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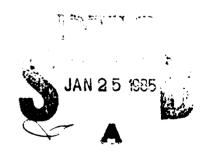
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MILITARY RETIREMENT BENEFITS

BY

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US ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013

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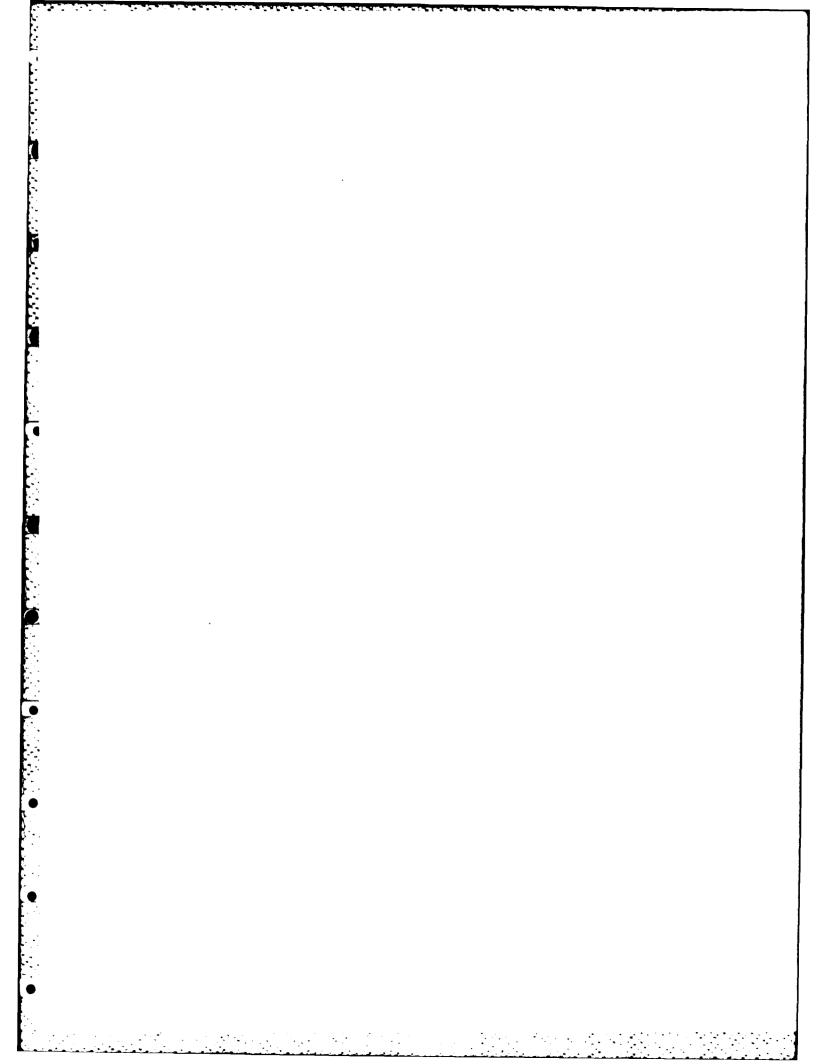
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USAWC MILITARY STUDIES PROGRAM

MILITARY RETIREMENT BENEFITS

INDIVIDUAL STUDY PROJECT

bу

Colonel Jack D. Medlin Medical Service

US Army War College Carlisle Barracks, Pennsylvania 17013 17 May 1984

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ABSTRACT

AUTHOR: Jack D. Medlin, COL, MS

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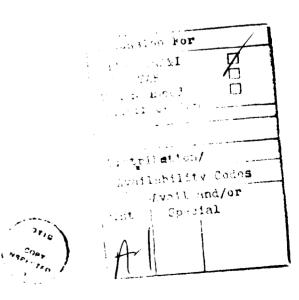
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This study examines the current Military Retirement System in an effort to determine if changes should be made in it, and if so, what kind of changes and the consequences of such changes. An analysis was made of the President's Private Sector Survey on Cost Control findings to determine the differences between the Military Retirement System, the Civil Service Retirement System, and retirement systems from the private sector. Special emphasis was devoted to determining the real problem which has led to these benefits being challenged currently. Additional data furnished from the National Life Insurance Company of Montpelier, Vermont helps identify cost savings of paying benefits at various times. The conclusion is that the Military Retirement System is indeed generous and should be modified to incorporate features that would replace longterm incentives with short-term incentives which, in future years would substantially reduce costs for the taxpayer. However, changes should not be made in the Military Retirement System without similar changes in other Federal retirement systems.

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CHAPTER I

INTRODUCTION

BACKGROUND

This study is undertaken to examine the validity of maintaining current military retirement benefits at their present levels. Problems of funding the current benefits will be discussed along with alternatives which would change the benefits but would also reduce costs. Any recommended changes would need to achieve the desired results which the original military retirement system was designed to accomplish.

STATEMENT OF THE PROBLEM

Simply stated, the current attacks on the present military retirement system stem from the problem of cost—the cost to maintain the program in its present form both now and in the future. Since the money to fund military retired pay comes from the taxpayer, and is legislated to the retiree through entitlements by Congress, the question centers around the National Budget and how it can be reduced. Therefore, the military retirement benefits, as they currently stand, are being challenged as a method to help reduce the National debt and more specifically the Department of Defense Budget.

CHAPTER II

HISTORY OF MILITARY PENSIONS

Purpose of Military Pensions

By establishing the payment of military retirement benefits originally, the following objectives were to be accomplished:

- To insure that a military career was competitive with civilian alternatives.
- To insure that promotion opportunities were kept open for young and able members.
 - To provide economic security for retired members.
- To provide a pool of experienced personnel who could be recalled during war or national emergency.

Active Personnel

Between the years 1812 and 1861 there was no legislative provision for compulsory separation for active duty personnel—only dismissal or resignation of the officer. The officer could remain on active duty until death regardless of incapacity due to old age, physical disability, etc. Consequently, many junior officers commanded in the field beyond their rank, the older officers sometimes being left behind, usually on leave, when field duty was being performed.

In 1861 the first law was passed which authorized the voluntary retirement of regular officers of all branches of service after 40 years of service.

Army and Marine Corps officers retired for age or length of service were entitled to retired pay in an amount equal to their pay proper plus

four "rations." These rations had a commuted cash value of \$36 a month. The active duty pay scale at the time prescribed but one rate of pay called pay proper. However, each officer was entitled to from four to six rations, depending on his grade, and to one additional "longevity" ration for each five years of service. In other words, rations were an integral part of an officer's pay and were used instead of pay proper to effect longevity pay increases. The retired pay formula arbitrarily gave each retired officer four longevity rations, regardless of the number he was actually receiving as part of his active duty pay at the time of retirement.

Since active duty Navy officers were not under the pay-properplus-rations" system, their retired pay entitlement was a specified dollar amount for each grade, plus four rations per day to be commuted at 30 cents each ration. A Navy officer's retired pay entitlement was slightly larger than that of his Army counterpart.

It is noteworthy to point out here that this is the first evidence of "incentive" pay increases as well as a reference to basic military compensation.

In 1870 the Army and the Navy did away with commutations for rations. Retired pay based on age or years of service was fixed as 75 percent of base and longevity pay for Army and Marine Corps officers, and as 50 percent of sea duty pay for Navy officers. (Changed to 75% in 1873.)

In 1899 the law was changed as it pertained to Navy officers in that it allowed those in the grade of lieutenant through captain to request voluntary retirement regardless of age or length of service.

Such requests placed the officer on a list of "Applicants for Voluntary"

Retirement." The applicants were retired in order of seniority if a specified number of promotion vacancies did not occur through normal attrition. If this action did not create the desired number of vacancies in a particular grade the additional numbers were obtained through involuntary retirements.

The promotion flow program for retirement as described above remained in effect until two new principles were introduced by a change in the law in 1916. The first established a retirement program integrated with an up-or-out selective promotion and the second initiated the use of a formula that creates the basis for computing the current retired pay entitlements.

The formula was 2.5 percent of monthly active duty pay for each year of service up to 30 years or a maximum of 75 percent of such pay.

In 1922 a reduction in the Army's strength was required by law and the retirement system was used to help effect the reduction. A plucking board was used to eliminate officers from the active list and those chosen for elimination could be retired if they had at least 10 years of commissioned service. Those with more than 20 years of commissioned service were entitled to retired pay of 3 percent for each year of such service, not to exceed 75 percent; those retired with between 10 and 20 years of commissioned service had the same entitlement, except that their multiple was 2.5 instead of 3 percent.

In 1926 the Navy changed its program from age-in-grade to service-in-grade. By this action a captain who had completed 35 years of service without being selected for promotion became ineligible for further consideration and had to be retired. Commanders and lieutenant commanders were ineligible after 28 years and 21 years, respectively. The law was amended in 1934 and extended the selection program to promotion

to the grades of lieutenant commander and lieutenant and provided that a lieutenant (junior grade) who had not been selected after seven years, had to be retired. Retired pay was computed at the standard rate of 2.5 percent per year of service, up to a 75 percent ceiling. The 7-year retirement provision of the 1934 Act is notable as representing the shortest length of service ever fixed for nondisability retired pay eligibility.

It was in 1938 when the law revised the Navy's system to require that officers who were passed over twice were to be retired. In 1946 the law authorized the Secretary of the Navy to convene boards to consider and recommend officers in the grades of 0-6 or below for involuntary retirement or elimination. It also lowered the statutory retirement age for Navy and Marine Corps officers from 64 to 62 and permitted voluntary retirement after 20 years of active service at least 10 years of which were comprised of commissioned service, with retired pay to be computed under the "standard" 2.5 percent formula. The objective of the law was to provide a means to break up the officer logjam that had arisen out of the large number of World War II Veterans who could no longer be effectively employed.

The Officer Personnel Act of 1947 as amended by the Officer Grade Limitation Act of 1954, was for nearly 35 years the main authority for the officer promotion and involuntary retirement systems for the different branches of service.

The Defense Officer Personnel Management Act was adopted on 12 December 1980. Congress felt that the differences in the treatment accorded officers in the various branches of service did not in fact reflect actual management needs—and set out to provide a unified

retirement authority in an effort to make the career expectations of members more clearly defined and uniform in the services.

The Army and Air Force Vitalization and Retirement Equalization Act of 1948 authorized the voluntary retirement of Army and Air Force officers and resulted, for the first time in history, in uniform voluntary retirement authority among the officers of all branches of service.

For enlisted personnel the legislative history for nondisabling retirement is much shorter than for officers. The primary reason being that the objectives of involuntary retirement can be obtained for the enlisted force by an administrative policy of nonacceptance of reenlistments. In other words, the improved efficiency, the young and able force, and promotion opportunities could be controlled by reenlistments.

Before adoption of the Military Personnel and Compensation Amendments of 1980 only regular enlisted members of the Army and Air Force could retire, after completion of twenty or more years of active service, with immediate entitlement to retired pay. While Army and Air Force Reserve enlisted members could in fact retire upon completion of twenty years of active service, they were not, under preexisting law, eligible to receive retired pay until they reached 60 years of age, in contrast to retired enlisted members of the Navy and Marine Corps Reserve components, who could retire after twenty years of active service with immediate entitlement to retired pay. To remedy this disparity in treatment the 1980 Military Personnel and Compensation Amendments, authorized twenty year retirement, with immediate entitlement to retired pay, for Army and Air Force Reserve enlisted members.

While enlisted personnel may retire at their own request after the completion of twenty years of active service, officers may retire after twenty years if they have completed at least ten years of commissioned service and their request is approved by the service Secretary.

The Department of Defense Authorization Act of 1981 effected the first major change in the computation of retired or retainer pay entitlements since uniform voluntary retirement authority as adopted for officers of all branches of service in the Army and Air Force Vitalization and Retirement Equilization Act of 1948. Under the 1981 Act, the retired or retainer pay of any member of an armed force who first became a member after 8 September 1980 is computed on the basis of the member's "high three" average of base pay, instead of on the basis of the member's terminal basic pay. In practice, a member's monthly retired pay base is, an average of the member's highest three years of basic pay.

Personnel who were members of the armed forces before the date of enactment were excluded from the new computational method for determining retired pay entitlements. This decision was made in order to avoid changing the rules after they may have made career decisions on the basis of the preexisting retirement rules and out of concern that such a change could have an adverse effect on the retention of certain critical classes of personnel. More than likely any future changes in the retirement system will have this criteria applied to them as well.

Post Retirement Adjustments

As early as 1870, when a pay raise for active officers was enacted, officers already retired had their benefits adjusted based on the new active duty rates. This type of adjustment was known as "recomputation" of retired pay.

In 1958 the law was amended to eliminate the "recomputation" of retired pay based on the new base rates, but substituted a 6 percent cost-of-living increase in retired pay instead. It was generally felt that the cost of recomputation was excessive although there was some doubt in Congress on this point. This accounts for the delay in the final decision to replace recomputation of retired pay until 1963 when it passed the Uniformed Service Pay Act.

This new law replaced the recomputation system with a method of retired pay adjustment based on increases in the cost of living as measured by the Consumer Price Index (CPI). Under this method a determination was made each January as to the percentage of increase in the CPI. If the increase exceeded three percent then retired pay was increased by that percent on the first of April of the same year.

The adjustment mechanism changed in 1965 when it required a monthly determination of the percentage by which the CPI had increased over the base index used for the most recent adjustment of retired pay. When the CPI had increased by at least three percent over the base index, and held at three percent or more for three consecutive months, retired pay was to be increased on the first day of the third month following the consecutive three-month period by the highest percent of the increase plus one percent. The one percent add-on was to compensate for the loss of purchasing power during the time the CPI was building up to the three percent level and before the increase in the cost of living was actually reflected in higher retired pay. A similar one percent add-on in Federal civil service annuities had been in effect for the cost-of-living increase that occurred in civil service annuities on 1 November 1969. Section 801 of the Act of 14 July 1976 eliminated the one percent add-on to military retired pay, contingent on repeal of the similar one percent

add-on for civil service retirees. The Act of 1 October 1976 amended the preexisting adjustment mechanism by providing that retired and retainer pay was to be adjusted twice yearly—on 1 March and 1 September—by the percentage increase in the index, on the preceding 1 January and 1 July, respectively. In 1980, Congress, in the Department of Defense Authorization Act for 1981 further amended the adjustment mechanism by deferring the adjustment that would otherwise have taken place in September 1980 and by providing, in effect, that future adjustments should be made only once a year, at the same time Civil Service retirement annuities were adjusted by the same amount.

CHAPTER III

ANALYSIS OF THE PROBLEM

OVERVIEW

As was stated in Chapter I, the problem facing military retirement benefits is cost--whether or not they are too expensive to be maintained in their present form.

In June of 1982, President Reagan established the President's Private Sector Survey on Cost Control (PPSS) to, among other things, identify opportunities to reduce costs which could be achieved by executive or legislative action. One of the actions taken by the PPSS was to study the Military Retirement System (MRS) and compare it with the average pension plan from the private sector as well as with the Civil Service Retirement System (CSRS). Although this study will concentrate on the MRS it is meaningful to compare the MRS with the CSRS as well as to the private sector because of the various eligibility requirements and benefit formulas of the different plans.

The PPSS survey centered on the principle retirement objectives of providing economic security for retired members and offered suggestions as to how Federal retirement programs might be made more compatible with the best private sector plans.

It is interesting to note that among their findings the PPSS concluded in part that:

- Generally executive salaries in Government were inferior to the private sector.

- Blue collar wages in Government were from 8% to 12% higher than in the private sector.
- White collar Government salaries tended to be higher than private sector counterparts because of the overgrading of Government positions.
- Military pay scales were comparable to private sector salaries except the highest officers which had salary caps.
- Federal pension benefits are more liberal and costs much higher than private sector plans.
- The Federal retirement system is significantly underfunded in comparison to the private sector.
- Federal retirement benefits were more generous than private sector plans because they:
 - -- allowed lower retirement ages
 - -- had higher benefit formulas
 - -- provide complete inflation protection. 1

The survey examined each of the areas which influence the costs of these plans and the major ones will be reviewed here to demonstrate their influence on costs. In general, the more liberal the benefits paid to a retired member, the more costly the whole plan.

CURRENT PENSION COSTS

Although the Federal Government has more than 50 separate pension programs approximately 98% of all Federal employees are covered under the CSRS and the MRS.

A comparison of the number of retirees receiving a pension, the annual costs and the average pension per annuitant is shown in the table below.

Table 1²

<u>Pension Costs, CSRS and MRS</u>

		(1)	(2)	(3)
	CSRS	<u> 1970</u>	<u>1982</u>	Average Annual % Increase 1970-1982
(1)	Annuitants (000)	962	1,830	5.5%
(2)	Cost (\$ Billions)(a)	\$2.5	\$18.9	18.4
(3)	Average Annuity	\$2,600	\$10,300	12.2
	<u>MRS</u>			
(4)	Annuitants (000)	7 50	1,375	5.2
(5)	Cost (\$ Billions)	\$2.8	\$14.9	14.9
(6)	Average Annuity	\$3,700	\$10,800	9.3
(7)	Memo: Consumer Price Index (CPI) (1967 = 100)	116.3	289.1	7.9

⁽a) Excludes refunds and death claims, annuities under special acts and administration.

It should be noted that this table indicates the average annuity for retirees from the CSRS and MRS increased, respectively, 1.5 and 1.2 times as rapidly as inflation when measured against the CPI. (12.2 ÷ 7.9)

Another observation of significance is that an annual rate increase of 14.9% will cause the MRS to double in cost every five (5) years. (Rule of 72).

In addition, the annual costs are not the total costs of the program but only include the actual benefits paid annually for the MRS and the CSRS with the exception of some future funding for the CSRS.

PRIVATE SECTOR PLANS

To compare the CSRS and the MRS with the best private sector plans the PPSS used two major pension surveys—Bankers Trust Corporate Pension Plan Study and the 1982 Hay-Huggins Noncash Compensation Comparison.³

The Bankers Trust Company reflected the following:

- Approximately 8.2 million employees are covered by the plans surveyed.
- These employees represent 55 different industries, 240 companies and 325 plans.
- The 240 companies were selected from Fortune's listing of the top industrial, commercial, and financial companies.

The Hay-Huggins survey reported on the prerequisites, benefits, and personnel policies in effect for employees in 1982 at over 800 industrial, financial, and service organizations throughout the U.S.

Some of the more significant findings which resulted from these private plan surveys were as follows:

- 1. The normal retirement age is 65 in 95%-97% of the companies responding. In addition, the Bankers Trust survey shows 70% of responding companies have a one- to five-year service requirement for new employees over a certain age, normally 55, before they qualify for retirement benefits.⁵
- 2. Approximately 94% of companies allow early retirement with reduced pensions. The Hay-Huggins data indicate that the most common basis for eligibility for reduced early retirement is a combination of age and service (72% of plans). The most common combination is age 55 and ten years of service.

For those companies providing early retirement benefits,

- 62% reduce benefits by 15% or more for retirement at age 60.
- 80% reduce benefits by 30% or more for retirement at age 55.

Benefit Formula - Private sector practices which reduce the accrued benefit upon early retirement can be summarized as follows (Hay-Huggins data): Of the 63% of companies that reduce pensions by a flat percent per year, 92% provide a 3%-6% per year benefit reduction for early retirement. Of the remaining 37% of companies, 33% reduce benefits through an actuarial reduction.

- 3. Social Security is a basic source of income for those retired in the private sector, but early retirement with immediate benefits (excluding disability) is possible only at age 62. Benefits under Social Security are actuarially reduced from age 65. At age 62, the benefit is 80% of the unreduced amount.
- 4. That 73%-90% of the companies required at least ten (10) years for vesting.
- 5. Hay-Huggins found that in the private sector, formal COLAs occur in only 8% of cases; only 5% provide for the full CPI increase. Of the 5%, 86% limit COLAs to 5% or less. Only 1% of companies provide for full CPI increases of over 5% and only one company of 734 surveyed allows unlimited COLA increases.
- 6. In the private sector, 76% (Bankers) to 86% (Hay) of the companies use final average earnings to determine pension benefits. Of these, 82%-83% base the benefit formula on average salary over five (5) years.
- 7. The formula to calculate the retirement benefits, i.e., the percent of pay for each year of service, breaks down as listed in this chart:

Table 2⁷

% in Formula	Percent of Companies Using Level Percent of Pay Per Year
1.49 and less	19%
1.50	24%
1.51 to 1.75	27%
1.76 to 1.99	3%
2.00	21%
2.01 and greater	<u>6%</u>
Total	100%

Note: Before Social Security integration. Most plans integrate with Social Security benefits, i.e., they reduce private sector pensions by a specified amount when employees receive Social Security retirement benefits, so the net benefit provided by the private sector pension plan is less than shown above.

8. That 89% (Hay) of the private pension plans were integrated with Social Security. This means that a part of the total pension paid to an individual was made up of Social Security Benefits plus benefits from a private pension.

PLAN BENEFIT COMPARISON

Table 38

Comparison of Pension Plan Provisions Private Sector Versus Civil Service and Military

		(1)	(2)	(3)
	<u>Provisions</u>	Typical Private Sector <u>Pension</u>	Civil <u>Service</u>	Military
(1)	Most Common Retirement Age	63	55	40
(2)	Credit for Service	1.2%	1.7%	1.9%(ь)
(3)	Pay Base	Highest 5 Years	Highest 3 years	Highest 3 Years

	Provisions	Typical Private Sector <u>Pension</u>	Civil <u>Service</u>	Military
(4)	Early Retirement Reduction (% Per Year)	3%-6%	2%	(a)
(5)	Indexing (% of CPI)	None	100%	100%
(6)	Vesting (Years of Service)	10	5	(a)
(7)	Social Security (SS) Integration	Usually	No SS	No

⁽a) No early retirement provision; minimum 20 years of service required.

Although Table 3 has made some assumptions it is generally accurate, as many of the plan provisions are legislated and for the civilian sector the most prevalent plan features were used. It is important to note this Table 3 compares the major features that effect the costs of the plans and measures their generosity of benefits.

RECOMMENDED CHANGES

When various actuarial assumptions are changed in a pension plan the results are reflected in the cost of the plan. The recommendations to change some of these plans as made by the PPSS are reviewed below. In some cases the justification for making the changes is also shown.

Retirement Age

The following tables reflect the impact that the Federal pension plans have on lifetime retirement benefits versus those received from private pension plans.

⁽b) Basic Military Compensation (BMC)--includes basic pay, quarters and subsistence allowances, and tax benefits (allowances are nontaxable) and is a measure comparable to salary in the private sector. (Equates to 2.5% credit for each year of military service.)

Table 49

Comparison of Lifetime(a) Pension Benefits

	(1)	(2)	(3)	(4)
	Pre-RetirementSalary	CSRS <u>Benefits(b)</u>	Private Sector Pension Plus Social Security(b)	CSRS Multiple of <u>Private Sector</u>
(1)	\$25,000	\$542,000	\$266,000	2.0X
(2)	50,000	1,085,000	398,000	2.7

⁽a) Total benefits received from retirement to death based upon an actuarially determined life span.

(1)

Table 510

Comparison of Lifetime(a) Pension Benefits Including Social Security

(2)

(3)

	Pre-Retirement Salary	MRS <u>Benefits</u>	Private SectorBenefits	MRS as Multiple of <u>Private Sector</u>
(1)	\$25,000	\$1,072,000(b)	\$176,000(b)	6.1X
(2)	50,000	1,679,000(c)	252,000(c)	6.7

⁽a) Total benefits received from retirement to death based upon an actuarially determined life span.

Based on the results of Table 4 and 5, the PPSS recommended that unreduced benefits from the CSRS and the MRS be available only at age

⁽b) Retirement at age 55 with 30 years of service.

⁽b) Enlisted person, or equivalent private sector retiree, retiring at age 39 with 20 years of service.

⁽c) Officer retiring, equivalent private sector retiree, at age 43 with 20 years of service.

62. This, in effect, would reduce MRS benefits from the ratio shown as 6:1 to a more comparable ratio for all three programs.

Early Retirement

The study did not address reduced benefits for early retirement as it would affect military personnel, but did recommend that benefits for those retiring under the CSRS be reduced by 4% for each year that they retired early.

Benefit Formula

Civil service workers are eligible for retirement with no reduction in the accrued benefit at age 55 with 30 years of service, age 60 with 20 years of service, or age 62 with 5 years of service. The basic CSRS annuity is computed using a percentage of average annual pay during the highest three consecutive years of earnings. The maximum benefit is 80% of retiree's High-3 which is reached with over 41 years of service. The credit for service at 30 years averages out to 1.875% per year. However, since Federal civil service workers contribute toward their retirement benefits, the share of the 1.875% per year credit for service provided by the employer, i.e., the Government, is 1.7% per year.

In the private sector a good plan (not integrated with Social Security, i.e., equivalent to the CSRS value for credit for service) has a credit for service of about 1.2% per year. Thus, the CSRS value of 1.7% at 30 years of service is 42% higher than the good private sector plan value.

Military personnel are eligible for retirement at any age after 20 years of service. The military retiree receives an immediate annuity calculated at 2.5% of basic pay for each year of creditable service,

subject to maximum of 75%. However, basic pay represents about 74% of Basic Military Compensation (BMC), which includes allowances and tax advantages. Therefore, on a basis comparable to the private sector, the credit is 1.9% per year, (2.5% of base multiplied by 74% to convert to BMC) or 58% better than the good private sector plan value.

Based on these facts, the PPSS recommended that the CSRS change the credit per year from the current levels of 1.9% (rounded) for 30 years of service to 1.5% with a Social Security offset. They also recommended that the MRS change its credit per year from the current 1.9% (BMC) to 1.6% (BMC) with a Social Security offset. If a Social Security offset was not adopted the recommendation was to change the MRS credit to 1.3% (BMC) per year. 11

In both cases they also recommended changing the retirement salary calculation to a modification of the last five years of earnings for all plans.

Cost-of-Living Adjustments

The PPSS found that the high cost of CSRS pensions is due in large part to COLAs and to granting full retirement benefits at earlier ages for Federal workers.

For perspective, the following are broad measures of the impact of COLA provisions on retirement costs:

- COLAs increased Federal pensions by 84% during 1973-1979, even though the CPI increased by only 60%.
- Each 1% COLA increase in 1981 added about \$190 million to outlays. The comparable amount in 1970 was \$24 million.
 - COLAs account for about 50% of total military retirement costs. 12

Similarly, the survey showed that COLAs have distorted the relationship between active/retired pay for the military:

- CPI adjustments have resulted in individuals who retired in 1972 receiving current annuities that are more than 75 percent of active duty pay. These same retirees would receive a higher retirement payment than those retiring in 1982 with the same grade and equivalent years of service.
- A general or lieutenant general who retired in 1972 today receives more in retirement pay than identically graded officers receive in active duty pay. 13

These facts led the PPSS to conclude that, in general, COLAs granted to Federal retirees were for more liberal than those granted private sector retirees. This then led to the recommendation that the MRS limit COLA increases for annuitants under age 62 to the lower of the CPI or the military "salary" increase. (Such action would result in a return of "recomputation" of retired pay as described in Chapter II.)

Additionally, the PPSS concluded that since military personnel are covered under Social Security, for retirees age 62 and over, the MRS pension benefit would be limited to COLA adjustments prevalent in the private sector, currently 33% of inflation, on the average. 14

The effect of inflation on a pension is illustrated in Appendix A and the cost of providing a COLA of various amounts are illustrated in Appendix B.

Social Security Integration

The PPSS recommended coordination of CSRS, MRS, and Social Security benefits to recognize the Federal Government as a single employer and to

eliminate windfall benefits resulting from overlapping and duplicate service credits.

They also recommended that all new civil service employees and current employees under age 45 be covered under Social Security through mandatory participation and that their pension benefits be integrated with Social Security by offsets at the prevailing private sector rate, i.e., 1.25% of the primary Social Security benefit, beginning at age 62, for each year of service.

Similarly, the pension system for the military should also be fully integrated with the Social Security system. Current participation of the military in the Social Security system should be redesigned to integrate it with Social Security by offsets at the prevailing private sector rate, i.e., 1.25% of the primary Social Security benefit, beginning at age 62, for each year of military service. 15

Vesting

It was recommended that the MRS be changed to allow members to vest after 10 years of service. It was concluded that not only was the lack of vesting unfair to service members, it caused some to stay in service longer than they wished, just waiting until they were eligible to retire.

Savings

The following table summarizes some of the projected savings which the PPSS estimated would occur if Federal pension costs were reduced so that they are equivalent to pension costs in the private sector.

Table 616

Action	Savings (in Billions)(a)
Retirement Age	\$ 8.2
Early Retirement	3.7
Benefit Formula	42.1
Cost-of-Living Adjustments	10.2
Social Security Integration	2.8
Vesting	(b)

- (a) Savings are based on three years from 1983 present value of savings discounted at 6%.
- (b) Vesting will not save any money. In fact it will probably increase costs which would, if implemented, reduce the savings in other areas.

CHAPTER IV

UNFUNDED FUTURE LIABILITIES -- THE REAL PROBLEM?

The conventional private sector approach to financing pension benefits is for the employer (and the employee if the plan is contributory) to set aside funds—in advance—of the date on which benefits are to be paid. These future retirement costs are called unfunded liabilities and result from current and past employment.

Both the CSRS and the MRS cost accounting procedures reflect only the costs of retirees which are drawing benefits today. However, current employees who are and will be entitled to plan benefits are also a cost to the system. Unfortunately, these costs are largely being ignored. This type of arrangement can be equated to a 65-year-old person, who upon retiring, has no savings, no income and no pension. There is no money set aside to cover such costs for present public pensions so the Federal Government must borrow or tax the people for the amount needed to cover the costs. 17

The MRS is noncontributory, meaning that the Government pays the entire costs of providing benefits. The system operates on a pay-as-you-go basis, and benefits are financed through annual legislative entitlements. As a result, the current DOD budget reflects some of the cost of operating the military services in prior years, but does not include any accrual of retirement costs for current military personnel.

The extent to which future costs are not being paid is reflected in these two tables which shows the current amount of unfunded future liability as of 30 September 1982.

Table 7¹⁸

CSRS Unfunded Liability (\$ Billions)

(1) (2) (3)

(2)

(3)

	Unfunded	Increase fro	Increase from Prior Year	
Fiscal Year	<u>Liability(a)</u>	Amount	percent	
1979	\$403.1	-	-	
1980	469.5	\$66.4	16.5%	
1981	498.9	29.4	6.3	
1982	514.8	15.9	3.2	

(a) Accounts for partial funding from CSRS trust fund.

(1)

Table 8¹⁹

MRS Unfunded Liability (\$ Billions)

Fiscal Year	Unfunded <u>Liability</u>	Increase fro	m Prior Year percent
1979	\$355.8	_	-
1980	431.1	\$75.3	21.2%
1981	476.9	45.8	10.6
1 982	526.8	49.9	10.5

Even with 15.7% of the CSRS currently funded there is still an unfunded amount of \$514 billion in the CSRS. Between the CSRS and the MRS there is an unfunded liability total in excess of one trillion dollars. This one trillion is money that is not recognized in the Federal Budget nor is it included in the National Debt. It is, however, a real commitment which must be borne by the taxpayer in this and future generations. These costs are not potential costs but actual costs that are continuing to accumulate.

Since these plans are funded by only current outlays it is the only cost that is real to the Federal Government. This accounts for the

possibility that Congress could increase benefits with the true total costs hidden from them and the taxpayer. Congress, Federal employees, and taxpayers should not be misled by unrealistic cost estimates because when full costs are not reflected in the budget, and therefore not recognized, there is a tendency for Congress to adopt benefit programs which may not be affordable in the future.

The true and total cost of the Military Retirement System, as well as other Federal pensions, is why current military retirement benefits are being attacked in the opinion of this author. Changes are being asked for to reduce future unfunded liability costs--it's that simple.

CHAPTER V

EFFECT ON RECRUITING AND RETENTION

When reviewing one of the original objectives for having a military retirement plan that is to provide economic security for retired members, one can find little about which to argue concerning the present system unless it would be to allow Social Security to provide some of the benefits after age 62.

The real argument comes when retirement benefits are used for force management—to provide promotion opportunities and for obtaining and retaining the desired number of people at the desired age with the desired experience.

There is no evidence that a retirement program will recruit anyone in and by itself. It would however, have an effect on retention at some point. After a person has obtained certain experiences and maturity a retirement plan becomes an incentive, but the utilization of a low retirement age may be counterproductive since it encourages people to retire at a still productive age.

The PPSS concluded that the MRS has become a work force management tool to control the number and types of personnel the military needs while, in fact, current pay is a much more effective tool for management. It is flexible, efficient, easier to change, effects are immediate and can be used selectively.²⁰

Current pay, which can be used selectively, speaks to the problem of compensating members for hazardous and arduous duties. Compensation for this in the form of higher retirement pay is inequitable for two

reasons. First, of those who enter the service, only 13% ever collect retirement pay; the other 87% are not compensated in this way for hazardous and arduous duty. Second, the same retirement pay goes to all retirees of the same years of service and final pay, regardless of the degree to which each was subjected to hazardous and arduous duty during his military career. For example, of the 1975 retirees, 81% of enlisted personnel and 30% of officers were not assigned to combat during their careers. 21

Such duties can be examined individually to determine hazard or difficulty. Currently, there are many areas which allow special pay-including Leprosy duty pay.

CHAPTER VI

REVISING THE RETIREMENT SYSTEM

Any changes made in the Military Retirement system should be made gradually and with caution. The fact that a large majority of current personnel reenlisted with the expectation of certain retirement benefits makes it necessary to grandfather the majority of current benefits while changes can be instituted for future enlistments.

At the same time, any changes made should accomplish the original objectives for which the program was established. By designing a program which would provide an incentive to reenlist, the objective of retaining personnel for longer careers can be achieved. This would tend to eliminate the need to pay pensions at earlier ages thereby reducing the total cost of the retirement program.

There are hundreds of ways to design a pension program with each design producing different costs and benefits. One such proposed design is illustrated in Table 10 which incorporates several of the features discussed in the findings by the PPSS. Numerous combinations of assumptions can be applied to this design depending on the results desired. The primary difference between the current benefits schedule (Table 9) and the proposed schedule (Table 10) is in the benefit credit for each year of service, the accumulated credits, and the introduction of a vesting schedule.

Table 9

Present Benefit Schedule

Length of Service	Benefit Credit per year	Percent Vested	After <u>Service of</u>	Accum. Credits	Vested * Benefit
Less than 2 years	2.5%	0	l yr.	2.5%	0
2-6	2.5%	0	6 yrs.	15%	0
7-12	2.5%	0	12 yrs.	30%	0
13-15	2.5%	0	15 yrs.	37.5%	0
16-19	2.5%	0	19 yrs.	47.5%	0
20	2.5%	100%	20 yrs.	50%	50.00%
21-25	2.5%	100%	25 yrs.	62.5%	62.50%
26-30	2.5%	100%	30 yrs.	7 5%	75.00%
Over 30	0	100%	30 yrs.	7 5%	75.00%

^{*}Monthly pension, payable for life, commencing at termination age.

Table 10

Proposed Revised Benefit Schedule

Length of Service	Benefit Credit	Percent <u>Vested</u>	After Service of	Accum. Credits	Vested * Benefit
Less than 2 years	0	0	1 yr.	0	0
2-6	1%	0	6 yrs.	5%	0
7-12	3%	25%	12 yrs.	23%	5.75%
13-15	4%	50%	15 yrs.	35%	17.50%
16-19	5%	7 5%	19 yrs.	55%	41.25%
20	5%	100%	20 yrs.	60%	60.00%
21-25	4%	100%	25 yrs.	80%	80.00%
26-30	2%	100%	30 yrs.	90%	90.00%
Over 30	0	100%	30 yrs.	90%	90.00%

*Monthly pension of the "High 3 year" average earnings, payable for life, commencing at age 60. After attainment of age 40, a reduced pension could be elected. The reduced pension would equal the pension due at age 60, reduced by 3% for each year by which age 60 exceeds the age at commencement.

Source: National Life Insurance Company, 1984.
The vesting schedule used in Table 10 is:

25% after completion of 6 years of service 50% after completion of 10 years of service 75% after completion of 15 years of service 100% after completion of 20 years of service

By utilizing the schedule shown in Table 10, emphasis can be placed on accumulating credits at various intervals of service with the main objective of giving a greater benefit for those who remain in service longer. It provides the incentive for reenlistment at the years of

service that are critical by allowing for more benefits the longer one stays without having to complete the full 20 years to qualify for benefits. For example, when applying Table 10, if an individual leaves the service after 6 years of service, he would have no benefits accrued—just as under the present system. However, if he reenlists and stayed until the end of the 12th year he would have some benefits—although small. He would have 25% (vesting) of 23% (accumulated credits) or 5.75% of his then "high 3" average earnings. By reenlisting for three more years he can increase his vested benefit to 17.50%.

An illustration of how the proposed schedule operates requires certain assumptions, one of which is salary. The following table assumes the "high 3 years" average of monthly salary for an individual who enters service at age 20 and quits or retires at the ages shown.

Table 11

<u>Career Path I</u>

	High *
	3 year
<u>Age</u>	<u>Average</u>
25	\$ 846
28	964
31	1140
34	1313
37	1467
40	1598
43	1816
46	1919
49	20 57
52	2057
55	2057
60	2057

^{*} Monthly figures

When these average monthly figures are applied to the benefit structure outlined in Table 10 they result in Vested Accrued Benefits as shown below:

Table 12

<u>Vested Accrued Benefits</u>

Career Path I

A	A	В	С	D
Age At Termi- nation	Average Compen- sation#	Vested Accum. Credits	Proposed Monthly Pension*	Mo. Pension (Current System)
25	\$ 846	0	0	0
28	964	3.00%	\$ 29	0
31	1140	5.00%	57	0
34	1313	15.50%	204	0
37	1467	33.75%	495	0
40	1598	60.00%	959	\$ 799
43	1816	72.00%	1308	1044
46	1919	82.00%	1574	1247
49	2057	88.00%	1810	1491
52	2057	90.00%	1851	1543
55	2057	90.00%	1851	1543
60	20 57	90.00%	1851	1543

A Assumes Entry Age 20. See Table 11.

B See Table 10.

C Payable at Age 60.

D Payable at Termination Age.

Special attention should be paid to the fact that Table 12 shows that the proposed monthly pension is not to be paid until age 60. Therefore, in order to pay a pension before age 60 it would be necessary to reduce the pension if it started before age 60. Table 13 shows the effects of taking a pension prior to age 60 if it is reduced by 3% for each year it is taken early.

Table 13

Monthly Pension Available at Ages Below 60

Career Path I

A	A	В				
Age At Termi- nation	Mon. Pension At Term. Age (Current System)(Ave of High 3)	Proposed Mon. Pens. Payable At Age 60	Reduced Age 55	Pension(c) Age 50	To Comm Age 45	ence At: Age 40
28		\$ 29	\$ 25	\$ 20	\$ 16	\$ 12
31		57	48	40	31	23
34		204	173	143	112	82
37		495	421	347	272	198
40	\$ 799	959	824	671	527	3 84
43	1044	1308	1112	916	719	
46	1247	1574	1338	1102		
49	1491	1810	1 53 9	1 267		
52	1543	1851	1573			
55	1543	1 851	1573			
60	1543	1851				

A Assumes entry age 20.

B See Table 12.

C Monthly Pension at age 60(B), reduced by 3% for each year prior to 60. Source: National Life Insurance Company, 1984.

To further illustrate the impact that the application of Table 12 has on benefits and total cost savings a comparison of lump sum equivalents is made in Table 14.

Table 14

Comparison of Lump Sum Equivalents
Career Path I

A	A	В	С	В	D	В
Age At Termi- nation	Monthly Pen- sion (Current System) Payable at Term. Age (Ave of High 3)	Approx. Lump Sum Equiv at Term Age	Proposed Pension Payable At Age 60	Approx. Lump Sum Equiv at Age 60	Reduced Pens. at Later of: Term. Age or Age 40	Approx. Lump Sum Equiv at Later of: Term Age or Age 40
28			\$ 29	\$ 5987	\$ 12	\$ 4250
31			57	11768	23	8147
34			204	42116	82	29045
37			495	102194	198	70132
40	\$ 799	\$283007	9 59	197987	384	136013
43	1044	3 46 84 9	1308	270039	641	21 2960
46	1247	386512	1574	324955	913	282987
49	1491	428762	1810	373678	1213	348819
52	1543	40 92 27	1851	382142	1407	373158
55	1 543	374941	1851	382142	1573	382231
60	1543	31 8555	1851	3 821 42		

A Assumes entry age 20.

B Based on mortality experience of non-disabled officers, interest at 6%, and an annual Col. adjustment of 5%. No Col. adjustment during period from termination to commencement of benefit payments.

C See Table 12.

D See Table 13.

While there is no requirement for doing so, there could be a provision to pay--in cash--the lump sum equivalent when pensions are small and are allowed at early ages. This eliminates administrative costs and would also compensate on a current basis rather than on a deferred basis.

The illustrations shown in this chapter are designed to incorporate some of the recommendations made by the PPSS while showing the effect on an individual. Many combinations are available, but if charges must be made, there are some that are more productive than others. Additional results are shown in Appendixes C and D where only salary is the variable.

The purpose of this chapter is to demonstrate the amount of savings on one individual if pensions are not paid until a deferred date rather than at termination. Additionally, it is intended to demonstrate that the additional cost to reward those who stay in service longer is not that great.

Table 10 could be modified to increased benefits at any year of service if that year proves more meaningful in terms of reenlistments.

CHAPTER VII

CONCLUSION

OVERVIEW

Should the present Military Retirement System be changed? Probably so! That is, if Table 5 is correct when it indicates that the MRS is six (6) times greater than a private sector plan.

On the other hand, maybe it should not be changed if it is the only Federal retirement program or Federal entitlement that is to be cut. Why should the military be the one that sustains the cuts when other programs contribute equally to the tax burden. Obviously, it is the unfunded future liability that is the real problem, the same kind of unfunded liability that Social Security has generated. In fact, the recent changes in Social Security were designed to help eliminate some of the unfunded future liability problems but the changes were few and are predicted to be too little to solve the problem. The fact of the matter is that the problem will most likely have to be dealt with again in the near future.

When the <u>President's Private Sector Survey on Cost Control</u> was studied by the Congressional Budget Office and the General Accounting Office, they agreed that if all of the recommendations were to be implemented at one time the following would be the results: 22

Table 15

Present Cash Value of Lifetime Retirement Benefit

Pay Grade	Years of Service	Current System	PPSS	Percent Reduction
E-7	20	\$271,000	\$ 59,620	7 8%
E-9	30	474,000	180,120	62%
0-5	20	576,000	178,560	6 9%
0-6	30	785,000	392,500	50%

It is because Congress failed to make all of the necessary changes in Social Security that leads this author to conclude that changes in the Military Retirement System that would reduce benefit to the level of the average private pension plan or even to the CSRS are very remote. Certainly it would not be feasible to expect current military members to take such a cut, at least those who have over five years of service. One could expect such changes as outlined in Table 15 to take place gradually and starting with personnel who have not yet entered the service. If any change took place in the near future it would probably be in the areas which are affected by the Cost-of-Living Allowances (COLAs). It is their use that can cause the future unfunded liability to accelerate drastically. Appendix B illustrates how costs grow at various COLA rates.

What can be done to keep the present system? After all, the military is not a strong political force--unlike other Federal employees.

Military personnel have a unique sense of national loyalty which suppresses questions and outward reaction. They have no union or special lobby group to express their collective position. Therefore Congress, through the taxpayer, should be made aware that the military should not bear the burden alone--that a collective sacrifice must be made to

reduce the National Budget. All programs must be cut--not just the military--if real savings are to be achieved.

RECOMMENDATIONS

If however, changes must be made, they should be made in phases and in conjunction with changes in other Federal programs. Changes in the Military Retirement System should probably be designed to incorporate the following:

- The utilization of current pay to compensate for hazardous duty or special skills.
 - A vesting schedule for those members who do not complete 20 years.
 - Reduce COLAs to one-half of the CPI.
- Grandfathering of benefits for members with at least five years of service.

In no event should military retirement benefits be reduced below the level enjoyed by those who are covered under the Civil Service Retirement System. Although changes must be made to reduce Federal spending all of the cuts under the retirement systems don't have to come from the Military Retirement System. Any move to cut only one sector, especially one with the loyalty of military, should be examined closely and in the light of the production received for the benefits paid.

APPENDIX A

This chart indicates the number of years that it would take for inflation to cut a fixed pension by <u>one-half</u> assuming various inflation rates.

By the end of: (Approx years)	If the Annual Rate of Inflation were:		
70	1%		
35	2%		
23	3%		
18	4%		
15	5%		
12	6%		
11	7%		
9	8%		

APPENDIX B

Illustration of the Effect on Total Cost-ofLiving Increases

If Pens. is Paid for a Period of	Total Cost* of a \$1000 Level Mon. Pension		ost* of a \$100 with an Annua 3%		•
5 years	\$ 60,000	\$ 62,448	\$ 63,710	\$ 64,996	\$ 66,308
10 years	120,000	131,397	137,567	144,073	150,935
15 years	180,000	207,521	223,187	240,283	258,943
20 years	240,000	291,568	322,444	357,337	396,791
25 years	300,000	384,364	437,511	499,751	572,725
30 years	360,000	486,817	570,905	673,019	797,266
35 years	420,000	599,934	725,545	883,827	1,083,844
40 years	480,000	724,824	904,815	1,140,306	1,449,597
45 years	540,000	862,713	1,112,638	1,452,353	1,916,402
50 years	600,000	1,014,953	1,353,562	1,832,005	2,512,176

^{*} Total of Benefits paid by end of indicated period.

APPENDIX C

<u>Vested Accrued Benefits</u>

Career Path II

A	A	В	C	D
Age At Termi- nation	Average Compen- sation	Vested Accum. Credits	Proposed Monthly Pension	Mo. Pension (Current System)
25	\$ 902	0	0	0
28	1129	3.00%	\$ 34	0
31	1509	5.00%	75	0
34	1650	15.50%	2 56	0
37	1853	33.75%	625	0
40	2022	60.00%	1213	\$1011
43	2316	72.00%	1668	1332
46	2500	82.00%	2050	1625
49	26 27	88.00%	2312	1905
52	26 27	90.00%	2364	1970
55	26 27	90.00%	2364	1970
60	26 27	90.00%	2364	1970

A Assumes entry age 20 - Average High 3.

B See Table 10 - Proposed Accumulation Credits.

C Payable at Age 60.

D Payable at Termination Date.

APPENDIX C-1

Monthly Pension Available at Ages Below 60

Career Path II

A	A	В				
Age At Termi- nation	Mon. Pension At Term. Age (Current Sys- tem)(Ave of High 3)	Proposed Mon. Pens. Payable At Age 60	Reduced Age 55	Pension(c) Age 50	To Comm Age 45	ence At: Age 40
28		\$ 34	\$ 29	\$ 24	\$ 19	\$ 14
31		75	64	53	41	30
34		256	218	179	141	102
37		625	531	438	344	250
40	\$1011	1213	1031	849	667	485
43	1332	1668	1 41 8	1168	917	
46	1625	2050	1743	1435		
49	1 90 5	2312	1965	1618		
52	1970	2364	2009			
55	1 970	2364	2009			
60	1970	2364				

A Assumes entry age 20.

B See Appendix C.

C Monthly Pension at age 60, reduced by 3% for each year prior to age 60.

APPENDIX C-2

Comparison of Lump Sum Equivalents

Career Path II

A	A	В	С	В	D	В
Age At Termi- nation	Monthly Pension (Current System) Payable at Term. Age (Ave of High 3)	Approx. Lump Sum Equiv at Term Age	Payable	Approx. Lump Sum Equiv at Age 60	Reduced Pens. at Later of: Term. Age Age 40	Approx. Lump Sum Equiv at Later of: Term Age Age 40
28			\$ 34	\$ 7019	\$ 14	\$ 4959
31			75	15484	30	10626
34			2 56	52852	102	36129
37			625	129032	250	88550
40	\$1011	\$358098	1213	250426	485	171788
43	1332	442532	1668	344362	817	271433
46	1625	503674	20 50	423226	1189	368534
49	1 90 5	547 81 5	2312	477317	1549	445441
52	1 970	522474	2364	488052	1797	476592
55	1970	478700	2364	488052	2009	488176
60	1 970	406710	2364	488052		

A Assumes entry age 20.

B Based on mortality experience of non-disabled officers, interest at 6%, and an annual Col. adjustment of 5%. No Col. adjustment during period from termination to commencement of benefit payments.

C See Appendix C.

D See Appendix C-1.

APPENDIX D

Vested Accrued Benefits
Career Path III

A	A	В	С	D
Age At Termi- nation	Average Compen- sation	Vested Accum. Credits	Proposed Monthly Pension	Mo. Pension (Current System)
26	\$1353	0	0	0
28	1765	0	0	0
31	2117	3.00%	\$ 64	0
34	2320	5.00%	116	0
37	2570	15.50%	398	0
40	2891	33.75%	976	0
43	3217	60.00%	1930	\$1609
46	3 6 53	72.00%	2630	2100
49	3 946	82.00%	3236	2565
52	4163	88.00%	3663	3018
55	4163	90.00%	3747	3122
60	4163	90.00%	3747	3122

A Assumes entry age 23 - Average High 3.

B See Table 10 - Proposed Accumulation Credits.

C Payable at Age 60.

D Payable at Termination Date.

APPENDIX D-1

Monthly Pension Available at Ages Below 60

Career Path III

A	A	В				
Age At Termi- nation	Mon. Pension At Term. Age (Current Sys- tem)(Ave of High 3)	Proposed Mon. Pens. Payable At Age 60	Reduced Age 55	Pension(c) Age 50	To Comm Age 45	ence At: Age 40
28		0	0	0	0	0
31		\$ 64	\$ 54	\$ 45	\$ 35	\$ 26
34		116	99	81	64	46
37		398	338	27 9	219	159
40		976	830	6 83	537	3 90
43	\$1609	1930	1640	1351	1062	
46	2100	2630	2236	1 841		
49	2565	3236	27 51	2 26 5		
52	3018	3663	3114			
55	3122	37 47	31 85			
60	3122	3747				

A Assumes entry age 23.

B See Appendix D.

C Monthly Pension at age 60, reduced by 3% for each year prior to 60.

APPENDIX D-2

Comparison of Lump Sum Equivalents

Career Path III

A	A	В	c	В	D	В
Age At Termi- nation	Monthly Pen- sion (Current System) Payable at Term. Age (Ave of High 3)	Approx. Lump Sum Equiv at Term Age	Proposed Pension Payable At Age 60	Approx. Lump Sum Equiv at Age 60	Reduced Pens. at Later of: Term. Age Age 40	Approx. Lump Sum Equiv at Later of: Term Age Age 40
28			0	0	0	0
31			\$ 64	\$13213	\$ 26	\$ 9209
34			116	23948	46	16293
37			398	82168	159	56318
40			976	201497	3 90	138139
43	\$1609	\$534560	1930	3 984 52	946	314291
46	2100	650902	2630	542968	1525	47 267 9
49	2 56 5	737609	3236	668078	2168	623445
52	3018	800420	3 663	7 56 233	27 84	738359
55	3122	758630	3747	773575	3185	773938
60	3122	644543	3747	773575		

A Assumes entry age 23.

B Based on mortality experience of non-disabled officers, interest at 6%, and an annual Col. adjustment of 5%. No Col. adjustment during period from termination to commencement of benefit payments.

C See Appendix C.

D See Appendix C-1.

APPENDIX E

GLOSSARY

Actuarial Equivalent - If the present values of two series of payments are equal, taking into account a given interest rate and mortality according to a given table, the two series are said to be actuarially equivalent on this basis. For example, a lifetime monthly benefit of \$67.60 beginning at age 60 (on a given set of actuarial assumptions) can be said to be the actuarial equivalent of \$100 a month beginning at age 65. The actual benefit amounts are different but the present value of the two benefits, considering mortality and interest, is the same.

Amortization - Paying an interest-bearing liability by gradual reduction through a series of installments, as opposed to one lump-sum payment.

Annuitant - A person entitled to receive payments under an annuity or now receiving such payments.

Annuity - A contract that provides an income for a specified period of time, such as a number of years or for life.

<u>Assumptions</u> - Conditions and rules underlying the calculation of a pension benefit, including expected interest, mortality and turnover.

<u>COLA</u> - Cost of living adjustment designed to protect against the adverse effects of inflation on the purchasing power of fixed income pensions.

<u>Covered</u> - A person covered by a pension plan is one who has fulfilled the eligibility requirements in the plan, for whom benefits have accrued, or are accruing, or who is receiving benefits under the plan.

<u>CPI</u> - Consumer Price Index--measures changes in the retail prices that consumers in representative large and small cities pay for food, housing, clothing, transportation, medical and dental care, and recreation. There are 265 items included from 85 cities.

<u>Deferred Annuity</u> - An annuity under which payment will begin at some definite future date, such as in a specified number of years or at a specified age.

Early Retirement - Retirement of a participant prior to the normal retirement date, usually with a reduced amount of annuity. Early retirement is generally allowed at any time during a period of 5 to 10 years preceding the normal retirement date.

Eligibility Requirements - This term refers to the conditions which an employee must satisfy to participate in a retirement plan.

Entitlement - A Federal program that guarantees a certain level of benefits to persons who meet the requirements set by law. Congress has no discretion as to how much money to appropriate.

<u>Funded Retirement Plan</u> - A plan under which funds are set aside-in advance-to provide expected benefits.

<u>Immediate Annuity</u> - An annuity providing for payment to begin immediately.

<u>Integration</u> - A coordination of the pension benefit with the Social Security benefit through a specific formula.

<u>Lump Sum Equivalent</u> - A single payment which, based on certain assumptions, has at a given time a value equivalent to a stream of annuity payments.

Mortality Table - A table showing how many members of a group, starting at a certain age, will be alive at each succeeding age. It is used to calculate the probability of dying in, or surviving through, any period, and for the valuation of an annuity. To be appropriate for a specific group, it should be based on the experience of individuals having common characteristics, such as sex or occupation.

Normal Costs - The amount of money paid each year to pay current retirement benefits. (For pay-as-you-go plans.)

<u>Pension Benefits</u> - A series of payments to be provided in accordance with the plan of benefits.

Present Value - See Actuarial Equivalent.

Rule-of-72 - Method to determine the number of years it takes for money to double at an assumed interest rate. Example: At 9% money will double in 8 years. (72 divided by 9% equals 8 years)

<u>Total Costs</u> - Includes Normal Costs plus the Amortization in equal annual amounts of previously accrued but unfunded pension liabilities for current annuitants.

<u>Vesting</u> - A provision that a pension participant will, after meeting certain requirements, retain a right to all or part of the accrued benefits, even though the employee may leave the job before retirement.

ENDNOTES

- 1. US President's Private Sector Survey on Cost Control,

 Management Office Selected Issues, Vol. VI: Federal Retirement Systems,
 pp. 2, 3.
 - 2. <u>Ibid</u>., p. 6.
 - 3. Ibid., p. 24.
 - 4. <u>Ibid</u>., p. 25.
 - 5. <u>Ibid</u>., p. 27.
 - 6. Ibid., p. 28.
 - 7. <u>Ibid</u>., p. 31.
 - 8. <u>Ibid</u>., p. 36.
 - 9. <u>Ibid</u>., p. 47.
 - 10. <u>Ibid.</u>, p. 47.
 - Il. <u>Ibid.</u>, p. 78.
 - 12. <u>Ibid.</u>, p. 89.
 - 13. <u>Ibid.</u>, p. 91.
 - 14. <u>Ibid</u>., p. 94.
 - 15. <u>Ibid.</u>, p. 103.
 - 16. <u>Ibid</u>., p. x.
 - 17. <u>Ibid</u>., p. 117.
 - 18. <u>Ibid</u>., p. 39.
 - 19. <u>Ibid.</u>, p. 42.
 - 20. <u>Ibid</u>., p. 118.
 - 21. <u>Ibid</u>., p. 51.
- 22. Martha Lynn Craver, "Grace's Cuts Would Harm Military, Study Says," Army Times (Springfield), 12 December 1983, p. 12.

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 2d ed. Washington: July 82.
- US President's Private Sector Survey on Cost Control. <u>Management office</u>
 <u>Selected Issues, Vol. VI: Federal Retirement Systems</u>. Washington:
 10 January 1984.
- Craver, Martha Lynn. "Grace's Cuts Would Harm Military, Study Says."

 <u>Army Times</u> (Springfield), 12 March 1984, p. 12.

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