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Uniformed Services Thrift Savings Plan : analysis, perceptions, and alternatives

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NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

UNIFORMED SERVICES THRIFT SAVINGS PLAN: ANALYSIS, PERCEPTIONS, AND ALTERNATIVES

by

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March 2002

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Since January 1, 2002, uniformed service members have been able to set aside a portion of their income into a tax-sheltered, defined contribution plan. This study analyzed the level of understanding and perception that military members have concerning the UNISERV TSP. It also assessed the training, education, and awareness levels in the areas of personal finance and federal income tax incentives related to retirement savings vehicles.

A 35- question written questionnaire was administered to 189 military members from 43 commands in Navy Region Southwest. The study revealed that the level of training received to date is inadequate and insufficient for Navy personnel to make educated and informed decisions regarding retirement savings in general, including the UNISERV TSP ($p \leq .01$). Related conclusions revealed that a non-matching UNISERV TSP has no measurable effect on retention or recruitment and a matching program could improve the contribution rate by 200 percent.

The predominate recommendation is for senior leadership to increase their commitment and resources toward training all Navy personnel on the mechanics and long- term benefits of the UNISERV TSP and retirement savings.

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I. INTRODUCTION

A. PURPOSE

This study analyzed the Uniformed Services Thrift Savings Plan (UNISERV TSP) primarily in terms of level of understanding and participation decisions of a cross-section of 189 Navy service members. The research reviewed the military retirement benefits and retirement compensation packages, as well as various retirement savings programs available to military members. The study also assessed training and education levels of service members in general areas of personal finance and income tax incentives related to retirement savings vehicles. The study analyzed the “best value” of tax-incentivized retirement savings programs available to military members.

B. BACKGROUND

On October 30, 2000, President Clinton signed the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106-398). One provision of the law extended participation in the Thrift Savings Plan (TSP) for Federal civilian employees to members of the uniformed services. Using the authorization given the DOD in this Act, the Department of the Navy took an active lead in implementation.

The TSP is a retirement saving and investment plan that has been available to civilian employees of the Federal Government since 1987. The purpose of the TSP is to provide retirement income. It offers participants the same type of savings and tax benefits that many private corporations offer their employees under so-called “401(k) plans.” The TSP allows participants to save a portion of their pay in a special retirement account administered by the Federal Retirement Thrift Investment Board. The money that participants invest in the TSP comes from pre-tax dollars and reduces their current taxable income; investments and their earnings are not taxed until they are withdrawn.

The law is challenging to implement. The authorization gives permission for an Act, but does not provide the funding required for implementation, and as with many of the line items of the 2001 Authorization Act there was no accompanying Appropriation Act funding. The current civil service TSP has approximately 2.5 million members and a matching number of uniformed service members could potentially join the program in the future years as the program matures to become a routine part of military members’ investment decisions.

C. SCOPE AND LIMITATIONS

This study specifically analyzes United States Navy active duty members’ education, training, understanding, knowledge base, and intentions regarding the UNISERV TSP and other retirement savings programs. The study was formulated to assess the Navy’s TSP initial training program and its personnel’s overall understanding of personal financial issues regarding retirement savings. First, aspects of the military compensation and the retirement system are described, followed by a description of the defined benefit and contribution programs available to military personnel. A 35-question, written questionnaire was administered to military personnel in the Commander, Naval Region Southwest area. The sample population of 189 military members surveyed was constituted to resemble as closely as practical the composition of the overall Navy. An analysis was also conducted on several popular retirement savings programs to assess which programs possess the greatest potential for the military investor. The information cut-off date for data collection and analysis was limited to 31 January, 2002.

As with most survey data a standard limitation is the assumption that respondents are completely honest when answering questions. An individual assumption is that respondents understand the content of the questions. The study excludes the varying state income tax regulations on defined contribution plans and focuses solely on federal income tax regulations.

D. RESEARCH QUESTIONS

1. Primary Research Questions:

- How effective is the UNISERV TSP to the Navy in terms of the following factors: value-added and perceived importance; perceived fairness; recruitment and retention incentives?

- Do a majority of Navy personnel possess an adequate level of knowledge, training, and understanding in the area of taxes and investments to make educated and informed decisions concerning retirement savings programs?

2. Supplemental Research Questions:

- What is the general participation rate of Navy personnel in various retirement savings programs?

- Do Navy personnel feel they have sufficient disposable income to contribute toward retirement?

- Is the UNISERV TSP competitive with the various IRA programs? Under what conditions?

- Would a matching TSP substantially improve program enrollment?

- Are SRB/Bonus eligible sailors willing to exchange part of their bonuses in order to receive matching TSP contributions?

- Do Navy personnel feel matching TSP contributions for critical ratings and a non-matching TSP for non-critical ratings is fair?

E. METHODOLOGY

The methodology used in this thesis consists of the following:

1. A literature review was conducted on books, magazine articles, internet sites, other library resources, and Department of Labor and Congressional Budget Office reports.

2. Semi-structured interviews were conducted with 63 enlisted, officer and civilian personnel to develop insight and guidance into the formation of the questionnaire.

3. A field questionnaire was developed and administered to a sample group of enlisted, officer, and reserve communities to determine their education, training and understanding of the UNISERV TSP, and tax effects on various retirement savings programs.

4. A spreadsheet model was develop and analyzed to compare the popular tax deferred retirement savings programs available to military members.

5. A statistical review of active duty military personnel was conducted to determine enrollment demographics, participation levels, and participation percentages in the UNISERV TSP.

F. ORGANIZATION OF STUDY

Chapter I - Introduction and Background, identifies the purpose of the study and provides an overall outline and background of the thesis.

Chapter II - Military Compensation, includes a literature review of various aspects of military compensation provided to active duty military members today, e.g. pay, allowances, and retirement.

Chapter III - Retirement Savings, is a review of federal income tax guidelines and retirement savings programs available to military members today.

Chapter IV – Methodology, Data, Analysis, explains the methodology of the 35-question, written questionnaire, and shows results of the data collected.

Chapter V - UNISERV TSP / IRA Comparison, provides a detailed comparison of the various Individual Retirement Arrangements and the Uniformed Service Thrift Savings Plan in a spreadsheet analysis of several typical investment scenarios.

Chapter VI - Summary, Conclusion, and Recommendations, analyzes the findings from the research, and provides conclusions and recommendations on ways to improve the UNISERV TSP program. Recommended areas for future study are also presented.

G. BENEFITS OF STUDY

This thesis resulted in several noteworthy conclusions about the extent to which service members understand and make decisions on the TSP in particular, and on retirement in general. It analyzes service member perceptions about the TSP and discusses possible impacts for the Department of the Navy Office of Military Compensation and Policy (N130), the Commander of Naval Education and Training, and the United States Navy Personnel Command. It assesses levels of understanding, training, education, and desires of Navy personnel regarding the UNISERV TSP for the DON. The overall benefit may be to assist decision makers in increasing efforts to ensure service members both understand their retirement options, and actively participate in retirement planning.

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II. MILITARY COMPENSATION

A. INTRODUCTION

The United States Department of Defense and Congress have discussed, debated and battled with the various issues of military pay and compensation for as long as the systems have existed. The principals behind military pay and compensation play a major role in the national security of the United States by assisting to recruit, retain, and motivate uniformed service members of the armed forces. Quality of Life (QOL) issues are an important part of a military member's career decision in the armed forces. The fundamentals behind the successes and failures of recruitment and retention programs often find their basis in the areas of military pay and compensation.

In 1973, the United States officially ended the system of drafting civilian personnel to serve in the military. Since 1973, the armed forces have relied upon an all-volunteer force. This change placed the military in the unfamiliar arena of competing with the civilian sector for limited manpower requirements. Competition for talented young people continues unabated, and often hinges on pay and compensation.

The United States military has been and will most likely continue to be the single largest employer in the United States. To remain competitive, the military must continually provide a compensation program commensurate with the civilian sector. Although many military members join the armed services for reasons other than monetary gain a rational perspective dictates that the military must provide a fair and competitive monetary compensation program to recruit, retain and motivate quality labor from the civilian sector.

This chapter addresses key aspects of military pay and compensation principles relevant to its history. The chapter also breaks down the pay structure into three primary components forming today's current compensation system that service members are entitled to during active duty. It describes the retirement system and its variations that have been debated and modified over time. Topics include: the current structure of military pay; pre-retirement and separation entitlements; retirement systems; a GAO review of the military retirement system; and "pay gap". Initially, the six underlying principals under which military compensation was founded and operates are explained.

1. Underlying Principals

Six underlying principles form the conceptual framework around which the compensation system must perform and can be adjusted to. These principles presented and briefly explained below are from the Military Compensation Background Papers (DOD, 1991), revised by the Seventh Quadrennial Review of Military Compensation (DoD, 1992):

> *Effective in peace and war*. The compensation system must allow for the smooth transition of active, reserve, and retired forces from peacetime to mobilization status. The system

also must be designed to accommodate the rapid expansion and contraction of forces resulting form changes in national security posture.

Equitable and efficient. The compensation system must be perceived to be equitable by the member and efficient by the taxpayer. It must sufficiently reward the member over a lifetime, taking into account the exigencies of the service. At the same time, it must assure the taxpayer that neither more nor less is being spent than required for a balanced, effective force.

Flexible and competitive. The compensation system must provide the flexibility necessary to sustain skill and force mix objectives; to compete with the private sector under changing market condition; and to deal with revised manpower goals that result from changes in mission, technology, or tactics.

Motivational. The compensation system must encourage productivity and reward advancement. Because the military is a closed personnel system whose members perform highly specialized tasks, the compensation system must adequately recognize the value added by experience to force mobilization and readiness.

Predictable. The compensation system, to remain attractive over time, must generally provide the lifetime remuneration promised at the outset of a member's career. Predictability entails both system design at a given time and policy commitment over time.

Understandable. The compensation system should be as easy to understand as possible to foster national support and member commitment. It is important for members to appreciate how the elements interact to guarantee consistent remuneration to balance the unique hardships attendant upon military service. [Ref. 1:p. 117-118]

Questions and challenges arise concerning efficient compensation from the taxpayer's point-of-view and equitable and fair compensation from the military member's point-of-view. Taxpayers require varying levels of national defense to meet national security threats, while military members require compensation packages necessary for both blue, and white-collar lifestyles.

2. Military Compensation System Defined

The military compensation system is "made up of a complex patchwork of active-duty pays and allowances, and retired pay." [Ref. 2:p. 5] Some authors and military pay experts address pay and compensation as two separate entities that parallel each other. For the purposes of this thesis we consider pay as a component under the total compensation umbrella.

Benefits must also be included in the total compensation package as they play a major role in the entire military compensation program. UNISERV TSP is a new and added benefit to the total military compensation package that allowed military members to enroll after October 9, 2001 with payroll deductions that started January 2002. The primary focus of our analysis concentrates on the monetary aspect of the UNISERV TSP program in specific, and the military compensation package in general. Other military benefits such as medical, dental, commissary and exchange privileges will not change or adjust due to the addition or modification of UNISERV TSP. Therefore, benefits other than the UNISERV TSP program are beyond the scope of this study and will not be discussed.

3. Background

The majority of an active duty, military member's monetary compensation is provided via three separate categories: basic pay, allowances, and special and incentive pays. The main category of pay constitutes approximately 75 percent of active-duty cash compensation. The second largest category of compensation consists of allowances for housing and food; this category makes up approximately 19 percent of active-duty cash compensation. The third category contains the many elements of compensation that depend on individual circumstances, such as occupation and assignment, and make up approximately six percent of active-duty cash compensation. Examples of this category would include enlistment and reenlistment bonuses, sea pay, flight pay, and submarine pay. [Ref. 2:p. 5-6]

Figure 2.1 illustrates the "average" percentage of pay by category if all military members qualified equally for all three categories. These percentages vary somewhat depending on a variety of factors; members who live in high cost housing areas, for example, would have a higher percentage of their compensation from the Allowance section and a lower percentage from the Basic Pay section. While members in low cost housing areas would have the opposite effect. A member who qualifies for a reenlistment bonus and is assigned to a submarine, for example, would have a much higher percentage in the Special and Incentive Pay category than that of the average member of six percent, which is shown in Figure 2.1.

Category	Percent
Basic Pay	75
Allowances	19
Special and Incentive Pay	06
TOTAL	100

Figure 2.1 Percentage of Pay by Source for the Average Military Member

The category of Special and Incentive Pays is what makes military compensation complex and difficult to compare against the civilian sector. Later in this chapter, we discuss a more “valid way” to compare wages between the military and civilian sector by examining Regular Military Compensation (RMC).

Basic pay is the principal element of military compensation but it is not truly comparable to civilian salaries. “Reasonable comparisons can be made, however, to Regular Military Compensation (RMC) which is the sum of basic pay, quarters allowance (either cash or in kind), subsistence allowance (either cash or in kind), and the Federal tax advantage accruing to allowances because they are not subject to Federal income tax.” [Ref. 3:p. 1] Note that special and incentive pays are not included in RMC since all sailors do not qualify to receive these entitlements.

Given the RMC definition, a possible fourth category labeled “tax advantage” could be added to Figure 2.1 above. The 19 percent amount shown in the “allowance” row of the same figure provides an idea of the tax advantage amount that military members receive, on average. The tax advantages “level the playing field” for military members living in high cost housing areas; these same members are not penalized through the higher payment of taxes compared to members in lower cost housing areas since the entitlement is tax free.

Retirement pay is a major element of compensation second only in size to that of active-duty basic pay. The military retirement system is unique when compared to the civilian sector because the military system requires 20 years of service to become entitled to any retirement benefits (exception to special circumstances pertaining to medical retirement and early retirement programs occasionally used during force downsizing). Separating military members prior to 20 years of service who join the reserves can acquire the required number of reserve credits to begin receiving reserve retirement pay. “In contrast, private-sector plans, which must conform with the 1986 modifications to the Employee Retirement Income Security Act (ERISA), must generally vest workers after five years or, if they use a graduated-vesting method, after seven years.” [Ref. 2:p. 6]

The military currently has three retirement systems in place, which vary in entitlement according to which year a member initially entered active service. These systems are classified as “Final Pay”, “Hi-3”, and “CSB/Redux.” The three retirement system calculations will be presented and discussed in detail later in this chapter. First, additional aspects of the current structure of military pay structure are discussed.

B. CURRENT STRUCTURE OF MILITARY PAY

1. Pay

a. Basic Pay

Basic pay is the largest component of the military compensation system and is a key factor upon which the retirement pay system is centered. Basic pay is provided to an officer or an enlisted member according to rank and longevity or years of service (YOS) and is reviewed and adjusted annually by Congress during the budgeting process for the appropriations bill using the Bureau of Labor Statistics Employment Cost Index (ECI) as a guide. [Ref: 4:p. 1] Military basic pay is a taxable entitlement at the federal level and in many states depending on military exemptions. Military members are able to contribute up to 7 percent of their Basic Pay into the new UNISERV TSP for year 2002 up to the limits established by the Internal Revenue Code.

b. Special Pay

Special pay is provided in a variety of forms and is offered to service members performing specific assignments, operating at specific duty stations, or in specific regions. Pays such as Bonuses, Dental and Medical Officer Pay, Foreign Duty Pay, Career Sea Pay, Hostile Fire

Pay, Foreign Language Proficiency Pay, Diving Duty Pay, and Aviation Continuation Pay are examples of Special Pay.

Special Pay is a taxable entitlement that is not offered to all service members and fluctuates between service members during their careers according to qualification requirements and is therefore difficult to consider when comparing the military member to the civilian sector. [Ref. 5:Part 1] Military members are able to contribute from one to 100 percent of any special pay to the new UNISERV TSP program up to the limits established by the Internal Revenue Code as long as they are contributing at least one percent of their basic pay.

Significant changes to sea pay, one of the special pays mentioned above, went into effect October 1, 2001; more than 111,000 sailors and officers got new, higher rates. Twenty five thousand non-rated sailors and officers, with less than three years' of sea duty on ships, are now receiving this entitlement that would not normally have been entitled before the change. The sea pay hikes will cost $150 million in FY 2002, but are the first hikes in enlisted sea pay in 13 years. [Ref. 6:p. 13]

The Navy pays bonuses to members in critical skill occupation areas to help convince sailors to continue service. Bonuses come in a variety of forms with the most common being the Enlistment and Reenlistment Bonuses. This Selective Reenlistment Bonus (SRB) program's title alone refers to its limited scope of entitlement. As mentioned above, bonuses and the SRB in specific are categorized as special pay. SRBs are provided to enlisted members who reenlist under provisions of 37 U.S.C. 308. The services allot differing amounts of their budget for the SRB retention tool. A member entitled to receive an SRB has taxes normally withheld at the 28 percent tax rate and then reimbursed if applicable upon year's end when the member files his/her tax return with the Internal Revenue Service.

SRB has a proven history of being a powerful and flexible retention tool, although the idea of a member losing approximately one third of the bonus to taxes has always been a sore spot with entitled members. [Ref. 5:Part 1] The Navy's SRB budget for fiscal year (FY) 2001 was approximately $167 million. Due to higher than expected reenlistment rates, the Navy requested an additional $26 million to run FY 2001 SRB spending to $193 million. A fresh $165 million is budgeted again for FY 2002, which will probably run short also. The Navy re-enlisted over 37,000 total sailors in FY 2001, 16,000 of these sailors were SRB eligible. This equates to almost a 60 percent re-enlistment rate. [Ref. 7:p. 14]

c. Incentive Pay

Incentive pay is similar to special pay and comes in a variety of forms and is only offered to service members performing specific assignments or operating at specific duty stations. Pays such as Flying Duty Pay, Operational Submarine Duty Pay, Parachute Pay, Flight Deck Pay, Demolition and Experimental Stress Pay are examples of Incentive Pay. Incentive Pay is a taxable entitlement that is not offered to all service members and fluctuates between service members during their careers and from month to month according to qualification requirements. Given the inconsistency of receipt of incentive pay it is also difficult to consider when comparing the military member to the civilian sector. [Ref. 8:Part 2]

Military members are able to contribute from one to 100 percent of any incentive pay to the new UNISERV TSP program up to the limits established by the Internal Revenue Code as long as they are contributing at least one percent of their basic pay.

2. Allowances

Allowances are a non-taxable entitlement provided to military members and come in a variety of formats dependant on specific requirements for qualification and entitlement. [Ref. 9:Part 3] Receipt of allowances is common amongst military members with housing and food as the most popular, but NO portion of this category can be contributed toward the new UNISERV TSP program.

a. Basic Allowance for Housing

Basic Allowance for Housing (BAH) is a cash entitlement offered to most service members not provided government family or bachelor housing and is comprised of the combination of Basic Allowance for Quarters (BAQ) and Variable Housing Allowance (VHA). Government furnished family housing or bachelor housing is offered, if available, to most military members as an “in-kind” entitlement. BAH is a variable monetary amount depending on the service member’s duty station or location of dependents and whether or not he or she has qualified dependents. BAH is an amount of money prescribed and limited by law, which an officer or an enlisted member receives to pay for quarters not provided, by the government. BAH comprises a majority of the allowances a service member receives in total dollars and is typically not an entitlement offered by the private sector to its employees although this amount is routinely rolled into the total salary. [Ref. 9:Part 3] Since BAH is an allowance and not taxable; it is not available for contribution into UNISERV TSP.

b. Basic Allowance for Subsistence

Basic Allowance for Subsistence (BAS) is a cash allowance, by law payable to officers at all times, to help reimburse them for the expense of subsisting themselves. For enlisted personnel, the BAS cash allowance is payable when rations in kind are not available; when permitted to ration separately; or when assigned to duty under emergency conditions where no messing facilities of the United States are available. [Ref. 9:Part 3] Although the total dollar amount of BAS does not play a significant role in the monthly gross compensation offered to military members it should be considered when making comparisons to the civil sector. BAS like all other allowances is a non-taxable entitlement and is not available to contribute into UNISERV TSP. Military members may qualify for other allowances, such as Family Separation Allowance (FSA) and/or Clothing Allowances, but they are small and will not be presented.

C. PRE-RETIREMENT SEPARTION ENTITLEMENTS

1. Voluntary Separation

Service members who voluntarily separate from military service upon completion of an obligation or enlistment with less than 20 years of total service are currently not entitled to any monetary separation from the government despite the length of service provided. Unlike members of the private sector who fall under the Employee Retirement Income Security Act of 1974 (ERISA), the military has no retirement program for members who separate prior to retirement. The UNISERV TSP program is the Department of Defense’s answer to fill this void for the military member.

ERISA is a federal law that sets minimum standards for pension plans in private industry. If a private sector employer maintains a pension plan, ERISA specifies when the employee must be allowed to become a participant, how long the employee must work before he/she has a non-forfeitable interest in a pension, and other similar requirements mandated by law. [Ref. 10:p. 1]

ERISA does not require any employer to establish a pension plan. It only requires employers who establish such plans to meet certain minimum standards. The law does not specify how much money a participant must be paid as a benefit and therefore is not a flawless system despite regulations and mandates. [Ref. 10:p. 1]

2. Involuntary Separation

Involuntary separation pay, also known as separation pay (non-disability), is the only program that currently provides some type of monetary compensation from the government to service members who separate prior to retirement eligibility without a medical disability. Members who are separating for medical disabilities receive early retirements and other monetary compensations but fall in a special category of eligibility and will not be discussed in this thesis.

a. Full Separation Pay

Full payment of non-disability separation pay is authorized to military service members of the regular and reserve components who have been involuntarily separated from active duty and who have met each of the following four specific conditions. The first condition consists of meeting criteria for active military service and completion of at least 6 years, but less than 20 years of active service. The second condition consists of the member's separation characterized as "honorable" and without conditions. The third condition consist of the member being separated involuntarily through either the denial of reenlistment or the denial of continuation on active duty but is fully qualified for retention but denied reenlistment or continuation or under a reduction in force (RIF). The fourth and final condition consist of the separating member having to enter into a written agreement with the military service concerned to serve in the Ready Reserve of a Reserve Component of the Armed Forces for a minimum period of 3 years following the separation from active duty. [Ref. 11:Sec. 350201]

b. Half Separation Pay

Half Separation Pay is half payment of non-disability separation pay and is authorized to military service members of the Regular and Reserve components who have been involuntarily separated from active duty and who have met each of the following four criteria. The first condition consists of meeting criteria for active military service and completion of at least 6 years, but less than 20 years of active service. The second condition consists of the member's separation being characterized as "honorable" and without conditions. The third condition consists of the member separated involuntarily by the military service concerned through either the denial of reenlistment or the denial of continuation on active duty under specific conditions. These conditions include the following: expiration of service obligation, selected changes in service obligation, convenience of the government, homosexuality, drug or alcohol abuse rehabilitation failure, security, or weight control failure. The fourth condition consists of the member having entered into a written agreement with the military service concerned to serve in the Ready Reserve for a minimum period of 3 years. [Ref. 11:Sec. 350801]

The Services have limitations on eligibility for both the Full and Half Separation Pay programs for eligible members to ensure that they have been fully compliant with the services in all regards and their separation is at the choosing of the government vice the member.

Full Separation Pay is computed at 10 percent of 12 times the amount of monthly basic pay to which the service member is entitled at the time of separation from active duty, times the active service time as computed in the Department of Defense Financial Management Regulations Volume 7A. Half Separation Pay is computed at 50 percent of what the full separation pay would have been. All separation pays are received less the amount of federal income tax withheld at the flat rate for federal income tax withholding, as in effect pursuant to regulations prescribed under Chapter 24 of the Internal Revenue Code. [Ref. 11:Sec. 350204]

Formulas for Full Separation Pay and Half Separation Pay are provided below as Figure 2.2.

FULL SEPARATION PAY

.10(12 * monthly basic pay * active duty time)

HALF SEPARATION PAY

(.50) * .10(12 * monthly basic pay * active duty time)

Figure 2.2 Formulas for Full and Half Separation Pay

D. RETIREMENT SYSTEM

1. Past Studies and Adjustments of Military Retirement

The 20-year military retirement system has been in existence for nearly 80 years, but it was not until 1947 that a common retirement system was adopted for both officers and enlisted personnel. Prior to the end of World War II, the Army and the Navy had different rules and regulations that were inconsistent for officer and enlisted retirement eligibility. [Ref. 2:p. 28]

Soon after the common retirement system was unified by several pieces of legislation in 1946 and 1947, the Joint Army-Navy Pay Board and the 1948 Advisory Commission on Service Pay (known as the Hook Commission) severely criticized it. Both the Joint Pay Board and the Hook Commission thought that the 20-year retirement system was too short and favored retirement payments only to personnel who completed 30 years of service. They did propose an allowance exception for retirement payments to officers over 60 years of age and enlisted over 50 years of age who retire with 20 or more years of service (YOS). [Ref. 2:p. 28]

The primary issue with the Joint Pay Board was its concern with the apparent unfairness of a system that involved such delayed vesting aspects. The 20-year retirement system was accused of benefiting but a few at the expense of many; service members with less than 20 YOS walked away with nothing. To correct this discrepancy the Joint Pay Board recommended that the system be contributory: “Member contributions were to be invested in a fund that would pay interest, and those who left prior to completion of YOS 10 would receive their accumulated contributions and interest.” [Ref. 2:p. 29] None of the Hook Commission’s or the Joint Pay Board’s recommendations concerning retired pay were enacted, but much of the contributory ideas of 1947 look remarkably similar to the UNISERV TSP that is in place today. Other aspects of retirement pay that the studies proposed involved involuntary separation pay and cash severance pay. [Ref. 2:p. 29]

It was not until 22 years later, in 1969, that the first Quadrennial Review of Military Compensation (QRMC) provided the next formal review of the retirement system. It may have been this long 22-year gap and sensitive issues over military success in Vietnam that pushed Congress to enact a law that requires DOD to formally convene a QRMC every four years to review military compensation.

2. Current System

The current military retirement system dates back to 1947, when Congress implemented a common system for the military services and for officers and enlisted personnel alike. Although the basic foundation of the retirement system has not changed, modifications were made in 1981 and 1986 which have resulted in three systems now in effect for active duty military personnel depending on their entry base date.

The foundation of the system provides an immediate monthly annuity for life to those members who complete at least 20 years of active duty service, but no benefits to those who separate with less than 20 years (unless the active duty member transfers to the reserve and uses his/her active duty time toward reserve retirement). [Ref. 12:p. 1] The three current retirement systems that are available to active duty military members today are known as “High One”, “High Three” and “CSB/Redux.”

a. High One

Military members who entered the service prior to fiscal year 1981 are in a retirement program known as “High One.” These personnel receive retired pay according to the following formula, as shown in Figure 2.3:

.025 * YOS * final basic pay (where YOS denotes Years of Service)

Figure 2.3 Formula for High One Retirement System

This formula is structured such that 20-year retirees receive 50 percent of final basic pay and 30-year retirees receive 75 percent. This system is fully indexed for inflation. [Ref. 12:p. 1] Mathematically the “High One” is the highest paying retirement option available to those military members who qualify (pay entry base date of December 31, 1980 or earlier), since it is based on the highest basic pay received vice an average and is fully adjusted for inflation.

b. High Three

Military members who entered the service between fiscal years 1981 and 1986 are in a retirement program known as “High Three.” These personnel receive retired pay according to the following formula in Figure 2.4.

.025 * YOS * individual’s high three years’ average basic pay

Figure 2.4 Formula for High Three Retirement System

This system is fully indexed for inflation. [Ref. 12:p. 1] Although the High Three option does not pay out as high a rate as compared to the High One option, it pays out a significantly higher rate as compared to the “original Redux program” that was mandated in FY 1987. This original Redux program was modified and adjusted upward to include a bonus payment and is now called CSB/Redux as presented below.

c. CSB/Redux

Military members who entered military service after July 31, 1986 are in a retirement program know as “CSB/Redux.” This retirement program got its name from The Military Retirement Reform Act (MRAA) of 1986, which implemented several important changes to the retirement system and the modification to this program that occurred in 1999. These changes were included in the FY2000 Congressional DOD Authorization and Appropriation Acts. The applicable members will be given a choice of retirement plans at their 15^{th} year of service. There are two options:

1. Elect to receive the pre-1986 retirement system (High-3 system) or

2. Elect to receive a one-time lump sum Career Status Bonus (CSB) and have length-of service retired pay computed under the post-1986 retirement system (REDUX).

Those members who chose option number (1) at the 15 year point receive all the program entitlements of the "High 3" program listed above when they become retirement eligible and must meet the same years of service requirements to receive the same retirement pay as the "High 3" members. [Ref. 13:p. 1]

Those members who chose option number (2) under the CSB/REDUX option receive a $30,000 Career Status Bonus (CSB) at the 15^{th} year of active duty service. The CSB provides current cash for investing, major purchases, or setting up a business after retirement. The REDUX portion of the retirement pay is computed using the following annuity formula in Figure 2.5.

[.40 + .035 * (YOS – 20)] * high-3 average basic pay, for the years between separation and age 62, at which time pay reverts to .025 * YOS * high-3 average basic pay

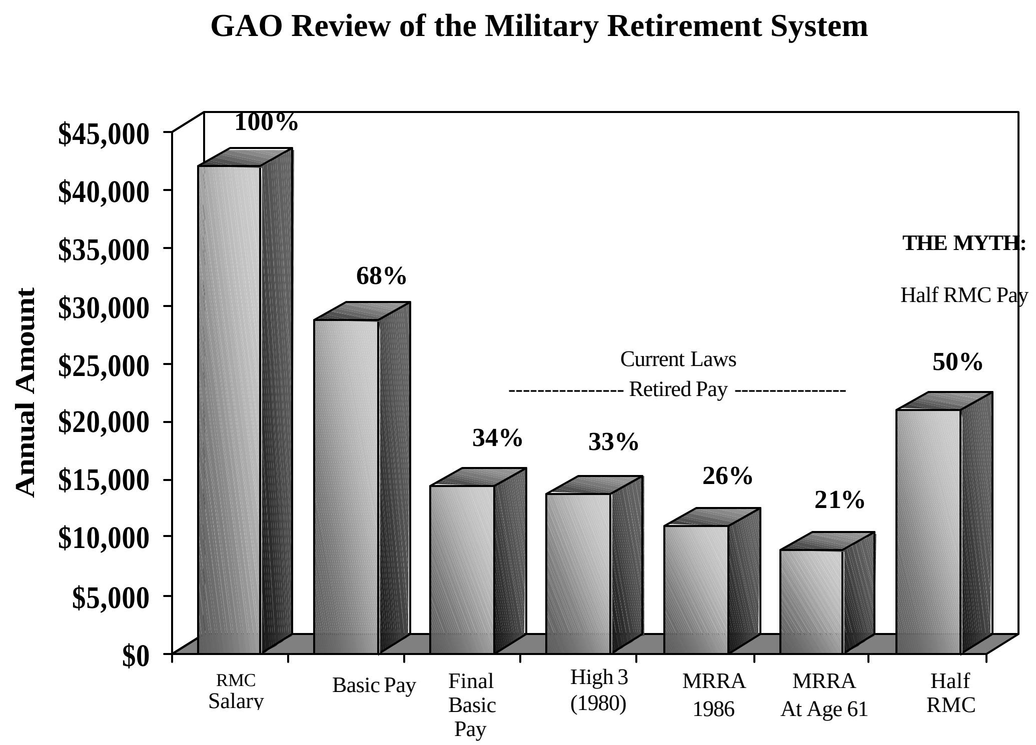
Figure 2.5 Formula for CSB/Redux Retirement System

Consequently, retired pay during the transition between military service and full retirement ranges between 40 percent of high three years' average basic pay at YOS 20 and 75 percent of high three years' basic pay at YOS 30. Second, rather than indexing retired pay for inflation; the annual cost-of-living adjustment (COLA) between separation and age 62 is 1 percent less than the percentage growth in the Consumer Price Index (CPI). At age 62, retired pay is then fully adjusted for the CPI growth since separation. Thereafter, it again increases according to the CPI-minus-1-percent rule. The 1986 reforms thus changed the system by (1) reducing the amount received at YOS 20, (2) raising the growth in retired pay for each year served after YOS 20, and (3) reducing the real value of the stream of retired pay in an inflationary environment. [Ref. 12:p. 1] Table 2.1 below shows a comparison of CSB/Redux and the High Three retirement percentages made available to members for varying years of service.

Years of Service	**20**	**22**	**24**	**26**	**28**	**30**
REDUX	40%	47%	54%	61%	68%	75%
High-3	50%	55%	60%	65%	70%	75%

Table 2.1 Retirement Percentages of CSB/Redux and High Three

According to Navy Times article dated June 4, 2001, officials expect that 40 percent of eligible military members will accept the CSB/Redux option of the retirement system with the remaining 60 percent of eligible military members reverting to the “High Three” option. [Ref. 14:p. 32]



From: [Ref. 3:p. 2]

Figure 2.6 Percentage of Regular Military Compensation Payable in the Three Different Retirement Systems

Basic pay is the only element upon which retired pay is computed and entitlement is determined. “In FY 1991, DoD’s retired-pay accrual charge was $16 billion, 43 percent as large as outlays for basic pay.” [Ref. 2:p. 6]

In November of 1996, the General Accounting Office (GAO), in report B-275254, examined military retirement costs, the roles of military retirement in shaping and managing U.S. forces, but did not recommend any changes in the existing military retirement system. Figure 2.6 above illustrates the dollar amount and percentage levels of the following: 1996 average RMC, the various pay out levels of the three retirement systems (“MRRA At Age 61” bar is the adjustment that takes place within the CSB/Redux retirement system), and the myth that the military actually pays 50 percent of RMC.

The GAO report went on to compare the different amounts available for the various government groups below in Table 2.2 (reproduced from the GAO Report). “The GAO Report demonstrates that the military retirement system is not as generous as one might expect. The reference to footnote “a” of Table 2.2 indicates that the cost of the military retirement system is an average of 24 percent of RMC for the three military retirement systems.” [Ref. 3:p. 2] This average will decrease as a greater percentage of military retirees move from the ‘High One” to the “High Three” and eventually to the “CSB/Redux” retirement program.

Retirement Plan	Percent of pay [a] From employer	From employees	Total
Average Military	33.3	0	33.3
Pre-1980	39.3	0	39.3
1980-86	35.0	0	35.0
Post-1986	29.7	0	29.7
FERS without TSP	11.4	0.8	12.2
FERS protective service without TSP	24.3	1.3	25.6
FERS with TSP	15.3	6.8	22.1
FERS protective service with TSP [b]	28.2	7.3	35.5

Note: All employees pay social security taxes of 6.2 percent on the first $62,700 of earnings, and their employers make matching contributions

[a] Normal costs for the military retirement systems are shown as a percent of basic pay. Since basic pay averages about 72 percent of regular military compensation, normal cost as a percent of regular military compensation is lower than the percentage shown, averaging, for example, about 24 percent for the three military retirement systems.

[b] These figures assume the same TSP participation rate as the average for all FERS employees

Source: GAO Report NSIAD-97-17, Nov. 15, 1996 From: [Ref. 15;p. 1]

Table 2.2 Costs of Selected Retirement Systems as a Percent of Pay (1995)

Compare the 22.1 percent with the 35.5 percent received by the FERS “protective service” employees with TSP. Conclusions from the table suggest that the retirement systems for hazardous sectors of employment should be relatively higher, as evidenced by the increased costs in the “protective service” employees. [Ref. 3:p. 2]

Principal findings of the GAO Report are as follows:

> The retirement system is widely viewed as a substantial influence on the broad shape of the force. With its combination of 20-year vesting and the payment of an immediate annuity at any age after 20 years of service, the system is designed to foster a relatively young force and ensure a flow of experienced personnel through encouraging those with 20 or more years of

> service to retire. The system generally serves as a very strong retention tool, pulling personnel after a certain career point to stay at least 20 years. It has thus been valuable as a force stabilizer. [Ref. 3:p. 3]

E. "PAY GAP"

Military advocates argue that members of the armed services should receive pay that is comparable with the private sector. Many advocates contend that 1982 was the last year in which military and civilian sector pay was comparable. This "pay gap" began as military members' college education level began to increase and insufficient funding to maintain cost of living adjustments took hold. [Ref. 16:p. 1]

In 1993, during the Clinton Administration, in an effort to reduce overall defense expenditures, a series of caps were placed on military pay increases despite an almost 12 percent gap in wage growth that had developed during the previous decade.

An early 2001 quality-of-life panel formed by Defense Secretary Donald Rumsfeld discovered fresh evidence to support the existence of a "pay gap" between military and private-sector wages. The study, which was performed under contract by the RAND think tank, found that "enlisted troops with eight to 20 years of service consistently are paid about $5,000 a year less than civilians with similar education and experience." [Ref. 17:p. 10]

In a June 21, 2001 letter from Rep. John P. Murtha, D-Pa., to Defense Secretary Donald Rumsfeld, Murtha wrote, "a large across-the-board raise is certainly justified. The entire military is suffering from a pay gap compared to the private sector, and all deserve a substantial raise, not just those who are in specialties or paygrades where there are special problems." [Ref. 18:p. 14]

The average pay raise of 6.8 percent in 2002 "would shrink the gap between military and private-sector pay from the current 10.9 percent to about 7.7 percent." [Ref. 19:p. 18] The Employment Cost Index (ECI) from the Department of Labor (DOL) over FY2001 was 4.1 percent. [Ref 10:p. 1] The 2.7 percent approximate increase over the ECI shows that current legislators recognize the need for parity between military and private sector pay to maintain a viable fighting force in today's all volunteer structure. Examples such as this "pay gap" concern play a major role in discussions, ideas, debates and political campaign issues with members of Congress and the Oval Office.

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III. RETIREMENT SAVINGS

A. INTRODUCTION

There are a number of retirement benefits and savings vehicles that public and private-sector employees qualify for depending upon their employer’s compensation package. This chapter discusses two separate categories of retirement benefits and savings vehicles: pension plans, and individual retirement arrangements (IRA). These two broad categories are subdivided into a range of popular retirement benefits and savings plans available for employees today. The features of each are distinct in a variety of areas, the most important being tax treatment.

Upon reaching a particular age or completing a certain number of years for an employer, or a combination of both, workers qualify for retirement benefit payments or withdrawals from their retirement accounts, or both. Workers have multiple options and combinations available to them. The particular number of options depends upon an employee’s retirement compensation package offered by the employer and upon the employee’s choice of opening and contributing to an individual retirement account. A contribution to an IRA involves an employee setting-up an individual arrangement or account with a financial institution under certain rules laid out by the Internal Revenue Code, and does not directly involve the employer. An individual must use earned income from wages, salaries, tips, etc. to contribute to an IRA. Spousal IRAs are an exception to the wage rules and are discussed later in this chapter.

Defined Benefit Plans, Defined Contribution Plans including 401(k) plans, Traditional IRAs, and Roth IRAs are retirement benefit programs or retirement savings vehicles that provide retirement income. These plans and vehicles vary to a great extent in qualifications necessary to participate, calculations to compute payment amounts, portability aspects, and tax implications. The Uniformed Service Thrift Savings Plan (UNISERV TSP) - the heart of this thesis - is a non-matching program that falls under the Defined Contribution Plan category and is similar to the private-sector 401(k) plan.

In Chapter V a model is presented comparing the “after tax return” on the UNISERV TSP and the Roth IRA. The comparison includes tax assumptions (several different tax rates at which the member contributes and withdraws), different ages at which the individual starts and stops contributions, differing amounts of contribution, and a constant rate of return for each example.

Retirement benefits and savings vehicles geared toward small businesses and the self-employed are beyond the scope of this thesis and will not be discussed. Examples of these include Simplified Employee Pension Plans (SEPs), Keogh Plans, and Savings Incentive Match Plan for Employees of Small Employers (SIMPLE plans). Additionally, an area of pension plans that cover profit sharing will not be discussed since it is not applicable to government programs and federal employees.

This chapter explains differences between the militarily relevant retirement benefit programs and savings vehicles mentioned above and how they fit into the overall military compensation package. The comparison between the UNISERV TSP and the Roth IRA in Chapter V provides a snapshot comparison concerning the most attractive financial vehicle under a variety of assumptions.

B. BACKGROUND

A comfortable retirement is primarily an individual responsibility. A gold watch and a small monthly stipend were typical retirement benefits provided by large corporations in the years following massive industrialization in the late 1800s into the 1900s.

Prior to the 1870s, private-sector plans did not exist, primarily because most companies were small family-run enterprises. In 1875, the American Express Company established the first private pension plan in the United States. Other large corporations like Standard Oil of New Jersey, U.S. Steel Corporation, General Electric, American Telephone and Telegraph, Goodyear Tire and Rubber Co., Bethlehem Steel Co., American Can Co., and Eastman Kodak Co. established pension plans between 1903 and 1929. [Ref. 20:p. 1]

Due primarily to labor union growth and other factors, the U.S. government began regulating these private and informal pension arrangements. Regulation provided added protection from corruption and ensured funds were set aside for the sole purpose of pension payments, and not for short-term funding of corporate operations.

C. PENSION PLANS

A pension plan is a promise by a pension plan sponsor to a plan member to provide a fixed payment at regular intervals post retirement. Retirement payments under pension plans are usually started when an employee reaches an eligible age or when the employee completes a given number of years with the employer. Pension plans generally come in two forms: defined benefit plans and defined contribution plans. Pension plans differ in terms of who bears the risk of guaranteeing retirement payments. Under the defined benefit plan the employer bears all the risk of insuring the retiree’s future payments, while under the defined contribution plan the employee is responsible for guaranteeing his or her own retirement income. Further discussion of the differences between these two plans is presented later in the chapter. First, the popularity and the trend of pension plans offered to American employees over the last 60 years are considered.

Popularity for pension plans has changed drastically since the American Express Company first established a pension plan in 1875. By 1992, the raw number of private pension plans totaled more than 708,000 and covered more than 45 million active participants. The most significant growth in the pension plan arena has occurred since mid 1940 in the railroad, banking, and public utility industries. [Ref. 21:p. 55]

Increased popularity for these pension plans was partly due to the "friendly" tax treatment the employer who established such qualified plans received from the federal government. In general, contributions to a qualified plan are immediately deductible for the employer when it computes its taxes.

Figure 3.1 illustrates the booming growth of private-sector workers covered by a pension plan during a 50-year span from 1940 – 1990. [Ref. 20:p. 1-4]

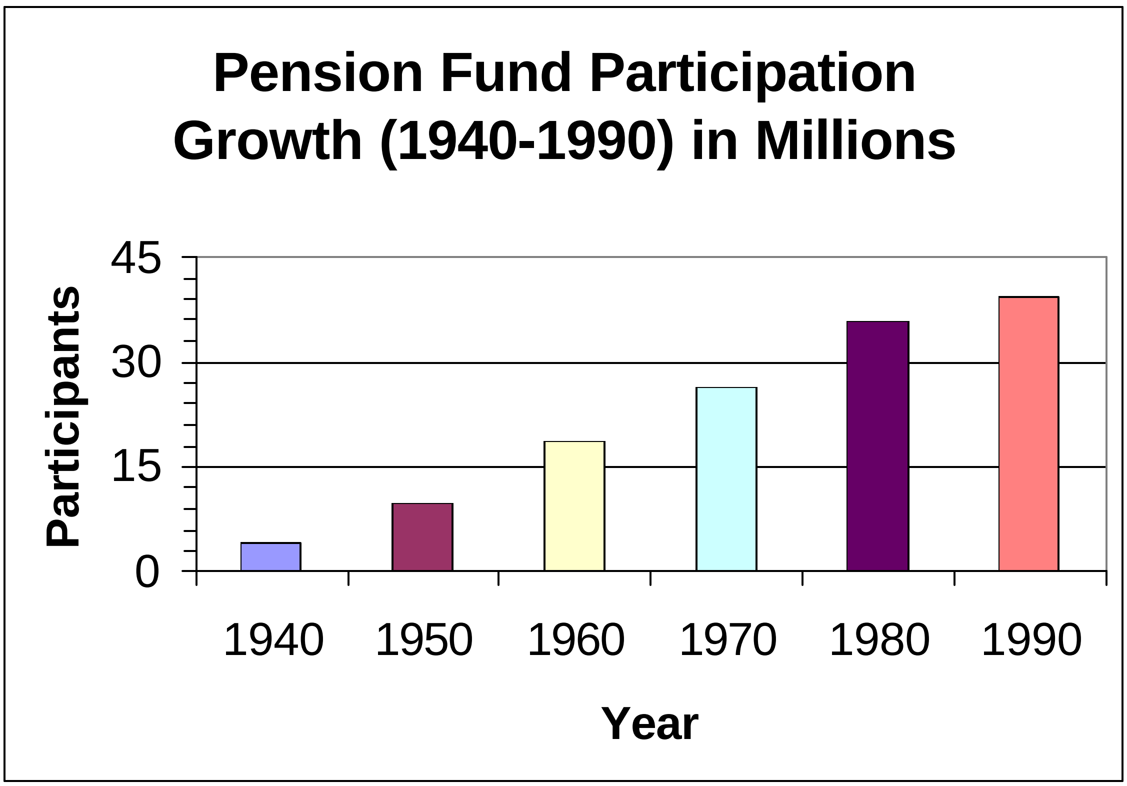

Figure 3.1 Pension Fund Participation Growth Between 1940 – 1990

Figure 3.2 illustrates the percentage of American private-sector workers covered by a pension plan during the 50-year span between 1940 and 1990. This figure shows a strong growth rate from 1940 to 1960 followed by a leveling out period from 1960 to 1990. [Ref. 20:p. 1-4]

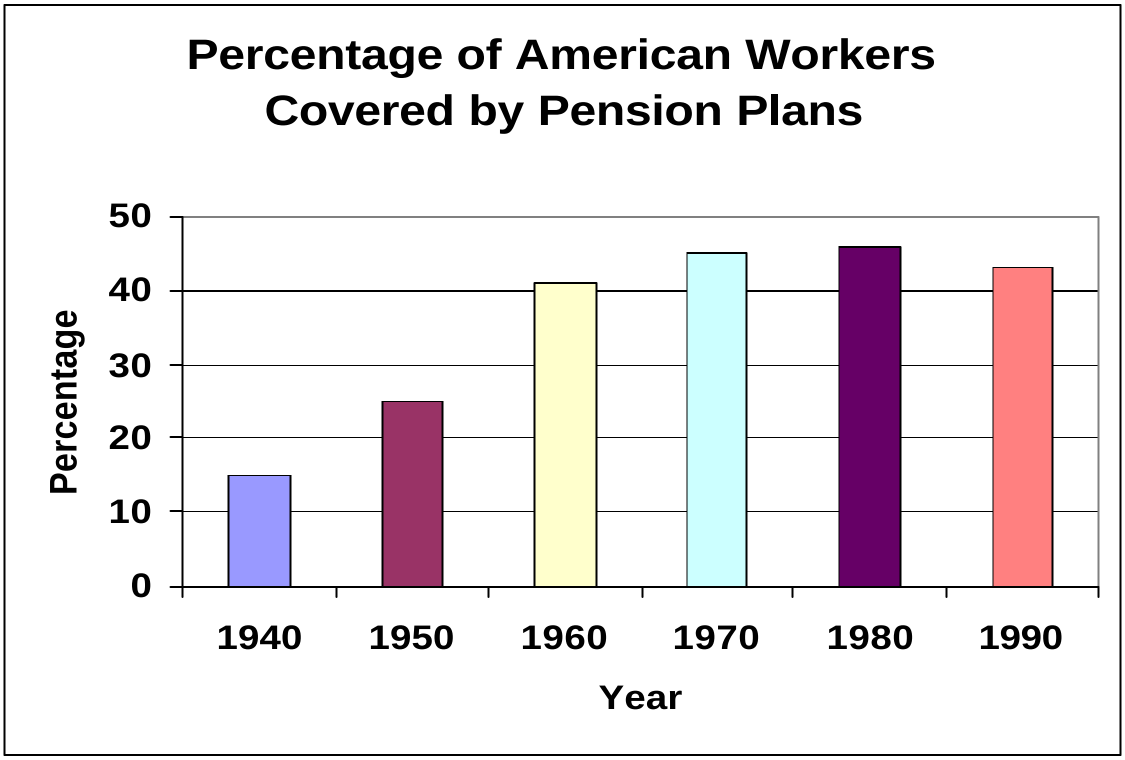

Figure 3.2 Percentage of American Workers Covered by Pension Plans

Caution should be used when interpreting the strong growth rate of private-sector workers covered by pension plans. Several strong forces were occurring during these decades, e.g., the number of large firms increased, number of employees increased, fewer self-employed farmers worked family farms, and large farm equipment played a substantial role in terms of increasing numbers of corporate farms.

1. Defined Benefit Plans

A defined benefit plan promises an employee a specified monthly benefit at retirement. The plan may state this promised benefit as an exact dollar amount, such as $1,000 per month upon retirement, or use specified formulas to calculate payments. Generally, employees do not directly contribute to defined benefit types of plans – thus they are termed “non-contributory.” Employers are the only direct contributors to these types of plans.

A substantial percentage of American workers are covered under the defined benefit umbrella. According to a 1994 study from the Department of Labor, 56 percent of 1993 full-time employees of medium and large private organizations covered by a pension plan were participating under defined benefit plans. [Ref. 21:p. 69]

Employers offering a formula based version to determine an employee’s future benefit upon retirement typically use one of three choices: flat-benefit, career-average, or final-pay formula. An employee’s salary and/or length of service are the key elements for all three formulas. [Ref. 21:p. 69]

a. Flat-Benefit Formulas

The flat benefit plan pays a set dollar amount for every year recognized under the plan. [Ref. 21:p. 69] These plans are not as common and are not popular with salaried employees because they only recognize length of service and fail to reward higher wage earners with larger retirement payments. Hourly paid employees and labor union plans are the common users of this formula calculation. One key advantage of the flat-benefit formula is that it offers an employer a less complicated way to budget for retirement payments in the future.

b. Career-Average Formulas

The career-average plan has two differing methods of computing the retirement benefit. Under the first method, participants earn a percentage of the total pay recognized while they are participants under the plan. Under the second method, participant's yearly earnings are averaged over the period of plan participation. At retirement, the benefit equals a percentage of the career-average pay, multiplied by the number of years of service. [Ref. 21:p. 69]

c. Final-Pay Formulas

The final-pay calculation is based on average earnings during a specified number of years at the end of a participant's career, when they are usually highest. The benefit equals a percentage of the participant's final average earnings, multiplied by the number of years of service. [Ref. 21: p. 69] This formula is considered employee friendly because it provides the greatest degree of inflation protection to the participant, while it bears the greatest cost to the employer.

All three versions of the military's retirement systems discussed in Chapter II use the final-pay formula. The "Final One" retirement system uses the last 12 months of pay for its calculation, while the “Final Three” retirement system uses the last 36 months of pay for its calculation. The “REDUX/CSB” retirement system also uses the last 36 months of pay, but multiplies it by a lower percentage (2 percent per year for a twenty year commitment and 2.5 percent thereafter up to 30 years) compared to the other two military retirement plans for their calculation which use 2.5 percent throughout.

2. Defined Contribution Plans

Contrary to a defined benefit plan, a defined contribution plan does not promise the employee or member a specific amount of benefits at retirement. In these plans, accounts are set up and contributions are generally invested on the employee’s behalf so employers, employees, or both can make annual or periodic contributions. Contribution amounts are generally guaranteed while the level of benefits is not. The contribution to a defined contribution plan is generally stated as a percentage of an employee’s salary and/or related to years of service. [Ref. 21:p. 70]

The employee or member will ultimately receive the balance in the account, which is based on contributions plus or minus investment gains or losses. The value of the account may fluctuate significantly due to the changes in the value of the elected investments. Examples of defined contribution plans include 401(k) plans and 403(b) plans, which get their name from the section of the Internal Revenue Code in which they are found. The general rules of

ERISA discussed in Chapter II apply to each of these types of plans.

According to the 1994 U.S. Department of Labor study mentioned earlier, 49 percent of 1993 full-time employees in medium and large private organizations participated in one or more defined contribution plans, up from 45 percent in 1988. [Ref. 21:p. 70] Current law allows employees to participate in both defined benefit plans and defined contribution plans at the same time, if offered. Notice that the 56 percent participation rate for defined benefit plans and the 49 percent participation rate in defined contribution plans for 1993 total 105 percent. These statistics show that there are some employees participating in both plans, while it is a given that some 1993 full-time employees were not participating in either.

There are several reasons why employers may adopt defined contributions plans. These reasons include: employees move closer to achieving retirement income security; employees can supplement an existing defined benefit plan; employers help avoid long-term funding and liability commitments of defined benefit plans; and employers create a program that provides benefits for short-term workers. [Ref. 21:p. 71]

Since the arrival of the UNISERV TSP in October 2001, all military members are eligible for participation in both a defined benefit and contribution plan. The 20-year retirement is the defined benefit plan while the UNISERV TSP is the defined contribution plan. Additionally, military members have the option to participate in IRA’s and other retirement investments allowed by law.

D. INDIVIDUAL RETIREMENT ARRANGEMENTS (IRAS)

An individual retirement arrangement or account helps retirement savings grow by allowing earnings to compound tax deferred or tax free in some cases until they are withdrawn (contributions and earnings both grow tax deferred in some cases).

Both Traditional and Roth IRAs contribution limits have increased from $2,000 a year in 2001 to $3,000 a year in 2002 per person provided an individual's earnings exceed the contribution amount up to the $3,000 limit. The limit will further increase to $4,000 in 2005, and $5,000 in 2008 and subsequent years. Beginning in 2009, the new law adjusts the limit for inflation in $500 increments. The next section discusses Traditional IRAs followed by the Roth IRA. Educational IRAs are beyond the scope of this thesis.

1. Traditional IRAs

Under Traditional IRAs, investments grow tax-deferred and contributions may be tax deductible, depending on the income level and whether the participant is covered by an employer-sponsored plan. Simply stated, an individual under certain income limits can lower his or her federal tax payment by placing up to $3,000 of 2002 earned income into a Traditional IRA provided the individual uses it for retirement (withdrawal after age 59 ½). The earnings from the $3,000 principal will also grow tax deferred until withdrawn at retirement. The tax treatment for the Roth IRA is different and discussed later. The Traditional IRA retirement account offers two primary advantages. First, contributions may be tax deductible in whole or in part, depending on circumstances. Second, earnings and capital gain amounts in an IRA are not taxed until distributed.

As discussed earlier some employers offer retirement programs like defined benefit plans to their employees. An employee can confirm whether s/he is covered by a pension at work by looking for an “X” in the pension plan box in section 15 of the W-2 form that the employer provides to the employee annually. All military members are covered by a retirement pension plan. If an employee is not covered by a pension plan by his or her employer the individual can deduct the full amount ($3,000 for 2002) from the adjusted gross income amount on the federal tax form regardless of income limits. [Ref. 22:p. 1]

Since many workers are covered by pension plans, income limits are in place to disallow higher paid employees from taking full advantage of the employer’s pension plan and a fully deductible Traditional IRA. Table 3.1 illustrates 2002 adjusted gross income (AGI) limits for Traditional IRAs for different taxpayers depending on their filing status.

Filing Status	Adjusted Gross Income (AGI) Ranges		
	Fully Deductible	Partial deductible	Non deductible
Single/Head Household	up to $33,000	$34,001 to $44,000	$44,001 and up
Married, Filing Jointly	up to $54,000	$54,001 to $64,000	$64,001 and up
Married, Filing Separately	up to $0	$1 to $10,000	$10, 001 and up

Table 3.1 2002 AGI Range for Deductible Portion of Traditional IRAs

In the fully deductible range individuals can contribute and take the full $3,000 deduction, while in the partial deductible range the deductible portion incrementally decreases to zero as it enters the nondeductible range.

Annual contributions up to $3,000 are permitted to the traditional IRA for 2002; an aggregate of $6,000 may be contributed to the traditional IRAs of a worker and his or her non-working spouse provided that the working spouse has at least that much earned income. Neither spouse’s IRA may receive more than $3,000 annually.

2. Roth IRAs

The Taxpayer Relief Act of 1997 established the Roth IRA, a non-deductible individual retirement account that allows tax-free withdrawals after age 59½ from accounts established for at least five years. Individuals must have earned income of at least the amount of the contribution in order to contribute to the Roth. Simply stated contributions into a Roth IRA are made with after tax dollars. Earnings grow tax-deferred, and qualified withdrawals are tax-free.

Income limits or ceilings are also in effect to qualify for a Roth IRA. Table 3.2 illustrates 2002 adjusted gross income (AGI) limits for Roth IRAs for different taxpayers depending on their filing status. Married couples that file separate returns have strict AGI limits that drastically reduce the contribution amount. Further information can be found on this subject in Publication 590 of the Internal Revenue Code.

Filing Status	**Adjusted Gross Income (AGI) RANGES**		
	Full Contribution	**Partial Contribution**	**No Contribution**
Single/Head Household	up to $95,000	$95,001 to $110,000	$110,001 and up
Married, Filing Jointly	up to $150,000	$150,001 to $160,000	$160,001 and up

Table 3.2 2002 AGI Ranges for Full Contribution to a Roth IRA

The Roth IRA is particularly attractive for investors who fear that their tax rates during retirement may be higher than their tax rate today. In effect, the Roth IRA allows an individual to "lock-in" a tax rate today vice gamble with their tax rate in the future.

E. UNISERV TSP

The Uniformed Service Thrift Savings Plan (UNISERV TSP) was founded by its authorization in the FY2001 National Defense Authorization Act but was not set up for its debut until its first open season, which began October 2001. The TSP is a voluntary Federal Government-sponsored retirement savings and investment plan and until this year was only available to civilian federal government employees. UNISERV TSP is a defined contribution plan with contributions taken directly from military payroll. The retirement income that a military member receives from the individual TSP account is dependent on how much the member (and the branch of service if it were matching) contributes to the account during his/her working years and the earnings on those contributions.

The purpose of the TSP is to provide retirement income, but unlike participation in the military retirement system, participation in the UNISERV TSP is optional. UNISERV TSP offers participants the same type of savings and tax benefits that many private corporations offer their employees under so-called "401 (k) plans." UNISERV TSP allows active duty and Ready Reserve personnel to invest pre-tax dollars while deferring tax on investments and earnings until they are withdrawn.

In effect, the non-matching UNISERV TSP tax treatment is similar to the deductible portion of a Traditional IRA with no AGI threshold limits, but with much higher contribution limits. Under the UNISERV TSP military members can contribute up to $11,000 for 2002; the limit will rise $1,000 each year until 2006, when it will be $15,000. [Ref. 23:p. 40] Beyond 2006, participants' contributions will be limited only by the Internal Revenue Code's annual limits.

The law authorizing the TSP for the uniformed services also allows each military service secretary to provide matching contributions for designated critical specialties. So far no matching contributions have been authorized by any of the services. Further direction on the authority concerning matching funds is provided in a Navy administrative message dated Oct 2, 2001:

> As a retention initiative, the secretary of the Navy is authorized to enter into an agreement with you to make matching TSP contributions if you are in a critical specialty and agree to serve on active duty in your critical skill for a period of six years.
>
> At this time, the Navy does not intend to use this authority in 2002. The Center for Naval Analysis is studying this tool to see if it has utility in the future against the proven success of our bonuses, special and incentive pays. Policy, procedures, and eligible skills will be published by separate NAVADMIN should the decision be made to offer matching funds in the future. [Ref. 24:p. 10]

1. Expenses

Military participants will pay administrative expenses or an expense ratio equal to 1.5 percent of their plan assets per year. Expenses are taken from investment earnings before they are passed on to the account. All contributions are free of front-end fees and are considered “no-load” (no sales charges or commissions).

2. Fund Choices

As a TSP participant, military members will choose from five mutual fund investment instruments, including government securities and four Barclays index funds:

- Government Securities Investment Fund (G-Fund)
- Fixed-Income Investment Fund (F-Fund)
- Standard and Poor 500 Common Stock Index Fund (C-Fund)
- Small Capitalization Stock Investment Index (S-Fund)
- International Stock Index Investment Fund (I-Fund)

Military members allocate payroll contributions to any one, or a combination of the funds and can redistribute existing balances among the funds. Barclays Global Advisors manage all index fund options for this plan. The S-Fund attempts to replicate the Wilshire 4500 Stock Index. The I-Fund attempts to replicate the EAFE Index.

In summary, the UNISERV TSP program has five key advantages for retirement savings investors: First, participation is strictly voluntary. Second, the portion of pre-tax income invested in a retirement account reduces current taxable income. Third, investments and earnings are not taxed until withdrawn at age 59½ or later. Fourth, various investment options are available. Fifth, the savings and tax benefits are the same type private corporations offer employees under a 401(k) plan.

F. SUMMARY

As illustrated in Figure 3.1, an increasing number of employees are investing their retirement dollars through defined contribution plans, in particular 401(k) plans. Employees who participate in 401(k) plans assume responsibility for their retirement income by contributing part of their salary and, in many instances, by directing their own investments. The 401(k) plan is rapidly becoming the pension plan of choice for both American employers and employees, with over 20 million people covered out of the approximate 45 million people in 1992 covered under the total pension plan umbrella. [Ref. 21:p. 55]

These defined contribution plans are popular with employers because they can be free of the ongoing contribution liability and administrative hassles often associated with the traditional defined benefit plans. For employees, a 401(k) plan allows the individual to control their investment and allows the individual to take his or her accumulated savings with them when they leave the firm prior to reaching the normal retirement requirements. These two features are termed self-directed investments and portability, respectively. When an employee transfers jobs, most transfer their 401(k) to their new employer's 401(k) plan or directly roll it over to a Traditional IRA.

Employers of all sizes can implement low-cost 401(k) plans while receiving significant benefits. Specific benefits include: increased attraction and retention of employees, reduction of administrative complexity including administrative time, addition of a popular benefit, flexibility of employees to switch investments within fund families, and daily fund valuation availability.

Employee contributions to a 401(k) plan or to the UNISERV TSP are excluded from the employee's gross income and are therefore not currently subject to federal income taxation, i.e., are tax deductible. The tax-deductible feature is the main attraction or selling point to the employee if he/she is saving for retirement. A 401(k) or the UNISERV TSP plan offers a return on investment for the employee equal to the tax bracket that s/he is currently occupying for that tax year prior to the accounting for capital gains or losses.

If the employee or military member is not saving for retirement, the tax benefit provided for by the contribution plan is designed to provide the financial incentive for the individual to consider it and participate in it through payroll contribution. As with any individual financial decision, the employee or member must "weigh" the immediate benefit of the money against its future benefit, including the tax advantage stated above. Each individual has his or her own particular "discount rate" for the value of future monetary benefits against the benefits of that money today. For example, it is generally understood "that younger people (i.e., military personnel) are known to have high personal discount rates, much higher than the government's, and therefore value a dollar of deferred (retirement) compensation less than it cost the government to provide." [Ref. 2:p. 19-20] In other words, a younger person would value the purchasing power of a dollar more today than an older person would or more than the government would. Thus a younger person may be less inclined to invest part of his or her paycheck into a retirement savings account. This point is extremely important as we examine the UNISERV TSP for military members further.

In private commercial organizations, any employer matching contributions that is deposited into the employee's account is non-taxable to the employee at the time of contribution. Matching contributions are tax-deductible for the employer in its current tax year as a form of labor expense, generating an incentive for commercial employers to provide this attractive tax-sheltered benefit to their employees. DOD as an employer, is unaffected by taxes and tax law changes that would provide incentives for the UNISERV TSP, but the military member as an employee would receive the same tax benefit any private-sector employee would receive.

Many employees consider defined contribution plans as a standard employee benefit associated with employment opportunities. When an employer establishes a retirement plan, their employees receive important fringe benefits that have long lasting, positive effects.

IV. METHODOLOGY, DATA, AND DATA ANALYSIS

A. INTRODUCTION

This study analyzed aspects of the Uniformed Services Thrift Savings Plan (UNISERV TSP), particularly in terms of Navy service members' perceived levels of understanding and participation decisions. Also assessed were perceptions of extent of training and education received on the TSP and level of understanding of personal finance and income tax incentives related to retirement savings vehicles.

The primary method used to obtain data was a 35 question, written survey administered to military members from the Commander, Naval Region Southwest area (Appendix A). The questionnaire was administered in January 2002 to a total of 189 military members from 43 different commands. The last portion of the survey contained open-ended questions to obtain written comments both on the topic and the instrument used, and to add qualitative understanding to the quantitative results. Respondent's actual comments are provided in Appendix B.

B. DESIGN OF THE STUDY

Initially, a draft of the proposed questionnaire was sent to the Department of the Navy Office of Military Compensation and Policy (N130) to solicit input and recommendations. Minor modifications and recommendations were discussed and implemented.

The questionnaire was developed to be as user friendly as possible, and was designed to take approximately 10-15 minutes. Care was taken to avoid leading the respondents or biasing their answers in anyway. The questionnaire contained three sections. The first section of the questionnaire obtained demographic information, and respondents' participation in savings or retirement programs including the UNISERV TSP. The second section used Likert-scale statements to obtain agreement/disagreement responses including a midpoint or neutral response. The third section of the questionnaire encouraged members to comment on the UNISERV TSP program and any additional factors they felt were relevant to the topic or the questionnaire. Written comments from the third section are provided in Appendix B, categorized by rank and age.

Additionally, some questions were designed to test the accuracy of earlier responses by asking questions that were intended to draw parallel responses. (e.g., question 8 and 9 asked whether the member was participating or intended to participate, and question 24 asked if the tax incentives of the military TSP are strong enough to convince them to participate). Responses to these comparison type questions are summarized at the end of this chapter.

C. DATA COLLECTION

The questionnaire was administered to 189 military members from 43 different commands from the San Diego and Monterey California areas within the Navy Region Southwest area (exception of one member who was on TAD assignment from Jacksonville, Florida). Because respondents were from a variety of Navy commands within the region, the sample is fairly representative of the overall Navy. Most of the questionnaires were administered by approaching military members while they were eating lunch at the Navy Exchange at North Island Naval Air Station in San Diego, California. Other questionnaires were administered by approaching students between classes at the Naval Postgraduate School (NPS) in Monterey, California.

Respondents belonged to ships, squadrons, staff, shore, training, and various support commands, and represented every paygrade from O-5 to E-1 (no Warrant Officers). Respondents included males and females, ages 18 to 50, three different branches of services and the Naval Reserve. Most respondents were active Navy. Sample member length of service varied from just a few months to over 20 years.

Since 43 questionnaires were administered to officers (mostly at the Naval Postgraduate School), the sample is slightly officer heavy (e.g., 23 percent of 189 vice an actual enlisted to officer ratio of 14 percent in the Navy). This information is relevant because participation rates from Defense Finance and Accounting Service (DFAS) indicate that officers participate in the UNISERV TSP at nearly double the rate of enlistees.

Of the 189 questionnaires administered, 187 were completed in their entirety with two respondents stopping after question #21 for unknown reasons. Seventy-two respondents (38 percent) provided additional written comments regarding TSP specifically (question 34), and 24 respondents (13 percent) provided additional comments regarding the questionnaire (question 35). Respondents' written comments are provided in Appendix B. Additionally, 46 percent of the sample respondents were in Selective Reenlistment Bonus (SRB) or other bonus eligible ratings, while 54 percent were in ratings that were not bonus eligible.

D. DATA ANALYSIS

The first section of the questionnaire (questions 1-11) obtained relevant demographic information, including respondents' current participation in a retirement savings program(s) and the UNISERV TSP. Results of questions 1-7 are shown below in Table 4.1 – 4.4.

PAYGRADE DEMOGRAPHICS

Paygrade	# of participants	Percent of participants
E-1	1	.5
E-2	11	5.8
E-3	15	7.9
E-4	33	17.5
E-5	40	21.2
E-6	27	14.3
E-7	12	6.3
E-8	3	1.6

Paygrade	# of participants	Percent of participants
E-9	4	2.1
O-1	2	1.1
O-2	7	3.7
O-2E	1	.5
O-3	12	6.3
O-3E	7	3.7
O-4	12	6.3
O-5	2	1.1

Table 4.1 Demographic Question 1 – Paygrade

Table 4.1 shows respondents' paygrades (77 percent enlisted and 23 percent officers). Of the enlisted respondents, 69 percent were E-5 and below.

DEMOGRAPHIC INFORMATION ON AGE

Age Range	18-24	25-29	30-34	35-39	40 and over
# of respondents	68	32	36	38	15
Percent of respondents	36	17	19	20	8

Table 4.2 Demographic Question 2 – Age on Your Last Birthday

Table 4.2 shows that 53 percent of the respondents were under the age of 30, and 8 percent were age 40 and over.

DEMOGRAPHIC INFORMATION ON SEX, COMMAND, AND SERVICE

Question	Responses	Number	Percent
Question 3. Male or Female	Male	150	79
	Female	39	21
Question 4a. Current Command		43	
Question 4b. Branch of Service	USN	176	93
	USNR	10	5
	USMC	2	1
	USA	1	1

Table 4.3 Demographic Questions 3-4 - Gender, Command, and Branch of Service

DEMOGRAHIC INFORMATION ON MILITARY SERVICE AND SRB

Question	Responses	Number	Percent
Question 5. Current years/months of military service	0-5 yrs	83	44
	6-10 yrs	35	18
	11-15 yrs	34	18
	16-20 yrs	26	14
	> 20 yrs	11	6
Question 6. Current End of Active Service	Data Collected but not used for analysis		
Question 7. Are you in an SRB eligible rating	YES	86	46
	NO	103	54

Table 4.4 Demographic Questions 5-7 - Years of Service, EAOS, and SRB Eligibility

Tables 4.3 and 4.4 provide responses from question 3-7 concerning demographic data of the sample group. Question 3 shows that 21 percent of the sample respondents were female. Question 4 shows that 93 percent of the respondents were active duty U.S. Navy. Question 5 shows the largest group of respondents had less than 6 years of service, while the remainder was fairly evenly distributed throughout the other categories. The 20 years of service or more group (6 percent) was the smallest. Question 6 obtained End of Active Obligated Service (EAOS) dates. Question 7 shows that 46 percent of the respondents were in

SRB eligible ratings. Overall, the information compares well with actual percentages for the United States Navy as a whole, with the exception of the officer/enlisted ratio and SRB eligibility mentioned earlier.

The next group of data collected includes Individual Retirement Arrangements (IRAs), UNISERV TSP participation, other retirement savings program enrollment, and at what age respondents began to contribute savings toward retirement.

RETIREMENT SAVINGS VEHICLE PARTICIPATION RATES

Question	Responses	Number	Percent
Question 8 Circle the retirement program(s) that you currently participate in (all that apply):	ROTH IRA	50	26
	TSP	37	20
	TRADITIONAL IRA	20	11
	OTHER	24	13
	NONE	86	46

Note: percentages add up to greater than 100% since some participants are in more than one program

Table 4.5 Demographic Question 8 - Retirement Program Participation

Table 4.5 shows that nearly half of the respondents indicated that they do not participate in any retirement savings program. Approximately 20 percent of military members indicated that they are currently enrolled in UNISERV TSP, which is slightly higher than Navy wide information (approximately 16 percent enrolled per DFAS data as of January 31, 2002).

DEMOGRAPHIC INFORMATION ON TSP

Question	Responses	Number	Percent
Question 9a. If a TSP participant – which fund(s)? (37 indicated yes in question 8)	G fund	11	30
	C fund	3	8
	F fund	1	3
	S fund	0	0
	I fund	0	0
	No Response	22	59
Question 9b. What percent are you contributing from basic pay to TSP?	1-2%	5	14
	3-4%	6	16
	5-6%	7	19
	7%	19	51
Question 9c. What percent of special/incentive pay to TSP	Number of respondents and Average percent	15	38
Question 10a. If you are NOT currently enrolled in the military TSP program do you intend to enroll in the near future?	YES	51	34
	NO	101	66
Question 10b. If Yes what percent of your basic pay will you allot?	1-5%	28	55
	6-7%	23	45
Question 10c. What percent of special/incentive pay to TSP	Number of respondents and Average percent	16	21

Table 4.6 Demographic Question 9-10 – Fund Allocation, Future TSP Participation Intention, and Contribution Rates

Table 4.6 shows responses for questions 9 and 10. Question 9a illustrates that 59 percent of active TSP participants indicated “No response” as to which fund they were contributing to within the UNISERV TSP program. This may indicate that the respondents may not be fully informed or educated on the choices they have, or it may be because the Federal Thrift Retirement Investment Board has not provided information to participants such as passwords, Personal Identification Numbers (PINs), and additional follow-on information. Question 9b shows that of the 37 TSP participating respondents, 51 percent are contributing the maximum seven percent of their basic pay. Question 9c shows that 15 members are contributing incentive and special pay to the UNISERV TSP. The average contribution rate of these 15 members is approximately 38 percent. The range is from 1 to 100 percent.

Question 10a is interesting in that another 34 percent of the sample that are not currently participating in TSP indicate that they “intend” to participate in the near future. The questionnaire does not define “near future,” but one could infer with only one week remaining in the initial four-month open season of UNISERV TSP, that few of the 51 respondents may actually sign up. These military members will have to wait until the next open season in the summer of 2002 to act on their intentions. Question 10b showed similar results to question 9b with nearly half of the respondents that are intending to sign up for the program indicating they will contribute in the six to seven percent of their basic pay range. Question 10c provided similar responses to question 9c with those members intending to contribute incentive and special pay at an average contribution rate of 21 percent.

DEMOGRAPHIC INFORMATION ON RETIREMENT SAVINGS

Question 11. If you are contributing savings toward retirement, at what age did you begin?			
Paygrade	Number Not Saving for Retirement	Number Saving for Retirement	Avg. age savers began
E-3 and below	21	6	18.5
E-4 thru E-5	38	35	23.3
E-6	9	17	28.6
E-7 thru E-9	5	14	30.1
O-1 thru O-2E	2	8	24.3
O-3 thru O-3E	1	18	24.4
O-4 thru O-5	1	12	28.7

Table 4.7 Demographics Question 11 – Number of non retirement savers and average age military members who have started a retirement savings program began

Table 4.7 shows the age where respondents indicate that they began to save for retirement. Approximately 59 percent of E-5 and below indicate they have yet to begin a retirement savings plan, while 79 percent of E-6 and above indicate they have started a savings plan for retirement. The table shows the average age by paygrade for those members indicating that they have started their retirement savings. Interestingly, 86 respondents indicated “none” to question 8 when asked which retirement program they currently participate in. Seventy-seven respondents failed to indicate a response to question 11, which we infer to mean that these members have not started to save for retirement.

Questions 12-32 generated Likert-scaled responses ranging from strongly agree to strongly disagree, including a midpoint or neutral response. All Likert-scale questions were evaluated using the Chi-squared (X^2) test of statistical significance. The purpose of conducting the Chi-squared test is to determine whether the responses to questions are random or systematic (i.e., whether the differences between agree and disagree responses are statistically significant). The X^2 formula shown in Figure 4.1 allows calculations of probability of non-random responses ($p \leq .05$ or $p \leq .01$).

$$X^2 = \frac{(M - m - 1)^2}{M + m}$$

M = Majority of responses

m = Minority of responses

$X^2 \geq 3.84$, $p \leq .05$

$X^2 \geq 6.69$, $p \leq .01$

Figure 4.1 Formula for Chi-Squared Test

The Chi-squared test is calculated by comparing the sums of all agree and disagree responses. The response category with the greatest number of responses represents the majority (M) and the response group with the least number of responses represents the minority element (m) for each question. Neutral responses are omitted.

Questions with a Chi-squared result of less than 3.84 indicate that responses may have occurred by random chance greater than five percent of the time (non-significant). Results above 6.69 indicate a non-random probability of $p \leq .01$ (significant at the 99 percent probability level). A Chi-squared value of 3.84 or greater indicates that the likelihood of the given responses occurring by chance are less than five percent (a generally accepted standard delineating statistical significance).

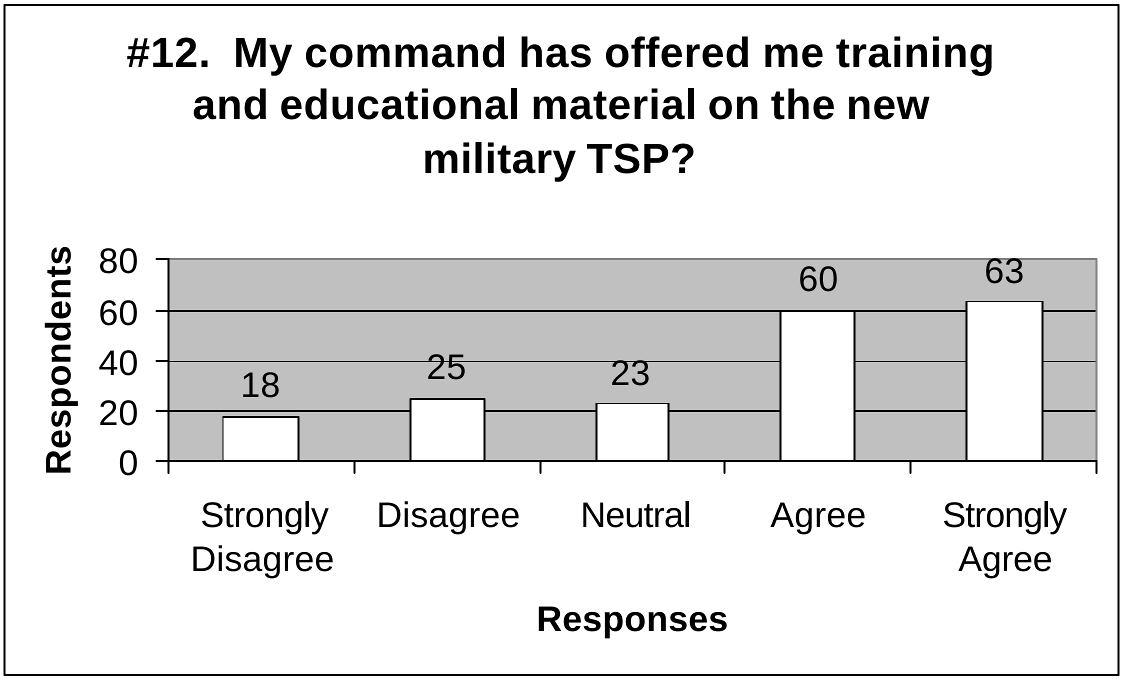

Figure 4.2 Results of Question #12 (X^2 = 37.60, p$\leq$.01)

Figure 4.2 shows that over 65 percent of the respondents indicated their command has offered them training and educational material on the new military TSP, while 23 percent disagreed with the statement. Responses were significant at the p $\leq$ .01 level. Appendix B provides respondents' specific comments pertaining to training and awareness of the TSP program.

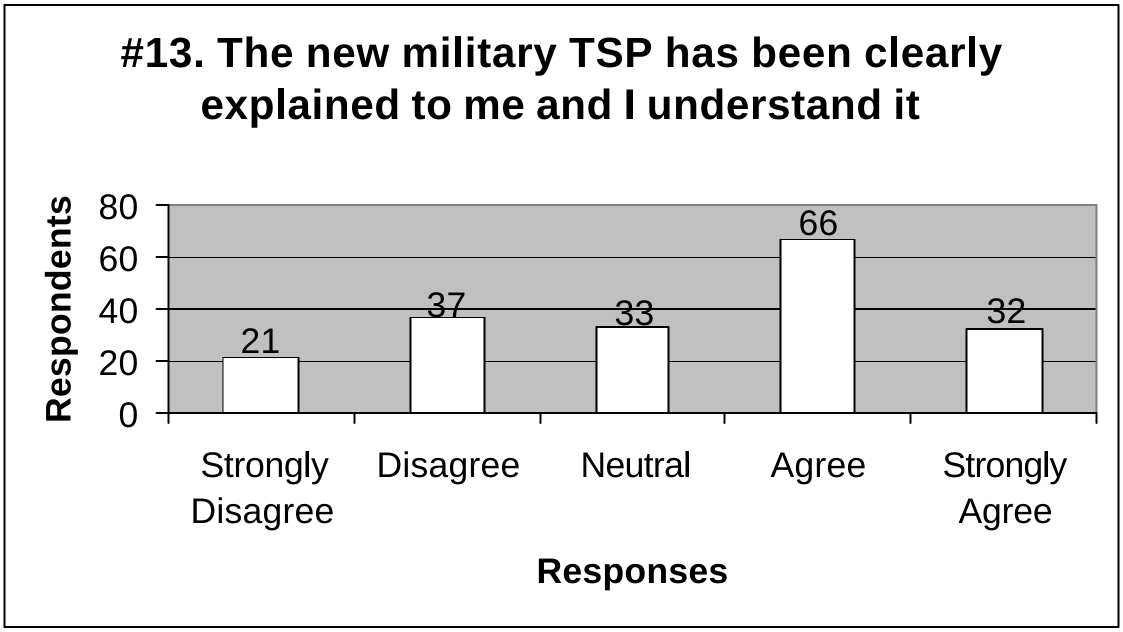

Figure 4.3 Results of Question #13 (X^2 = 10.19, p$\leq$.01)

Figure 4.3 shows that approximately 52 percent of the respondents indicated that the new military TSP has been clearly explained to them and they understand it, while 31 percent disagreed with the statement ($p \leq .01$). The information from this question when compared to question 12, suggests that approximately 13 percent of members who received training on the UNISERV TSP may be unclear as to their level of understanding of the program. Even though a majority of the respondents agreed with the statement, nearly 48 percent did not agree that the UNISERV TSP has been explained to them and they understand it.

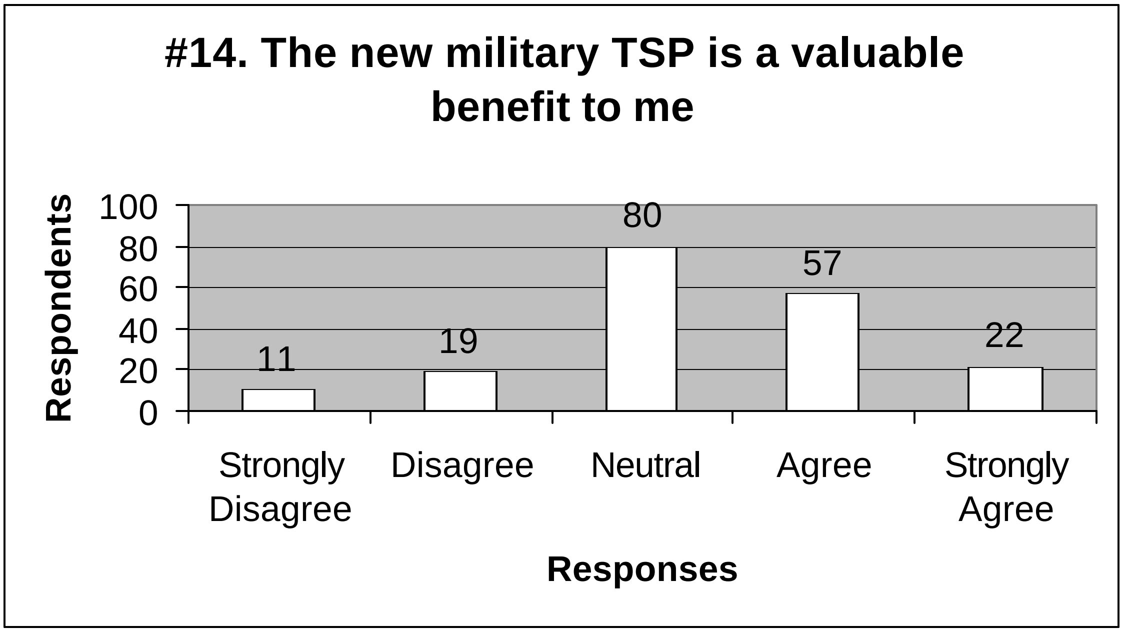

Figure 4.4 Results of Question #14 (X^2 = 21.14, p$\leq$.01)

Figure 4.4 shows that nearly 42 percent of the respondents indicated that the new military TSP is a valuable benefit to them compared with 16 percent who disagreed with the statement (p $\leq$ .01). The 80 neutral responses or 42 percent of the sample population that were indifferent (neutral) to this question suggests some lack of understanding on the benefits of the new TSP. Military members may not understand the role of the UNISERV TSP in terms of their personal savings plan, perhaps related to the relatively short timeframe that the program has been offered.

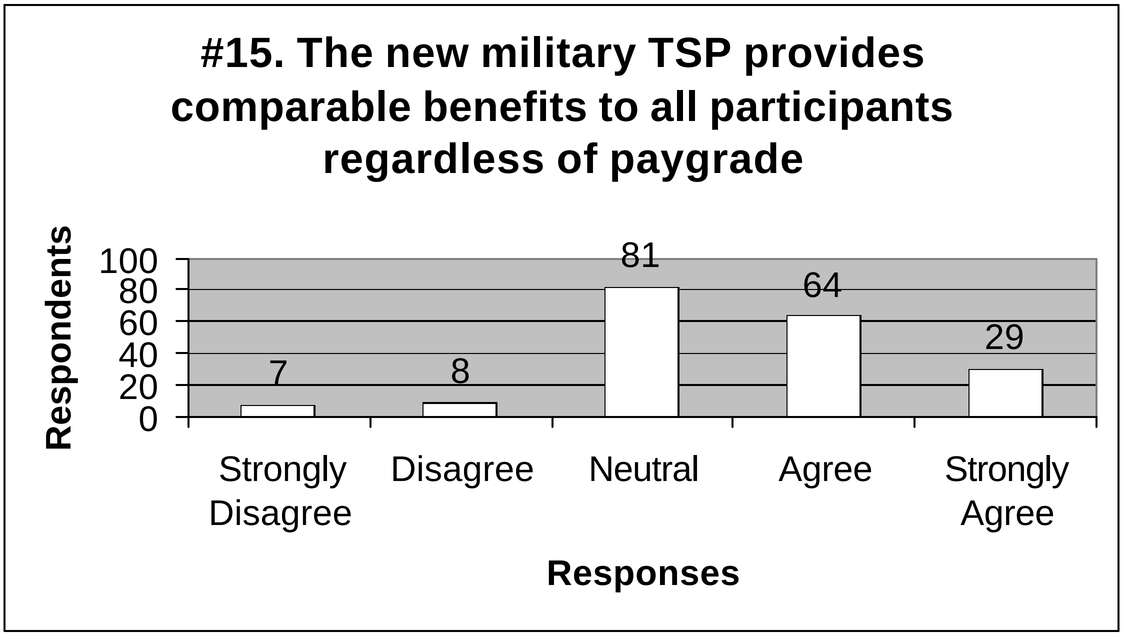

Figure 4.5 Results of Question #15 (X^2 = 54.90, p$\leq$.01)

Figure 4.5 shows that over 49 percent of the respondents indicated that the new military TSP provides comparable benefits to all participants regardless of paygrade, while eight percent disagreed with the statement ($p \leq .01$). Nearly as many respondents chose a neutral response (43 percent) to this question, as did the number that agreed with the statement, possibly indicating indecision or lack of information.

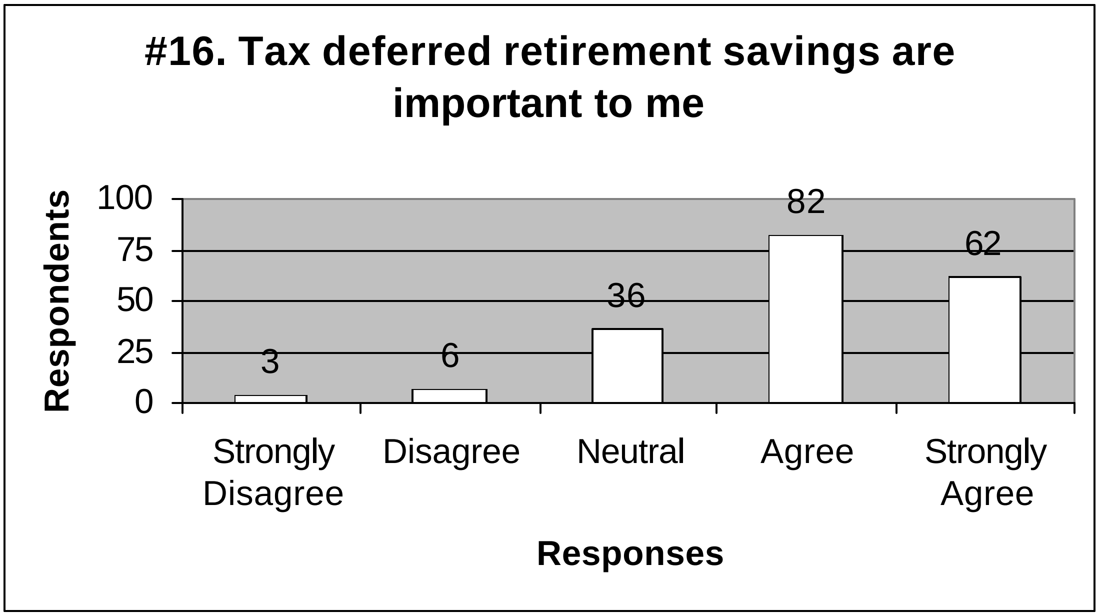

Figure 4.6 Results of Question #16 (X^2 = 117.36, p$\leq$.01)

Figure 4.6 shows that over 76 percent of the respondents indicated that tax deferred retirement savings are important to them ($p \leq .01$). This statement received the highest Chi-squared value of the questionnaire, i.e., responses indicate significant agreement that tax deferred savings are important. Interestingly, 24 percent of respondents chose a neutral or negative response to this question, again indicating indecision, lack of information, or perhaps a belief that tax deferred savings are not important.

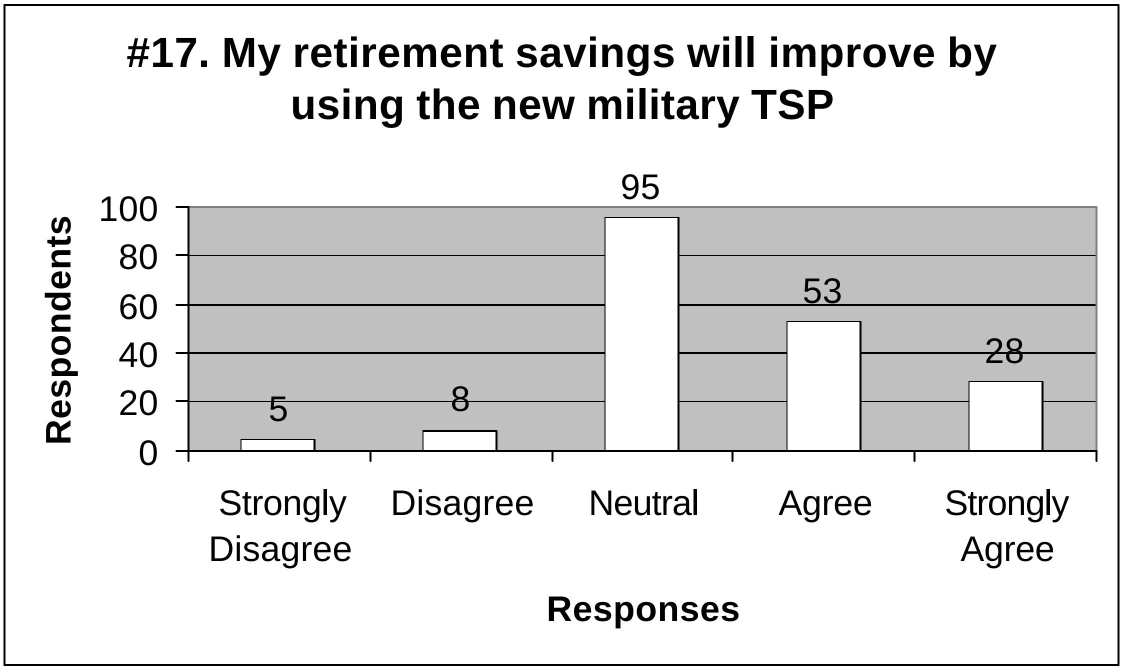

Figure 4.7 Results of Question #17 (X^2 = 47.76, $p \leq .01$)

Figure 4.7 shows that nearly 43 percent of the respondents indicated that their retirement savings would improve by using the new military TSP, while seven percent disagreed with the statement ($p \leq .01$). Again, about half of all the respondents selected a neutral response indicating indecision or lack of information. This substantial neutral response could represent members not participating in the program, i.e., only 19-20 percent of the sample indicated enrollment in UNISERV TSP.

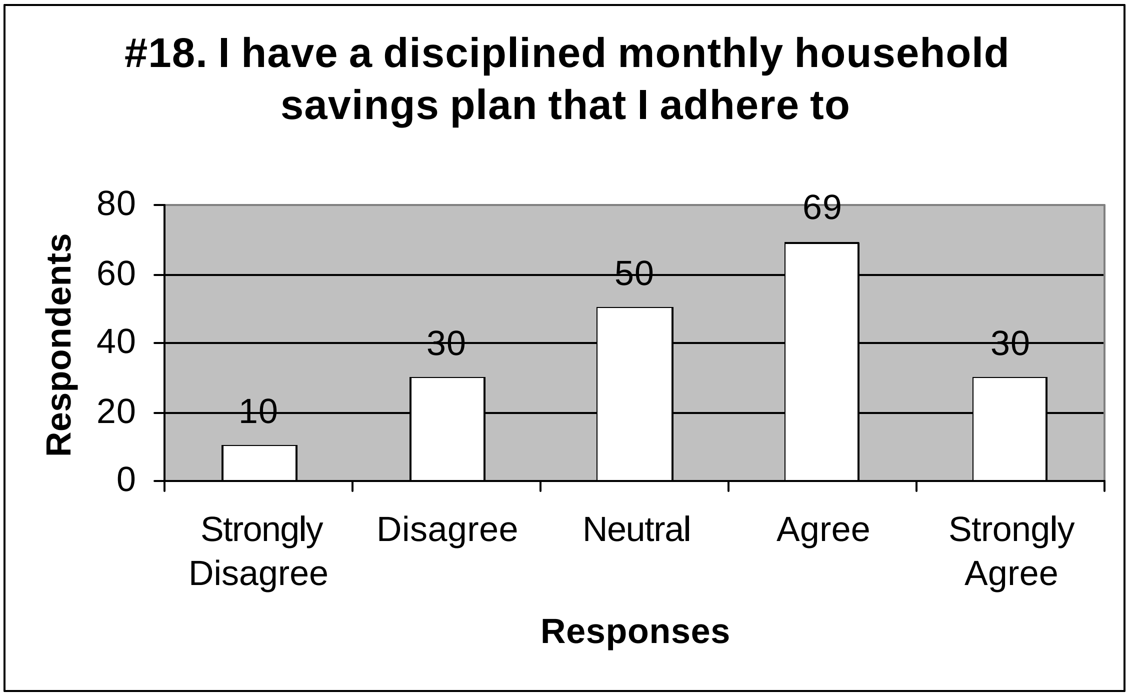

Figure 4.8 Results of Question #18 (X^2 = 24.20, p$\leq$.01)

Figure 4.8 shows that over 52 percent of the respondents indicated that they have a disciplined monthly household savings plan that they adhere to, while 21 percent disagreed with the statement ($p \leq .01$). The neutral response of 27 percent may reflect different interpretations of the word “disciplined” when referring to a monthly household savings plan.

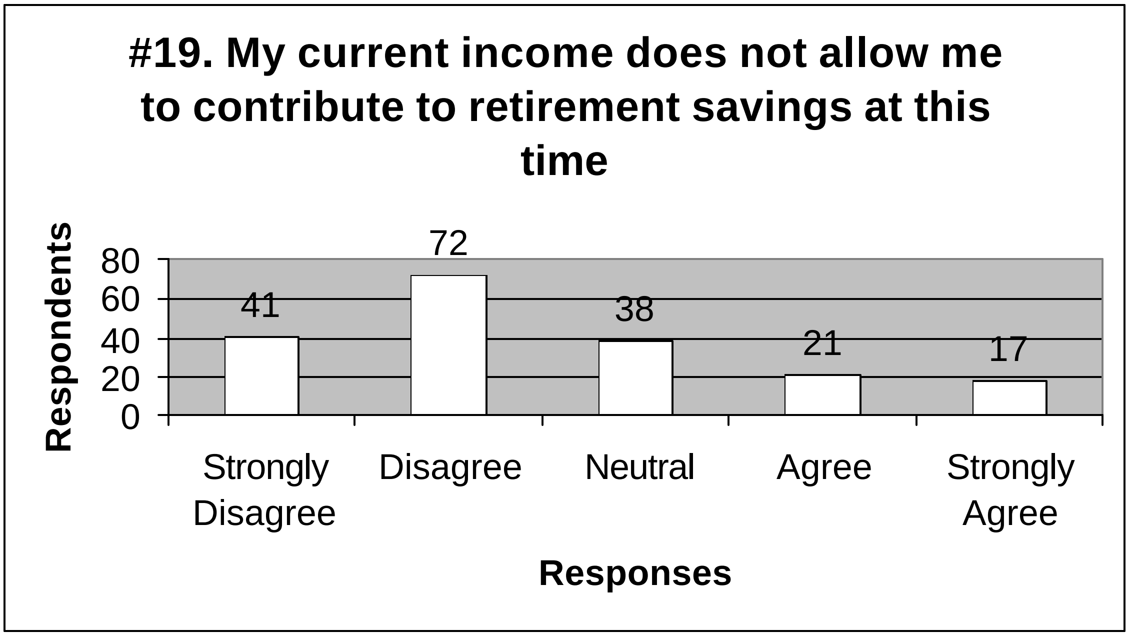

Figure 4.9 Results of Question #19 (X^2 = 36.26, p$\leq$.01)

Figure 4.9 shows that nearly 60 percent of the respondents indicated that their current income allows them to contribute to retirement savings, while 20 percent felt their current income was not conducive to contributing to retirement savings ($p \leq .01$). This percentage parallels the range of respondents who indicated earlier that they were actually contributing to a retirement savings program. It is noteworthy to reiterate that 60 percent of the sample indicated that they have the capacity to contribute to retirement savings.

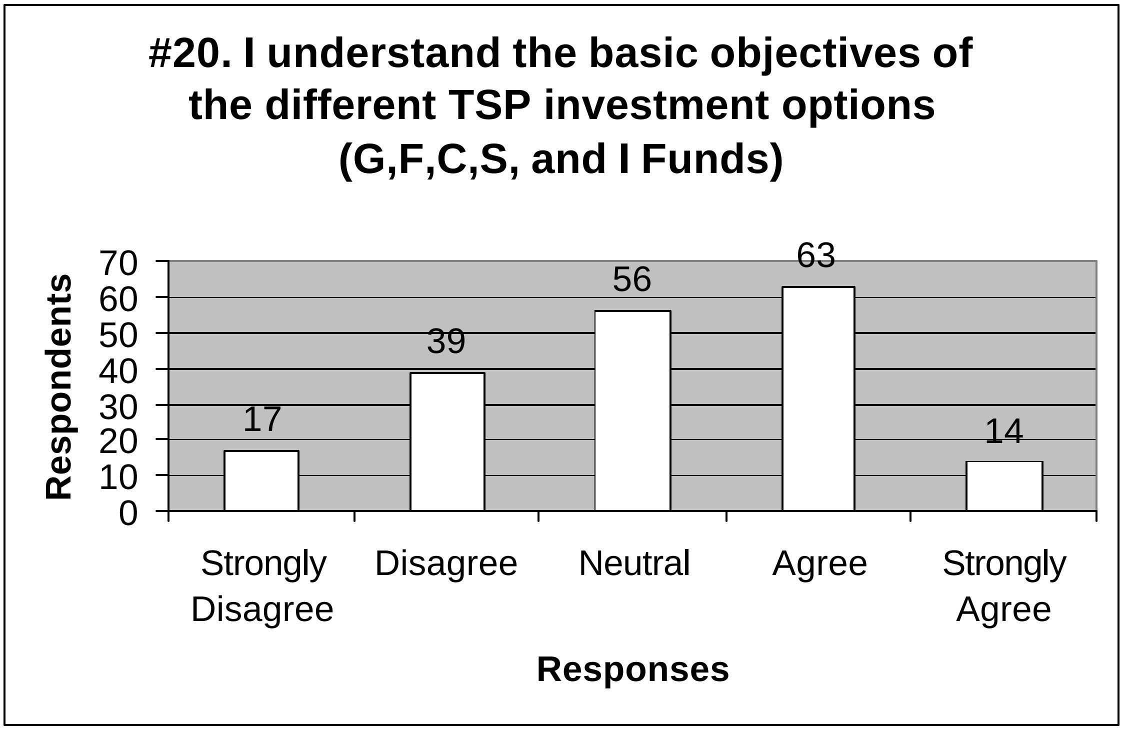

Figure 4.10 Results of Question #20 (X^2 = 3.01, p>.05)

Responses to Question 20 were non-significant (X^2<3.84, p > .05), and could be the result of chance. The level of understanding of the basic objectives of the different TSP investment options therefore cannot be assessed. Nonetheless, responses to this question are interesting when compared to questions 12 and 13. Question 12 determined that 65 percent of respondents were offered command training on TSP, and question 13 determined that 52 percent indicated that TSP had been clearly explained and they understood it.

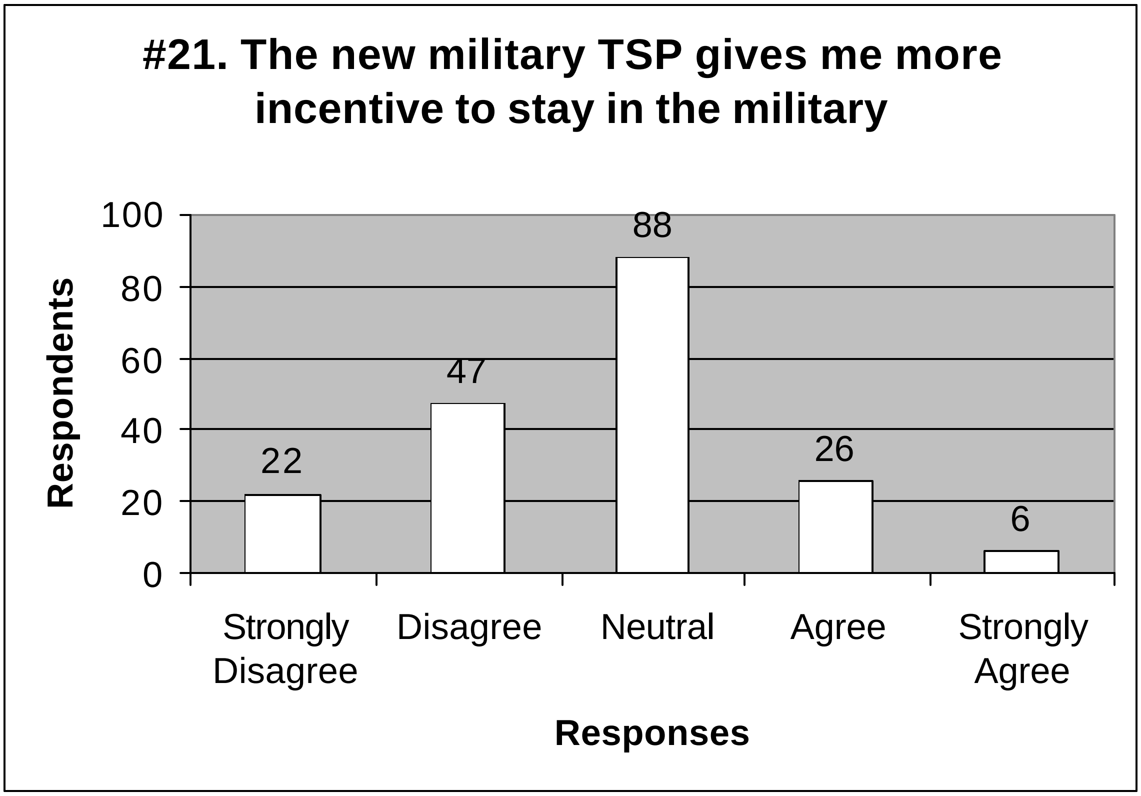

Figure 4.11 Results of Question #21 (X^2 = 12.83, p$\leq$.01))

Figure 4.11 shows that nearly 37 percent of the respondents indicated that the new military TSP **does not** give them more incentive to stay in the military, while 17 percent felt that the program **does** play a factor in their military retention decision ($p \leq .01$). Although only 17 percent felt the new TSP program plays a factor in their military retention, this may indicate that some of the respondents may be positively influenced to stay in the military due to TSP. Note the large neutral group (47 percent) which may be sitting on the fence" in terms of stay or leave decisions.

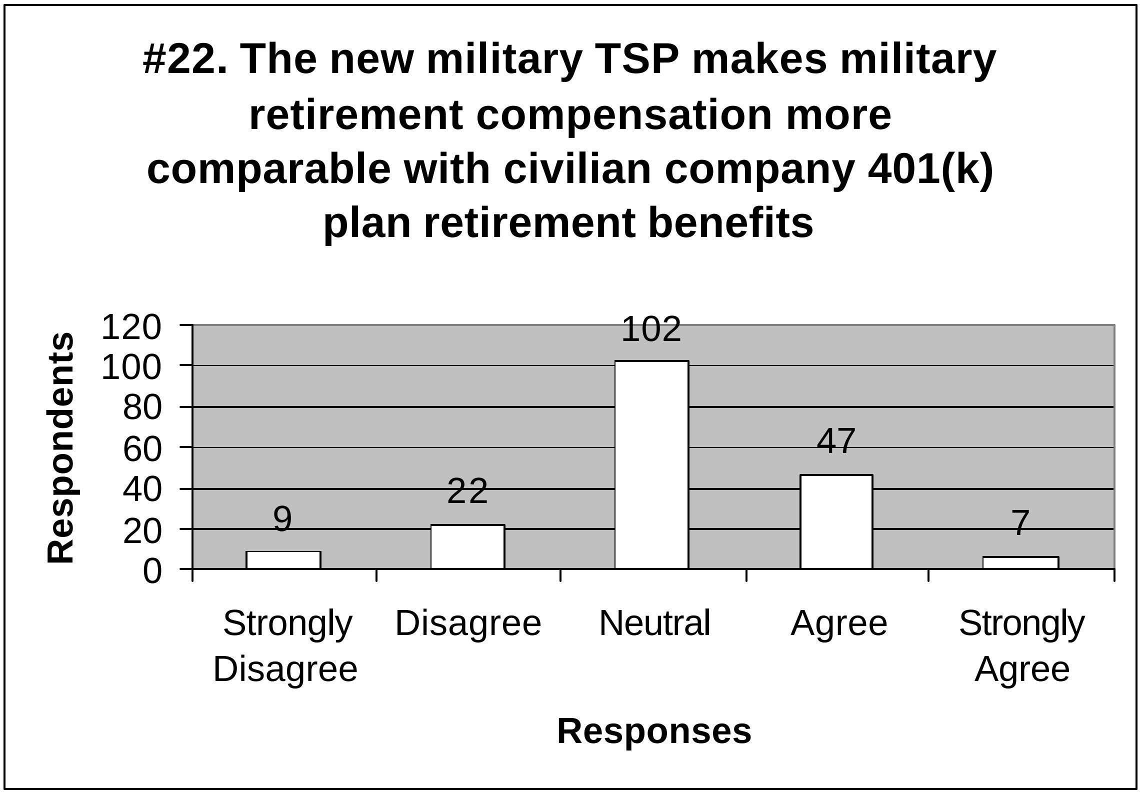

Figure 4.12 Results of Question #22 (X^2 = 5.69, p$\leq$.05)

Figure 4.12 shows that nearly 29 percent of the respondents indicated that the new military TSP makes military retirement compensation more comparable with civilian company 401(k) plan retirement benefits, while 17 percent disagreed with the statement ($p \leq .05$). The large neutral response (55 percent) may indicate that respondents are unfamiliar with the details of civilian 401(k) plans, or other reasons mentioned before concerning neutral responses.

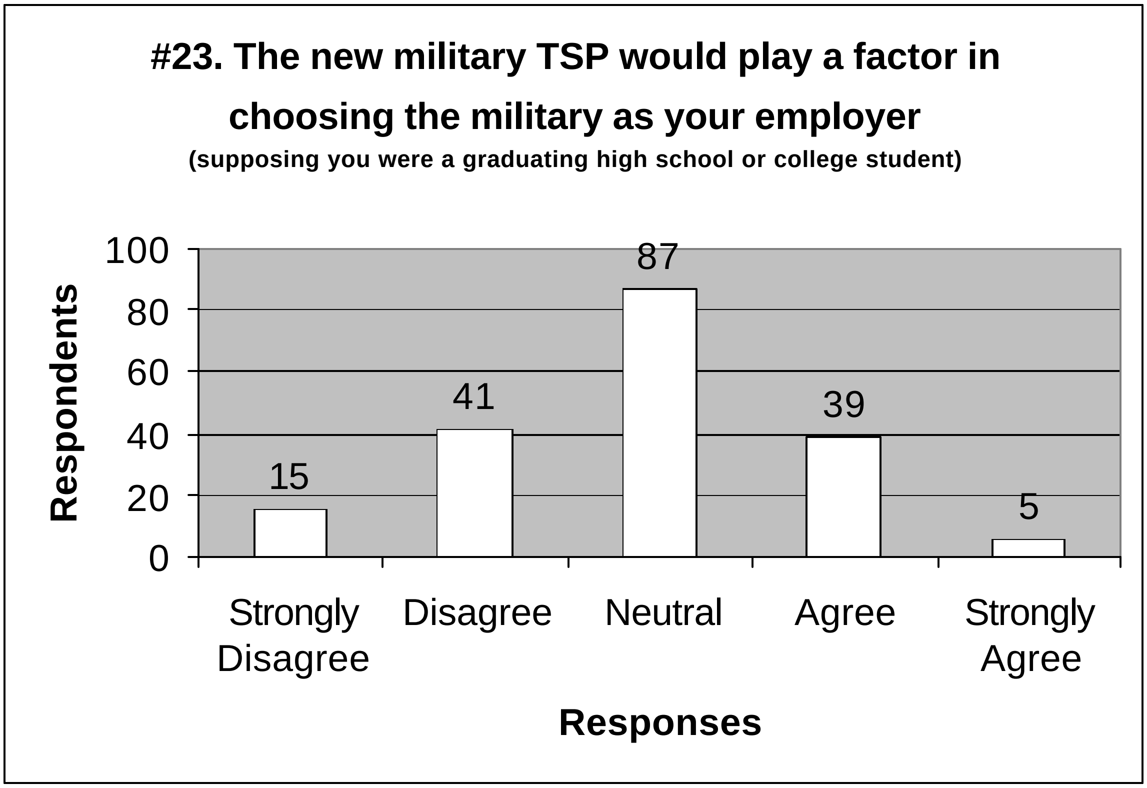

Figure 4.13 Results of Question #23 (X^2 = 1.21, p>.05)

Responses to Question 23 were non-significant (X^2=1.21, p > .05), and could be the result of chance. It therefore cannot be determined if the sample group felt the new military TSP would play a factor in choosing the military as an employer if the respondent were a graduating high school or college student.

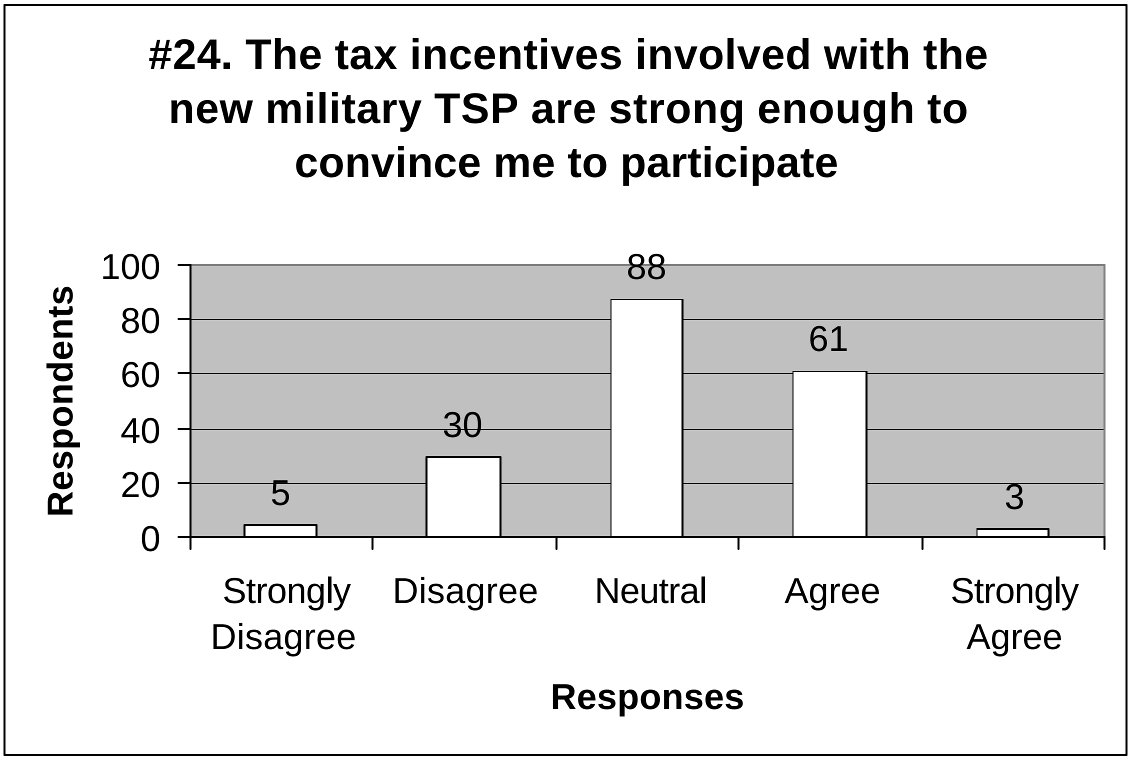

Figure 4.14 Results of Question #24 (X^2 = 7.92, p$\leq$.01)

Figure 4.14 shows that over 34 percent of the respondents indicated that the tax incentives involved with the new military TSP are strong enough to convince them to participate, while 19 percent disagreed with the statement ($p \leq .01$). This response rate agrees with findings from questions 8 and 9, which asked if members were currently participating in UNISERV TSP or intended to participate in the near future. The large neutral response of 47 percent may be related to lack of training, education, awareness, or indifference concerning tax incentives for retirement savings.

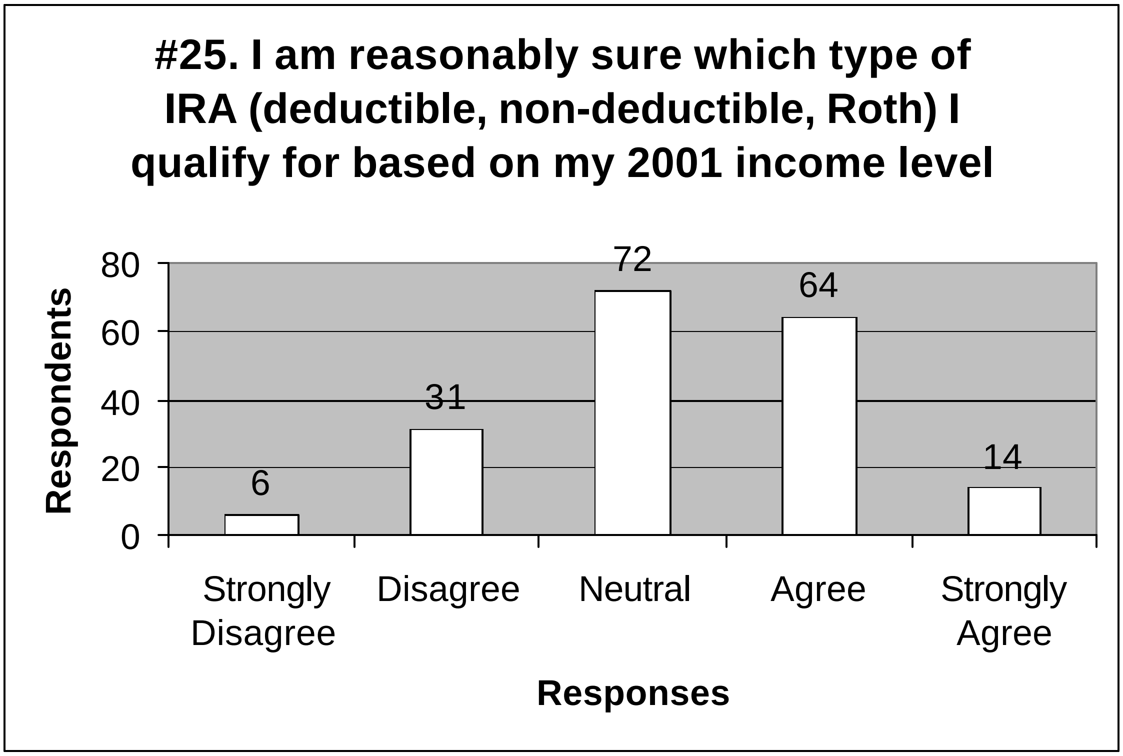

Figure 4.15 Results of Question #25 (X^2 = 13.91, p$\leq$.01)

Figure 4.15 shows that nearly 42 percent of the respondents indicated that they are reasonably sure which type of IRA (deductible, non-deductible, Roth) they qualify for based on their 2001 income level, while 20 percent disagreed with the statement ($p \leq .01$). It is interesting that over 58 percent (disagree or neutral) did not answer with reasonable certainty on what type of IRA program their income level allows them to qualify for. The IRA has been the primary means of tax deferred retirement savings for typical military members until the advent of the UNISERV TSP in 2002. A household that has earned income outside the military (spouse) could be an exception to the IRA primary means limitation.

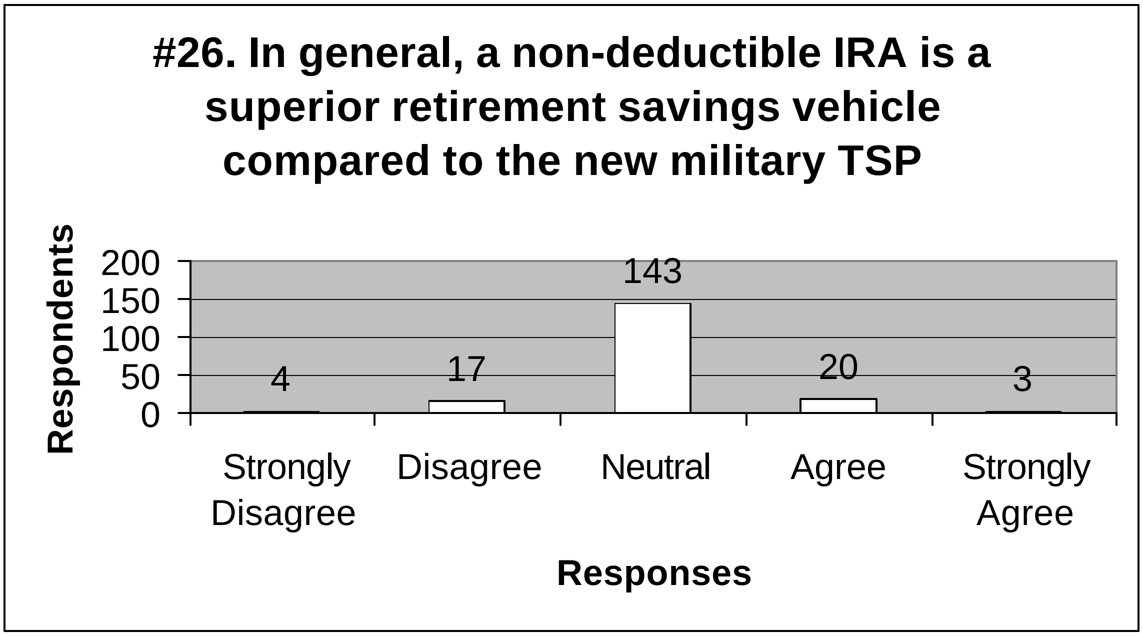

Figure 4.16 Results of Question #26 (X^2 = .02, p>.05)

Responses to Question 28 were non-significant (X^2 =.02, p > .05), and could be the result of chance. It therefore cannot be determined if the sample group felt that a non-deductible IRA is a superior retirement savings vehicle compared to the new military TSP. This question received the lowest Chi-square value (.02) of the study and had nearly 77 percent of the respondents answering neutrally. Written comments on this question (Appendix B) indicate that some respondents were unclear of the tax implications associated with the non-deductible IRA. Chapter V addresses this issue and compares several retirement savings vehicles in hypothetical investments.

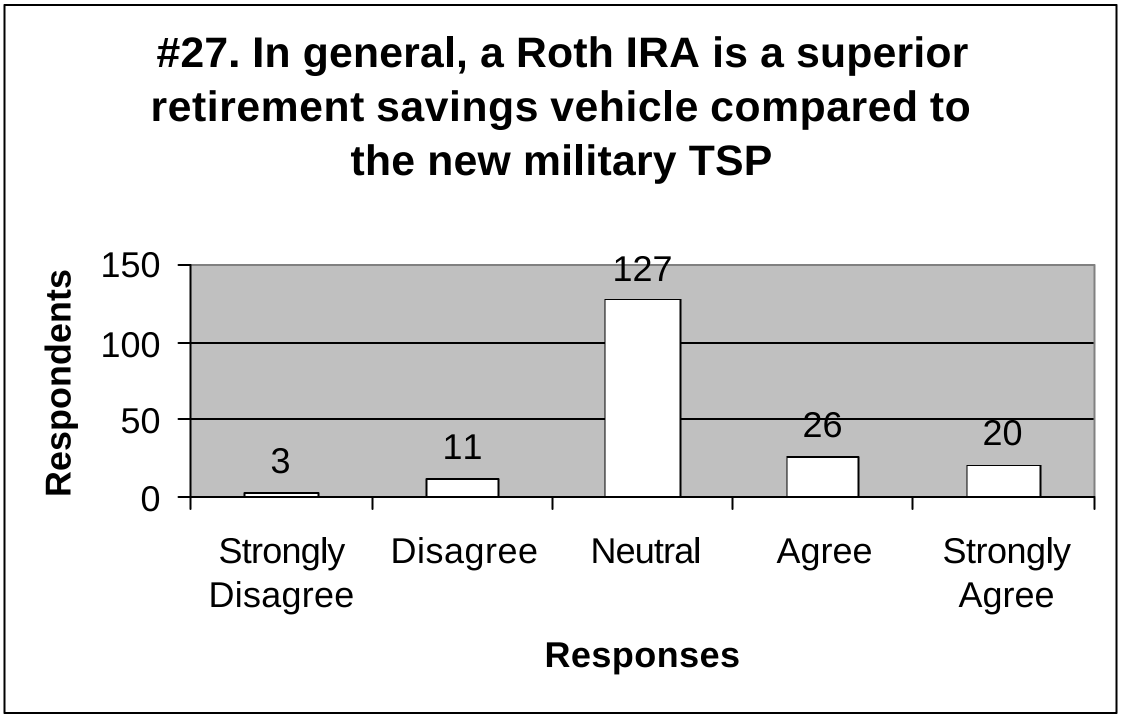

Figure 4.17 Results of Question #27 (X^2 = 16.02, p$\leq$.01)

Figure 4.17 shows that nearly 25 percent of the respondents indicated that a Roth IRA is a superior retirement savings vehicle compared to the new military TSP, while 7 percent disagreed with the statement ($p \leq .01$). Nearly 68 percent of the respondents were neutral on this statement. Like question 26, this question may generate confusion concerning tax implications surrounding the Roth IRA and the UNISERV TSP. Respondents were slightly more confident in their responses concerning the Roth as compared to the non-deductible IRA. Chapter V addresses this issue and compares several retirement savings vehicles in hypothetical investments.

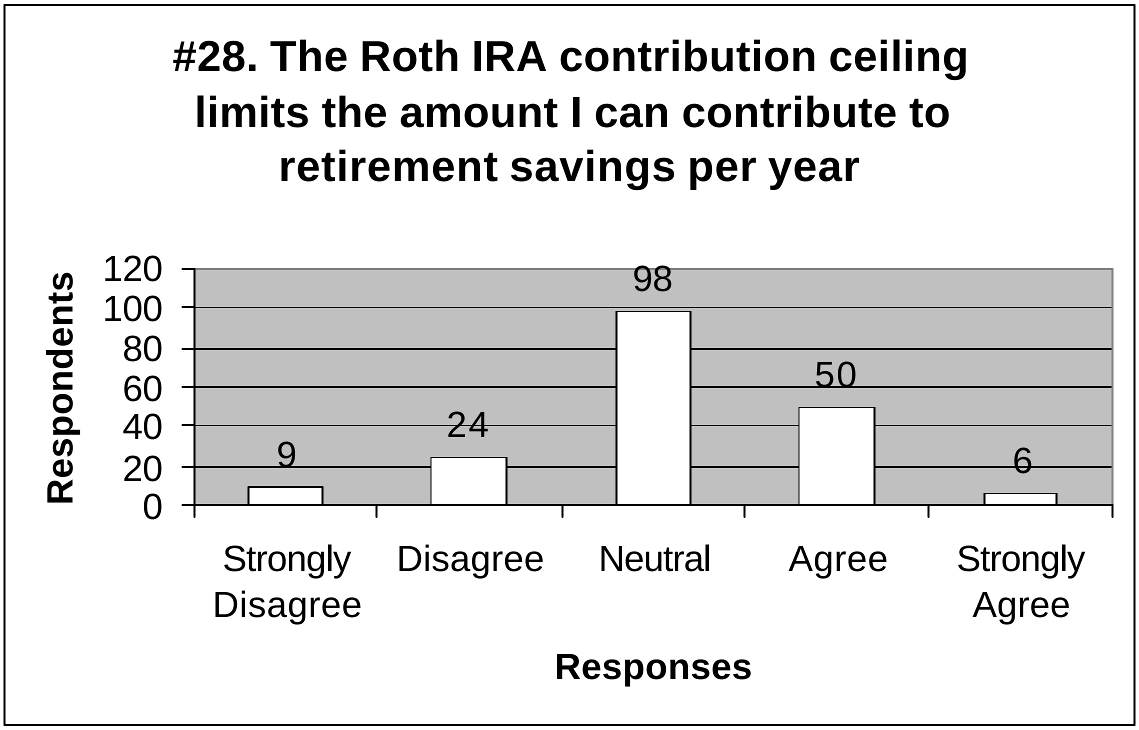

Figure 4.18 Results of Question #28 (X^2 = 5.44, p≤.05)

Figure 4.18 shows that nearly 30 percent of the respondents indicated that the Roth IRA contribution ceiling limits the amount they can contribute to retirement savings per year, while 18 percent disagreed with the statement ($p \leq .05$). This data indicates that 56 of 187 respondents (approximately 30 percent) may have the capacity to contribute more towards tax deferred retirement savings if the tax law allowed them. This 30 percent group may embrace the UNISERV TSP program as another tax-deferred retirement saving tool. Chapter V addresses tax implications, advantages, disadvantages and comparisons of hypothetical investments in both the Roth IRA and UNISERV TSP.

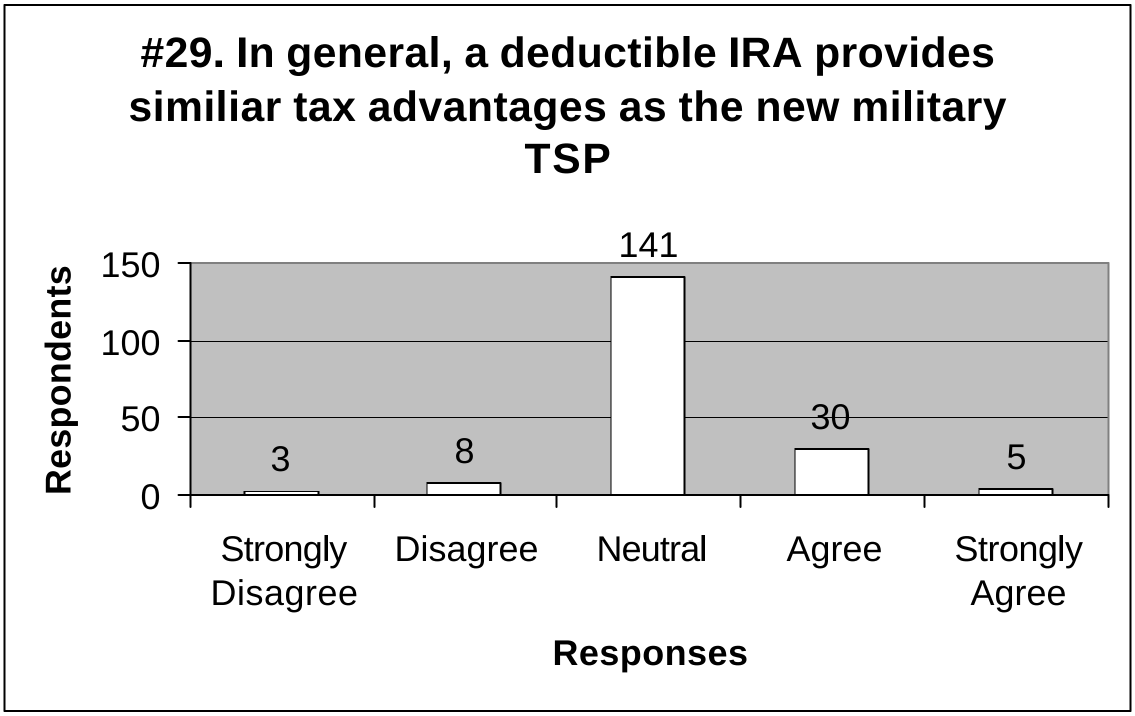

Figure 4.19 Results of Question #29 (X^2 = 11.50, p$\leq$.01)

Figure 4.19 shows that nearly 19 percent of the respondents indicated that a deductible IRA provides similar tax advantages as the new military TSP, while 6 percent disagreed with the statement (p $\leq$ .01). Like questions 26 and 27, this statement may generate confusion around the topic of tax advantages (75 percent neutral response rate). Chapter V directly addresses this issue.

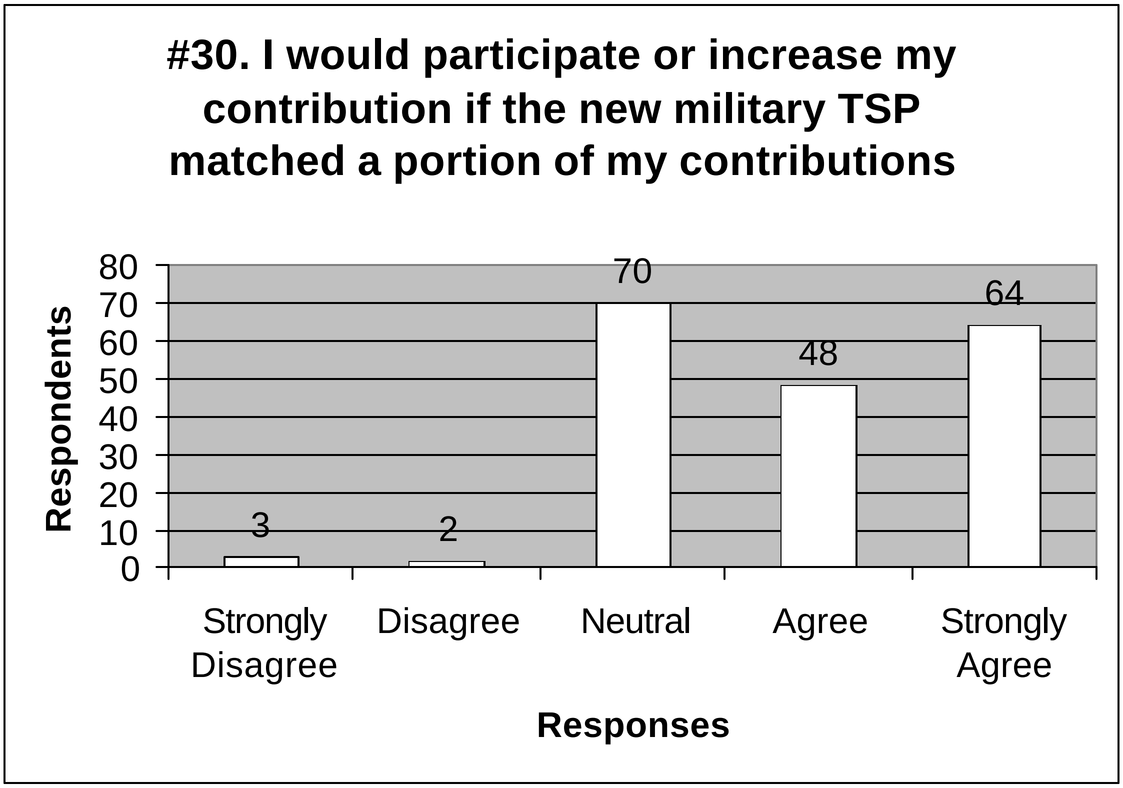

Figure 4.20 Results of Question #30 (X^2 = 96.03, $p \leq .01$)

Figure 4.20 shows that nearly 60 percent of the respondents indicated that they would participate or increase their contribution if the new military TSP matched a portion of their contributions, while only 3 percent disagreed with the statement ($p \leq .01$). Again, the large neutral response (37 percent) may indicate indecision or “fence sitting”, or even doubt concerning the ability to set-aside pay for deferred retirement.

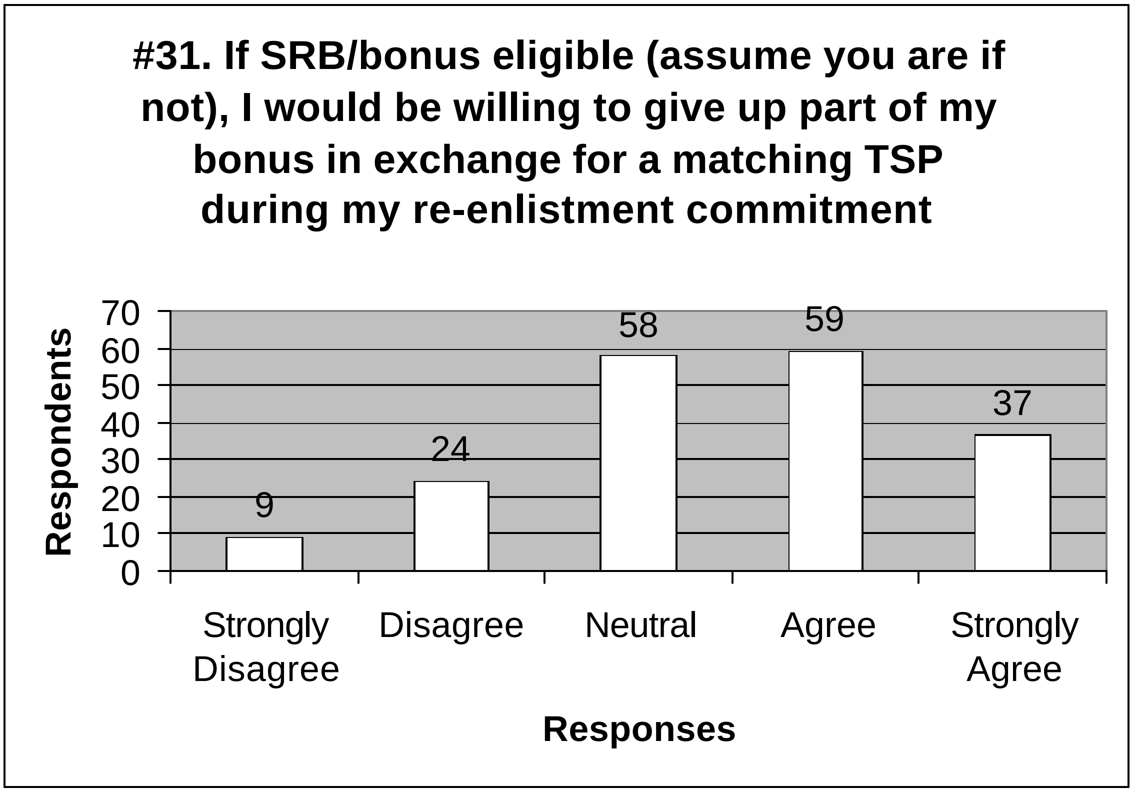

Figure 4.21 Results of Question #31 (X^2 = 29.80, p$\leq$.01)

Figure 4.21 shows that over 51 percent of the respondents indicated that if they were SRB eligible (assuming they were if not), they would be willing to give up part of their bonus in exchange for a matching TSP during their re-enlistment commitment, while 18 percent would not be willing to do so ($p \leq .01$). Forty-six percent of the sample group is in SRB/bonus eligible ratings or designators. This response could provide insight to the Department of the Navy on how to fund an option of matching funds for the UNISERV TSP program while satisfying a majority of SRB eligible sailors. See Question 32 results.

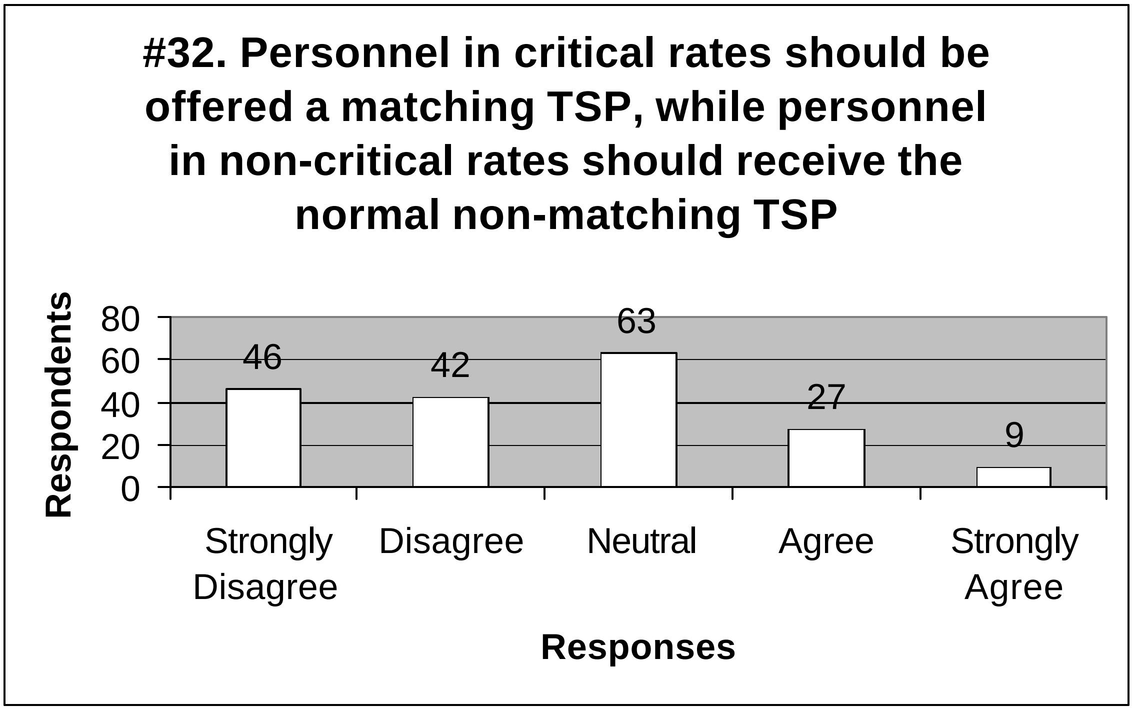

Figure 4.22 Results of Question #32 (X^2 = 20.98, p$\leq$.01)

Figure 4.22 shows that over 25 percent of the respondents indicated that they disagreed with personnel in critical rates receiving a matching TSP, while personnel in non-critical rates receive the normal non-matching TSP, while over 19 percent of the respondents agreed with the statement ($p \leq .01$). The overall response to this question suggests that sailors want benefits distributed equally, and do not substantially agree with offering incentives in the TSP program to some and not to others. Question 15 revealed that military members thought the present UNISERV TSP program provided comparable benefits to all participants regardless of paygrade, while they disagreed that a matching TSP for critical rates only is fair. Chapter 6 discusses this area further.

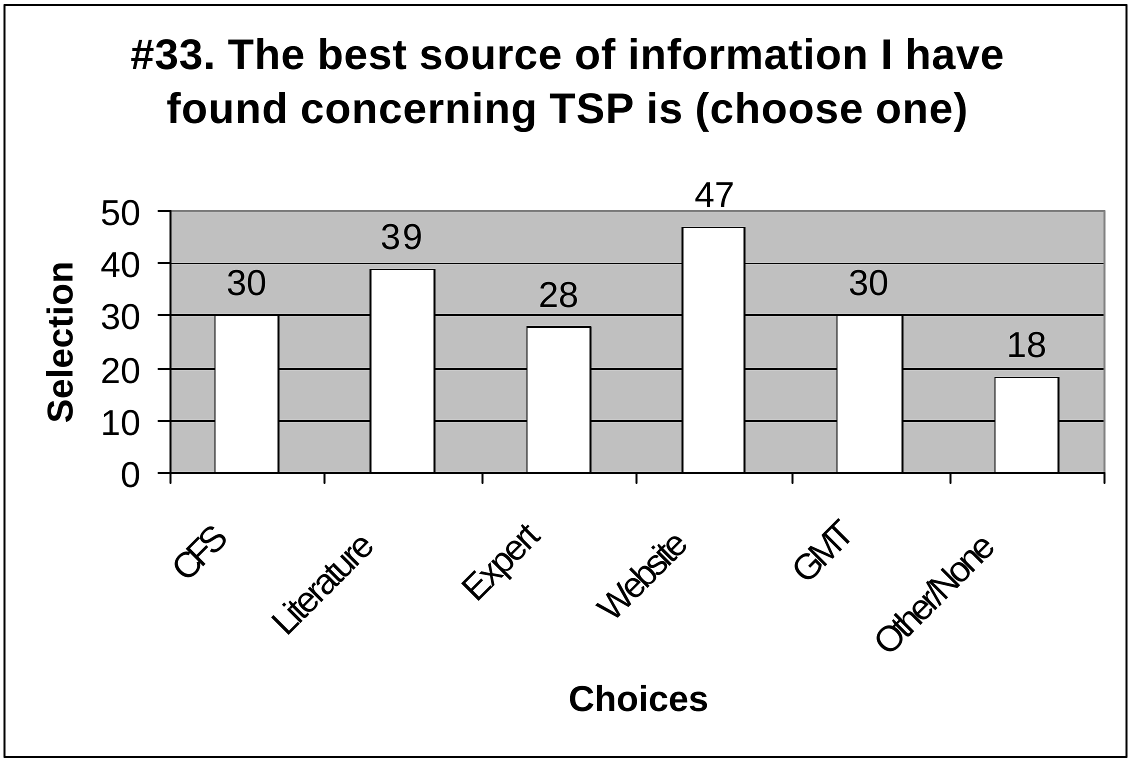

Figure 4.23 Results of Question #33 - the best source of information concerning TSP

Question 33 gave respondents an opportunity to indicate what they have found to be the best source of information concerning TSP. Unlike questions 12-32, question 33 is a multiple-choice question (no test of significance applied). Results indicate that respondents receive information on the TSP from all the sources listed. The TSP website received the most responses (25 percent), with literature being the secondary source of information, e.g., handouts, and the TSP guide distributed by many commands during GMT. The 18 respondents who indicated other/none perhaps have received little or no training on the TSP program as indicated by a number of written responses shown in Appendix B.

The questionnaire also asked respondents to provide comments using two open-ended questions. Question 34 asked respondents to comment on any additional factors they felt were relevant concerning the new military TSP. Their responses were grouped by rank and age and are provided in Appendix B. A total of 72 out of 187 respondents completing the questionnaire provided written comments to question 34. Four main themes emerged: 1.) A lack of knowledge and/or request for training (41 percent of the total comments); 2.) Requests for a matching TSP (25 percent or 18 of the respondents); 3.) Respondents too late in their careers to start the UNISERV TSP (six responses); and 4.) The TSP program should have been introduced years ago (five responses). An interesting comment made by one respondent was his desire to make contributions from his future retirement pay when he completes 20 years of service. Other comments included affordability concerns and poor UNISERV TSP management. A general overarching theme was that military members desire more education and training on the UNISERV TSP, especially the junior sailors.

Question 35 asked respondents to comment on any additional factors they felt were relevant to the overall questionnaire. Responses were grouped by rank and age and are provided in Appendix B. A total of 24 out of 187 respondents completing the questionnaire provided written comments to question 35. The following five themes emerged (some redundancy from Question 34 responses): 1.) A lack of knowledge and/or a request for training (10 of 24 respondents or 42 percent); 2.) The TSP program should have been introduced earlier in their careers (three responses); 3.) Their IRA is more beneficial to them than the TSP (two responses); 4.) Lack of affordability (two responses); and 5.) The questionnaire needed more clarification (two responses). Again, another general emerging theme from written responses to Question 35 was that military members desire more education and training on the UNISERV TSP, especially the junior sailors.

Based on the written comments from questions 34 and 35, it appears a substantial number of junior personnel have received little training on TSP and are unclear what the program is about.

E. SUMMARY

This chapter provided the methodology, data, and data analysis of the researchers-developed questionnaire. The purpose of the instrument was to analyze various aspects of the Uniformed Services Thrift Savings Plan (UNISERV TSP), including perceived levels of understanding, training received, and participation decisions. The instrument also touched on areas of personal finance and income tax incentives related to several popular retirement savings vehicles.

The 35-question, written questionnaire was administered to a sample population of 189 military members from 43 different commands during January 2002 (the second to last week of the first open season for the UNISERV TSP).

The sample group of respondents was fairly representative of the overall Navy population, except it was slightly more senior and officer heavy, and contained a higher percentage of bonus eligible personnel.

The completed questionnaires provided statistically significant data in a number of areas posed in the research questions concerning selected aspects of the UNISERV TSP program. The first section of the questionnaire obtained relevant demographic information, e.g., rank, age, command, SRB eligibility, retirement savings programs, and TSP participation. Respondents ranged in rank from E-1 to O-5, and ages 18 to 50 years old. Additionally, 46 percent of the respondents were SRB or bonus eligible, 19.6 percent were actively enrolled TSP participants, and 46 percent indicated they had not started a retirement savings program.

The second section of the questionnaire contained 20 Likert-scale statements assessing levels of agreement, disagreement, and neutral perceptions concerning the UNISERV TSP, retirement savings, tax deferred savings, and education. Responses to the second section were analyzed using the Chi-square (goodness of fit) statistical significance test. A probability acceptance level of $p \leq .05$ was used. All 20 questions received statistically significant responses at $p \leq .05$ or better, except for non-significant responses obtained on two questions.

The third section of the questionnaire contained questions determining perceived sources of information regarding the UNISERV TSP program, and open-ended questions concerning the UNISERV TSP program and the questionnaire in general. Results indicated that respondents obtain information on the UNISERV TSP program from approximately five main sources, including the TSP website and GMT sessions. Written responses are found in Appendix B (exact verbiage with minor edits). Seventy-two respondents provided written comments about the TSP program and 24 respondents provided comments about the questionnaire in general. The overarching theme of the written responses was a request for more information and training on the UNISERV TSP program, and a desire for matching TSP contributions.

Chapter V analyzes several questions that produced large neutral responses on the questionnaire, and Chapter VI provides conclusions and recommendations.

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V. UNISERV TSP AND ROTH IRA RETIREMENT SAVINGS VEHICLE COMPARISONS

A. INTRODUCTION

The questionnaire data in Chapter IV presented various statements and concepts to the respondents yielding interesting statistically significant, responses to most of the statements. The results of several statements were not statistically significant and many statements yielded substantial neutral, or “Neither Agree nor Disagree” responses. Statements addressed issues about the respondents’ perception of training, their personal savings practices, and their awareness and attitude toward various issues concerning tax deferred retirement savings.

Questions 26, 27, and 29 asked respondents comparison questions regarding both traditional and Roth individual retirement arrangements (IRAs) versus the UNISERV TSP. These questions and their answers are not readily presented and addressed during typical General Military Training (GMT), but nonetheless, are important factors to consider when making personal finance decisions. This chapter addresses the comparison issues including how the respondents answered these questions.

Question 25 asked the respondents to respond to the statement, “I am reasonably sure which type of IRA (deductible, non-deductible, Roth) I **qualify** for based on my 2001 income level." Chapter III provided specific information on this question with the qualifying guidelines based on individual household income levels.

Question 26 asked the respondents to respond to the statement, “In general, a **non-deductible IRA** is a superior retirement savings vehicle compared to the new military TSP.” Question 27 asked the respondents to respond to the statement, “In general, a **Roth IRA** is a superior retirement savings vehicle compared to the new military TSP.” Question 29 asked the respondents to respond to the statement, “In general, a **deductible IRA** provides similar tax advantages as the new military TSP.”

This chapter discusses Questions 26, 27, and 29 in some detail, and uses a model that allows financial comparison of several typical retirement savers (hypothetical military members).

B. INDIVIDUAL RETIREMENT ARRANGEMENTS (IRAS)

The IRA is a tax deferred retirement savings vehicle that has been available to military members for many years. The flexibility of the IRA has expanded in recent years with the addition of the Roth IRA and again in 2002 with the expanded contribution limits for 2002 and beyond ($3,000 per individual in 2002).

The general federal income tax rules and guidance for three types of IRAs (non-deductible, deductible, Roth) were provided in Chapter III. This chapter presents a hypothetical quantitative and qualitative comparison for several typical retirement savers under the three types of IRAs and the UNISERV TSP.

1. Non-deductible IRA

The federal income tax guidelines for a non-deductible IRA do not allow an individual to deduct wage income from their taxes upon the contribution to an investment. Simply stated, an individual pays taxes on the full amount of income at their current year's taxable income bracket. Upon withdrawal at the age of 59 ½ or older, the individual is then only required to pay taxes on the amount over and above the principal contributed, which represents the growth or earnings that the investment produced (the growth amount is dependant upon the investment, which could incur loses). The amount of principal has already been taxed before the contribution, but the amount of growth that is withdrawn in any one year is then taxable at the individual's federal income tax bracket for the year of withdrawal. The following hypothetical example is provided for a 40-year old military member (gross income has been minimized to simplify the calculations only):

Total gross income:	$ 2,352.94
Federal Income taxes due (15% bracket):	$ 352.94
Total non-deductible IRA investment:	$ 2,000.00
Total Value after 20 years (10%, compounded annually):	$13,455.00
Portion of Total that Taxes Were Pre-paid On:	$ 2,000.00
Portion of Total that Taxes are Still Due (growth or earnings):	$11,455.00
*Federal Tax Liability (15% bracket):	$ 1,718.25
Net Amount to Individual at Age 60:	$11,736.75

*hypothetical federal income tax bracket of 15%, actual percentage will be unknown

Notice that the individual paid taxes on the principal at the beginning of the investment, then paid taxes on the growth or earnings upon withdrawal. Thus, the non-deductible IRA is a tax deferred retirement investment because it defers the tax liability on the growth or earnings of the investment (in this case $1,718.25 was deferred over the course of 20 years).

2. Deductible IRA

The federal tax guidelines for a deductible IRA allow an individual to deduct wage income from their taxes upon a deductible IRA contribution to an investment. An individual pays taxes only on the remainder of his income at the current federal income tax bracket that he occupies for that year, thereby, deferring tax payment on the deductible IRA contribution and growth until the investment is withdrawn after age 59 ½. Simply stated, an individual deducts her current year contributions from her current year’s income prior to tax computation, thus investing tax free, and pays taxes on the full amount of contributions and earnings (growth) upon withdrawal.

The tax rules and implications for a deductible IRA are treated similar to those provided by the UNISERV TSP with a few major exceptions. These exceptions are discussed under the UNISERV TSP later in this chapter. Since the tax treatment for these two vehicles (deductible IRA and UNISERV TSP) are essentially the same, only a hypothetical example for the UNISERV TSP is presented. Assumptions concerning income levels, rates of return, and contribution amounts are also discussed.

C. ROTH IRA

The federal tax guidelines for a Roth IRA do not allow an individual to deduct wage income from their taxes when making contributions to a Roth IRA investment. The individual pays taxes on the full amount of his income at his current year's federal income tax bracket. Upon reaching the age of 59 ½ or older withdrawals can be made with no taxes due on the growth or earnings (taxes were previously paid on the principal), provided the individual has had the account established for at least 5 years. The following hypothetical example is provided for a 40-year-old military member (gross income has been minimized to simplify the calculations only):

Total gross income:	$ 2,352.94
Federal Income Taxes Due (15% bracket):	$ 352.94
Total Roth IRA Investment:	$ 2,000.00
Total Value after 20 years (10%, compounded annually):	$13,455.00
Portion of Total that Taxes Were Pre-paid:	$ 2,000.00
Portion of Total that Taxes are Still Due (growth or earnings):	$ 0.00
*Federal Tax Liability:	$ 0.00
Net Amount to Individual at Age 60:	$13,455.00

*Federal income tax bracket at retirement is no longer a factor

Notice that the individual paid taxes on the principal at the beginning of the Roth IRA investment at their current year's federal income tax bracket, and then the individual was free of taxes on the growth or earnings upon withdrawal.

D. UNISERV TSP

The federal tax guidelines for the UNISERV TSP allow an individual to deduct wage income from their taxes upon a payroll deduction and matching contribution to one of the five investment options of the UNISERV TSP. An individual pays taxes only on a portion of her total income at the current federal income tax bracket that she occupies for that year, thereby, deferring tax payment on the UNISERV TSP contribution and growth amount until the investment is withdrawn after age 59 ½ (the growth amount is dependant upon the investment, the F, C, S, and I funds could incur loses).

After contributions, the investment in the UNISERV TSP is allowed to grow tax deferred until withdrawal at which time the investor is required to pay federal income taxes on the amount withdrawn according to their tax bracket during the withdrawal year. The following hypothetical example is provided for a 40-year-old military member (gross income has been minimized to simplify the calculations only):

Total gross income:	$ 2,352.94
Federal Income taxes due (15% bracket):	$ 0.00
Total UNISERV TSP Investment (196.08/month):	$ 2,352.94
Total Value after 20 years (10%, compounded annually):	$15,829.40
Portion of Total that Taxes Were Pre-paid:	$ 0.00
Portion of Total that Taxes are Still Due (principal & earnings):	$15,829.40
*Federal Tax Liability Upon Withdrawal (15% bracket):	$ 2,374.41
Net Amount to Individual at Age 60:	$13,454.99

*hypothetical federal income tax bracket of 15%, actual percentage will be unknown

Notice that the investor pays taxes only once during the investment life of the UNISERV TSP contribution – upon withdrawal after age 59 ½. A deductible IRA's federal tax computation works the same way as the UNISERV TSP contribution; an individual pays taxes for both principal and growth amounts upon withdrawal.

The tax rules and implications for a UNISERV TSP contribution are treated similar to those provided by the deductible IRA with a few major exceptions. The first exception is that individuals must qualify for a deductible IRA. Individuals must be under a certain income limit, which is partly based on whether the employee is covered by a pension plan. The UNISERV TSP has no individual federal income bracket restrictions. The second major exception is that individuals can only shelter up to $3,000 or $6,000 per household for 2002 in IRAs unless the individual is over the age of 50 where they are allowed to shelter an extra $500 each. The UNISERV TSP allows individual contributions up to $11,000 in tax year 2002. The third major difference between the deductible IRA and the UNISERV TSP is the investment options. The deductible IRA allows an investor to choose between literally thousands of investments ranging in risk and type while the UNISERV TSP limits investments to five options as described in Chapter III.

The Roth IRA is distinctly different from the UNISERV TSP. The first major difference between a Roth IRA and the UNISERV TSP is when tax liability occurs. Under the Roth IRA, an individual pays federal income taxes at the time of contribution on the principal, but does not pay federal income tax on the growth amount. Under the UNISERV TSP, an individual pays federal income taxes at the time of withdrawal on both the principal and growth amounts. The second major difference is that a Roth IRA caps the investor’s maximum contribution amount at $3,000 in 2002, unless over the age of 50 in which case the investor’s maximum contribution amount is $3,500 in 2002 if he is under the income levels discussed in Chapter III. In comparison, the UNISERV TSP allows individual contributions of $11,000 in 2002 with no income level restrictions. The third major difference between the Roth IRA and the UNISERV TSP is the investment options. The Roth IRA allows an investor to choose between literally thousands of investments ranging in risk and type while the UNISERV TSP limits investment options to five programs as described in Chapter III.

The following section mathematically compares the Roth IRA and UNISERV TSP under various scenarios.

E. ROTH IRA VS. UNISERV TSP COMPARISON MODEL

In order to further compare the UNISERV TSP and Roth IRA investments a model was created to allow for a variety of different input options including: monthly contribution amounts, rates-of-return, withdrawal amounts, federal tax rates upon contribution and withdrawal, and contribution start and stop ages. The model will allow a hypothetical military member to predict the after-tax value, under given assumptions, of the retirement savings vehicles under comparison.

The general rules and major exceptions for several popular retirement savings vehicles were explained in Chapter III and further discussed in this chapter. In order to focus on a simple comparison, and given that the tax treatment for a tax deductible traditional IRA is similar to the tax treatment of the UNISERV TSP, the deductible IRA is excluded from our model to prevent redundancies. Note that the income limits on the deductible IRA prevent many individuals from qualification. Also note that the higher contribution limits for the UNISERV TSP, when compared to the deductible IRA, give it a hefty advantage over the deductible IRA in regards to total annual contribution dollars.

The tax treatment of a contribution to a non-deductible traditional IRA was also presented in Chapter III and further discussed in this chapter. Since the contribution to a non-deductible IRA is taxed up-front and the growth amount is taxed upon withdrawal, no clear advantage is achieved by this vehicle as compared to the two remaining retirement savings vehicles (UNISERV TSP and the Roth IRA). In fact, the non-deductible IRA is always at a disadvantage to the remaining savings vehicles when comparing the final “net value” after contributions, growth and tax effects. The calculations in the hypothetical example used in the non-deductible IRA calculations above highlighted this effect and its final outcome.

Additionally, preliminary analysis was conducted on the non-deductible IRA vehicle through the model, and it was again confirmed that it did not compete well against the UNISERV TSP or the Roth IRA under a variety of scenarios. Given the results, the non-deductible IRA was also dropped from the model.

After accounting for the above exclusions, two retirement savings vehicles remained for model analysis: the UNISERV TSP and the Roth IRA. The tax treatment of contributions and withdrawals for these two vehicles are markedly different as mentioned earlier.

There are a number of different input assumptions that must be made when predicting the value of an investment in a retirement savings vehicle for a hypothetical military member. The first assumption is the tax rate at which a member is being taxed when contributing to either vehicle (various tax rates will be used). A second assumption is the rate of return at which the investment will compound (10 percent compounded annually will be used). A third assumption is the tax rate at which the member will be taxed upon the first and subsequent withdrawals from the retirement savings account (various tax rates will be used). This third assumption is probably the most difficult to predict because it is dependant upon several factors. A retired military member would have a monthly pension check from the military’s defined benefit plan, which is considered taxable income. At some point while a member is in his or her 60’s, Social Security income would be received in addition to the monthly pension check. Additionally, other income from a multitude of sources may be included in the member’s yearly gross income to place a sixty-year-old individual at an unknown income level and therefore resulting in an unknown federal tax rate. No one can accurately predict how much money a person will have upon retirement or predict at what rate the federal government will tax individuals at the time of retirement when that event is twenty or more years into the future. Therefore, we have included several scenarios in our model for a more complete analysis. The decision as to what retirement savings vehicle to use is an individual decision that must be made by each military member's unique situation of inputs and expected output variables.

Scenario #1

The first scenario or set of assumptions involves twin, 20-year-old sailors named Tom and Mark who are both in the 15 percent federal income tax bracket. Tom contributes $100 per month to the UNISERV TSP, while Mark contributes the same $100 per month to a Roth IRA. Tom's tax deductible TSP contribution is fully applied to his account, while Mark has to pay taxes at the 15 percent rate on his pre-invested dollars, thus investing only $85 of his desired contribution amount. Upon military retirement, both sailors have made 20 years of contributions to their plan. They both allow their accounts to grow under an assumed rate of return of 10 percent compounded annually. No further contributions are made after 20 years, and at the age of 60 they both begin systematic withdrawals. At this time we will assume that both Tom and Mark have enough income to place them in the 28 percent federal income tax bracket. They both decide to withdraw an "after-tax amount" that will net them $38,660 per year. At this withdrawal amount, the balance of Tom's UNISERV TSP account has declined to approximately $295 of taxable dollars at age 80, while Mark’s Roth IRA account has an approximate balance of $491,681 tax free dollars remaining at age 80.

Scenario #1 Model

DATA INPUT AREA	
Monthly contribution amount	$100.00
Age when contributions start	20
Age when contributions stop	40
Age when withdrawals begin	60
Assumed yearly return	10.00%
Annual withdrawal amount at retirement	$38,660.00
Tax rate (before retirement)	15%
Tax rate (after retirement)	28%

Value Criteria	Value of TSP (Pretax)	Value of Roth IRA (after tax $)
Value after contribution period	$75,936.88	$64,546.35
Value after growth period	$510,865.38	$434,235.57

WITHDRAWAL AREA

Age	Withdrawal year	Value of TSP (after taxed withdrawal)	Value of Roth IRA (No tax at withdrawal)
60	41	$502,888.03	$435,133.13
61	42	$494,112.94	$436,120.44
62	43	$484,460.35	$437,206.49
63	44	$473,842.50	$438,401.14
64	45	$462,162.86	$439,715.25
65	46	$449,315.25	$441,160.78
66	47	$435,182.89	$442,750.85
67	48	$419,637.29	$444,499.94
68	49	$402,537.13	$446,423.93
69	50	$383,726.95	$448,540.33
70	51	$363,035.76	$450,868.36
71	52	$340,275.45	$453,429.19
72	53	$315,239.10	$456,246.11
73	54	$287,699.12	$459,344.73
74	55	$257,405.15	$462,753.20
75	56	$224,081.77	$466,502.52
76	57	$187,426.06	$470,626.77
77	58	$147,104.78	$475,163.45
78	59	$102,751.37	$480,153.79
79	60	$53,962.62	$485,643.17
80	61	$294.99	$491,681.49

Other scenarios for Tom and Mark are shown in Appendix C-1 that maintain the same federal income tax rates for contributions and withdrawals, but alter the contribution rate, age at which a member starts and stops contributions, and withdrawal amounts. Under six various scenarios that were run through the model at the 15 percent federal tax rate in, and the 28 percent federal tax rate out, the Roth IRA consistently had the higher account balance.

Scenario #2

The second scenario or set of assumptions involves twin, 20-year-old sailors named Ashley and Krista who are also both in the 15 percent federal income tax bracket. Ashley contributes $100 per month to the UNISERV TSP, while Krista contributes the same $100 per month to a Roth IRA. Ashley's tax deductible TSP contribution is fully applied to her account, while Krista has to pay taxes at the 15 percent rate on her pre-invested dollars, thus investing only $85 of her desired contribution amount. Upon military retirement, both sailors have made 20 years of contributions to their plan. They both allow their accounts to grow under an assumed rate of return of 10 percent compounded annually. No further contributions are made after 20 years, and at the age of 60 they both begin systematic withdrawals. At this time we will assume that both Ashley and Krista have enough income to place them in the 15 percent federal income tax bracket. They both decide to withdraw an "after-tax amount" that will net them $45,643.50 per year. At this withdrawal amount the balance of Ashley's UNISERV TSP account has declined to approximately $28.10 of taxable dollars at age 80, while Krista’s Roth IRA account has declined to an approximate balance of $23.89 of tax free dollars by age 80.

Scenario #2 Model

DATA INPUT AREA	
Monthly contribution amount	$100.00
Age when contributions start	20
Age when contributions stop	40
Age when withdrawals begin	60
Assumed yearly return	10.00%
Annual withdrawal amount at retirement	$45,643.50
Tax rate (before retirement)	15%
Tax rate (after retirement)	15%

Value Criteria	Value of TSP (Pretax)	Value of Roth IRA (after tax $)
Value after contribution period	$75,936.88	$64,546.35
Value after growth period	$510,865.38	$434,235.57

WITHDRAWAL AREA			
Age	**Withdrawal year**	**Value of TSP (after taxed withdrawal)**	**Value of Roth IRA (No tax at withdrawal)**
60	41	$502,883.86	$427,451.28
61	42	$494,104.19	$419,988.56
62	43	$484,446.55	$411,779.56
63	44	$473,823.14	$402,749.67
64	45	$462,137.40	$392,816.79
65	46	$449,283.08	$381,890.62
66	47	$435,143.33	$369,871.83
67	48	$419,589.60	$356,651.16
68	49	$402,480.50	$342,108.43
69	50	$383,660.50	$326,111.42
70	51	$362,958.49	$308,514.71
71	52	$340,186.28	$289,158.33
72	53	$315,136.84	$267,866.32
73	54	$287,582.47	$244,445.10
74	55	$257,272.66	$218,681.76
75	56	$223,931.87	$190,342.09
76	57	$187,256.99	$159,168.44
77	58	$146,914.63	$124,877.44
78	59	$102,538.04	$87,157.33
79	60	$53,723.78	$45,665.22
80	61	$28.10	$23.89

Other scenarios for Ashley and Krista are shown in Appendix C-2 that maintain the same federal income tax rates for contributions and withdrawals, but alter the contribution rate, age at which a member starts and stops contributions, and withdrawal amounts. Under six various scenarios that were run through the model at the 15 percent federal tax rate in, and the 15 percent federal tax rate out, the UNISERV TSP and Roth IRA consistently had similar account balances.

Scenario #3

The third scenario or set of assumptions involves twin, 20-year-old sailors named Logan and Austin who are both in the 28 percent federal income tax bracket. Logan contributes $100 per month to the UNISERV TSP, while Austin contributes the same $100 per month to a Roth IRA. Logan's tax deductible TSP contribution is fully applied to his account, while Austin has to pay taxes at the 28 percent rate on his pre-invested dollars, thus investing only $72 of his desired contribution amount. Upon military retirement, both sailors have made 20 years of contributions to their plan. They both allow their accounts to grow under an assumed rate of return of 10 percent compounded annually. No further contributions are made after 20 years, and at the age of 60 they both begin systematic withdrawals. At this time we will assume that both Logan and Austin have enough income to place them in the 15 percent federal income tax bracket. They both decide to withdraw an "after-tax amount" that will net them $38,660 per year. At this withdrawal amount the balance of

Austin’s Roth IRA account has declined to approximately $212.00 of tax free dollars at age 80, while Logan’s UNISERV TSP account has an approximate balance of $578,449 of taxable dollars remaining at age 80.

Scenario #3 Model

DATA INPUT AREA	
Monthly contribution amount	$100.00
Age when contributions start	20
Age when contributions stop	40
Age when withdrawals begin	60
Assumed yearly return	10.00%
Annual withdrawal amount at retirement	$38,660.00
Tax rate (before retirement)	28%
Tax rate (after retirement)	15%

Value Criteria	Value of TSP (Pretax)	Value of Roth IRA (after tax $)
Value after contribution period	$75,936.88	$54,674.56
Value after growth period	$510,865.38	$367,823.07

WITHDRAWAL AREA			
age	**Withdrawal year**	**Value of TSP (after taxed withdrawal)**	**Value of Roth IRA (No tax at withdrawal)**
60	41	$511,921.33	$362,079.38
61	42	$513,082.88	$355,761.32
62	43	$514,360.57	$348,811.45
63	44	$515,766.04	$341,166.60
64	45	$517,312.06	$332,757.26
65	46	$519,012.68	$323,506.98
66	47	$520,883.36	$313,331.68
67	48	$522,941.10	$302,138.85
68	49	$525,204.63	$289,826.73
69	50	$527,694.50	$276,283.41
70	51	$530,433.36	$261,385.75
71	52	$533,446.11	$244,998.32
72	53	$536,760.13	$226,972.15
73	54	$540,405.56	$207,143.37
74	55	$544,415.53	$185,331.71
75	56	$548,826.49	$161,338.88
76	57	$553,678.55	$134,946.76
77	58	$559,015.82	$105,915.44
78	59	$564,886.81	$73,980.98
79	60	$571,344.91	$38,853.08
80	61	$578,448.81	$212.39

Other scenarios for Logan and Austin are shown in Appendix C-3 that maintain the same federal income tax rates for contributions and withdrawals, but alter the contribution rate, age at which a member starts and stops contributions, and withdrawal amounts. Under six various scenarios that were run through the model at the 28 percent federal tax rate in, and the 15 percent federal tax rate out, the UNISERV TSP consistently had the higher account balance.

Scenario #4

The fourth scenario or set of assumptions involves twin, 20-year-old sailors named Dawn and Hallie who are also both in the 28 percent federal income tax bracket. Dawn contributes $100 per month to the UNISERV TSP, while Hallie contributes the same $100 per month to a Roth IRA. Dawn's tax deductible TSP contribution is fully applied to her account, while Hallie has to pay taxes at the 28 percent rate on her pre-invested dollars, thus investing only $72 of her desired contribution amount. Upon military retirement, both sailors have made 20 years of contributions to their plan. They both allow their accounts to grow under an assumed rate of return of 10 percent compounded annually. No further contributions are made after 20 years, and at the age of 60 they both begin systematic withdrawals. At this time we will assume that both Dawn and Hallie have enough income to place them in the 28 percent federal income tax bracket. They both decide to withdraw an "after-tax amount" that will net them $$38,660 per year. At this withdrawal amount the balance of Dawn’s UNISERV TSP account has declined to approximately $295 of taxable dollars at age 80, while Hallie’s Roth IRA account has an approximate balance of $212 of tax free dollars by age 80.

Scenario #4 Model

DATA INPUT AREA	
Monthly contribution amount	$100.00
Age when contributions start	20
Age when contributions stop	40
Age when withdrawals begin	60
Assumed yearly return	10.00%
Annual withdrawal amount at retirement	$38,660.00
Tax rate (before retirement)	28%
Tax rate (after retirement)	28%

Value Criteria	Value of TSP (Pretax)	Value of Roth IRA (after tax $)
Value after contribution period	$75,936.88	$54,674.56
Value after growth period	$510,865.38	$367,823.07

WITHDRAWAL AREA

age	Withdrawal year	Value of TSP (after taxed withdrawal)	Value of Roth IRA (No tax at withdrawal)
60	41	$502,888.03	$362,079.38
61	42	$494,112.94	$355,761.32
62	43	$484,460.35	$348,811.45
63	44	$473,842.50	$341,166.60
64	45	$462,162.86	$332,757.26
65	46	$449,315.25	$323,506.98
66	47	$435,182.89	$313,331.68
67	48	$419,637.29	$302,138.85
68	49	$402,537.13	$289,826.73
69	50	$383,726.95	$276,283.41
70	51	$363,035.76	$261,385.75
71	52	$340,275.45	$244,998.32
72	53	$315,239.10	$226,972.15
73	54	$287,699.12	$207,143.37
74	55	$257,405.15	$185,331.71
75	56	$224,081.77	$161,338.88
76	57	$187,426.06	$134,946.76
77	58	$147,104.78	$105,915.44
78	59	$102,751.37	$73,980.98
79	60	$53,962.62	$38,853.08
80	61	$294.99	$212.39

Other scenarios for Dawn and Hallie are shown in Appendix C-4 that maintain the same federal income tax rates for contributions and withdrawals, but alter the contribution rate, age at which a member starts and stops contributions, and withdrawal amounts. Under six various scenarios that were run through the model at the 28 percent federal tax rate in, and the 28 percent federal tax rate out, the UNISERV TSP and Roth IRA consistently had similar account balances.

F. SUMMARY

This chapter provided additional insight to questions 26, 27, and 29 of the questionnaire (Appendix A) where many respondents provided neutral or undecided responses when comparing an IRA with the UNISERV TSP. Although each of the four retirement savings vehicles discussed have advantages and disadvantages, the model exercised in this section differentiated key quantitative differences using assumptions and holding certain variables constant.

The overall analysis showed that if an individual remains in the same federal income tax bracket for contributions and withdrawals, the UNISERV TSP, deductible IRA and Roth IRA provide nearly identical investment dollars after all federal income tax implications are considered. On the other hand, if someone’s federal income tax bracket during contribution years is greater than their tax bracket during withdrawal years, the tax advantages of the UNISERV TSP are superior after federal income tax implications are considered. If someone’s federal income tax bracket during contribution years is lower than their tax bracket during withdrawal years, the tax advantages of the Roth IRA are superior after federal income tax implications are considered. These tax implications are based on identical investments by individuals and ignore the advantages the UNISERV TSP has over the Roth IRA in contribution limits ($11,000 vice $3,000 respectively) and advantages in different investment options that Roth IRA has over the UNISERV TSP.

In the end, the military member makes the ultimate decision on the best retirement savings program to use along with the specific investment amounts and schedule. The military member also bears considerable risk, thereby increasing the value of timely and thorough training and education on the topic. In summary, one should consider all the advantages and disadvantages posed by the traditional non-deductible IRA, traditional deductible IRA, Roth IRA, and UNISERV TSP before investing for retirement to ensure that investment decisions are explicit and not haphazard.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. SUMMARY

The Uniformed Service Thrift Savings Plan (UNISERV TSP) was first offered to military members on October 9, 2001 during its initial open season. Approximately four months later on January 31, 2002 when the open season ended, DFAS reported that 212,647 or 14.4 percent of uniformed military service members (includes active, reserves and National Guard) decided to set aside a portion of their income toward this tax deferred retirement savings account.

The purpose of this study was to analyze various aspects of the UNISERV TSP, which included measuring the level of understanding and perception that military members have concerning the new program. Other portions of the research involved assessing the training, education, and awareness levels that military members possess in the areas of personal finance and federal income tax incentives related to retirement savings vehicles. To this end, a 35-question written questionnaire (provided in Appendix A) was developed and administered to a sample population of 189 military members that closely resembled the total Navy's population (sample group was slightly more senior). Additionally, the questionnaire provided space for respondents to express other feelings, ideas, and opinions not specifically addressed in the structured questions. The purpose of the questionnaire was to obtain quantitative and qualitative data concerning the UNISERV TSP in order to answer our primary and secondary research questions. A complete summary of the questionnaire’s overall responses and statistical results are provided in Chapter IV and Appendix B of this thesis.

The questionnaire asked respondents to evaluate several statements that made comparisons between various IRA programs and the UNISERV TSP. These statement comparisons produced an extremely high number of neutral responses from the sample population. In response to the high neutral response rate a spreadsheet model was created and utilized in Chapter V to address these challenging comparisons of retirement savings vehicles in various hypothetical scenarios with given federal income tax rates and other key assumptions. This spreadsheet model is a tool developed to find the best retirement saving vehicle options available to sailors under given assumptions and provides valuable insight into when a particular retirement savings vehicle is better than another and under what conditions.

Data results from Chapter IV and V along with background and literature review information from Chapter II and III form the basis for the following conclusions and recommendations regarding the UNISERV TSP. Also discussed in this chapter are areas of further discussion concerning matching contributions, possible funding sources, and areas of recommended future research topics relating to this subject.

B. CONCLUSIONS

This study produced one overall primary conclusion and several sub-conclusions that will be addressed and discussed below. The basis of the primary conclusion and the sub-conclusions can be found in Chapter IV, Appendix B and in the verbiage following.

Primary Conclusion:

- ***The level of training received to date is inadequate and insufficient for Navy personnel to make educated and informed decisions concerning the UNISERV TSP.***

Sub-Conclusions:

- **In general, military members have a relatively low level of understanding of federal income tax incentives concerning retirement savings programs.**

- **A majority (60 percent) of Navy personnel have disposable income that they can contribute toward retirement savings.**

- **A non-matching UNISERV TSP had no measurable effect on retention or recruitment.**

- **Participation would dramatically improve by 200 percent if UNISERV TSP provided matching contributions (from 20 percent to 60 percent).**

- **Almost half of all respondents indicated that matching TSP contributions for critical ratings**

and a non-matching TSP for non-critical ratings is unfair.

- **Almost half of all respondents indicated they are not saving for retirement at all.**

The UNISERV TSP is a new program that was offered and introduced to military personnel for the first time approximately four months before the questionnaire of this study was administered. Some factors that must be considered when reviewing the results and conclusions of this study are that many military personnel are young and may not be as concerned about retirement savings as older employees might be. Additionally the high rate of personnel turnover or “churn” into and out of military service and between bases, posts, and commands present their own unique training challenges for the services.

Nevertheless, now that the first open season has concluded and we have evaluated and assessed the training, education, understanding, and awareness level that a sample population of Navy personnel possess in the areas of this study we can make these conclusions. A thorough understanding of the UNISERV TSP success cannot be measured in participation rates or contribution rates alone. Through the use of periodic feedback or “testing” from a cross-section of military members (participants and non-participants, young and old, junior and senior, etc.) in addition to the contribution and participation rates, a more accurate perspective could emerge. This combined process is needed to accurately measure, evaluate, and assess the program in terms of enlisted personnel understanding and participation.

Statistically significant results from questions 12, 13, 25, and 29 of the questionnaire provided evidence and support of the overall conclusion of this study and show through various angles of approach the fundamental lack of understanding, education, and knowledge that Navy personnel possess when asked to make decisions regarding the UNISERV TSP. The multitude of comments from Appendix B concerning the lack of training and the desire for more information on the program coupled with the lack of statistically significant results from question 20 and 26 provide even more compelling evidence and support for our primary conclusion. All of the conclusions made above are supported at the $p \leq .01$ level of significance with the exception of question 20 and 26.

C. RECOMMENDATIONS

The predominant recommendation from the results of this study concerns the ***definite need for senior leadership to increase commitment and resources toward training all Navy personnel on the mechanics and long term benefits of the UNISERV TSP.***

Other recommendations include:

- **Develop a training program for Navy personnel that address all areas of financial responsibility that the typical sailor encounters during the course of his/her career.**

- **If provided, a matching contribution should be available equally to all military personnel regardless of rating, rank, or time in service.**

The need to restructure and tailor training toward basic personal finance, federal income tax incentives, and the effects taxes have on retirement savings in addition to a further explanation on the advantages of a diversified investment is clear. This task involves the leadership of CNET, PERSCOM (BUPERS), Commanding Officers, Executive Officers, Command Financial Specialists, Career Counselors and the entire Chain of Command.

If the true goal of the UNISERV TSP program is to increase retirement savings the military needs to take more of a vested interest in educating and training its personnel in all aspects of financial responsibility.

The Navy is and has been a "social institution" for as long as it has existed. Young impressionable people join the service and are molded into mature responsible men and women. During this molding process the Navy teaches sailors an entirely new life style to conform to military standards. Sailors are taught how to fold clothes, brush their teeth, operate weapons and equipment, and how to fight and win wars. As a social institution the Navy has taken responsibility for every aspect of a sailor's life in order to meet its needs of being able to immediately mobilize and deploy its personnel for extended periods. Story after story exists about sailors in financial troubles as they attempt to balance their earnings with the needs and wants as an individual and as a family.

Recently, Congress mandated that the Navy and the other services provide financial training to their sailors, marines, airmen, and soldiers. This financial training is long past due and should cover the breadth of financial responsibility and not focused solely on controlling expenses and debt. The military needs to teach the entire spectrum from balancing checkbooks, developing budgets, personal savings, federal and state tax implications, retirement savings vehicles, maintaining a good credit history, loans, investing, and other aspects involved in making and spending money. The time and energy spent will reap benefits across the board for the Navy as it strives to have better educated and trained sailors for the duration of the 21st century.

When the military has thoroughly trained its personnel, its members will be able to make educated choices for their particular financial situation whether it is IRA's, TSP's, or other means of investing for the future.

D. AREAS OF FURTHER DISCUSSION

During the course of this study a number of topics relating to the UNISERV TSP coincided with its current direction. As mentioned earlier, each service branch is authorized to match contributions for critical skill personnel in exchange for reenlistment. Funding for this match is an internal decision that each service must find within its current budget.

The UNISERV TSP in its current non-contribution matching state is a valuable tool for military members to increase their retirement savings through payroll contributions, whether it is in addition to another retirement savings vehicle or by itself. It also provides exceptional flexibility as a tool for the lump sum $30,000 REDUX payment if members choose to accept a reduced retirement in exchange for the lump sum payment. Additionally, the program is a valuable tax shelter for all or parts of SRB payments for members who chose to use it for that purpose and tuck the money away for retirement.

A sizable portion of military pay is already non-taxable as discussed in Chapter II of this thesis. This non-taxable portion may put many military members in a 15 percent federal income tax bracket that otherwise may fall in a higher bracket without the tax benefit. Analysis in Chapter V suggests that if a military member is currently in a relatively low (15 percent) federal income tax bracket s/he may want to take a serious look at the Roth IRA for the first $3,000 ($6,000 per household of two) of a REDUX or SRB payment. After maximizing the Roth IRA contribution, the member may then want to consider the UNISERV TSP for the remaining portion of the desired contribution that can be afforded. The same principles can also be said for regular contributions from monthly payroll amounts for members in a low federal income tax bracket since the Roth IRA can have compelling advantages over the UNISERV TSP. If members are in a higher tax bracket (28 or 36 percent) the Roth IRA advantages start to dwindle away and the UNISERV TSP becomes a more valuable tool.

If DOD wanted to make the UNISERV TSP more attractive to personnel as compared to the Roth IRA it would have to match contributions and face the decision of where to find the funding for such a program. The SRB program as it currently exists appears to be a useful tool and a successful program for the military to compensate personnel in critical skills while meeting military manpower needs.

In contrast to most employers, the military primarily uses a basic pay scale based on rank and longevity vice a flexible salary scale based on supply and demand for personnel in critical skills. The SRB program is a flexible tool that gives the military the ability to adjust to its manpower demands. Further evidence of the need for the SRB program comes from the Congressional Budget Office (CBO) testimony of Christopher Jehn. He states,

> that dollars spent on deferred compensation, such as retirement pay, have less impact on retention than dollars spent on the pay and benefits that service members receive while still on active duty. [Ref. 25, p. 1]

In summary, the use of SRB funds to provide matching contributions appears to be a poor idea for the DOD. An option discovered during the course of this research that might present a viable option for DOD to provide matching contributions for the UNISERV TSP is discussed below.

Over the past several years, substantial progress has been made to increase military compensation. For instance, on January 1, 2002 military members received an average Basic Pay increase of approximately 6.5 percent, while Basic Allowance for Housing (BAH) increased to close the 15 percent out-of-pocket gap further and a substantial Career

Sea Pay increase was implemented to address the approximate 20 year pay stagnation in that area. In 2003, when a pay raise predicted to be at least 4.1 percent is sent to Congress for approval the funds could be split into two groupings. One portion could be used to perform an across the board pay raise to all military personnel, while another portion could be diverted toward partial matching UNISERV TSP contributions. This split would present a positive effect for the long-term DOD budget since it would now fund a lower level of retirement pay. The military member would receive what s/he perceives as “free money” in the form of a matching TSP contribution, while the federal government would lessen the future liability of what is owed to retired military members. This liability deduction would occur since the money diverted to TSP would not have to be paid to members during their retirement years and would stop upon their separation from service.

In essence, DOD would make retirement payments based on a lower Basic Pay amount since the pay raise of 2003 was lower. Although the military would still be required to make matching payments beyond 2003 the true savings would be in form of what is owed to retirees. Military members who served less than 20 years would get “something” in the form of retirement savings (portable matched TSP funds), while 20 year careerist would still receive a lucrative retirement in the form of a slightly reduced 20-year retirement payment offset by a matched defined contribution plan.

Another and possibly better option is to reconstruct military compensation and retirement benefits in their entirety. A golden opportunity to reconstruct or reinvent military compensation and retirement benefits was upon the military just a few years ago when the military repealed REDUX and gave members the choice of "High Three" or "REDUX with a $30,000 lump sum payment" at the 15-year mark. At that time a matching UNISERV TSP could have been implemented in conjunction with the 40 percent retirement payment and the $30,000 REDUX lump sum payment would not have been needed.

As mentioned in Chapter II, military compensation is a "complex patchwork" of pays and benefits. At some point the entire military compensation package needs to be completely overhauled and redesigned. There is demand and a need for military members who want to complete 8-12 years of service and move on. The current compensation system does not reward these members and thus the military routinely misses the opportunity to attract and retain these personnel.

E. SUGGESTED AREAS OF FUTURE RESEARCH

Regulating equitable and fair compensation for the military that attracts, retains, motivates and rewards members for increased productivity is a difficult and challenging task. Does the current military compensation package adequately provide for all these aspects? As the military relies more heavily on technology and risk management a new and different breed of soldier, airman, marine, and sailor is required to fulfill the mission. Does the military compensation package have to be adjusted to attract and retain this new breed of service member? As the general population of American citizens live and work longer, should the minimum 20-year military retirement plan be extended or the 50 percent payment (High Three) of basic pay further reduced? These three questions are relevant for further research.

More specifically, if a defined benefit plan and defined contribution plan (partial matching) are both offered what amount of each is optimal? Since defined benefit plans are expensive and provide budgeting difficulty it would seem helpful to compare the costs and benefits to DOD if it decided to scale back the 20-year retirement system in favor of a matching UNISERV TSP program.

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APPENDIX A – TSP QUESTIONNAIRE

Disclaimer: The enclosed questionnaire is the product of (2) Naval Postgraduate School students in their fulfillment of a graduate degree research study (thesis) and is **not affiliated with or endorsed by** the Federal Retirement Thrift Investment Board (FRTIB), N130 Office of Navy Compensation, the Uniformed Service Thrift Savings Program (UNISERV TSP), or the Department of Defense in anyway.

NAVAL POSTGRADUATE SCHOOL THESIS RESEARCH QUESTIONNAIRE ON RETIREMENT SAVINGS

Thank you for your cooperation and participation in this survey. Please complete the entire questionnaire. Your anonymity is **absolutely promised**. **NO** names or personal identification information of **any kind** will be collected or used. Please ask the administrator for clarification on any acronyms that are unfamiliar to you.

Demographic information:

1. Paygrade (ex: E-2, W-2, O-1, etc.): ____________

2. Age on your last birthday? ____________

3. ( ) Male ( ) Female

4. Current command: ______________________ Branch of Service: ____________

5. Current years/months of military service: __________years __________months

6. Current End of Active Obligated Service (EAOS/ETS): ____________ (month & year)

7. Are you in an SRB eligible rating? (please circle) YES NO

8. Circle the retirement program(s) that you currently participate in (all that apply):

ROTH IRA TSP TRADITIONAL IRA OTHER _____ NONE

9. If you circled the military TSP program above: Which fund(s)? __________

   What percent are you contributing from basic pay to TSP? ____________

   What percent of special/incentive pay to TSP? ____________

10. If you are **NOT** currently enrolled in the military TSP program, do you intend to enroll in the near future? (please circle)

    YES NO

   If YES, what percent of your basic pay will you allot? ____________

   What percent of your special/incentive pay will you allot? ____________

11. If you are contributing savings toward retirement, at what age did you begin?___________

For the following questions, please use the scale shown below when indicating your answer by circling the appropriate numbered response to each question:

1	2	3	4	5
Strongly Disagree	**Disagree**	**Neither Agree nor Disagree**	**Agree**	**Strongly Agree**

Please respond to each statement:

12. My command has offered me training and educational material on the new military TSP?

1 2 3 4 5

13. The new military TSP has been clearly explained to me and I understand it.

1 2 3 4 5

14. The new military TSP is a valuable benefit to me.

1 2 3 4 5

15. The new military TSP provides **comparable benefits** to all participants regardless of paygrade.

1 2 3 4 5

16. Tax deferred retirement savings are important to me.

1 2 3 4 5

17. My retirement savings **will improve** by using the new military TSP.

1 2 3 4 5

18. I have a disciplined monthly household savings plan that I adhere to.

1 2 3 4 5

1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree

Please respond to each statement:

19. My current income does not allow me to contribute to retirement savings at this time.

1 2 3 4 5

20. I understand the basic objectives of the different TSP investment options (G, F, C, S, and I Funds).

1 2 3 4 5

21. The new military TSP gives me **more incentive to stay** in the military.

1 2 3 4 5

22. The new military TSP makes military retirement compensation **more comparable** with civilian company 401(k) plan retirement benefits.

1 2 3 4 5

23. (Suppose you were a graduating high school or college student)
The new military TSP **would play a factor** in choosing the military as your employer.

1 2 3 4 5

24. The tax incentives involved with the new military TSP are **strong enough** to convince me to participate.

1 2 3 4 5

1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree

Please respond to each statement:

25. I am reasonably sure which type of IRA (deductible, non-deductible, Roth) I **qualify** for based on my 2001 income level.

1	2	3	4	5

26. In general, a **non-deductible IRA** is a superior retirement savings vehicle compared to the new military TSP.

1	2	3	4	5

27. In general, a **Roth IRA** is a superior retirement savings vehicle compared to the new military TSP.

1	2	3	4	5

28. The Roth IRA contribution ceiling ($3,000/person and $6,000/household for 2002) **limits** the amount I can contribute to retirement savings per year.

1	2	3	4	5

29. In general, a **deductible IRA** provides similar tax advantages as the new military TSP.

1	2	3	4	5

30. I would participate or increase my contribution if the new military TSP **matched** a portion of my contribution.

1	2	3	4	5

1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree

Please respond to each statement:

31. If SRB/bonus eligible (assume you are if not), I would be willing to **give up part** of my bonus in exchange for a matching TSP during my re-enlistment commitment.

1 2 3 4 5

32. Personnel in critical rates should be offered a **matching TSP**, while personnel in non-critical rates should receive the normal **non-matching TSP**.

1 2 3 4 5

33. The best source of information I have found concerning TSP is (circle one):
   a) The Command Financial Specialist
   b) TSP handouts, literature, posters
   c) Knowledgeable co-worker or "shop expert"
   d) TSP website (www.tsp.gov)
   e) General Military Training (GMT)

34. Please provide comments on any additional factors that you feel are relevant concerning the new military TSP.

____

____

____

35. Please provide comments on any additional factors that you feel are relevant to this questionnaire.

____

____

____

Thank you for your participation in this survey. Please return the packet to the administrator.

APPENDIX B – WRITTEN RESPONSES TO QUESTIONNAIRE

The following written comments were made to question #34 and question #35 on the questionnaire. The comments provided are in a military group rank order (junior to senior) and arranged by age (youngest to oldest) within each group ranking.
Seventy-two members out of 189 (38 percent) responded with comments to question #34. Spelling corrections were made for editing purposes only.

Question #34. Please provide comments on any additional factors that you feel are relevant concerning the new military TSP.

E-1

No responses from personnel in the E-1 paygrade to this question.

E-2

19 year-old E-2 – For someone who doesn't plan to stay in the Navy/service for 20-30 years the TSP would not be a good choice because who knows what the future will bring after a term of service.

19 year-old E-2 – I would like to learn more about this so I can start saving for my future.

19 year-old E-2 – I don't really know that much about it.

20 year-old E-2 – Commands should provide more info on TSP and there should be matching TSP all the way around.

21 year-old E-2 – I haven't heard anything about this yet. Please let me know about it.

22 year-old E-2 – I'm sorry if it seems like I just went down the questions and circled 3 but I don't know what TSP is.

19 year-old E-3 – I have no clue what TSP is.

21 year-old E-3 – My command has not given me any training on these.

E-3

No responses from personnel in the E-3 paygrade to this question.

E-4

21 year-old E-4 – Provide extra information to military personnel who aren't sure if they're staying in the military or personal reasons.

21 year-old E-4 – I don't a have clue about it. All I know is it's like a 401k and I don't know what that is either.

21 year-old E-4 – I do not have a strong enough knowledge on the subject to comment.

22 year-old E-4 – It should be clearly and effectively discussed and implemented to all personnel.

22 year-old E-4 – Do not know very much about the issue but I tried.

22 year-old E-4 – TSP makes no difference to me because I am getting out.

24 year-old E-4 – More brochures and more information.

26 year-old E-4 – I don't have much knowledge of it, just hear-say.

27 year-old E-4 – I think this is a good benefit for people on active duty but not for reservists.

29 year-old E-4 – Have none – no information.

31 year-old E-4 – TSP is going to be more effective if the government will match my contribution.

E-5

22 year-old E-5 – I don’t know much about TSP.

23 year-old E-5 – If a contribution matching program were in effect, the incentive to remain w/ the military may be greater.

24 year-old E-5 – There is little to no training on TSP.

24 year-old E-5 – It would be great if it match what you send to the.

25 year-old E-5 – I don’t know too much about it.

26 year-old E-5 – Don’t have any at this time. Really don’t have much information or know what TSP is?

27 year-old E-5 – More general knowledge provided. Possibly a workshop of sort.

27 year-old E-5 – It needs to be a matching TSP.

27 year-old E-5 – MATCH PAY!

28 year-old E-5 – I have never heard of the TSP.

28 year-old E-5 – TSP should’ve been introduced years ago.

32 year-old E-5 – Match one for one. Explain investment holdings large cap, small cap., and who are the major holdings ex. GE, Cisco…

32 year-old E-5 – Sorry I could not be more helpful, I feel that it is too late for me, seeing that I have almost 14 yrs in.

45 year-old E-5 – I am not well informed about TSP.

E-6

28 year-old E-6 – Need to have a matching TSP.

31 year-old E-6 – Matching contribution should be available for all rates/ranks in the Navy (military) to increase parity with the civilian sector.

33 year-old E-6 – Too late in the game for me.

34 year-old E-6 – I plan to participate but feel that matching contributions would make it more of an advantage.

35 year-old E-6 – Where was this 16 years ago?

37 year-old E-6 – It is a good benefit for people with more time left to serve in the military than myself.

37 year-old E-6 – Not enough time left on active service to benefit and I will be self- employed AFTER the Navy.

38 year-old E-6 – Don't have enough time left till retirement to make it worth starting.

41 year-old E-6 – Good savings for retirement.

42 year-old E-6 – Non critical ratings should have a matched portion like the critical rates do.

E-7

32 year-old E-7 – Why just now?

33 year-old E-7 – Great program.

35 year-old E-7 – I don't like the idea that it stops when I retire. If I retire at my 20-year mark I can invest for 4 years. This money can go in my Roth IRA.

41 year-old E-7 – Pushed it up more for new sailors.

41 year-old E-7 – TSP has major managerial problems as per PSD.

E-8

No responses from personnel in the E-8 paygrade to this question.

E-9

38 year-old E-9 - If the government matched funds upon reaching tenure status as civilian companies do – it

definitely would be an “eye-catcher” to prospective enlistees.

0-1 / 0-2

23 year-old O-1 – I have a Roth IRA and do not want to do both.

23 year-old 0-1 – We should use a Student Guess Lecture (SGL) to discuss these issues in the lay terms.

24 year-old 0-2 – I am waiting for raise at 3 years before starting.

25 year-old 0-2 – If you want to make a real difference for military members and their families, match the funds.

25 year-old 0-2 – Don’t really know too much about it, just what I’ve been presented through the squadron.

26 year-old 0-2 – Matching funds are the answer!

34 year-old O-2E – If they matched (at least a portion) more people would participate.

0-3

29 year-old O-3 – There is little to no training information on finance/savings in general much less on TSP.

30 year-old O-3 – Not enough information pushed (vice pulled) to service members.

32 year-old O-3 – TSP is good for people who don’t save. But lets match contributions. I think we should structure the military retirement along a 401(k) line. Ex. Give me 35% to 40% @ 20 years but match me with the law allowed limit for 401(k)’s (6-7%) and make sailors vest 1 yr- 20% to 5 yr – 100% or something like that. TSP is a good start but we have room to grow. Call me XXX-XXX-XXXX

32 year-old 0-3 – Allow for penalty free deductions for education and 1st time home purchase.

37 year-old 0-3 – Good program, about time we were made eligible for it. Not nearly enough training on it to make

an informed decision. There’s no way the government could afford to provide matching funds.

36 year-old 0-3E – All funds should be matched equally. Critical NEC’s already receive incentives, not fair to those who contribute!

39 year-old 0-3E – Wish (we) had TSP when I joined 20 years ago.

<u>0-4</u>

34 year-old 0-4 – No information concerning prospectus, stocks selected, etc. too general.

34 year-old 0-4 – Current return rates on my investments outweigh benefits of TSP. An analysis of long-term did not indicate a relative advantage for TSP until age 69.

41 year-old 0-4 – Believe it or not, I only just heard about TSP from a co-worker and am very interested in getting more details.

41 year-old 0-4 – They have <u>not</u> done a good job selling this program. Matching would increase participation.

42 year-old 0-4 – Received most information from classmate’s presentations. Therefore, I have answered from memory and <u>may</u> be inaccurate (see age).

<u>0-5</u>

40 year-old 0-5 – Good idea, but so late in my career to be of great value. Should be good for new guys.

44 year-old 0-5 – Don’t know enough about it.

The following written comments were made to question #35 on the questionnaire. The comments provided are in military rank order (junior to senior) and arranged by age (youngest to oldest) within each rank. Twenty-four members out of 189 (12.7 percent) responded with comments to question #35. Spelling corrections were made for editing purposes only.

Question #35 - Please provide comments on any additional factors that you feel are relevant to this questionnaire.

E-1

No responses from personnel in the E-1 paygrade to this question.

E-2

No responses from personnel in the E-2 paygrade to this question.

E-3

19 year-old E-3 – I have no clue what TSP is.

21 year-old E-3 – I do not know or have any clue what this is. Contact my command about this please cause I haven’t a clue about this program.

E-4

21 year-old E-4 – You should write the definition or what the acronyms stand for you know in parenthesis right next to it.

22 year-old E-4 – Instead of offering savings plans the Navy should use the money to pay everyone more.

22 year-old E-4 – More information on the various sources.

27 year-old E-4 – I wish they had this program when I was active, I might consider staying in.

E-5

26 year-old E-5 – Need more information about TSP.
26 year-old E-5 – I do not have current knowledge of the TSP. This isn't a reflection of my current command. However, I do plan on asking questions about the TSP.

28 year-old E-5 – Tell some people about the TSP.

35 year-old E-5 – What other option we have?

E-6

33 year-old E-6 – Military pay under E-6 is not feasible to support family and support separate funds.

35 year-old E-6 – This is a great program for the more senior personnel the E-5s and below cannot afford to put money aside they simply don't make enough. Also a large populous of senior personnel with 4 or less years to retire will probably not enroll because TSP quits when they do. It should continue after retirement no matter the next employer.

37 year-old E-6 – It is an older program that should have been advertised when I was earlier in my career.

37 year-old E-6 – I do wish it was available 17 years ago.

E-7

No responses from personnel in the E-7 paygrade to this question.

E-8

No responses from personnel in the E-8 paygrade to this question.

E-9

No responses from personnel in the E-9 paygrade to this question.

0-1

23 year-old 0-1 - I cannot afford as an O-1 to do both IRA/TSP. I feel I benefit by the IRA more.

0-2

26 year-old 0-2 – I haven't looked at retirement plans so I don't know a lot about it. All I know about TSP is what was presented at GMT.

28 year-old 0-2 – Don't know what non-deductible IRA is…

34 year-old 0-2E – 59 ½ is too old to draw out.

0-3

27 year-old 0-3 – If the pension plan remained <u>and</u> matching TSP funds were provided, this would be a real incentive.

29 year-old O-3 – Should have "N/A" or/and "don't know" rather than 3.

37 year-old 0-3 – I don't know enough about the different types of IRA's to answer those intelligently, only "Roth" vs "Traditional."

36 year-old O-3E – There should be more information on the subject. Command Financial Specialist isn't always the best vehicle for information.

0-4

34 year-old 0-4 – Why would you have a non-deductible/non Roth IRA?

0-5

44 year-old 0-5 – If you get into matching contributions, the government is now providing money for two retirement plans. In peaceful times, this could be an excuse to cut regular retirement benefits.

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APPENDIX C-1 VARIABLE INPUT ANALYSIS FOR TSP/ROTH COMPARISON

Appendix C-1	Variable Input Analysis for TSP/Roth Comparison					
Data category	**Scenario #1**	**Scenario #2**	**Scenario #3**	**Scenario #4**	**Scenario #5**	**Scenario #6**
Monthly contribution amount	$ 100	$ 100	$ 100	$ 200	$ 300	$ 100
Age when contributions start	20	20	20	30	30	20
Age when contributions stop	40	40	60	40	60	40
Age when withdrawals begin	60	60	60	60	60	60
Assumed yearly return	10%	10%	10%	10%	10%	10%
Age when withdrawals are stopped	95	80	80	80	80	70
Annual withdrawal amounts at retirement	$ 34,556	$ 38,660	$ 47,860	$ 20,859	$ 51,321	$ 51,480
Tax rate (before retirement)	15%	15%	15%	15%	15%	15%
Tax rate (after retirement)	28%	28%	28%	28%	28%	28%
Value of TSP (after taxed withdrawal)	$ 151	$ 295	$ 150	$ 23	$ 204	$ 82
Value of Roth IRA (No tax at withdrawal)	$2,053,097	$491,681	$608,505	$265,171	$652,545	$189,542

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APPENDIX C-2 VARIABLE INPUT ANALYSIS FOR TSP/ROTH COMPARISON

Appendix C-2	Variable Input Analysis for TSP/Roth Comparison					
Data category	Scenario #1	Scenario #2	Scenario #3	Scenario #4	Scenario #5	Scenario #6
Monthly contribution amount	$ 100	$ 100	$ 100	$ 200	$ 300	$ 100
Age when contributions start	20	20	20	30	30	20
Age when contributions stop	40	40	60	40	60	40
Age when withdrawals begin	60	60	60	60	60	60
Assumed yearly return	10%	10%	10%	10%	10%	10%
Age when withdrawals are stopped	95	80	80	80	80	70
Annual withdrawal amounts at retirement	$ 40,795	$ 45,643	$ 56,503	$ 24,625	$ 60,589	$ 60,778
Tax rate (before retirement)	15%	15%	15%	15%	15%	15%
Tax rate (after retirement)	15%	15%	15%	15%	15%	15%
Value of TSP (after taxed withdrawal)	$ 258.00	$ 28	$ 16	$ 40	$ 62	$ 10
Value of Roth IRA (No tax at withdrawal)	$ 219	$ 24	$ 14	$ 34	$ 53	$ 9

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APPENDIX C-3 VARIABLE INPUT ANALYSIS FOR TSP/ROTH COMPARISON

Appendix C-3	Variable Input Analysis for TSP/Roth Comparison					
Data category	**Scenario #1**	**Scenario #2**	**Scenario #3**	**Scenario #4**	**Scenario #5**	**Scenario #6**
Monthly contribution amount	$ 100	$ 100	$ 100	$ 200	$ 300	$ 100
Age when contributions start	20	20	20	30	30	20
Age when contributions stop	40	40	60	40	60	40
Age when withdrawals begin	60	60	60	60	60	60
Assumed yearly return	10%	10%	10%	10%	10%	10%
Age when withdrawals are stopped	95	80	80	80	80	70
Annual withdrawal amounts at retirement	$ 34,550	$38,660	$ 47,860	$20,855	$51,320	$51,480
Tax rate (before retirement)	28%	28%	28%	28%	28%	28%
Tax rate (after retirement)	15%	15%	15%	15%	15%	15%
Value of TSP (after taxed withdrawal)	$ 2,417,731	$ 578,449	$ 715,888	$ 312,297	$ 767,783	$ 222,990
Value of Roth IRA (No tax at withdrawal)	$ 2,083	$ 212	$ 108	$ 298	$ 217	$ 60

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APPENDIX C-4 VARIABLE INPUT ANALYSIS FOR TSP/ROTH COMPARISON

Appendix C-4	Variable Input Analysis for TSP/Roth Comparison					
Data category	**Scenario #1**	**Scenario #2**	**Scenario #3**	**Scenario #4**	**Scenario #5**	**Scenario #6**
Monthly contribution amount	$ 100	$ 100	$ 100	$ 200	$ 300	$ 100
Age when contributions start	20	20	20	30	30	20
Age when contributions stop	40	40	60	40	60	40
Age when withdrawals begin	60	60	60	60	60	60
Assumed yearly return	10%	10%	10%	10%	10%	10%
Age when withdrawals are stopped	95	80	80	80	80	70
Annual withdrawal amounts at retirement	$ 34,550	$ 38,660	$ 47,860	$ 20,855	$ 51,320	$ 51,480
Tax rate (before retirement)	28%	28%	28%	28%	28%	28%
Tax rate (after retirement)	28%	28%	28%	28%	28%	28%
Value of TSP (after taxed withdrawal)	$ 2,893	$ 295	$ 150	$ 414	$ 301	$ 82
Value of Roth IRA (No tax at withdrawal)	$ 2,083	$ 212	$108	$ 298	$ 217	$ 59

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