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Accrual Funding of Military Retirement Health Care: FY94 Funding Estimates

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Executive Summary

ACCRUAL FUNDING OF MILITARY RETIREMENT HEALTH CARE: FY94 FUNDING ESTIMATES

BACKGROUND

The Department of Defense provides health care for military retirees, their dependents, and their survivors, as a retirement benefit. That care is delivered directly at military medical treatment facilities (MTFs) and through reimbursement by the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). Active Component retirees are entitled to medical benefits upon retirement; Reserve Component retirees at age 60. Eligibility for use of MTFs continues for life, while eligibility for CHAMPUS ends when the individual beneficiary (retiree, dependent, or survivor) becomes eligible for Medicare.

In 1985, DoD stopped financing military retirement pay as a current operating expense and began financing it on an accrual basis. Under accrual funding, the employer (DoD) places funds to cover retirement benefits into an interest-bearing trust fund during the period of employment when the obligation is earned. When DoD delivers the benefits, it withdraws funds from the trust fund to pay for them. The objective of accrual funding is to reflect the true cost of labor by showing the cost of benefits when the benefit is earned – i.e., during military service.

To align the funding of retirement pay and medical benefits, the DoD Comptroller asked the Logistics Management Institute (LMI) to develop a plan for shifting the retirement health care benefit funding to an accrual system. The results of our efforts were documented in LMI Report CO101R1, *Accrual Funding of Military Retirement Health Care*, published in January 1992, which contains accrual funding estimates as of 1 October 1992 for FY93. Detailed discussions of the military retirement health care benefit, accrual funding, and management options for a military retirement health care accrual funding program are in that document. This report supplements CO101R1 by updating the accrual funding

estimates to 1 October 1993 for FY94 and further disaggregating the estimates for different categories of military manpower.

There are two accrual funding estimates for military retirement health care. First, there is the estimate of the *annual trust fund deposit*, which covers benefits earned with military service in the coming fiscal year (in this case, FY94). The second is the *unfunded accrued liability (UAL)*, which represents DoD's future liability to current retirees and service members for benefits earned with military service before 1 October 1993. Looking at the UAL in another way, it would be the balance of the trust fund on 1 October 1993 if retirement health care had always been funded on an accrual basis.

FY94 ANNUAL DEPOSIT

The annual deposit is computed as a function of an *average cost per service man-year (ACSM)*. This is the cost of future retirement health care benefits for those current Service members who will retire, spread over all current Service members, including those who will not retire. Each man-year of service (labor) by military personnel generates the same deposit into the trust fund, whatever paygrade or seniority. This procedure differs from that applied to the military retirement pay trust fund, which calculates its deposits as percentages of military basic pay. Our calculations use the ACSM because, unlike retirement pay, the military retirement health benefit is not related to the retiree's military pay.

We computed the ACSMs using the same new-entrant cohort actuarial method employed by the staff of the DoD Actuary for their retirement pay calculations. We based our projections of future health care benefit costs on actual MTF expenditures and on CHAMPUS claims from FY88 through FY91. Extracts from the Defense Eligibility Enrollment Reporting System covering eligible beneficiaries and their sponsors were obtained from the Defense Manpower Data Center.

Wherever possible, we used the data, calculations, demographic projections, and assumptions used by the DoD Actuary's staff in their calculations. These include a 5 percent general inflation rate and a 7.5 percent return on trust fund assets. We were assisted in our efforts by the actuarial firm of Milliman & Robertson, Inc., which has wide experience in this field.

For FY94, we have disaggregated the ACSMs by the following:

- Benefit delivery (MTFs, CHAMPUS)
- Military Component (Active, Reserve)

- Personnel category (officer, enlisted)
- Military Service (Army, Navy, Air Force, Marine Corps).

This disaggregation results in a total of 32 different ACSMs, one for each combination of these categories.

Multiplying the ACSM by the average military man-years projected for FY94 yields the trust fund annual deposit. We estimate the total DoD FY94 annual deposit to be \$6.21 billion.

UNFUNDED ACCRUED LIABILITY

The UAL is the present value, on 1 October 1993, of all future retirement health care benefits for current retirees and military personnel earned with service before 1 October 1993. The UAL is an expression of an obligation already incurred by the U.S. Government: benefits earned before the start of accrual funding. Using the actuarial approach and assumptions and the demographic profile of the current retiree population from our ACSM calculations, we estimate the UAL at \$213.33 billion as of 1 October 1993.¹

CHANGE FACTORS

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Our current FY94 estimated annual deposit of \$6.21 billion and UAL of \$213.33 billion compare to those calculated in 1991 for FY93 of \$6.76 billion for the annual deposit and \$294.78 billion for the UAL. The following are the major factors contributing to the changes in our estimates:

- Reduced force levels projected for FY94
- Better data on CHAMPUS claims and eligible population
- Reduction in the assumed MTF cost growth rate, starting at 9 percent rather than 12 percent
- Increase from 7.0 percent to 7.5 percent in the assumed return on trust fund investments.

Our estimates of the actual effects of these and other change factors are discussed in Chapter 3.

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¹See LMI Report CO101R1, *Accrual Funding of Military Retirement Health Care*, Melvin R. Etheridge, Jr., Edward D. Simms, Jr., and Irv Greenberg, January 1992, for a discussion of options for funding or amortizing the UAL.

SUMMARY

Accrual funding of retirement health care recognizes the cost of an existing obligation to Military Service members. It does not change the actual cost of the benefits but does make the cost visible for consideration when managers evaluate manpower policy alternatives. If accrual funding starts in FY94, the DoD deposit for benefits earned in FY94 would be \$6.21 billion. The UAL for retirement health care benefits earned before 1 October 1993 would be \$213.33 billion.

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CHAPTER 1

INTRODUCTION

BACKGROUND

In addition to retirement pay, the Department of Defense provides military personnel a retirement health care benefit consisting of health care for retirees, their dependents, and their survivors delivered through the Military Health Services System (MHSS). In 1991, the DoD eligible retired population was 4.0 million beneficiaries: 1.7 million retirees, 1.6 million spouses, and 0.7 million children and others.¹

Today, DoD treats the cost of retirement health care as a current operating expense. Each year it budgets funds to pay for the retirement health care it expects to deliver that year. Increasing medical costs have highlighted the significance of retirement health care costs to both DoD and private industry. The cost of labor includes the cost of retirement benefits. Thus, funding the retirement health care benefit as a current operating expense (years after the benefit was earned) masks the true cost of military service (labor).

Accrual funding places funds for retirement benefits into an interest-bearing trust fund during the period of employment, to be withdrawn to pay for the benefits as they are delivered. Under accrual funding, the employer pays for retirement benefits as the labor is performed, in this case during military service. The objective of accrual funding is to include future (retirement) benefits costs in the total cost of labor.

If the cost of future benefits is shown as a part of current labor costs, a more accurate representation of the true cost of labor emerges. Knowing a more accurate labor cost helps managers make sound military manpower decisions. Recognizing this fact, DoD shifted military retirement pay to accrual funding in 1985. Shifting the retirement health care benefit to accrual funding would align it with the retirement pay benefit.

¹Hereafter, unless stated otherwise, terms such as "dependents of retirees," "spouses of retirees," etc., include the corresponding group of survivors of retirees.

The private sector is also adopting this approach. Under rules adopted in 1990 by the Financial Accounting Standards Board, accrual accounting for retirement health care will be a requirement for large companies starting in 1993.

TASK DESCRIPTION

The Logistics Management Institute (LMI) was asked to develop a plan for shifting military retirement health care funding to an accrual basis. In Phase I of this task, we provided preliminary estimates of accrual funding for FY92.² In Phase II, we estimated military retirement health care accrual funding as of 1 October 1992. The results of Phase II were documented in LMI Report CO101R1, *Accrual Funding of Military Retirement Health Care*,³ which contains accrual funding figures for FY93 and draft plans for setting up and operating an accrual funding system for military retirement health care.

A final decision on implementing military retirement health care accrual funding was not made for the FY93 DoD Budget. As a result, LMI was asked to undertake Phase III to update the accrual funding estimates contained in CO101R1 to 1 October 1993. The present report gives our updated accrual funding estimates and discusses some factors contributing to the changes in these figures that occurred between Phase II and Phase III. The reader may refer to CO101R1 for detailed discussions of the military retirement health care benefit, of accrual funding in general, and of management options for a military retirement health care accrual funding program.

We were assisted throughout this effort by Milliman & Robertson, Inc., an actuarial firm with wide experience in the health care and employee benefits fields. Upon completing our work in Phase III, we will turn over all data files to the DoD Actuary.

²We reported the results of Phase I in LMI Report CO101TR1, *Accrual Funding of Military Health Care, Phase I Report*, Melvin R. Etheridge, Jr., Edward D. Simms, Jr., and Irv Greenberg, March 1991.

³LMI Report CO101R1, *Accrual Funding of Military Retirement Health Care*, Melvin R. Etheridge, Jr., Edward D. Simms, Jr., and Irv Greenberg, January 1992.

CHAPTER 2

FY94 ACCRUAL FUNDING ESTIMATES

We expect that a trust fund for military retirement health care would be similar to the existing fund for military retirement pay. The proceeds would reimburse DoD for health care provided to military retirees and their dependents. The fund's capital would be invested in special U.S. Treasury securities drawing interest at rates similar to those paid on comparable Treasury securities available in commercial markets.

We have calculated two basic figures for FY94 military retirement health care accrual funding. First, there is an *annual trust fund deposit*, covering benefits earned with military service in FY94. The second figure is the *unfunded accrued liability (UAL)*, representing DoD's future liability to current retirees and service members for benefits earned with military service before 1 October 1993. Another way to look at the UAL is as the balance of the trust fund on 1 October 1993 if retirement health care had always been funded on an accrual basis.

DEPOSIT CALCULATIONS

Unlike military retirement pay, retirement health care benefits are not related to the retiree's military pay. Therefore, we calculate our trust fund deposits as a flat cost per man-year of military service. This approach differs from the one used in military retirement pay accrual funding, which calculates a percentage of military basic pay, called a *normal cost percentage (NCP)*.

AVERAGE COST PER SERVICE MAN-YEAR

We term the flat cost the *average cost per service man-year (ACSM)*. It is the cost of future retirement health care benefits for those current service members who will retire, spread over all current service members, including those who will not retire. We use the same entry-age-normal actuarial funding method used by the DoD Actuary for retirement pay NCP calculations. Details of our calculation methodology are contained in Appendix A.

We used actual military medical treatment facility (MTF) expenditures, individual Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) claims, and extracts from the Defense Eligibility Enrollment Reporting System (DEERS) to establish a baseline for projections of future retirement health care benefit costs. Data were obtained from the Assistant Secretary of Defense for Health Affairs [ASD(HA)] and the Defense Manpower Data Center (DMDC). Wherever possible, we used the data, calculations, demographic projections, and assumptions used by the DoD Actuary in the military retirement pay accrual funding system, including a 5 percent general inflation rate and a 7.5 percent return on trust fund assets. Survival rates to retirement for personnel accessions of each Military Service were obtained from the Assistant Secretary of Defense for Force Management and Personnel [ASD(FM&P)].

For FY94, we calculated ACSMs broken down, or "disaggregated," by the retirement health care delivery system (MTFs/CHAMPUS), Military Component (Active/Reserve), personnel category (officer/enlisted), and Military Service (Army, Navy, Air Force, Marine Corps).¹ This procedure results in a total of 32 different ACSMs, listed in Table 2-1. We have also aggregated ACSMs across all possible combinations. These are listed in Appendix B.

Also, the "Total" column of Table 2-1 shows the sum of the MTF and CHAMPUS ACSMs for each group. This sum represents the total cost per man-year for both retirement health care delivery systems.

Lacking actuarial data broken down by Service, we calculated actuarially correct ACSMs for DoD as a whole – the "all DoD" figures in Table 2-1. We then allocated these ACSMs to the Services according to the survival rates to retirement of each Service's Active Component. Table 2-2 shows these rates.

¹For the purposes of a military retirement health care accrual funding system, we make the following distinctions: the active component includes military reservists who serve full-time in support of the National Guard or Reserves. These service members are eligible for retirement health care benefits upon retiring, while other retired reservists are not eligible for benefits until age 60. Further, figures for the Army Reserve and the Air Force Reserve include the Army National Guard and Air National Guard, respectively.

TABLE 2-1
FY94 AVERAGE COSTS PER SERVICE MAN-YEAR
(Dollars)

Category	Delivery System		
	MTF	CHAMPUS	Total
Active – All DoD, officer and enlisted	1,628	1,213	2,841
Officer – all DoD	2,686	1,747	4,433
Army	2,602	1,693	4,295
Navy	2,494	1,622	4,116
Air Force	3,144	2,045	5,189
Marine Corps	1,735	1,128	2,863
Enlisted – all DoD	1,442	1,119	2,562
Army	1,042	809	1,851
Navy	1,158	899	2,057
Air Force	2,663	2,067	4,730
Marine Corps	811	629	1,440
Reserve & National Guard – all DoD, officer and enlisted	1,000	279	1,279
Officer – all DoD	1,606	389	1,996
Army Reserve/National Guard	1,563	379	1,941
Navy Reserve	1,498	363	1,860
Air Force Reserve/Air Guard	1,888	458	2,346
Marine Corps Reserve	1,042	252	1,294
Enlisted – all DoD	888	259	1,147
Army Reserve/National Guard	667	194	861
Navy Reserve	741	216	957
Air Force Reserve/Air Guard	1,705	496	2,201
Marine Corps Reserve	519	151	670

Note: "MTF" + "CHAMPUS" may not equal "Total" due to round-off.

TABLE 2-2
SERVICE SURVIVAL RATES TO RETIREMENT
(Active Component)

Service	Officer	Enlisted
Army	24%	9%
Navy	23%	10%
Air Force	29%	23%
Marine Corps	16%	7%

The allocation process is described in detail in Appendix A. While it is quantitative, it is not as detailed and precise as those used by an actuary. To calculate Service-specific ACSMs directly, all of the data and calculations that we obtained from the DoD Actuary would need to be duplicated for each Service individually. In other words, while the all-DoD ACSMs are actuarially calculated, the Service ACSMs are only derivations of the all-DoD ACSMs. Therefore, *all budget calculations should use the all-DoD ACSM*. The Service-specific ACSMs should be used for cost analysis studies only.

The ACSM is *NOT* the per capita health care cost of current retirees. Since there are no individual retirement accounts in the military, accrual funding spreads the cost of the retirement benefit across all service personnel, whether or not they will retire. The ACSM is the money that must be deposited in FY94 for *every* current service member so that sufficient funds will be available to finance the retirement health care of those current service members *who eventually retire*.

FY94 ANNUAL TRUST FUND DEPOSIT

The FY94 annual trust fund deposit was calculated by multiplying the all-DoD total ACSMs by the service man-years for each group, as shown in Table 2-3. We estimated FY94 service man-years by averaging the FY93 and FY94 endstrengths set forth in the February 1992 FY93 DoD Budget submission. Summing the category deposits results in a total DoD annual trust fund deposit for FY94 of \$6.21 billion.

TABLE 2-3

FY94 TRUST FUND DEPOSIT CALCULATIONS

Category	Total ASCM (\$)	FY94 Man-years	Deposit (\$ millions)
Active			
Officer	4,433	265,551	1,177.3
Enlisted	2,562	1,513,379	3,876.7
Reserve & National Guard			
Officer	1,996	141,065	281.5
Enlisted	1,147	764,009	876.4
Total FY94 DoD deposit	N/A	N/A	6,211.8

Note: Category deposits do not sum to "total" due to rounding.

We did not use marginal costs in our calculations. All fixed costs of the MHSS have been spread across all beneficiary categories, including retirees and their dependents. Large force level changes in the current military population would presumably reduce the number of future retirees. They would also drive up the current retirees' share of fixed costs. The significant changes in the American military forces that will be taking place in the future will cause unforeseeable changes in the costs of retirement health care. As these changes take place and can be measured, the annual process of trust fund management and deposit calculation will reflect them.

UNFUNDED ACCRUED LIABILITY

Thus far, we have discussed DoD's obligation for retirement health care benefits earned for current military service. There is also an obligation of the U.S. Government to current retirees and military personnel for retirement health care benefits earned by military service before accrual funding starts. The present value of this liability is the UAL.

The UAL is the present value of the liability for all future benefits of current service members and retirees, less the sum of future contributions by current service members, plus current fund assets. At the start of accrual funding, the fund assets are zero and future annual deposits are expected to cover benefits earned in later years. So, at the start of accrual funding, the UAL is simply the sum of the remaining benefits earned before accrual funding starts.² We have estimated the UAL at \$213.33 billion as of 1 October 1993. The UAL is broken down by personnel category and delivery system in Table 2-4.

²Unless otherwise noted, for the purposes of this report, "UAL" refers to the unfunded accrued liability at the start of accrual funding. The definition, however, can be applied at any time. The UAL would then include any unamortized portion of the start-up UAL plus any under-funding or over-funding of benefits after the accrual funding program has begun.

TABLE 2-4
UNFUNDED ACCRUED LIABILITY

Personnel category	Delivery system	UAL (\$ billions)
Current active	MTF	39.08
	CHAMPUS	30.78
	Subtotal	69.86
Current reserve	MTF	4.69
	CHAMPUS	1.39
	Subtotal	6.08
Current retirees	MTF	103.82
	CHAMPUS	33.57
	Subtotal	137.39
Total		213.33

CHAPTER 3

COMPARISON WITH FY93 ESTIMATES

During 1991, LMI calculated accrual funding estimates for FY93. During 1992, we updated those estimates for the FY94 DoD Budget. This chapter compares the estimates for the 2 years and discusses the major factors contributing to the changes. Since most of the change factors apply to both the annual deposit and to the UAL, we will first compare the estimates, then discuss the change factors.

ANNUAL DEPOSIT COMPARISON

We disaggregated the FY93 average costs per service man-year (ACSMs, described in CO101R1) used in calculating the annual deposit by Military Component (Active, Reserve) and health care delivery system (MTF, CHAMPUS). During the current effort, we further disaggregated our ACSMs by Military Service (Army, Navy, Air Force, and Marine Corps) and personnel category (officer, enlisted). Table 3-1 compares our ACSM estimates for FY93 and FY94. For the purposes of comparison, we have "reaggregated" our FY94 ACSMs.

TABLE 3-1

ACSM COMPARISON
(FY93 to FY94)

Military Component, Delivery System	FY93 (\$)	FY94 (\$)	Δ (\$)
Active MTF	2,404	1,628	-776
CHAMPUS	1,047	1,213	166
Total	3,451	2,841	-610
Reserve MTF	135	1000	865
CHAMPUS	31	279	248
Total	166	1,279	1,113

Table 3-2 compares the FY93 and FY94 annual trust fund deposit calculations.

TABLE 3-2
ANNUAL TRUST FUND DEPOSIT COMPARISON
(FY93 - FY94)

Military Component	FY	Total ACSM (\$)	Man-years (Thousands)	Annual Deposit (\$ millions)
Active	93	3,451	1,909	6,588
	94	2,841	1,779	5,054
	Δ (94-93)			-1,534
Reserve	93	166	1,029	171
	94	1,279	905	1,158
	Δ (94-93)			987
Total	93			6,759
	94			6,211
	Δ (94-93)			-548

UNFUNDED ACCRUED LIABILITY COMPARISON

Table 3-3 compares the FY93 and FY94 UAL estimates.

TABLE 3-3
UNFUNDED ACCRUED LIABILITY COMPARISON
(FY93 - FY94)

Beneficiary category	UAL (\$ billion)		
	FY93	FY94	Δ (94-93)
Current Active	112.86	69.87	-42.99
Current Reserve	14.81	6.07	-8.74
Current retirees	167.11	137.39	-29.72
Total	294.78	213.33	-81.45

CHANGE FACTORS

The primary factors contributing to the differences between our accrual funding estimates for FY93 and for FY94 fall into three broad categories:

- Routine changes due to inflation and the changes in current military personnel force levels
- Better CHAMPUS and eligible population data
- Changes in basic assumptions.

The following paragraphs discuss each of these categories in detail.

ROUTINE CHANGES

Inflation

Medical care costs in the United States continue to rise faster than the general cost of living. Since we are calculating accrual funding estimates for a start-up 1 year later than last year, our initial costs are higher. Inflation alone would increase our accrual funding estimates, but other change factors have offset this increase.

Force Level Changes

One factor decreasing our estimates is the change in Active and Reserve military personnel force levels. Had nothing else changed, decreases of 7 percent in Active and 12 percent in Reserve personnel between FY93 and FY94 mean that there are fewer potential future retirees for whom funds need to be deposited. This affects the annual deposit more than it does the UAL, since we assumed no change in the number of current retirees, who represent the largest portion of the UAL.

BETTER DATA

We rely upon the Defense Manpower Data Center (DMDC) for our historical CHAMPUS claims and eligible beneficiary population data. For our FY93 calculations, we used historical data from FY88–FY90.

The CHAMPUS claims data for those years did not distinguish between Active and Reserve Component sponsors.¹ Additionally,

¹The "sponsor" is the military retiree, whether living or dead. The sponsor, through military service, earns retirement benefits. These benefits include health care for himself/herself and his/her dependents and survivors. The "beneficiary" is the individual receiving health care. A living retiree is both a sponsor and a beneficiary.

the cumulative CHAMPUS claims for FY90 appeared unusually low and were therefore disregarded.

We also rely upon the military retirement pay accrual funding process for demographic and other actuarial data on current military personnel and retirees. During our FY93 calculations, we were unable to reconcile a large discrepancy between our counts of MTF-eligible retirees and retirement pay population counts for current eligible retirees.

Because we could not resolve the discrepancy between the population totals, we used the retirement pay population counts for our FY93 calculations. Since these understated the size of the MTF-eligible population, the cost per retiree was overstated, thus increasing the calculated anticipated costs of the future retired population.

Further investigation before the FY94 calculations revealed the reason for the discrepancy. For the FY93 calculations, we assumed that only retirees drawing retirement pay were eligible for retirement health care benefits. During our investigation for the FY94 calculations, we discovered that approximately 12 percent of the current retiree population eligible for retirement health care had voluntarily given up their retirement pay. Most have forsaken their retirement pay to apply their military service toward a Federal civil service pension. Others have given up their retirement pay in favor of Department of Veteran's Affairs pensions.

Our FY94 calculations corrected these problems and added FY91 to our data base. The data received from DMDC this year allowed us to construct a more precise profile of the beneficiaries drawing health care benefits during our baseline years. Because we used Social Security numbers to match sponsors to beneficiaries and CHAMPUS claimants, we have a great deal of confidence in our data.

A significant insight resulting from the availability of better CHAMPUS claims data concerns the relative usage by Active and Reserve retirees. The newer data showed a significantly higher usage by Reserve retirees than we had previously thought. As a result, the allocation of costs between the two Components shifted. This is the primary cause of the increase in Reserve Component costs.

ASSUMPTION CHANGES

The principal changes in the assumptions underlying our calculations involved the following:

- A reduction in the near-term MTF cost growth
- An increase in the assumed return on trust fund investments
- No real military pay growth over time.

MTF Cost Growth

On the basis of our additional year's data and experience, we feel that we overestimated the near-term MTF cost growth in our FY93 calculations. Last year, we predicted that MTF cost growth would initially be 12 percent annually, decreasing over time to 6 percent. This growth profile was developed by our actuaries, Milliman & Robertson, Inc., based on data from the private sector. Historical MTF cost growth data available at the time were insufficient to justify lowering this initial MTF growth rate assumption.

Further investigation and additional data this year, however, give us confidence in reducing the initial MTF cost growth rate to 9 percent. Figure 3-1 compares the MTF cost growth profiles used in the FY93 and FY94 calculations.

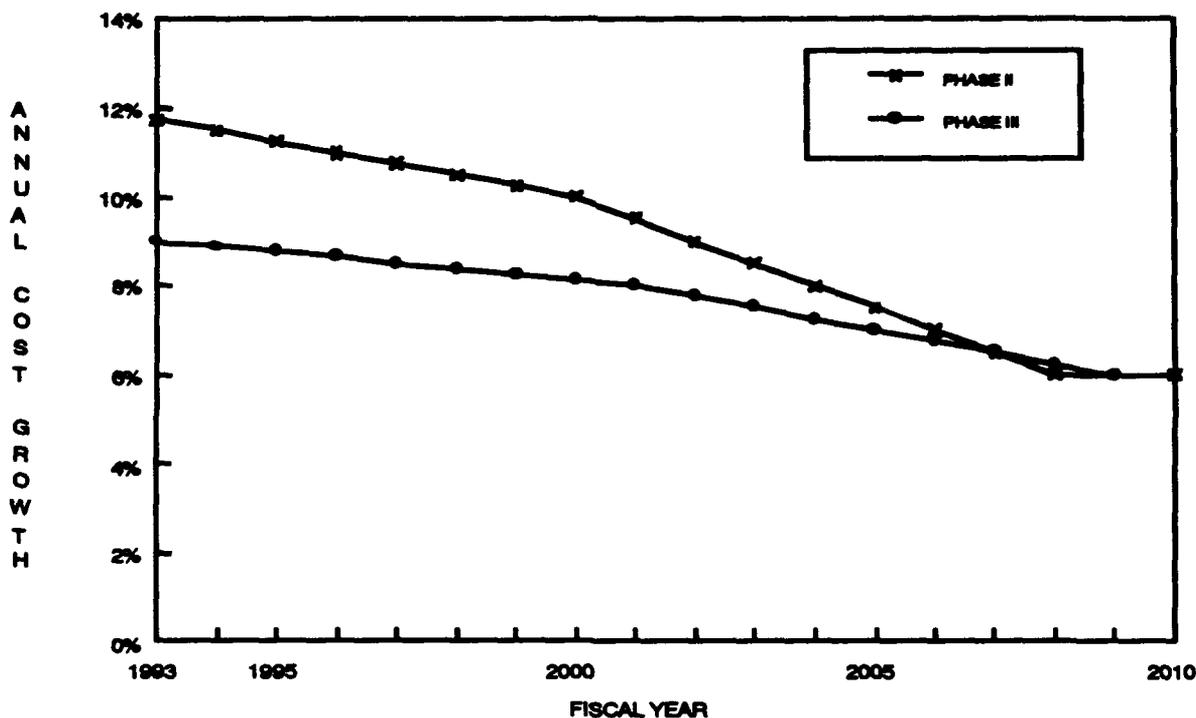


FIG. 3-1. MTF COST GROWTH RATE COMPARISON

This change resulted in a significant reduction both in our ACSMs and in the UAL.

Investment Return

Accrual funding calculations use present values, assuming a return on trust fund investments, or, conversely, a discount rate on future costs. We have always used the DoD Actuary's assumed discount rate, a rate that is periodically reviewed by the DoD Board of Actuaries. The Board increased the discount rate for FY94 calculations from 7.0 percent to 7.5 percent.

The effect of this change is greater than might appear. What is important is the difference between the assumed discount rate and the inflation rate assumptions – general inflation and medical inflation. Since the assumed general inflation rate remained at 5.0 percent, the difference rose from 2.0 percent to 2.5 percent in FY94. Therefore, the change in the discount rate assumption resulted in a 25 percent increase in the real return on investments. This has the effect of increasing the assumed return on trust fund investments. Thus, less money needs to be set aside in order to have a given amount available at some future date.

Similarly, the increased discount rate assumption lowered the difference between it and the assumed medical inflation rate. This has the effect of decreasing the amount needed to pay for future retirement health care costs. As a result, both the ACSMs and UAL decreased.

No Real Growth in Pay

One difference between retirement health care accrual funding calculations and the DoD Actuary's retirement pay accrual funding calculations is the desire to sever the health care calculations from military pay. We took the first step last year by using ACSMs instead of percentages of military pay.

We rely upon the DoD Actuary for much of our demographic and actuarial data and assumptions. The DoD Actuary used a 0.75 percent annual real growth in military pay in the FY93 retirement pay calculations. We, too, used this pay growth assumption in our FY93 calculations, taking the viewpoint that it represented a growth in the "value" of a man-year of military service. After further discussion, however, we have since decided to keep the value of health care benefits earned with a service man-year constant with time.

This has the effect of severing retirement health care accrual funding calculations from military pay. This assumption change has tended to increase our ACSMs but did not affect the UAL, since those benefits have already been earned.

QUANTITATIVE EFFECTS

Figures 3-2 and 3-3 show the estimated effects of these change factors on the annual deposit and UAL. We emphasize that the FY93 and FY94 estimates are independently calculated. We did not take the FY93 estimate and apply the change factors. Having calculated both estimates, we then estimated the effect of the various change factors.

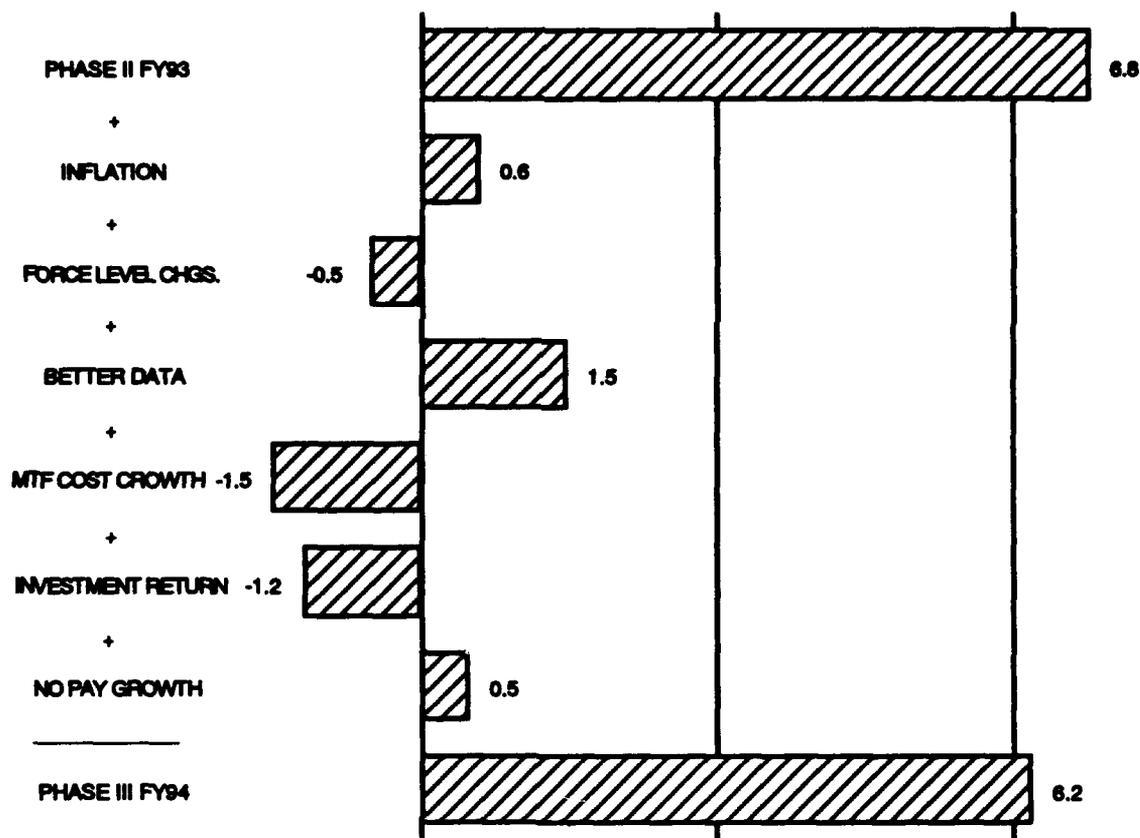


FIG. 3-2. EFFECTS OF CHANGE FACTORS ON ANNUAL DEPOSIT (\$ Billions)

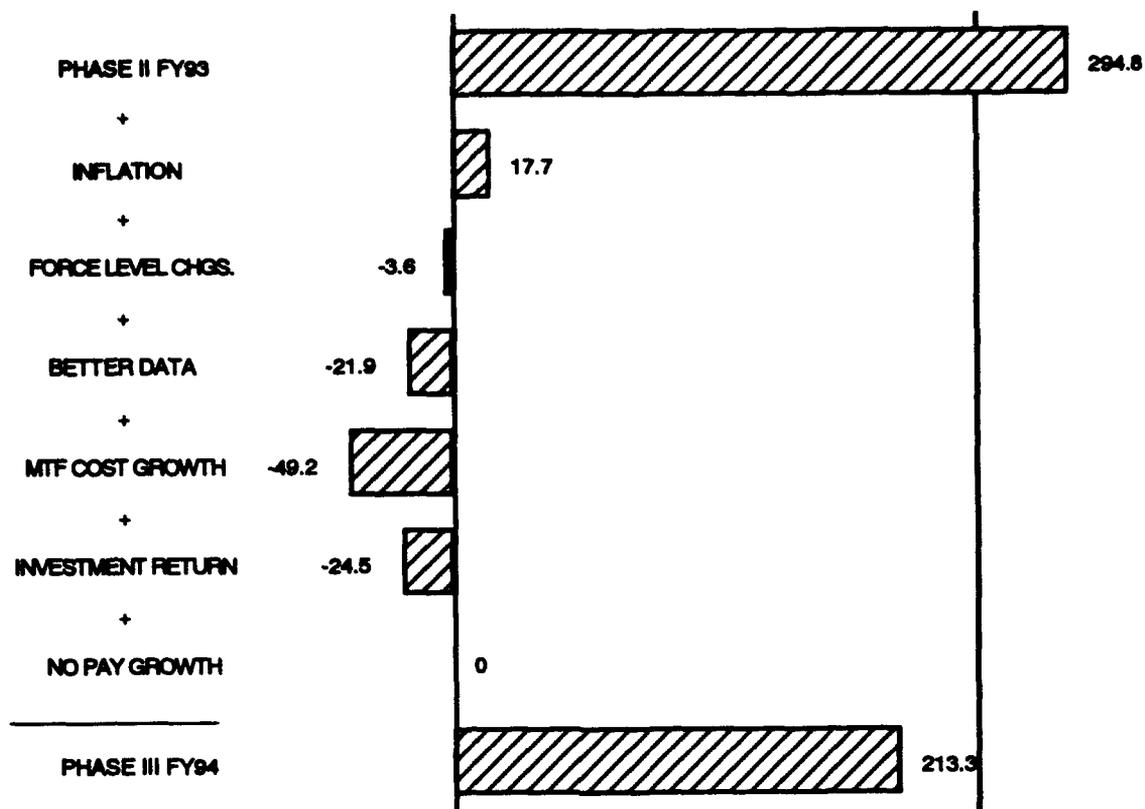


FIG. 3-3. EFFECTS ON CHANGE FACTORS ON UAL (\$ Billions)

CHAPTER 4

SUMMARY

In summary, we estimate the total annual DoD deposit into a retirement health care trust fund to be \$6.21 billion for FY94. Also, we estimate DoD's UAL for retirement health care benefits earned by current retirees and military service members with service before 1 October 1993 to be \$213.33 billion. Finally, this year we disaggregated our ACSMs by Military Service and personnel category for use in manpower cost analysis.

Between our estimates for FY93 and FY94, we gained substantial experience and had significantly improved input data. We therefore changed several major assumptions. The net effect of these changes was to accomplish the following:

- Reduce the ACSM for the Active Component
- Increase the ACSM for the Reserve Component
- Decrease both the total annual deposit and the UAL.

The improvements in our process over the past year give us confidence in our figures. Additional improvements to input data on MTF usage and Reserve Component demographics by Service would result in yet better estimates in the future.

APPENDIX A

METHODOLOGY

Wherever possible, the Logistics Management Institute (LMI) used the latest methodology, data, demographic projections, and assumptions used by the Department of Defense Actuary for retired pay accrual funding calculations. These are described in the 30 September 1990 *Valuation of the Military Retirement System (VMRS)*.¹ The actuarial firm of Milliman & Robertson, Inc., made the actuarial computations and forecasts.

DATA SUMMARY

DATA DESCRIPTION

Data availability drove our analytical approach. We got very detailed data on the eligible population and Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) claims. DoD does not keep data on the actual expenditures by military medical treatment facilities (MTFs) on retirees and their dependents and the use of MTFs by these beneficiaries. We were able, however, to collect data that would allow us to allocate total MTF expenditures between the active duty and retired beneficiary groups. The following paragraphs describe the data we collected for use in our current calculations.

Defense Manpower Data Center

The Defense Manpower Data Center (DMDC), Monterey, Cal., provided us with a set of data bases for each year from FY88 through FY91. Each set included one each of the following data bases:

- A data base of all individual beneficiaries (active, retired, dependents, and survivors) eligible for DoD health care at the end of the fiscal year (i.e., the FY88 data base contained data as

¹Department of Defense, Office of the Actuary Report, *Valuation of the Military Retirement System*, 30 September 1990.

of 30 September 1988). These Beneficiary data bases contained the following fields:

- Sponsor's Social Security number (enciphered to protect privacy)
- First four characters of the beneficiary's first name
- Beneficiary's sex
- Beneficiary's relationship to sponsor
- Beneficiary's date of birth
- A data base of the individual sponsors of beneficiaries eligible for DoD health care for FY88 through FY91. The Sponsor data bases contained the following fields:
 - Sponsor's Social Security number (enciphered to protect privacy, using same key as Beneficiary data bases)
 - Sponsor's date of birth
 - Sponsor's status (active duty, retired, deceased)
 - Sponsor's Military Service
 - Sponsor's paygrade (officer, enlisted)
 - Sponsor's Component (Active, Reserve)
- A data base of individual CHAMPUS claims for FY88 through FY91. The CHAMPUS Claims data bases contained the same fields as the Beneficiary data bases, with the addition of a field for the total CHAMPUS claims in dollars for the individual claimant during that fiscal year.

Data bases containing only files for individuals with retired or deceased sponsors were then constructed from these data bases.

Assistant Secretary of Defense for Health Affairs

From the Assistant Secretary of Defense for Health Affairs [ASD(HA)], we obtained the following:

- FY88 through FY91 actual expenditures for individual medical program elements (PEs) contained in DoD Program Eight. The ASD(HA) and the DoD Comptroller, with LMI assistance, selected the individual PEs. These PEs represent those program elements principally devoted to health care. Our list did not include those medical PEs in other major programs or those in Program Eight primarily devoted to military readiness. Table A-1 shows these expenditures.

TABLE A-1
PROGRAM EIGHT HEALTH CARE COSTS BY PROGRAM ELEMENT
& APPROPRIATION CATEGORY
(Then-year \$000)

Appropriation category, program element number, title	FY88	FY89	FY90	FY91
Medical - Military Personnel				
86721 USUHS	30,920	33,056	0	55,215
86722 AF Hlth Prof Scholar Prog	0	0	0	
86761 Education & Training	526,077	549,781	598,392	728,345
86861 Education & Training, JMMC	11,951	24,535	25,497	34,370
87711 Care in Reg. Def. Fac's	909,861	877,891	936,979	1,027,243
87756 Environmental Compliance				0
87790 Audiovisual Acts. - Med.	1,551	1,799	1,803	1,613
87791 Medical Information Systems	0	0	0	
87792 Stations Hospitals Clinics	1,921,027	1,926,822	1,979,170	2,286,689
87794 Real Property Maintenance	4,048	4,299	4,208	4,677
87795 Base Comms - Medical	78	110	112	87
87796 Base Operations - Medical	105,036	115,735	124,962	124,330
Army BOS (794+795+796)	109,162	120,144	129,282	
87811 Care in Reg. Def. Fac's-JMMC	51,276	105,634	107,779	
87813 Care in nonDef. Fac's-JMMC	0	0	0	
87890 Audiovisual Act's.-Med.-JMMC	135	306	312	
87892 Stn. Hospitals/Clinics-JMMC	4,593	9,507	10,034	
87894 Real Property Maint.-JMMC	0	0	0	
87895 Base Comms-Hlth Care-JMMC	0	0	0	
88611 Info Program Mgt	2,246	1,720	1,852	
88612 Mission Data Proc Fac	1,258	3,766	2,859	
88615 Prod, Pgm, & Proj Mgrs	1,097	2,119	2,004	
88616 UCA Central Software	1,050	4,927	1,455	
88617 Public'n, Print, Repro HSC	239	165	82	
88618 Rcds Mgt & Mail Room HSC	2,619	1,273	2,184	
89712 Support to USUHS	57,772	47,130	52,056	
Total Medical - Military Personnel	3,741,996	3,830,719	3,981,022	4,262,569
Medical - Reserve Personnel				
86722 AF Hlth Prof Scholar Prog	35,367	27,101	47,034	
86761 Education/Tng - Navy	1,242	1,123	1,430	
87711 Care in Reg Def Fac - Navy	319	362	336	
87792 Station Hospitals/Clinics - Navy	725	830	685	
87796 Base Operations - Navy	203	180	150	
Army BOS (794+795+796)	203	180	150	
89712 Support to USUHS	0	66	0	
Total Medical - Reserve Personnel	38,059	29,842	49,785	0

Note: JMMC = Joint Military Medical Command; USUHS = Uniformed Services University of Health Sciences; AF = Armed Forces; BOS = Base Operations and Support.

0 indicates a program element had no expenditures for the year; a blank entry indicates an inactive program element for that year.

TABLE A-1
PROGRAM EIGHT HEALTH CARE COSTS BY PROGRAM ELEMENT
& APPROPRIATION CATEGORY (Continued)
(Then-year \$000)

Appropriation category, program element number, title	FY88	FY89	FY90	FY91
Medical - Operations and Maintenance/Civilian Personnel				
86721 USUHS	37,956	35,318	36,604	38,516
86722 AF Hlth Prof Scholar Prog	43,847	49,165	53,891	60,158
86761 Education & Training	77,785	98,655	96,997	102,546
86861 Education & Training, JMMC	648	1,698	1,875	
87711 Care in Reg. Def. Fac's	581,196	689,285	808,634	1,102,239
87713 Care in Non-Def. Fac's	353,174	404,642	417,304	472,640
87756 Environmental Compliance				12,453
87776 Minor Construction - Hlth Care				0
87778 Maint. & Repair -Hlth Care				0
87790 Audiovisual Act's. -Med	7,600	8,534	8,798	9,600
87791 Medical Information Systems	92,244	102,817	105,942	
87792 Station Hospitals Clinics	1,136,253	1,294,552	1,508,889	1,815,555
87794 Real Property Maintenance	322,069	361,860	291,336	281,087
87795 Base Comms - Medical	22,564	24,071	27,551	32,892
87796 Base Operations - Medical	100,871	110,357	153,136	254,264
Army BOS (794+795+796)	445,504	496,288	472,023	
87811 Care in Reg. Def. Fac's-JMMC	113,453	124,258	141,709	
87813 Care in non-Def. Fac's-JMMC	336	212	304	
87890 Audiovisual Act's.-Med-JMMC	274	341	393	
87892 Str. Hospitals/Clinics - JMMC	4,595	5,267	4,852	
87894 Real Property Maint-JMMC	21,076	20,251	17,834	
87895 Base Comms-Hlth Care-JMMC	883	2,525	1,689	
Total Medical - Operation and Maintenance/Civilian Personnel	3,362,328	3,830,096	4,149,761	4,181,950
Other Procurement				
Food Svc/Prev Med/Phcy Equip	2,465	1,711	1,835	
DMFO Equipment	0	0	0	
Medical Information Sys Equip	53,316	20,344	32,828	
Med. Patient Care Admin Equip	22,972	18,910	20,467	
Medical/Surgical Equipment	65,345	40,527	47,173	
Other Equipment	12,111	11,534	10,101	
Pathology/Lab Equipment	20,872	21,551	26,432	
Radiographic Equipment	34,220	28,233	32,852	
USUHS Equipment	833	853	868	
Procurement Operations - Navy	992	883	0	

Note: JMMC = Joint Military Medical Command; USUHS = Uniformed Services University of Health Sciences; AF = Armed Forces; BOS = Base Operations and Support.

0 indicates a program element had no expenditures for the year; a blank entry indicates an inactive program element for that year.

TABLE A-1
PROGRAM EIGHT HEALTH CARE COSTS BY PROGRAM ELEMENT
& APPROPRIATION CATEGORY (Continued)
(Then-year \$000)

Appropriation category, program element number, title	FY88	FY89	FY90	FY91
Medical - Other Procurement				
Other Health Activities - Navy	292	865	1,151	
Stations Hosp/Clinics - Navy	15,740	19,290	37,054	
Total Medical - Other Procurement	229,158	164,701	210,761	279,340
Medical - Military Construction				
Major Construction	205,920	304,550	187,100	208,450
Minor Constr'n (\$300K-\$1.5M)	2,000	2,000	2,700	2,655
Minor Constr'n (\$15K-\$300K)				0
Planning & Design	28,050	28,605	31,670	44,300
Foreign Currency	2,243	3,927	7,000	
Total Medical - Military Construction	238,213	339,082	228,470	255,405
Total Medical - All Appropriations				
Total Medical - Military Personnel	3,741,996	3,830,719	3,981,022	4,262,569
Total Medical - Reserve Personnel	38,059	29,842	49,785	0
Total Medical - Operation and Maintenance	3,362,328	3,830,096	4,149,761	4,181,950
Total Medical - Other Procurement	229,158	164,701	210,761	279,340
Total Medical - Military Construction	238,213	339,082	228,470	255,405
Total Medical - All Appropriations Categories	7,609,754	8,194,440	8,619,799	8,979,264
Dental - Military Personnel				
87715 Dental Care	410,811	414,194	423,189	473,332
87815 Dental Care - JMMC	5,089	10,622	11,452	
Total Dental - Military Personnel	415,900	424,816	434,641	473,332
Dental - Reserve Personnel				
87715 Dental Care	0	0	60	
Total Dental - Reserve Personnel	0	0	60	
Dental - Operations and Maintenance				
87715 Dental Care	109,640	136,689	142,398	163,965
87815 Dental Care - JMMC	2,890	3,287	3,870	
Total Dental - Operations & Maintenance	112,530	139,976	146,268	163,965

Note: JMMC = Joint Military Medical Command; USUHS = Uniformed Services University of Health Sciences; AF = Armed Forces; BOS = Base Operations and Support.

0 indicates a program element had no expenditures for the year; a blank entry indicates an inactive program element for that year.

TABLE A-1
PROGRAM EIGHT HEALTH CARE COSTS BY PROGRAM ELEMENT
& APPROPRIATION CATEGORY (Continued)
(Then-year \$000)

Appropriation category, program element number, title	FY88	FY89	FY90	FY91
Dental – Other Procurement				
Dental Equipment	6,666	2,489	3,828	
Total Dental - Other Procurement	6,666	2,489	3,828	0
Total Dental – All Appropriations				
Total Dental – Military Personnel	415,900	424,816	434,641	473,332
Total Dental – Reserve Personnel	0	0	60	0
Total Dental – Operations & Maintenance	112,530	139,976	146,268	163,965
Total Dental – Other Procurement	6,666	2,489	3,828	0
Total Dental – All Appropriations	535,096	567,281	584,797	637,297
Total Health Care – Medical and Dental				
Total Health Care – All Appropriations				
Total Health Care – Military Personnel	4,157,896	4,255,535	4,415,663	4,735,901
Total Health Care – Reserve Personnel	38,059	29,842	49,845	0
Total Health Care – Operations and Maintenance	3,474,858	3,970,072	4,296,029	4,345,915
Total Health Care – Other Procurement	235,824	167,190	214,589	279,340
Total Health Care – Military Construction	238,213	339,082	228,470	255,405
Total Health Care – All Appropriations	8,144,850	8,761,721	9,204,596	9,616,561

Note: JMMC = Joint Military Medical Command; USUHS = Uniformed Services University of Health Sciences; AF = Armed Forces;
 BOS = Base Operations and Support.

0 indicates a program element had no expenditures for the year; a blank entry indicates an inactive program element for that year.

- MTF workload data for FY88 through FY91. These data were expressed in Inpatient Relative Weighted Products (IRWPs) for inpatient medical workloads, Ambulatory Work Units (AWUs) for outpatient medical workloads, and percentages of total for dental workloads. The IRWPs and AWUs are dimensionless, diagnosis-related measures of workload.
 - The IRWPs were broken down into the following categories:
 - Dependents of active duty
 - Active duty
 - Dependents of retired
 - Retired
 - National Guard

- Survivors
- Other
- The AWUs were broken down into the following categories:
 - Active duty
 - Dependents of active duty
 - All others

No AWU data were available for FY88.

- The dental workloads were broken down into the following categories:
 - Active duty
 - Dependents of active duty
 - Retired
 - Dependents of retired, survivors, and others

No dental workload data were available for FY91.

- Table A-2 summarizes the MTF workload data.

- Medical expenditures from FY82 through FY91 for Other Procurement and Military Construction appropriations categories are shown in Table A-3. This table also shows the calculation of 10-year long-term average annual expenditures for these categories from these data.
- The relative percentages of the MTF health care expenditures for FY88 through FY90 spent on inpatient and ambulatory care.
- Military readiness expenditures for FY88 through FY91 of commands contained in Program Eight medical PEs.
- Numbers of medical personnel:
 - Attached to medical units in Program Eight
 - Attached to other units.

Table A-4 summarizes data on relative medical expenses, percentages of total expenditures on military readiness, and numbers of medical personnel.

TABLE A-2
MILITARY TREATMENT FACILITY WORKLOADS
(FY88-FY91)

UNIT, Beneficiary Category	FY88	FY89	FY90	FY91
Inpatient Relative Weighted Products				
Active duty	265,245.1	242,794.5	257,196.5	265,675.5
Active duty dependents	208,877.5	200,980.9	214,894.8	204,157.5
Retired	127,696.1	126,600.8	151,911.9	138,226.0
Retired dependents & survivors	105,894.2	113,970.8	121,202.7	110,026.8
Others	21,199.7	19,937.4	21,681.6	33,451.0
Total	728,912.6	704,284.4	766,887.5	751,536.7
Ambulatory Work Units				
Active duty		502,254	491,946	468,821
Active duty dependents		406,881	424,372	419,470
All others		326,912	335,661	330,257
Total		1,236,047	1,251,979	1,218,548
Dental Allocation Percentages				
Active duty	72%	72%	72%	
Active duty dependents	18%	18%	18%	
Total retired	7%	7%	7%	
Other (not used for accrual funding)	3%	3%	3%	
Total	100%	100%	100%	

TABLE A-3
OTHER PROCUREMENT & MILITARY CONSTRUCTION
Ten-Year Average

Category	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90	FY91
Actual expenditures (then-year \$000)										
O.P. ^a	161,031	169,005	158,961	255,885	223,238	235,237	235,824	167,410	215,909	279,340
Infl'n Index ^b	0.6648	0.7146	0.7386	0.7614	0.7860	0.8142	0.8455	0.8771	0.9077	0.9378
MiCon	517,890	178,116	120,500	331,765	261,240	321,350	238,213	339,082	228,470	255,405
Infl'n Index ^b	0.6852	0.7056	0.7329	0.7656	0.7761	0.8044	0.8386	0.8733	0.9062	0.9385
Actual expenditures (constant FY92 \$000)										
O.P.	242,225	236,503	215,219	336,072	284,018	288,918	278,917	190,868	237,864	297,867
MiCon	755,823	252,432	184,415	433,340	336,606	399,490	284,060	388,277	252,119	272,142
Ten-year average annual expenditures (constant FY93 \$000)										
O.P.	260,847									
MiCon	353,870									
Ten-year average expenditures (then-year \$000)										
O.P.	173,411	186,401	192,662	198,609	205,026	212,382	220,546	228,789	236,771	244,622
MiCon	242,472	249,691	259,352	270,923	274,639	284,653	296,756	309,035	320,677	332,107

Note: a O.P. = Other Procurement; MiCon = Military Construction.

b Inflation indices = Department of Defense deflators (TOA) then-year to 1992 from *Department of Defense Budget Estimates For FY 1993*, Office of the Comptroller of the Department of Defense, March 1992.

TABLE A-4
MISCELLANEOUS MEDICAL DATA

Data category	FY88	FY89	FY90	FY91
Health Care Personnel				
Program Eight Medical + Dental Personnel				
Active duty	113,793	112,794	113,985	117,182
Reserve	93	90	92	0
Active duty and reserve	113,886	112,884	114,077	117,182
Non-Program Eight Medical + Dental Personnel				
Active duty	10,945	22,645	22,571	28,966
Reserve	29,744	31,332	31,491	0
Active duty and reserve	40,689	53,977	54,062	28,966
Program Eight Personnel Fraction of Total Personnel				
Active duty	0.9123	0.8328	0.8347	0.8018
Reserve	0.0031	0.0029	0.0029	N/A
Active duty and reserve	0.7368	0.6765	0.6785	0.8018
Readiness percentages	1.810%	2.121%	1.712%	4.942%
Inpatient & Outpatient Relative Percentage of Total MTF Medical Care Costs				
Inpatient	44.65%	43.91%	43.42%	42.99%
Ambulatory	55.35%	56.09%	56.58%	57.01%

Note: FY91 data include Operations Desert Shield/Desert Storm. N/A = not applicable.

Office of the Civilian Health And Medical Program of the Uniformed Services

From the Office of the Civilian Health And Medical Program of the Uniformed Services (OCHAMPUS) in Aurora, Co., we obtained a summary of significant changes in CHAMPUS benefits for each year from FY88 through FY91.

Assistant Secretary of Defense for Force Management and Personnel

From the Assistant Secretary of Defense for Force Management and Personnel [ASD(FM&P)], we obtained officer and enlisted survival rates to 20 years of service for each Military Service. Table A-5 shows these rates.

TABLE A-5
SURVIVAL RATES
 (Service entrance to 20 years of service)

Personnel category	Army	Navy	Marine Corps	Air Force
Officer	24%	23%	16%	29%
Enlisted	9%	10%	7%	23%

Office of the Actuary, DoD

Besides the data contained in the VMRS, we also received the following data and calculations from the DoD Actuary:

- Reserve sponsor age and years of service matrix
- Special normal cost computations of preretirement decrements, present values of future salaries, and salaries
- Postretirement mortality data.

DATA PROCESSING

CHAMPUS Claims and Beneficiary Counts

We devoted much effort to extracting the information required for our actuarial calculations from the raw beneficiary and CHAMPUS claims data received from DMDC. First, we extracted the records for which the sponsor was either retired or deceased.

We then checked the FY88 data bases for multiple records for the same individual. While we found some duplication, it appeared to apply to less than 0.2 percent of all records.² Because of the small percentage of possible errors, the extraordinary time required to check the data bases, and the potential for us to introduce new errors in the process, we did not attempt to correct the data bases from any other years. We feel that, given this small error rate, any errors in the data would not measurably affect our calculations.

The three data bases for each year – Sponsor, Beneficiary, and CHAMPUS Claims – all contain a field for the sponsor's Social Security number (SSN). DMDC enciphered the SSNs for privacy using the same cipher algorithm and key for all three data bases.

²It is sometimes difficult from our data to determine whether two records apply to the same person, especially with children. Even with the first four letters of the first name, the possibility of twin children, spouses from second (and subsequent) marriages, etc. complicated our error checking.

Because of the SSN field, we could extract sponsor data on Service, Component, date of birth, and status (retired/deceased). We inserted data from the Sponsor data base into both the Beneficiary and CHAMPUS Claims data bases. Next, we converted the dates of birth for beneficiaries and sponsors to ages at the nearest birthday to 1 October of that year.

Then, we counted the beneficiaries in the Beneficiary data bases and summed the claims in the CHAMPUS Claims data bases. We counted/summed by:

- Age (sponsor's age if sponsor retired, beneficiary's age if sponsor deceased)
- Beneficiary/claimant gender
- Beneficiary/claimant relationship to sponsor [self, spouse, child, parent (not applicable for CHAMPUS), other (not applicable for CHAMPUS)]
- Sponsor Component (Active/Reserve)
- Sponsor status (retired/deceased).

Because of different eligibility, we made two beneficiary counts: one for MTF-eligibles and one for CHAMPUS-eligibles. Everyone in the Beneficiary data bases is eligible for MTF care. Once an individual is eligible for Medicare (usually age 65), however, that individual is ineligible for CHAMPUS.³ The MTF count included everyone on the Beneficiary data base. The CHAMPUS count tallied only those beneficiaries under age 65.

Table A-6 shows the 1989 MTF beneficiary counts for beneficiaries of retired (not deceased) sponsors from the Active Component. It is included as an illustration of our data products. The counts are listed by *sponsor's* age at nearest birthday to 1 October 1989. There are similar counts and claims sums for Reserve and unknown Component retirees, beneficiaries of deceased sponsors, CHAMPUS beneficiaries, and CHAMPUS claims for all 4 years. Table A-7 shows the summary of 1989 MTF beneficiary counts for all Components and both retired and deceased sponsors.

³Generally, an individual is eligible for Medicare upon reaching age 65 if eligible for Social Security payments. There are exceptions. The permanently disabled are eligible for Medicare (and thus ineligible for CHAMPUS) regardless of age. Since we have CHAMPUS claims for claimants over age 65, apparently we have beneficiaries who are ineligible for Social Security. This could occur if the individual or spouse had not worked a sufficient amount of time (at least 10 years) under the Social Security system. The Military did not come under Social Security until 1958. An older retiree could have completed his/her military career without accumulating enough time under Social Security to qualify for benefits.

TABLE A-6
1989 MTF ELIGIBLE BENEFICIARY COUNTS
(Retired Sponsors, Active Component)

Age ^c	Sex ^a																	
	F			M			U			F			M			U		
	SLF	SLF	SLF	SP	SP	SP	CH	CH	CH	PA	PA	PA	OT	OT	OT			
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
20	24	183	0	15	0	0	0	2	0	0	0	0	0	0	0			
21	49	414	0	58	2	0	20	22	0	0	0	0	0	0	0			
22	58	697	0	134	7	0	35	40	0	0	0	0	0	0	0			
23	93	920	1	211	21	0	74	77	0	3	0	0	0	0	0			
24	141	1,185	2	297	25	0	146	134	0	1	0	0	0	0	0			
25	181	1,381	5	435	36	0	210	216	2	6	0	0	0	0	0			
26	165	1,585	11	553	46	0	305	317	1	4	0	0	0	0	0			
27	208	1,790	18	645	40	0	442	425	3	4	1	0	0	0	0			
28	232	1,897	61	722	59	0	512	565	10	9	0	0	0	0	0			
29	253	2,006	80	776	63	0	654	640	3	9	0	0	0	0	0			
30	307	2,320	62	937	86	0	831	827	6	15	0	0	1	0	0			
31	244	2,420	71	994	74	0	903	944	4	13	3	0	0	0	0			
32	280	2,619	76	1,106	75	0	1,067	1,167	4	16	1	0	0	0	0			
33	270	2,722	103	1,166	70	1	1,193	1,246	4	19	1	0	0	0	0			
34	303	2,792	120	1,207	68	0	1,290	1,316	6	12	1	0	0	0	0			
35	305	3,000	123	1,349	68	0	1,441	1,492	6	24	4	0	0	0	0			
36	276	3,175	117	1,440	64	0	1,570	1,686	5	25	3	0	0	0	0			
37	277	3,404	129	1,656	74	1	1,823	1,826	6	22	4	0	0	0	0			

^a F = female, M = male, U = unknown

^b SLF = self, SP = spouse, CH = child, PA = parent, OT = other/unknown.

^c Sponsor's age at nearest birthday to 1 October 1989; 99 = 99 and older, UNK = age unknown or less than 6.0 months.

TABLE A-6
1989 MTF ELIGIBLE BENEFICIARY COUNTS (Continued)
(Retired Sponsors, Active Component)

Age ^c	Sex ^a																	
	F			M			U			F			M			U		
	Relation ^b																	
	SLF	SLF	SLF	SP	SP	SP	CH	CH	CH	PA	PA	PA	OT	OT	OT			
38	283	4,551	273	2,596	73	0	2,906	3,013	9	23	7	0	1	0	0			
39	294	8,598	619	5,668	78	0	6,371	6,530	15	82	12	0	0	0	0			
40	331	15,455	1,350	11,050	81	0	11,988	12,669	30	136	27	0	15	0	0			
41	306	22,058	1,830	16,269	90	2	17,313	17,963	28	176	25	0	15	0	0			
42	343	27,859	2,005	21,010	76	5	21,501	22,272	23	254	51	0	76	0	0			
43	353	31,350	1,833	24,501	82	5	23,881	24,625	35	305	46	0	126	0	0			
44	230	24,811	1,052	19,672	60	1	18,150	18,539	25	221	37	0	123	0	0			
45	290	28,259	889	22,612	60	5	19,059	19,647	20	242	42	0	222	1	0			
46	253	32,779	897	26,537	48	7	20,003	20,683	29	266	42	0	379	0	0			
47	253	37,644	986	30,623	42	7	20,883	21,509	12	245	41	0	523	1	0			
48	259	36,884	938	30,148	52	5	18,135	18,605	13	270	37	0	598	0	0			
49	247	38,653	868	31,666	42	3	16,793	17,176	11	252	38	0	688	2	0			
50	257	40,433	868	33,398	45	5	15,522	15,779	9	257	34	0	767	0	0			
51	262	43,865	932	36,093	32	11	14,443	14,703	12	279	25	0	882	0	0			
52	227	47,560	927	39,021	35	7	13,180	13,449	8	253	43	0	1,013	0	0			
53	241	49,200	943	40,641	47	9	11,932	12,040	3	272	32	0	1,212	2	3			
54	277	50,141	894	41,248	30	2	10,674	10,519	6	278	29	0	1,172	1	0			
55	259	50,548	1,041	41,651	41	5	9,218	9,530	3	263	34	1	1,215	4	0			
56	253	49,249	1,210	40,835	32	6	7,789	7,929	6	274	26	0	1,216	1	0			
57	320	51,548	1,649	42,847	36	3	7,102	7,223	7	246	29	0	1,224	5	0			
58	311	52,974	1,952	43,946	40	4	6,500	6,576	4	227	27	0	1,275	4	0			
59	344	57,274	2,330	47,471	52	8	5,978	5,920	3	249	21	0	1,275	2	0			
60	369	56,658	2,310	46,752	48	6	5,206	5,081	2	204	14	0	1,209	2	0			
61	313	48,071	2,232	39,704	35	7	4,012	3,930	1	181	12	0	987	0	0			
62	338	39,784	1,739	32,506	31	3	3,074	3,012	5	156	9	0	764	1	0			
63	317	33,113	1,242	26,670	27	2	2,144	2,152	2	122	7	0	572	2	1			
64	304	32,389	1,484	26,293	20	2	1,868	1,820	0	93	7	0	509	0	0			
65	311	33,541	1,269	26,962	31	5	1,563	1,566	4	106	11	0	598	1	0			
66	347	33,357	1,161	26,812	37	3	1,331	1,231	3	87	5	0	537	0	0			
67	409	32,643	1,238	26,092	53	4	1,093	1,071	3	82	5	0	505	0	0			
68	431	35,763	1,306	28,527	62	3	1,075	922	1	77	3	0	520	2	0			
69	487	34,022	1,294	27,103	62	2	798	766	1	82	6	0	409	1	0			
70	436	32,141	1,226	25,223	59	1	645	691	0	68	3	0	396	1	0			
71	385	28,689	1,001	22,282	53	4	459	459	0	58	0	0	324	1	0			
72	393	23,919	926	18,445	43	3	370	358	1	51	0	0	210	1	0			
73	394	19,375	758	14,663	39	1	259	272	0	27	1	0	162	0	0			
74	370	16,151	636	11,990	35	3	199	186	0	27	1	0	103	0	0			

^a F = female, M = male, U = unknown

^b SLF = self, SP = spouse, CH = child, PA = parent, OT = other/unknown.

^c Sponsor's age at nearest birthday to 1 October 1989; 99 = 99 and older, UNK = age unknown or less than 6.0 months.

TABLE A-6
1989 MTF ELIGIBLE BENEFICIARY COUNTS (Continued)
(Retired Sponsors, Active Component)

Age ^c	Sex ^a																	
	F			M			U			F			M			U		
	Relation ^b																	
	SLF	SLF	SLF	SP	SP	SP	CH	CH	CH	PA	PA	PA	OT	OT	OT			
75	361	12,513	486	9,137	32	1	155	134	0	17	2	0	90	1	0			
76	322	9,892	428	7,088	26	3	106	108	0	6	0	0	55	0	0			
77	308	7,768	343	5,402	19	0	70	78	0	10	0	0	36	0	0			
78	277	6,705	235	4,597	17	0	58	68	0	3	0	0	37	0	0			
79	248	5,663	262	3,858	12	0	53	49	0	2	0	1	20	0	0			
80	218	4,559	227	2,911	13	0	27	34	0	3	1	0	17	0	0			
81	188	3,973	219	2,536	9	0	25	25	0	2	0	0	14	0	0			
82	163	3,254	208	2,051	6	0	26	17	0	0	0	0	13	0	0			
83	130	2,569	198	1,501	7	0	15	21	0	0	0	0	4	0	0			
84	111	2,044	153	1,183	7	0	13	9	0	0	1	0	4	0	0			
85	77	1,679	167	938	2	0	13	7	0	0	0	0	4	0	0			
86	53	1,326	127	700	4	0	1	11	0	0	0	0	3	0	0			
87	38	1,112	112	568	1	0	6	3	0	0	0	0	1	0	0			
88	35	840	87	426	1	0	3	5	0	0	0	0	0	0	0			
89	29	772	59	367	1	0	3	2	0	0	0	0	0	0	0			
90	19	576	69	272	1	0	5	5	0	0	0	0	0	0	0			
91	13	385	40	165	1	0	4	0	0	1	0	0	0	0	0			
92	10	286	23	101	0	0	1	1	0	0	0	0	0	0	0			
93	3	203	16	86	0	0	1	1	0	0	0	0	0	0	0			
94	3	162	16	51	0	0	0	0	0	0	0	0	0	0	0			
95	2	134	16	46	1	0	2	1	0	0	0	0	0	0	0			
96	2	71	9	23	0	0	1	1	0	0	0	0	0	0	0			
97	64	3	15	0	0	0	0	0	0	0	0	0	0	0	0			
98	0	38	6	17	0	0	0	0	0	0	0	0	0	0	0			
99	13	209	17	52	0	0	6	10	0	0	0	0	1	0	0			
UNK	4	120	16,985	4,259	12	0	483	498	0	11	1	0	58	0	0			
Total	18,102	1,402,736	67,598	1,111,578	2,859	155	337,010	344,446	394	6,728	812	2	22,180	36	4			

^a F = female, M = male, U = unknown

^b SLF = self, SP = spouse, CH = child, PA = parent, OT = other/unknown.

^c Sponsor's age at nearest birthday to 1 October 1989; 99 = 99 and older, UNK = age unknown or less than 6.0 months.

TABLE A-7
1989 MTF BENEFICIARY COUNT
Summary

Sex ^c		Rel ^d		Status ^a								
				D	D	D	D	R	R	R	R	ALL
				Component ^b							ALL	
A	R	UNK	ALL	A	R	UNK	ALL	ALL				
Female	SL	0	0	5	5	18,102	2,510	0	20,612	20,617		
Male	SL	0	0	35	35	1,402,736	168,640	0	1,571,376	1,571,411		
UNK	SL	0	0	303	303	67,598	3,116	0	70,714	71,017		
Female	SP	0	0	255,650	255,650	1,111,578	115,037	0	1,226,615	1,482,265		
Male	SP	0	0	529	529	2,859	338	0	3,197	3,726		
UNK	SP	0	0	31	31	155	8	0	163	194		
Female	CH	0	0	24,715	24,715	337,010	3,354	0	340,364	365,079		
Male	CH	0	0	25,083	25,083	344,446	3,281	0	347,727	372,810		
UNK	CH	0	0	19	19	394	6	0	400	419		
Female	PA	0	0	910	910	6,728	141	0	6,869	7,779		
Male	PA	0	0	86	86	812	7	0	819	905		
UNK	PA	0	0	1	1	2	0	0	2	3		
Female	O/U	0	0	2,184	2,184	22,180	581	0	22,761	24,945		
Male	O/U	0	0	7	7	36	3	0	39	46		
UNK	O/U	0	0	0	0	4	0	0	4	4		
Total		0	0	309,558	309,558	3,314,640	297,022	0	3,611,662	3,921,220		

^a Sponsor's status: D = deceased, R = retired.

^b Sponsor's Component: A = Active, R = Reserve, UNK = unknown.

^c Beneficiary's gender: UNK = unknown.

^d Beneficiary's relationship to sponsor: SL = self, SP = spouse, CH = child, PA = parent, O/U = other/unknown.

We used retired pay records to decide a retired sponsor's Component. Since retired pay stops at death, deceased sponsors do not receive retired pay. Thus, we were unable to determine their Component. Therefore, all beneficiaries of deceased sponsors fall into the unknown Component category. Conversely, since we had a positive match to retired pay records for all living retired sponsors, no one is in the "retired, unknown Component" category. For the purposes of our calculations, we assumed that the ratio between beneficiaries of living Active and Reserve retirees held for those of deceased sponsors. We thus allocated the beneficiaries of deceased sponsors between the two Components according to those proportions.

Military Treatment Facility Expenditures

The first step in processing our MTF expenditure data was to deduct both military readiness costs for Program Eight MTFs and the

training and education costs for non-Program Eight medical personnel.

Medical education and training costs for all military medical personnel are contained in Program Eight PEs. We therefore multiplied the total costs in PEs 86721–86861 and 89712 by the proportion of total medical personnel in Program Eight. Table A-4 shows these fractions. The Active Duty fraction was applied to the Military Personnel costs in these PEs, the Reserve Personnel fraction to the Reserve Personnel costs, and the Active Duty + Reserve fraction to Operations and Maintenance costs.

Military readiness is not a cost of retirement (or active duty) health care. Therefore, we reduced the actual expenditures in Table A-1 by the readiness percentages contained in Table A-4.

The next step in treating the MTF expenditure data was to allocate a portion to retirement health care. Our inpatient and ambulatory workload measures (IRWPs and AWUs) are not equal in cost. Therefore, we first broke our total MTF medical expenditures into inpatient and ambulatory subtotals using the relative percentages shown in Table A-4. The inpatient and ambulatory workloads in Table A-2 were then applied to the appropriate subtotals. Since dental expenditures were already broken out in our expenditure data, the dental workloads were applied directly to the dental expenditures.

CALCULATIONS

We used the data resulting from the process described in the preceding sections and the data and calculations obtained from the DoD Actuary in our actuarial calculations, which were performed by our actuaries, the firm of Milliman & Robertson, Inc.

Critical to our calculations were the assumptions regarding the rise in medical care costs. On the basis of our data and the experience of Milliman & Robertson in the civilian health care field, we used the cost increase profiles shown in Figure A-1 in our calculations. The summary of our calculations below is illustrated by an accompanying sample. This is followed by discussions of important aspects of our efforts.

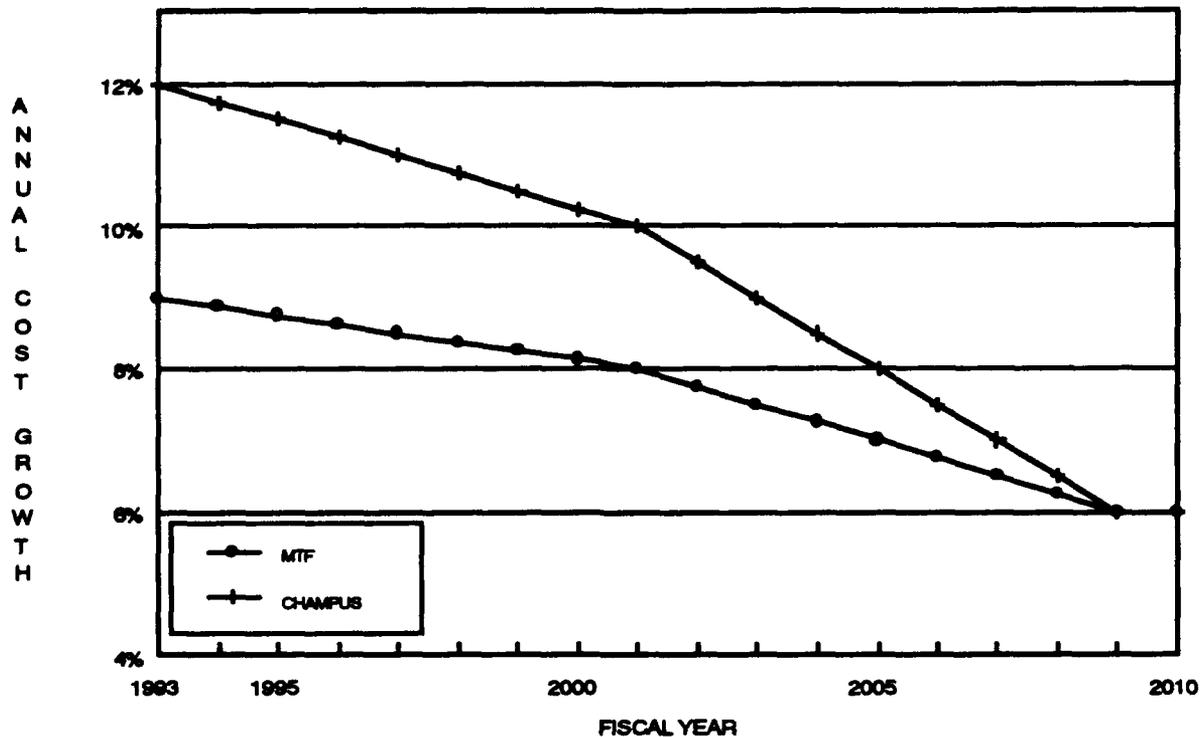


FIG. A-1. MTF AND CHAMPUS ANNUAL COST GROWTH RATES

SUMMARY

- **Step 1.** Set up a sample of 100,000 new-entrant cohorts. This is an imaginary group of personnel (cohorts) just entering the Military Services that reflects the demographics, retirement rates, etc., of the current DoD military populations. These statistics are taken from the VMRS.
- **Step 2.** Calculate how many retirees, at what ages, sex, number of dependents, etc., would exist from the 100,000 new entrants at each calendar year in the future.
- **Step 3.** Using FY88-FY91 data, calculate the current CHAMPUS and MTF annual health care costs and expenses by age per current beneficiary.
- **Step 4.** On the basis of the results of Step 3, actuarially project the annual costs by age per retiree/dependent for each year in the future. The medical cost increase rates in Figure A-1 are used in this step.
- **Step 5.** Use the results of Steps 2 and 4 to calculate the total retirement health care cost in each future fiscal year.
- **Step 6.** Calculate the present value of the total retirement health care cost by fiscal year from Step 5. We used the 7.5 percent annual discount rate from page D-2 of the VMRS. Sum these

present values for each year to calculate the total present value of both CHAMPUS and MTF retirement benefits for the group of 100,000 new-entrant cohorts.

- *Step 7.* Divide the total present values of the CHAMPUS and MTF benefits from Step 6 by the present value of the total career base pay for the entire group of 100,000 new-entrant cohorts to yield normal cost percentages (NCPs).
- *Step 8.* Multiply the NCPs by the VMRS FY94 average annual base pay to yield average costs per service man-year (ACSMs).
- *Step 9.* Multiply the ACSMs by the average FY94 man-years of military service from the February 1992 FY93 DoD Budget submission to yield FY94 annual DoD trust fund deposits for each category (Active Officers, Reserve Enlisted, etc.).
- *Step 10.* Sum the category deposits to obtain a total FY94 annual DoD trust fund deposit.

Sample – Active Component Officer: MTF

Present value of the Active Component officer MTF retirement benefit (millions)	\$35,515
Present value of the total career military base pay for 100,000 Active Component officer new-entrant cohorts (millions)	\$532,383
NCP (\$35,515 – \$532,383)	6.67%
FY94 VMRS Active officer individual base pay	\$40,284.51
FY94 Active officer MTF ACSM (6.67% x \$40,284.51)	\$2,686
FY94 Active officer service man-years	265,551
FY94 annual DoD trust fund deposit for Active officer MTF retirement benefit (millions) (\$2,686 x 265,551)	\$713.3

Summing the \$713.3 million obtained for Active Component officers in MTFs with corresponding results for the other categories (e.g., Reserve enlisted CHAMPUS, etc.) yields the total DoD FY94 annual deposit of \$6.21 billion.

AVERAGE COST PER SERVICE MAN-YEAR

We use the same entry-age-normal actuarial methodology used by the DoD Actuary in its calculations for the military retirement pay accrual funding system. This technique takes an artificial group of

new-entrant cohorts that demographically represents the current military population. This artificial group is then taken from entrance into Military Service through the predicted death of the last member. From this process, the costs of the retirement benefit (health care) and the base over which these costs are spread are predicted.

Decoupling Calculations from Pay

One of our objectives has been to decouple retirement health care accrual funding from military pay. We established this objective because, unlike military retirement pay, the value of retirement health care is independent of military pay.

The military retirement pay accrual funding system spreads the costs of military retirement pay over the career military pay of all new-entrant cohorts. The DoD Actuary calculates a percentage of military base pay, called a *normal cost percentage (NCP)*. This percentage is then applied to the total DoD base payroll to calculate the DoD annual deposit into the retirement pay trust fund.

To achieve our objective to decouple our FY93 estimates from military pay, we used average costs per service man-year (ACSMs). This approach charged each Military Service member the same cost, whatever paygrade or seniority. Because we rely on the staff of the DoD Actuary for many of the calculations they make for retirement pay accrual funding, for FY93 we first calculated NCPs and then converted these to ACSMs.

Our FY93 calculations retained an estimated 0.75 percent annual real growth in military pay. For our FY94 calculations, we decided to sever our estimates from the effects of real growth in pay. Since it was not feasible to calculate ACSMs directly, we first calculated NCPs, using a zero annual real growth in pay. This has the same effect as severing our estimates from military pay. Every man-year of military service is charged the same portion of future retirement health care costs, no matter when during the period of military service the man-year is performed. As with our FY93 calculations, we converted the NCPs to ACSMs.

Disaggregation

For our FY93 estimates, we calculated separate ACSMs for the Active and Reserve Components. Because of the difference in benefits (and thus their value) and in available data between the MTF and CHAMPUS systems, for each Component we calculated separate MTF and CHAMPUS ACSMs. For our FY94 calculations we additionally disaggregated our figures by personnel category

(officer/enlisted) and Military Service (Army, Navy, Air Force, Marine Corps).

Unfortunately, input data for our calculations were not always broken down in all of the ways we disaggregated the ACSMs. The DoD Actuary's demographic data do not distinguish between Services. The MTF workload data, used to compute that portion of MTF expenditures applied to retired health care, do not distinguish between the Components or the Services.

These data limitations imposed some key assumptions upon us. Our ACSMs assume that there is no difference in the demand for retirement health care between comparable members of different groups. In other words, we assume that the health care costs of a 64-year-old male retired Active Army officer will be the same as those of a 64-year-old retired Reserve Navy enlisted man.

Lacking Service-specific actuarial and MTF cost data, we calculated actuarially correct All-DoD ACSMs. We then allocated the actuarially correct All-DoD ACSMs to specific Services so that the sum of Service deposits equals the All-DoD deposit. For example:

$$\begin{array}{r} \text{Army Active Officer Deposit} \\ \text{Navy Active Officer Deposit} \\ \text{Air Force Active Officer Deposit} \\ + \text{Marine Corps Active Officer Deposit} \\ \hline \text{All-DoD Active Officer Deposit} \end{array}$$

To make this relationship hold, the allocation process necessarily uses the predicted number of service man-years used in making the deposit calculations. We obtained these from the February 1992 FY93 DoD Budget submission. Specifically:

$$ACSM_{SVC} = ACSM_{ALL,DoD} \times RETENTION\ PCTG_{SVC} \times CONSTANT$$

Where:

$$CONSTANT = \frac{\sum MANYRS_{SVC}}{\sum RETIREMENT\ PCTG_{SVC} \times MANYRS_{SVC}}$$

The summations are taken over all Services. Separate constants were calculated for each All-DoD ACSM. Referring to the above example, a single constant was calculated for Active Officers. Along with the Service officer retention rates, this was applied to the All-DoD Active Officer ACSM to calculate the Service-specific ACSMs.

If (as is likely) the proportion of service man-years between the Military Services changes from that found in the February 1992 FY93 DoD Budget submission, the Service ACSMs would also change. The actuarially correct All-DoD ACSM, however, would continue to be accurate. Because of this, *all budget calculations should use the All-DoD ACSM*. The Service-specific ACSMs should be used only for cost analysis studies.

UNFUNDED ACCRUED LIABILITY

The unfunded accrued liability (UAL) is the total of the present value of the future benefits, less the present value of future normal costs (NCPs multiplied by future pay), less the value of the trust fund assets (zero at start-up).

We calculated the present value of future benefits for current retirees and Service members by using the same data and approach described in the previous sections, with additional data on current retirees furnished by the DoD Actuary. We similarly developed NCPs for the current Service population. Multiplying these NCPs by the present value of future pay for the current population (provided by the DoD Actuary), we calculated the present value of future normal costs.

Table A-8 shows the development of the UAL.

TABLE A-8
UNFUNDED ACCRUED LIABILITY DEVELOPMENT
(\$ Billion)

Development steps	Active		Reserve		Total	
	MTF	CHAMPUS	MTF	CHAMPUS	MTF	CHAMPUS
(1) Present value of future benefits, current Service members	\$66.84	\$51.24	\$13.15	\$3.75		
(2) Present value of future pay, current Service members	\$358.16	\$358.16	\$31.53	\$31.53		
(3) Normal cost percent	7.75%	5.71%	26.84%	7.51%		
(4) Present value of future normal cost: (2) x (3)	\$27.75	\$20.46	\$8.46	\$2.37		
(5) Accrued liability, current Service members: (1) - (4)	\$30.08	\$30.78	\$4.69	\$1.39	\$43.77	\$32.17
(6) Accrued liability, current retirees					\$103.83	\$33.57
(7) Total accrued liability: (5) + (6)					\$147.60	\$65.74
(8) Assets					\$0	\$0
(9) Unfunded accrued liability: (7) - (8)					\$147.60	\$65.74

APPENDIX B

AGGREGATED ACCRUAL FUNDING FIGURES

Having calculated disaggregated average costs per service man-year (ACSMs), for convenience we present a complete set of "reaggregated" ACSMs and annual deposits in Table B-1.

These figures take our disaggregated ACSMs and aggregate them across each disaggregation factor and combination of disaggregation factors.

For example, the first set of aggregated ACSMs aggregates across both delivery systems (MTFs and CHAMPUS). The first entry shows that the aggregated ACSM for an Active Officer in the Army is \$4,295 for the combination of MTF and CHAMPUS. When this figure is multiplied by the 92,982 Active Army Officer man-years, the deposit for Active Army Officers for MTFs and CHAMPUS of \$399.3 million results. The sum of all these aggregated deposits is, as expected, \$6,211.8 million, just as for the disaggregated ACSM.

Subsequent sets of ACSMs in Table B-1 are aggregated over other disaggregation factors. The second set aggregates over Services, the third set over personnel categories. The final row in Table B-1 is a single ACSM, \$2,314, aggregated over both Components, both personnel categories, both delivery systems, and all Services. When this ACSM is multiplied by the total military man-years in DoD of 2,684,004 the total DoD deposit, \$6,211.8 million, results.

TABLE B-1
AGGREGATED ACCRUAL FUNDING FIGURES

Component, Officer/Enlisted, MTF/CHAMPUS, Service				Composite ACSM	Total composite man-years	Composite deposit (\$ millions)
ACTIVE	OFFICER	BOTH	ARMY	\$4,295	92,982	\$399.3
ACTIVE	OFFICER	BOTH	NAVY	4,116	68,161	280.5
ACTIVE	OFFICER	BOTH	AIR FORCE	5,189	85,340	442.8
ACTIVE	OFFICER	BOTH	MARINE CORPS	2,863	19,068	54.6
ACTIVE	ENLISTED	BOTH	ARMY	1,851	514,317	952.0
ACTIVE	ENLISTED	BOTH	NAVY	2,057	473,522	973.9
ACTIVE	ENLISTED	BOTH	AIR FORCE	4,730	362,923	1,716.7
ACTIVE	ENLISTED	BOTH	MARINE CORPS	1,440	162,617	234.1
RESERVE	OFFICER	BOTH	ARMY	1,941	86,220	167.4
RESERVE	OFFICER	BOTH	NAVY	1,860	23,313	43.4
RESERVE	OFFICER	BOTH	AIR FORCE	2,346	28,474	66.8
RESERVE	OFFICER	BOTH	MARINE CORPS	1,294	3,058	4.0
RESERVE	ENLISTED	BOTH	ARMY	861	490,432	422.4
RESERVE	ENLISTED	BOTH	NAVY	957	78,831	75.4
RESERVE	ENLISTED	BOTH	AIR FORCE	2,201	162,014	356.6
RESERVE	ENLISTED	BOTH	MARINE CORPS	670	32,732	21.9
Total deposit						\$6,211.8
ACTIVE	OFFICER	MTF	ALL	\$2,686	265,551	\$713.3
ACTIVE	OFFICER	CHAMPUS	ALL	1,747	265,551	464.0
ACTIVE	ENLISTED	MTF	ALL	1,442	1,513,379	2,182.5
ACTIVE	ENLISTED	CHAMPUS	ALL	1,119	1,513,379	1,694.2
RESERVE	OFFICER	MTF	ALL	1,606	141,065	226.6
RESERVE	OFFICER	CHAMPUS	ALL	389	141,065	54.9

TABLE B-1

AGGREGATED ACCRUAL FUNDING FIGURES (Continued)

Component, Officer/Enlisted, MTF/CHAMPUS, Service				Composite ACSM	Total composite man-years	Composite Deposit (\$ millions)
RESERVE	ENLISTED	MTF	ALL	\$888	764,009	\$678.7
RESERVE	ENLISTED	CHAMPUS	ALL	259	764,009	197.7
Total deposit						\$6,211.8
ACTIVE	BOTH	MTF	ARMY	\$1,281	607,299	\$777.9
ACTIVE	BOTH	MTF	NAVY	1,326	541,683	718.2
ACTIVE	BOTH	MTF	AIR FORCE	2,755	448,263	1,234.8
ACTIVE	BOTH	MTF	MARINE CORPS	907	181,685	164.9
ACTIVE	BOTH	CHAMPUS	ARMY	944	607,299	573.4
ACTIVE	BOTH	CHAMPUS	NAVY	990	541,683	536.2
ACTIVE	BOTH	CHAMPUS	AIR FORCE	2,063	448,263	924.8
ACTIVE	BOTH	CHAMPUS	MARINE CORPS	682	181,685	123.8
RESERVE	BOTH	MTF	ARMY	801	576,652	461.9
RESERVE	BOTH	MTF	NAVY	914	102,144	93.3
RESERVE	BOTH	MTF	AIR FORCE	1,732	190,488	329.9
RESERVE	BOTH	MTF	MARINE CORPS	563	35,790	20.2
RESERVE	BOTH	CHAMPUS	ARMY	222	576,652	127.9
RESERVE	BOTH	CHAMPUS	NAVY	249	102,144	25.5
RESERVE	BOTH	CHAMPUS	AIR FORCE	491	190,488	93.5
RESERVE	BOTH	CHAMPUS	MARINE CORPS	160	35,790	5.7
Total deposit						\$6,211.8
BOTH	OFFICER	MTF	ARMY	\$2,102	179,202	\$376.7
BOTH	OFFICER	MTF	NAVY	2,240	91,474	204.9
BOTH	OFFICER	MTF	AIR FORCE	2,830	113,814	322.1
BOTH	OFFICER	MTF	MARINE CORPS	1,639	22,126	36.3
BOTH	OFFICER	CHAMPUS	ARMY	1,060	179,202	190.0
BOTH	OFFICER	CHAMPUS	NAVY	1,301	91,474	119.0
BOTH	OFFICER	CHAMPUS	AIR FORCE	1,648	113,814	187.6
BOTH	OFFICER	CHAMPUS	MARINE CORPS	1,007	22,126	22.3

TABLE B-1
AGGREGATED ACCRUAL FUNDING FIGURES (Continued)

Component, Officer/Enlisted, MTF/CHAMPUS, Service				Composite ACSM	Total composite man-years	Composite deposit (\$ millions)
BOTH	ENLISTED	MTF	ARMY	\$859	1,004,749	\$863.1
BOTH	ENLISTED	MTF	NAVY	1,098	552,353	606.7
BOTH	ENLISTED	MTF	AIR FORCE	2,367	524,937	1,242.7
BOTH	ENLISTED	MTF	MARINE CORPS	762	195,349	148.8
BOTH	ENLISTED	CHAMPUS	ARMY	509	1,004,749	511.3
BOTH	ENLISTED	CHAMPUS	NAVY	801	552,353	442.6
BOTH	ENLISTED	CHAMPUS	AIR FORCE	1,582	524,937	830.7
BOTH	ENLISTED	CHAMPUS	MARINE CORPS	549	195,349	107.3
Total deposit						\$6,211.8
ACTIVE	OFFICER	BOTH	ALL	\$4,433	265,551	\$1,177.3
ACTIVE	ENLISTED	BOTH	ALL	2,562	1,513,379	3,876.7
RESERVE	OFFICER	BOTH	ALL	1,996	141,065	281.5
RESERVE	ENLISTED	BOTH	ALL	1,147	764,009	876.4
TOTAL DEPOSIT						\$6,211.8
ACTIVE	BOTH	BOTH	ARMY	2,225	607,299	\$1,351.3
ACTIVE	BOTH	BOTH	NAVY	2,316	541,683	1,254.4
ACTIVE	BOTH	BOTH	AIR FORCE	4,818	448,263	2,159.6
ACTIVE	BOTH	BOTH	MARINE CORPS	1,589	181,685	288.7
RESERVE	BOTH	BOTH	ARMY	1,023	576,652	589.8
RESERVE	BOTH	BOTH	NAVY	1,163	102,144	118.8
RESERVE	BOTH	BOTH	AIR FORCE	2,223	190,488	423.4
RESERVE	BOTH	BOTH	MARINE CORPS	723	35,790	25.9
Total deposit						6,211.8
ACTIVE	BOTH	MTF	ALL	\$1,628	1,778,930	2,895.8
ACTIVE	BOTH	CHAMPUS	ALL	1,213	1,778,930	2,158.2

TABLE B-1
AGGREGATED ACCRUAL FUNDING FIGURES (Continued)

Component, Officer/Enlisted, MTF/CHAMPUS, Service				Composite ACSM	Total composite man-years	Composite deposit (\$ millions)
RESERVE	BOTH	MTF	ALL	\$1,000	905,074	\$905.3
RESERVE	BOTH	CHAMPUS	ALL	279	905,074	252.6
TOTAL DEPOSIT						\$6,211.8
BOTH	OFFICER	MTF	ALL	\$2,311	406,616	\$939.9
BOTH	OFFICER	CHAMPUS	ALL	1,276	406,616	518.9
BOTH	ENLISTED	MTF	ALL	1,256	2,277,388	2,861.2
BOTH	ENLISTED	CHAMPUS	ALL	831	2,277,388	1,891.8
Total deposit						\$6,211.8
BOTH	OFFICER	BOTH	ARMY	\$3,162	179,202	\$566.7
BOTH	OFFICER	BOTH	NAVY	3,541	91,474	323.9
BOTH	OFFICER	BOTH	AIR FORCE	4,478	113,814	509.6
BOTH	OFFICER	BOTH	MARINE CORPS	2,646	22,126	58.5
BOTH	ENLISTED	BOTH	ARMY	1,368	1,004,749	1,374.4
BOTH	ENLISTED	BOTH	NAVY	1,900	552,353	1,049.3
BOTH	ENLISTED	BOTH	AIR FORCE	3,950	524,937	2,073.3
BOTH	ENLISTED	BOTH	MARINE CORPS	1,311	195,349	256.0
Total deposit						\$6,211.8
BOTH	BOTH	MTF	ARMY	\$1,047	1,183,951	\$1,239.8
BOTH	BOTH	MTF	NAVY	1,261	643,827	811.6
BOTH	BOTH	MTF	AIR FORCE	2,450	638,751	1,564.7
BOTH	BOTH	MTF	MARINE CORPS	851	217,475	185.0
BOTH	BOTH	CHAMPUS	ARMY	592	1,183,951	701.3
BOTH	BOTH	CHAMPUS	NAVY	872	643,827	561.6
BOTH	BOTH	CHAMPUS	AIR FORCE	1,594	638,751	1,018.2
BOTH	BOTH	CHAMPUS	MARINE CORPS	596	217,475	129.5
Total deposit						\$6,211.8

TABLE B-1
AGGREGATED ACCRUAL FUNDING FIGURES (Continued)

Component, Officer/Enlisted, MTF/CHAMPUS, Service				Composite ACSM	Total composite man-years	Composite deposit (\$ millions)
BOTH	BOTH	MTF	ALL	\$1,416	2,684,004	\$3,801.1
BOTH	BOTH	CHAMPUS	ALL	898	2,684,004	2,410.7
TOTAL DEPOSIT						\$6,211.8
BOTH	OFFICER	BOTH	ALL	\$3,588	406,616	\$1,458.8
BOTH	ENLISTED	BOTH	ALL	2,087	2,277,388	4,753.1
TOTAL DEPOSIT						\$6,211.8
BOTH	BOTH	BOTH	ARMY	\$1,639	1,183,951	\$1,941.1
BOTH	BOTH	BOTH	NAVY	2,133	643,827	1,373.2
BOTH	BOTH	BOTH	AIR FORCE	4,044	638,751	2,583.0
BOTH	BOTH	BOTH	MARINE CORPS	1,447	217,475	314.6
TOTAL DEPOSIT						\$6,211.8
ACTIVE	BOTH	BOTH	ALL	\$2,841	1,778,930	\$5,054.0
RESERVE	BOTH	BOTH	ALL	1,279	905,074	1,157.9
TOTAL DEPOSIT						6,211.8
BOTH	BOTH	BOTH	ALL	\$2,314	2,684,004	6,211.8
TOTAL DEPOSIT						6,211.8

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