



**Calhoun: The NPS Institutional Archive**  
**DSpace Repository**

---

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

---

2005-12

# The Uniformed Services' Thrift Savings Plan and Military Retirement Compensation package options

Batchelder, Craig D.; Lombard, Edward A.

Monterey, California. Naval Postgraduate School

---

<http://hdl.handle.net/10945/9963>

---

*Downloaded from NPS Archive: Calhoun*



Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

**Dudley Knox Library / Naval Postgraduate School**  
**411 Dyer Road / 1 University Circle**  
**Monterey, California USA 93943**

<http://www.nps.edu/library>



**NAVAL  
POSTGRADUATE  
SCHOOL**

**MONTEREY, CALIFORNIA**

---

**MBA PROFESSIONAL REPORT**

---

**The Uniformed Services' Thrift Savings Plan and  
Military Retirement Compensation Package Options**

---

**By: Craig D. Batchelder and  
Edward A. Lombard  
December 2005**

**Advisors: Nayantara Hensel and  
John Mutty**

*Approved for public release; distribution is unlimited.*

THIS PAGE INTENTIONALLY LEFT BLANK

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.				
<b>1. AGENCY USE ONLY</b>		<b>2. REPORT DATE</b> December 2005	<b>3. REPORT TYPE AND DATES COVERED</b> MBA Professional Report	
<b>4. TITLE AND SUBTITLE:</b> The Uniformed Services' Thrift Savings Plan and Military Retirement Compensation Package Options			<b>5. FUNDING NUMBERS</b>	
<b>6. AUTHORS</b> Craig D. Batchelder and Edward A. Lombard				
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Naval Postgraduate School Monterey, CA 93943-5000			<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> N/A			<b>10. SPONSORING / MONITORING AGENCY REPORT NUMBER</b>	
<b>11. SUPPLEMENTARY NOTES</b> The views expressed in this report are those of the authors and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release; distribution is unlimited.			<b>12b. DISTRIBUTION CODE</b>	
<b>13. ABSTRACT</b> ( <i>maximum 200 words</i> )  <p>Military service members are a diverse population, and have numerous different financial situations and needs. While the current total military retirement compensation package is by many accounts fair, adding flexibility and value to the system would benefit both the military and individuals.</p> <p>This report surveys the total military retirement compensation package, and then focuses on one component of the system: the Uniformed Services' Thrift Savings Plan (TSP). As a point of comparison, three other tax-sheltered retirement plans [the private-sector 401(k), the non-profit 403(b), and the Individual Retirement Account] and the two retirement compensation packages for federal civilian workers (the Civil Service Retirement System and the Federal Employees Retirement System) are examined.</p> <p>Potential TSP-focused changes to the total military compensation package are then analyzed, with quantitative financial tools such as Present Value Analysis, and recommendations made concerning these options. By adding flexibility to the TSP, military service members will enjoy a greater ability to tailor their post-service income to their individual situation and needs, and the military will simultaneously realize benefits in recruitment and retention, potentially at no additional monetary liability.</p>				
<b>14. SUBJECT TERMS</b> Military Retirement, Retirement Plans, Thrift Savings Plan, TSP, Matching Contributions, Compensation.			<b>15. NUMBER OF PAGES</b> 95	
			<b>16. PRICE CODE</b>	
<b>17. SECURITY CLASSIFICATION OF REPORT</b> Unclassified	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> Unclassified	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> Unclassified	<b>20. LIMITATION OF ABSTRACT</b> UL	

THIS PAGE INTENTIONALLY LEFT BLANK

**Approved for public release; distribution is unlimited**

**THE UNIFORMED SERVICES' THRIFT SAVINGS PLAN AND  
MILITARY RETIREMENT COMPENSATION PACKAGE OPTIONS**

Craig D. Batchelder, Commander, United States Navy  
Edward A. Lombard, Lieutenant Colonel (Select), United States Air Force

Submitted in partial fulfillment of the requirements for the degree of

**MASTER OF BUSINESS ADMINISTRATION**

from the

**NAVAL POSTGRADUATE SCHOOL  
December 2005**

Authors:

\_\_\_\_\_  
Craig D. Batchelder

\_\_\_\_\_  
Edward A. Lombard

Approved by:

\_\_\_\_\_  
Nayantara Hensel, Co-Advisor

\_\_\_\_\_  
John Mutty, Co-Advisor

\_\_\_\_\_  
Robert N. Beck, Dean  
Graduate School of Business and Public Policy

THIS PAGE INTENTIONALLY LEFT BLANK

# **THE UNIFORMED SERVICES' THRIFT SAVINGS PLAN AND MILITARY RETIREMENT COMPENSATION PACKAGE OPTIONS**

## **ABSTRACT**

Military service members are a diverse population, and have numerous different financial situations and needs. While the current total military retirement compensation package is by many accounts fair, adding flexibility and value to the system would benefit both the military and individuals.

This report surveys the total military retirement compensation package, and then focuses on one component of the system: the Uniformed Services' Thrift Savings Plan (TSP). As a point of comparison, three other tax-sheltered retirement plans [the private-sector 401(k), the non-profit 403(b), and the Individual Retirement Account] and the two retirement compensation packages for federal civilian workers (the Civil Service Retirement System and the Federal Employees Retirement System) are examined.

Potential TSP-focused changes to the total military compensation package are then analyzed, with quantitative financial tools such as Present Value Analysis, and recommendations made concerning these options. By adding flexibility to the TSP, military service members will enjoy a greater ability to tailor their post-service income to their individual situation and needs, and the military will simultaneously realize benefits in recruitment and retention, potentially at no additional monetary liability.



THIS PAGE INTENTIONALLY LEFT BLANK

# TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	THE TOTAL MILITARY RETIREMENT COMPENSATION PACKAGE.....	3
A.	OVERVIEW.....	3
B.	RETIREMENT ANNUITY.....	4
1.	Purpose.....	4
2.	History.....	5
3.	Current System.....	7
a.	Final Pay.....	8
b.	High Three.....	8
c.	Redux.....	9
4.	Advantages.....	11
a.	DoD:.....	11
b.	Service member:.....	11
5.	Disadvantages.....	11
a.	DoD:.....	11
b.	Service member:.....	11
C.	MEDICAL BENEFITS.....	11
1.	Purpose.....	11
2.	Current System.....	12
a.	TRICARE Prime.....	12
b.	TRICARE Extra.....	12
c.	TRICARE Standard.....	12
3.	Medicare Eligible Retirees.....	13
D.	RETIREMENT SAVINGS PLAN.....	13
E.	SOCIAL SECURITY.....	13
1.	Purpose.....	13
F.	VETERANS' GROUP LIFE INSURANCE.....	15
1.	Purpose.....	15
2.	Current System.....	16
G.	MISCELLANEOUS BENEFITS.....	16
1.	Military Exchanges.....	16
2.	Commissaries.....	16
3.	Survivor Benefit Plan.....	17
4.	Dependency and Indemnity Compensation.....	17
III.	THE UNIFORMED SERVICES' THRIFT SAVINGS PLAN.....	19
A.	INTRODUCTION TO THE TSP.....	19
B.	HISTORY OF THE TSP.....	19
C.	TSP CONTRIBUTIONS.....	19
1.	Employee Contributions.....	19
2.	Automatic Contributions.....	20
3.	Matching Contributions.....	20
D.	BENEFITS OF THE PLAN.....	21

E.	<b>THE TSP FUNDS .....</b>	<b>22</b>
1.	<b>Individual Funds .....</b>	<b>22</b>
2.	<b>Asset-allocation Funds.....</b>	<b>23</b>
3.	<b>Investment Strategies.....</b>	<b>23</b>
F.	<b>THE POWER OF THE TSP.....</b>	<b>23</b>
G.	<b>OTHER ASPECTS OF THE PLAN .....</b>	<b>27</b>
IV.	<b>OTHER TAX-SHELTERED RETIREMENT PLANS .....</b>	<b>29</b>
A.	<b>QUALIFIED PLAN.....</b>	<b>29</b>
1.	<b>Defined-Benefit Plan.....</b>	<b>29</b>
2.	<b>Defined-Contribution Plan.....</b>	<b>30</b>
B.	<b>401(K) PLAN.....</b>	<b>30</b>
C.	<b>403(B) PLAN .....</b>	<b>33</b>
D.	<b>INDIVIDUAL RETIREMENT ARRANGEMENT .....</b>	<b>34</b>
1.	<b>Traditional IRA.....</b>	<b>36</b>
2.	<b>Roth IRA.....</b>	<b>38</b>
V.	<b>OTHER FEDERAL RETIREMENT COMPENSATION PACKAGES .....</b>	<b>43</b>
A.	<b>CIVIL SERVICE RETIREMENT SYSTEM .....</b>	<b>43</b>
B.	<b>FEDERAL EMPLOYEES RETIREMENT SYSTEM .....</b>	<b>45</b>
1.	<b>FERS Basic Benefit Plan .....</b>	<b>46</b>
2.	<b>FERS Thrift Savings Plan .....</b>	<b>47</b>
3.	<b>FERS Social Security Participation .....</b>	<b>47</b>
VI.	<b>ON THE ISSUE OF MATCHING FUNDS.....</b>	<b>49</b>
A.	<b>SHOULD MILITARY SERVICE MEMBERS RECEIVE MATCHING TSP CONTRIBUTIONS? .....</b>	<b>49</b>
1.	<b>Qualitative Considerations.....</b>	<b>49</b>
2.	<b>Quantitative Analysis.....</b>	<b>55</b>
B.	<b>ARE DOD-MATCHED TSP CONTRIBUTIONS A FISCALLY REALISTIC CONCEPT? .....</b>	<b>56</b>
1.	<b>Qualitative Discussion .....</b>	<b>56</b>
2.	<b>Quantitative Analysis.....</b>	<b>57</b>
VII.	<b>CONCLUSION .....</b>	<b>61</b>
VIII.	<b>APPENDICES.....</b>	<b>63</b>
	<b>APPENDIX A – SIGNIFICANT RETIREMENT LEGISLATION .....</b>	<b>65</b>
	<b>APPENDIX B – MILITARY RETIRED PAY COST-OF-LIVING INCREASES (JUNE 1958 TO PRESENT) .....</b>	<b>69</b>
	<b>APPENDIX C – PRESENT VALUE OF 5%-MATCHED TSP FUNDS FOR AN O-5 RETIRING AT 20 YEARS .....</b>	<b>71</b>
	<b>APPENDIX D – EXPECTED VALUE OF 5%-MATCHED TSP FUNDS FOR AN O-5 RETIRING AT 20 YEARS .....</b>	<b>73</b>
	<b>APPENDIX E – TSP ACCOUNT FOR AN 8-YEAR SERVICE MEMBER .....</b>	<b>75</b>
	<b>LIST OF REFERENCES.....</b>	<b>77</b>
	<b>INITIAL DISTRIBUTION LIST .....</b>	<b>81</b>

## LIST OF FIGURES

Figure 1.	Projected TSP Account Earnings.....	24
Figure 2.	Potential TSP Account Earnings.....	25
Figure 3.	Advantage of Before-Tax Contributions .....	26

THIS PAGE INTENTIONALLY LEFT BLANK

## LIST OF TABLES

Table 1.	Final Pay Multiplier .....	8
Table 2.	High Three Multiplier .....	8
Table 3.	Redux Multiplier .....	9
Table 4.	Features of Military Retirement Annuities .....	10
Table 5.	Normal Retirement Age .....	15
Table 6.	FERS Employees' Agency Contribution Schedule .....	21
Table 7.	Projected TSP Account Balances.....	24
Table 8.	Contribution Limits.....	31
Table 9.	Contribution Limits.....	33
Table 10.	Maximum Contribution Limits .....	35
Table 11.	MAGI Phase-Out Limits for Deductibility .....	36
Table 12.	Traditional IRA Deductibility Limits for 2005.....	37
Table 13.	MAGI Income Range.....	39
Table 14.	Roth IRA Tax Treatment of Distributions .....	40
Table 15.	CSRS Retirement Requirements.....	44
Table 16.	FERS Immediate Retirement Benefits Requirements.....	46
Table 17.	FERS Deferred Retirement Benefits Requirements .....	47

THIS PAGE INTENTIONALLY LEFT BLANK

## **I. INTRODUCTION**

The research question underlying this Professional Report is “Should the Department of Defense offer matching contributions to the Thrift Savings Plan accounts of active-duty personnel?” In order to thoroughly answer this question, a two-fold course of study has been pursued. First, comprehensive research was performed on the total military compensation package in general and the TSP specifically. As a point of reference, other Federal retirement compensation packages and other tax-sheltered retirement plans were surveyed. Second, a qualitative and quantitative analysis on the issue of matching TSP funds was performed. This was a focused effort, applying such financial tools as Present Value analysis, and considering macro-level realities such as the ever-growing constraints on the national budget. This Report endeavors to educate the reader on the pertinent details of the issue of matching TSP funds before making a conclusion on the subject.



THIS PAGE INTENTIONALLY LEFT BLANK

## **II. THE TOTAL MILITARY RETIREMENT COMPENSATION PACKAGE**

### **A. OVERVIEW**

The Department of Defense (DoD) military retirement system applies to service members of the U.S. Army, U.S. Navy, U.S. Air Force, and U.S. Marine Corps. The retirement compensation package consists primarily of two components. The first component is a funded, noncontributory defined-benefit<sup>1</sup> plan that provides a retirement annuity for life. The second component is lifetime medical benefits. The total military retirement compensation package also provides a voluntary retirement savings plan, includes eligibility for Social Security, and provides various other benefits. For the purposes of this report, only the retirement compensation package as it applies to regular active-duty, non-disability retirees will be discussed.

While some terms and descriptions are similar, it is important to note that the military retirement system has some fundamental differences with other Federal retirement systems and private sector retirement systems. The significant differences can be summarized as follows:

- Military retirees are subject to recall to active duty while Federal and private sector retirees are not
- Military retirees are subject to the Uniform Code of Military Justice while Federal and private sector retirees are not
- Military personnel do not vest for retirement benefits until completion of 20 years of active-duty service while Federal and private sector personnel receive a phasing in of benefit vesting throughout their career<sup>2</sup>

---

<sup>1</sup> A defined benefit plan is typically referred to as a traditional pension plan. Participation is mandatory, and the retirement benefit is definite and determinable. It is usually formula-based, utilizing some combination of independent variables such as employee age, years of employment, and normal compensation. The benefit is payable at time of retirement and is typically a lifetime annuity. These plans are 100 percent employer-funded, and thus all risk resides with the employer.

<sup>2</sup> Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005, p. 683.

Military service is creditable towards a Federal civilian retirement if military retirement pay is waived. Federal civilian service is not creditable towards a military retirement.

It is also important to note that the military retirement annuity is based on “basic pay” which is not the same as Federal or private sector salaries and wages. This factor complicates comparisons between the military retirement system and other retirement systems.<sup>3</sup> Reasonable comparisons can be made by using Regular Military Compensation (RMC) which is the sum of basic pay, cash or in-kind allowances,<sup>4</sup> and the tax advantages accruing to tax-free allowances. Military basic pay currently equals approximately 70 percent of RMC across all retirement-eligible service members. For example, a 20-years-of-service retiree may be eligible for 50 percent of basic pay, but this equates to only 34 percent of RMC.<sup>5</sup>

## **B. RETIREMENT ANNUITY**

### **1. Purpose**

The purposes of the military retirement annuity are to insure that:

- The choice of career service in the Armed Forces is competitive with reasonably available alternatives
- Promotion opportunities are kept open for young and able members
- Some measure of economic security is made available to members after retirement from career military service
- A pool of experienced personnel is maintained, subject to recall to active-duty during time of war or national emergency<sup>6</sup>

---

<sup>3</sup> Office of the Actuary, Department of Defense, “Valuation of the Military Retirement System,” 30 September 2004, p. 1.

<sup>4</sup> For example, Basic Allowance for Housing (BAH) and Basic Allowance for Subsistence (BAS).

<sup>5</sup> Office of the Actuary, Department of Defense, “Valuation of the Military Retirement System,” 30 September 2004, p. A-7-8.

<sup>6</sup> Under Secretary of Defense for Personnel and Readiness, Department of Defense, “Military Compensation Background Papers,” Sixth Edition, May 2005, p. 684.

## 2. History

This section discusses important legislative statutes that resulted in the current system of military retirement pay. Appendix A provides a more complete historical summary of retirement legislation.

The first legislative authority concerning the retirement of active-duty military service members was an 1855 statute that enabled the mandatory retirement of selected officers in the U.S. Navy. The primary purpose of this Act was to identify and retire officers who were deemed incapable of satisfactorily performing their duties.<sup>7</sup> Previous to this there had been several actions by Congress to provide pensions for military veterans, but they were specific and unique to each war and were not all-inclusive.

Over the next nine decades, Congress passed various Acts creating and modifying pension benefits for active-duty military officers. It was not until the Army and Air Force Vitalization and Retirement Equalization Act of 1948, though, that non-disability retirement laws for officers were standardized between the various military services. After 20 years of active-duty service (with at least 10 years of commissioned service), a military officer was entitled to retired pay of 2.5 percent of final active-duty basic pay times years of service.

The first authority for non-disability retirement of enlisted military personnel was the 14 February 1885 Act which authorized retirement of U.S. Army and U.S. Marine Corps enlisted personnel after 30 years of active-duty service. The retired pay was 75 percent of final active-duty pay plus several allowances. This retirement authority was expanded to include U.S. Navy enlisted personnel by the Act of 3 March 1899.

Over the next half-century, Congress passed various Acts creating and modifying pension benefits for active-duty enlisted personnel. Their cumulative effect by the late 1940's was to create an active-duty retirement system for enlisted personnel that looked very much like the retirement system for officers; after 20 years of active-duty service, an enlisted service member was entitled to retired pay of 2.5 percent of final active-duty basic

---

<sup>7</sup> Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005, p. 685.

pay times years of service, up to a maximum of 75 percent for 30 years of service. This retired pay amount is then adjusted annually for inflation by use of the Consumer Price Index (CPI).<sup>8</sup> This military retirement system is known as the Final Pay system and remained in effect for all active-duty service members until the early 1980s.

The Defense Authorization Act of 1981 changed the computation of the retired pay benefit. Retirement pay for any service member who first entered the military on or after 8 September 1980 and completed 20 years active-duty the base pay for computation of the retired pay would now be based on the average of the member's highest three years of active-duty base pay, vice the final active-duty pay amount used previously.<sup>9</sup> This average is multiplied by 2.5 percent, and then multiplied by the years of service, to determine annual retired pay, up to a maximum of 75 percent for 30 years of service. This retired pay amount is adjusted annually for inflation by use of the CPI. Congress took this action to curb the increasing military retirement liability of the government.<sup>10</sup> This military retirement system is known as the High Three system.

The next major change to the military non-disability retirement system came with the Military Retirement Reform Act of 1986. This change affects service members who entered the Armed Forces on or after 1 August 1986. This change reduced the multiplier to 2.0 percent at 20 years of active-duty, but is still based on the member's highest three years of active-duty base pay. For every year of active-duty between 20 and 30 years an additional 3.5 percent of the member's highest three years of active-duty base pay is added, up to a maximum of 75 percent for 30 years of service. This retired pay amount is adjusted annually for inflation by use of the CPI minus one percent. This military retirement system is known as the Redux system.

---

<sup>8</sup> The CPI is determined by the U.S. Department of Labor, Bureau of Labor Statistics. The CPI is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. <http://www.bls.gov/cpi/cpifaq.htm>.

<sup>9</sup> Service members who initially entered the military prior to 8 September 1980 retained the Final Pay method of computing retirement pay.

<sup>10</sup> Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005, p. 699.

The Military Retirement Reform Act of 1986 also provides two adjustments to Redux when the service member reaches an age of 62 years old. First, the multiplier is reset to 2.5 percent, and is then multiplied by the years of service to determine the retired pay (up to a maximum of 75 percent for 30 years of service). Second, a one-time catch-up for cost-of-living is given, which increases the retired pay to the amount it would have been if full CPI adjustments had been made. Subsequent to this one-time adjustment, the retired pay amount will again be adjusted annually for inflation by use of the CPI minus one percent.

Due to the belief that the Redux system was negatively impacting recruiting and retention,<sup>11</sup> Congress made a change with the National Defense Authorization Act of 2000 that provided service members expanded choices upon reaching 15 years of active-duty service. At this point, the service member can choose to either transition to the High Three retirement system or to remain with the Redux retirement system and receive an immediate \$30,000 Career Status Bonus.

### **3. Current System**

These legislative actions of Congress have resulted in a military retirement system with three types of retirement annuities based on the date of initial entry into military service,<sup>12</sup> and thus essentially three classes of recipients. These three retirement annuity systems are commonly known as: Final Pay, High Three, and Redux.

These three systems are all similar in that the retirement annuity amount for each system is determined based on the member's years of active-duty service and basic pay received. Each of the three systems computes the basic pay differently, and there are some differences in calculating the percentage multiplier. The three annuities also provide for cost-of-living adjustments in different ways. The average cost-of-living adjustment since 1958 has been 4.2 percent per year. Appendix B provides a year-by-year breakdown of historical cost-of-living adjustments.

---

<sup>11</sup> Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005, p. 707.

Three annuities can be summarized as follows:

*a. Final Pay*

The Final Pay annuity is applicable to service members who first entered the armed forces before 8 September 1980. Upon completion of at least 20 years active-duty service, retirees are eligible for retired pay which is equal to their final basic pay times a multiplier (the product of 2.5 percent times their years of active-duty service). This multiplier is capped at 75 percent. Table 1 depicts the Final Pay multiplier between 20 and 30 years of service.

<b>Years of Service</b>	20	21	22	23	24	25	26	27	28	29	30
<b>Multiplier</b>	50.0%	52.5%	55.0%	57.5%	60.0%	62.5%	65.0%	67.5%	70.0%	72.5%	75.0%

Table 1. Final Pay Multiplier

Cost of living protection is provided by an annual adjustment to the Final Pay annuity based on the CPI.

*b. High Three*

The High Three annuity is applicable to service members who first entered the armed forces on or after 8 September 1980. Upon completion of at least 20 years active-duty service, they are eligible for retired pay which is equal to the average of their highest 36 months of basic pay times a multiplier (the product of 2.5 percent times their years of active-duty service). This multiplier is capped at 75 percent. Table 2 depicts the High Three multiplier between 20 and 30 years of service. Note that the Final Pay multipliers and the High Three multipliers are identical.

<b>Years of Service</b>	20	21	22	23	24	25	26	27	28	29	30
<b>Multiplier</b>	50.0%	52.5%	55.0%	57.5%	60.0%	62.5%	65.0%	67.5%	70.0%	72.5%	75.0%

Table 2. High Three Multiplier

Cost of living protection is provided by an annual adjustment to the High Three annuity based on the CPI.

---

<sup>12</sup> This is true for initial entry into any type of military service, not just active-duty service.

*c. Redux*

The Redux annuity is applicable to service members who first entered the armed forces on or after 1 August 1986 and who elect at 15 years of service to receive a \$30,000 Career Status Bonus. Upon completion of at least 20 years active-duty service, retirees are eligible for retired pay which is equal to the average of their highest 36 months of basic pay times a multiplier. The multiplier is 2.5 percent times their years of active-duty service, but it is reduced by one percent for every year less than 30 years of active-duty service. When the retired service member reaches 62 years of age, the multiplier is recalculated with the one percent penalty removed. As with Final Pay and High Three, the multiplier is capped at 75 percent. Table 3 depicts the Redux multiplier between 20 and 30 years of service and before 62 years of age.

<b>Years of Service</b>	20	21	22	23	24	25	26	27	28	29	30
<b>Multiplier</b>	40.0%	43.5%	47.0%	50.5%	54.0%	57.5%	61.0%	64.5%	68.0%	71.5%	75.0%

Table 3. Redux Multiplier

Cost of living protection is provided by an annual adjustment to the Redux annuity based on the CPI minus one percent. A one-time adjustment at 62 years of age resets the Redux annuity cost of living adjustment to what it would have been under the Final Pay or High Three systems. After that adjustment, the annual adjustments will return to CPI minus one percent.

Table 4 provides a comparison of the key features of all three military retirement annuity systems.



<b>System</b>	<b>Final Pay</b>	<b>High Three</b>	<b>Redux</b>
Applies to:	Persons in service before 8 September 1980	Persons joining service from 8 September 1980, through 31 July 1986, and persons joining after 31 July 1986 opting not to accept 15-Year Career Status Bonus	Persons joining service after 31 July 1986 and accepting 15-Year Career Status Bonus with additional 5-year service obligation
Vesting Point:	20 years active-duty service	20 years active-duty service	20 years active-duty service
Duration:	Lifetime	Lifetime	Lifetime
Basis of Computation (Retired or Retainer Pay Base):	Final rate of monthly basic pay	Average monthly basic pay for highest 36 months of basic pay	Average monthly basic pay for highest 36 months of basic pay
Multiplier:	2.5 percent per year of service	2.5 percent per year of service	2.5 percent per year of service minus one percentage point for each year of service less than 30 (restored at age 62)
Maximum Multiplier:	75 percent	75 percent	75 percent
Cost-of-Living Adjustment Mechanism:	Full CPI-W <sup>13</sup>	Full CPI-W	CPI-W minus one percent (one-time catch up at age 62)
Additional Benefit:			\$30,000 Career Status Bonus payable at 15-year anniversary upon assumption of 5-year obligation to remain on continuous active-duty

Table 4. Features of Military Retirement Annuities<sup>14</sup>

<sup>13</sup> Urban Wage Earner and Clerical Worker Consumer Price Index

#### **4. Advantages**

The military retirement annuity system provides advantages to both DoD and the service member.

*a. DoD:*

- Supports attracting and retaining high-quality personnel
- Supports maintenance of a young and vigorous force with reasonable promotion opportunities
- Supports creation and maintenance of a pool of experienced personnel available for recall

*b. Service member:*

- Provides middle-aged personnel retiring from the military an income during transition to next career
- Provides financial stability in retirement years
- Benefits are guaranteed

#### **5. Disadvantages**

The military retirement annuity system unfortunately also carries with it some disadvantages for both DoD and the service member.

*a. DoD:*

- Significant and growing financial burden
- Hinders rapid changes in the work force
- Relatively more generous for officers than enlisted personnel<sup>15</sup>

*b. Service member:*

- No benefits offered to separating service members prior to completion of 20 years of active-duty service

### **C. MEDICAL BENEFITS**

#### **1. Purpose**

The purposes of retiree medical benefits are to:

- Provide incentives for military personnel to choose military service and to remain for a full career
- Ensure the availability of healthy and experienced personnel when required

---

<sup>14</sup> Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005, p. 714.

<sup>15</sup> Defense Advisory Committee on Military Compensation, Transcript, Public Meeting, 20 July 2005, p. 3.

- Provide military medical practitioners experience with the complete range of demographically diverse morbidity<sup>16</sup>
- 2. Current System**

Military retirees and their dependents and survivors are entitled to health care via the TRICARE system, which combines the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS)<sup>17</sup> health insurance benefits with access to military medical/dental staff and facilities on a space available basis. The TRICARE system provides three service options:

**a. TRICARE Prime**

TRICARE Prime is a managed care option similar to a civilian health maintenance organization (HMO) that requires enrollment and offers lower out-of-pocket expenses than the other TRICARE options. Enrollees receive most of their health care from military providers or from civilian providers within the TRICARE network. Retirees pay an annual fee of \$230 for an individual or \$460 for a family, and minimal co-pays apply for health care within the TRICARE network.

**b. TRICARE Extra**

TRICARE Extra is a preferred provider option (PPO) in which members choose a health care provider within the TRICARE provider network. There are no enrollment or annual fees. Retirees pay an annual deductible of \$150 for an individual or \$300 for a family and cost-shares for all services.

**c. TRICARE Standard**

TRICARE Standard is a fee-for-service option in which members use an authorized TRICARE health care provider of their choice. There are no enrollment or annual fees. Retirees pay an annual deductible of \$150 for an individual or \$300 for a family and cost-shares for all services.

---

<sup>16</sup> Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005, p. 819.

<sup>17</sup> CHAMPUS provides retirees access to health services from civilian providers as an alternative to military providers. By law, CHAMPUS is a cost-sharing program where the retiree is responsible for a share of expenses.

### **3. Medicare<sup>18</sup> Eligible Retirees**

When retirees reach the age of 65, they become eligible for Medicare Part A<sup>19</sup> and have the option to use TRICARE For Life (TFL). To be eligible for TFL, they must purchase Medicare Part B.<sup>20</sup> TFL is a comprehensive Medicare supplement type coverage that functions as a second payer to Medicare for health costs. There are no enrollment fees other than those for Medicare Part B. Military retirees and their dependents and survivors covered under TFL retain their access to military medical and dental facilities on a space available basis.

## **D. RETIREMENT SAVINGS PLAN**

The military offers its members the Thrift Savings Plan, a tax-deferred retirement savings plan. This is a defined-contribution<sup>21</sup> plan, in contrast to the military retirement annuity which is a defined-benefit plan. The TSP is covered at length in Chapter III of this report.

## **E. SOCIAL SECURITY**

### **1. Purpose**

1957 Social Security legislation requires both service members and the Department of Defense to finance a Federal Old-Age, Survivors, Disability,<sup>22</sup> and Health Insurance program<sup>23</sup> to provide pre- and post-retirement income and security for the participating members and their families. This is manifested as a 7.65 percent payroll deduction (6.2

---

<sup>18</sup> Medicare is a health insurance program for: people 65 or older, people under 65 with certain disabilities, and people of all ages with End-Stage Renal Disease.

<sup>19</sup> Medicare Part A is hospital insurance that helps cover inpatient care in hospitals. Typically, no monthly payment is required, as the individual or their spouse paid Medicare taxes while working.

<sup>20</sup> Medicare Part B is medical insurance that helps cover doctors' services and outpatient care. Retirees pay a monthly premium (\$78.20 in 2005) and a deductible (\$110 in 2005).

<sup>21</sup> Participation is voluntary and the individual selects the contribution level. Contributions can be solely by the individual or a combination of the individual and the employer. Growth occurs as a result of the individual's success at selecting investment options. Risk resides with the individual.

<sup>22</sup> Essentially an old-age annuity.

<sup>23</sup> Better known as Medicare.

percent towards the annuity and 1.45 percent towards Medicare), applicable to annual earnings of up to \$90,000.<sup>24</sup> The employer is required to make matching payments.<sup>25</sup> For the military services, there is also a unique credit by the Government to account for the significant portions of military compensation that are not included in earnings for Social Security benefits calculation. This credit equaled \$300 per quarter between 1956 and 1978. Since 1978, the credit has equaled \$100 for every \$300 of earnings up to a maximum credit of \$1200.<sup>26</sup>

Eligibility for benefits is established by the length of a service member's covered employment, which is measured in "quarters of coverage." In 2005, the amount of income required to earn credit for one covered quarter is \$920. No more than four credits can be earned in any one year. It takes 40 credits (ten years of employment) to qualify for full benefits.

As full participants in this system, military service members are entitled to the same benefits as participating civilian employees.<sup>27</sup> Any applicant who is eligible for Social Security benefits will receive annuity payments that are a portion (approximately 40 percent<sup>28</sup>) of their average earnings over their working years and Medicare insurance. The monthly Social Security annuity payments are increased automatically every year per CPI-pegged cost of living increases. There are also provisions for payments to eligible family members in cases of disability or death of the participating member.

Participating members are deemed eligible at their "normal retirement age."<sup>29</sup> Historically this age has been defined as 65 years old, but due to the increasing lifespan expectancy of U.S. citizens, the "normal retirement age" is in the process of being raised to

---

24 2005 limit. On earnings over \$90,000, the member only pays the 1.45 percent for Medicare.

25 Self-employed individuals make both the employee and employer payments.

26 Office of the Actuary, Department of Defense, "Valuation of the Military Retirement System," 30 September 2004, p. A-8.

27 Social Security Administration, "Military Service and Social Security," SSA Publication No. 05-10024, January 2005, p. 1.

28 Social Security Administration, "Understanding the Benefits," SSA Publication No. 05-10017, January 2005, p. 1.

29 Permanently reduced benefits are available for early retirement at age 62.

age 67. Table 2 depicts the phasing in of that change based on birth year of the participating member.

<b>Year of Birth</b>	<b>Normal Retirement Age</b>
1937 or earlier	65 Years
1938	65 Years 2 Months
1939	65 Years 4 Months
1940	65 Years 6 Months
1941	65 Years 8 Months
1942	65 Years 10 Months
1943 through 1954	66 Years
1955	66 Years 2 Months
1956	66 Years 4 Months
1957	66 Years 6 Months
1958	66 Years 8 Months
1959	66 Years 10 Months
1960 or later	67 Years

Table 5. Normal Retirement Age<sup>30</sup>

## **F. VETERANS' GROUP LIFE INSURANCE**

### **1. Purpose**

The purpose of Veterans' Group Life Insurance (VGLI) is to make life insurance available to retired or other former members of the armed forces at a reasonable cost.

---

<sup>30</sup> Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005, pp. 893-894.

## **2. Current System**

VGLI is a voluntary program allowing former members of the armed forces to convert SGLI<sup>31</sup> coverage, normally within 120 days after separation. VGLI provides an indefinitely renewable five-year term insurance policy to a maximum coverage of \$400,000 (not to exceed amount of SGLI coverage at time of conversion). The monthly premium for \$400,000 of coverage ranges from \$32 for a member under 30 years old to \$1800 for a member over 75 years old.<sup>32</sup> At the end of each five-year term, the member can renew the coverage or convert it to an individual policy with a private participating company.

## **G. MISCELLANEOUS BENEFITS**

### **1. Military Exchanges**

The military exchange system<sup>33</sup> is viewed as vital to DoD's mission accomplishment and is a key component of the non-pay compensation package for active-duty service members. Though originally established for only active-duty service members, access has been expanded to include military retirees, their dependents, and members of the Guard and Reserve. In light of the approximately 20 percent savings<sup>34</sup> the exchanges offer in relation to civilian stores, this is an important piece of the total retirement compensation package.

### **2. Commissaries**

The military commissaries were created to provide items of convenience and necessity at convenient locations and at reasonable prices. Similar to the military exchanges, they were originally established for active-duty service members, and have had

---

31 SGLI is Servicemembers' Group Life Insurance, available to members of the armed forces on a voluntary basis. The maximum coverage is \$400,000, which requires a monthly premium of \$26. Coverage normally ends on the 120th day after separation from active-duty.

32 Veterans Benefits Administration, "Servicemembers' and Veterans' Group Life Insurance Handbook," Revised, 1 September 2005, pp. 37-40.

33 Military-only department stores which provide goods and services at lower than market prices.

34 Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005, p. 938.

access expanded to include military retirees and their dependents. In view of the approximately 20 to 25 percent savings<sup>35</sup> they offer in comparison to civilian stores, this is an important piece of the total retirement compensation package.

### **3. Survivor Benefit Plan**

The Survivor Benefit Plan (SBP) was created to provide a reasonable annuity to the surviving dependents of retired and retirement-eligible military personnel. Upon retirement, the service member begins to pay premiums for SBP coverage, effectively reducing the retirement annuity.<sup>36</sup> When the retired service member dies and if there are eligible survivors, they will receive an inflation-adjusted monthly income for the remainder of their lives.

The standard SBP payment for a spouse equals 35 percent of the retired service member's retired pay for a spouse that is 62 or older. If the spouse is younger than 62, the SBP payment is 55 percent of retired pay, but will be reduced to 35 percent when the spouse reaches age 62. The National Defense Authorization Act of 2005 increases this percentage steadily over time so that eventually the SBP payment for a spouse 62 or older will be 55 percent. The phase-in schedule is as follows:<sup>37</sup>

- 40% in October 2005
- 45% in April 2006
- 50% in April 2007
- 55% in April 2008

### **4. Dependency and Indemnity Compensation**

The Dependency and Indemnity Compensation (DIC) program is administered by the Department of Veterans Affairs (VA) to provide a payment to surviving dependents of military personnel or veterans who die after military service as a result of service-connected disabilities. The purpose of this payment is to both replace family income lost

---

<sup>35</sup> Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005, p. 933.

<sup>36</sup> Reduction in retired pay does not cover all costs; thus, total SBP costs are shared between the retired service member and the Government.

<sup>37</sup> [http://www.defenselink.mil/militarypay/survivor/sbp/01\\_overview.html](http://www.defenselink.mil/militarypay/survivor/sbp/01_overview.html)



due to the member's death and serve as partial reparations for the death. If the surviving spouse is also eligible for SBP payments, then those payments will be reduced by the amount of the DIC payment.

### **III. THE UNIFORMED SERVICES' THRIFT SAVINGS PLAN**

#### **A. INTRODUCTION TO THE TSP**

The Thrift Savings Plan is a retirement benefit that is available to both civilian and military employees of the U.S. Government. It is a tax-advantaged, defined-contribution, long-term savings and investment program comparable to private sector 401(k) plans. The Plan's characteristics vary slightly between Civil Service Retirement System (CSRS) employees, Federal Employees' Retirement System (FERS) employees, and members of the uniformed services.

#### **B. HISTORY OF THE TSP**

The Federal Employees' Retirement System Act of 1986 established the Thrift Savings Plan to provide retirement income for federal civilian employees. The Act also created the Federal Retirement Thrift Investment Board (FRTIB) to administer the TSP. Public Law 106-398 (the National Defense Authorization Act for Fiscal Year 2001), enacted on 30 October 2000, extended TSP eligibility to members of the uniformed services.<sup>38</sup>

#### **C. TSP CONTRIBUTIONS**

There are three sources of TSP contributions: employee contributions, automatic contributions, and matching contributions.

##### **1. Employee Contributions**

Employee contributions are payroll deductions made by any eligible TSP participant (CSRS, FERS, or uniformed services). These contributions are deducted from basic pay, before taxes are withheld. In the past, there has been a TSP-imposed limit on the amount of contributions that participants could make, as a percentage of basic pay.

---

<sup>38</sup> Federal Retirement Thrift Investment Board, "Summary of the Thrift Savings Plan," October 2001, p. 2.

Beginning in 2006, however, these Plan-imposed ceilings will be eliminated, and only IRS elective deferral retirement plan limits will apply.<sup>39</sup>

In the past, members of the uniformed services were able to contribute up to 100% of incentive pay, special pay, and bonus pay. With TSP-imposed percentage limits being eliminated in 2006, this distinction will become irrelevant. Tax-exempt pay (such as the Combat Zone Tax Exclusion entitlement) will continue to be unaffected by the IRS elective deferral retirement plan limits.

## **2. Automatic Contributions**

FERS employees receive an Agency Automatic 1% Contribution. One percent of the employee's before-tax basic pay is paid into the Plan, at no cost to the employee, regardless of employee contributions. FERS employees are entitled to keep these automatic contributions once they become "vested" (complete a modest two to three year time-in-service requirement).

## **3. Matching Contributions**

FERS TSP participants receive matching contributions on the first five percent of contributed pay each pay period. The employee's agency matches dollar-for-dollar the first three percent of contributed basic pay each pay period, with the next two percent matched at fifty cents on the dollar. FERS TSP participants are immediately vested in all matching contributions. Table 6 illustrates the matching schedule for FERS employees.<sup>40</sup>

---

<sup>39</sup> In 2006, the IRS elective deferral retirement plan limit will be \$15,000. This figure changes annually, based on factors such as inflation.

<sup>40</sup> Federal Retirement Thrift Investment Board, "TSP At a Glance," June 2003, p. 2.

Percent of Basic Pay Contributed to Your Account (FERS Employees Only)			
You put in:	Your agency puts in:		The total contribution is:
	Automatic Contribution	Matching Contribution	
0%	1%	0%	1%
1%	1%	1%	3%
2%	1%	2%	5%
3%	1%	3%	7%
4%	1%	3.5%	8.5%
5%	1%	4%	10%
6% – 13%	1%	4%	11% – 18%

Table 6. FERS Employees’ Agency Contribution Schedule

CSRS participants do not receive matching contributions. While members of the Uniformed Services do not currently receive matching contributions, there is a provision in the TSP law which allows Service Secretaries to designate specific critical specialties as eligible for matching contributions. No such designation has yet been made.

**D. BENEFITS OF THE PLAN**

There are several benefits which accompany TSP participation. First and foremost are the tax advantages of the Plan. TSP contributions are “before-tax” dollars, meaning they are removed each pay period before Federal and state income taxes are calculated. This results in a lower tax liability.<sup>41</sup> Also, TSP earnings are “tax-deferred,” meaning taxes are not paid on earnings until withdrawal. Additionally, some participants may qualify for the Saver’s Tax Credit. If a participant’s adjusted gross income is no higher

---

<sup>41</sup> This is desirable for a majority of workers, who will have a lower income (and thus a lower tax bracket) in retirement. This benefit is identical to that of the traditional IRA. For participants without matching funds who anticipate a higher income during retirement, a Roth IRA (in which taxes are paid in the contribution year, with all earnings and withdrawals tax-exempt for life) may be preferable to the TSP. The specifics of IRAs will be discussed in Chapter IV.

than the prescribed threshold, the participant may be eligible for an annual \$1,000 Federal income tax credit.<sup>42</sup>

Another benefit of the Plan is that it is a simple way to “force” workers to save for retirement. This is a very real benefit for those individuals who neglect retirement savings because of a lack of discipline or misperceived complexity of the contributions process.

Finally, for those participants who enjoy matching funds, the TSP provides a de facto annual monetary bonus. There are few benefits that workers covet more than “free money.”

## **E. THE TSP FUNDS**

There are 10 TSP funds available into which participants may contribute. They are all passively managed (“buy and hold”) index funds, aimed at replicating market performance. Five of the TSP funds are individual funds, while the other five are asset-allocation funds.

### **1. Individual Funds**

The five oldest TSP funds are referred to in FRTIB literature as “individual funds.” These are the G, F, C, S, and I Funds. The Government Securities Investment (G) Fund carries no risk of loss of principal by investing in short-term U.S. Treasuries. The Fixed Income Investment (F) Fund aims to earn rates of return exceeding money market funds by tracking various sectors of the U.S. bond market. The Common Stock Index Investment (C) Fund offers potential high investment returns by tracking the Standard & Poor’s (S&P) 500 stock index of larger U.S. companies. The Small Capitalization Stock Index (S) Fund tracks the Dow Jones Wilshire 4500 stock index of smaller U.S. companies, offering potentially higher investment returns, but with greater volatility, than the C Fund. The International Stock Index Investment (I) Fund tracks larger companies in developed countries of Europe and Asia.

---

<sup>42</sup> The limit is currently set at \$50,000 if married filing jointly, \$37,500 if head of household, and \$25,000 if single or married filing separately. Internal Revenue Service (IRS) Publication 553 contains the specifics about the Saver’s Tax Credit.

## **2. Asset-allocation Funds**

There are five “lifecycle” (L) funds that invest in varying mixes of stocks, bonds, and securities. These are professionally managed, and named, according to when the participant will need his or her TSP monies. The theory behind the varying mixes of the L funds is that participants with a longer investment time horizon may be better able to tolerate risk while pursuing higher returns.

The L 2040, L 2030, L 2020, and L 2010 Funds are named according the approximate year in which a participant will begin withdrawing from his or her TSP account. For example, the L 2040 Fund is most heavily weighted toward the C Fund, while the L 2010 Fund is most heavily weighted with the G Fund. The investment risk of these funds is continually reduced as the investment time horizon decreases. The L Income Fund targets participants who are currently, or will soon be, withdrawing their accounts in monthly payments.

## **3. Investment Strategies**

The diverse collection of TSP funds allows for a number of different investing approaches. One tactic is to simply choose the L Fund which most closely approximates the time frame when monies will be needed. Another tactic is to invest in a mix of Individual Funds which reflects personal risk-reward style. As with any investment, participants must consider individual objectives, risk aversion, diversification level of non-TSP assets and investment time horizon. Financial planning resources such as the FRTIB’s “Guide to TSP Investments” and “Managing Your Account” may be referenced.

## **F. THE POWER OF THE TSP**

FRTIB literature provides evidence of how powerful TSP savings can be. Table 7 and Figure 1 project account balances for a participant with a \$26,000 annual salary who contributes seven percent of basic pay each pay period.<sup>43</sup>

---

<sup>43</sup> Federal Retirement Thrift Investment Board, “Summary of the Thrift Savings plan for the Uniformed Services,” October 2001, p.14.

Projected Account Balance of a Member Who Contributes 7% of \$26,000 Annual Basic Pay			
Account Balance After:	Account Balance at Assumed Annual Rates of Return (Compounded Monthly)		
	4%	7%	10%
5 Years	\$10,140	\$10,920	\$11,700
10 Years	22,360	26,260	30,940
15 Years	37,440	48,100	62,920
20 Years	55,640	79,040	115,180
25 Years	78,000	122,980	201,240
30 Years	105,300	185,120	342,940
35 Years	138,580	273,260	575,900
40 Years	179,140	398,060	959,140

Table 7. Projected TSP Account Balances

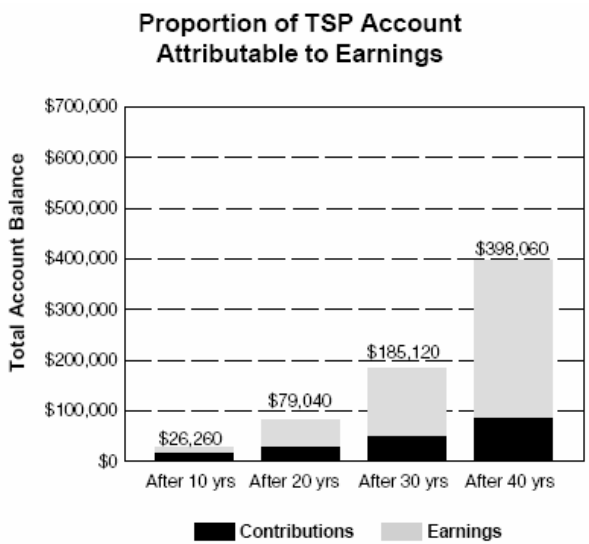


Figure 1. Projected TSP Account Earnings

Figure 2 projects account balances for a participant with a \$40,000 annual salary who contributes five percent of basic pay each pay period, with a five percent agency match, assuming a seven percent rate of return.<sup>44</sup>

<sup>44</sup> Federal Retirement Thrift Investment Board, "Summary of the Thrift Savings Plan," August 2005, p. 1.

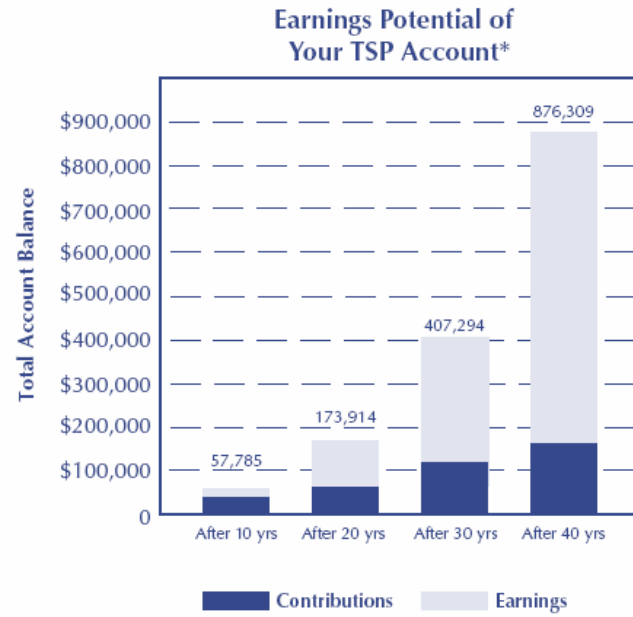


Figure 2. Potential TSP Account Earnings

Figure 3 illustrates the tax advantage of the TSP as discussed in the above Section “Benefits of The Plan.”<sup>45</sup>

---

<sup>45</sup> Federal Retirement Thrift Investment Board, “Summary of the Thrift Savings Plan,” August 2005, p. 5.



Before-Tax Savings Through the TSP	
Annual pay ( <i>taxable income</i> )	\$40,000
Minus TSP contributions (5% of \$40,000)	<u>- 2,000</u>
Net taxable income	38,000
Minus estimated Federal income tax at 25%	<u>- 4,121</u>
Net spendable income	\$33,879

After-Tax Savings Outside the TSP	
Annual pay ( <i>taxable income</i> )	\$40,000
Minus estimated Federal income tax at 25%	<u>- 4,621</u>
Net income after taxes	35,379
Minus savings ( <i>no tax advantage</i> ) (5% of \$40,000)	<u>- 2,000</u>
Net spendable income	\$33,379

The Difference	
If you contributed before-tax money to the TSP, you would have <b>\$500 more in your pocket.</b>	
(\$33,879 – \$33,379 = \$500)	
If you pay taxes at a higher rate than 25%, the advantage of before-tax contributions to the TSP will be even greater.	

Figure 3. Advantage of Before-Tax Contributions

The above Table and Figures demonstrate how powerful the Thrift Savings Plan can be as a savings tool. The key, as with any retirement savings plan, is to begin saving early.

## **G. OTHER ASPECTS OF THE PLAN**

There are many other facets of the TSP which are vital for the participant to understand but which are beyond the scope of this report. These include, but are not limited to,

- Moving money from other plans into the TSP
- Interfund transfers
- TSP Loans
- In-service and after-separation withdrawals
- Beneficiary death benefits
- Catch-up contributions

There are many sources of information on the Thrift Savings Plan. The best introductory resource is the FRTIB booklet “Summary of the Thrift Savings Plan.”<sup>46</sup> The FRTIB also publishes a wide variety of informative booklets, fact sheets, and leaflets. The TSP website ([www.tsp.gov](http://www.tsp.gov)) is the most comprehensive and up-to-date source of TSP information.

---

<sup>46</sup> The most current version of this booklet is dated in August 2005. Many TSP Service Offices, however, are still distributing the October 2001 version.

THIS PAGE INTENTIONALLY LEFT BLANK

## **IV. OTHER TAX-SHELTERED RETIREMENT PLANS**

The Thrift Savings Plan is but one of several tax-advantaged retirement savings plans available to working tax-payers in the United States. Plans differ in their structure, rules, benefits, and participant eligibility. This Chapter will give an overview of qualified retirement plans, and then discuss three common retirement savings plans as a point of reference: the 401(k), the 403(b), and the Individual Retirement Account.

### **A. QUALIFIED PLAN**

A qualified plan is created by an employer to provide retirement benefits for its employees and their eligible family members. By meeting requirements of the Employee Retirement Income Security Act of 1974 and the Internal Revenue Code, these plans qualify for important tax benefits:

- Employers may deduct allowable contributions in the year in which they were made
- Participants may exclude contributions from their taxable income until they are withdrawn from the plan
- Earnings on plan assets are tax-deferred until withdrawn from the plan
- Plan assets are eligible for transfer into another tax-deferred plan such as an Individual Retirement Arrangement (IRA)<sup>47</sup>

Qualified plans are offered in two basic structures. They can be created either as a defined-benefit plan or a defined-contribution plan.

#### **1. Defined-Benefit Plan**

With a defined-benefit plan, employees' retirement benefits are guaranteed and fixed based on their years of service, earnings, and age. Risk within this plan type resides with the employer.<sup>48</sup>

---

<sup>47</sup> <http://investopedia.com/university/retirementplans/qualifiedplan/>

<sup>48</sup> <http://www.fool.com/retirement/retirementplanning/retirementplanning15.htm>

Throughout the employee's working years, the employer makes contributions to a general retirement account that is used to pay retirement benefits to all of its eligible retired employees. No individual account is created per employee. Typically, benefits are in the form of a lifetime annuity with payments not starting until normal retirement age has been reached. When received, this income will be treated as ordinary income and taxed at the appropriate tax rates. It is ineligible for rollover into an IRA. Some defined-benefit plans do allow payment of a lump sum amount at normal retirement age. In these cases, the lump sum is eligible to be rolled over into an IRA to defer taxation. Otherwise it too is treated as ordinary income and taxed at the appropriate tax rates.

The military retirement annuity discussed in Chapter II is essentially DoD's version of a qualified, defined-benefit retirement plan.

## **2. Defined-Contribution Plan**

With a defined-contribution plan, there is no guaranteed fixed benefit at retirement. Risk within this plan type resides with the employee.<sup>49</sup>

The employer creates an individual retirement account that the employee, employer, or both contribute to throughout the employee's working years. The retirement benefit will be determined based on the amount of funds contributed and the performance of the investment vehicle(s) chosen by the employee. Typically, the payments will be in installments or as a lump sum. When received, this income will be treated at ordinary income tax rates unless it is rolled over into an IRA.

The Uniformed Services' Thrift Savings Plan discussed in Chapter III is a qualified, defined-contribution retirement plan offered by DoD in addition to its more traditional defined-benefit retirement plan.

## **B. 401(K) PLAN**

A 401(k) retirement plan is a qualified defined-contribution retirement plan. It is also known as a cash or deferred arrangement (CODA) plan. With a 401(k) plan, an

---

<sup>49</sup> <http://www.fool.com/retirement/retirementplanning/retirementplanning15.htm>

employee defers receipt of a part of earned compensation, and the employer contributes it directly into a 401(k) account. These contributions are before-tax earnings. The plan may also allow the employee to make additional contributions, though these contributions will be with after-tax earnings.

A key benefit of many 401(k) plans, though not all of them, is a matching contribution by the employer. In most cases the employer establishes a percentage of the employee's compensation as the maximum amount that it will match. Typically, this limit ranges from 12 to 20 percent of an employee's annual compensation.<sup>50</sup>

The Internal Revenue Code establishes the absolute maximum before-tax contribution that an employee can make. The Code also provides catch-up contributions for employees who have reached at least 50 years of age. Table 8 depicts both the normal and catch-up contribution limits.

<b>Year</b>	<b>Contribution Limit</b>	<b>Catch-Up Contribution Limit</b>
2005	\$14,000	\$4,000
2006+	\$15,000*	\$5,000**
	* Cost-of-living adjustments will be made in \$500 increments	** Cost-of-living adjustments will be made in \$500 increments

Table 8. Contribution Limits<sup>51</sup>

Within a 401(k) plan, the options for investing are numerous; they include stocks, bonds, mutual funds, real estate, and money market funds. Beginning in 2006, it will even be permissible to make contributions through the plan into a Roth IRA account.

It is the employer who establishes the choices within the plan. The employer also determines whether it will direct the investments or if it will allow the employees to direct

---

<sup>50</sup> <http://www.fool.com/retirement/retirementplanning/retirementplanning15.htm>

<sup>51</sup> <http://investopedia.com/university/retirementplans/qualifiedplan/>

their investments. If the employees are empowered to make the investment decisions, the employer has a responsibility to provide:

- A description of each option with investment goals and risk and return characteristics
- Information about the investment manager
- Investment instructions and restrictions
- Fee schedule
- Shareholder voting rights
- Shareholder confidentiality rights
- Plan fiduciary contact information

The major benefit of a 401(k) plan is that earnings, on either before-tax or after-tax contributions, are tax-deferred until withdrawal from the account. Upon distribution, all earnings and before-tax contributions are taxed as ordinary income. Generally, there are five events that trigger distribution:

- Termination of employment
- Disability
- Employee reaches 59-1/2 years old
- Retirement
- Death

If the distribution does not fall within any of these situations then the employee may be liable for a 10 percent tax on the distribution.

To summarize, advantages of a 401(k) are:

- Before-tax contributions reduce employee's current income obligation
- Potential for profit-sharing with employer
- Various investment options
- Earnings grow tax-deferred
- Individual in retirement is most likely in a lower tax bracket when funds withdrawn
- Tax-free transfer to beneficiary after death

### C. 403(B) PLAN

A 403(b) plan is a defined-contribution retirement plan. It is also known as a tax-sheltered or tax-deferred annuity program. The 403(b) plan exists for educational, religious, and charitable organization employees.

The employer has the option as to whether to make contributions or not, and if so whether they are fixed or discretionary. The employee can make contributions with before-tax earnings, after-tax earnings, or both.

The Internal Revenue Code establishes the absolute maximum before-tax contribution that an employee can make. The Code also provides catch-up contributions for employees who have reached at least 50 years of age. Table 9 depicts both the normal and catch-up contribution limits.

<b>Year</b>	<b>Contribution Limit</b>	<b>Catch-Up Contribution Limit</b>
2005	\$14,000	\$4,000
2006+	\$15,000*	\$5,000**
	* Cost-of-living adjustments will be made in \$500 increments	** Cost-of-living adjustments will be made in \$500 increments

Table 9. Contribution Limits<sup>52</sup>

A 403(b) plan can be established in three different types of investment structures. These are:

- An annuity contract through an insurance company
- A custodial account with investments limited to regulated investment companies
- A retirement income account with investment options of either mutual funds or annuities

Additionally, beginning in 2006, 403(b) plans will be eligible to make contributions through the plan into a Roth IRA account.

---

<sup>52</sup> <http://investopedia.com/university/retirementplans/403b/>



The major benefit of a 403(b) plan is that earnings, on either before-tax or after-tax contributions, are tax-deferred until withdrawal from the account. Upon distribution, all earnings and before-tax contributions are taxed as ordinary income. Generally, there are five events that trigger distribution:

- Termination of employment
- Disability
- Employee reaches 59-1/2 years old
- Retirement
- Death

If the distribution does not fall within any of these situations then the employee may be liable for a 10 percent tax on the distribution. Distributions must begin by age 70-1/2 and a required minimum distribution (RMD) must be taken annually.

To summarize, advantages of a 403(b) are:

- Before-tax contributions reduce employee's current income obligation
- Earnings grow tax-deferred
- Individuals in retirement are most likely in a lower tax bracket when funds are withdrawn
- Tax-free transfer to beneficiary after death

#### **D. INDIVIDUAL RETIREMENT ARRANGEMENT**

An Individual Retirement Arrangement is most commonly referred to as an Individual Retirement Account. It is a retirement savings account that an individual sets up to defer taxes on account earnings and in some cases receive tax-free payments. An individual is not limited to just one IRA, and may create multiple accounts. An individual may also create and make contributions to an account on the behalf of his or her spouse.

An individual can contribute taxable compensation income or self-employment income to an IRA. Some sources of income are ineligible for contribution to an IRA such as:

- Interest income
- Dividends

- Rental income
- Property maintenance income<sup>53</sup>

IRAs are voluntary, so there is no minimum annual contribution requirement, but there is a maximum annual normal contribution limit that applies to the total of all contributions within the year to any IRA accounts an individual may possess. Depending on the type of IRA account, there may also be other limitations on the contribution amount to that individual account. If the individual is 50 years of age or older, an additional catch-up contribution can be made each year. Table 10 depicts the maximum normal and catch-up contribution limits by year.

<b>Year</b>	<b>Normal Contribution</b>	<b>Catch-up Contribution</b>
2001	\$2,000	\$0
2002	\$3,000	\$500
2003	\$3,000	\$500
2004	\$3,000	\$500
2005	\$4,000	\$500
2006	\$4,000	\$1,000
2007	\$4,000	\$1,000
2008	\$5,000	\$1,000
2009+	Indexed*	\$1,000
*Contributions are indexed for cost-of-living adjustments increases in \$500 increments		

Table 10. Maximum Contribution Limits<sup>54</sup>

In certain instances, other assets in excess of these limits can also be contributed to an IRA. A transfer is a non-reportable, non-taxable movement of assets between similar types of retirement plans. A rollover is a reportable, tax-free movement of assets between retirement plans.

---

<sup>53</sup> <http://www.investopedia.com/university/retirementplans/rothira/>.

<sup>53</sup> <http://www.fool.com/retirement/retirementplanning/retirementplanning15.htm>

<sup>54</sup> <http://www.fool.com/retirement/retirementplanning/retirementplanning15.htm>.

Within the IRA, options for investing are varied. Stocks, bonds, mutual funds, real estate, certain precious metal coins, and money market funds are all available investments.

The two most common types of IRAs are the Traditional IRA and the Roth IRA. The major difference between the two types concerns the tax status of contributions to, and withdrawals from, the account.

### 1. Traditional IRA

An individual's contributions to a Traditional IRA may be tax-deductible or not dependent on the individual's tax filing status, Modified Adjusted Gross Income (MAGI), and participation in an employer's qualified retirement plan. If the individual does not participate in an employer's qualified retirement plan then his or her full contribution is tax-deductible. If the individual participates in an employer's qualified retirement plan (within the same tax year), the deductibility of contributions decreases from fully deductible to zero within an income range as depicted in Table 11.

Year	Single Filer	Joint Filer
2001	\$33,000 - \$43,000	\$53,000 - \$63,000
2002	\$34,000 - \$44,000	\$54,000 - \$64,000
2003	\$40,000 - \$50,000	\$60,000 - \$70,000
2004	\$45,000 - \$55,000	\$65,000 - \$75,000
2005	\$50,000 - \$60,000	\$70,000 - \$80,000
2006	\$50,000 - \$60,000	\$75,000 - \$85,000
2007+	\$50,000 - \$60,000	\$80,000 - \$100,000

Table 11. MAGI Phase-Out Limits for Deductibility<sup>55</sup>

For example, in 2005, an individual participating in an employer's qualified retirement plan could fully deduct their IRA contribution if his or her income was \$50,000 or less. If income was \$60,000 or more, no deduction is allowed. In between \$50,000 to \$60,000, the amount of the contribution that is deductible steadily decreases. Table 12 provides a breakdown of all deductibility options for 2005.

---

<sup>55</sup> See IRA Pub 590 for deductibility amount within listed income range.

Tax-Filing Status	Active Participant Status	Modified Adjusted Gross Income	Deduction Allowed
<b>Single or Head of Household</b>	Individual is <i>not</i> active	No Limit	Full Deduction
	Individual is active	\$50,000 or less	Full Deduction
		More than \$50,000 but less than \$60,000	Partial Deduction
		\$60,000 or more	No Deduction
<b>Married Filing Jointly</b>	- Individual is <i>not</i> active - Individual's spouse is <i>not</i> active	No Limit	Full Deduction
	Individual is active	\$70,000 or less	Full Deduction
		More than \$70,000 but less than \$80,000	Partial Deduction
		\$80,000 or more	No Deduction
	- Individual is <i>not</i> active - Individual's spouse is active	\$150,000 or less	Full Deduction
		More than \$150,000 but less than \$160,000	Partial Deduction
\$160,000 or more		No Deduction	
<b>Married Filing Separately</b>	- Individual is <i>not</i> active - Individual's spouse is <i>not</i> active	No Limit	Full Deduction
	Individual is active*	\$10,000 or less	Partial Deduction
		\$10,000 or more	No Deduction
	- Individual is <i>not</i> active - Individual's spouse is active**	\$10,000 or less	Partial Deduction
		\$10,000 or more	No Deduction

\* If the individual and his or her spouse did not live together at any time during the year, the individual is considered 'single' for tax-filing purposes and should use the guidelines for a single taxpayer.

\*\* If the individual and his or her spouse did not live together at any time during the year, the individual is allowed a full deduction.

Table 12. Traditional IRA Deductibility Limits for 2005<sup>56</sup>

There is a tax difference at distribution between tax-deductible contributions and non-deductible contributions. When tax-deductible contributions are distributed from the

<sup>56</sup> <http://www.investopedia.com/university/retirementplans/ira/>

account, they are taxed as ordinary income. When non-deductible contributions are distributed from the account, they are tax-free to avoid double taxation of the funds, as they were after-tax contributions. Earnings on both tax-deductible and non-deductible contributions are taxed as ordinary income when distributed.

Typically, distributions cannot take place before the age of 59-1/2 without incurring a 10 percent early distribution penalty. There are certain instances that the penalty can be waived, such as:

- Medical expenses
- Medical insurance
- Disability
- Distributions to a beneficiary
- Qualified higher education
- First home purchase (Limit: \$10,000 if single, \$20,000 if married)

Distributions must begin by the age of 70-1/2. The full account balance can be distributed or a required minimum distribution (RMD) must be taken annually.

To summarize, advantages of a Traditional IRA include:

- Supplement an individual's retirement income
- No minimum contributions so timing of funding is flexible
- Contributions may be tax-deductible
- Various investment options
- Earnings grow tax-deferred
- Individual in retirement most likely in lower tax bracket when funds are withdrawn
- Tax-free transfer to beneficiary after death

## **2. Roth IRA**

An individual's contributions to a Roth IRA are never tax-deductible. All contributions are made after-tax. Thus, an individual's participation in an employer's qualified retirement plan is irrelevant.

An individual may not be able to make the full IRA annual contribution amount or may be limited based on MAGI. To be eligible to make a full contribution, an individual's MAGI must be less than a specified amount, dependent on their tax filing status. If an individual's MAGI exceeds the maximum, no contribution can be made. Between the minimum and maximum MAGI, the allowable contribution amount decreases. Table 13 depicts the maximum MAGI limit and the minimum MAGI limit.

<b>Filing Status</b>	<b>Minimum MAGI</b>	<b>Maximum MAGI</b>
Married and filing a joint tax return	\$150,000	\$160,000
Married, filing a separate return	\$0	\$10,000
Single	\$95,000	\$110,000

Table 13. MAGI Income Range<sup>57</sup>

In certain instances, a Roth IRA can also be funded through a conversion, which is a reportable and taxable movement of assets from another type of IRA account to a Roth IRA account. Individuals with a MAGI in excess of \$100,000, or married individuals filing separate returns, are not eligible for conversion funding of a Roth IRA.

The important distinctions with a Roth IRA versus a Traditional IRA are that all qualified distributions are tax-free and that there is no required minimum distribution (RMD) that must be taken. Distributions can be characterized as qualified when any of the following conditions is met:

- Individual is at least 59-1/2 years old
- Assets are used towards purchase or rebuilding of first home (Limit: \$10,000 if single, \$20,000 if married)
- Individual becomes disabled
- Assets are distributed to beneficiary

Non-qualified distributions may be subject to taxes and an early distribution penalty dependent on the asset sources. The four source classifications are:

---

<sup>57</sup> See IRA Pub 590 for allowable contribution amount within listed income range.

- Regular participant contribution
- Conversion of taxable Traditional IRA assets
- Conversion of non-taxable Traditional IRA assets
- Roth IRA earnings

Table 14 depicts the tax treatment of Roth IRA distributions of assets from these four sources.

Distributed Assets	Qualified Distributions	Non-Qualified Distributions	Comments
Regular Participant Contributions	- Tax free - Penalty free	- Tax free - Penalty free	Income tax and early-distribution penalty are never applied to distributed assets for which no deduction was allowed when the assets were contributed to the IRA.
Taxable Conversion	- Tax free - Penalty free	- Tax free - Penalty may apply	- Already taxed when converted. - Penalty is waived if any one of the exceptions applies and/or it has been at least five years since the conversion occurred.
Nontaxable Conversion	- Tax free - Penalty free	- Tax free - Penalty free	Income tax and penalty are never applied to distributed assets for which no deduction was allowed when the assets were initially contributed to the IRA.
Earnings	- Tax free - Penalty free	- Tax free - Penalty may apply	Penalty is waived if any one of the exceptions applies.

Table 14. Roth IRA Tax Treatment of Distributions<sup>58</sup>

The earnings and taxable conversion assets that have been converted within the last five years are subject to a 10 percent early distribution penalty, unless they are used for:

- Medical expenses
- Medical insurance
- Disability
- Distributions to a beneficiary
- Qualified higher education
- First home purchase (Limit: \$10,000 if single, \$20,000 if married)

---

<sup>58</sup> <http://www.investopedia.com/university/retirementplans/rothira/>

To summarize, advantages of a Roth IRA include:

- Supplement an individual's retirement income
- No minimum contributions, so timing of funding is flexible
- Various investment options
- Earnings grow tax-free
- All qualified distributions are tax-free
- No annual required minimum distribution
- Tax-free transfer to beneficiary after death



THIS PAGE INTENTIONALLY LEFT BLANK

## **V. OTHER FEDERAL RETIREMENT COMPENSATION PACKAGES**

The equity of the total military retirement compensation package can be best judged when compared against other retirement compensation packages. Thus, as a point of reference, this Chapter will examine the two retirement compensation packages that cover Federal civilian workers: the Civil Service Retirement System and the Federal Employees Retirement System.

### **A. CIVIL SERVICE RETIREMENT SYSTEM**

CSRS employees contribute seven percent of their salary to their retirement fund, but enjoy a generous pension. Their basic annuity is based on two factors: length of service and High Three<sup>59</sup> average pay. The annual payment is calculated by adding the following three products:

- 1.5% of High Three average pay times years of service up to five years
- 1.75% of High Three average pay times years of service over five years and up to 10 years
- 2% of High Three average pay times years of service over 10 years

This sum cannot be more than 80% of High Three average pay.<sup>60</sup>

Table 15<sup>61</sup> shows age and service requirements which must be met for CSRS retirees to receive an immediate annuity.

---

<sup>59</sup> The highest average basic pay earned during any three consecutive years of service, normally the three immediately prior to retirement. This is a concept similar to the military's High Three plan as discussed in Chapter II.

<sup>60</sup> There are limited exceptions to this ceiling; e.g., credit for unused sick leave.

<sup>61</sup> Office of Personnel Management, "Civil Service Retirement System," November 1997, pp. 2-3.

Type of Retirement	Minimum Age	Minimum Service (Year)	Special Requirements
Optional	62	5	None
	60	20	None
	55	30	None
Special Optional	50	20	<b>Special Optional</b> - You must retire under special provisions for air traffic controllers or law enforcement and firefighter personnel. Air traffic controllers can also retire at any age with 25 years of service as an air traffic controller.
Early Optional	Any Age*	25	<b>Early Optional</b> - Your agency must be undergoing a major reorganization, reduction-in-force, or transfer of function as determined by the Office of Personnel Management.
	50*	20	
Discontinued Service	Any Age*	25	<b>Discontinued Service</b> - Your separation must be involuntary and not a removal for misconduct or delinquency.
	50*	20	
Disability	Any Age	5	<b>Disability</b> - You must be disabled for useful and efficient service in your current position and any other vacant position at the same grade or pay level within your commuting area and current agency for which you are qualified.**

Table 15. CSRS Retirement Requirements

If a CSRS employee separates with less than five years of service, the employee may elect to either have his or her deductions returned or leave the money in the retirement fund. If a CSRS employee separates with more than five years of service but before eligible for an immediate annuity, and elects to leave the money in the fund, he or she will be entitled to a deferred annuity at age 62, based on the product formula given above.

CSRS employees are eligible to participate in the Thrift Savings Plan, as described in Chapter III. CSRS employees do not, however, participate in the Social Security program; they do not contribute to Social Security from their pay, nor are they able to collect Social Security payments and benefits upon retirement.

#### **B. FEDERAL EMPLOYEES RETIREMENT SYSTEM**

Most Federal civilian employees hired after 1983 are covered not by CSRS but by FERS. This retirement system consists of three components: a basic benefits plan, the Thrift Savings Plan, and Social Security.

## 1. FERS Basic Benefit Plan

FERS participants contribute a modest 0.80% of their basic pay towards their pension.<sup>62</sup> FERS retirees are eligible for immediate retirement benefits if they meet the requirements in Table 16.<sup>63</sup>

Age	Years of service
62	5
60	20
MRA <sup>64</sup>	30
MRA	10*
*(Reduced benefit unless postponed to lessen or eliminate age reduction)	

Table 16. FERS Immediate Retirement Benefits Requirements

The FERS retirement benefit formula is: (1% of High Three average pay) x (years of creditable service).<sup>65</sup>

If a FERS employee has completed at least five years of creditable civilian work but separates from service before satisfying age and service requirements for immediate benefits, deferred benefits may be collected when age and service requirements are met per Table 17.<sup>66</sup>

---

<sup>62</sup> This amount equates to the CSRS contribution amount of seven percent minus the Social Security rate of 6.2%.

<sup>63</sup> Office of Personnel Management, "Federal Employees Retirement System: An Overview of Your Benefits," April 1998, p. 3.

<sup>64</sup> MRA stands for Minimum Retirement Age, and ranges from 55 to 57 depending on birth year.

<sup>65</sup> A factor of 1.1% is used for employees who retire at age 62 or later with at least 20 years of service.

<sup>66</sup> Office of Personnel Management, "Federal Employees Retirement System: An Overview of Your Benefits," April 1998, p. 4.

Age	Years of service
62	5
60	20
MRA	30
MRA	10*
*(Reduced benefit unless receipt delayed to lessen or avoid age reduction)	
*Reduced benefits means if you retire at the minimum retirement age with at least 10 but less than 30 years of service, your benefit will be reduced at the rate of 5/12's of 1% for each month (5% for each year) you are under age 62, unless you have 20 years of service and your annuity begins at age 60 or later. You can avoid part or all of the reduction by postponing the commencing date of your annuity.	

Table 17. FERS Deferred Retirement Benefits Requirements

**2. FERS Thrift Savings Plan**

FERS participants are eligible to participate in the Thrift Savings Plan, and receive matching contributions, as outlined in Chapter III of this Report.

**3. FERS Social Security Participation**

FERS employees participate in Social Security as most other U.S. workers. They pay Social Security taxes at 6.2% of earnings up to the maximum taxable wage base, and are eligible for standard Social Security benefits (such as monthly payments if retired and at least age 62).

THIS PAGE INTENTIONALLY LEFT BLANK

## **VI. ON THE ISSUE OF MATCHING FUNDS**

The preceding five Chapters have surveyed the landscape of military retirement compensation, and provided a comprehensive overview of the benefits that a military retiree receives. There has been relentless national debate, dating back to the very origins of the United States, as to how much should be paid to service members, both when serving and when in retirement. The scope of this debate is immense, and will likely continue for as long as the United States and the military exist. This Chapter will focus on but one narrow segment of this debate: the Uniformed Services' Thrift Savings Plan and the issue of matching funds. Specifically, two questions will be addressed. First, should military service members receive matching TSP contributions? Second, given the existence of today's budget constraints, is this a fiscally realistic possibility? These questions will be considered both qualitatively and quantitatively.

### **A. SHOULD MILITARY SERVICE MEMBERS RECEIVE MATCHING TSP CONTRIBUTIONS?**

In determining whether or not military service members should receive matching TSP funds, both qualitative and quantitative factors should be considered.

#### **1. Qualitative Considerations**

Many people, both within and outside of the military, believe that military service members should receive matching TSP funds. The reasons cited often include:

- Military service members are underpaid when compared to public- and private-sector jobs
- Military service members are underpaid when the following factors are taken into account: risk of death and dismemberment, frequent deployments and significant family separation, frequent permanent change of station (PCS), and no overtime pay for long hours in excess of government work week standards
- FERS employees and many private-sector 401(k) participants receive matching retirement fund contributions



- The service member who separates before retirement, whether with two or nineteen years of meritorious service, receives absolutely no retirement compensation, as opposed to all FERS or some private-sector employees, who take with them, respectively, matching TSP and 401(k) funds<sup>67</sup>

These views are not, of course, universally held. Many believe that military personnel are more than fairly compensated given the technical training, basic pay and allowances, medical and other non-cash benefits provided for military service. They point to the retention rates as evidence of a satisfied workforce. The issue, argue proponents of matching TSP funds, centers primarily on equity. Is it fair, they ask, that many United States workers get paid more for fewer hours, less family separation and relatively no risk to life or limb? Is it fair that the vast majority of individuals who serve in the military never receive any retirement benefits, even though retirement benefits are computed and valued as part of their “total compensation” package? This long-running debate is an emotional one and is fundamentally based on the differing views of the valuation of military service.

If one supports the position that service members are not equitably compensated, a potential remedy would be to allow for matching TSP contributions by DoD. This additional benefit would better compensate active duty service members for the significant risks they shoulder for our nation and the nomadic lifestyle their families endure throughout their career. It would also place uniformed employees of DoD on equal footing with civilian employees of DoD, with respect to the TSP. Importantly, this is a portable benefit that individuals who serve in the military could take with them upon leaving.<sup>68</sup> Additionally, if the program allowed vesting prior to 20 years the matching TSP contributions would provide a retirement benefit that recognizes, values and compensates an individual’s contribution to the defense of our nation even though he or she may choose to not complete a full career.

---

<sup>67</sup> Approximately 30-35 percent of officers and 10-15 percent of enlisted personnel reach the 20 year cliff-vesting point, according to: Congressional Budget Office, “Military Compensation: Balancing Cash and Noncash Benefits,” Economic and Budget Issue Brief, 16 January 2004, p. 2.

<sup>68</sup> Provided minimum vesting period is completed, whether at normal retirement or at separation prior to normal retirement.

But the matter extends beyond that of equity for the individual, the argument continues. Flexibility, for both DoD and the individual, is another concern. DoD is a large organization tasked with a challenging mission. Accordingly, it has been provided with vast resources and has recruited a large and diverse workforce. While long-term recruiting and retention statistics seem to indicate that the current total military retirement compensation package is economically reasonable, the changes being experienced by private-sector and other public-sector organizations and the changing demographics of society may warrant changes in military compensation.

Adding flexibility and value to the system would benefit both the military and individuals. It would help the military attract and retain the best personnel, and help the service members address their different financial situations and needs. Military service members would enjoy a greater ability to tailor their post-service income to their individual situations and needs, and the military would simultaneously realize benefits in recruitment and retention.

The current total military compensation package is viewed by many as a large, static, inflexible, “one-size-fits-all” system. It is a system that was developed post-World War II to recruit, retain, and support a large forward-garrisoned military and their families during the Cold War. With the transformation of the military into a more nimble, deployable force, with families remaining relatively more stable in U.S. communities, there are concerns that the total compensation package has not adapted as necessary.

The compensation system, at present, is one where a significant portion of an active-duty service member’s total compensation comes from non-cash benefits. For example, 57 percent of total compensation in 2002 was non-cash. Further, the Congressional Budget Office found that 17 percent of total compensation was for deferred benefits that a service member receives in retirement.<sup>69</sup> Additionally, the accrued cost of investment for the military retirement annuity represents nine percent of

---

<sup>69</sup> Congressional Budget Office, “Military Compensation: Balancing Cash and Noncash Benefits,” Economic and Budget Issue Brief, 16 January 2004, pp. 1-2.

total compensation.<sup>70</sup> This statistic, coupled with the fact that a great majority of service members never make it to the retirement point, contribute to the aforementioned inflexible, “one-size-fits-all” view of the military retirement compensation package. Future benefits for personnel who are not going to make it to retirement offer little incentive to influence behavior and shape the force.

DoD is establishing a new transformational approach to personnel management in order to enjoy more flexibility. According to Secretary of Defense Donald Rumsfeld, under the “Continuum of Service” concept, the movement of personnel to and from civilian status, reserve status, or active-duty status will be greatly facilitated.<sup>71</sup> The concept essentially allows personnel to shift within, and in and out of, the military to ensure that the right person with the required skills serves at the right place and time. It is envisioned that this will reflect to a much greater degree the market-based labor realities of U.S. society. Matching TSP contributions would support this new approach by providing a retirement benefit that looks like the 401k plans they have been exposed to in the private-sector.

There are inarguably new attitudes about the workplace in the current and upcoming generations. Many of today’s entrants into the working world expect to have three or more careers and 10 employers through their lifetime.<sup>72</sup> They expect the flexibility to shift their focus between career, family, personal development, and charitable pursuits as they deem appropriate. This reduces the impact of intangible benefits such as job security and work environment, and increases the impact of more tangible benefits such as pay and retirement benefits.

Matching service member TSP contributions would provide relatively immediate and readily recognizable compensation to the individual. These contributions would remain in an account where the service member could monitor their growth and make

---

70 Kosiak, Steven M., “Military Compensation: Requirements, Trends and Options,” Center for Strategic and Budgetary Assessments, February 2005, pp. 10-11.

71 Rumsfeld, Donald H., Secretary of Defense, “Annual Report to the President and the Congress,” Department of Defense, 2004, p. 29.

72 Lavigna, Bob, “Winning the War for Talent,” Government Finance Review, Volume 21, Issue 1, February 2002, p. 3.

projections about retirement welfare. The service member would also be able to exercise control over the account and thus in a way “touch the monies.” This should facilitate a more accurate understanding and valuation of this compensation benefit provided by DoD. As the account grows this should provide an increasing pull effect supporting longer retention. This stands in contrast with the somewhat nebulous retirement benefits received after 20 years that so few service members ever qualify for, or with the other non-cash benefits that are difficult for an individual to recognize and accurately value.<sup>73</sup>

At the very least, DoD could use TSP contributions as a force shaping method to attract individuals to undermanned career fields or to achieve advanced qualifications and certifications. Matching TSP contributions could be a timely and easy way to target specific occupational specialties. This should prove to be a cost effective and very flexible method for DoD to meet its personnel requirements in the near term or into the future.

In the private sector, there is significantly greater variability in compensation between various skills and occupations. Market forces determine the appropriate level of compensation. Military compensation shows little variability between the various specialties. Compensation varies mainly as a result of seniority, which makes it difficult for DoD to shape its force to meet changing demands. As a result, DoD has simultaneously experienced shortfalls in 30 percent of its occupations while being overmanned in 40 percent.<sup>74</sup>

There are numerous benefits for both DoD and military personnel, then, of matching TSP contributions. The advantages for DoD include:

- Increased flexibility of total military retirement compensation package
- Tool for recruitment and retention<sup>75</sup>
- Encourages private savings and increases TSP participation rate

---

<sup>73</sup> Military personnel have a discount rate of at least 18 percent, according to the following study of early separation options: Pleeter, Saul and John T. Warner, “The Personal Discount Rate: Evidence from Military Downsizing,” *American Economic Review*, Volume 91, Number 1, 2001, p. 33.

<sup>74</sup> Congressional Budget Office, “Budget Options,” February 2005, p. 43.

<sup>75</sup> An individual considering leaving the service before retirement would feel a very real pull to stay in the service knowing that any monies accumulated in his or her TSP account would be foregone upon separation.

- Better alignment between input and desired outcome for personnel policies
- Better aligns government practices with private sector practices
- Individuals more vested in organization with resultant positive effects
- Low administrative costs (versus higher costs for a defined-benefit plan)<sup>76</sup>

The advantages for the service member include:

- Increased value of total retirement compensation package
- Savings encouraged
- Current tax liability unaffected
- Potential exists for significant growth
- Greater income in retirement
- Earlier vesting vice 20 year cliff vesting
- Portability (a significant feature in the private sector)
- Passes to survivors without reduction
- Greater sense of being part of the team

The idea of matching TSP funds, of course, is not without a downside. Some potential problems of matching contributions include:

- Cost and difficulty of measuring output
- Increased participation rate will decrease income tax revenues<sup>77</sup>
- Will likely have to offset contribution
- Contribution offset will decrease other service member benefits<sup>78</sup>
- Increased risk to service member with the loss of retirement fund insurance<sup>79</sup>
- Possible unintended consequences

---

<sup>76</sup> Hansen, Michael L. Thomas A. Husted, "Thrift Savings Plan: Effect on Savings and Tax Revenue," 2001, p. 4.

<sup>77</sup> Hansen, Michael L. and Thomas A. Husted, "Thrift Savings Plan: Effect on Savings and Tax Revenue," 2001, p. 4.

<sup>78</sup> A risk-free, tax-sheltered, inflation-protected annuity.

<sup>79</sup> Hansen, Michael L. and Thomas A. Husted, "Thrift Savings Plan: Effect on Savings and Tax Revenue," 2001, p. 5.

Qualitatively, then, two major rationales supporting the idea of matching DoD TSP contributions are the ideas of equity and flexibility. But specifically how much would this concept benefit the individual and cost DoD?

## **2. Quantitative Analysis**

How much would it cost to provide for matching TSP contributions to members of the uniformed services? This is obviously dependent on two factors: the amount of contributions made by service members, and the level to which DoD would match contributions. In 2004, the total amount of active-duty basic pay for all four services was \$47.4B.<sup>80</sup> If each eligible individual contributed at least five percent of his or her basic pay, and the government matched this amount,<sup>81</sup> this would create a liability of \$2.37B for military TSP matching funds.<sup>82</sup>

Of course, it is not reasonable to expect every military person to contribute five percent of basic pay into his or her TSP account. What is an accurate percentage of service members who would participate if matching funds were offered? One 2001 survey<sup>83</sup> found that approximately 73% of service members were “likely” or “very likely” to participate in TSP if matching funds were available. This is a drastic increase from the approximately 28% of service members who were “likely” or “very likely” to participate in TSP if no matching funds were available.<sup>84</sup> An additional point of reference is the FERS TSP participation rate. FERS employees, who receive matching TSP funds, participate at an 86.4% rate.<sup>85</sup> A reasonable expectation, then, is that roughly 78%<sup>86</sup> of uniformed service members would participate in the TSP if matching funds

---

80 As reported by the Honorable David M. Walker, Comptroller General of the U.S., in testimony before the Defense Advisory Committee on Military Compensation, 19 July 2005.

81 Based on the FERS maximum match of five percent.

82  $\$47.4\text{B} * .05 = \$2.37\text{B}$ .

83 Thomas A. Husted and Michael L. Hansen, “Thrift Savings Plan: Effect on Savings and Tax Revenue,” 2001, p. 10.

84 As of March 2005, approximately 25% of members of the uniformed services participate in the TSP.

85 Statement by Gary Amelio, FRTIB Executive Director, before the House Subcommittee on Domestic and International Policy, Trade and Technology, 5 May 2005.

86 78% is an average of the FERS participation rate (86.4%) and the survey projection (73%, adjusted downwards to 70% based on the slightly optimistic prediction of participants under the no-matching-funds scenario), rounded to the nearest whole percent.

were available. This would result in a liability of \$1.85B for military TSP matching funds.<sup>87</sup>

How much pecuniary benefit would the military individual enjoy? The average service member would receive \$1,655 in annual matching TSP contributions.<sup>88</sup> A five-year E-4 would receive \$1,127 annually, while a 20-year O-5 would receive \$4,076 annually.<sup>89</sup> This would be a substantial monetary benefit to the individual. The question of course arises, is this an affordable expense? The reality of a politically and financially constrained defense budget makes this anything but a slam dunk concept. The next Section discusses the qualitative and quantitative aspects of adding matching DoD TSP contributions to our nation's budget.

## **B. ARE DOD-MATCHED TSP CONTRIBUTIONS A FISCALLY REALISTIC CONCEPT?**

### **1. Qualitative Discussion**

Is it pragmatic to even consider the concept of matching DoD TSP contributions? Some would answer a swift and resounding “no.” In the face of record budget deficits, an untamed national debt, ever-growing nondiscretionary entitlements, and unanticipated expenses such as the Global War on Terror (GWOT), opponents would ask, how can this even be considered?

Others would counter that most would not have thought it possible to bear huge multi-year expenses such as GWOT or the Medicare prescription drug program that will now, by some estimates, cost our nation \$1.2 Trillion over the next decade.<sup>90</sup> Further, it has been estimated that the total cost of the Cold War was \$13.1 Trillion in 1996 dollars

---

<sup>87</sup>  $\$2.37B * .78 = \$1.85B$ .

<sup>88</sup> Calculated by dividing the total 2004 basic pay of \$47.4B by the midyear 2004 total DoD active duty worldwide troop strength of 1.432M (per the DoD website at <http://www.dior.whs.mil/mmid/M05/hst0406.pdf>), multiplied by .05.

<sup>89</sup> Calculated by multiplying monthly basic pay (\$1,877.70 and \$6,793.20, respectively, per DoD's 1 January 2005 monthly basic pay table at [http://www.dod.gov/militarypay/pay/bp/paytables/Jan2005\\_Basic\\_Pay.html](http://www.dod.gov/militarypay/pay/bp/paytables/Jan2005_Basic_Pay.html)) by 12 then by .05.

<sup>90</sup> Allen, Mike and Ceci Connolly, “Medicare Drug Benefit May Cost \$1.2 Trillion,” Washington Post, 9 February 2005, p. A1.

or an average of \$298.5 Billion<sup>91</sup> per year. Clearly when the citizenry recognizes a need it is willing to shoulder the requisite burden. It is ultimately, they would say, a matter of national fortitude. If the collective will exists to compensate our warfighting men and women equitably, a way can be found to do so. In fact, this has been attempted in Congress on a number of occasions.<sup>92</sup> It took many unsuccessful attempts to correct unfair military compensation issues such as:

- the lagging of basic pay behind the cost of living
- the insultingly low death benefit paid to families of service members killed in defense of the country
- the non-availability of the TSP to military personnel
- significant out-of-pocket PCS expenses
- the Redux repeal
- outdated TSP restrictions such as open seasons and low contribution limits

So too may it take some persistence and patience in securing matching TSP contributions for our nation's warfighters.

## **2. Quantitative Analysis**

In an unconstrained world, an extra \$1.85B would be appropriated each year in the defense budget, and matching funds would become a reality.<sup>93</sup> This, however, as discussed above, is not necessarily fiscally realistic. For TSP matching for the uniformed services to become a reality, an offset would likely have to be identified. In other words, currently funded programs would have to be reduced, by an amount equal to most or all of the \$1.85B cost. The most logical offset target would be our nation's annual investment<sup>94</sup> in the military retiree defined-benefit program (the retirement annuity).

---

91 Calhoun, Martin, "U.S. Military Spending, 1945-1996," Center for Defense Information, <http://www.cdi.org/issues/milspend.html>, 9 July 1996

92 First attempted in 2000, in bill (S.297) introduced by Senator Richard C. Shelby (R-AL) to the 106th Congress.

93 \$1.85B is not an insignificant amount by any means. To put it in perspective, however, it is less than one half of one percent of the \$417B 2005 defense budget, well below the seven percent growth in the defense budget from 2004.

94 2004 additions to the Military Retirement Fund totaled \$42.4B, consisting of a \$10.1B net change in investments, a \$14.1B DoD investment, and an \$18.2B Congressional appropriation to amortize the unfunded liability that exists as a result of the FY1985 conversion of military retirement costs from cash accounting to accrual accounting.



Annual expenditures from the Military Retirement Fund for military retired pay totaled \$36.895B in 2004.<sup>95</sup> A \$1.85B offset to this expenditure would be monetarily possible, but not even worth debating, as these outlays are for retirees who have already earned their pension.

A viable alternative, however, might be for newly enlisted and commissioned service members to be able to choose whether they will enjoy the traditional retirement annuity or instead receive matching TSP funds with a reduced retirement annuity. In order to ensure that the government “breaks even” in this scenario, two conditions could be stipulated. First, the individual is not vested in the matched contributions until eligible for retirement. This is still a desirable situation for the service member, as he or she is able to be in control of these funds and ostensibly earn a higher return than the Federal government’s inflation-adjusted retirement figures. Second, the present value (PV) of the amount of the individual’s present retirement annuity would be reduced by the present value of the matched TSP contributions over the individual’s career. This would require that DoD would pay out more monies over the short term (\$1.85B annually to fund these TSP accounts), but the total over the individual’s life would be exactly the same, in terms of present value.

As an example of this proposal, consider an officer who retires after 20 years as a Lieutenant Colonel. The lump-sum equivalent value of the retirement package at the time of retirement is \$923,792.<sup>96</sup> In contrast, the PV of five percent-matched TSP funds at retirement for this same officer is \$71,547 (see Appendix C). The difference in these amounts, \$852,245, would become the new PV of the officer’s retirement package.<sup>97</sup>

---

<sup>95</sup> Office of the Actuary, Department of Defense, “Valuation of the Military Retirement System,” Department of Defense, 30 September 2004, p. 8.

<sup>96</sup> Office of the Actuary, Department of Defense, “Fiscal Year 2004 DoD Statistical Report on the Military Retirement System,” May 2005, p. 270.

<sup>97</sup> This equates to an annual benefit of \$58,104 (cash and non-cash) in FY05\$, assuming a discount rate of 6.25%, retirement age of 43, and a life expectancy of 41 years at retirement. All assumptions based on statistics found in Office of the Actuary, Department of Defense, “Fiscal Year 2004 DoD Statistical Report on the Military Retirement System,” May 2005, pp. 272-273.

The benefit to the officer, of course, is that he would be able to invest these funds in an attempt to earn a rate of return higher than DoD's discount rate.<sup>98</sup> If the matching TSP funds were compounded over the 20 years at the rate of return for several of the Individual TSP Funds,<sup>99</sup> this would result in a PV at retirement of \$90,036 (see Appendix D), as opposed to the previously calculated \$71,547. The difference between these numbers, \$18,489, represents the benefit that the individual could enjoy under this plan at no additional cost to the government. This increases the individual's PV of retirement annuity from \$923,792 under the traditional pension to \$942,281 when counting both the annuity and the expected value of the matched TSP funds. This is an increase of 2%, a significant benefit to the individual as well as a valuable recruiting and retention point for DoD.<sup>100</sup> This scenario is one of Pareto improvement,<sup>101</sup> and increases the overall utility of both parties.<sup>102</sup>

Alternatively, if DoD were to vest military personnel at some point before retirement, this would provide a monetary benefit for those who served their country honorably for a significant amount of time but did not serve the full 20 years required for retirement. This would be an added expense to DoD, but would increase the flexibility of the total military compensation package, as discussed previously.

Consider a service member at the eight year point in his or her career.<sup>103</sup> If this individual had received matching TSP funds for the first eight years of his or her career, the historical cost to the government for these funds would be \$17,026 in current year dollars, while the value of these funds in the individual's TSP account would be \$23,275 in current year dollars, given the aforementioned 8.8% rate of return (see Appendix E).

---

98 This is not unlike the current debate over the privatization of Social Security.

99 The average compound annual return for the G, F, and C Funds for the years 1988-2002 were 7.1%, 8.2%, and 11.1%, respectively, averaging to 8.8% (FRTIB, "Guide to TSP Investments," August 2003, p. 5).

100 This benefit is greater still when projected until TSP withdrawal age.

101 Pareto improvement, or Pareto optimization, occurs when a movement from one alternative to another is made, making at least one party better off while not making any party worse off.

102 Utility meaning welfare. In this instance, the welfare of the government is at least constant (fiscally neutral, but arguably non-fiscally beneficial), while the individual's utility increases.

103 The typical year eight service member has worked one tour past their initial commissioning commitment, or if an aircrew member, is nearing the end of their initial training commitment, and faces an often difficult stay-in-or-get-out decision.

Under 20-year vesting, the \$23,275 account balance would be a retention pull on the individual, at a cost of \$17,026 to DoD. Under 8-year vesting, the individual would enjoy a measure of portability, a point of flexibility in recruitment for DoD, but a potentially costly expense if too many personnel separate before retirement. A thorough cost-benefit analysis should of course be performed to determine if this is a fiscally sound alternative.

## VII. CONCLUSION

Significant changes to the military retirement system should always be approached with caution. As the President stated in a recent memorandum to the Secretary of Defense

particular attention should be paid to the implications of changing expectations of present and potential members of the uniformed services relating to retirement.<sup>104</sup>

The military profession is unlike any other, drawing enormous organizational strength from its culture and traditions. Part of that strength is the social contract between its members and the government. Any change to the military retirement system could have significant, far-reaching effects and should be thoroughly assessed. Unfortunately, this situation may be a bit of a paradox for the military. With the changing expectations of the nation's workforce and the need to compete for and retain the best talent changes are called for. Strong political constituencies may interfere with modification of military retirement system.<sup>105</sup> Additionally, risk adverse personnel prefer the stability of the non-cash deferred benefits.

That said, there is a very strong argument that DoD should match TSP contributions of military personnel. There is the matter of equity, when military compensation is compared with private- and other public-sector workers, and there is the issue of flexibility, both for the DoD and the individual. There is also the point that matching TSP funds is a Pareto improvement, and increases overall utility of the parties and the nation.

This issue, like most contentious public issues, boils down to national will and priorities. Few would have thought it possible that the national budget could absorb GWOT funding or the Medicare prescription drug program. Matching TSP funds can

---

<sup>104</sup> Bush, George W., President, "Tenth Quadrennial Review of Military Compensation," Memorandum for the Secretary of Defense, 2 August 2005.

<sup>105</sup> Kosiak, Steven M., "Military Compensation: Requirements, Trends and Options," Center for Strategic and Budgetary Assessments, February 2005, p. 44.

become a reality at a mere fraction of these costs, and is arguably of similar national import. There will likely continue to be debate as to whether the government should match TSP contributions for service members. There is little debate, at least according to Secretary of Defense Donald Rumsfeld, that the current total compensation package for uniformed personnel is dated and uncompetitive.<sup>106</sup> Matching TSP funds is but one equitable and flexible possible solution to this problem.

---

<sup>106</sup> Office of the Under Secretary of Defense for Personnel and Readiness, "Military Personnel Human Resources Strategic Plan," 2001, p. 1.

## VIII. APPENDICES

THIS PAGE INTENTIONALLY LEFT BLANK

## APPENDIX A – SIGNIFICANT RETIREMENT LEGISLATION

Enactment	Action
Act of February 28, 1855, ch. 127, 10 Stat. 616 (1855)	Authorized involuntary removal of Navy officers due to disability and other reasons.
Act of August 3, 1861, ch. 42, 12 Stat. 287 (1861)	Authorized voluntary retirement of all officers of all services after 40 years of service.
Act of December 21, 1861, ch. 1, 12 Stat. 329 (1861)	Permitted involuntary retirement of Navy officers after 45 years of service or at age 62.
Act of July 17, 1862, ch. 200, 12 Stat. 594 (1862)	Permitted involuntary retirement of Army and Marine Corps officers after 45 years of service or at age 62.
Act of July 15, 1870, ch. 294, 16 Stat. 315 (1870)	Authorized voluntary retirement of Army and Marine Corps officers after 30 years of service.
Act of June 30, 1882, ch. 254, 22 Stat. 118 (1882)	Made retirement mandatory at age 64 for officers of all services.
Act of February 14, 1885, ch. 67, 23 Stat. 305 (1885)	Authorized voluntary retirement of Army and Marine Corps enlisted personnel after 30 years of service.
Act of March 3, 1899, ch. 413, 30 Stat. 1004 (1899)	Authorized voluntary retirement of Navy enlisted personnel after 30 years of service.
Act of May 13, 1908, ch. 166 [Public Law 115, 60th Congress], 35 Stat. 501 (1908)	Authorized voluntary retirement of Navy officers after 30 years of service.
Act of August 29, 1916, ch. 417 [Public Law 241, 64th Congress], 39 Stat. 556, 558 (1916)	Created Fleet Naval Reserve; authorized voluntary transfer of Navy and Marine Corps enlisted personnel to Fleet Reserve after 16 years of active service.
Act of August 29, 1916, ch. 417 [Public Law 241, 64th Congress], 39 Stat. 556, 579 (1916)	Established "up-or-out" promotion system based on age-in-grade and integrated involuntary retirement system; first to use "standard" retired pay formula of 2.5 percent times years of service, up to maximum of 75 percent.
Act of June 4, 1920, ch. 227 [Public Law 242, 66th Congress], 41 Stat. 773 (1920)	Provided for classification of Army officers and authorized involuntary retirement of those designated "Class B".
Act of June 30, 1922, ch. 253 [Public Law 259, 67th Congress], 42 Stat. 716, 721 (1922)	Authorized involuntary retirement of Army officers chosen for elimination from active list by board of officers.



Act of February 28, 1925, ch. 374 [Public Law 512, 68th Congress], 43 Stat. 1080 (1925)	Raised from 16 to 20 years minimum length of active service required by Navy and Marine Corps enlisted personnel for eligibility for transfer to Fleet Reserve.
Act of June 22, 1926, ch. 649 [Public Law 412, 69th Congress], 44 Stat. 761 (1926)	Changed integrated Navy officer promotion /involuntary retirement system from age-in-grade to service-in-grade program.
Act of May 29, 1934, ch. 367 [Public Law 263, 73d Congress], 48 Stat. 811 (1934)	Made Marine Corps officers subject to Navy rather than Army retirement laws; brought them under Navy's promotion/ involuntary retirement system.
Act of July 31, 1935, ch. 422 [Public Law 225, 74th Congress], 49 Stat. 505 (1935)	Authorized voluntary retirement of Army officers after 15 years of active service.
Armed Forces Retirement Act of 1945, ch. 393 [Public Law 190, 79th Congress], 59 Stat. 53 (1945)	Authorized voluntary retirement of Army enlisted personnel after 20 years of active service.
Act of February 21, 1946, ch. 34 [Public Law 305, 79th Congress], 60 Stat. 26, 27 (1946).	Authorized voluntary retirement of Navy and Marine Corps officers after 20 years of active service including 10 years of commissioned service; lowered from 64 to 62 mandatory retirement age for such officers; temporarily authorized their involuntary retirement if chosen for elimination from active list by board of officers.
National Security Act of 1947, ch. 343 [Public Law 253, 80th Congress], 61 Stat. 495 (1947)	Created Department of the Air Force; made Army retirement laws applicable to Air Force personnel.
Officer Personnel Act of 1947, ch. 512 [Public Law 381, 80th Congress], 61 Stat. 795 (1947)	Established integrated promotion/ involuntary retirement system for officers of all services.
Army and Air Force Vitalization and Retirement Equalization Act of 1948, ch 708 [Public Law 810, 80th Congress], 62 Stat. 1081 (1948)	Established retirement system for career personnel of Reserve and National Guard; authorized voluntary retirement of Army and Air Force officers after 20 years of active service, including 10 years of commissioned service; repealed 15-year voluntary retirement authority.
Warrant Officer Act of 1954, ch. 249 [Public Law 379, 83d Congress], 68 Stat. 157 (1954)	Established specific retirement system for warrant officers of all services.

Act of May 20, 1958 (Armed Forces Pay Act of 1958), Public Law 85-422, 72 Stat. 122 (1958)	Suspended "recomputation" method that by-and-large had been used to make post-retirement adjustments to retired pay since origin of military retirement system.
Uniformed Services Pay Act of 1963, Public Law 88-132, 77 Stat. 210 (1963)	Replaced recomputation method of retired pay adjustments with an adjustment procedure based on increases in cost of living.
Department of Defense Authorization Act, 1981, Public Law 96-342, 94 Stat. 1077, 1100 (1980)	Replaced use of terminal basic pay with monthly retired or retainer pay base (average of highest three years of basic pay) for determining retired or retainer pay entitlements.
Department of Defense Authorization Act, 1984, Public Law 98-94, 97 Stat. 614, 644-648 (1983)	Established Department of Defense Military Retirement Fund, under which military retirement costs were placed on an accrual accounting basis.
Military Retirement Reform Act of 1986, Public Law 99-348, 100 Stat. 682 (1986)	Established new--and lower--retired pay multipliers for persons who first became members of the uniformed services after July 31, 1986. (The lower multipliers apply to all such retirees until they reach age 62, at which time the normal 2 1/2 percent per year multiplier for each year of qualifying service is restored.) Changed method for making adjustments to retired pay for persons who first became members of the uniformed services after July 31, 1986.
National Defense Authorization Act for Fiscal Year 2000, Public Law 106-65, 113 Stat. 662	Established a retirement system option for members who joined after August 1, 1986 and reach 15 years of active service: accept the lower retired pay multipliers of the post-1986 Redux system with a one-time Career Status Bonus of \$30,000 and an additional 5-year service obligation, or be covered by the "high-three" system in effect for members who joined between 1981 and 1986.

Source: Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005, pp. 718-721.

THIS PAGE INTENTIONALLY LEFT BLANK

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

<b>Date of Increase</b>		<b>Percentage Increase</b>		<b>Cumulative % From Date of Increase</b>
6/1/58		6.0%		602.0%
10/1/63		5.0%		562.3%
9/1/65		4.4%		530.7%
12/1/66		3.7%		504.1%
4/1/68		3.9%		482.6%
2/1/69		4.0%		460.7%
11/1/69		5.3%		439.2%
8/1/70	one percent over inflation was added during these years	5.6%		412.0%
6/1/71		4.5%		384.9%
7/1/72		4.8%		364.0%
7/1/73		6.1%		342.7%
1/1/74		5.5%		317.3%
7/1/74		6.3%		295.5%
1/1/75		7.3%		272.1%
8/1/75		5.1%		246.8%
3/1/76		5.4%		229.9%
3/1/77	twice-a-year increases	4.8%		213.0%
9/1/77		4.3%		198.7%
3/1/78		2.4%		186.4%
9/1/78		4.9%		179.7%
3/1/79		3.9%		166.6%
9/1/79		6.9%		156.6%
3/1/80		6.0%		140.0%
9/1/80		7.7%		126.5%
3/1/81	once-a-year increases (Dec to Dec)	4.4%		110.3%
3/1/82		8.7%		101.4%
4/1/83		3.9%	(1)	85.3%
12/1/84	once-a-year increases (3rd qtr to 3rd qtr)	3.5%	(2)	78.3%
12/1/85		0.0%	(3)	72.3%
12/1/86		1.3%		72.3%
12/1/87		4.2%		70.1%
12/1/88		4.0%		63.2%
12/1/89		4.7%		57.0%
12/1/90		5.4%		49.9%
12/1/91		3.7%		42.2%
12/1/92		3.0%		37.2%
3/1/94		2.6%	(4)	33.2%
3/1/95		2.8%	(5)	29.8%
3/1/96		2.6%	(6)	26.2%

12/1/96		2.9%		23.0%
12/1/97		2.1%		19.6%
12/1/98		1.3%		17.1%
12/1/99		2.4%		15.6%
12/1/00		3.5%		12.9%
12/1/01		2.6%		9.1%
12/1/02		1.4%		6.3%
12/1/03		2.1%		4.9%
12/1/04		2.7%		2.7%
Average (1958-2004)		4.2%		

(1) Non-disabled retirees under age 62 received 3.3%

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

(3) 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

(5) Disabled retirees and survivors received 2.8% on 12/1/94

(6) Disabled retirees and survivors received 2.6% on 12/1/95

Source: Office of the Actuary, Department of Defense, "Valuation of the Military Retirement System," September 30, 2004, p. B-8.

**APPENDIX C – PRESENT VALUE OF 5%-MATCHED TSP FUNDS FOR AN O-5 RETIRING AT 20 YEARS**

Year of Service	Calendar Year	Rank	Basic Pay	5% of Basic Pay	PV of 5% of Basic Pay
1	1986	O-1	\$14,692	\$735	\$2,396
2	1987	O-1	\$15,131	\$757	\$2,322
3	1988	O-2	\$19,418	\$971	\$2,805
4	1989	O-2	\$24,282	\$1,214	\$3,301
5	1990	O-3	\$29,081	\$1,454	\$3,721
6	1991	O-3	\$30,272	\$1,514	\$3,646
7	1992	O-3	\$33,052	\$1,653	\$3,746
8	1993	O-3	\$34,276	\$1,714	\$3,657
9	1994	O-3	\$36,284	\$1,814	\$3,643
10	1995	O-3	\$37,228	\$1,861	\$3,518
11	1996	O-3	\$40,187	\$2,009	\$3,574
12	1997	O-4	\$43,438	\$2,172	\$3,636
13	1998	O-4	\$47,164	\$2,358	\$3,716
14	1999	O-4	\$48,863	\$2,443	\$3,623
15	2000	O-4	\$54,436	\$2,722	\$3,799
16	2001	O-4	\$56,356	\$2,818	\$3,702
17	2002	O-5	\$69,070	\$3,453	\$4,270
18	2003	O-5	\$71,903	\$3,595	\$4,183
19	2004	O-5	\$76,676	\$3,834	\$4,199
20	2005	O-5	\$79,358	\$3,968	\$4,090
<b>Total</b>					<b>\$71,547</b>

Notes:

"Year of Service" based on 20-year retirement

"Calendar Year" based on retirement on 1 Jan 2006.

"Rank" based on normal career progression in the Armed Forces

"Basic Pay" based on that year's Basic Pay schedule

"5% of Basic Pay" to reflect matched contributions

"PV of 5% of Basic Pay" utilizes 6.25% discount rate per Office of the Actuary, Department of Defense,

"Fiscal Year 2004 DoD Statistical Report on the Military Retirement System," May 2005, p. 272.

THIS PAGE INTENTIONALLY LEFT BLANK

**APPENDIX D – EXPECTED VALUE OF 5%-MATCHED TSP FUNDS FOR AN  
O-5 RETIRING AT 20 YEARS**

Year of Service	Calendar Year	Rank	Basic Pay	5% of Basic Pay	PV of 5% of Basic Pay
1	1986	O-1	\$14,692	\$735	\$3,805
2	1987	O-1	\$15,131	\$757	\$3,601
3	1988	O-2	\$19,418	\$971	\$4,248
4	1989	O-2	\$24,282	\$1,214	\$4,882
5	1990	O-3	\$29,081	\$1,454	\$5,374
6	1991	O-3	\$30,272	\$1,514	\$5,142
7	1992	O-3	\$33,052	\$1,653	\$5,160
8	1993	O-3	\$34,276	\$1,714	\$4,918
9	1994	O-3	\$36,284	\$1,814	\$4,785
10	1995	O-3	\$37,228	\$1,861	\$4,513
11	1996	O-3	\$40,187	\$2,009	\$4,477
12	1997	O-4	\$43,438	\$2,172	\$4,448
13	1998	O-4	\$47,164	\$2,358	\$4,439
14	1999	O-4	\$48,863	\$2,443	\$4,227
15	2000	O-4	\$54,436	\$2,722	\$4,328
16	2001	O-4	\$56,356	\$2,818	\$4,119
17	2002	O-5	\$69,070	\$3,453	\$4,639
18	2003	O-5	\$71,903	\$3,595	\$4,439
19	2004	O-5	\$76,676	\$3,834	\$4,351
20	2005	O-5	\$79,358	\$3,968	\$4,139
<b>Total</b>					<b>\$90,036</b>

Notes:

"Year of Service" based on 20-year retirement

"Calendar Year" based on retirement on 1 Jan 2006.

"Rank" based on normal career progression in the Armed Forces

"Basic Pay" based on that year's Basic Pay schedule

"5% of Basic Pay" to reflect matched contributions

"PV of 5% of Basic Pay" compounded at 8.8%, based on the averaged annual return for the G, F, and C Funds from 1988-2002.



THIS PAGE INTENTIONALLY LEFT BLANK

**APPENDIX E – TSP ACCOUNT FOR AN 8-YEAR SERVICE MEMBER**

Year of Service	Rank	Basic Pay	5% of Basic Pay	PV of 5% of Basic Pay
1	O-1	\$28,128	\$1,406	\$2,647
2	O-1	\$28,128	\$1,406	\$2,433
3	O-2	\$36,900	\$1,845	\$2,934
4	O-2	\$42,492	\$2,125	\$3,105
5	O-3	\$50,016	\$2,501	\$3,360
6	O-3	\$50,016	\$2,501	\$3,088
7	O-3	\$52,416	\$2,621	\$2,974
8	O-3	\$52,416	\$2,621	\$2,734
Total			\$17,026	\$23,275

Notes:

"Year of Service" based on 8 years of service

"Rank" based on normal career progression in the Armed Forces

"Basic Pay" based on the 2005 Basic Pay schedule

"5% of Basic Pay" to reflect matched contributions

"PV of 5% of Basic Pay" compounded at 8.8%, based on the averaged annual return for the G, F, and C Funds from 1988-2002.

THIS PAGE INTENTIONALLY LEFT BLANK

## LIST OF REFERENCES

- Allen, Mike and Ceci Connolly, "Medicare Drug Benefit May Cost \$1.2 Trillion," Washington Post, 9 February 2005.
- Amelio, Gary, FRTIB Executive Director, Statement before the House Subcommittee on Domestic and International Policy, Trade and Technology, 5 May 2005.
- Bureau of Labor Statistics, U.S. Department of Labor, "Consumer Price Indexes," <http://www.bls.gov/cpi/cpifaq.htm>, 4 November 2005.
- Bush, George W., President, "Tenth Quadrennial Review of Military Compensation," Memorandum for the Secretary of Defense, 2 August 2005.
- Calhoun, Martin, "U.S. Military Spending, 1945-1996," Center for Defense Information, <http://www.cdi.org/issues/milspend.html>, 9 July 1996
- Congressional Budget Office, "Budget Options," February 2005.
- Congressional Budget Office, "Military Compensation: Balancing Cash and Noncash Benefits," Economic and Budget Issue Brief, 16 January 2004.
- Defense Advisory Committee on Military Compensation, Transcript, Public Meeting, 20 July 2005.
- Federal Retirement Thrift Investment Board. <http://www.frtib.gov>, 1 Dec 2005.
- Federal Retirement Thrift Investment Board, "Summary of the Thrift Savings Plan for the Uniformed Services," August 2005.
- Federal Retirement Thrift Investment Board, "Summary of the Thrift Savings Plan for the Uniformed Services," October 2001.
- Federal Retirement Thrift Investment Board, "Thrift Savings Plan for the Uniformed Services," March 2004.
- Federal Retirement Thrift Investment Board, "Thrift Savings Plan: Guide to TSP Investments," August 2003.
- Federal Retirement Thrift Investment Board, "Thrift Savings Plan: Managing Your Account," July 2005.
- Federal Retirement Thrift Investment Board, "TSP at a Glance: Thrift Savings Plan for Federal Employees," June 2003.

Fool.com, "Retirement Planning,"

<http://www.fool.com/retirement/retirementplanning/retirementplanning15.htm>, 4 November 2005.

Hansen, Michael L. and Thomas A. Husted, "Thrift Savings Plan: Effect on Savings and Tax Revenue," 2001.

Investopedia.com, "403B Plans,"

<http://investopedia.com/university/retirementplans/403b/>, Updated July 2005.

Investopedia.com, "Traditional IRA,"

<http://www.investopedia.com/university/retirementplans/ira/>, Updated July 2005.

Investopedia.com, "Qualified Plans,"

<http://investopedia.com/university/retirementplans/qualifiedplan/>, Updated July 2005.

Investopedia.com, "Roth IRA,"

<http://www.investopedia.com/university/retirementplans/rothira/>, Updated July 2005.

Kosiak, Steven M., "Military Compensation: Requirements, Trends and Options," Center for Strategic and Budgetary Assessments, February 2005.

Lavigna, Bob, "Winning the War for Talent," Government Finance Review, Volume 21, Issue 1, February 2002.

Office of Personnel Management, "Civil Service Retirement System," November 1997.

Office of Personnel Management, "Federal Employees Retirement System: An Overview of Your Benefits," April 1998.

Office of the Actuary, Department of Defense, "Fiscal Year 2004 DoD Statistical Report on the Military Retirement System," May 2005.

Office of the Actuary, Department of Defense, "Valuation of the Military Retirement System," 30 September 2004.

Office of the Under Secretary of Defense for Personnel and Readiness, "Military Personnel Human Resources Strategic Plan," 2001.

Pleeter, Saul and John T. Warner, "The Personal Discount Rate: Evidence from Military Downsizing," American Economic Review, Volume 91, Number 1, 2001.

Purcell, Patrick J., "Civil Service Retirement Bills in the 106<sup>th</sup> Congress," Congressional Research Service, Report for Congress, RS20255, 28 June 2000.

Rumsfeld, Donald H., Secretary of Defense, "Annual Report to the President and the Congress," Department of Defense, 2004.

Social Security Administration, "Military Service and Social Security," SSA Publication Number 05-10024, January 2005.

Social Security Administration, "Understanding the Benefits," SSA Publication Number 05-10017, January 2005.

Tricare Management Activity, "TRICARE for Life and Medicare," Fact Sheet, <http://www.tricare.osd.mil/factsheets/>, Updated 20 October 2005.

Tricare Management Activity, "TRICARE: The Basics," Fact Sheet, <http://www.tricare.osd.mil/factsheets/>, 11 June 2003.

Tricare Management Activity, "How TRICARE Changes When a Uniformed Service Member Retires," Fact Sheet, <http://www.tricare.osd.mil/factsheets/>, 18 August 2005.

Under Secretary of Defense for Personnel and Readiness, Department of Defense, "Military Compensation Background Papers," Sixth Edition, May 2005.

Veterans Benefits Administration, "Servicemembers' and Veterans' Group Life Insurance Handbook," Revised: 1 September 2005.

Walker, David M., Comptroller General of the U.S., Testimony before the Defense Advisory Committee on Military Compensation, 19 July 2005.

THIS PAGE INTENTIONALLY LEFT BLANK

## INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center  
Ft. Belvoir, Virginia
2. Dudley Knox Library  
Naval Postgraduate School  
Monterey, California
3. Nayantara Hensel  
Naval Postgraduate School  
Monterey, California
4. John Mutty  
Naval Postgraduate School  
Monterey, California