2024 Report to the President and Congress Regarding the Status of the Military Retirement Fund

Submitted by the Department of Defense Board of Actuaries

April 2024

DEPARTMENT OF DEFENSE
BOARD OF ACTUARIES
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April 2024

President Joseph R. Biden, Jr.
The White House
Washington, D.C.

The Honorable Mike Johnson
Speaker of the House of Representatives
Washington, D.C.

The Honorable Patty L. Murray
President Pro Tempore of the Senate
Washington, D.C.

Dear Mr. President, Mr. Speaker and Senator Murray:

We have the honor of transmitting to you the 2024 Report of the Department of Defense (DoD) Board of Actuaries. The report includes information on the status of the Military Retirement Fund (MRF) and recommendations for changes that the Board considers appropriate and necessary to maintain it on a sound actuarial basis, in compliance with Section 183 of Title 10, United States Code.

The Board also comments and provides recommendations with respect to the Education Benefits Fund (EBF) and Voluntary Separation Incentive (VSI) Fund. The report does not include detailed information on the status of the EBF or VSI Fund. Such information is available from the DoD Office of the Actuary.

Respectfully submitted,

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A. SUMMARY

Background

The DoD Board of Actuaries (the Board) consists of three members appointed by the Secretary of Defense to staggered 15-year terms (10 U.S.C. §183). The Board is required to report at least once every four years to the President and Congress on the status of the Military Retirement Fund (MRF) and may include recommendations related to the Education Benefits Fund (EBF) and the Voluntary Separation Incentive (VSI) Fund. The "quadrennial" report is to include any recommendations the Board believes appropriate and necessary to maintain the funds on a sound actuarial basis. This is the tenth such report for the MRF, the fifth for the EBF, and the fourth containing recommendations for the VSI Fund.

Actuarial Costs

Section B is an introduction to the report. It also notes that this report does not include a comprehensive listing of the various actuarial costs determined each year and directs the reader to the documents published by the DoD Office of the Actuary for such information.

Financial Operation

Section C provides an overview of the financial operation of the MRF since 1984. Each year, DoD pays the MRF's normal cost for benefits being earned currently, except that Treasury pays the portion of the normal cost attributable to the concurrent receipt provisions of P.L. 108-136. Treasury pays an additional amount to amortize the unfunded liability. These contributions go into the MRF from which benefits are paid. We believe that the MRF is in sound condition, but we recommend several changes, as noted below.

Recommendations

Section D describes the Board's recommendations:

MRF Recommendations

1. Congress should re-examine how the MRF is funded with respect to Concurrent Receipt.

2. Past liabilities should be funded by DoD rather than Treasury.

3. Congress should require that the lump sum provision in the Blended Retirement System (BRS) be modified.

4. Congress should consider alternative normal cost funding methods.

5. DoD should make additional investments in the Office of the Actuary's actuarial software infrastructure and ensure uninterrupted access to data.

EBF Recommendations

6. Accounting for VA and DoD education benefits should be consistent.

7. EBF data should be improved.

8. The EBF should be audited.

9. Reversion of surplus assets from Chapters 30, 33, and 1606 benefit plans should be permitted.

VSI Recommendation

10. Congress should make minor revisions to VSI Fund enabling legislation.

General Recommendation

11. Use of sunset provisions should be curtailed.

B. INTRODUCTION

In September 1983, Public Law 98-94 changed the accounting basis for financing the MRF. Effective October 1, 1984, DoD began charging the costs of military retirement benefits on an actuarial basis as benefits are earned rather than on a cash basis as benefits are paid. As part of this change, a three-member Board of Actuaries was established to provide technical advice and perform other functions relative to the financial operation of the MRF (see Appendix A). Among those functions is the requirement to prepare a report at least every four years to the President and Congress on the status of the MRF, with recommendations for such changes as are necessary in the Board's judgment to maintain the MRF on a sound actuarial basis.[1]

The Board issued its first report under this requirement in September 1988 and has issued a subsequent report every four years thereafter. In this tenth report, the Board reviews the financial status of the MRF and comments on some aspects of the system which the President and Congress may want to consider changing to keep the MRF on a sound actuarial basis. The text of this report does not necessarily reflect the views of the Office of the Actuary or DoD officials.

This report does not contain a comprehensive listing of the various actuarial costs determined during the past 39 years, nor of the technical bases underlying these calculations. Such information is readily available from other sources, having been regularly documented and published by the DoD Office of the Actuary in printed form and on its website at http://actuary.defense.gov/.

[1] P.L. 110-181 changed the report parameters from a requirement to include "recommendations for such changes as in the Board's judgment are necessary to protect the public interest and maintain the Fund on a sound actuarial basis" to requiring "recommendations for modifications to the funding or amortization of [the Fund] as the Board considers appropriate and necessary to maintain [the Fund] on a sound actuarial basis."

C. FINANCIAL OPERATIONS OVERVIEW FOR MILITARY RETIREMENT FUND

This section presents an overview of the MRF financial operations through September 30, 2023.

1. Nature of the MRF and Financing Procedures

Since October 1, 1984, the MRF has operated under a financing procedure by which the MRF is paid monthly contributions by DoD equal to DoD's portion of the "normal cost." Treasury makes a contribution on October 1 of each year equal to its portion of the "normal cost" plus annual installments to amortize its "unfunded accrued liability" for the prior fiscal year.[2] The MRF is invested in Treasury debt securities that generate interest income. Benefit payments are disbursed from the MRF. Based upon methods and assumptions approved by the Board, the DoD Office of the Actuary performs all the detailed studies and calculations used in the financing procedure and prepares the associated written reports.[3]

Previous reports have noted that the establishment of the MRF does not represent actual advance funding. Real advance funding could be achieved by investing the assets outside the US Unified Budget, for example, in stocks or corporate bonds (as do the Retirement Funds of the Federal Reserve and FDIC), or in bonds of state and local municipalities or federal government agencies (like Fannie Mae, Freddie Mac, or Sallie Mae). Instead, the accrual accounting procedure now in place is essentially an internal cost accounting system. While the nation has not actually set aside money to pay the benefits of those who have served in uniform, the MRF can be viewed as earmarking future tax receipts for the benefit of military retirees. As such, the existence of the MRF promotes a measure of "psychological security" for military members.

[2] The **normal cost** is the level percentage of basic pay that would be necessary to finance the benefits payable to a group of new entrants into military service, assuming it is paid into a fund during each year of service of such group and the fund is invested in interest-bearing securities. The **accrued liability** is the theoretical amount that would be in the fund at any given time for a group of participants if normal costs had been paid throughout all past years of service and all demographic and economic assumptions had been realized. Because no advance funding was done before Oct. 1, 1984, the accrued liability on that date is called the initial unfunded accrued liability.

[3] Complete details of these valuations are contained in reports published annually by the DoD Office of the Actuary. The normal costs, unfunded accrued liabilities, and related figures presented in the reports are calculated using methods and assumptions approved by the Board. The texts of the reports do not necessarily reflect the individual or collective views or endorsements of Board members.

Two common misconceptions about the MRF are:

a) *The MRF holds government tax receipts that have been accumulated in the past.* Actually, the MRF represents future tax receipts that will be allocated to pay principal and interest on government bonds being held by the MRF.

b) *The actuarial soundness of the MRF can be measured by prospective short-term (or medium-term) cash flows.* The entire present value of the liabilities must be compared to the sum of the MRF's current assets and prospective contributions. A year-by-year projection of cash flow is also needed to measure the MRF's ability to pay benefits every year.

The current financing procedure, although carried out by allocating no more tax dollars than needed to pay benefits to military retirees as they come due, has nonetheless contributed to a more accurate allocation of resources within the defense budget and to formal quantification of the government's obligation to pay retirement benefits to military members and eligible survivors.

2. Progress of the MRF: Payments by DoD and Treasury

The progress of the MRF for each year since inception is summarized in Table 1. Administrative expenses are not paid from the MRF, and thus are not reflected in the calculation of normal costs or actuarial liabilities.

Each year's normal cost is determined by applying Normal Cost Percentages (NCPs) to the actual basic pay throughout the year for full-time and part-time personnel. (Full-time personnel include active duty members as well as full-time reservists; part-time personnel include part-time reservists.) In 2022, full-time personnel accounted for approximately 90% of the total DoD normal cost. The NCPs from 1985 forward are presented in Table 2. See Appendix B for a brief description of the factors which have caused the percentages to change over time.

It is worth noting from Table 2 that in FY 2025, for full-time personnel, the Treasury NCP is over half of the total NCP. This is due to an increase in Concurrent Receipt. We further discuss this in our Recommendations section.

TABLE 1
Military Retirement System - Flow of Plan Assets
(In Billions of Dollars)

Fiscal Year	Fund Balance, Beginning of Year	Contributions Received			Investment Income	Benefit Outlays	Fund Balance, End of Year
		From DoD, for Normal Costs	From Treasury, for Normal Costs	From Treasury, for Accrued Liability			
1985	$0.0	$17.0	---	$9.5	$1.1	$15.8	$11.8
1986	11.8	17.4	---	10.5	2.5	17.6	24.6
1987	24.6	18.3	---	10.5	3.6	18.1	38.9
1988	37.3	18.4	---	10.3	5.0	17.5	53.4
1989	53.4	18.5	---	9.8	6.1	20.2	67.6
1990	67.6	16.3	---	10.6	7.3	21.5	80.4
1991	80.4	17.2	---	10.8	8.5	23.1	93.7
1992	93.7	16.3	---	11.2	9.4	24.5	106.1
1993	106.1	13.2	---	12.3	10.0	25.7	115.9
1994	115.9	12.8	---	11.9	10.3	26.7	124.2
1995	124.2	12.2	---	11.5	10.9	27.8	131.0
1996	131.0	11.2	---	10.7	11.3	28.8	135.3
1997	135.3	11.1	---	15.2	11.9	30.2	143.3
1998	143.3	10.4	---	15.1	12.2	31.1	149.9
1999	149.9	10.4	---	15.3	12.4	31.9	156.0
2000	156.0	11.4	---	15.3	12.7	32.8	162.7
2001	162.7	11.4	---	16.1	13.2	34.1	169.2
2002	169.2	12.9	---	17.0	12.4	35.1	176.5
2003	176.5	13.7	---	17.9	10.0	35.6	182.6
2004	182.6	14.1	---	18.2	10.1	37.0	188.0
2005	188.0	15.0	$1.5	21.4	10.9	39.0	197.9
2006	197.9	13.9	2.3	23.2	12.3	41.1	208.4
2007	208.4	14.5	2.5	26.0	10.3	43.5	218.2
2008	218.2	16.1	2.8	46.2	15.6	45.8	253.1
2009	253.1	17.5	3.7	51.1	2.9	50.0	278.4
2010	278.4	20.4	4.5	58.6	10.4	50.6	321.7
2011	321.7	21.0	5.0	61.4	18.0	51.0	376.1
2012	376.1	21.9	5.4	64.8	12.5	52.6	428.0
2013	428.0	20.5	6.8	67.7	15.0	54.5	483.5
2014	483.5	20.5	6.3	72.9	17.1	55.4	545.0
2015	545.0	19.7	6.2	75.6	10.8	56.8	600.6
2016	600.6	19.3	6.9	79.3	15.5	57.2	664.3
2017	664.3	18.3	6.8	81.2	21.2	57.8	734.1
2018	734.1	18.4	6.8	82.9	30.5	58.9	813.9
2019	813.9	20.5	7.9	88.0	27.4	60.7	897.0
2020	897.0	21.8	8.5	91.9	22.6	62.4	979.4
2021	979.4	25.2	9.9	98.1	56.9	63.0	1,106.5
2022	1,106.5	26.0	10.6	114.5	93.0	71.5	1,279.1

TABLE 2
Normal Cost Percentages (NCPs)*

Fiscal Year	Full-Time Personnel		Part-Time Personnel	
	DoD	Treasury**	DoD	Treasury**
1985	50.7%	---	50.7%	---
1986	50.7	---	50.7	---
1987	52.2	---	26.4	---
1988	51.2	---	26.1	---
1989	50.2	---	25.7	---
1990	43.9	---	13.4	---
1991	43.2	---	13.3	---
1992	42.7	---	13.3	---
1993	36.4	---	10.6	---
1994	36.0	---	10.6	---
1995	35.5	---	10.5	---
1996	32.9	---	9.6	---
1997	32.6	---	9.6	---
1998	30.5	---	8.8	---
1999	30.2	---	8.7	---
2000	31.8	---	9.8	---
2001	29.6	---	14.1	---
2002	30.3	---	14.4	---
2003	27.4	---	14.6	---
2004	27.1	---	16.0	---
2005	27.5	3.3%	16.7	0.8%
2006	26.5	4.9	16.7	1.4
2007	26.5	4.9	17.5	1.5
2008	29.0	5.0	19.1	1.5
2009	29.4	7.0	21.1	2.3
2010	32.4	8.0	24.5	2.8
2011	32.7	8.2	24.4	3.2
2012	34.3	8.8	24.3	3.6
2013	32.1	11.2	24.4	3.2
2014	32.4	11.7	24.5	2.9
2015	32.2	11.8	22.5	2.7
2016	31.4	13.1	23.0	2.9
2017	28.9	12.8	22.8	3.3
2018	28.4	12.5	22.6	3.3
2019	30.4	13.6	24.7	3.6
2020	31.0	14.2	24.4	3.8
2021	34.9	15.9	26.9	4.2
2022	35.1	16.5	25.7	4.4
2023	36.9	16.2	24.5	3.8
2024	30.0	27.9	23.1	8.5
2025	26.6	30.8	21.5	9.8

* Separate NCPs for full-time vs. part-time personnel were required beginning in 1987.

** Beginning in FY 2005, part of the total NCP is paid by Treasury, representing the cost for the concurrent receipt benefits enacted in P.L. 108-136.

Each year, the Board reviews the appropriateness of current actuarial assumptions and methods and considers possible revisions. The effective date of a resulting change in contribution rates is scheduled to accommodate DoD's budget cycle. Contribution rates are also changed to keep pace with any benefit changes enacted. A history of the changes affecting the NCPs is shown in Appendix B.

The implemented NCPs represent a weighting of NCPs appropriate for personnel under different benefit tiers, based on the proportion of salary for the year related to personnel under each tier. Benefits were reduced for new entrants into the military in 1980 and 1986, although the pre-1986 benefits were partially restored by the FY 2000 National Defense Authorization Act (2000 NDAA), as noted below.

The National Defense Authorization Act for Fiscal Year 2016 (2016 NDAA) included modifications to the MRF which were effective January 1, 2018. Those members with less than 12 years of service on January 1, 2018 had the option of remaining in their current benefit tier or choosing the new retirement benefit structure, BRS. All members who joined the Military Service on or after January 1, 2018 are automatically included in the new BRS structure.

Legacy Benefit Tiers

a) Personnel who entered the military before September 8, 1980 receive benefits based on their final day's basic pay.

b) Personnel who entered on or after September 8, 1980 receive benefits based on the average of their highest 36 months of basic pay ("Hi-3").

c) Some personnel entering the military between August 1, 1986 and December 31, 2002 are expected to retire under a substantially less generous benefit formula than will members in the first two groups. The 2000 NDAA gave military members under the least-generous retirement benefit formula, after completing 15 years of service, the choice of (1) remaining under that benefit formula and receiving a $30,000 Career Status Bonus (CSB) or (2) moving to Hi-3.[4] The $30,000 bonuses are paid from DoD's annual military personnel appropriations, not from the MRF. The 2016 NDAA eliminated the option to make new CSB elections, effective January 1, 2018.

2018 New BRS Structure

d) Members under the BRS are allowed to contribute to a portable Thrift Savings Plan with matching contributions from DoD's annual military appropriations, not from the MRF. The MRF retirement benefit multiplier is reduced from 2.5% of base pay to 2.0% of base pay for each year of service. In addition, a partial lump sum feature has been added to

[4] The option to elect the $30,000 bonus only applies to full-time personnel; hence, most part-time personnel are now covered by the second (i.e., Hi-3) retirement benefit formula.

the MRF. All members who entered the service on or after January 1, 2018 will participate in this benefit tier. Members serving prior to January 1, 2018 who chose to participate in this benefit tier have the 2.0% of pay multiplier apply to all years of service when calculating their retirement benefit.

Each year, a growing proportion of the non-retired military population is covered by less-generous benefit formulas which would lead to declining NCPs for the composite population. As a result of the benefit changes that were effective before 2018, normal costs have been successively smaller than they otherwise would have been. The 2018 new BRS structure has also reduced NCPs from what they otherwise would have been. The effect of this new tier is reflected as new data is available and the policies that have been developed to implement the new benefit structure are employed.

Payments to amortize the system's unfunded accrued liability have changed over the years for two reasons. First, these payments are set to increase at the same rate as the assumed basic pay increases. Second, amortization payments are adjusted each year to reflect, on a gradual basis, the impact of changes in actuarial assumptions, changes in benefit levels, and various actuarial gains and losses (i.e., deviations of actual from assumed experience).

The Board reviews and approves assumptions with respect to economic factors (future interest earnings, salary increases, inflation), and demographic factors (separations from service, mortality, and disability rates, etc.). Deviations of actual from expected experience are sure to occur, particularly over a short time. Less variation is expected in the cumulative results over a longer time. When trends begin to emerge, revisions to the assumptions may be in order.

3. Funding of the Accrued Liability

During the current system's 39 years of operation, the DoD Office of the Actuary has performed annual actuarial valuations under Section 1465 of Title 10, U.S.C., in accordance with methods and assumptions approved by the Board. Payments for the normal cost and amortization have generally been made on schedule and, as of September 30, 2022, the MRF held assets of approximately $1,279 billion. The accrued liability as of that date was $2,108 billion, leaving an unfunded accrued liability of $829 billion. (The unfunded accrued liability as of October 1, 1984 was $529 billion.) The items described in Appendix B that caused the changes in the NCPs also affected the unfunded accrued liability.

The unfunded liability as of October 1, 1984 was originally scheduled to be liquidated in 60 years (i.e., in the year 2043). To prevent a projected exhaustion of the MRF in 2020, the Board decided in August 1996 to shorten the original amortization period to 50 years (i.e., liquidate it in the year 2033). At its 2007 meeting, the Board decided to change the amortization of the initial unfunded liability so that payments at least cover the interest cost on the total unfunded liability. More specifically, this was accomplished by reducing the amortization schedule of the initial unfunded liability by eight years, so that it will now be fully amortized in 2025.

In general, the reason that initial unfunded accrued liabilities are amortized over a period of time is to avoid imposing a crippling cash contribution (or expense for financial reporting purposes) requirement on the plan sponsor in the first year of the plan. However, because this plan is included in the federal budget and is only "funded" with U.S. government securities (i.e., a promised allocation of future tax revenues), the Board is aware that the MRF could theoretically be fully funded (i.e., immediately recognizing its entire liability in the national debt). The current amortization policy is a method that gradually recognizes the unfunded liability.

The FY 2021 National Defense Authorization Act (2021 NDAA) required the U.S. Coast Guard (USCG) to be included in the MRF. The initial unfunded liability for USCG was added to the September 30, 2022 valuation and is being amortized over three years.

The MRF unfunded accrued liability since 1984 is summarized in Table 3. The assets in the MRF covered about 61% of the accrued liability as of September 30, 2022.

TABLE 3 Unfunded Accrued Liability (In Billions of Dollars)				
At End of Fiscal Year	Accrued Liability	Assets	Unfunded Accrued Liability	Percent Funded
1984	$528.7	$0.0	$528.7	0%
1985	551.5	11.8	539.7	2
1986	566.2	24.6	541.6	4
1987	585.2	38.9	546.3	7
1988	551.8	53.4	498.4	10
1989	580.3	67.6	512.7	12
1990	612.9	80.4	532.5	13
1991	604.2	93.7	510.5	16
1992	619.0	106.1	512.9	17
1993	629.9	115.9	514.0	18
1994	615.6	124.2	491.4	20
1995	631.8	131.0	500.8	21
1996	625.8	135.3	490.5	22
1997	639.2	143.3	495.9	22
1998	649.4	149.9	499.5	23
1999	657.2	156.0	501.2	24
2000	682.6	162.7	519.9	24
2001	708.8	169.2	539.6	24
2002	721.6	176.5	545.1	24
2003	810.9	182.6	628.3	23
2004	854.1	188.0	666.1	22
2005	900.6	197.9	702.7	22
2006	973.7	208.4	765.3	21
2007	1,042.3	218.2	824.1	21
2008	1,157.3	253.1	904.2	22
2009	1,186.9	278.4	908.5	23
2010	1,225.2	321.7	903.5	26
2011	1,273.3	376.1	897.2	30
2012	1,360.2	428.0	932.2	31
2013	1,368.6	483.5	885.1	35
2014	1,412.8	545.0	867.8	39
2015	1,417.0	600.6	816.4	42
2016	1,407.0	664.3	742.7	47
2017	1,502.0	734.1	767.9	49
2018	1,533.4	813.9	719.5	53
2019	1,652.6	897.0	755.6	54
2020	1,732.7	979.4	753.3	57
2021	1,851.6	1,106.5	745.1	60
2022	2,108.4	1,279.1	829.3	61

4. Actuarial Assumptions

The normal costs and accrued liability are heavily influenced by the underlying actuarial assumptions, especially those used for future interest, salary growth, and inflation. The inflation, interest, and salary growth assumptions used in the valuations since 1984 are shown in Table 4.

The most important assumption in Table 4 is the spread between the interest and inflation assumptions, shown in the last column of the table. This spread, sometimes called the "real interest" rate or inflation-adjusted rate of interest, has a large impact on the MRF accrued liability. Generally, the higher the real interest rate, the lower the accrued liability will be.

The MRF is required to be invested in non-marketable, market-based U.S. Treasury securities, and the interest assumption reflects this constraint. While the Board does not have authority over the investment policy, our understanding is that the current strategy includes investing the MRF so that it generates sufficient cash to fund benefit payments and expenses as they come due. We also understand that the MRF generally holds securities to maturity, unless a security needs to be liquidated to generate additional cash. We have been informed that many considerations are taken into account when making investment decisions, including balancing various risks, targeting an average maturity of investments of at least 15 years (the current duration of the liabilities is 23 years) and recognizing current and expected economic conditions.

TABLE 4
Board's Long-Term Economic Assumptions

Fiscal Year	Inflation	Interest	Salary Growth	Real Interest
1984	5.00%	6.60%	6.20%	1.60%
1985	5.00	6.60	6.20	1.60
1986	5.00	6.60	6.20	1.60
1987	5.00	6.60	6.20	1.60
1988	5.00	7.00	5.75	2.00
1989	5.00	7.00	5.75	2.00
1990	5.00	7.00	5.75	2.00
1991	5.00	7.50	5.50	2.50
1992	5.00	7.50	5.50	2.50
1993	5.00	7.50	5.50	2.50
1994	4.00	6.75	4.50	2.75
1995	4.00	6.75	4.50	2.75
1996	3.50	6.50	4.00	3.00
1997	3.50	6.50	4.00	3.00
1998	3.50	6.50	4.00	3.00
1999	3.00	6.25	3.50	3.25
2000	3.00	6.25	3.50	3.25
2001	3.00	6.25	3.50	3.25
2002	3.00	6.25	3.50	3.25
2003	3.00	6.25	3.75	3.25
2004	3.00	6.25	3.75	3.25
2005	3.00	6.25	3.75	3.25
2006	3.00	6.00	3.75	3.00
2007	3.00	6.00	3.75	3.00
2008	3.00	5.75	3.75	2.75
2009	3.00	5.75	3.75	2.75
2010	3.00	5.75	3.75	2.75
2011	3.00	5.75	3.75	2.75
2012	3.00	5.50	3.50	2.50
2013	3.00	5.50	3.50	2.50
2014	3.00	5.50	3.50	2.50
2015	2.75	5.25	3.25	2.50
2016	2.75	5.25	3.25	2.50
2017	2.75	5.00	3.25	2.25
2018	2.75	5.00	3.25	2.25
2019	2.75	4.75	3.25	2.00
2020	2.50	4.25	2.75	1.75
2021	2.50	4.00	2.75	1.50
2022	2.50	4.00	2.75	1.50
2023	2.50	4.00	2.75	1.50

D. RECOMMENDATIONS

In the recommendations that follow, the Board has used the word "funding" as shorthand for "accrual accounting." We recognize that no taxes have yet been assessed to pay for future benefits (or that any taxes so assessed have been loaned back to the federal government to pay for other programs). Further, the Board has not performed any review of the appropriateness of benefit levels in comparison with those in the private sector or public (non-military) sector. Our primary purpose is to make recommendations to allow the MRF, the EBF, and the VSI Fund to remain on a sound actuarial footing. We have provided specific recommendations for each of these programs as well as a few recommendations that pertain to the operational risks in the DoD Office of the Actuary.

MRF Recommendations

1. Congress Should Re-examine How the MRF is Funded with Respect to Concurrent Receipt

In its prior quadrennial reports, the Board has consistently supported that transparency is increased when MRF costs are run through the DOD's budget process as opposed to being covered by Treasury (e.g., the cost of benefit changes).

Concurrent Receipt benefits are increasingly common, and by law the MRF cost of these benefits is paid by Treasury. The expansion of Concurrent Receipt utilization has rapidly increased the portion of NCP assigned to Treasury rather than DoD in a manner the Board believes obscures the true cost of MRF benefits. The Board addressed the issue in its December 2, 2022 letter to Secretary Austin (see Appendix C), but wish to highlight it again in this report.

As background, until 2004, MRF pension benefits were generally reduced by the amount of some types of VA disability benefits payable to the retiree. Thus, the MRF's costs were actually reduced by the cost of these VA disability benefits, and the NCPs reflected the offset accordingly.

FY 2004 NDAA eliminated this offset to the MRF pension, allowing for "Concurrent Receipt" of both VA disability benefits and full MRF pensions by retirees. Elimination of the offset resulted in a significant increase to the total benefits payable from the MRF, and the NCPs increased accordingly.

Presumably so as not to burden DoD with the cost of the increased pension benefits, after Concurrent Receipt went into effect, the annual MRF valuation determines a total NCP, and then a DoD share of the total NCP (DoD NCP) is determined as if MRF benefits are still offset by Concurrent Receipt benefits. The remaining share of the total NCP, attributable to Concurrent Receipt, is then assigned to Treasury (Treasury NCP).

Since the enactment of Concurrent Receipt, VA disability benefits have increased rapidly, perhaps in ways not envisioned at the implementation of the new rules in 2004. Several factors appear to be driving these increases:

- Increased incentive to apply for benefits under Concurrent Receipt rules (since one's MRF benefit will no longer be reduced)
- Broader definitions of disability and higher disability ratings by the VA (such as for PTSD)
- Higher incidence of combat-related disability from recent conflicts

The increase in Concurrent Receipt benefits has resulted in a decrease in the DoD's share of the total NCPs. To illustrate the impact, we can look at NCPs over time. Pulling from Table 2 above:

Fiscal Yr.	Total NCP	DoD NCP	Treasury NCP	DoD portion of Total NCP
2005	30.8%	27.5%	3.3%	89%
2025	57.4%	26.6%	30.8%	46%

DoD NCP for full-time service members has now fallen below 50% of the total, meaning Treasury is now funding the majority of the MRF pension normal costs, and we anticipate Treasury's share will continue to grow.

We believe the original intent of the Concurrent Receipt rules was to limit the initial increase in DoD costs triggered by eliminating VA disability benefit offsets and increasing MRF liabilities, not to transfer the majority of NCP funding responsibility to Treasury. The current situation appears to be an unintended consequence driven by the increased VA disability benefit utilization, and a potential misapplication of the Concurrent Receipt rule relative to its original intent. We encourage policymakers to revisit the Concurrent Receipt rules to consider potential legislative or other solutions. (See our Exhibit C for a more detailed discussion.)

2. Past Liabilities Should be Funded by DoD Rather Than Treasury

In establishing the MRF in 1984, Congress made DoD responsible for paying the normal costs, and made Treasury responsible for paying off the system's initial unfunded liability. The Board establishes the schedule for paying off that liability, and currently has set the amortization period to end in 2025.

In addition to the initial unfunded liability, Treasury also makes amortization payments for other changes in the unfunded liability due to:

- Changes to the MRF benefit formula
- Changes to valuation actuarial assumptions
- Actuarial experience of participants different than assumed

A summary of Treasury amortization payments for FY 2024 is shown below ($ in billions).

a.	Initial unfunded liability	$ 129.3
b.	Benefit changes	7.8
c.	Assumption changes	21.6
d.	Actuarial experience	(8.1)
e.	Sequestration	0.9
f.	Total Treasury amortization payment for FY 2024	$ 151.5

The Board recognizes that the sheer size of the initial unfunded liability established in 1984 of $528.7 billion likely required Treasury funding to avoid significant disruption to DoD budgeting. Since the annual initial unfunded liability amortization payments for 2024 and 2025 are expected to be more than quadruple DoD's entire contribution requirement for each year, the Board has no objection to Treasury retaining responsibility for those remaining payments.

However, the three amortization payments associated with changes in the unfunded liability for benefit changes, assumption changes and actuarial experience do not represent extraordinary obligations like the initial unfunded liability. Rather, these amortizations are associated with normal actuarial pension funding practices. Furthermore, the magnitude of these amortization payments, totaling $21.3 billion for 2024, is not beyond the capabilities of the DoD to fund directly.

Therefore, the Board recommends that once the initial unfunded liability is completely paid off in 2025, responsibility for funding future amortization payments should be shifted from Treasury to DoD to improve the transparency of the true cost of MRF pension obligations.

3. Congress Should Require That the Lump Sum Provision in the BRS be Modified

As noted in section C.2 of this report, a new benefit structure became effective on January 1, 2018 called the Blended Retirement System (BRS). BRS permits members who retire before their Normal Retirement Date to take a lump sum payment in exchange for either 25% or 50% of their expected benefit payments from the time of their retirement until their Social Security Normal Retirement Date. The legislation required that the lump sum be calculated using the concept of a "personal discount rate."

A personal discount rate is not an actuarial concept, as it includes a non-actuarial component of individual preference or utility (i.e., how much or little an individual retiree will accept as a lump sum in exchange for forfeiting a portion of pension payments to Social Security Normal Retirement Date). In our opinion, there is a potential risk that the personal discount rate concept may be seen as exploiting those members who lack a thorough understanding of the time value of money and life expectancy.

Because developing a personal discount rate for each member would be impossible to administer, the DoD created a policy which uses an aggregate personal discount rate. The policy rate is determined using a seven-year average of the Department of the Treasury High Quality Market (HQM) Corporate Spot Rate Yield Curve at a 23-year maturity, reduced by an inflation adjustment from the Department of the Treasury "Break-even" Inflation Spot Rate Yield Curve (the inflation adjustment is meant to compensate for the inflation increases that would have increased the annuity payments). An additional adjustment factor of 4.28 percentage points is then added to the result to account for the "personal discount" component. The final aggregate personal discount rate used in 2023 was 6.32%; it is adjusted each year.

The aggregate personal discount rate is substantially higher than corporate bond rates used to convert annuities to lump sums in private single-employer pension plans, and therefore produces significantly smaller lump sum payments. To illustrate, an equivalent single rate under the private pension rules in September 2023 was closer to 5.8%. This figure is not directly comparable as it would need to be reduced by an inflation adjustment. Such adjustment would produce a comparable net lump sum discount rate around 3.5%, which would result in a significantly higher present value than the personal discount rate methodology. This outcome is understandable considering the focus of analysis during the original BRS design was pricing estimates and retention goals rather than values of individual lump sums compared to present values computed using market bond rates.

We have already provided our general concerns about the use of a personal discount rate,[5] and we continue to have significant concerns about the DoD policy as it is being implemented. As this new feature is better understood, some may conclude that the use of such a high discount rate is taking advantage of service members.

This Board no longer recommends the elimination of the lump sum feature as service members made elections to join the BRS knowing that it included a lump sum feature. However, we strongly recommend that Congress anticipate the ramifications that may arise from the use of these high discount rates and replace the personal discount rate with a more market-based rate like those used in the private sector. We are aware such legislation would impact the MRF's costs and funding requirements, and likely also military retention levels.

[5] See Appendix D for the Board's July 11, 2016 letter to the Honorable Todd Weiler, Assistant Secretary of Defense (Manpower and Reserve Affairs).

4. Congress Should Consider Alternative Normal Cost Funding Methods

Under the Aggregate Entry Age Normal actuarial cost method that is required to value the MRF, the NCPs are based on the new entrant profile—even if the current active duty and reserve populations differ significantly. This methodology will lead to a series of actuarial gains or losses when benefit changes that affect only a portion of the population are implemented.

While the Aggregate Entry Age Normal actuarial cost method is an acceptable actuarial method, it is rarely used outside of the federal government.[6] With advances in computing capabilities, individual actuarial methods have become much more popular and do a better job of reflecting plan and assumption changes that might apply to select groups of members.

However, we also understand that recoding valuation software from the Aggregate Entry Age Normal method to the Individual Entry Age Normal method would be costly.

We recommend that legislation be promulgated that permits the use of either the Aggregate or Individual Entry Age Normal methods, and that provides the DoD Office of the Actuary with the financial resources needed to effect the change. With enabling legislation, the actuarial cost method could be modified at a time when other software updates are needed.

5. DoD Should Make Additional Investments in the Office of the Actuary's Actuarial Software Infrastructure and Ensure Uninterrupted Access to Data

Custom software has been developed to perform the extremely complex MRF valuation. The software is written in the Visual Basic computer language and it (or its Fortran-based predecessor) has been used by the DoD Office of the Actuary since 1979.

While the staff is comfortable using this software and efforts to modernize the actuarial software have taken place, the Board is concerned about the lack of comprehensive standardized documentation. It is possible that future Office of the Actuary staff may be unable to understand the current programming and update it for future benefit or assumption changes.

With the Department of Defense's transition to cloud-based data repositories, it is critical that the Office of the Actuary have uninterrupted access to high-quality data and IT support in order to carry out its mission.

We recommend that DoD dedicate resources to support continued progress toward further software modernization and documentation that is more complete while maintaining access to data. This would help ensure continuity-of-operations and successful mission completion moving forward.

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[6] The Federal Accounting Standards under which DoD reports require the use of the Aggregate Entry Age Normal method.

EBF Recommendations

6. Accounting for VA and DoD Education Benefits Should be Consistent

The liabilities created for education benefits are significant. Some of these liabilities are the responsibility of the DoD, and some of the Department of Veterans Affairs (VA). However, the funding practices for the two agencies are inconsistent:

- VA funds its share on a pay-as-you-go basis, and
- DoD funds its share on an accrual basis.

The DoD is responsible for funding the following programs under the Montgomery GI Bill (MGIB):

- Active Duty Services, Chapter 30 Kicker Benefits (MGIB-AD)
- Active Duty Services, Category III
- Guard and Selected Reserve Components, Chapter 1606 (MGIB-SR)

The Board believes that accrual accounting, as used for DoD funded benefits, should also be used for the VA funded benefits. Doing so would provide better transparency regarding the true cost of those benefits, thereby leading to increased fiscal responsibility and intergenerational equity along with the appearance of greater benefit protection for the covered individuals. The improved transparency would also allow Congress, in determining which agency should provide which benefit, to focus on the important question of which agency can most effectively provide the benefits rather than false differences in cost by agency.

Consistent accounting would also help show that integration of the benefits makes more sense and is more economical to administer. Plus, appropriate accounting would increase VA's focus on obtaining and maintaining the information necessary for both VA and DoD to appropriately value their respective obligations.

7. EBF Data Should be Improved

The EBF data is often unreliable and varies a great deal from one year to the next. All agencies involved should place a greater priority on improving EBF data quality. Doing so could reduce variability of results and lessen the need for conservatism in modeling processes, and thus alleviate budgeting challenges for the individual services and the DoD as a whole.

As an example of the data issues, we can look at Chapters 1606, 30, and 33. DoD's Defense Manpower Data Center (DMDC) provides individual data on who is taking benefits, and DoD's Defense Finance and Accounting Service (DFAS) provides gross benefit payment data. The

DMDC data, which reflects input from the VA and the Military Services, includes detailed information.

- For the September 30, 2022 actuarial valuation DMDC reported benefit payments of $36 million for the Chapter 30 benefit program while DFAS reported benefit payments of $32 million – a 13% difference.
- DMDC reported benefit payments of $44 million for the Chapter 1606 Basic and Kicker Benefits while DFAS reported $60 million – a 26% difference.

While there have been improvements over the years in the data reported by DMDC, overall, it continues to be inconsistent.

The Board has little confidence in the data that is being provided to value these benefits. We applaud the DoD Office of the Actuary for making the best of a bad situation, but we believe that the quality of the valuation results is suspect because of the poor census data quality.

8. The EBF Should be Audited

The Board recognizes that the EBF is a much smaller fund than the MRF, less than 1% as measured in liabilities. However, with the current emphasis on financial management throughout the federal government, the Board believes having an independent audit of the EBF would be worthwhile. An audit is a key method of internal control in operating any program that dispenses cash benefits. The Board also believes that an audit would focus attention on the data quality concerns mentioned above.

9. Reversion of Surplus Assets from Chapter 30, 33, and 1606 Benefit Plans Should be Permitted

MGIB-AD (Chapters 30 and 33) and MGIB-SR (Chapter 1606) provide educational benefits to Active Duty members and Reservists.

At this point, we believe that the portion of the EBF providing these benefits will likely prove to have more assets than will be necessary. The law does not include any provisions for the treatment of surplus assets.

We recommend that legislation be enacted that permits the reversion of surplus assets to the Services if the Board determines that benefits from a particular plan are sufficiently funded. We would, however, defer this recommendation until an audit of the EBF is completed.

VSI Recommendation

10. Congress Should Make Minor Revisions to VSI Fund Enabling Legislation

The Board is concerned about the expiration of the VSI Fund. No legislated mechanism is available to deal with excess monies in the VSI Fund after the final payment is made. The Board recommends that the VSI law be rewritten to explicitly provide an allowance or process to return excess assets back to the Services or federal government. If the law is so rewritten, because of the fixed annuity format of this benefit and the relatively small declining balance of the VSI Fund, the Board also recommends that the frequency of required valuations be reduced to once every three years.

General Recommendation

11. Use of Sunset Provisions Should be Curtailed

Prior legislation with respect to the Survivor Benefit Plan (SBP) provided for increased benefits to survivors and included a sunset date of 2017. As part of the National Defense Authorization Act for Fiscal Year 2017 (2017 NDAA), Congress extended the benefit, but only for an additional eight months. We were informed that, without renewal, no new increased benefits would begin and that the increased benefits in payment status at that time would cease. The Board believes that the benefits must be valued as written in the legislation.

These benefits were extended and the National Defense Authorization Act for FY 2020 (2020 NDAA) made this increase permanent. As a result, these benefits were really being undervalued until the increase was made permanent.

The use of sunset provisions is inappropriate when the result is to misrepresent the true costs of what are expected and intended to be on-going benefits. This technique should not be used for either the MRF or the EBF.

APPENDIX A

Statutory References for the DoD Board of Actuaries[7]

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10 U.S.C. §183. Department of Defense Board of Actuaries

(a) In general. There shall be in the Department of Defense a Department of Defense Board of Actuaries (hereinafter in this section referred to as the 'Board').

(b) Members.

(1) The Board shall consist of three members who shall be appointed by the Secretary of Defense from among qualified professional actuaries who are members of the Society of Actuaries.
(2) The members of the Board shall serve for a term of 15 years, except that a member of the Board appointed to fill a vacancy occurring before the end of the term for which the member's predecessor was appointed shall only serve until the end of such term. A member may serve after the end of the member's term until the member's successor takes office.
(3) A member of the Board may be removed by the Secretary of Defense only for misconduct or failure to perform functions vested in the Board.
(4) A member of the Board who is not an employee of the United States is entitled to receive pay at the daily equivalent of the annual rate of basic pay of the highest rate of basic pay then currently being paid under the General Schedule of subchapter III of chapter 53 of title 5 [5 U.S.C. § 5331 et seq.] for each day the member is engaged in the performance of the duties of the Board and is entitled to travel expenses, including a per diem allowance, in accordance with section 5703 of that title [5 U.S.C. § 5703] in connection with such duties.

(c) Duties. The Board shall have the following duties:

(1) To review valuations of the Department of Defense Military Retirement Fund in accordance with section 1465(c) of this title [10 U.S.C. § 1465(c)] and submit to the President and Congress, not less often than once every four years, a report on the status of that Fund, including such recommendations for modifications to the funding or amortization of that Fund as the Board considers appropriate and necessary to maintain that Fund on a sound actuarial basis.

[7] 10 U.S.C. §183 is shown in its entirety; for the other sections in this appendix, only relevant subsections are included. "Fund" in 10 U.S.C. §1465 refers to the Military Retirement Fund, whereas "Fund" in 10 U.S.C. §1175 refers to the Voluntary Separation Incentive Fund. "Secretary" in 10 U.S.C. §1175 refers to the Secretary of Defense.

(2) To review valuations of the Department of Defense Education Benefits Fund in accordance with section 2006(e) of this title [10 U.S.C. § 2006(e)] and make recommendations to the President and Congress on such modifications to the funding or amortization of that Fund as the Board considers appropriate to maintain that Fund on a sound actuarial basis.
(3) To review valuations of such other funds as the Secretary of Defense shall specify for purposes of this section and make recommendations to the President and Congress on such modifications to the funding or amortization of such funds as the Board considers appropriate to maintain such funds on a sound actuarial basis.

(d) Records. The Secretary of Defense shall ensure that the Board has access to such records regarding the funds referred to in subsection (c) as the Board shall require to determine the actuarial status of such funds.

(e) Reports.

(1) The Board shall submit to the Secretary of Defense on an annual basis a report on the actuarial status of each of the following:

(A) The Department of Defense Military Retirement Fund.
(B) The Department of Defense Education Benefits Fund.
(C) Each other fund specified by Secretary under subsection (c)(3).

(2) The Board shall also furnish its advice and opinion on matters referred to it by the Secretary.

10 U.S.C. §1465. Determination of contributions to the Fund

(a) (1) Not later than six months after the Board of Actuaries is first appointed, the Board shall determine the amount that is the present value (as of October 1, 1984) of future benefits payable from the Fund that are attributable to service in the armed forces performed before October 1, 1984. That amount is the original unfunded liability of the Fund. The Board shall determine the period of time over which the original unfunded liability should be liquidated and shall determine an amortization schedule for the liquidation of such liability over that period. Contributions to the Fund for the liquidation of the original unfunded liability in accordance with such schedule shall be made as provided in section 1466(b) of this title [10 U.S.C. § 1466(b)].
(2) Not later than October 1, 2022, the Board of Actuaries shall determine the amount that is the present value (as of September 30, 2022) of future benefits payable from the Fund that are attributable to service in the Coast Guard performed before October 1, 2022. That amount is the original Coast Guard unfunded liability of the Fund. The Board shall determine the period of time over which the original Coast Guard unfunded liability should be liquidated and shall determine an amortization schedule for the liquidation of such liability over that period. Contributions to the Fund for the liquidation of the original

Coast Guard unfunded liability in accordance with such schedule shall be made as provided in section 1466(b) of this title [10 U.S.C. § 1466(b)].

(b) (1) The Secretary of Defense, in consultation with the Secretary of the department in which the Coast Guard is operating, shall determine each year, in sufficient time for inclusion in budget requests for the following fiscal year, the total amount of Department of Defense and Coast Guard contributions to be made to the Fund during that fiscal year under section 1466(a) of this title. That amount shall be the sum of the following:

(A) The product of—

(i) the current estimate of the value of the single level percentage of basic pay to be determined under subsection (c)(1)(A) at the time of the next actuarial valuation under subsection (c); and
(ii) the total amount of basic pay expected to be paid during that fiscal year for active duty members of the Armed Forces and for full-time National Guard duty (other than full-time National Guard duty for training only), but excluding the amount expected to be paid for any duty that would be excluded for active-duty end strength purposes by section 115(i) of this title.

(B) The product of—

(i) the current estimate of the value of the single level percentage of basic pay and of compensation (paid pursuant to section 206 of title 37) to be determined under subsection (c)(1)(B) at the time of the next actuarial valuation under subsection (c); and
(ii) the total amount of basic pay and of compensation (paid pursuant to section 206 of title 37) expected to be paid during that fiscal year to members of the Selected Reserve of the armed forces for service not otherwise described in subparagraph (A)(ii).

(2) The amount determined under paragraph (1) for any fiscal year is the amount needed to be appropriated to the Coast Guard Retired Pay account and the Department of Defense for that fiscal year for payments to be made to the Fund during that year under section 1466(a) of this title. The President shall include not less than the full amount so determined in the budget transmitted to Congress for that fiscal year under section 1105 of title 31. The President may comment and make recommendations concerning any such amount.
(3) At the same time that the Secretary of Defense makes the determination required by paragraph (1) for any fiscal year, the Secretary shall determine the amount of the Treasury contribution to be made to the Fund for the next fiscal year under section 1466(b)(2)(D) of this title. That amount shall be determined in the same manner as the determination under paragraph (1) of the total amount of Department of Defense and Coast Guard contributions to be made to the Fund during that fiscal year

under section 1466(a) of this title, except that for purposes of this paragraph the Secretary, in making the calculations required by subparagraphs (A) and (B) of that paragraph, shall use the single level percentages determined under subsection (c)(4), rather than those determined under subsection (c)(1).

(c) (1) Not less often than every four years, the Secretary of Defense, in consultation with the Secretary of the department in which the Coast Guard is operating, shall carry out an actuarial valuation of Department of Defense military retirement and survivor benefit programs. Each actuarial valuation of such programs shall include—

(A) a determination (using the aggregate entry-age normal cost method) of a single level percentage of basic pay for active duty members of the Armed Forces and for full-time National Guard duty (other than full-time National Guard duty for training only), but excluding the amount expected to be paid for any duty that would be excluded for active-duty end strength purposes by section 115(i) of this title, to be determined without regard to section 1413a or 1414 of this title; and

(B) a determination (using the aggregate entry-age normal cost method) of a single level percentage of basic pay and of compensation (paid pursuant to section 206 of title 37) for members of the Selected Reserve of the armed forces for service not otherwise described by subparagraph (A), to be determined without regard to section 1413a or 1414 of this title.

Such single level percentages shall be used for the purposes of subsection (b)(1) and section 1466(a) of this title.

(2) If at the time of any such valuation there has been a change in benefits under a military retirement or survivor benefit program that has been made since the last such valuation and such change in benefits increases or decreases the present value of amounts payable from the Fund, the Secretary of Defense, in consultation with the Secretary of the department in which the Coast Guard is operating, shall determine an amortization methodology and schedule for the amortization of the cumulative unfunded liability (or actuarial gain to the Fund) created by such change and any previous such changes so that the present value of the sum of the amortization payments (or reductions in payments that would otherwise be made) equals the cumulative increase (or decrease) in the present value of such amounts.

(3) If at the time of any such valuation the Secretary of Defense, in consultation with the Secretary of the department in which the Coast Guard is operating, determines that, based upon changes in actuarial assumptions since the last valuation, there has been an actuarial gain or loss to the Fund, the Secretary shall determine an amortization methodology and schedule for the amortization of the cumulative gain or loss to the Fund created by such change in assumptions and any previous such changes in assumptions through an increase or decrease in the payments that would otherwise be made to the Fund.

(4) Whenever the Secretary carries out an actuarial valuation under paragraph (1), the Secretary shall include as part of such valuation the following:

(A) A determination of a single level percentage determined in the same manner as applies under subparagraph (A) of paragraph (1), but based only upon the provisions of sections 1413a and 1414 of this title.

(B) A determination of a single level percentage determined in the same manner as applies under subparagraph (B) of paragraph (1), but based only upon the provisions of sections 1413a and 1414 of this title.

Such single level percentages shall be used for the purposes of subsection (b)(3).

(5) Contributions to the Fund in accordance with amortization schedules under paragraphs (2) and (3) shall be made as provided in section 1466(b) of this title.

(d) All determinations under this section shall be made using methods and assumptions approved by the Board of Actuaries (including assumptions of interest rates and inflation) and in accordance with generally accepted actuarial principles and practices.

10 U.S.C. §2006. Department of Defense Education Benefits Fund

(e) (6) All determinations under this subsection shall be made using methods and assumptions approved by the Board of Actuaries (including assumptions of interest rates and inflation) and in accordance with generally accepted actuarial principles and practices.

10 U.S.C. §1175. Voluntary Separation Incentive

(h) (4) The Department of Defense Board of Actuaries (hereinafter in this subsection referred to as the "Board") shall perform the same functions regarding the Fund, as provided in this subsection, as such Board performs regarding the Department of Defense Military Retirement Fund.

(5) Not later than January 1, 1993, the Board shall determine the amount that is the present value, as of that date, of the future benefits payable under this section in the case of persons who are separated pursuant to this section before that date. The amount so determined is the original unfunded liability of the Fund. The Board shall determine an appropriate amortization period and schedule for liquidation of the original unfunded liability. The Secretary shall make deposits to the Fund in accordance with that amortization schedule.

(6) For persons separated under this section on or after January 1, 1993, the Secretary shall deposit in the Fund during the period beginning on that date and ending on September 30, 1999—

(A) such sums as are necessary to pay the current liabilities under this section during such period; and

(B) the amount equal to the present value, as of September 30, 1999, of the future benefits payable under this section, as determined by the Board.

(7) (A) For each fiscal year after fiscal year 1999, the Board shall—

(i) carry out an actuarial valuation of the Fund and determine any unfunded liability of the Fund which deposits under paragraphs (5) and (6) do not liquidate, taking into consideration any cumulative actuarial gain or loss to the Fund;
(ii) determine the period over which that unfunded liability should be liquidated; and
(iii) determine for the following fiscal year, the total amount, and the monthly amount, of the Department of Defense contributions that must be made to the Fund during that fiscal year in order to fund the unfunded liabilities of the Fund over the applicable amortization periods.

(B) The Board shall carry out its responsibilities for each fiscal year in sufficient time for the amounts referred to in subparagraph (A)(iii) to be included in budget requests for that fiscal year.
(C) The Secretary of Defense shall pay into the Fund at the end of each month as the Department of Defense contribution to the Fund the amount necessary to liquidate unfunded liabilities of the Fund in accordance with the amortization schedules determined by the Board

APPENDIX B

History of the Changes Affecting the Normal Cost Percentages (NCPs)

- In 1988, the Board adopted new assumptions for interest and salary growth which reduced the NCPs substantially. Because of the DoD budget cycle, the lower NCPs took effect in 1990.
- In 1991, the Board's new assumptions for interest and salary growth caused a further decrease in the NCPs which, due to the budget cycle, took effect in 1993.
- In 1994 and 1996, the Board adopted new inflation, interest, and salary-growth assumptions which further reduced the NCPs for 1996 and 1998, respectively.
- In 1999, the Board's new economic assumptions, as well as a number of changes in the methodology of the part-time valuation, led to a major increase in the NCP for part-time personnel beginning in 2001.
- In 2000, a change in benefits produced an increase in both NCPs for 2000.
- Also in 2000, a major change in mortality assumptions led to an increase in NCPs for 2002.
- In 2002, new assumptions for the part-time valuation led to an increase in the NCP for part-time personnel beginning in 2004.
- In 2003, the Board's increase in the future salary growth assumption, and the reflection of a significant benefit change, increased the NCPs beginning in 2005.
- In 2004, a benefit change increased the Treasury NCPs beginning in 2006.
- In 2006, the Board changed the long-term interest assumption, which led to an increase in NCPs beginning in 2008.
- In 2007, a change in reserve retirement benefits, effective January 28, 2008, produced an increase in both full-time and part-time NCPs beginning in 2009.
- In 2008, the Board changed the long-term interest assumption, which led to an increase in both full-time and part-time NCPs beginning in 2010.
- In 2010, the Board adopted a new suite of modeling assumptions, which led to an increase in the NCP for full-time personnel beginning in 2012.
- In 2011, new assumptions related to mortality improvement and the allocation of normal costs between DoD and Treasury impacted the NCPs for full-time and part-time personnel beginning in 2013.
- In 2012, a new approach for explicit modeling of part-time personnel, lower long-term interest assumption, and other miscellaneous updates, led to higher NCPs in 2014.
- In 2013, the Board further refined the modeling of part-time personnel, which led to a decrease in both full-time and part-time NCPs beginning 2015.
- In 2014, the Board adopted a suite of revised modeling assumptions, including retiree death rates, mortality projection scale, and CSB take-rate, and, in addition, reflected the phasing in of a reduced COLA for retirees. These changes affected both full-time and part-time NCPs beginning in 2016.

- In 2015, the Board adopted new assumptions for the valuation of disability retirements as well as new long-term economic assumptions. Congress enacted legislation that repealed several existing benefit provisions and created a new retirement system which allows for participation by current members. The newly adopted system along with the other legislative change decreased both full-time and part-time NCPs beginning in 2017.
- In 2016, the Board adopted new assumptions in the projection of future mortality. Congress enacted legislation that modified several benefit provisions, including reducing the length of the temporary disability retired list period from five years to three years. The new adopted assumptions along with the other benefit provision changes decreased both full-time and part-time NCPs beginning in 2018.
- In 2017, long-term economic assumptions were reduced. Congress enacted legislation to permanently extend the Special Survivor Indemnity Allowance (SSIA) with full benefit indexation, increasing both full-time and part-time NCPs beginning in 2019.
- In 2018, the Board adopted a suite of updated assumptions for the valuation of survivor benefits and for the projection of future mortality. The Board revised assumptions for members electing to opt-in to the Blended Retirement System (BRS), based partially on actual experience. These changes decreased both full-time and part-time NCPs beginning in 2020.
- In 2019, long-term economic assumptions were reduced. BRS election opt-in assumptions were replaced by actual election experience. Congress enacted legislation to phase out (over three years) the offsetting of survivor benefits by Dependency and Indemnity Compensation (DIC), and expansion of qualifying reserve duty activations that further reduce the normal retirement of age 60. The assumptions along with the other benefit provision changes increased both full-time and part-time NCPs beginning in 2021.
- In 2020, long-term economic assumptions were reduced. The Board adopted a suite of updated assumptions for the valuation of part-time and disabled retiree benefits. These changes affect both full-time and part-time NCPs beginning in 2022.
- In 2021, long-term economic assumptions were reduced. The Board adopted a suite of updated assumptions, including decrement rates for active and reserves, mortality improvement scales for all members, and included Coast Guard experience in the development of the active and reserve rates. These changes affected both full-time and part-time NCPs beginning in 2023.
- In 2022, long-term economic assumptions were unchanged. The Board adopted updated VA offset parameters, retiree death and other loss rates, and mortality improvement scales. These changes affect both full-time and part-time NCPs beginning in 2024.
- In 2023, long-term economic assumptions were unchanged. The Board adopted updated reserve rates, mortality improvement scales, SBP parameters and adjusted assumptions to reflect the estimated impact of the PACT Act of 2022. These changes affect both full-time and part-time NCPs beginning in 2025.

APPENDIX C

Board letter, dated December 2, 2022, to the Honorable Lloyd J. Austin III, Secretary of Defense

DEPARTMENT OF DEFENSE
BOARD OF ACTUARIES
4800 MARK CENTER DRIVE, SUITE 03E25
ALEXANDRIA, VA 22350

December 2, 2022

The Honorable Lloyd J. Austin III
Secretary of Defense
Department of Defense
1000 Defense Pentagon
Washington, DC 20301-1000

RE: Transferring the Cost of the Military Retirement Fund (MRF) from DoD to Treasury Due to Increasing Concurrent Receipt Benefits

Dear Secretary Austin:

The purpose of this letter is to share the DoD Board of Actuaries' ("Board") concerns about declining DoD, and increasing Treasury, Normal Cost Percentages (NCPs) resulting from increased combat-related disability and qualifying service-connected disability benefits under Sections 1413a and 1414 of Title 10, respectively ("Concurrent Receipt Benefits").

While the overall funding of the MRF remains on a sound actuarial basis, declining DoD NCPs, driven by the treatment of Concurrent Receipt Benefits, are arguably understating DoD's true MRF costs.

Background

Each year, the DoD Office of the Actuary (OACT) completes an actuarial valuation of the MRF to estimate the cost of the benefits payable. As part of that valuation, the "normal cost" is determined, which represents the actuarial value of benefits being earned during a fiscal year. An NCP is determined that is applied to basic pay to determine the amount to be funded. The valuation also determines amortization amounts for unfunded liabilities, but the focus of this letter is the NCPs, as they represent the actuarial "cost" of benefits earned each year.

Until 2004, the pension benefit payable to a retiree from the MRF was generally reduced by the amount of some types of VA disability benefits payable to the retiree. Thus, the MRF's costs were actually reduced by the cost of these VA disability benefits, and the NCPs reflected the offset accordingly.

FY 2004 NDAA eliminated this offset to the MRF pension, allowing for "Concurrent Receipt" of both VA disability benefits and full MRF pensions by retirees. Elimination of the offset resulted in a significant increase to the total benefits payable from the MRF, and the NCP increased accordingly.

Presumably so as not to burden DoD with the cost of the increased benefits associated with Concurrent Receipt, Section 1465(c)(1) of Title 10, USC, says that the DoD's NCP is "to be

determined without regard to section 1413a or 1414 of this title." Thus, after Concurrent Receipt went into effect, the valuations determine a total NCP, and then a DoD share of NCP (DoD NCP) is determined as if MRF benefits are still offset by Concurrent Receipt Benefits. The remaining share, attributable to Concurrent Receipt, of the total NCP is then assigned to Treasury (Treasury NCP).

Current Observations

Since the enactment of Concurrent Receipt, VA disability benefits have increased rapidly, perhaps in ways not envisioned at the implementation of the new rules in 2004. Several factors appear to be driving these increases:

- Increased incentive to apply for benefits under Concurrent Receipt rules (since one's MRF benefit will no longer be reduced)
- Broader definitions of disability and higher disability ratings by the VA (such as for PTSD)
- Higher incidence of combat-related disability from recent conflicts

The increase in Concurrent Receipt Benefits has resulted in a decrease in the DoD's share of the total NCPs. To illustrate the impact, we can look at NCPs over time:

Fiscal Yr.	Total NCP	DoD NCP	Treasury NCP	DoD portion of Total NCP
2005	30.8%	27.5%	3.3%	89%
2024	58.3%	30.0%	28.3%	51%

A continuation of this trend could soon result in the DoD NCP for full-time service members falling below 50% of the total, meaning Treasury will fund more than half of the MRF pension normal costs.

It is worth noting the more recent numbers above reflect an increase in the assumed incidence of Concurrent Receipt Benefits for the September 30, 2022 MRF valuation, which determines the 2024 NCPs. The Board approved the change in assumptions based on data supporting increased VA disability benefit utilization, but also recognizes the new utilization assumptions are still lower than recent actual experience. Should the current level of increased VA disability benefits continue, or increase further, future assumption changes will decrease the share of the total MRF NCPs allocated to DoD even further. With the recent passage of the PACT Act, which expands VA disability benefits related to burn pits and other toxic substances, this outcome seems all but assured.

Recommendation

The Board members agree that the possibility of DoD covering less than half of total NCPs is significant enough to express our concerns now rather than waiting for our next Quadrennial

Report to the President and Congress. It does not seem appropriate that the majority of annual normal costs for service members should be funded directly from Treasury, as opposed to running through DoD's budget.

We believe the original intent of the Concurrent Receipt rules was to limit the increase in DoD costs triggered by eliminating VA disability benefit offsets and increasing MRF liabilities, not to transfer the majority of NCP funding responsibility to Treasury. The current situation appears to be an unintended consequence driven by the increased VA disability benefit utilization, and a potential misapplication of the Concurrent Receipt rule relative to its original intent.

We encourage policymakers to revisit the Concurrent Receipt rules to consider potential legislative or other solutions. We respectfully offer the following recommendations as starting points for future discussions on this topic.

- As we have said in prior Quadrennial Reports, the Board feels the appropriate way to fund NCPs would be to assign the total NCPs to DoD and include enough funding in its annual budget to cover that cost. We understand this would require significant changes to current law.

- We believe the original intent of Concurrent Receipt was to protect DoD from an unexpected jump in cost triggered by a law change beyond DoD's control. Elimination of the VA disability benefit offset in 2004 triggered a *one-time* increase of the total NCP based on utilization of VA disability benefits *at that time*. Increased utilization of VA disability benefits after 2004 should have no effect on NCP as these benefits were never offset. Currently, the language, "to be determined without regard to section 1413a or 1414 of this title," appears to bind us to an approach that continues to decrease DoD's NCP share. Amending or reinterpreting the Concurrent Receipt rule to align with its original intent, shielding the DoD budget from the one-time cost increase of 2004, would solve this issue.

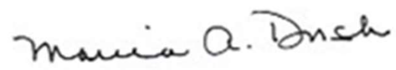
Comment about VA Funding

Finally, though the funding of VA disability benefits is not within our purview, we recognize that these are essentially pensions. Experience is showing that VA disability benefits are becoming a meaningful lifetime income for a significant portion of the military population.

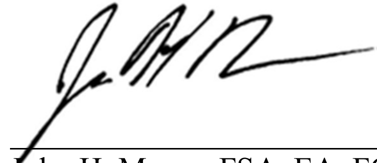
In our prior Quadrennial Reports, we have recommended that accrual accounting, rather than a pay-as-you-go basis, be used for VA-funded education benefits as it is for DoD-funded education benefits. We effectively make the same recommendation here. The increasingly significant VA disability benefits are becoming more like pension benefits, and we respectfully suggest that a long-term actuarial funding method like the one used for MRF is worthy of consideration. Shifting to an accrual basis would mean the predictable long-term costs associated with the current operations of VA could be recognized in a more timely, transparent manner.

Please let us know if we can be of any assistance in helping address these matters.

Sincerely,



Marcia A. Dush, FSA, EA, FCA, MAAA*
Chairperson
DoD Board of Actuaries



John H. Moore, FSA, EA, FCA, MAAA*
DoD Board of Actuaries

Michael E. Clark, FSA, EA, MAAA*
DoD Board of Actuaries

* Meets the qualification standards of the American Academy of Actuaries to determine the methods and assumptions referenced above

APPENDIX D

Board letter, dated July 11, 2016, to the Honorable Todd Weiler, Assistant Secretary of Defense (Manpower and Reserve Affairs)

DEPARTMENT OF DEFENSE
BOARD OF ACTUARIES
4800 MARK CENTER DRIVE, SUITE 05E22
ALEXANDRIA, VA 22350

July 11, 2016

The Honorable Todd Weiler
Assistant Secretary of Defense (Manpower and Reserve Affairs)
1500 Defense Pentagon
Room 2E556
Washington, DC 20301-1500

Dear Mr. Weiler:

The 2016 National Defense Authorization Act (NDAA) added a partial lump sum provision to the Military Retirement Fund. A Service member can request a lump sum in exchange for a portion of his or her pension annuity payments. The lump sum would be determined using the concept of a "personal discount rate." Our understanding is that the personal discount rates being contemplated when the legislation was passed included those used in early cost analysis of the NDAA - 8% or more for Officers and 12% or more for Enlisted Service members. As the DOD Board of Actuaries, we would like to express our serious concerns about the implementation of the personal discount rate concept, and at the same time offer our support to the DoD in its efforts to deal with this thorny issue.

As background, the Board of Actuaries has oversight over the assumptions and methods used by the DoD Chief Actuary with respect to the actuarial valuation of the benefits under the Military Retirement Fund. The implementation of the personal discount rate concept is a plan design, not valuation, issue. Thus, it is not technically an issue within the Board's purview. However, as actuaries involved with the Military Retirement Fund and given our independence from OACT, we believe we can and should offer our actuarial perspective to those making the implementation decisions. Further, we are concerned about the potential downstream effects on the valuation due to this new plan design feature.

General actuarial concerns with the concept of personal discount rates were well articulated in an April 27, 2016 letter from the American Academy of Actuaries Pension Practice Council to the DoD.[1] The Board generally agrees with the points raised in that letter and encourages the DoD to consider them. Without repeating the letter, we summarize a few key points:

- Generally accepted actuarial principles and practices are defined by the Actuarial Standards of Practice (ASOPs) as issued by the Actuarial Standards Board.

[1] The Academy is an 18,500 member organization that serves as the actuarial profession's voice on public policy and professionalism matters. The letter is at http://actuary.org/files/publications/Personal_Discount_Rate_Comments_04272016.pdf

- "Personal discount rate" is not an actuarial concept, as it includes a non-actuarial component of individual preference or utility. Thus, there are no ASOPs related to selecting a personal discount rate.
- When lump sums are offered in private sector qualified[2] pension plans, by law (IRC Code Section 417(e)) participants must receive a lump sum determined on a basis no less favorable than one based on high quality corporate bonds.
- The value of a stream of payments from the US Government, such as a series of pension payments, is readily determined from the financial markets by looking at yields on Treasury securities.
- Members who choose a lump sum calculated using personal discount rates that are above market rates probably do not understand the financial value of their annuity benefits. Alternatively, they may have a financial hardship that causes them to select a lump sum distribution even if they recognize that the lump sum is much less valuable than the related series of annuity payments.
- One final relevant fact is that in the interest of fairness, Congress has precluded private sector qualified plans from discriminating in favor of highly compensated individuals.

In addition to concurring with the opinions expressed by the Academy, the actuaries of this Board would like to explicitly share their opinions that:

- The personal discount rates used in early NDAA cost analysis described to us by Rand were developed to reflect decisions not related to the decision whether to take a lump sum or stream of retirement benefits. As such, we see no basis for concluding these personal discount rates are appropriate for this purpose.
- Any lump sums offered to our Service members should be based on a fair market value, and comparable to that guaranteed to every private sector pension plan participant.
- The rates employed in determining the amount of any lump sum should not vary based on Officer versus Enlisted status as this would be discriminating in favor of highly compensated employees, and our Service members deserve to be treated as fairly as private sector citizens.

As acknowledged at the start of this letter, the method of selecting a personal discount rate to implement the partial lump sum provision is not technically within the purview of the Board. However, the method used to calculate the NDAA lump sums could impact the Fund in ways that are of concern to us in our official capacity. Most notably, if the lump sums are based on personal discount rates that are much higher than market rates, the concerns we have raised above could create a backlash that Congress would be pressed to address. A potential fix could be a mandate that much lower rates be used.

Using a much lower rate would have at least two impacts. First, and most obvious, the value of the NDAA benefit structure would increase relative to what was used to make the decisions that

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[2] Private sector plans are required to be qualified unless they are for the benefit of a select group of highly compensated individuals. As such, the vast majority of private sector plan participants are in qualified plans. The Board members are not aware of any non-qualified plan that uses personal discount rates as a basis for lump sums. In our experience, most non-qualified plans that pay lump sums use rates similar to or lower than those prescribed by the IRS. To our knowledge, most public sector plans do not pay significant lump sums.

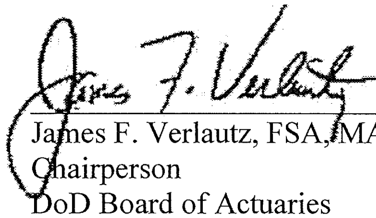
led to the passing of the NDAA by Congress in its current form, thus raising costs beyond what was expected.

Second, higher lump sum amounts could affect behaviors (i.e., timing of retirement), and thus could impact total force size and force composition/distribution relative to what was expected in designing the NDAA provisions.

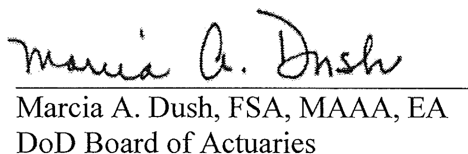
In closing, we understand the need to manage force size, force composition and the military budget. However, we don't believe settling Service member pensions on a basis not comparable with that guaranteed to participants of private sector pension plans or in a way that favors more highly compensated members is an acceptable approach. We're encouraged to hear that certain concerns and opinions we've articulated herein are shared by some members of the new retirement system's executive workgroup, and we hope a solution can be found that is both equitable and meets the military's needs.

Please let us know if we can be of any assistance in helping to address this matter.

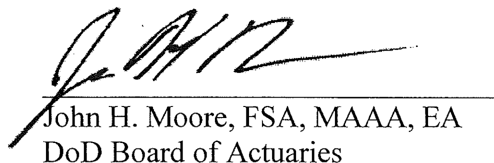
Sincerely,



James F. Verlautz, FSA, MAAA, EA
Chairperson
DoD Board of Actuaries



Marcia A. Dush, FSA, MAAA, EA
DoD Board of Actuaries



John H. Moore, FSA, MAAA, EA
DoD Board of Actuaries