED RETIRED DEATH RATES

	Non Di	a hilita	Donmonont	Temporary Disability ent Year of Retirement				
<b>A</b>	Non-Di		Permanent					E
Age	Active	Reserve	Disability	One	Two	Three	Four	Five
16	0.00044	0.00043	0.00191	0.00616	0.00565	0.00514	0.00463	0.00413
17	0.00044	0.00043	0.00191	0.00616	0.00565	0.00514	0.00463	0.00413
18	0.00044	0.00043	0.00191	0.00616	0.00565	0.00514	0.00463	0.00413
19	0.00044	0.00043	0.00191	0.00616	0.00565	0.00514	0.00463	0.00413
20	0.00044	0.00043	0.00191	0.00616	0.00565	0.00514	0.00463	0.00413
21	0.00044	0.00043	0.00196	0.00616	0.00565	0.00514	0.00463	0.00413
22	0.00044	0.00043	0.00201	0.00616	0.00565	0.00514	0.00463	0.00413
23	0.00044	0.00043	0.00207	0.00616	0.00565	0.00514	0.00463	0.00413
24	0.00044	0.00043	0.00213	0.00616	0.00565	0.00514	0.00463	0.00413
25	0.00044	0.00043	0.00219	0.00616	0.00565	0.00514	0.00463	0.00413
26	0.00044	0.00043	0.00226	0.00616	0.00565	0.00514	0.00463	0.00413
27	0.00044	0.00043	0.00232	0.00616	0.00565	0.00514	0.00463	0.00413
28	0.00044	0.00043	0.00239	0.00616	0.00565	0.00514	0.00463	0.00413
29	0.00044	0.00043	0.00246	0.00616	0.00565	0.00514	0.00463	0.00413
30	0.00044	0.00043	0.00251	0.00616	0.00565	0.00514	0.00463	0.00413
31	0.00047	0.00048	0.00255	0.00616	0.00565	0.00514	0.00463	0.00413
32	0.00051	0.00052	0.00257	0.00616	0.00565	0.00514	0.00463	0.00413
33	0.00055	0.00057	0.00258	0.00616	0.00565	0.00514	0.00463	0.00413
34	0.00060	0.00063	0.00258	0.00616	0.00565	0.00514	0.00463	0.00413
35	0.00064	0.00069	0.00256	0.00616	0.00565	0.00514	0.00463	0.00413
36	0.00069	0.00075	0.00252	0.00616	0.00565	0.00514	0.00463	0.00413
37	0.00073	0.00081	0.00246	0.00616	0.00565	0.00514	0.00463	0.00413
38	0.00078	0.00087	0.00240	0.00616	0.00565	0.00514	0.00463	0.00413
39	0.00082	0.00093	0.00283	0.00616	0.00565	0.00514	0.00463	0.00413
40	0.00087	0.00100	0.00289	0.00616	0.00565	0.00514	0.00463	0.00413
41	0.00092	0.00108	0.00301	0.00616	0.00565	0.00514	0.00463	0.00413
42	0.00097	0.00116	0.00316	0.00616	0.00565	0.00514	0.00463	0.00413
43	0.00103	0.00125	0.00338	0.00616	0.00565	0.00514	0.00463	0.00413
44	0.00110	0.00135	0.00364	0.00616	0.00565	0.00514	0.00463	0.00413
45	0.00117	0.00147	0.00395	0.00616	0.00565	0.00514	0.00463	0.00413
46	0.00126	0.00160	0.00432	0.00616	0.00565	0.00514	0.00463	0.00413
47	0.00138	0.00175	0.00475	0.00616	0.00565	0.00514	0.00463	0.00413
48	0.00153	0.00192	0.00522	0.00616	0.00565	0.00514	0.00463	0.00413
49	0.00173	0.00211	0.00575	0.00616	0.00565	0.00514	0.00463	0.00413
50	0.00198	0.00233	0.00633	0.00616	0.00565	0.00514	0.00463	0.00413
51	0.00229	0.00258	0.00698	0.00616	0.00565	0.00514	0.00463	0.00413
52 52	0.00267	0.00286	0.00770	0.00616	0.00565	0.00514	0.00463	0.00413
53	0.00309	0.00317	0.00848	0.00616	0.00565	0.00514	0.00463	0.00413
54 55	0.00360	0.00351	0.00934	0.00616	0.00565	0.00514	0.00463	0.00413
55 56	0.00418 0.00483	0.00389	0.01029	0.00616	0.00565	0.00514	0.00463	0.00413
56 57	0.00483	0.00429 0.00473	0.01131 0.01241	0.00616 0.00616	0.00565 0.00565	0.00514 0.00514	0.00463 0.00463	0.00413 0.00413
58	0.00339	0.00473	0.01241	0.00616	0.00565	0.00514	0.00463	0.00413
59	0.00739	0.00520	0.01339	0.00616	0.00565	0.00514	0.00463	0.00413
60	0.00737	0.00620	0.01402	0.00616	0.00565	0.00514	0.00463	0.00413
61	0.00843	0.00620	0.01741	0.00616	0.00565	0.00514	0.00463	0.00413
62	0.01080	0.00074	0.01741	0.00616	0.00565	0.00514	0.00463	0.00413
63	0.01211	0.00739	0.02021	0.00616	0.00565	0.00514	0.00463	0.00413
64	0.01211	0.00813	0.02021	0.00616	0.00565	0.00514	0.00463	0.00413
65	0.01499	0.01000	0.02338	0.00616	0.00565	0.00514	0.00463	0.00413
					2.2.3000			

<sup>\*\*\*</sup> As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

### **ENLISTED RETIRED DEATH RATES (continued)**

	Non-D	isability	Permanent	Temporary Disability Year of Retirement					
Age	Active	Reserve	Disability	One	Two	Three	Four	Five	
66	0.01657	0.01110	0.02518						
67	0.01825	0.01234	0.02714						
68	0.02005	0.01372	0.02932						
69	0.02199	0.01526	0.03173	<b>—</b>	<b>→</b>				
70	0.02410	0.01697	0.03439						
71	0.02642	0.01888	0.03732		`				
72	0.02897	0.02101	0.04053						
73	0.03180	0.02339	0.04405						
74	0.03497	0.02607	0.04791						
75	0.03852	0.02911	0.05215						
76	0.04251	0.03258	0.05682						
77	0.04698	0.03655	0.06195						
78	0.05201	0.04112	0.06760		•				
79	0.05762	0.04636	0.07381						
80	0.06389	0.05238	0.08066						
81	0.07083	0.05923	0.08815						
82	0.07852	0.06700	0.09636						
83	0.08699	0.07571	0.10531						
84	0.09631	0.08548	0.11501		_				
85	0.10651	0.09629	0.12548		'. 🔽	<b>→</b>			
86	0.11763	0.10822	0.13674						
87	0.12971	0.12126	0.14881			1			
88	0.14276	0.13543	0.16169		<b>—</b>	abla			
89	0.15682	0.15076	0.17540			~ 7			
90	0.17191	0.16723	0.18999			-			
91	0.18800	0.18481	0.20544		1				
92	0.20514	0.20351	0.22181			, <b>7</b>			
93	0.22330	0.22333	0.23909						
94	0.24252	0.24425	0.25736			$\overline{\mathbf{H}}$			
95	0.26276	0.26627	0.27662			/~7			
96	0.28546	0.29083	0.29828						
97	0.31176	0.32043	0.32245						
98	0.34308	0.35725	0.34693						
99	0.38006	0.40234	0.37185			Ψ			
100	0.42266	0.45561	0.39702						
101	0.47043	0.51636	0.42255						
102	0.52277	0.58350	0.44836						
103	0.57895	0.65588	0.47460				_		
104	0.63851	0.73249	0.50119						
105	0.70108	0.81270	0.52804			•			
106	0.76730	0.89710	0.55529						
107	0.83813	0.98694	0.58283			(	, )		
108	0.91355	1.08164	0.61085			_	4 4		
109	0.99323	1.18011	0.63917				<b>Y</b>		
110	1.07684	1.28108	0.64373			1	(I)		
111	1.16353	1.38252	1.94464				<b>/</b> -7		
112	1.25254	1.48248	1.95845						
113	1.34264	1.57853	1.97239						
114	1.43239	1.66827	1.98604						
115	1.52077	1.75020	2.00000				_		
116	1.59874	1.81425	2.00000						
117	1.67131	1.86721	2.00000				65		
118	1.73717	1.90910	2.00000				S		
119	1.79533	1.94068	2.00000						
120	2.00000	2.00000	2.00000						

<sup>\*\*\*</sup> As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

### ACTIVE DUTY OTHER LOSSES FROM NONDISABILITY

	D	oD	Tre	asury		DoD		Treasury	
Age	Officer	Enlisted	Officer	Enlisted	Age	Officer	Enlisted	Officer	Enlisted
16	0.0000	0.0000	0.0000	0.0000	56	0.0001	0.0041	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	57	0.0002	0.0043	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	58	0.0003	0.0047	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	59	0.0004	0.0051	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	60	0.0005	0.0056	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	61	0.0006	0.0061	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	62	0.0007	0.0066	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	63	0.0009	0.0072	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	64	0.0010	0.0078	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	65	0.0011	0.0083	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	66	0.0013	0.0089	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	67	0.0014	0.0094	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	68	0.0015	0.0099	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	69	0.0017	0.0104	0.0000	0.0000
30	0.0068	0.0363	0.0000	0.0000	70	0.0018	0.0108	0.0000	0.0000
31	0.0068	0.0363	0.0000	0.0000	71	0.0019	0.0111	0.0000	0.0000
32	0.0068	0.0363	0.0000	0.0000	72	0.0019	0.0114	0.0000	0.0000
33	0.0068	0.0363	0.0000	0.0000	73	0.0020	0.0116	0.0000	0.0000
34	0.0068	0.0363	0.0000	0.0000	74	0.0021	0.0117	0.0000	0.0000
35	0.0068	0.0363	0.0000	0.0000	75	0.0021	0.0117	0.0000	0.0000
36	0.0068	0.0363	0.0000	0.0000	76	0.0021	0.0116	0.0000	0.0000
37	0.0068	0.0363	0.0000	0.0000	77	0.0021	0.0114	0.0000	0.0000
38	0.0068	0.0363	0.0000	0.0000	78	0.0021	0.0111	0.0000	0.0000
39	0.0068	0.0313	0.0000	0.0000	79	0.0020	0.0107	0.0000	0.0000
40	0.0057	0.0269	0.0000	0.0000	80	0.0019	0.0102	0.0000	0.0000
41	0.0048	0.0230	0.0000	0.0000	81	0.0018	0.0095	0.0000	0.0000
42	0.0040	0.0196	0.0000	0.0000	82	0.0017	0.0088	0.0000	0.0000
43	0.0033	0.0166	0.0000	0.0000	83	0.0015	0.0078	0.0000	0.0000
44	0.0026	0.0140	0.0000	0.0000	84	0.0013	0.0068	0.0000	0.0000
45	0.0021	0.0118	0.0000	0.0000	85	0.0011	0.0056	0.0000	0.0000
46	0.0016	0.0099	0.0000	0.0000	86	0.0008	0.0042	0.0000	0.0000
47	0.0013	0.0083	0.0000	0.0000	87	0.0005	0.0027	0.0000	0.0000
48	0.0009	0.0070	0.0000	0.0000	88	0.0002	0.0010	0.0000	0.0000
49	0.0007	0.0060	0.0000	0.0000	89	0.0000	0.0000	0.0000	0.0000
50	0.0005	0.0052	0.0000	0.0000	90	0.0000	0.0000	0.0000	0.0000
51	0.0003	0.0046	0.0000	0.0000	91	0.0000	0.0000	0.0000	0.0000
52	0.0002	0.0042	0.0000	0.0000	92	0.0000	0.0000	0.0000	0.0000
53	0.0001	0.0039	0.0000	0.0000	93	0.0000	0.0000	0.0000	0.0000
54	0.0001	0.0038	0.0000	0.0000	94	0.0000	0.0000	0.0000	0.0000
55	0.0001	0.0039	0.0000	0.0000	95	0.0000	0.0000	0.0000	0.0000

<sup>\*\*\*</sup> The above DoD/Treasury distinction is needed for P.L. 108-136 calculations.

<sup>&</sup>quot;Treasury" rates of '0.0000' are shown for effect.

<sup>\*\*\*</sup> As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

### RESERVE DUTY OTHER LOSSES FROM NONDISABILITY

	D	oD	Tre	asury		D <sub>0</sub> D		Treasury	
Age	Officer	Enlisted	Officer	Enlisted	Age	Officer	Enlisted	Officer	Enlisted
16	0.0000	0.0000	0.0000	0.0000	56	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	57	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	58	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	59	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	60	0.0016	0.0115	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	61	0.0034	0.0176	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	62	0.0023	0.0184	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	63	0.0028	0.0150	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	64	0.0030	0.0114	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	65	0.0032	0.0107	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	66	0.0032	0.0085	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	67	0.0037	0.0080	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	68	0.0029	0.0061	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	69	0.0027	0.0053	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	70	0.0025	0.0054	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000	71	0.0019	0.0029	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000	72	0.0020	0.0037	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000	73	0.0013	0.0029	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000	74	0.0018	0.0036	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000	75	0.0020	0.0021	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000	76	0.0020	0.0027	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000	77	0.0017	0.0041	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000	78	0.0020	0.0031	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000	79	0.0025	0.0035	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000	80	0.0007	0.0040	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000	81	0.0007	0.0028	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000	82	0.0017	0.0026	0.0000	0.0000
43	0.0000	0.0000	0.0000	0.0000	83	0.0010	0.0047	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000	84	0.0023	0.0013	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000	85	0.0016	0.0042	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000	86	0.0011	0.0043	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000	87	0.0008	0.0051	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000	88	0.0016	0.0019	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000	89	0.0016	0.0027	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000	90	0.0017	0.0011	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000	91	0.0030	0.0023	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000	92	0.0010	0.0042	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000	93	0.0021	0.0032	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000	94	0.0012	0.0049	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000	95	0.0000	0.0000	0.0000	0.0000

<sup>\*\*\*</sup> The above DoD/Treasury distinction is needed for P.L. 108-136 calculations.

<sup>&</sup>quot;Treasury" rates of '0.0000' are shown for effect.

<sup>\*\*\*</sup> As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

### OTHER LOSS AND NONTRANSFER LOSSES FROM TEMPORARY DISABILITY \*\*\*

			Officers			Enlisted					
		Ye	ear of Retirem	ent			Ye	ear of Retirem	ient		
Age	One	Two	Three	Four	Five	One	Two	Three	Four	Five	
16	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
17	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
18	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
19	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
20	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
21	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
22	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
23	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
24	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
25	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
26	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
27	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
28	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
29	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
30	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
31	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
32	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
33	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
34	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
35	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
36	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
37	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
38	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
39	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
40	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
41	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
42	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
43	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
44	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
45	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
46	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
47	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
48	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
49	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
50	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
51	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
52	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
53	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
54	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
55	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
56	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
57	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
58	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
59	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
60	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
61	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
62	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
63	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
64	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	
65	0.0264	0.0881	0.2771	0.2115	0.2732	0.1740	0.2433	0.5598	0.3821	0.4515	

<sup>\*\*\*</sup> The above Other/Nontransfer Loss rates are used to calculate the combined DoD and Treasury NCPs per P.L. 108-136. DoD-specific Other/Nontransfer Loss rates are higher by the following factors (across all ages):

		Officers			Enlisted				
	Ye	ar of Retirem	ent		Year of Retirement				
One	Two	Three	Four	Five	One	Two	Three	Four	Five
1.639	1.176	1.070	1.060	1.041	1.368	1.228	1.067	1.101	1.066

 $\underline{\textbf{Example}} . \textbf{The DoD-specific Other/Nontransfer Loss rate (across all ages) for Officers in Year One of Retirement would be 0.04326, the product of 0.0264 and 1.639.}$ 

### TRANSFER RATES FROM TEMPORARY DISABILITY TO PERMANENT DISABILITY

		Offi	cers		Enlisted					
		Vear of R	etirement			Vear of R	Retirement			
Age	One	Two	Three	Four	One	Two	Three	Four		
16	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
17	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
18	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
19	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
20	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
21	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
22	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
23	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
24	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
25	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
26	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
27	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
28	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
29	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
30	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
31	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
32	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
33	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
34	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
35	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
36	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
37	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
38	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
39	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
40	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
41	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
42	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
43	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
44	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
45	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
46	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
47	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
48	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
49	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
50	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
51	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
52	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
53	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
54	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
55	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
56	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
57	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
58	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
59	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
60	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
61	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
62	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
63	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
64	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		
65	0.1281	0.1740	0.2199	0.2658	0.0626	0.0947	0.1268	0.1589		

### OTHER LOSSES FROM PERMANENT DISABILITY

	D	oD	Tre	asury		DoD		Treasury	
Age	Officer	Enlisted	Officer	Enlisted	Age	Officer	Enlisted	Officer	Enlisted
16	0.0703	0.4892	0.0294	0.4046	54	0.0110	0.0309	0.0070	0.0182
17	0.0703	0.4892	0.0294	0.4046	55	0.0106	0.0339	0.0066	0.0203
18	0.0703	0.4892	0.0294	0.4046	56	0.0101	0.0363	0.0062	0.0218
19	0.0703	0.4892	0.0294	0.4046	57	0.0098	0.0381	0.0058	0.0229
20	0.0703	0.4892	0.0294	0.4046	58	0.0095	0.0391	0.0055	0.0236
21	0.0703	0.4222	0.0294	0.4046	59	0.0092	0.0394	0.0052	0.0233
22	0.0703	0.3595	0.0294	0.4046	60	0.0090	0.0384	0.0050	0.0212
23	0.0703	0.3012	0.0294	0.3165	61	0.0089	0.0373	0.0048	0.0193
24	0.0703	0.2484	0.0294	0.2461	62	0.0087	0.0379	0.0046	0.0184
25	0.0703	0.2024	0.0294	0.1924	63	0.0086	0.0391	0.0044	0.0174
26	0.0703	0.1646	0.0294	0.1536	64	0.0085	0.0396	0.0043	0.0151
27	0.0703	0.1349	0.0294	0.1263	65	0.0085	0.0390	0.0041	0.0123
28	0.0703	0.1127	0.0294	0.1071	66	0.0084	0.0379	0.0041	0.0098
29	0.0703	0.0967	0.0294	0.0936	67	0.0083	0.0367	0.0040	0.0084
30	0.0703	0.0856	0.0294	0.0843	68	0.0082	0.0360	0.0039	0.0082
31	0.0703	0.0770	0.0294	0.0771	69	0.0080	0.0353	0.0039	0.0081
32	0.0317	0.0690	0.0294	0.0699	70	0.0079	0.0344	0.0039	0.0078
33	0.0301	0.0607	0.0294	0.0623	71	0.0077	0.0336	0.0039	0.0072
34	0.0286	0.0531	0.0294	0.0554	72	0.0075	0.0330	0.0040	0.0065
35	0.0272	0.0467	0.0294	0.0495	73	0.0072	0.0329	0.0040	0.0060
36	0.0258	0.0419	0.0294	0.0445	74	0.0070	0.0328	0.0035	0.0057
37	0.0246	0.0386	0.0294	0.0402	75	0.0067	0.0322	0.0030	0.0056
38	0.0234	0.0362	0.0294	0.0355	76	0.0065	0.0309	0.0025	0.0053
39	0.0223	0.0351	0.0294	0.0313	77	0.0062	0.0288	0.0020	0.0045
40	0.0212	0.0355	0.0166	0.0285	78	0.0060	0.0268	0.0015	0.0036
41	0.0203	0.0367	0.0156	0.0269	79	0.0058	0.0258	0.0022	0.0034
42	0.0193	0.0373	0.0148	0.0261	80	0.0056	0.0257	0.0029	0.0037
43	0.0185	0.0363	0.0139	0.0256	81	0.0054	0.0255	0.0035	0.0041
44	0.0176	0.0345	0.0131	0.0252	82	0.0053	0.0255	0.0038	0.0042
45	0.0169	0.0330	0.0123	0.0248	83	0.0053	0.0260	0.0038	0.0036
46	0.0161	0.0323	0.0116	0.0240	84	0.0052	0.0270	0.0035	0.0042
47	0.0154	0.0328	0.0109	0.0237	85	0.0052	0.0282	0.0033	0.0042
48	0.0147	0.0329	0.0102	0.0229	86	0.0053	0.0292	0.0034	0.0042
49	0.0140	0.0319	0.0096	0.0214	87	0.0053	0.0297	0.0039	0.0042
50	0.0133	0.0304	0.0090	0.0201	88	0.0054	0.0295	0.0044	0.0042
51	0.0127	0.0290	0.0084	0.0190	89	0.0056	0.0289	0.0053	0.0042
52	0.0121	0.0281	0.0079	0.0176	90	0.0057	0.0291	0.0068	0.0042
53	0.0116	0.0287	0.0074	0.0171					

<sup>\*\*\*</sup> The above DoD/Treasury distinction is needed for P.L. 108-136 calculations.

<sup>\*\*\*</sup> As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

### RETIREE DIVORCE RATES \*\*\*

	Act	tive	Res	serve		Active		Res	serve
Age	Officer	Enlisted	Officer	Enlisted	Age	Officer	Enlisted	Officer	Enlisted
16	0.0900	0.0900	0.0900	0.0900	50	0.0080	0.0080	0.0080	0.0080
17	0.0900	0.0900	0.0900	0.0900	51	0.0070	0.0070	0.0070	0.0070
18	0.0900	0.0900	0.0900	0.0900	52	0.0060	0.0060	0.0060	0.0060
19	0.0900	0.0900	0.0900	0.0900	53	0.0050	0.0050	0.0050	0.0050
20	0.0830	0.0830	0.0830	0.0830	54	0.0050	0.0050	0.0050	0.0050
21	0.0750	0.0750	0.0750	0.0750	55	0.0040	0.0040	0.0040	0.0040
22	0.0680	0.0680	0.0680	0.0680	56	0.0040	0.0040	0.0040	0.0040
23	0.0610	0.0610	0.0610	0.0610	57	0.0030	0.0030	0.0030	0.0030
24	0.0530	0.0530	0.0530	0.0530	58	0.0010	0.0010	0.0010	0.0010
25	0.0460	0.0460	0.0460	0.0460	59	0.0020	0.0020	0.0020	0.0020
26	0.0420	0.0420	0.0420	0.0420	60	0.0040	0.0040	0.0040	0.0040
27	0.0380	0.0380	0.0380	0.0380	61	0.0020	0.0020	0.0020	0.0020
28	0.0360	0.0360	0.0360	0.0360	62	0.0030	0.0030	0.0030	0.0030
29	0.0360	0.0360	0.0360	0.0360	63	0.0010	0.0010	0.0010	0.0010
30	0.0330	0.0330	0.0330	0.0330	64	0.0010	0.0010	0.0010	0.0010
31	0.0310	0.0310	0.0310	0.0310	65	0.0000	0.0000	0.0000	0.0000
32	0.0280	0.0280	0.0280	0.0280	66	0.0000	0.0000	0.0000	0.0000
33	0.0240	0.0240	0.0240	0.0240	67	0.0000	0.0000	0.0000	0.0000
34	0.0200	0.0200	0.0200	0.0200	68	0.0000	0.0000	0.0000	0.0000
35	0.0210	0.0210	0.0210	0.0210	69	0.0000	0.0000	0.0000	0.0000
36	0.0240	0.0240	0.0240	0.0240	70	0.0000	0.0000	0.0000	0.0000
37	0.0310	0.0310	0.0310	0.0310	71	0.0000	0.0000	0.0000	0.0000
38	0.0390	0.0390	0.0390	0.0390	72	0.0000	0.0000	0.0000	0.0000
39	0.0420	0.0420	0.0420	0.0420	73	0.0000	0.0000	0.0000	0.0000
40	0.0370	0.0370	0.0370	0.0370	74	0.0000	0.0000	0.0000	0.0000
41	0.0300	0.0300	0.0300	0.0300	75	0.0000	0.0000	0.0000	0.0000
42	0.0250	0.0250	0.0250	0.0250	76	0.0000	0.0000	0.0000	0.0000
43	0.0190	0.0190	0.0190	0.0190	77	0.0000	0.0000	0.0000	0.0000
44	0.0170	0.0170	0.0170	0.0170	78	0.0000	0.0000	0.0000	0.0000
45	0.0140	0.0140	0.0140	0.0140	79	0.0000	0.0000	0.0000	0.0000
46	0.0130	0.0130	0.0130	0.0130	80	0.0000	0.0000	0.0000	0.0000
47	0.0110	0.0110	0.0110	0.0110	81	0.0000	0.0000	0.0000	0.0000
48	0.0100	0.0100	0.0100	0.0100	82	0.0000	0.0000	0.0000	0.0000
49	0.0080	0.0080	0.0080	0.0080					

<sup>\*\*\*</sup> Due to Section 647 of NDAA 2008 (P.L. 110-181) the reserve rates shown above apply in the early years of the projection. See Item 4 in the Reserve Duty section in Appendix F for a description of the parameter used to model the phase-in to an average age 58 reserve retirement. As the transitions to earlier average retirement ages occur, the ages applicable to some of the rates change.

<sup>\*\*\*</sup> The "Retiree Divorce" rates are the same for officer/enlisted status, and by active/reserve. The rates are displayed for effect.

### SURVIVING SPOUSE REMARRIAGE RATES

Rate	Age	Rate
0.0294	38	0.0278
0.0294	39	0.0278
0.0294	40	0.0110
0.0294	41	0.0110
0.0294	42	0.0110
0.0294	43	0.0110
0.0294	44	0.0110
0.0294	45	0.0061
0.0294	46	0.0061
0.0294	47	0.0061
0.0294	48	0.0061
0.0294	49	0.0061
0.0294	50	0.0035
0.0294	51	0.0035
0.0337	52	0.0035
0.0337	53	0.0035
0.0337	54	0.0035
0.0337	55	0.0035
0.0337	56	0.0000
0.0278	57	0.0000
0.0278	58	0.0000
0.0278	59	0.0000
	0.0294 0.0294 0.0294 0.0294 0.0294 0.0294 0.0294 0.0294 0.0294 0.0294 0.0294 0.0294 0.0294 0.0337 0.0337 0.0337 0.0337 0.0337 0.0337	0.0294       38         0.0294       39         0.0294       40         0.0294       41         0.0294       42         0.0294       43         0.0294       44         0.0294       45         0.0294       47         0.0294       48         0.0294       49         0.0294       50         0.0294       51         0.0337       52         0.0337       53         0.0337       54         0.0337       55         0.0337       56         0.0278       57         0.0278       58

## SURVIVING CHILD COVERAGE TERMINATION RATES

Age	Rate
0	0.005
1	0.000
2	0.000
3	0.000
4	0.000
5	0.000
6	0.000
7	0.000
8	0.000
9	0.000
10	0.000
11	0.000
12	0.000
13	0.000
14	0.000
15	0.000
16	0.000
17	0.198
18	0.333
19	0.127
20	0.036
21	0.365
22	0.578
23	0.146

### SURVIVING SPOUSE DEATH RATES \*\*\*

Age	Rate	Age	Rate
0	0.00544	60	0.00745
1	0.00049	61	0.00816
2	0.00032	62	0.00884
3	0.00024	63	0.00955
4	0.00018	64	0.01030
5	0.00016	65	0.01113
6	0.00015	66	0.01206
7	0.00014	67	0.01310
8	0.00013	68	0.01430
9	0.00012	69	0.01564
10	0.00012	70	0.01711
11	0.00013	71	0.01867
12	0.00014	72	0.02028
13	0.00015	73	0.02194
14	0.00018	74	0.02368
15	0.00021	75	0.02558
16	0.00018	76	0.02774
17	0.00020	77	0.03027
18	0.00020	78	0.03326
19	0.00021	79	0.03672
20	0.00021	80	0.04066
21	0.00021	81	0.04497
22	0.00022	82	0.04958
23 24	0.00023	83 84	0.05443
24 25	0.00024 0.00025	85	0.05963 0.06533
26	0.00023	86	0.00333
27	0.00028	87	0.07183
28	0.00028	88	0.08809
29	0.00033	89	0.09814
30	0.00036	90	0.10949
31	0.00041	91	0.12214
32	0.00045	92	0.13600
33	0.00047	93	0.15098
34	0.00049	94	0.16688
35	0.00050	95	0.18361
36	0.00053	96	0.20207
37	0.00054	97	0.22130
38	0.00057	98	0.24120
39	0.00059	99	0.26184
40	0.00063	100	0.28301
41	0.00067	101	0.30490
42	0.00070	102	0.32737
43	0.00074	103	0.35056
44	0.00076	104	0.37438
45	0.00080	105	0.39891
46	0.00083	106	0.42421
47 48	0.00089	107	0.44718
48 49	0.00098 0.00109	108 109	0.47031 0.49423
50	0.00109	110	0.49423
50 51	0.00123	110	0.97860
52	0.00141	112	0.98371
53	0.00103	113	0.98914
54	0.00216	114	0.99446
55	0.00247	115	1.00000
56	0.00367	116	1.00000
57	0.00477	117	1.00000
58	0.00578	118	1.00000
59	0.00667	119	1.00000

<sup>\*\*\* &</sup>quot;Surviving Spouses" are defined as spouses of <u>deceased</u> retirees who elected SBP spouse, or spouse & child, coverage.

Rates based on actual plan experience.

### SPOUSE DEATH RATES \*\*\*

(Age Nearest Birthday)

Age	Rate	Age	Rate
0	0.00592	60	0.00323
1	0.00053	61	0.00362
2	0.00035	62	0.00406
3	0.00026	63	0.00458
4	0.00019	64	0.00519
5	0.00018	65	0.00587
6	0.00016	66	0.00660
7	0.00015	67	0.00737
8	0.00014	68	0.00812
9	0.00013	69	0.00887
10	0.00013	70	0.00970
11	0.00014	71	0.01069
12	0.00015	72	0.01195
13	0.00016	73	0.01344
14	0.00019	74	0.01512
15	0.00022	75	0.01702
16	0.00015	76	0.01921
17	0.00016	77	0.02175
18	0.00017	78	0.02458
19	0.00018	79	0.02767
20	0.00018	80	0.03112
21	0.00019	81	0.03505
22	0.00021	82	0.03956
23	0.00022	83	0.04455
24	0.00023	84	0.04993
25	0.00024	85	0.05595
26	0.00024	86	0.06275
27	0.00026	87	0.07050
28	0.00027	88	0.07937
29	0.00029	89	0.08918
30	0.00031	90	0.09988
31	0.00033	91	0.11147
32	0.00035	92	0.12387
33 34	0.00037 0.00039	93 94	0.13717
35	0.00039	94 95	0.15133 0.16648
36	0.00041	95 96	0.18212
37	0.00044	90 97	0.19862
38	0.00047	98	0.21616
39	0.00054	99	0.23477
40	0.00054	100	0.25416
41	0.00063	101	0.27432
42	0.00067	102	0.29483
43	0.00072	103	0.31659
44	0.00076	104	0.33956
45	0.00081	105	0.36278
46	0.00087	106	0.38536
47	0.00095	107	0.40636
48	0.00104	108	0.42744
49	0.00114	109	0.44916
50	0.00125	110	0.97261
51	0.00137	111	0.97800
52	0.00152	112	0.98341
53	0.00165	113	0.98905
54	0.00178	114	0.99451
55	0.00192	115	1.00000
56	0.00210	116	1.00000
57	0.00232	117	1.00000
58	0.00259	118	1.00000
59	0.00289	119	1.00000

<sup>\*\*\* &</sup>quot;Spouses" are defined as spouses of <u>living</u> retirees who elected SBP spouse, or spouse & child, coverage.

Rates based on standard actuarial mortality table -- 1994 GAM Static - Female, ANB'

### SURVIVING SPOUSE OTHER LOSS RATES

Age	Rate	Age	Rate
0	0.0000	55	0.0061
1	0.0000	56	0.0060
2	0.0000	57	0.0059
3	0.0000	58	0.0057
4	0.0000	59	0.0056
5	0.0000	60	0.0055
6	0.0000	61	0.0053
7	0.0000	62	0.0052
8	0.0000	63	0.0051
9	0.0000	64	0.0049
10	0.0000	65	0.0048
11	0.0000	66	0.0047
12	0.0000	67	0.0045
13	0.0000	68	0.0044
14	0.0000	69	0.0043
15	0.0000	70	0.0041
16	0.0000	71	0.0040
17	0.0000	72	0.0039
18	0.0000	73	0.0037
19	0.0000	74	0.0036
20	0.0000	75	0.0035
21	0.0000	76	0.0033
22	0.0000	77	0.0032
23	0.0000	78	0.0031
24	0.0000	79	0.0029
25	0.0101	80	0.0028
26	0.0100	81	0.0027
27	0.0099	82	0.0025
28	0.0097	83	0.0024
29	0.0096	84	0.0023
30	0.0095	85	0.0021
31	0.0093	86	0.0020
32	0.0092	87	0.0019
33	0.0091	88	0.0018
34	0.0089	89	0.0016
35	0.0088	90	0.0015
36	0.0087	91	0.0014
37	0.0085	92	0.0012
38	0.0084	93	0.0011
39	0.0083	94	0.0010
40	0.0081	95	0.0008
41	0.0080	96	0.0000
42	0.0079	97	0.0000
43	0.0077	98	0.0000
44	0.0076	99	0.0000
45	0.0075	100	0.0000
46	0.0073	101	0.0000
47	0.0072	102	0.0000
48	0.0071	103	0.0000
49	0.0069	104	0.0000
50	0.0068	105	0.0000
51	0.0067	106	0.0000
52	0.0065	107	0.0000
53	0.0064	108	0.0000
54	0.0063	109	0.0000

<sup>\*\*\*</sup> The above Other Loss rates are used to calculate both the DoD and Treasury NCPs per P.L. 108-136.

## APPENDIX J

### MORTALITY IMPROVEMENT FACTORS

	<u>Page</u>
Mortality Improvement Factors Description	187
Mortality Improvement Factors (Non- / Permanent Disability, and Active / Reserve Duty)	188
Mortality Improvement Factors (Surviving / Current Spouses)	190

### MORTALITY IMPROVEMENT FACTORS DESCRIPTION

Mortality rates in the valuation for active and reserve duty personnel, nondisabled retirees (from Active and Reserve Duty), disabled retirees, and survivors/spouses are decreased (or "improved") over time in order to reflect the long-term trend toward such declines, generally.

Mortality improvement factors are based on the Society of Actuaries (SOA) "Scale Mortality Projection 2015" (MP-2015), which are two-dimensional scales (by age and projection year for males and females) based on mortality improvement trends found in the U.S. general population. Short-term improvement is based on 1951-2009 experience; long-term improvement is based on expert opinion (1% annual reduction of mortality for each age through age 85, and declining afterwards to 0% at age 115). Short and long-term improvement is blended smoothly over a 20-year transition period. This valuation adjusted MP-2015 to reflect the male/female mix of retirees (90% male, 10% female) and survivors (90% female, 10% male).

The following rationale highlights why MP-2015-based factors were adopted for this valuation:

- They're two-dimensional (unlike one-dimensional factors which vary by age only), reflecting both age/period and cohort effects; and
- The approach is sustainable in that the factors are based on expert demographic and actuarial analysis which the SOA expects to update on a regular, annual basis.

Projecting future mortality trends is an inherently uncertain exercise. Emerging experience will be monitored and new concepts developed by the research community reflected as appropriate, with due consideration of the inherent uncertainty and materiality of impact.

<sup>&</sup>lt;sup>1</sup> For an in-depth discussion of MP-2015, see: https://www.soa.org/experience-studies/2015/research-2015-mp/

MORTALITY IMPROVEMENT FACTORS

<u>Applied to</u>: Nondisability Retirees, Permanent Disability Retirees, and Active/Reserve Duty Personnel Gender Mix: 90% Male / 10% Female

						Projection Year					
Age	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
< 21 21	0.99643 1.00124	0.98851	0.97884	0.96913	0.96051 0.96484	0.95801	0.95649	0.95577	0.95593	0.95670	0.95806
22	1.00124	0.99330 0.99777	0.98368 0.98812	0.97373 0.97821	0.96906	0.96022 0.96463	0.95860 0.96061	0.95787 0.95987	0.95784 0.95974	0.95850 0.96029	0.95975 0.96143
23	1.00924	1.00164	0.99215	0.98227	0.97322	0.96871	0.96505	0.96176	0.96161	0.96206	0.96300
24	1.01232	1.00498	0.99574	0.98609	0.97715	0.97274	0.96899	0.96608	0.96337	0.96371	0.96455
25	1.01467	1.00768	0.99888	0.98955	0.98084	0.97652	0.97278	0.96979	0.96754	0.96525	0.96608
26	1.01620	1.00975	1.00138	0.99258	0.98437	0.98007	0.97642	0.97334	0.97093	0.96915	0.96740
27 28	1.01683 1.01656	1.01108 1.01159	1.00342 1.00472	0.99524 0.99745	0.98765 0.99060	0.98346 0.98657	0.97982 0.98298	0.97666 0.97993	0.97425 0.97736	0.97231 0.97535	0.97101 0.97398
29	1.01539	1.01137	1.00539	0.99902	0.99292	0.98926	0.98582	0.98281	0.98016	0.97816	0.97662
30	1.01325	1.01018	1.00525	0.99979	0.99470	0.99133	0.98815	0.98527	0.98264	0.98056	0.97894
31	1.01043	1.00819	1.00423	0.99975	0.99558	0.99277	0.98985	0.98712	0.98470	0.98254	0.98083
32	1.00687	1.00545	1.00243	0.99892	0.99565	0.99329	0.99083	0.98843	0.98615	0.98409	0.98238
33	1.00293	1.00205	0.99987	0.99721	0.99472	0.99281	0.99087	0.98883	0.98686	0.98501	0.98331
34 35	0.99884 0.99496	0.99830 0.99448	0.99666 0.99318	0.99465 0.99162	0.99282 0.99024	0.99167 0.98964	0.99042 0.98908	0.98898 0.98825	0.98753 0.98731	0.98599 0.98627	0.98457 0.98507
36	0.99490	0.99080	0.98955	0.98813	0.98698	0.98684	0.98676	0.98662	0.98620	0.98568	0.98490
37	0.98859	0.98754	0.98605	0.98457	0.98336	0.98346	0.98373	0.98407	0.98424	0.98424	0.98397
38	0.98647	0.98480	0.98287	0.98114	0.97986	0.97980	0.98023	0.98092	0.98159	0.98209	0.98234
39	0.98506	0.98268	0.98031	0.97813	0.97649	0.97626	0.97664	0.97750	0.97854	0.97945	0.98021
40	0.98436 0.98426	0.98135 0.98065	0.97836 0.97712	0.97583 0.97424	0.97382 0.97187	0.97306 0.97066	0.97327 0.97044	0.97409 0.97111	0.97531	0.97669 0.97396	0.97787 0.97561
41 42	0.98457	0.98063	0.97678	0.97355	0.97092	0.96908	0.96842	0.96875	0.97238 0.96989	0.97154	0.97338
43	0.98537	0.98112	0.97713	0.97366	0.97079	0.96842	0.96723	0.96722	0.96803	0.96964	0.97166
44	0.98653	0.98228	0.97807	0.97457	0.97156	0.96877	0.96698	0.96645	0.96701	0.96830	0.97029
45	0.98814	0.98371	0.97960	0.97607	0.97303	0.97013	0.96775	0.96672	0.96677	0.96773	0.96948
46	0.98989	0.98559	0.98158	0.97797	0.97492	0.97200	0.96958	0.96769	0.96715	0.96777	0.96911
47	0.99205 0.99414	0.98780 0.99005	0.98374 0.98604	0.98024 0.98258	0.97711 0.97949	0.97427	0.97174 0.97420	0.96981	0.96832	0.96825 0.96950	0.96926
48 49	0.99624	0.99222	0.98837	0.98497	0.98203	0.97665 0.97923	0.97680	0.97216 0.97475	0.97052 0.97310	0.97177	0.96982 0.97104
50	0.99789	0.99422	0.99054	0.98731	0.98461	0.98188	0.97949	0.97745	0.97579	0.97444	0.97350
51	0.99909	0.99587	0.99254	0.98966	0.98714	0.98457	0.98232	0.98032	0.97867	0.97731	0.97624
52	0.99949	0.99697	0.99426	0.99174	0.98967	0.98737	0.98519	0.98323	0.98161	0.98025	0.97917
53	0.99911	0.99737	0.99545	0.99365	0.99194	0.99008	0.98807	0.98617	0.98459	0.98315	0.98208
54 55	0.99806 0.99627	0.99717 0.99631	0.99613 0.99612	0.99493 0.99571	0.99394 0.99532	0.99253 0.99451	0.99086 0.99327	0.98911 0.99187	0.98749 0.99029	0.98609 0.98875	0.98484 0.98753
56	0.99406	0.99482	0.99538	0.99571	0.99590	0.99579	0.99515	0.99407	0.99273	0.99124	0.98987
57	0.99152	0.99290	0.99400	0.99497	0.99572	0.99617	0.99621	0.99563	0.99462	0.99336	0.99194
58	0.98894	0.99057	0.99210	0.99351	0.99470	0.99570	0.99630	0.99631	0.99580	0.99476	0.99348
59	0.98632	0.98801	0.98978	0.99144	0.99305	0.99439	0.99545	0.99612	0.99609	0.99556	0.99450
60	0.98385	0.98551	0.98724	0.98913	0.99088	0.99255	0.99396	0.99499	0.99554	0.99550	0.99494
61 62	0.98169 0.97966	0.98314 0.98099	0.98484 0.98248	0.98669 0.98430	0.98848 0.98614	0.99029 0.98791	0.99185 0.98952	0.99324 0.99107	0.99426 0.99235	0.99469 0.99335	0.99463 0.99378
63	0.97801	0.97906	0.98053	0.98223	0.98404	0.98568	0.98735	0.98886	0.99031	0.99158	0.99248
64	0.97657	0.97752	0.97888	0.98047	0.98217	0.98378	0.98523	0.98680	0.98823	0.98967	0.99085
65	0.97533	0.97627	0.97763	0.97911	0.98071	0.98212	0.98355	0.98500	0.98638	0.98780	0.98915
66	0.97446	0.97531	0.97657	0.97805	0.97954	0.98095	0.98227	0.98360	0.98487	0.98626	0.98759
67	0.97379	0.97454	0.97580	0.97718	0.97867	0.98007	0.98130	0.98252	0.98377	0.98494	0.98624
68 69	0.97331 0.97302	0.97405 0.97367	0.97522 0.97482	0.97660 0.97619	0.97808 0.97768	0.97939 0.97899	0.98061 0.98021	0.98183 0.98134	0.98297 0.98246	0.98403 0.98351	0.98521 0.98457
70	0.97301	0.97355	0.97452	0.97589	0.97746	0.97877	0.97998	0.98111	0.98215	0.98319	0.98414
71	0.97309	0.97354	0.97440	0.97576	0.97733	0.97873	0.97994	0.98107	0.98202	0.98296	0.98391
72	0.97334	0.97361	0.97447	0.97573	0.97730	0.97869	0.97999	0.98103	0.98207	0.98292	0.98378
73	0.97368	0.97385	0.97462	0.97579	0.97736	0.97874	0.98004	0.98117	0.98212	0.98297	0.98383
74	0.97420	0.97419	0.97486	0.97604	0.97742	0.97889	0.98010	0.98122	0.98226	0.98311	0.98388
75 76	0.97470 0.97538	0.97469 0.97519	0.97528 0.97569	0.97628 0.97669	0.97766 0.97790	0.97905 0.97920	0.98025 0.98040	0.98137 0.98152	0.98231 0.98255	0.98317 0.98340	0.98393 0.98416
77	0.97604	0.97586	0.97619	0.97710	0.97832	0.97944	0.98064	0.98167	0.98270	0.98354	0.98430
78	0.97670	0.97643	0.97676	0.97759	0.97872	0.97976	0.98088	0.98191	0.98285	0.98369	0.98454
79	0.97745	0.97718	0.97742	0.97808	0.97912	0.98017	0.98120	0.98214	0.98308	0.98392	0.98468
80	0.97810	0.97783	0.97807	0.97864	0.97960	0.98056	0.98152	0.98246	0.98331	0.98415	0.98490
81	0.97885	0.97848	0.97872	0.97920	0.98008	0.98095	0.98182	0.98268	0.98353	0.98437	0.98512
82 83	0.97960 0.98036	0.97923 0.97998	0.97937 0.98003	0.97985 0.98041	0.98054 0.98109	0.98133 0.98179	0.98220 0.98257	0.98297 0.98334	0.98383 0.98402	0.98458 0.98478	0.98533 0.98544
84	0.98121	0.98073	0.98068	0.98096	0.98155	0.98215	0.98284	0.98362	0.98430	0.98497	0.98563
85	0.98208	0.98150	0.98144	0.98161	0.98201	0.98251	0.98310	0.98379	0.98447	0.98515	0.98581
86	0.98305	0.98246	0.98220	0.98218	0.98247	0.98286	0.98336	0.98404	0.98464	0.98522	0.98590
87	0.98411	0.98333	0.98297	0.98284	0.98293	0.98312	0.98361	0.98411	0.98470	0.98538	0.98597
88	0.98528	0.98440	0.98384 0.98471	0.98351 0.98418	0.98339	0.98348	0.98377	0.98427	0.98476	0.98536	0.98595
89 90	0.98654 0.98790	0.98547 0.98663	0.98568	0.98495	0.98386 0.98433	0.98375 0.98411	0.98394 0.98410	0.98433 0.98439	0.98482 0.98479	0.98533 0.98529	0.98592 0.98589
91	0.98926	0.98790	0.98675	0.98581	0.98490	0.98439	0.98427	0.98437	0.98476	0.98526	0.98577
92	0.99080	0.98925	0.98791	0.98669	0.98548	0.98476	0.98445	0.98444	0.98465	0.98514	0.98565
93	0.99235	0.99061	0.98908	0.98757	0.98616	0.98515	0.98464	0.98443	0.98463	0.98503	0.98553
94	0.99398	0.99206	0.99025	0.98854	0.98684	0.98563	0.98483	0.98453	0.98462	0.98492	0.98542
95	0.99561	0.99360	0.99160	0.98961	0.98763	0.98613	0.98513	0.98463	0.98462	0.98482	0.98522
96 97	0.99582 0.99602	0.99391 0.99421	0.99201 0.99241	0.99011 0.99061	0.98823 0.98883	0.98682 0.98752	0.98592 0.98662	0.98542 0.98622	0.98532 0.98612	0.98552 0.98632	0.98602 0.98672
98	0.99631	0.99451	0.99281	0.99112	0.98943	0.98822	0.98733	0.98692	0.98691	0.98711	0.98742
99	0.99651	0.99490	0.99330	0.99171	0.99012	0.98883	0.98812	0.98772	0.98762	0.98782	0.98822
100	0.99671	0.99520	0.99370	0.99221	0.99072	0.98953	0.98882	0.98851	0.98842	0.98861	0.98892
101	0.99691	0.99551	0.99410	0.99271	0.99132	0.99023	0.98962	0.98931	0.98921	0.98932	0.98971
102	0.99711	0.99581	0.99451	0.99321	0.99192	0.99092	0.99032	0.99002	0.99001	0.99011	0.99041
103 104	0.99740 0.99761	0.99620 0.99650	0.99491 0.99540	0.99371 0.99430	0.99261 0.99321	0.99162 0.99232	0.99111 0.99182	0.99081 0.99161	0.99072 0.99151	0.99091 0.99161	0.99112 0.99191
104	0.99781	0.99680	0.99580	0.99481	0.99381	0.99302	0.99261	0.99231	0.99131	0.99161	0.99261
106	0.99801	0.99710	0.99620	0.99531	0.99441	0.99372	0.99331	0.99311	0.99310	0.99320	0.99332
107	0.99821	0.99741	0.99661	0.99581	0.99501	0.99441	0.99402	0.99390	0.99381	0.99391	0.99411
108	0.99850	0.99780	0.99701	0.99631	0.99571	0.99511	0.99481	0.99461	0.99461	0.99470	0.99481
109	0.99870	0.99810	0.99750	0.99690	0.99631	0.99581	0.99551	0.99541	0.99540	0.99541	0.99560
110 111	0.99890 0.99910	0.99840 0.99870	0.99790 0.99830	0.99740 0.99790	0.99691 0.99751	0.99651 0.99721	0.99630 0.99701	0.99620 0.99691	0.99611 0.99691	0.99620 0.99700	0.99631 0.99701
112	0.99931	0.99900	0.99870	0.99841	0.99811	0.99791	0.99780	0.99770	0.99770	0.99770	0.99780
113	0.99960	0.99940	0.99920	0.99900	0.99880	0.99860	0.99850	0.99850	0.99850	0.99850	0.99850
114	0.99980	0.99970	0.99960	0.99950	0.99940	0.99930	0.99930	0.99920	0.99920	0.99920	0.99930
> 114	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

## MORTALITY IMPROVEMENT FACTORS (continued) <u>Applied to:</u> Nondisability Retirees, Permanent Disability Retirees, and Active/Reserve Duty Personnel <u>Gender Mix:</u> 90% Male / 10% Female

Ago	2016	2017	2018	2019	2020	2021	Projecti 2022	ion Year 2023	2024	2025	2026	2027	2028	>2028
Age < 21	0.95991	0.96226	0.96491	0.96775	0.97080	0.97385	0.97690	0.97985	0.98261	0.98498	0.98704	0.98862	0.98961	0.99000
21	0.96150	0.96364	0.96617	0.96882	0.97175	0.97459	0.97753	0.98028	0.98293	0.98528	0.98715	0.98872	0.98970	0.99000
22	0.96307	0.96501	0.96734	0.96987	0.97260	0.97533	0.97816	0.98080	0.98325	0.98549	0.98735	0.98873	0.98970	0.99000
23	0.96453	0.96636	0.96849	0.97091	0.97344	0.97606	0.97869	0.98122	0.98356	0.98570	0.98746	0.98883	0.98971	0.99000
24	0.96588	0.96760	0.96963	0.97194	0.97435	0.97678	0.97921	0.98163	0.98387	0.98591	0.98757	0.98883	0.98971	0.99000
25	0.96730	0.96883	0.97074	0.97286	0.97508	0.97749	0.97981	0.98204	0.98417	0.98611	0.98767	0.98893	0.98971	0.99000
26	0.96852	0.97003	0.97175	0.97376	0.97588	0.97810	0.98032	0.98244	0.98447	0.98622	0.98777	0.98894	0.98971	0.99000
27	0.96972	0.97105	0.97266	0.97457	0.97659	0.97861	0.98073	0.98275	0.98468	0.98642	0.98787	0.98903	0.98971	0.99000
28 29	0.97307 0.97563	0.97217 0.97510	0.97368 0.97452	0.97539 0.97612	0.97729 0.97791	0.97929 0.97979	0.98120 0.98168	0.98320 0.98347	0.98502 0.98518	0.98665 0.98678	0.98799 0.98811	0.98904 0.98915	0.98972 0.98981	0.99000 0.99000
30	0.97778	0.97716	0.97699	0.97673	0.97841	0.98019	0.98196	0.98374	0.98542	0.98691	0.98813	0.98916	0.98981	0.99000
31	0.97967	0.97887	0.97862	0.97872	0.97871	0.98047	0.98223	0.98389	0.98556	0.98695	0.98824	0.98917	0.98981	0.99000
32	0.98103	0.98024	0.97980	0.97982	0.98020	0.98053	0.98228	0.98403	0.98559	0.98697	0.98825	0.98917	0.98982	0.99000
33	0.98205	0.98115	0.98072	0.98066	0.98095	0.98161	0.98221	0.98395	0.98551	0.98698	0.98817	0.98918	0.98982	0.99000
34	0.98331	0.98241	0.98189	0.98174	0.98196	0.98254	0.98331	0.98401	0.98567	0.98705	0.98825	0.98917	0.98982	0.99000
35	0.98410	0.98329	0.98277	0.98253	0.98266	0.98317	0.98387	0.98476	0.98564	0.98704	0.98824	0.98917	0.98981	0.99000
36	0.98423	0.98352	0.98309	0.98294	0.98308	0.98351	0.98413	0.98503	0.98604	0.98701	0.98823	0.98916	0.98981	0.99000
37 38	0.98362 0.98242	0.98322 0.98243	0.98289 0.98240	0.98284 0.98246	0.98308 0.98279	0.98352 0.98333	0.98416 0.98408	0.98508 0.98493	0.98611 0.98598	0.98714 0.98712	0.98812 0.98819	0.98915 0.98905	0.98981 0.98972	0.99000 0.99000
39	0.98081	0.98124	0.98153	0.98189	0.98233	0.98297	0.98382	0.98478	0.98593	0.98710	0.98818	0.98908	0.98971	0.99000
40	0.97898	0.97984	0.98065	0.98123	0.98197	0.98271	0.98357	0.98463	0.98580	0.98698	0.98807	0.98908	0.98972	0.99000
41	0.97714	0.97843	0.97957	0.98065	0.98152	0.98247	0.98352	0.98458	0.98576	0.98695	0.98806	0.98907	0.98972	0.99000
42	0.97531	0.97711	0.97867	0.97999	0.98127	0.98234	0.98349	0.98465	0.98583	0.98702	0.98814	0.98907	0.98972	0.99000
43	0.97378	0.97588	0.97777	0.97951	0.98102	0.98230	0.98357	0.98474	0.98592	0.98711	0.98813	0.98906	0.98972	0.99000
44	0.97249	0.97480	0.97699	0.97904	0.98078	0.98237	0.98366	0.98493	0.98611	0.98721	0.98832	0.98916	0.98972	0.99000
45	0.97166	0.97405	0.97644	0.97870	0.98065	0.98237	0.98387	0.98515	0.98633	0.98742	0.98842	0.98925	0.98981	0.99000
46 47	0.97107 0.97088	0.97343 0.97302	0.97590 0.97547	0.97827 0.97793	0.98052 0.98019	0.98235 0.98232	0.98405 0.98404	0.98544 0.98554	0.98663 0.98674	0.98762 0.98783	0.98853 0.98864	0.98926 0.98936	0.98981 0.98982	0.99000 0.99000
48	0.97103	0.97293	0.97516	0.97751	0.97995	0.98209	0.98402	0.98563	0.98693	0.98793	0.98874	0.98937	0.98982	0.99000
49	0.97174	0.97323	0.97514	0.97744	0.97977	0.98191	0.98393	0.98564	0.98694	0.98804	0.98885	0.98947	0.98982	0.99000
50	0.97306	0.97395	0.97553	0.97752	0.97972	0.98192	0.98393	0.98564	0.98705	0.98815	0.98895	0.98948	0.98991	0.99000
51	0.97559	0.97534	0.97642	0.97808	0.97996	0.98195	0.98395	0.98565	0.98706	0.98816	0.98905	0.98958	0.98992	0.99000
52	0.97831	0.97784	0.97778	0.97894	0.98050	0.98227	0.98406	0.98575	0.98715	0.98825	0.98906	0.98958	0.98992	0.99000
53	0.98119	0.98051	0.98023	0.98026	0.98132	0.98278	0.98445	0.98594	0.98724	0.98834	0.98915	0.98967	0.98992	0.99000
54	0.98395	0.98316	0.98267	0.98239	0.98260	0.98357	0.98484	0.98621	0.98741	0.98842	0.98914	0.98967	0.98992	0.99000
55 56	0.98647 0.98874	0.98567 0.98777	0.98498 0.98707	0.98458 0.98648	0.98440 0.98610	0.98453 0.98593	0.98541 0.98615	0.98649 0.98685	0.98758 0.98775	0.98850 0.98857	0.98922 0.98930	0.98966 0.98975	0.98992 0.98992	0.99000 0.99000
57	0.99066	0.98953	0.98875	0.98806	0.98758	0.98721	0.98715	0.98730	0.98792	0.98864	0.98928	0.98974	0.98991	0.99000
58	0.99215	0.99096	0.99001	0.98925	0.98867	0.98821	0.98796	0.98792	0.98817	0.98871	0.98927	0.98973	0.98991	0.99000
59	0.99330	0.99206	0.99088	0.99004	0.98939	0.98893	0.98858	0.98845	0.98852	0.98879	0.98925	0.98963	0.98991	0.99000
60	0.99388	0.99277	0.99162	0.99063	0.98990	0.98936	0.98902	0.98889	0.98886	0.98895	0.98924	0.98962	0.98990	0.99000
61	0.99407	0.99309	0.99198	0.99102	0.99014	0.98962	0.98928	0.98906	0.98904	0.98913	0.98932	0.98961	0.98990	0.99000
62	0.99370	0.99313	0.99224	0.99123	0.99038	0.98978	0.98937	0.98915	0.98913	0.98922	0.98941	0.98970	0.98990	0.99000
63	0.99290	0.99272	0.99224	0.99144	0.99061	0.98995	0.98946	0.98925	0.98923	0.98931	0.98950	0.98970	0.98990	0.99000
64 65	0.99165 0.99023	0.99205 0.99102	0.99196 0.99141	0.99147 0.99132	0.99085 0.99091	0.99021 0.99038	0.98965 0.98992	0.98935 0.98955	0.98933 0.98944	0.98933 0.98943	0.98951 0.98961	0.98971 0.98971	0.98990 0.98990	0.99000 0.99000
66	0.98884	0.98991	0.99059	0.99098	0.99087	0.99054	0.99019	0.98983	0.98955	0.98953	0.98962	0.98981	0.98990	0.99000
67	0.98756	0.98872	0.98969	0.99036	0.99073	0.99061	0.99037	0.99001	0.98983	0.98964	0.98972	0.98981	0.98991	0.99000
68	0.98650	0.98764	0.98878	0.98965	0.99030	0.99057	0.99044	0.99028	0.99001	0.98983	0.98982	0.98982	0.98991	0.99000
69	0.98566	0.98677	0.98789	0.98894	0.98969	0.99025	0.99041	0.99036	0.99019	0.99001	0.98991	0.98991	0.99000	0.99000
70	0.98511	0.98619	0.98721	0.98824	0.98909	0.98983	0.99019	0.99033	0.99027	0.99010	0.99001	0.98991	0.99000	0.99000
71	0.98477	0.98574	0.98664	0.98765	0.98849	0.98932	0.98987	0.99021	0.99025	0.99018	0.99010	0.99000	0.99000	0.99000
72	0.98463	0.98541	0.98628	0.98718	0.98800	0.98882	0.98946	0.98990	0.99014	0.99017	0.99009	0.99000	0.99000	0.99000
73 74	0.98459 0.98455	0.98527 0.98523	0.98604 0.98590	0.98682 0.98658	0.98762 0.98736	0.98834 0.98806	0.98906 0.98868	0.98960 0.98930	0.98993 0.98973	0.99007 0.98996	0.99009 0.99008	0.99009 0.99009	0.99000 0.99000	0.99000 0.99000
75	0.98470	0.98528	0.98595	0.98653	0.98711	0.98780	0.98841	0.98902	0.98944	0.98976	0.98998	0.99000	0.99000	0.99000
76	0.98475	0.98542	0.98600	0.98648	0.98706	0.98764	0.98823	0.98874	0.98925	0.98966	0.98988	0.98999	0.99000	0.99000
77	0.98498	0.98556	0.98605	0.98662	0.98710	0.98759	0.98816	0.98866	0.98907	0.98948	0.98978	0.98990	0.99000	0.99000
78	0.98511	0.98578	0.98627	0.98676	0.98724	0.98762	0.98810	0.98859	0.98898	0.98938	0.98969	0.98989	0.99000	0.99000
79	0.98534	0.98591	0.98649	0.98688	0.98736	0.98775	0.98822	0.98852	0.98900	0.98939	0.98969	0.98989	0.99000	0.99000
80	0.98556	0.98613	0.98670	0.98709	0.98757	0.98796	0.98834	0.98863	0.98901	0.98930	0.98960	0.98980	0.99000	0.99000
81	0.98578	0.98634	0.98691	0.98730	0.98778	0.98807	0.98845	0.98874	0.98903	0.98931	0.98960	0.98980	0.99000	0.99000
82 83	0.98590 0.98610	0.98655 0.98666	0.98711 0.98722	0.98750 0.98769	0.98788 0.98807	0.98827 0.98846	0.98856 0.98875	0.98885 0.98904	0.98913 0.98923	0.98942 0.98952	0.98961 0.98971	0.98980 0.98980	0.99000 0.99000	0.99000 0.99000
83 84	0.98629	0.98685	0.98732	0.98779	0.98817	0.98855	0.98884	0.98904	0.98942	0.98952	0.98981	0.98990	0.99000	0.99000
85	0.98638	0.98695	0.98742	0.98788	0.98827	0.98865	0.98894	0.98923	0.98952	0.98971	0.98981	0.99000	0.99000	0.99000
86	0.98647	0.98704	0.98751	0.98798	0.98836	0.98874	0.98912	0.98941	0.98961	0.98981	0.99001	0.99010	0.99020	0.99010
87	0.98655	0.98712	0.98760	0.98808	0.98846	0.98883	0.98922	0.98951	0.98971	0.99000	0.99011	0.99030	0.99030	0.99030
88	0.98653	0.98711	0.98760	0.98808	0.98855	0.98893	0.98922	0.98961	0.98990	0.99010	0.99030	0.99040	0.99050	0.99040
89	0.98651	0.98710	0.98768	0.98816	0.98864	0.98903	0.98932	0.98961	0.99000	0.99020	0.99040	0.99060	0.99060	0.99060
90 91	0.98649 0.98637	0.98708 0.98697	0.98767 0.98756	0.98816 0.98815	0.98864 0.98864	0.98913 0.98913	0.98951 0.98961	0.98981 0.98991	0.99000 0.99020	0.99030 0.99040	0.99050 0.99070	0.99070 0.99080	0.99080 0.99090	0.99080 0.99090
92	0.98625	0.98695	0.98755	0.98814	0.98873	0.98923	0.98972	0.99011	0.99040	0.99060	0.99080	0.99100	0.99110	0.99110
93	0.98614	0.98684	0.98744	0.98814	0.98873	0.98923	0.98982	0.99022	0.99061	0.99081	0.99100	0.99110	0.99120	0.99120
94	0.98603	0.98664	0.98734	0.98804	0.98874	0.98933	0.98983	0.99032	0.99072	0.99110	0.99130	0.99140	0.99140	0.99140
95	0.98583	0.98653	0.98724	0.98804	0.98874	0.98934	0.98994	0.99052	0.99092	0.99131	0.99151	0.99161	0.99160	0.99150
96	0.98653	0.98723	0.98793	0.98863	0.98924	0.98993	0.99043	0.99093	0.99141	0.99171	0.99191	0.99210	0.99210	0.99190
97	0.98723	0.98783	0.98853	0.98923	0.98984	0.99043	0.99093	0.99142	0.99182	0.99211	0.99240	0.99250	0.99250	0.99240
98 99	0.98793 0.98872	0.98853 0.98923	0.98914 0.98983	0.98983 0.99043	0.99043 0.99094	0.99094 0.99153	0.99143 0.99193	0.99192 0.99242	0.99231 0.99272	0.99261 0.99301	0.99280 0.99321	0.99290 0.99330	0.99290 0.99330	0.99280 0.99320
100	0.98942	0.98923	0.99043	0.99103	0.99153	0.99153	0.99252	0.99242	0.99321	0.99301	0.99361	0.99370	0.99370	0.99320
101	0.99012	0.99053	0.99112	0.99163	0.99213	0.99253	0.99302	0.99332	0.99362	0.99391	0.99410	0.99411	0.99411	0.99410
102	0.99082	0.99122	0.99172	0.99222	0.99263	0.99312	0.99352	0.99382	0.99411	0.99431	0.99450	0.99460	0.99460	0.99450
103	0.99152	0.99192	0.99233	0.99282	0.99322	0.99362	0.99402	0.99431	0.99452	0.99480	0.99490	0.99500	0.99500	0.99490
104	0.99221	0.99262	0.99302	0.99342	0.99382	0.99412	0.99451	0.99481	0.99501	0.99521	0.99531	0.99540	0.99540	0.99530
105	0.99291	0.99322	0.99362	0.99402	0.99432	0.99472	0.99501	0.99522	0.99550	0.99561	0.99580	0.99580	0.99580	0.99580
106	0.99361	0.99392	0.99431	0.99462	0.99492	0.99522	0.99551	0.99571	0.99591	0.99610	0.99620	0.99620	0.99620	0.99620
107	0.99431	0.99461	0.99491	0.99521	0.99551	0.99572	0.99601	0.99621	0.99640	0.99650	0.99660	0.99670	0.99670	0.99660
108 109	0.99501 0.99571	0.99531 0.99591	0.99552 0.99621	0.99581 0.99641	0.99602 0.99661	0.99631 0.99681	0.99651 0.99701	0.99671 0.99711	0.99681 0.99730	0.99691 0.99740	0.99700 0.99750	0.99710 0.99750	0.99710 0.99750	0.99700 0.99750
110	0.99650	0.99661	0.99621	0.99641	0.99721	0.99681	0.99751	0.99711	0.99771	0.99780	0.99790	0.99750	0.99790	0.99750
111	0.99720	0.99731	0.99741	0.99761	0.99771	0.99790	0.99801	0.99810	0.99820	0.99830	0.99830	0.99830	0.99830	0.99830
112	0.99790	0.99800	0.99810	0.99821	0.99831	0.99841	0.99850	0.99860	0.99861	0.99870	0.99870	0.99870	0.99870	0.99870
113	0.99860	0.99861	0.99871	0.99880	0.99890	0.99891	0.99900	0.99901	0.99910	0.99910	0.99920	0.99920	0.99920	0.99920
114	0.99930	0.99930	0.99940	0.99940	0.99941	0.99950	0.99950	0.99950	0.99951	0.99960	0.99960	0.99960	0.99960	0.99960
> 114	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

### MORTALITY IMPROVEMENT FACTORS

<u>Applied to</u>: Surviving Spouses, and Current Spouses <u>Gender Mix</u>: 10% Male / 90% Female

									ion Year							
Age < 21	1995 0.98353	1996 0.98403	1997 0.98587	1998 0.98898	1999 0.99282	2000 0.99679	2001 0.99987	2002 1.00138	2003 1.00048	2004 0.99707	2005 0.99187	2006 0.98539	2007 0.97836	2008 0.97177	2009 0.96619	2010 0.96369
21	0.98281	0.98357	0.98576	0.98939	0.99393	0.99850	1.00217	1.00136	1.00399	1.00132	0.99676	0.99090	0.98432	0.97797	0.97236	0.96678
22	0.98177	0.98232	0.98477	0.98885	0.99402	0.99929	1.00366	1.00631	1.00682	1.00488	1.00115	0.99593	0.98988	0.98389	0.97834	0.97447
23	0.98035	0.98057	0.98300 0.98063	0.98735	0.99307 0.99134	0.99916 0.99808	1.00424	1.00768	1.00886 1.01009	1.00776	1.00476	1.00036	0.99495	0.98923	0.98378 0.98875	0.97999
24 25	0.97883 0.97744	0.97852 0.97628	0.96063	0.98506 0.98237	0.98893	0.99624	1.00398 1.00288	1.00813 1.00776	1.01009	1.00976 1.01095	1.00768 1.00963	1.00402 1.00672	0.99926 1.00272	0.99401 0.99795	0.99316	0.98506 0.98948
26	0.97620	0.97426	0.97520	0.97939	0.98613	0.99382	1.00102	1.00654	1.00992	1.01115	1.01060	1.00855	1.00522	1.00122	0.99693	0.99343
27	0.97544	0.97258	0.97275	0.97650	0.98313	0.99110	0.99868	1.00467	1.00859	1.01052	1.01067	1.00932	1.00678	1.00356	1.00005	0.99674
28 29	0.97528 0.97564	0.97147 0.97115	0.97094 0.96979	0.97404 0.97232	0.98035 0.97800	0.98821 0.98555	0.99597 0.99320	1.00223 0.99953	1.00669 1.00415	1.00907 1.00697	1.00984 1.00811	1.00911 1.00793	1.00728 1.00691	1.00505 1.00558	1.00260 1.00428	0.99993 1.00254
30	0.97672	0.97154	0.96945	0.97129	0.97633	0.98334	0.99057	0.99668	1.00127	1.00425	1.00565	1.00602	1.00565	1.00531	1.00510	1.00437
31	0.97835	0.97259	0.97004	0.97118	0.97555	0.98182	0.98842	0.99408	0.99834	1.00118	1.00267	1.00331	1.00367	1.00415	1.00502	1.00533
32 33	0.98043 0.98296	0.97440 0.97677	0.97140 0.97353	0.97202 0.97373	0.97570 0.97672	0.98112 0.98134	0.98686 0.98611	0.99177 0.99005	0.99548 0.99290	0.99789 0.99476	0.99943 0.99597	1.00025 0.99685	1.00107 0.99803	1.00228 0.99969	1.00405 1.00208	1.00521 1.00409
34	0.98576	0.97962	0.97624	0.97621	0.97868	0.98241	0.98617	0.98903	0.99290	0.99476	0.99397	0.99350	0.99474	0.99665	0.99938	1.00409
35	0.98873	0.98276	0.97954	0.97927	0.98130	0.98431	0.98706	0.98872	0.98942	0.98965	0.98984	0.99032	0.99142	0.99338	0.99616	0.99876
36	0.99177	0.98618	0.98311	0.98280	0.98448	0.98676	0.98858	0.98922	0.98883	0.98808	0.98758	0.98760	0.98835	0.98997	0.99242	0.99516
37 38	0.99461 0.99722	0.98957 0.99284	0.98676 0.99039	0.98649 0.99016	0.98792 0.99141	0.98964 0.99285	0.99072 0.99328	0.99044 0.99226	0.98904 0.99004	0.98739 0.98759	0.98611 0.98543	0.98546 0.98400	0.98565 0.98343	0.98673 0.98386	0.98864 0.98514	0.99114 0.98700
39	0.99940	0.99570	0.99369	0.99369	0.99486	0.99601	0.99607	0.99460	0.99175	0.98849	0.98554	0.98332	0.98199	0.98157	0.98201	0.98314
40	1.00086	0.99785	0.99639	0.99670	0.99797	0.99911	0.99898	0.99716	0.99396	0.99009	0.98644	0.98335	0.98124	0.98007	0.97958	0.97994
41 42	1.00149 1.00134	0.99936 0.99994	0.99846 0.99981	0.99919 1.00096	1.00074 1.00289	1.00197 1.00439	1.00183 1.00443	0.99993 1.00262	0.99648 0.99911	0.99218 0.99458	0.98794 0.98993	0.98425 0.98567	0.98128 0.98222	0.97936 0.97955	0.97803 0.97748	0.97754 0.97612
43	1.00134	0.99967	1.00022	1.00090	1.00203	1.00433	1.00443	1.00506	1.00159	0.99711	0.99233	0.98768	0.98377	0.98054	0.97791	0.97578
44	0.99867	0.99869	0.99985	1.00217	1.00508	1.00742	1.00820	1.00697	1.00390	0.99957	0.99477	0.99012	0.98583	0.98233	0.97924	0.97653
45	0.99657	0.99708	0.99877	1.00165	1.00499	1.00781	1.00908	1.00835	1.00569	1.00179	0.99726	0.99259	0.98840	0.98463	0.98127	0.97837
46 47	0.99420 0.99193	0.99510 0.99303	0.99723 0.99522	1.00041 0.99862	1.00410 1.00259	1.00735 1.00611	1.00913 1.00834	1.00900 1.00884	1.00696 1.00744	1.00350 1.00470	0.99941 1.00125	0.99511 0.99740	0.99102 0.99366	0.98733 0.99016	0.98388 0.98679	0.98080 0.98363
48	0.98987	0.99095	0.99311	0.99654	1.00053	1.00425	1.00686	1.00784	1.00719	1.00528	1.00246	0.99925	0.99596	0.99282	0.98981	0.98665
49	0.98804	0.98899	0.99100	0.99419	0.99803	1.00177	1.00469	1.00617	1.00619	1.00495	1.00296	1.00038	0.99773	0.99513	0.99267	0.98987
50 51	0.98663 0.98557	0.98734 0.98612	0.98910 0.98754	0.99195 0.98993	0.99553 0.99307	0.99913 0.99633	1.00200 0.99914	1.00381 1.00108	1.00441 1.00193	1.00385 1.00196	1.00261 1.00141	1.00078 1.00043	0.99886 0.99926	0.99699 0.99814	0.99509 0.99706	0.99292 0.99553
52	0.98488	0.98526	0.98632	0.98826	0.99094	0.99365	0.99611	0.99791	0.99898	0.99944	0.99941	0.99913	0.99874	0.99846	0.99823	0.99753
53	0.98457	0.98478	0.98557	0.98704	0.98915	0.99129	0.99329	0.99474	0.99577	0.99638	0.99679	0.99713	0.99745	0.99805	0.99866	0.99872
54 55	0.98446 0.98474	0.98460 0.98480	0.98520 0.98520	0.98628 0.98589	0.98771 0.98672	0.98926 0.98758	0.99060 0.98833	0.99168 0.98876	0.99238 0.98921	0.99297 0.98967	0.99374 0.99043	0.99453 0.99159	0.99557 0.99308	0.99677 0.99499	0.99826 0.99708	0.99917 0.99859
56	0.98524	0.98520	0.98541	0.98578	0.98611	0.98636	0.98643	0.98637	0.98628	0.98660	0.98734	0.98858	0.99042	0.99499	0.99510	0.99731
57	0.98595	0.98589	0.98580	0.98577	0.98568	0.98542	0.98489	0.98436	0.98390	0.98388	0.98448	0.98570	0.98760	0.98993	0.99268	0.99513
58	0.98686	0.98661	0.98639	0.98603	0.98553	0.98477	0.98384	0.98282	0.98208	0.98170	0.98206	0.98313	0.98490	0.98719	0.98990	0.99250
59 60	0.98788 0.98902	0.98751 0.98853	0.98708 0.98778	0.98632 0.98679	0.98549 0.98566	0.98442 0.98427	0.98309 0.98273	0.98177 0.98112	0.98074 0.97980	0.98009 0.97894	0.98008 0.97865	0.98089 0.97919	0.98242 0.98036	0.98456 0.98217	0.98705 0.98432	0.98951 0.98655
61	0.99017	0.98956	0.98868	0.98738	0.98594	0.98425	0.98250	0.98077	0.97924	0.97810	0.97761	0.97786	0.97876	0.98021	0.98192	0.98381
62	0.99125	0.99070	0.98952	0.98809	0.98642	0.98453	0.98257	0.98064	0.97890	0.97764	0.97694	0.97691	0.97752	0.97870	0.98006	0.98159
63 64	0.99233 0.99332	0.99176 0.99274	0.99055 0.99151	0.98891 0.98984	0.98703 0.98784	0.98492 0.98552	0.98275 0.98314	0.98070 0.98079	0.97876 0.97882	0.97738 0.97724	0.97649 0.97633	0.97634 0.97608	0.97677 0.97632	0.97767 0.97703	0.97876 0.97793	0.97992 0.97882
65	0.99422	0.99373	0.99249	0.99080	0.98868	0.98623	0.98364	0.98116	0.97899	0.97730	0.97637	0.97603	0.97627	0.97679	0.97759	0.97828
66	0.99503	0.99455	0.99348	0.99178	0.98954	0.98697	0.98416	0.98156	0.97927	0.97756	0.97654	0.97619	0.97633	0.97685	0.97746	0.97815
67	0.99556	0.99527	0.99430 0.99503	0.99259	0.99042 0.99122	0.98773 0.98850	0.98488	0.98216	0.97976 0.98036	0.97794	0.97691	0.97646	0.97660	0.97702	0.97763	0.97823
68 69	0.99609 0.99641	0.99590 0.99643	0.99566	0.99349 0.99413	0.99203	0.98929	0.98563 0.98639	0.98279 0.98361	0.98116	0.97853 0.97922	0.97739 0.97798	0.97685 0.97743	0.97698 0.97738	0.97740 0.97771	0.97792 0.97832	0.97851 0.97891
70	0.99664	0.99676	0.99619	0.99476	0.99274	0.99008	0.98725	0.98446	0.98189	0.97994	0.97869	0.97795	0.97788	0.97821	0.97874	0.97933
71	0.99676	0.99699	0.99653	0.99529	0.99337	0.99079	0.98804	0.98523	0.98274	0.98077	0.97941	0.97866	0.97840	0.97864	0.97917	0.97977
72 73	0.99687 0.99688	0.99721 0.99733	0.99686 0.99708	0.99572 0.99614	0.99390 0.99442	0.99150 0.99212	0.98883 0.98954	0.98610 0.98681	0.98360 0.98429	0.98152 0.98220	0.98006 0.98072	0.97929 0.97985	0.97903 0.97958	0.97917 0.97971	0.97970 0.98024	0.98021 0.98066
74	0.99698	0.99744	0.99729	0.99645	0.99484	0.99273	0.99016	0.98742	0.98499	0.98289	0.98140	0.98051	0.98014	0.98036	0.98078	0.98121
75	0.99709	0.99764	0.99750	0.99676	0.99534	0.99325	0.99069	0.98804	0.98552	0.98341	0.98190	0.98101	0.98072	0.98092	0.98134	0.98185
76 77	0.99729 0.99769	0.99793 0.99824	0.99789 0.99828	0.99716 0.99756	0.99575 0.99615	0.99367 0.99417	0.99120 0.99163	0.98848 0.98891	0.98595 0.98639	0.98384 0.98427	0.98242 0.98276	0.98151 0.98194	0.98121 0.98171	0.98141 0.98190	0.98190 0.98248	0.98240 0.98296
78	0.99810	0.99873	0.99868	0.99805	0.99665	0.99458	0.99205	0.98933	0.98673	0.98462	0.98310	0.98227	0.98204	0.98231	0.98288	0.98344
79	0.99862	0.99924	0.99928	0.99864	0.99715	0.99508	0.99246	0.98967	0.98707	0.98487	0.98345	0.98262	0.98238	0.98272	0.98328	0.98393
80 81	0.99916 0.99988	0.99985 1.00057	0.99988 1.00059	0.99924 0.99985	0.99774 0.99835	0.99559 0.99611	0.99288 0.99340	0.99009 0.99052	0.98741 0.98784	0.98522 0.98556	0.98370 0.98405	0.98287 0.98312	0.98263 0.98288	0.98296 0.98320	0.98360 0.98392	0.98424 0.98455
82	1.00054	1.00037	1.00039	1.00056	0.99906	0.99672	0.99340	0.99052	0.98828	0.98600	0.98440	0.98347	0.98313	0.98345	0.98406	0.98477
83	1.00129	1.00204	1.00204	1.00129	0.99969	0.99744	0.99464	0.99167	0.98890	0.98653	0.98484	0.98382	0.98347	0.98369	0.98421	0.98491
84	1.00196	1.00271	1.00279	1.00202	1.00042	0.99817	0.99537	0.99240	0.98954	0.98708	0.98529	0.98417	0.98372	0.98384	0.98435	0.98495
85 86	1.00273 1.00332	1.00346 1.00414	1.00354 1.00421	1.00277 1.00343	1.00116 1.00192	0.99891 0.99966	0.99611 0.99695	0.99313 0.99397	0.99027 0.99111	0.98780 0.98854	0.98592 0.98665	0.98470 0.98534	0.98416 0.98460	0.98409 0.98442	0.98449 0.98463	0.98499 0.98494
87	1.00400	1.00473	1.00479	1.00411	1.00259	1.00042	0.99771	0.99482	0.99195	0.98947	0.98739	0.98597	0.98513	0.98476	0.98477	0.98488
88	1.00460	1.00532	1.00538	1.00470	1.00327	1.00119	0.99857	0.99577	0.99290	0.99041	0.98832	0.98680	0.98576	0.98519	0.98491	0.98492
89 90	1.00510 1.00560	1.00582 1.00632	1.00597 1.00639	1.00529 1.00580	1.00395 1.00456	1.00188 1.00267	0.99944 1.00023	0.99664 0.99761	0.99395 0.99491	0.99136 0.99241	0.98926 0.99030	0.98763 0.98847	0.98639 0.98712	0.98562 0.98615	0.98514 0.98537	0.98495 0.98499
91	1.00609	1.00673	1.00680	1.00622	1.00507	1.00328	1.00103	0.99850	0.99598	0.99356	0.99134	0.98950	0.98795	0.98669	0.98570	0.98511
92	1.00650	1.00705	1.00713	1.00664	1.00551	1.00390	1.00183	0.99949	0.99696	0.99463	0.99240	0.99045	0.98879	0.98741	0.98612	0.98524
93 94	1.00681 1.00711	1.00737 1.00760	1.00746 1.00761	1.00698 1.00723	1.00594 1.00629	1.00443 1.00497	1.00255 1.00319	1.00030 1.00121	0.99805 0.99895	0.99570 0.99678	0.99355 0.99462	0.99149 0.99254	0.98972 0.99065	0.98813 0.98886	0.98664 0.98716	0.98555 0.98587
95	1.00711	1.00700	1.00761	1.00740	1.00625	1.00543	1.00313	1.00204	0.99996	0.99787	0.99569	0.99360	0.99160	0.98969	0.98787	0.98637
96	1.00701	1.00733	1.00736	1.00709	1.00626	1.00514	1.00364	1.00194	0.99996	0.99797	0.99598	0.99399	0.99209	0.99019	0.98847	0.98698
97 98	1.00660	1.00702	1.00705	1.00669	1.00596	1.00484	1.00344	1.00175	0.99996	0.99808	0.99618	0.99429	0.99249	0.99069	0.98907	0.98768
98 99	1.00619 1.00588	1.00661 1.00621	1.00665 1.00624	1.00630 1.00590	1.00566 1.00527	1.00464 1.00434	1.00324 1.00305	1.00165 1.00156	0.99996 0.99997	0.99818 0.99828	0.99639 0.99659	0.99459 0.99490	0.99289 0.99330	0.99128 0.99179	0.98967 0.99028	0.98838 0.98907
100	1.00547	1.00580	1.00584	1.00559	1.00497	1.00405	1.00285	1.00146	0.99997	0.99838	0.99679	0.99520	0.99370	0.99229	0.99088	0.98977
101	1.00515	1.00540	1.00544	1.00520	1.00466	1.00376	1.00265	1.00136	0.99997	0.99848	0.99699	0.99559	0.99410	0.99279	0.99148	0.99047
102 103	1.00475 1.00443	1.00499 1.00468	1.00504 1.00464	1.00480 1.00449	1.00427 1.00397	1.00355 1.00326	1.00246 1.00226	1.00126 1.00117	0.99997 0.99997	0.99859 0.99869	0.99719 0.99740	0.99589 0.99620	0.99459 0.99499	0.99329 0.99379	0.99208 0.99269	0.99108 0.99178
104	1.00443	1.00400	1.00404	1.00443	1.00367	1.00326	1.00226	1.00117	0.99998	0.99879	0.99769	0.99650	0.99540	0.99430	0.99329	0.99248
105	1.00371	1.00387	1.00392	1.00370	1.00328	1.00267	1.00196	1.00097	0.99998	0.99889	0.99789	0.99680	0.99580	0.99489	0.99389	0.99318
106 107	1.00330 1.00289	1.00346 1.00306	1.00352 1.00312	1.00330 1.00299	1.00298 1.00268	1.00247 1.00217	1.00176 1.00157	1.00088 1.00078	0.99998 0.99998	0.99899 0.99918	0.99809 0.99829	0.99710 0.99749	0.99620 0.99669	0.99539 0.99589	0.99449 0.99509	0.99388 0.99449
107	1.00289	1.00306	1.00312	1.00299	1.00268	1.00217	1.00157	1.00078	0.99998	0.99918	0.99829	0.99749	0.99669	0.99589	0.99509	0.99449
109	1.00217	1.00234	1.00232	1.00220	1.00199	1.00158	1.00118	1.00058	0.99999	0.99939	0.99870	0.99810	0.99750	0.99690	0.99639	0.99589
110	1.00185	1.00193	1.00192	1.00189	1.00169	1.00138	1.00098	1.00049	0.99999	0.99949	0.99890	0.99840	0.99790	0.99740	0.99699	0.99659
111 112	1.00145 1.00113	1.00153 1.00112	1.00152 1.00120	1.00150 1.00110	1.00129 1.00099	1.00109 1.00079	1.00078 1.00059	1.00039 1.00029	0.99999 0.99999	0.99959 0.99969	0.99910 0.99939	0.99870 0.99900	0.99830 0.99870	0.99790 0.99849	0.99759 0.99819	0.99729 0.99799
113	1.00072	1.00081	1.00080	1.00070	1.00069	1.00050	1.00039	1.00019	1.00000	0.99980	0.99960	0.99940	0.99920	0.99900	0.99880	0.99860
114	1.00041	1.00040	1.00040	1.00040	1.00030	1.00029	1.00020	1.00010	1.00000	0.99990	0.99980	0.99970	0.99960	0.99950	0.99940	0.99930
> 114	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

MORTALITY IMPROVEMENT FACTORS (continued)

<u>Applied to</u>: Surviving Spouses, and Current Spouses

<u>Gender Mix</u>: 10% Male / 90% Female

										Projection Year	r								
Age < 21	2011 0.96201	2012 0.96113	2013 0.96097	2014 0.96150	2015 0.96254	2016 0.96399	2017 0.96594	2018 0.96819	2019 0.97055	2020 0.97320	2021 0.97585	2022 0.97850	2023 0.98105	2024 0.98349	2025 0.98562	2026 0.98736	2027 0.98878	2028 0.98969	>2028
21	0.96500	0.96403	0.96376	0.96410	0.96495	0.96630	0.96796	0.96993	0.97218	0.97455	0.97691	0.97937	0.98172	0.98397	0.98592	0.98755	0.98888	0.98970	0.99000
22	0.96789	0.96683	0.96646	0.96661	0.96727	0.96843	0.96989	0.97166	0.97363	0.97580	0.97797	0.98024	0.98240	0.98445	0.98621	0.98775	0.98897	0.98970	0.99000
23	0.97665	0.96944	0.96889	0.96894	0.96940	0.97037	0.97164	0.97321	0.97499	0.97696	0.97894	0.98101	0.98298	0.98484	0.98650	0.98794	0.98907	0.98979	0.99000
24 25	0.98171 0.98622	0.97872 0.98331	0.97113 0.98066	0.97099 0.97285	0.97135 0.97312	0.97212 0.97370	0.97320 0.97467	0.97467 0.97586	0.97626 0.97734	0.97795 0.97892	0.97982 0.98061	0.98169 0.98229	0.98347	0.98523 0.98553	0.98679 0.98699	0.98813 0.98823	0.98907 0.98917	0.98979 0.98979	0.99000 0.99000
26	0.99018	0.98726	0.98477	0.98235	0.97460	0.97508	0.97587	0.97695	0.97824	0.97972	0.98130	0.98288	0.98436	0.98583	0.98718	0.98833	0.98926	0.98979	0.99000
27	0.99358	0.99074	0.98825	0.98599	0.98389	0.97628	0.97705	0.97794	0.97913	0.98051	0.98189	0.98337	0.98475	0.98612	0.98738	0.98843	0.98927	0.98979	0.99000
28 29	0.99722 1.00038	0.99457 0.99809	0.99224 0.99584	0.99015 0.99384	0.98822 0.99198	0.98643 0.99027	0.97913 0.98870	0.97992 0.98188	0.98091 0.98268	0.98201 0.98359	0.98321 0.98451	0.98440 0.98552	0.98560 0.98643	0.98678 0.98742	0.98785 0.98822	0.98871 0.98899	0.98936 0.98955	0.98988	0.99000 0.99000
30	1.00295	1.00103	0.99896	0.99704	0.99526	0.99362	0.99204	0.99051	0.98417	0.98489	0.98571	0.98644	0.98726	0.98798	0.98859	0.98917	0.98964	0.98989	0.99000
31	1.00465	1.00328	1.00150	0.99966	0.99787	0.99623	0.99463	0.99318	0.99168	0.98599	0.98663	0.98727	0.98781	0.98844	0.98895	0.98936	0.98973	0.98989	0.99000
32 33	1.00547 1.00503	1.00467 1.00507	1.00335 1.00414	1.00161 1.00269	0.99982 1.00099	0.99807 0.99925	0.99656 0.99755	0.99500 0.99608	0.99358 0.99474	0.99220 0.99335	0.98717 0.99209	0.98772 0.98789	0.98827 0.98835	0.98871 0.98879	0.98913 0.98922	0.98945 0.98953	0.98973 0.98982	0.98998	0.99000 0.99000
34	1.00338	1.00307	1.00377	1.00203	1.00033	0.99939	0.99769	0.99621	0.99486	0.99364	0.99246	0.99139	0.98809	0.98863	0.98905	0.98945	0.98973	0.98998	0.99000
35	1.00092	1.00225	1.00259	1.00203	1.00083	0.99930	0.99761	0.99613	0.99477	0.99354	0.99253	0.99163	0.99084	0.98836	0.98896	0.98936	0.98973	0.98989	0.99000
36 37	0.99764 0.99357	0.99958 0.99583	1.00060 0.99736	1.00072 0.99816	1.00010 0.99813	0.99887 0.99738	0.99728 0.99618	0.99581 0.99481	0.99446 0.99356	0.99332 0.99252	0.99239 0.99168	0.99157 0.99104	0.99087 0.99052	0.99036 0.99019	0.98869 0.98986	0.98927 0.98908	0.98964 0.98955	0.98989 0.98989	0.99000 0.99000
38	0.98927	0.99148	0.99351	0.99481	0.99546	0.99538	0.99467	0.99360	0.99254	0.99252	0.99077	0.99032	0.98997	0.98982	0.98968	0.98971	0.98945	0.98988	0.99000
39	0.98496	0.98710	0.98926	0.99105	0.99229	0.99289	0.99276	0.99217	0.99141	0.99057	0.98993	0.98958	0.98942	0.98937	0.98950	0.98962	0.98972	0.98979	0.99000
40 41	0.98103 0.97796	0.98281 0.97919	0.98499 0.98102	0.98701 0.98324	0.98883 0.98529	0.99002 0.98706	0.99056 0.98827	0.99065 0.98893	0.99027 0.98905	0.98973 0.98888	0.98919 0.98863	0.98893 0.98848	0.98887 0.98842	0.98900 0.98864	0.98922 0.98895	0.98943 0.98934	0.98972 0.98963	0.98988 0.98988	0.99000 0.99000
42	0.97578	0.97919	0.96102	0.96324	0.98202	0.98419	0.98599	0.98723	0.98791	0.98823	0.98826	0.98821	0.98825	0.98847	0.98878	0.98926	0.98963	0.98988	0.99000
43	0.97467	0.97458	0.97547	0.97716	0.97934	0.98162	0.98372	0.98553	0.98679	0.98758	0.98790	0.98813	0.98826	0.98848	0.98879	0.98917	0.98954	0.98988	0.99000
44 45	0.97482 0.97615	0.97405 0.97488	0.97429 0.97453	0.97550 0.97517	0.97741 0.97652	0.97961 0.97854	0.98200 0.98085	0.98411 0.98316	0.98576 0.98510	0.98702 0.98665	0.98773 0.98773	0.98814 0.98843	0.98837 0.98875	0.98859 0.98897	0.98889 0.98918	0.98928 0.98938	0.98964 0.98965	0.98988 0.98989	0.99000 0.99000
46	0.97822	0.97466	0.97555	0.97517	0.97639	0.97803	0.98007	0.98230	0.98443	0.98628	0.98755	0.98845	0.98896	0.98927	0.98938	0.98957	0.98974	0.98989	0.99000
47	0.98086	0.97869	0.97728	0.97665	0.97694	0.97792	0.97958	0.98163	0.98377	0.98571	0.98728	0.98836	0.98906	0.98946	0.98967	0.98976	0.98984	0.98998	0.99000
48	0.98380	0.98144	0.97948	0.97830	0.97798	0.97847	0.97957	0.98124	0.98319	0.98515	0.98681	0.98818	0.98907	0.98957	0.98977	0.98986	0.98993	0.98998	0.99000
49 50	0.98720 0.99061	0.98475 0.98825	0.98270 0.98611	0.98113 0.98436	0.98016 0.98310	0.98006 0.98234	0.98067 0.98235	0.98186 0.98297	0.98336 0.98408	0.98513 0.98548	0.98679 0.98688	0.98817 0.98817	0.98916 0.98916	0.98966 0.98985	0.98996 0.99015	0.99005 0.99015	0.99003 0.99012	0.98998	0.99000 0.99000
51	0.99368	0.99168	0.98963	0.98779	0.98616	0.98511	0.98446	0.98458	0.98512	0.98604	0.98715	0.98835	0.98925	0.98994	0.99024	0.99025	0.99022	0.99008	0.99000
52	0.99631	0.99467	0.99289	0.99105	0.98933	0.98799	0.98696	0.98642	0.98646	0.98690	0.98763	0.98854	0.98935	0.98995	0.99025	0.99034	0.99022	0.99008	0.99000
53 54	0.99823 0.99934	0.99713 0.99879	0.99571 0.99781	0.99395 0.99641	0.99232 0.99476	0.99071 0.99315	0.98939 0.99164	0.98847 0.99043	0.98794 0.98951	0.98788 0.98900	0.98822 0.98893	0.98885 0.98916	0.98946 0.98949	0.98996 0.98989	0.99026 0.99018	0.99035 0.99026	0.99023 0.99023	0.99008	0.99000 0.99000
55	0.99943	0.99963	0.99901	0.99795	0.99657	0.99503	0.99343	0.99202	0.99082	0.99000	0.98957	0.98949	0.98961	0.98982	0.99010	0.99018	0.99014	0.99008	0.99000
56	0.99875	0.99943	0.99937	0.99876	0.99763	0.99626	0.99473	0.99323	0.99192	0.99090	0.99017	0.98975	0.98965	0.98975	0.98993	0.99010	0.99015	0.99008	0.99000
57 58	0.99709 0.99470	0.99827 0.99639	0.99878 0.99740	0.99864 0.99764	0.99786 0.99732	0.99674 0.99655	0.99537 0.99544	0.99395 0.99409	0.99254 0.99285	0.99142 0.99163	0.99049 0.99069	0.98995 0.99004	0.98970 0.98968	0.98968 0.98953	0.98976 0.98959	0.98992 0.98983	0.99006 0.98997	0.98999	0.99000 0.99000
59	0.99185	0.99388	0.99521	0.99604	0.99610	0.99570	0.99494	0.99392	0.99276	0.99171	0.99077	0.99002	0.98965	0.98948	0.98951	0.98965	0.98987	0.98999	0.99000
60	0.98884	0.99091	0.99266	0.99390	0.99446	0.99452	0.99413	0.99338	0.99247	0.99150	0.99064	0.98998	0.98961	0.98934	0.98935	0.98956	0.98978	0.98990	0.99000
61 62	0.98585 0.98328	0.98796 0.98523	0.98994 0.98715	0.99141 0.98895	0.99247 0.99042	0.99303 0.99130	0.99301 0.99177	0.99262 0.99176	0.99198 0.99147	0.99126 0.99102	0.99058 0.99042	0.98992 0.98993	0.98954 0.98955	0.98936 0.98937	0.98937 0.98938	0.98948 0.98949	0.98969 0.98970	0.98990 0.98990	0.99000 0.99000
63	0.98135	0.98294	0.98479	0.98662	0.98832	0.98970	0.99177	0.99096	0.99096	0.99102	0.99042	0.98993	0.98965	0.98947	0.98939	0.98950	0.98970	0.98990	0.99000
64	0.97987	0.98120	0.98287	0.98463	0.98645	0.98805	0.98925	0.99004	0.99043	0.99045	0.99029	0.99005	0.98975	0.98957	0.98957	0.98959	0.98979	0.98990	0.99000
65	0.97915	0.98020	0.98142	0.98300	0.98475	0.98647	0.98798	0.98909	0.98988	0.99019	0.99022	0.99008	0.98995	0.98976	0.98967	0.98969	0.98979	0.98990	0.99000
66 67	0.97883 0.97890	0.97960 0.97948	0.98063 0.98033	0.98194 0.98126	0.98351 0.98256	0.98516 0.98404	0.98679 0.98568	0.98811 0.98721	0.98922 0.98844	0.98983 0.98937	0.99006 0.98989	0.99011 0.99013	0.99007 0.99009	0.98995 0.99007	0.98977 0.98996	0.98978 0.98988	0.98989 0.98989	0.98990 0.98999	0.99000 0.99000
68	0.97909	0.97967	0.98033	0.98107	0.98209	0.98330	0.98476	0.98622	0.98765	0.98870	0.98953	0.98996	0.99012	0.99009	0.99007	0.98998	0.98998	0.98999	0.99000
69	0.97949	0.98006	0.98054	0.98119	0.98193	0.98294	0.98413	0.98541	0.98686	0.98801	0.98905	0.98969	0.99004	0.99011	0.99009	0.98999	0.98999	0.99000	0.99000
70 71	0.97982 0.98026	0.98039 0.98083	0.98095 0.98138	0.98151 0.98184	0.98206 0.98239	0.98279 0.98293	0.98371 0.98366	0.98489 0.98456	0.98616 0.98565	0.98741 0.98681	0.98847 0.98788	0.98931 0.98883	0.98977 0.98949	0.99003 0.98985	0.99010 0.99002	0.99009 0.99010	0.98999 0.99000	0.99000 0.99000	0.99000 0.99000
72	0.98071	0.98127	0.98183	0.98228	0.98282	0.98327	0.98389	0.98452	0.98542	0.98640	0.98738	0.98834	0.98910	0.98966	0.98993	0.99001	0.99000	0.99000	0.99000
73	0.98116	0.98173	0.98228	0.98273	0.98327	0.98371	0.98423	0.98476	0.98538	0.98618	0.98706	0.98794	0.98880	0.98937	0.98983	0.99001	0.99001	0.99000	0.99000
74 75	0.98170 0.98225	0.98218 0.98273	0.98274 0.98319	0.98319 0.98373	0.98372 0.98417	0.98415 0.98470	0.98467 0.98512	0.98510 0.98555	0.98562 0.98597	0.98624 0.98639	0.98694 0.98700	0.98772 0.98769	0.98850 0.98838	0.98917 0.98896	0.98964 0.98944	0.98992 0.98982	0.99001 0.99000	0.99000	0.99000 0.99000
76	0.98280	0.98328	0.98375	0.98420	0.98464	0.98515	0.98558	0.98600	0.98632	0.98674	0.98716	0.98767	0.98826	0.98885	0.98934	0.98972	0.98991	0.99000	0.99000
77	0.98336	0.98383	0.98430	0.98466	0.98510	0.98562	0.98604	0.98645	0.98678	0.98710	0.98751	0.98784	0.98834	0.98883	0.98932	0.98962	0.98990	0.99000	0.99000
78 79	0.98392 0.98440	0.98439 0.98486	0.98485 0.98532	0.98521 0.98568	0.98566 0.98612	0.98599 0.98646	0.98642 0.98679	0.98683 0.98721	0.98724 0.98752	0.98756 0.98784	0.98778 0.98815	0.98810 0.98838	0.98851 0.98868	0.98882 0.98900	0.98922 0.98931	0.98961 0.98961	0.98981 0.98981	0.99000	0.99000 0.99000
80	0.98488	0.98534	0.98579	0.98615	0.98650	0.98684	0.98717	0.98750	0.98781	0.98813	0.98844	0.98866	0.98887	0.98909	0.98930	0.98960	0.98980	0.99000	0.99000
81	0.98518	0.98572	0.98617	0.98653	0.98688	0.98722	0.98746	0.98779	0.98810	0.98842	0.98863	0.98885	0.98906	0.98927	0.98939	0.98960	0.98980	0.99000	0.99000
82 83	0.98540 0.98553	0.98593 0.98606	0.98647 0.98658	0.98682 0.98702	0.98717 0.98736	0.98750 0.98770	0.98775 0.98794	0.98799 0.98818	0.98830 0.98841	0.98852 0.98863	0.98883 0.98894	0.98904 0.98915	0.98925 0.98936	0.98937 0.98947	0.98958 0.98968	0.98969 0.98979	0.98980 0.98980	0.99000	0.99000 0.99000
84	0.98556	0.98618	0.98670	0.98713	0.98747	0.98781	0.98805	0.98828	0.98851	0.98873	0.98895	0.98916	0.98937	0.98958	0.98978	0.98989	0.98990	0.99000	0.99000
85	0.98550	0.98611	0.98663	0.98715	0.98749	0.98782	0.98815	0.98838	0.98852	0.98883	0.98905	0.98926	0.98947	0.98968	0.98979	0.98989	0.99000	0.99000	0.99000
86 87	0.98544 0.98529	0.98596 0.98579	0.98656 0.98630	0.98698 0.98682	0.98750 0.98733	0.98783 0.98775	0.98816 0.98808	0.98839 0.98840	0.98862 0.98872	0.98884 0.98894	0.98906 0.98907	0.98928 0.98938	0.98949 0.98959	0.98969 0.98979	0.98989 0.99000	0.99009 0.99019	0.99010 0.99030	0.99020 0.99030	0.99010 0.99030
87	0.98529	0.98579	0.98630	0.98664	0.98733	0.98775	0.98808	0.98840	0.98872	0.98894	0.98907	0.98938	0.98959	0.98979	0.99000	0.99019	0.99030	0.99030	0.99030
89	0.98506	0.98537	0.98578	0.98637	0.98688	0.98739	0.98790	0.98832	0.98864	0.98896	0.98927	0.98948	0.98969	0.99000	0.99020	0.99040	0.99060	0.99060	0.99060
90 91	0.98490 0.98483	0.98511 0.98493	0.98551 0.98524	0.98601 0.98574	0.98661 0.98633	0.98721 0.98693	0.98772 0.98753	0.98823 0.98804	0.98864 0.98855	0.98896 0.98896	0.98937 0.98937	0.98959 0.98969	0.98989 0.98999	0.99000 0.99020	0.99030 0.99040	0.99050 0.99070	0.99070 0.99080	0.99080 0.99090	0.99080 0.99090
91	0.98483	0.98493	0.98524	0.98574	0.98633	0.98693	0.98753	0.98804	0.98855	0.98896	0.98937	0.98969	0.98999	0.99020	0.99040	0.99070	0.99080	0.99090	0.99090
93	0.98496	0.98467	0.98487	0.98527	0.98577	0.98646	0.98716	0.98776	0.98846	0.98897	0.98947	0.98998	0.99038	0.99069	0.99089	0.99100	0.99110	0.99120	0.99120
94 95	0.98507 0.98537	0.98477 0.98487	0.98478 0.98478	0.98508 0.98498	0.98558 0.98538	0.98627 0.98607	0.98696 0.98677	0.98766 0.98756	0.98836 0.98836	0.98906 0.98906	0.98957 0.98966	0.99007 0.99026	0.99048 0.99068	0.99088 0.99108	0.99110 0.99139	0.99130 0.99159	0.99140 0.99169	0.99140 0.99160	0.99140 0.99150
95 96	0.98537	0.98487	0.98478 0.98548	0.98498	0.98538 0.98618	0.98607	0.98677	0.98756	0.98836	0.98906	0.98966	0.99026	0.99068	0.99108	0.99139	0.99159	0.99169	0.99160	0.99150 0.99190
97	0.98678	0.98638	0.98628	0.98648	0.98688	0.98747	0.98807	0.98877	0.98947	0.99016	0.99067	0.99117	0.99158	0.99198	0.99219	0.99240	0.99250	0.99250	0.99240
98	0.98757	0.98708	0.98699	0.98719	0.98758	0.98817	0.98877	0.98946	0.99007	0.99067	0.99126	0.99167	0.99208	0.99239	0.99269	0.99280	0.99290	0.99290	0.99280
99 100	0.98828 0.98898	0.98788 0.98859	0.98778 0.98858	0.98798 0.98869	0.98838 0.98908	0.98888 0.98958	0.98947 0.99008	0.99007 0.99067	0.99067 0.99127	0.99126 0.99177	0.99177 0.99227	0.99217 0.99268	0.99258 0.99298	0.99288 0.99329	0.99309 0.99349	0.99329 0.99369	0.99330 0.99370	0.99330 0.99370	0.99320 0.99360
101	0.98978	0.98939	0.98929	0.98948	0.98979	0.99028	0.99077	0.99128	0.99187	0.99237	0.99277	0.99318	0.99348	0.99378	0.99399	0.99410	0.99419	0.99419	0.99410
102	0.99048	0.99018	0.99009	0.99019	0.99049	0.99098	0.99138	0.99188	0.99238	0.99287	0.99328	0.99368	0.99398	0.99419	0.99439	0.99450	0.99460	0.99460	0.99450
103 104	0.99119 0.99198	0.99089 0.99169	0.99088 0.99159	0.99099 0.99169	0.99128 0.99199	0.99168 0.99229	0.99208 0.99278	0.99257 0.99318	0.99298 0.99358	0.99338	0.99378 0.99428	0.99418 0.99459	0.99439 0.99489	0.99468 0.99509	0.99480 0.99529	0.99490 0.99539	0.99500 0.99540	0.99500 0.99540	0.99490 0.99530
105	0.99269	0.99239	0.99239	0.99249	0.99269	0.99299	0.99338	0.99378	0.99418	0.99448	0.99488	0.99509	0.99538	0.99550	0.99569	0.99580	0.99580	0.99580	0.99580
106	0.99339	0.99319	0.99310	0.99320	0.99348	0.99369	0.99408	0.99439	0.99478	0.99508	0.99538	0.99559	0.99579	0.99599	0.99610	0.99620	0.99620	0.99620	0.99620
107 108	0.99418 0.99489	0.99390 0.99469	0.99389 0.99469	0.99399 0.99470	0.99419 0.99489	0.99439 0.99509	0.99469 0.99539	0.99499 0.99568	0.99529 0.99589	0.99559 0.99618	0.99588 0.99639	0.99609 0.99659	0.99629 0.99679	0.99640 0.99689	0.99650 0.99699	0.99660 0.99700	0.99670 0.99710	0.99670 0.99710	0.99660 0.99700
109	0.99559	0.99549	0.99540	0.99549	0.99560	0.99579	0.99599	0.99629	0.99649	0.99669	0.99689	0.99709	0.99719	0.99730	0.99740	0.99750	0.99750	0.99750	0.99750
110	0.99630	0.99620	0.99619	0.99620	0.99639	0.99650	0.99669	0.99689	0.99709	0.99729	0.99739	0.99759	0.99769	0.99779	0.99780	0.99790	0.99790	0.99790	0.99790
111 112	0.99709 0.99780	0.99699 0.99770	0.99699 0.99770	0.99700 0.99770	0.99709 0.99780	0.99720 0.99790	0.99739 0.99800	0.99749 0.99810	0.99769 0.99829	0.99779 0.99839	0.99790 0.99849	0.99809 0.99850	0.99810 0.99860	0.99820 0.99869	0.99830 0.99870	0.99830 0.99870	0.99830 0.99870	0.99830 0.99870	0.99830 0.99870
112	0.99850	0.99770	0.99850	0.99850	0.99760	0.99790	0.99869	0.99879	0.99829	0.99890	0.99899	0.99900	0.99909	0.99009	0.99870	0.99970	0.99920	0.99920	0.99920
114	0.99930	0.99920	0.99920	0.99920	0.99930	0.99930	0.99930	0.99940	0.99940	0.99949	0.99950	0.99950	0.99950	0.99959	0.99960	0.99960	0.99960	0.99960	0.99960
> 114	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

## APPENDIX K

### **25 YEAR PROJECTIONS**

	Page
Projection Notes	193
Active Duty Personnel and Pay	194
Nonretired Reservists Personnel and Pay	195
Total Number of Retirees	196
Total Annual Retired Pay	197
Retiree Gain Statement	198
Total Number of Survivors	199
Total Annual Survivor Benefits	200
Total Projected Basic Pay and Retired Outlays	201

### PROJECTION NOTES

The following are relevant notes to the projections depicted in this appendix:

- Refer to the "NOTE REGARDING OPEN GROUP PROJECTIONS" in the Table 8 Footnotes for important caveats related to this appendix.
- Columns in this appendix may not add due to rounding.
- In some cases the number of personnel may show zero with the corresponding pay showing a non-zero value. This is a result of rounding the display to the nearest person.
- Future mortality improvement is assumed throughout this appendix (with the exception of temporary disabled retirees).
- Although Combat Related Special Compensation (CRSC) is not technically considered retired pay, it is paid from the MRF; hence these projections include CRSC.
- The FY 2011 National Defense Authorization Act (P.L. 111-383) required "amounts of retired pay and retainer pay due a retired member of the uniformed services shall be paid on the first day of each month beginning after the month in which the right to such pay accrues." This means that when the first day of the month falls on a non-business day (weekend/holiday), the pay must be paid the preceding business day. This legislation did not apply to survivor annuitant pay and CRSC. This results in retirees receiving 13 payments in some fiscal years and 11 payments in others, with 12 payments occurring in a typical fiscal year. Annual fiscal year amounts shown in this appendix assume 12 monthly payments each year.
- The following economic assumptions are applied to the projection of basic pay and retired outlays. This table is partially replicated from the Table 8 footnotes in the main text:

ANNUAL ECONOMIC ASSUMPTIONS USED IN PROJECTIONS OF BASIC PAY AND RETIRED OUTLAYS

Fiscal Year	Full COLA	Basic Pay
2017	0.3%	2.1%
2018	2.2	1.6
2019	2.1	1.6
2020	2.3	1.8
2021	2.2	2.1
2022	2.3	2.1
2023	2.3	2.1
2024	2.3	2.1
2025	2.3	2.1
2026	2.75	2.1
2027+	2.75	3.25

### ACTIVE DUTY PERSONNEL AND PAY BY FISCAL YEAR

(Dollar Amounts in Thousands)

People a	at Year End (Septen	iber 30th)	Do	ollars During Fiscal	Year
Officers	Enlisted	Total	Officers	Enlisted	Total
244 853	1 119 086	1 363 939			
	, , ,	* *	\$18,607,176	\$37.715.460	\$56,322,636
,	, ,	, ,			\$58,323,524
	<i>' '</i>	, ,		. , ,	\$56,925,751
	, , ,	, ,			\$57,746,310
237,337	1,098,301	1,335,638	\$19,232,255	\$39,530,795	\$58,763,050
237,337	1,098,301	1,335,638	\$19,541,482	\$40,291,373	\$59,832,855
237,337	1,098,301	1,335,638	\$19,876,003	\$41,042,171	\$60,918,173
237,337	1,098,301	1,335,638	\$20,222,578	\$41,785,290	\$62,007,868
237,337	1,098,301	1,335,638	\$20,588,385	\$42,564,632	\$63,153,017
237,337	1,098,301	1,335,638	\$20,968,630	\$43,384,991	\$64,353,621
237,337	1,098,301	1,335,638	\$21,600,782	\$44,718,121	\$66,318,903
237,337	1,098,301	1,335,638	\$22,257,709	\$46,116,112	\$68,373,821
237,337	1,098,301	1,335,638	\$22,942,021	\$47,571,051	\$70,513,072
237,337	1,098,301	1,335,638	\$23,649,445	\$49,066,745	\$72,716,190
237,337	1,098,301	1,335,638	\$24,381,652	\$50,597,933	\$74,979,585
237,337	1,098,301	1,335,638	\$25,142,250	\$52,151,237	\$77,293,486
237,337	1,098,301	1,335,638	\$25,932,812	\$53,700,883	\$79,633,695
237,337	1,098,301	1,335,638	\$26,766,844	\$55,326,511	\$82,093,355
237,337	1,098,301	1,335,638	\$27,647,469	\$57,079,726	\$84,727,195
237,337	1,098,301	1,335,638	\$28,562,576	\$58,911,542	\$87,474,119
237,337	1,098,301	1,335,638	\$29,510,964	\$60,806,265	\$90,317,229
237,337	1,098,301	1,335,638	\$30,493,893	\$62,793,825	\$93,287,719
237,337	1,098,301	1,335,638	\$31,509,685	\$64,848,235	\$96,357,920
237,337	1,098,301	1,335,638	\$32,555,866	\$66,955,953	\$99,511,818
237,337	1,098,301	1,335,638	\$33,636,106	\$69,140,694	\$102,776,800
	Officers           244,853           242,058           240,244           238,741           238,027           237,337	Officers         Enlisted           244,853         1,119,086           242,058         1,103,315           240,244         1,094,453           238,741         1,098,177           238,027         1,098,133           237,337         1,098,301<	244,853         1,119,086         1,363,939           242,058         1,103,315         1,345,373           240,244         1,094,453         1,334,697           238,741         1,098,177         1,336,918           238,027         1,098,133         1,336,160           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638           237,337         1,098,301         1,335,638 </td <td>Officers         Enlisted         Total         Officers           244,853         1,119,086         1,363,939           242,058         1,103,315         1,345,373         \$18,607,176           240,244         1,094,453         1,334,697         \$19,251,880           238,741         1,098,177         1,336,918         \$18,746,284           238,027         1,098,133         1,336,160         \$18,945,283           237,337         1,098,301         1,335,638         \$19,232,255           237,337         1,098,301         1,335,638         \$19,876,003           237,337         1,098,301         1,335,638         \$20,222,578           237,337         1,098,301         1,335,638         \$20,222,578           237,337         1,098,301         1,335,638         \$20,222,578           237,337         1,098,301         1,335,638         \$20,968,630           237,337         1,098,301         1,335,638         \$21,600,782           237,337         1,098,301         1,335,638         \$22,257,709           237,337         1,098,301         1,335,638         \$22,242,021           237,337         1,098,301         1,335,638         \$22,942,021           237,337         1,</td> <td>Officers         Enlisted         Total         Officers         Enlisted           244,853         1,119,086         1,363,939           242,058         1,103,315         1,345,373         \$18,607,176         \$37,715,460           240,244         1,094,453         1,334,697         \$19,251,880         \$39,071,644           238,741         1,098,177         1,336,918         \$18,746,284         \$38,179,467           238,027         1,098,133         1,336,160         \$18,945,283         \$38,801,026           237,337         1,098,301         1,335,638         \$19,232,255         \$39,530,795           237,337         1,098,301         1,335,638         \$19,876,003         \$41,042,171           237,337         1,098,301         1,335,638         \$20,222,578         \$41,785,290           237,337         1,098,301         1,335,638         \$20,258,385         \$42,564,632           237,337         1,098,301         1,335,638         \$20,968,630         \$41,785,290           237,337         1,098,301         1,335,638         \$22,257,709         \$46,116,112           237,337         1,098,301         1,335,638         \$22,257,709         \$46,116,112           237,337         1,098,301         1,335,638<!--</td--></td>	Officers         Enlisted         Total         Officers           244,853         1,119,086         1,363,939           242,058         1,103,315         1,345,373         \$18,607,176           240,244         1,094,453         1,334,697         \$19,251,880           238,741         1,098,177         1,336,918         \$18,746,284           238,027         1,098,133         1,336,160         \$18,945,283           237,337         1,098,301         1,335,638         \$19,232,255           237,337         1,098,301         1,335,638         \$19,876,003           237,337         1,098,301         1,335,638         \$20,222,578           237,337         1,098,301         1,335,638         \$20,222,578           237,337         1,098,301         1,335,638         \$20,222,578           237,337         1,098,301         1,335,638         \$20,968,630           237,337         1,098,301         1,335,638         \$21,600,782           237,337         1,098,301         1,335,638         \$22,257,709           237,337         1,098,301         1,335,638         \$22,242,021           237,337         1,098,301         1,335,638         \$22,942,021           237,337         1,	Officers         Enlisted         Total         Officers         Enlisted           244,853         1,119,086         1,363,939           242,058         1,103,315         1,345,373         \$18,607,176         \$37,715,460           240,244         1,094,453         1,334,697         \$19,251,880         \$39,071,644           238,741         1,098,177         1,336,918         \$18,746,284         \$38,179,467           238,027         1,098,133         1,336,160         \$18,945,283         \$38,801,026           237,337         1,098,301         1,335,638         \$19,232,255         \$39,530,795           237,337         1,098,301         1,335,638         \$19,876,003         \$41,042,171           237,337         1,098,301         1,335,638         \$20,222,578         \$41,785,290           237,337         1,098,301         1,335,638         \$20,258,385         \$42,564,632           237,337         1,098,301         1,335,638         \$20,968,630         \$41,785,290           237,337         1,098,301         1,335,638         \$22,257,709         \$46,116,112           237,337         1,098,301         1,335,638         \$22,257,709         \$46,116,112           237,337         1,098,301         1,335,638 </td

### NONRETIRED RESERVISTS PERSONNEL AND PAY BY FISCAL YEAR

(Dollar Amounts in Thousands)

Fiscal	People at	Year End (Septem	nber 30th)	D	ollars During Fiscal Y	Year
Year	Officers	Enlisted	Total	Officers	Enlisted	Total
2016	113,681	621,381	735,062			
2017	117,069	607,780	724,849	\$2,172,344	\$4,904,195	\$7,076,539
2018	117,093	608,843	725,936	\$2,320,552	\$5,095,289	\$7,415,841
2019	117,192	608,236	725,428	\$2,522,480	\$5,477,843	\$8,000,323
2020	117,211	607,875	725,086	\$2,605,846	\$5,579,300	\$8,185,146
2021	117,200	607,508	724,708	\$2,696,354	\$5,703,328	\$8,399,682
2022	117,200	607,508	724,708	\$2,784,793	\$5,824,800	\$8,609,593
2023	117,200	607,508	724,708	\$2,873,825	\$5,945,836	\$8,819,661
2024	117,200	607,508	724,708	\$2,962,459	\$6,064,988	\$9,027,447
2025	117,200	607,508	724,708	\$3,052,542	\$6,184,872	\$9,237,414
2026	117,200	607,508	724,708	\$3,150,841	\$6,316,379	\$9,467,220
2027	117,200	607,508	724,708	\$3,286,892	\$6,528,283	\$9,815,175
2028	117,200	607,508	724,708	\$3,424,279	\$6,748,700	\$10,172,979
2029	117,200	607,508	724,708	\$3,561,911	\$6,976,657	\$10,538,567
2030	117,200	607,508	724,708	\$3,700,942	\$7,212,144	\$10,913,086
2031	117,200	607,508	724,708	\$3,840,823	\$7,454,042	\$11,294,865
2032	117,200	607,508	724,708	\$3,982,099	\$7,703,184	\$11,685,283
2033	117,200	607,508	724,708	\$4,120,575	\$7,956,658	\$12,077,233
2034	117,200	607,508	724,708	\$4,257,197	\$8,213,095	\$12,470,292
2035	117,200	607,508	724,708	\$4,398,926	\$8,480,956	\$12,879,882
2036	117,200	607,508	724,708	\$4,541,437	\$8,755,390	\$13,296,827
2037	117,200	607,508	724,708	\$4,686,679	\$9,038,793	\$13,725,471
2038	117,200	607,508	724,708	\$4,835,654	\$9,333,535	\$14,169,189
2039	117,200	607,508	724,708	\$4,987,650	\$9,638,658	\$14,626,308
2040	117,200	607,508	724,708	\$5,141,007	\$9,952,646	\$15,093,653
2041	117,200	607,508	724,708	\$5,295,056	\$10,276,506	\$15,571,562

### TOTAL NUMBER OF RETIREES ON SEPTEMBER 30 OF EACH FISCAL YEAR

Fiscal	Nondi	sabled (non-CSB/	Redux)	Nond	isabled (CSB/Re	edux)	Disabled			Grand
Year	Officers	Enlisted	Total	Officers	Enlisted	Total	Officers	Enlisted	Total	Total
2016	516,320	1,294,091	1,810,411	3,280	60,031	63,311	19,178	97,064	116,242	1,989,964
2017	518,993	1,293,202	1,812,195	3,767	66,712	70,479	20,120	105,170	125,290	2,007,964
2018	520,519	1,291,914	1,812,433	4,214	72,731	76,945	20,322	107,974	128,296	2,017,673
2019	522,075	1,290,845	1,812,920	4,629	78,086	82,715	20,387	109,488	129,875	2,025,510
2020	523,489	1,290,193	1,813,682	4,985	82,684	87,669	20,361	109,719	130,080	2,031,430
2021	525,047	1,290,995	1,816,042	5,296	86,581	91,878	20,354	109,943	130,296	2,038,216
2022	526,701	1,292,699	1,819,400	5,590	89,952	95,542	20,365	110,171	130,536	2,045,477
2023	528,527	1,294,997	1,823,524	5,837	92,760	98,597	20,389	110,396	130,785	2,052,905
2024	535,598	1,312,008	1,847,606	6,021	94,345	100,365	20,421	110,621	131,042	2,079,014
2025	536,648	1,311,823	1,848,471	6,161	95,320	101,481	20,458	110,826	131,284	2,081,237
2026	537,215	1,310,992	1,848,207	6,270	95,892	102,162	20,499	111,019	131,518	2,081,887
2027	537,476	1,309,194	1,846,669	6,352	96,172	102,525	20,542	111,193	131,735	2,080,929
2028	537,008	1,305,695	1,842,702	6,415	96,196	102,610	20,587	111,340	131,927	2,077,240
2029	536,148	1,301,676	1,837,824	6,458	96,040	102,499	20,634	111,468	132,102	2,072,425
2030	534,818	1,297,104	1,831,922	6,484	95,700	102,184	20,684	111,588	132,272	2,066,378
2031	532,660	1,290,896	1,823,556	6,496	95,224	101,720	20,735	111,707	132,441	2,057,717
2032	530,119	1,284,531	1,814,650	6,495	94,632	101,127	20,787	111,842	132,629	2,048,406
2033	530,634	1,284,600	1,815,234	6,483	93,930	100,414	20,841	111,998	132,839	2,048,487
2034	527,432	1,275,654	1,803,087	6,460	93,096	99,556	20,895	112,142	133,038	2,035,680
2035	524,100	1,265,744	1,789,844	6,429	92,172	98,601	20,950	112,276	133,226	2,021,671
2036	520,888	1,256,004	1,776,892	6,393	91,164	97,557	21,005	112,408	133,412	2,007,862
2037	517,541	1,245,822	1,763,363	6,352	90,071	96,423	21,060	112,536	133,596	1,993,382
2038	514,444	1,235,630	1,750,073	6,305	88,891	95,196	21,114	112,662	133,777	1,979,046
2039	511,614	1,226,468	1,738,082	6,251	87,622	93,873	21,169	112,797	133,966	1,965,921
2040	508,961	1,217,756	1,726,717	6,192	86,262	92,454	21,224	112,935	134,159	1,953,330
2041	506,276	1,209,128	1,715,403	6,127	84,809	90,936	21,279	113,073	134,352	1,940,692

<sup>\*</sup>This projection includes retired from active and reserve duty.

Non-CSB/Redux figures include both active and reserve duty retirees, while CSB/Redux figures include only active duty retirees.

<sup>\*\*</sup>The number of retirees projected only considers those receiving non-zero retired pay from the Military Retirement Fund.

<sup>\*\*\*</sup>The number of disabled retirees includes excess disability retirees, which are assumed to wind down over the next 4 years, to account for the difference between what the disability rates produce and elevated future expected experience. E.g., there were 4,919 added to disabled retirees in FY 2017.

### TOTAL ANNUAL RETIRED PAY FOR EACH FISCAL YEAR

(Dollar Amounts in Thousands)

Fiscal	None	disabled (non-CSB/	Redux)	N	ondisabled (CSB/Re	edux)		Disabled		Grand
Year	Officers	Enlisted	Total	Officers	Enlisted	Total	Officers	Enlisted	Total	Total
2017	\$22,836,618	\$27,808,455	\$50,645,073	\$135,602	\$1,305,041	\$1,440,644	\$573,242	\$1,200,556	\$1,773,799	\$53,859,515
2018	\$23,421,724	\$28,271,318	\$51,693,042	\$163,278	\$1,496,180	\$1,659,458	\$582,241	\$1,278,256	\$1,860,498	\$55,212,997
2019	\$24,074,451	\$28,858,622	\$52,933,073	\$190,865	\$1,678,538	\$1,869,403	\$591,533	\$1,339,214	\$1,930,747	\$56,733,224
2020	\$24,764,245	\$29,503,071	\$54,267,317	\$216,821	\$1,848,097	\$2,064,918	\$600,295	\$1,380,221	\$1,980,517	\$58,312,751
2021	\$25,457,463	\$30,174,202	\$55,631,665	\$240,788	\$2,000,561	\$2,241,349	\$607,148	\$1,401,167	\$2,008,315	\$59,881,329
2022	\$26,180,899	\$30,903,645	\$57,084,545	\$264,294	\$2,142,416	\$2,406,709	\$615,243	\$1,423,060	\$2,038,303	\$61,529,557
2023	\$26,927,865	\$31,686,667	\$58,614,532	\$287,111	\$2,275,198	\$2,562,309	\$624,349	\$1,445,988	\$2,070,337	\$63,247,177
2024	\$27,779,286	\$32,630,189	\$60,409,475	\$307,838	\$2,390,633	\$2,698,471	\$634,356	\$1,469,894	\$2,104,250	\$65,212,196
2025	\$28,623,316	\$33,561,961	\$62,185,276	\$326,600	\$2,488,279	\$2,814,879	\$645,029	\$1,494,537	\$2,139,566	\$67,139,721
2026	\$29,484,447	\$34,520,411	\$64,004,858	\$345,260	\$2,585,780	\$2,931,039	\$658,295	\$1,523,501	\$2,181,797	\$69,117,694
2027	\$30,370,202	\$35,520,677	\$65,890,879	\$364,416	\$2,682,526	\$3,046,943	\$672,842	\$1,554,092	\$2,226,934	\$71,164,756
2028	\$31,245,224	\$36,575,884	\$67,821,108	\$384,022	\$2,778,244	\$3,162,267	\$688,179	\$1,585,440	\$2,273,619	\$73,256,993
2029	\$32,105,980	\$37,610,147	\$69,716,127	\$403,929	\$2,879,003	\$3,282,932	\$704,364	\$1,617,933	\$2,322,297	\$75,321,356
2030	\$32,958,608	\$38,679,241	\$71,637,848	\$424,240	\$2,993,713	\$3,417,953	\$721,628	\$1,652,170	\$2,373,798	\$77,429,599
2031	\$33,795,489	\$39,715,311	\$73,510,800	\$445,929	\$3,133,488	\$3,579,417	\$740,029	\$1,688,312	\$2,428,340	\$79,518,557
2032	\$34,621,633	\$40,762,498	\$75,384,132	\$468,908	\$3,292,257	\$3,761,165	\$759,441	\$1,726,542	\$2,485,983	\$81,631,281
2033	\$35,513,827	\$41,824,465	\$77,338,293	\$490,233	\$3,448,585	\$3,938,818	\$780,008	\$1,767,069	\$2,547,077	\$83,824,188
2034	\$36,390,205	\$42,768,497	\$79,158,703	\$508,967	\$3,586,299	\$4,095,266	\$801,567	\$1,809,074	\$2,610,640	\$85,864,609
2035	\$37,196,898	\$43,644,630	\$80,841,527	\$525,000	\$3,708,375	\$4,233,376	\$824,110	\$1,851,893	\$2,676,003	\$87,750,906
2036	\$38,011,125	\$44,546,966	\$82,558,091	\$539,507	\$3,818,574	\$4,358,081	\$847,656	\$1,895,661	\$2,743,317	\$89,659,489
2037	\$38,828,057	\$45,437,005	\$84,265,062	\$552,737	\$3,919,616	\$4,472,353	\$872,193	\$1,940,646	\$2,812,839	\$91,550,254
2038	\$39,649,767	\$46,316,601	\$85,966,368	\$565,014	\$4,008,501	\$4,573,514	\$897,769	\$1,986,863	\$2,884,632	\$93,424,514
2039	\$40,486,939	\$47,237,942	\$87,724,881	\$576,093	\$4,088,645	\$4,664,737	\$924,299	\$2,034,596	\$2,958,895	\$95,348,513
2040	\$41,340,354	\$48,143,279	\$89,483,634	\$586,135	\$4,162,223	\$4,748,358	\$951,874	\$2,083,983	\$3,035,857	\$97,267,849
2041	\$42,205,637	\$49,059,574	\$91,265,211	\$595,224	\$4,228,512	\$4,823,736	\$980,592	\$2,134,822	\$3,115,414	\$99,204,362

<sup>\*</sup>This projection includes retired from active and reserve duty.

Non-CSB/Redux figures include both active and reserve duty retirees, while CSB/Redux figures include only active duty retirees.

<sup>\*\*</sup>The disabled retiree outlays includes amounts for excess disability retirees, which are assumed to wind down over the next 4 years, to account for the difference between what the disablity rates produce and elevated future expected experience. E.g., there were \$71.3 million added to disabled retiree outlays in FY 2017.

### RETIREE GAIN STATEMENT

	Gains During the Fiscal Year						Average Starting Net Retired Pay Before CPI Increase					
Fiscal	Nondisabled (n	on-CSB/Redux)	Nondisabled	(CSB/Redux)	Disa	abled	Nondisabled (n	on-CSB/Redux)	Nondisabled	(CSB/Redux)	Dis	abled
Year	Officers	Enlisted	Officers	Enlisted	Officers	Enlisted	Officers	Enlisted	Officers	Enlisted	Officers	Enlisted
2017	15,877	31,462	490	6,781	745	7,250	\$48,364	\$20,292	\$55,341	\$27,467	\$66,870	\$29,170
2018	14,762	31,670	451	6,136	736	7,168	\$47,573	\$20,836	\$57,851	\$28,414	\$68,810	\$30,388
2019	14,846	32,469	419	5,492	731	7,113	\$48,312	\$21,373	\$59,699	\$29,108	\$71,041	\$31,659
2020	14,782	33,439	361	4,757	726	7,081	\$48,815	\$21,891	\$62,037	\$29,504	\$73,349	\$32,998
2021	15,024	35,419	318	4,080	722	7,064	\$49,286	\$22,262	\$63,716	\$30,047	\$75,815	\$34,427
2022	15,239	36,818	301	3,582	720	7,058	\$49,826	\$22,880	\$66,645	\$30,891	\$78,633	\$35,997
2023	15,545	37,881	256	3,050	717	7,052	\$50,232	\$23,664	\$70,183	\$32,156	\$81,761	\$37,712
2024	20,948	53,071	194	1,861	713	7,051	\$45,977	\$21,960	\$76,405	\$37,633	\$85,229	\$39,507
2025	15,092	36,316	152	1,290	708	7,034	\$52,452	\$25,238	\$81,257	\$42,011	\$88,927	\$41,334
2026	14,781	36,042	122	929	704	7,026	\$53,129	\$25,960	\$85,910	\$46,392	\$93,047	\$43,189
2027	14,652	35,422	97	685	701	7,014	\$53,726	\$26,485	\$90,534	\$50,651	\$97,674	\$45,237
2028	14,107	34,043	80	480	699	6,992	\$54,821	\$26,884	\$96,278	\$55,848	\$102,861	\$47,517
2029	13,897	33,818	63	357	698	6,976	\$55,776	\$26,962	\$101,694	\$60,025	\$108,524	\$49,950
2030	13,603	33,535	47	233	698	6,968	\$57,157	\$27,201	\$108,775	\$66,398	\$114,413	\$52,566
2031	12,942	32,142	35	161	697	6,969	\$59,295	\$27,402	\$116,217	\$71,378	\$120,419	\$55,207
2032	12,710	32,201	26	113	697	6,986	\$60,950	\$27,855	\$122,870	\$76,095	\$126,604	\$57,751
2033	15,906	38,842	17	77	698	7,011	\$57,510	\$26,635	\$132,174	\$79,667	\$133,043	\$60,207
2034	12,309	30,005	9	18	697	7,006	\$63,494	\$29,171	\$146,670	\$88,283	\$139,583	\$62,573
2035	12,271	29,178	5	7	696	7,003	\$64,685	\$29,632	\$158,097	\$96,245	\$146,279	\$64,818
2036	12,460	29,458	4	4	695	7,004	\$65,446	\$30,305	\$169,293	\$101,725	\$153,125	\$67,101
2037	12,366	29,092	3	2	694	7,001	\$66,534	\$30,529	\$179,207	\$107,410	\$160,267	\$69,596
2038	12,628	29,120	1	1	692	6,998	\$67,263	\$30,945	\$186,057	\$111,593	\$167,795	\$72,112
2039	12,877	30,154	0	0	690	7,005	\$68,353	\$31,355	\$0	\$0	\$175,664	\$74,772
2040	13,008	30,568	0	0	690	7,008	\$69,758	\$31,887	\$0	\$0	\$183,783	\$77,567
2041	12,901	30,575	0	0	688	7,007	\$71,676	\$32,589	\$0	\$0	\$191,875	\$80,734

<sup>\*</sup>This projection includes retired from active and reserve duty.

Non-CSB/Redux figures include both new active and reserve duty retirements, while CSB/Redux figures include only new active duty retirements.

\*\*Gains during the year include those people who die before year end. All figures are after total and partial VA offsets.

\*\*\*The dramatic retiree gain increases in FY 2024 and FY 2033 are a result of the modeling due to section 647 of the 2008 NDAA.

Please refer to Appendix F and Appendix H for more information.

\*\*\*Excess disability retirees used to account for anticipated experience over the next 4 years are not included in this display.

### TOTAL NUMBER OF SURVIVORS ON SEPTEMBER 30 OF EACH FISCAL YEAR

Fiscal Year	SBP Non-CSB/Redux	SBP CSB/Redux	RCSBP	Minimum Income	Death on Active Duty	RSFPP	Special Survivor Indemnity Allowance	Total
2016	183,724	84	86,036	68	10,874	5,945	64,616	286,731
	· ·			59				
2017	186,631	111	88,159		10,830	5,406	65,918	291,196
2018	189,151	144	90,217	51	10,720	4,882	67,081	295,166
2019	191,341	184	92,311	45	10,565	4,387	0	298,833
2020	193,221	232	94,472	40	10,355	3,923	0	302,242
2021	194,814	291	96,712	35	10,067	3,491	0	305,409
2022	196,144	360	99,036	30	9,724	3,092	0	308,386
2023	197,228	443	101,440	26	9,378	2,727	0	311,241
2024	198,076	539	103,999	23	9,026	2,395	0	314,057
2025	198,706	652	106,585	19	8,654	2,095	0	316,712
2026	199,139	783	109,223	17	8,277	1,827	0	319,265
2027	199,394	933	111,892	14	7,928	1.500	0	321,749
	199,394	1,105		12		1,588	0	
2028		,	114,576		7,603	1,377		324,154
2029	199,424	1,300	117,258	10	7,302	1,193	0	326,488
2030	199,251	1,521	119,913	9	7,041	1,032	0	328,767
2031	198,992	1,768	122,512	7	6,813	894	0	330,986
2032	198,668	2,042	125,025	6	6,623	775	0	333,139
2033	198,304	2,345	127,464	5	6,471	675	0	335,263
2034	197,926	2,677	129,750	4	6,352	589	0	337,299
2035	197,556	3,040	131,882	3	6,255	518	0	339,254
2036	197,212	3,433	133,832	3	6,179	458	0	341,117
2037	196,904	3,858	135,579	2	6,118	408	0	342,870
2038	196,637	4,314	137,102	2	6,065	367	Ö	344,487
2039	196,417	4,802	138,381	1	6,018	333	0	345,953
2040	196,237	5,320	139,408	1	5,975	304	0	347,246
2041	196,089	5,869	140,169	1	5,933	281	0	348,341
2041	1 50,089	3,809	140,109	1	3,733	201	0	340,341

<sup>\*</sup>This projection includes survivors of members who retired from active and reserve duty.

Non-CSB/Redux figures include both survivors of active and reserve duty retirees, while CSB/Redux figures include only survivors of active duty retirees.

\*\*The number of survivors projected only considers those receiving non-zero pay from the Military Retirement Fund.

\*\*\*RCSBP survivors include all survivors of reservists, not just those electing pre-age 60 coverage.

\*\*\*\*The Special Survivor Indemnity Allowance counts are shown for informational purposes and are not included in the Total column. They include the impact of both the 2008 NDAA and P.L. 110-181.

<sup>\*\*\*\*\*</sup>Excess disability retirees (their survivors) used to account for anticipated experience over the next 4 years are not included in this display.

### TOTAL ANNUAL SURVIVOR BENEFITS FOR EACH FISCAL YEAR

(Dollar Amounts in Thousands)

Fiscal Year	SBP Non-CSB/Redux	SBP CSB/Redux	RCSBP	Minimum Income	Death on Active Duty	RSFPP	Special Survivor Indemnity Allowance	Total
2017	\$2,925,180	\$931	\$727,501	\$507	\$105,262	\$15,859	\$239,343	\$4,014,582
2018	\$3,000,898	\$1,333	\$759,351	\$450	\$107,391	\$14,543	\$164,404	\$4,048,369
2019	\$3,085,413	\$1,856	\$795,212	\$405	\$109,504	\$13,270	\$0	\$4,005,659
2020	\$3,171,769	\$2,539	\$834,095	\$365	\$111,403	\$12,056	\$0	\$4,132,227
2021	\$3,255,806	\$3,384	\$875,170	\$329	\$112,760	\$10,909	\$0	\$4,258,359
2022	\$3,340,328	\$4,426	\$919,374	\$296	\$113,472	\$9,834	\$0	\$4,387,730
2023	\$3,424,702	\$5,703	\$966,766	\$265	\$113,877	\$8,837	\$0	\$4,520,150
2024	\$3,508,219	\$7,264	\$1,017,619	\$236	\$114,301	\$7,918	\$0	\$4,655,558
2025	\$3,590,997	\$9,153	\$1,072,128	\$210	\$114,623	\$7,079	\$0	\$4,794,191
2026	\$3,685,342	\$11,476	\$1,133,419	\$187	\$115,072	\$6,320	\$0	\$4,951,816
2027	\$3,783,825	\$14,275	\$1,199,681	\$165	\$115,629	\$5,641	\$0	\$5,119,216
2028	\$3,882,740	\$17,642	\$1,269,787	\$145	\$116,166	\$5,035	\$0	\$5,291,516
2029	\$3,982,197	\$21,700	\$1,343,710	\$127	\$116,622	\$4,496	\$0	\$5,468,852
2030	\$4,082,481	\$26,524	\$1,421,391	\$111	\$117,231	\$4,020	\$0	\$5,651,758
2031	\$4,183,901	\$32,134	\$1,502,638	\$96	\$118,063	\$3,604	\$0	\$5,840,436
2032	\$4,286,886	\$38,559	\$1,587,242	\$83	\$119,022	\$3,244	\$0	\$6,035,035
2033	\$4,391,944	\$45,871	\$1,675,145	\$71	\$120,137	\$2,934	\$0	\$6,236,102
2034	\$4,499,566	\$54,187	\$1,766,084	\$61	\$121,581	\$2,669	\$0	\$6,444,149
2035	\$4,610,381	\$63,574	\$1,859,333	\$52	\$123,332	\$2,446	\$0	\$6,659,116
2036	\$4,724,952	\$74,083	\$1,954,671	\$44	\$125,383	\$2,258	\$0	\$6,881,391
2037	\$4,844,037	\$85,821	\$2,051,596	\$37	\$127,699	\$2,103	\$0	\$7,111,293
2038	\$4,968,068	\$98,886	\$2,149,600	\$30	\$130,234	\$1,974	\$0	\$7,348,793
2039	\$5,097,371	\$113,396	\$2,248,171	\$25	\$132,973	\$1,868	\$0	\$7,593,804
2040	\$5,232,378	\$129,448	\$2,346,797	\$21	\$135,876	\$1,781	\$0	\$7,846,301
2041	\$5,373,222	\$147,155	\$2,444,947	\$17	\$138,896	\$1,709	\$0	\$8,105,945

<sup>\*</sup>This projection includes survivors of members who retired from active and reserve duty.

Non-CSB/Redux figures include both survivors of active and reserve duty retirees, while CSB/Redux figures include only survivors of active duty retirees.

\*\*RCSBP survivors include all survivors of reservists, not just those electing pre-age 60 coverage.

\*\*\*The Special Survivor Indemnity Allowance dollars are included in the Total column. They include the impact of both the 2008 NDAA and P.L. 110-181.

\*\*\*Excess disability retirees (their survivors) used to account for anticipated experience over the next 4 years are not included in this display.

### TOTAL PROJECTED BASIC PAY AND RETIRED OUTLAYS

### (Dollar Amounts in Thousands)

Fiscal	<b>Total Projected</b>	<b>Total Projected</b>	Retired Outlays
Year	Basic Pay	Outlays	Over Basic Pay
2017	CC2 200 175	¢57,974,007	01.20/
2017	\$63,399,175	\$57,874,097	91.3%
2018	\$65,739,365	\$59,261,367	90.1%
2019	\$64,926,074	\$60,738,883	93.6%
2020	\$65,931,456	\$62,444,978	94.7%
2021	\$67,162,732	\$64,139,687	95.5%
2022	\$68,442,448	\$65,917,287	96.3%
2023	\$69,737,835	\$67,767,327	97.2%
2024	\$71,035,316	\$69,867,754	98.4%
2025	\$72,390,431	\$71,933,912	99.4%
2026	\$73,820,841	\$74,069,511	100.3%
2027	\$76,134,078	\$76,283,972	100.2%
2028	\$78,546,800	\$78,548,509	100.0%
2029	\$81,051,639	\$80,790,209	99.7%
2030	\$83,629,276	\$83,081,357	99.3%
2031	\$86,274,451	\$85,358,994	98.9%
2032	\$88,978,769	\$87,666,316	98.5%
2033	\$91,710,928	\$90,060,290	98.2%
2034	\$94,563,647	\$92,308,757	97.6%
2035	\$97,607,077	\$94,410,022	96.7%
2036	\$100,770,946	\$96,540,880	95.8%
2037	\$104,042,700	\$98,661,547	94.8%
2038	\$107,456,907	\$100,773,307	93.8%
2039	\$110,984,228	\$102,942,317	92.8%
2040	\$114,605,471	\$105,114,150	91.7%
2041	\$118,348,362	\$107,310,307	90.7%

<sup>\*</sup>Basic pay includes reserve and active duty basic pay; outlays include retired pay and survivor benefits.

<sup>\*\*</sup>This projection includes retired from active and reserve duty.

<sup>\*\*\*</sup>This projection includes pay for those retirees eligible for Concurrent Receipt.

<sup>\*\*\*\*</sup>This projection is adjusted for the increase in survivor benefits due to P.L. 110-181.

<sup>\*\*\*\*\*</sup>Excess disability retirees used to account for anticipated experience over the next 4 years are included in outlays. However, no survivor (of excess disability retirees) outlays are included.

## APPENDIX L

### FINANCIAL STATEMENT DISCLOSURES

	<u>Page</u>
Statement of Net Assets Available for Benefits	203
Table L-1: Statement of Net Assets Available for Benefits	204
Table L-2: Statement of Changes in Net Assets Available for Benefits	205
Comparison of DoD Board and SFFAS 33 Actuarial Liabilities	206
Table L-3: Comparison of DoD Board and SFFAS 33 Actuarial Liabilities	208

### STATEMENT OF NET ASSETS AVAILABLE FOR BENEFITS

Federal trust funds like the Military Retirement Fund are not subject to the same pension regulations as private sector and state/local governmental plans. Under the applicable financial reporting standards, both private sector and state/local pension plans have been required to include a table showing the "Statement of Net Assets Available for Benefits" and a "Statement of Changes in Net Assets Available for Benefits," where assets are valued at fair market value in their accounting statements. For the Military Retirement Fund, fair market value is based on the bid prices of public issue securities with the same maturity dates and coupon rates as the special issue securities held by the Fund. These statements are included in Tables L-1 and L-2, respectively.

The market values shown in this appendix can be found in the *Fiscal Year 2016 Military Retirement Fund Audited Financial Statements*. The financial statements are available through the website of the Office of the Under Secretary of Defense (Comptroller) at: http://comptroller.defense.gov/odcfo/cfs2016.aspx.

### TABLE L-1

# DEPARTMENT OF DEFENSE MILITARY RETIREMENT FUND STATEMENT OF NET ASSETS AVAILABLE FOR BENEFITS (\$ in millions)

For the Plan Year Ended September 30:

<u>2016</u>	<u>2015</u>
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### <u>Assets</u>

1) Investments, at fair market value,		
in U.S. Government securities:1	\$758,461	\$640,927
2) Accounts receivable:	¢5 142	¢4.702
a) Accrued interest <sup>2</sup>	\$5,143	\$4,703
b) Due from military retirees or their survivors	\$129	\$92
c) Intragovernmental	\$0	\$0
3) Cash:	\$368	\$31
$\underline{\text{Total Assets}} (1 + 2 + 3):$	\$ <u>764,101</u>	\$645,753
Accounts payable:	\$ <u>(293)</u>	\$ <u>(4,641)</u>
Total Assets Available for Benefits	\$ <u>763,808</u>	\$ <u>641,112</u>

Fair market value of securities has been measured by quoted prices (bid price) in the active U.S. Government securities market. Bid price used represents the over-the-counter quotations as of 4 p.m. eastern time as reported by the U.S. Department of Treasury – Bureau of Public Debt on September 30, 2016, and September 30, 2015, respectively. Additional adjustment made as a result of FY 2011 National Defense Authorization Act (P.L. 111-383) regarding retired pay date as follows:

	<u>2016</u>	<u>2015</u>
Investments, at fair market value (actual)	\$754,114	\$640,927
October Expenditures paid in September	\$4,347	\$0
Investments, at fair market value (adjusted)	\$758,461	\$640,927

<sup>&</sup>lt;sup>2</sup> Includes accrued interest receivable and interest purchased.

### TABLE L-2

# DEPARTMENT OF DEFENSE MILITARY RETIREMENT FUND STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS (\$ in millions)

For the Plan Year Ended September 30:

	<u>2016</u>	<u>2015</u>
Net assets available for benefits at beginning of plan year:	\$641,112	\$588,588
1) Investment/Inflation income (coupons received)	\$20,802	\$15,988
2) Net appreciation (depreciation) in fair market value of investments	\$53,717	(\$8,084)
3) Contributions from services	\$19,260	\$19,691
4) Appropriation to amortize the initial unfunded liability	\$79,289	\$75,562
5) Appropriation for Treasury Normal Cost Contribution	\$6,870	\$6,197
Total additions $(1+2+3+4+5)$	\$ <u>179,938</u>	\$ <u>109,354</u>
Less: Benefits paid to participants <sup>1</sup>	\$ <u>57,242</u>	\$ <u>56,829</u>
Net assets available for benefits at end of plan year	\$ <u>763,808</u>	\$ <u>641,112</u>

The statement has been revised to show benefits paid to participants on an accrual basis:

	<u>2016</u>	<u>2015</u>
Benefits paid on cash basis	\$57,242	\$56,729
Change in liability for benefits due at end of year	<u>\$0</u>	\$100
Benefits paid on accrual basis	\$57,242	\$56,829

### COMPARISON OF DOD BOARD AND SFFAS 33 ACTUARIAL LIABILITIES

The DoD Office of the Actuary (OACT) performs two annual valuations of the Military Retirement Fund liabilities. The primary one is for funding purposes—this valuation is governed by Chapter 74 of Title 10 U.S.C. and must use methods and assumptions approved by the DoD Board of Actuaries (Board). The other is for financial statement purposes and is governed by Federal Accounting Standards Advisory Board (FASAB) standards.

Historically, OACT has used Board valuation methods and assumptions to calculate liabilities for financial statement purposes. However, even using the same assumptions, liabilities from the Board valuation differ from financial statement numbers because of financial statement deadlines. For example, the September 30, 2016, actuarial liability for the financial statements (which was due in early October 2016) was projected based on the September 30, 2015, Board valuation. The September 30, 2016, Board valuation (documented in this report) was performed at a later time, based on actual September 30, 2016 data, and therefore resulted in a different September 30, 2016 actuarial liability. A comparison of these respective actuarial liabilities is shown in Table L-3. Note that the *Actuarial Certification* (page 2) only applies to Board valuation results for purposes of meeting the requirements of Chapter 74, Title 10, United States Code.

Currently, a separate financial statement valuation (i.e., with different assumptions) is necessary to satisfy a financial statement regulation called the Statement of Federal Financial Accounting Standards 33 (SFFAS 33). A separate financial statement valuation is needed because SFFAS 33 requires the use of a yield curve to discount cash flows, whereas the Board valuation uses an interest rate assumption based on methodologies described in Appendix D.

SFFAS 33 requires the use of a yield curve based on marketable U.S. Treasury securities, with a minimum of five years of historical rates for the yield curve input and consistency in the number of historical rates used from period to period. OACT used the U.S. Department of the Treasury-Office of Economic Policy's 10-year Average Yield Curve for Treasury Nominal Coupon Issues ('TNC yield curve' – Source: <a href="https://www.treasury.gov/resource-center/economic-policy/corp-bond-yield/Pages/TNC-YC.aspx">https://www.treasury.gov/resource-center/economic-policy/corp-bond-yield/Pages/TNC-YC.aspx</a>) representing average rates from April 1, 2006, through March 31, 2016, resulting in a single-equivalent interest rate of 3.9%. This is comparable to the Board valuation interest rate of 5.25%.

SFFAS 33 also directs the interest rate, underlying inflation rates, and other economic assumptions to be consistent with one another. A change in the interest rate may cause other assumptions to change as well. For the September 30, 2016, financial statement valuation, SFFAS 33 required the long-term inflation and salary increase assumptions to be consistent with the underlying TNC yield curve used in the valuation. The September 30, 2016, SFFAS 33 economic assumptions are shown in the concluding note of Table L-3.

SFFAS 33 permits the use of a single average interest rate if the resulting present value is not materially different from what would be obtained using the yield curve. Table L-3 compares the SFFAS 33 liability to the corresponding Board liability. Measuring the Fund's actuarial

liability using SFFAS 33 long-term economic assumptions (as compared to Board assumptions) results in a liability that is higher by approximately  $6\%^1$ .

Appendix L

Note that this amount, which is the difference between the two actuarial liabilities shown in Table L-3, also includes the impact of the different populations on which the two liabilities are based.

### TABLE L-3

# MILITARY RETIREMENT SYSTEM COMPARISON OF DOD BOARD AND SFFAS 33 ACTUARIAL LIABILITIES (\$ in billions)

Valuation For the Plan Year Ended September 30, 2016:

		DoD Board <sup>1</sup>	SFFAS 33 <sup>2</sup>
1.	Present value of future benefits	\$1,628.1	\$1,724.4
2.	Present value of future normal cost contributions	\$221.2	\$234.1
3.	Actuarial accrued liability $(1 2.)$	\$1,406.9	\$1,490.3

<u>NOTE</u>: The following long-term economic assumptions are used in computing the respective actuarial liabilities:

	DoD Board	SFFAS 33
Full COLA:	2.75%	1.7%
Basic Pay:	3.25%	2.1%
Interest:	5.25%	3.9%

<sup>1</sup> Reproduced from Table 6A in main text.

Reproduced from the 'Fiscal Year 2016 Military Retirement Fund Audited Financial Statements.' The financial statements are available through the website of the Office of the Under Secretary of Defense(Comptroller) at: <a href="http://comptroller.defense.gov/financialmanagement/reports/cfs2016.aspx">http://comptroller.defense.gov/financialmanagement/reports/cfs2016.aspx</a>. The 'Actuarial Certification' (page 2) does not apply to these figures.

## APPENDIX M

### TREASURY PAYMENTS

	<u>Page</u>
Method of Amortizing Changes in the Unfunded Liability of the Military Retirement System	210
Calculation of the October 1, 2017, Treasury Payment	211
Table M-1: Total Treasury Payment	213
Table M-2: Calculation of October 1, 2017, Payment on Initial UFL	214
Table M-3: Calculation of October 1, 2017, Payment on UFL Resulting From Benefit Changes	215
Table M-4: Calculation of October 1, 2017, Payment on UFL Resulting From Assumption Changes	216
Table M-5: Calculation of October 1, 2017, Payment on UFL Resulting From Experience Gains and Losses	217

## METHOD OF AMORTIZING CHANGES IN THE UNFUNDED LIABILITY OF THE MILITARY RETIREMENT SYSTEM

### **Introduction**

Section 1465 of Title 10 states that the Secretary of Defense shall determine amortization methods and schedules for the annual amortization of changes in the unfunded liability (UFL) of the Military Retirement System. The section also states that these methods and assumptions must be approved by the DoD Board of Actuaries. The resulting payments are made by the Department of the Treasury to the Military Retirement Fund and do not affect the DoD budget.

There are three causes of change in the Military Retirement System's unfunded liability: (1) changes in benefits, (2) annual experience gains or losses resulting from actual experience deviating from expected experience, and (3) changes in actuarial assumptions used in the projected liability calculations. When a change in the unfunded liability does not fit perfectly into one of the three categories, OACT and the Board of Actuaries will determine the most appropriate one. The following describes the technical procedure of amortizing these types of changes, as approved by the Board.

### **Amortization Procedure**

All three types of changes in the UFL are amortized by means of payment schedules so that: (1) the annual amortization payments increase each year by the long-term basic pay scale assumption; (2) the payment stream completely liquidates the additional liability, with a new overall weighted period determined using (i) 30 years weighted by the absolute value of the new liability, and (ii) the remaining period on the unamortized balance prior to the new liability weighted by the absolute value of that balance; and (3) the payments are expressed to the nearest million dollars. The amortization payments increase at the same rate as the increase in the total basic payroll for a particular year—an outcome that is consistent with the way the normal cost payments and payments to amortize the system's initial UFL are determined. This method is no longer common for many private sector pension plans and has given way to an amortization schedule with level payments in order to cover interest costs. It is also often required for these pension plans to amortize changes in unfunded liabilities over shorter than a 30-year schedule. However, the methods applied to the Military Retirement Fund are similar to those that are or have been used by other federal and public sector pension plans. Additionally, the Board has annual discussions regarding the appropriateness of the amortization procedure.

Annual payments on the initial UFL are also calculated to increase each year by the long-term basic pay scale assumption, and as stated earlier in this report, the initial UFL is currently scheduled to be liquidated with the October 1, 2025 payment.

Experience gains and losses, which create changes in the UFL, occur every year. The payment streams to amortize these changes are combined. This produces one single payment stream for the category of experience gains and losses and eliminates the tedious tracking of up

to 30 different small amortization schedules. The DoD Office of the Actuary can identify the separate segments if the need arises.

A similar method of combining amortization schedules is used for changes in the UFL caused by changes in actuarial assumptions. Beginning with the September 30, 1995, valuation, changes to the UFL due to all benefit changes are being combined and amortized in a single stream of payments.

Actuarial gains and losses are changes in the UFL that result from actual experience in a pension plan deviating from what was expected, benefit changes, or assumption changes. An actuarial gain is a *decrease* in the UFL and is usually expressed as a negative number. Conversely, a loss represents an *increase* in the UFL and is usually expressed as a positive number. The amortization payment for a negative change (gain) is also expressed as a negative number. These negative amortization payments reduce any positive amortization payments otherwise payable, including the (positive) payments amortizing the system's initial UFL.

Amortization payments for changes in the UFL are structured to increase each year with the basic pay scale increase assumption. When the payments are negative, their absolute values are made to increase. Although this means that the payments are actually decreasing mathematically, for simplicity of expression both positive and negative amortization payments are said to "increase" by the basic pay scale increase assumption.

### CALCULATION OF THE OCTOBER 1, 2017, TREASURY PAYMENT

The following pages (Tables M-1 through M-5) display the calculation of the October 1, 2017, Treasury payment based on the September 30, 2016, valuation results and on amortization methods and assumptions approved by the DoD Board of Actuaries. In order to avoid a projected shortfall in the Military Retirement Fund, the Board determined that, beginning with the FY 1998 payment, the total amortization period of the initial unfunded liability would be decreased from 60 to 50 years. The Board again shortened the initial unfunded liability amortization period in 2007 to 42 years in order for the payments to cover interest on the unfunded liability each year.

Public Law (P.L.) 108-136 required the Department of Treasury to pay for the increase in the normal cost due to Concurrent Receipt. Beginning with FY 2005, Treasury includes the annual normal cost payment due to Concurrent Receipt along with the unfunded liability payment in the October 1st contribution. For the October 1, 2017, Treasury payment, the actuarially determined amount due to Concurrent Receipt totals \$7.505 billion. This is computed using the full- and part-time normal cost percentages (NCPs) in Table 6A of the main text (item 8). The NCPs are multiplied by the DoD Comptroller-budgeted FY 2018 full- and part-time basic pay, \$58.3 billion and \$7.4 billion, respectively, i.e., \$7.505 billion equates to the sum of \$58.3 billion x 12.5% and \$7.4 billion x 3.3%.

Due to the *Budget Control Act of 2011*, both FY 2017 and 2018 Treasury concurrent receipt normal cost amounts displayed on the next page were reduced (or sequestered) by 9.1% (or \$0.678 billion) in FY 2017, and 8.9% (or \$0.668 billion) in FY 2018. For instance, in FY 2017 the Treasury payment of \$6.769 billion is the difference between the actuarially calculated amount (\$7.447 billion) and the sequestered amount (\$0.678 billion), and likewise in FY 2018 the Treasury payment of \$6.837 billion is the difference between \$7.505 billion and \$0.668 billion. At their July 2017 meeting, the Board decided to treat the FY 2017 sequestered amount of \$0.678 billion as an experience loss in the FY 2016 valuation, and amortized it (brought forward with one year's assumed interest) over one year. It is included in the FY 2018 payment on the next page. (See "Unpaid contribution" of \$0.713 billion = \$0.678 billion x 1.0525.) The Board will likely treat the FY 2018 sequestered amount in the same manner (i.e., as a loss in the 2017 valuation and added, with interest, to the FY 2019 Treasury payment).

TABLE M-1

## TOTAL TREASURY PAYMENT OCTOBER 1, 2017 AND OCTOBER 1, 2016

		October 1, 2017	October 1, 2016
Amortization	payment for:		
1.	Initial unfunded liability	\$92.950	\$90.024
2.	Changes in benefits	\$7.904	\$7.724
3.	Gains and Losses Amortization		
	a. Changes in actuarial assumptions	\$3.736	\$4.459
	b. Actuarial experience	\$(22.426)	\$(21.756)
	c. Unpaid contribution	\$0.713	\$0.741
	Total amortization payment	\$ <u>82.877</u>	\$ <u>81.192</u>
Norm	al cost payment	\$ <u>7.505</u>	\$ <u>6.754</u>
	Total Treasury payment	<u>\$90.382</u>	<u>\$87.946</u>

## CALCULATION OF OCTOBER 1, 2017, PAYMENT ON INITIAL UNFUNDED LIABILITY (UFL)

1.	Unamortized balance of initial UFL $(10/1/15 \text{ balance} \times 1.0525)$	9/30/16	\$ 827.038
2.	Payment on UFL	10/1/16	\$ 90.024
3.	Unamortized balance of initial UFL (1 2.)	10/1/16	\$ 737.014
4.	Balance on 9/30/17 (3. × 1.0525)	9/30/17	\$ 775.707
5.	Number of Annual Payments Remaining	9/30/17	9
6.	Value of an annuity due for remaining amortization period at interest rate equal to $(1.0525 \div 1.0325)$ - 1		8.3454
7.	Payment on initial UFL due $10/1/17$ (4. ÷ 6.)		\$ 92.950

### CALCULATION OF OCTOBER 1, 2017, PAYMENT ON UNFUNDED LIABILITY (UFL) RESULTING FROM BENEFIT CHANGES

	mortized UFL balance due to benefit changes 1/15 balance x 1.0525)	9/30/16	\$ 125.263
2. Payı	ment on UFL	10/1/16	\$ 7.724
3. Una (1	mortized UFL balance after payment 2.)	10/1/16	\$ 117.539
4. Add	itional (new) UFL due to benefit changes	9/30/16	-\$ 0.700
5. Unar (3. +	mortized UFL balance due to benefit changes -4.)	10/1/16	\$ 116.839
-	ance on 9/30/17 (1.0525)	9/30/17	\$ 122.973
	al number of years of prior rtization schedule		19.20
	aining number of years of prior rtization schedule  1)		18.20
	al number of years of new amortization schedule olute values used for all numbers)		
[(3.	$(\times 8.) + (4. \times 30)] \div (3. + 4.)$		18.27
	terest rate equal to $(1.0525 \div 1.0325)$ - 1		15.5612
•	ment on UFL due to benefit changes (6. ÷ 10.)	10/1/17	<u>\$ 7.903</u> <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Due to a minor technical adjustment, the amount shown here differs slightly from the implemented payment of \$7.904 billion.

### CALCULATION OF OCTOBER 1, 2017, PAYMENT ON UNFUNDED LIABILITY (UFL) RESULTING FROM ASSUMPTION CHANGES

### (\$ in billions)

1.	Unamortized balance of UFL due to assumption		
1,	changes $(10/1/15 \text{ balance} \times 1.0525)$	9/30/16	\$ 97.144
2.	Payment on UFL	10/1/16	\$ 4.459
3.	Unamortized UFL balance after payment (1 2.)	10/1/16	\$ 92.685
4.	Additional (new) UFL	9/30/16	\$ (16.471)
5.	Unamortized UFL balance due to assumption changes $(3. + 4.)$	10/1/16	\$ 76.215
6.	Balance on $9/30/17$ (5. $\times$ 1.0525)	9/30/17	\$80.216
7.	Number of years in prior amortization schedule		27.86
8.	Remaining number of years in prior amortization schedule (7 1)		26.86
9.	Number of years in new amortization schedule (absolute values used for all numbers) $[(3. \times 8.) + (4. \times 30)] \div (3. + 4.)$		27.33
10	Value of an annuity due for remaining amortization period at interest rate equal to $(1.0525 \div 1.0325)$ - 1		21.4743
11	Payment on UFL due to assumption changes (6. ÷ 10.)	10/1/17	<u>\$ 3.735<sup>2</sup></u>

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<sup>&</sup>lt;sup>2</sup> Due to a minor technical adjustment, the amount shown here differs slightly from the implemented payment of \$3.736 billion.

### CALCULATION OF OCTOBER 1, 2017, PAYMENT ON UNFUNDED LIABILITY (UFL) RESULTING FROM EXPERIENCE GAINS AND LOSSES

1.	Unamortized UFL balance due to experience gains and losses (10/1/15 balance × 1.0525)	9/30/16	\$ (273.584)
2.	Payment on UFL	10/1/16	\$ (21.015)
3.	Unamortized UFL balance after payment (1 2.)	10/1/16	\$ (252.569)
4.	Additional (new) UFL	9/30/16	\$ (16.759)
5.	Unamortized UFL balance due to experience gains and losses (3. + 4.)	10/1/16	\$ (269.328)
6.	Balance on 9/30/17 (5. × 1.0525)	9/30/17	\$ (283.468)
7.	Number of years in prior amortization schedule		14.28
8.	Remaining number of years in prior amortization schedule (7 1)		13.28
9.	Number of years in new amortization schedule (absolute values used for all numbers) $[(3. \times 8.) + (4. \times 30)] \div (3. + 4.)$		14.32
10	Value of an annuity due for remaining amortization period at interest rate equal to $(1.0525 \div 1.0325)$ - 1		12.6401
11	Payment* on UFL due to experience gains and losses (6. ÷ 10.)	10/1/17	<u>\$ (22.426)</u>

<sup>\*</sup> Excludes payment on loss due to 10/1/16 unpaid (sequestered) contribution.

## **OACT ENDNOTES**

## VISION STATEMENT Dod Office of the actuary

To be leaders in the evaluation of future contingent events and risk related to the financial aspects of military benefits and to provide high-quality actuarial support to key stakeholders.

### MISSION STATEMENT Dod Office of the actuary

The Office of the Actuary (OACT) performs actuarial valuations and provides actuarial support and expertise for the following major benefit programs and funds: the Military Retirement System/Military Retirement Fund; Military Health System, including the portion funded through the Medicare-Eligible Retiree Health Care Fund; education benefits funded through the Education Benefits Fund; and separation benefits funded through the Voluntary Separation Incentive Fund. We fulfill the Secretary of Defense's statutory requirements for actuarial funding determinations for these programs, and we provide requisite actuarial support to the independent Boards of Actuaries that oversee the determinations. OACT is responsible for: providing actuarial liabilities and associated input for the Department's and government-wide financial statements; providing quarterly Incurred-But-Not-Reported reserve estimates for DoD health care programs; informing policy analysis of military benefit provisions and proposals by providing actuarial and cost analysis; providing actuarial support and products for the execution of benefit programs including the Survivor Benefit Plan; providing actuarial support and expertise on matters related to investing the assets of funds that finance military benefit programs; and providing actuarial and statistical information about the Military Retirement System for key stakeholders.

## CONTACT INFORMATION Dod Office of the actuary

Located in the *Actuarial Certification* section of this report (page 2).

## VALUATION OF THE MILITARY RETIREMENT SYSTEM SEPTEMBER 30, 2017

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