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

July 29, 2022

MEMORANDUM FOR THE RECORD

SUBJECT: Minutes of the June 24, 2022, Meeting of the DoD Board of Actuaries

The Military Retirement Fund and Voluntary Separation Incentive Fund were discussed from 10:00 AM to 11:18 AM and the Education Benefits Fund was discussed from 11:30 AM to 12:30 PM. The DoD Board of Actuaries advises on all three funds.

List of Attachments:

1 - Meeting agenda
2 - Complete list of attendees
3 - Meeting handouts
4 - Meeting transcript

We have reviewed and agree with the meeting minutes. Responsibility for the accuracy of each attachment resides with the organization creating it.

Marcia A. Dush, Chairperson
DoD Board of Actuaries

Inger M. Pettygrove
Designated Federal Officer

DEPARTMENT OF DEFENSE BOARD OF ACTUARIES
MEETING MINUTES

June 24, 2022

Virtual Meeting

MILITARY RETIREMENT FUND/VOLUNTARY SEPARATION INCENTIVE FUND

HIGHLIGHTS/KEY BOARD DECISIONS

Agenda Item 1: September 30, 2021, Valuation of the Military Retirement Fund

- Transcript Pages 8-13: Starting population and total annualized pay for active duty, selected drilling reservists, non-selected reservists, disabled retirees, nondisabled retirees, and survivors were presented to the Board members.

- Transcript Pages 13-15: Unfunded Accrued Liability (UFL) as of September 30, 2021, was $745.1 billion. DoD normal cost percentages (NCPs) for FY 2023 are 36.9% and 24.5% for full-time and part-time, respectively.

- Transcript Pages 15-17: Total change in UFL was a loss of $62.1 billion. Experience loss of $37.5 billion was from a higher COLA than expected. Assumption changes led to a net $30.6 billion loss, where a loss of $79.9 billion was due to 0.25% lower real interest assumption.

- Transcript Pages 17-19: The Treasury's FY 2023 amortization payment for the UFL is $120.438 billion, and Treasury's unsequestered normal cost payment for Concurrent Receipt benefits is $11.573 billion, for a combined Treasury payment of $132.011 billion.

Agenda Item 2: September 30, 2022, Valuation of the Military Retirement Fund, Proposed Methods and Assumptions

- Transcript Pages 19-30: Approved long-term economic assumptions for the September 30, 2022 valuation and FY 2024 NCPs of 4.00% interest rate (no change from last year), 2.75% across-the board salary increase (no change from last year), and 2.50% COLA (no change from last year).

- Transcript Pages 31-59: Approved the proposed VA Offset Parameters (decreased NCPs 4.1% full-time, 1.5% part-time), Retiree Death and Other Loss Rates (decreased NCPs 2.8% full-time, 0.1% part-time), Mortality Improvement Scales (increased NCPs 0.3% fulltime, 0.3% part-time).

- Transcript Pages 32-59: Approved FY 2024 DoD NCPs of 30.0% (full-time) and 23.1% (part-time) and estimated Treasury Concurrent Receipt NCPs of 28.3% for full-time and 8.7% for part-time.

Agenda Item 3: September 30, 2021, VSI Fund Valuation, Proposed Methods and Assumptions

- Transcript Pages 60-68: Approved economic assumptions of 2.25% interest (unchanged from last year), 2.2% COLA (unchanged from last year), and 1.0% VA increase (unchanged from last year), leading to a January 1, 2024, amortization payment of $10.6 million.

EDUCATION BENEFITS FUND

HIGHLIGHTS/KEY BOARD DECISIONS

Agenda Item 4: Education Benefits Fund Overview

- Transcript Pages 70-87: Education benefit programs and their usage model were presented. The Board approved the model and methodology for data reconciliation and benefit usage for the September 30, 2021 valuation. The only change from last year's methodology was for Chapter 30 kicker usage and withdrawal rates in the cells where there have not been any new entrants since 2012 to use the ten most recent years with new entrants instead of the ten most recent years.

Agenda Item 5: September 30, 2021, Valuation Proposed Economic Assumptions

- Transcript Pages 88-91: The Board approved an interest rate assumption of 2.50% (unchanged from last year).

Agenda Item 6: September 30, 2021, Valuation Proposed Methods and Assumptions

- Transcript Pages 91-94: The Board approved continuing to use Blue Chip Financial Forecasts to estimate the CPI for the Chapter 1606 basic benefit, leading to a 7.7% increase for fiscal year, 2023 and an ultimate CPI of 2.2%.

- Transcript Pages 94-111: The Board approved using the same methodology and amortization schedule as last year for normal cost offsets and amortization payments leading to an October 1, 2023 Chapter 30 amortization payment of $752,159 for Active Navy and a Chapter 1606 amortization payment of $2,875,554 for Air Force National Guard.

- Transcript Page 111-114: The Board approved using the same valuation method at the approved interest rate, leading to a Cat 3 amortization payment of $56,516 from the Army to be internally transferred from Chapter 30 on October 1, 2022.

ATTACHMENT 1

DEPARTMENT OF DEFENSE BOARD OF ACTUARIES
MEETING AGENDA

Friday, June 24th, 2022
10:00 AM—1:00 PM EST
Virtual Meeting (MS Teams)

DoD365/MS Teams Link: ***https://dod.teams.microsoft.us/l/meetup-join/19%3adod%3ameeting_3ad07802a6f14ba7849ad7c2f418c587%40thread.v2/0?context=%7b%22Tid%22%3a%22102d0191-eeae-4761-b1cb-1a83e86ef445%22%2c%22Oid%22%3a%22244081cb-d4dd-4158-8c6f-2048b5cf15bb%22%7d***

Call-In (for audio only): Dial: 410-874-6749 // Conference ID: 695 344 456#

(1) Please ensure your audio is muted when not speaking or actively participating.

(2) Please identify yourself before asking a question.

MILITARY RETIREMENT FUND

1. September 30, 2021, Valuation of the Military Retirement Fund

    a. Starting Population as of September 30, 2021 (Qian Magee, DoD Office of the Actuary)
    b. Actuarial status information as of September 30, 2021 (Qian Magee)
    c. Change in unfunded liability for FY 2021(Qian Magee)
    d. October 1, 2022 Treasury amortization payment and normal cost payment* (Qian Magee)

2. September 30, 2022, Valuation of the Military Retirement Fund, Proposed Methods and Assumptions*

    a. Economic Assumptions – COLA, Interest Rate, and Across-the-Board Salary Increases (Phil Davis, DoD Office of the Actuary)
    b. Non-Economic Assumptions
        i. VA Offset Parameters (Qian Magee)
        ii. Death and Other Loss Rates (Qian Magee)
        iii. Mortality Improvement Scales (Drew May, DoD Office of the Actuary)

    c. FY 2024 Full-Time and Part-Time Normal Cost Percentages (Pete Zouras, DoD Office of the Actuary)

VOLUNTARY SEPARATION INCENTIVE FUND

3. September 30, 2021, VSI Fund Valuation, Proposed Methods and Assumptions*

a. Introduction (Phil Davis)
b. Interest Rate (Drew May)
c. Valuation Update and Other Assumptions (Drew May)
d. Unfunded Liability Amortization Payments (Drew May)

EDUCATION BENEFITS FUND (approximate start time 11:00 AM)

4. Fund Overview (Richard Allen, DoD Office of the Actuary)

5. September 30, 2021, Valuation Proposed Economic Assumptions* (Phil Davis)

6. September 30, 2021, Valuation Proposed Methods and Assumptions* (Richard Allen)

* Indicates Board approval required

ATTACHMENT 2

Department of Defense Board of Actuaries Meeting
Attendee List

Name	**Position or Office**
Marcia Dush	Chairperson
John Moore	Board Member
Mike Clark	Board Member
Pete Zouras	DoD Chief Actuary and Executive Secretary
Inger Pettygrove	OACT, DFO
Richard Allen	OACT
Qian Magee	OACT
Philip Davis	OACT
Drew May	OACT
William Moorhouse	Advisor, Legal
Tom Liuzzo	Advisor, Reserve Affairs
Peter Abraham	DMDC
Adam Hunt	Army
Shannon Bradford	DFAS
James Fasano	Advisor, Comptroller
Patty Leopard	Advisor, Education Policy
David Rafferty	CBO
Alicia Litts	OUSD (C)
Richard Virgile	USCG
Edith Smith	Military Survivor
Paul Dotto	OPM
Schileen Potter	DMDC
Rowena Vicencio	USCG
Colleen Hartman	OUSD (C)
COL Clay Pettit	Co-Chair, MRF FMC
Christina DiTucci	VA
Anita Chellaraj	OMB

Craig Graby	Korn Ferry Hay Group
Debora Staton	Army
Ebony Watts	Army
Gene Whitmore	Army
Patricia Hamilton	Army
Alisa Harkins	USCG
Coralita Jones	DFAS
Kenneth Hardy	NG
David Percich	Reserve Affairs
Michael Rosa	DMDC
Peter Rossi	GAO (Former OACT)
Horst Spiess	Army
Kaleigh Ganske	Guest

ATTACHMENT 3

Meeting Handouts for the
Department of Defense Board of Actuaries Meeting
(Military Retirement Fund and VSI Fund)

Military Retirement Fund
Board of Actuaries Meeting

Defense Finance and Accounting Service

Coralita Jones / Lori Haines
Enterprise Solutions and Standards (ESS)
Financial Reporting
June 22, 2022

AGENDA

- Overview
- Financial Data
- Fund Status

OVERVIEW

- Short Term Liquidity
  - ✓ Invested approx $115.5B in October (Treas contrib $125.0B)
  - ✓ Off cycle investment of $4.5B in March
  - ✓ Inflows exceeding outflows
    - ✓ FY 2022 payments through April $43.4B
    - ✓ FY 2022 receipts through April $173.8B
    - ✓ FY 2022 overnights/cash as of 30 April $5.7B

- Blended Retirement
  - ✓ Fully Implemented in 2021

- Long Term Liquidity
  - ✓ New investing for FY 2022
    - ✓ As of EOM May, $120.0B
    - ✓ Average 20-year term
  - ✓ FY 2024-2027 projected investments of $461.5B

Summary Financial Analysis

Year Ended September 30

(In Billions)

	FY 2021	FY 2020	% Change
Service Contributions	$25.2	$21.8	16%
Unfunded Liability Contribution	98.1	91.9	7%
Concurrent Receipts Contribution	9.8	8.5	15%
Interest Income	56.9	22.6	152%
Total Revenue	$190.0	$144.7	31%
Benefit Payments	$63.1	$62.3	1%
Total Expense	$63.1	$62.4	1%

Summary Financial Analysis

Year Ended September 30

(In Billions)

Interest Income

	FY 2021	FY 2020	$Change
Interest Revenue--Par	$21.4	$20.5	$0.9
Interest Revenue--Inflation	41.1	6.5	$34.6
Interest Revenue--Discount	0.9	0.9	$0.0
Interest Revenue--Premium	-6.4	-5.4	-$1.0
	$57.0	$22.5	$34.5

FINANCIAL DATA

Military Retirement Fund
For the Year Ending September 30, 2021

	(in millions)
Assets	
Fund Balance with Treasury	$74.6
Investments	
Overnight	$14,536.2
Long term	
Par	$846,033.3
Inflation purchased	$47,673.1
Inflation earned	$123,757.3
Premium outstanding	$84,182.2
Discount outstanding	-$15,810.6
Interest receivable	$5,893.4
Total Long Term Investments	$1,091,728.7
Total Investments	$1,106,264.9
Accounts Receivable, net	$159.9
Total Assets	$1,106,499.4
Liabilities	
Military Retirement and Other Federal Employment Benefits	
Benefits Payable to Beneficiaries	$5,202.0
Actuarial Liability	$1,928,444.7
Total Military and Other Federal Employment Benefits	$1,933,646.7
Other Liabilities	$3.0
Total Liabilities	$1,933,649.7
Net Position	
Cumulative Results of Operations	-$827,150.3
Total Liabilities and Net Position	$1,106,499.4

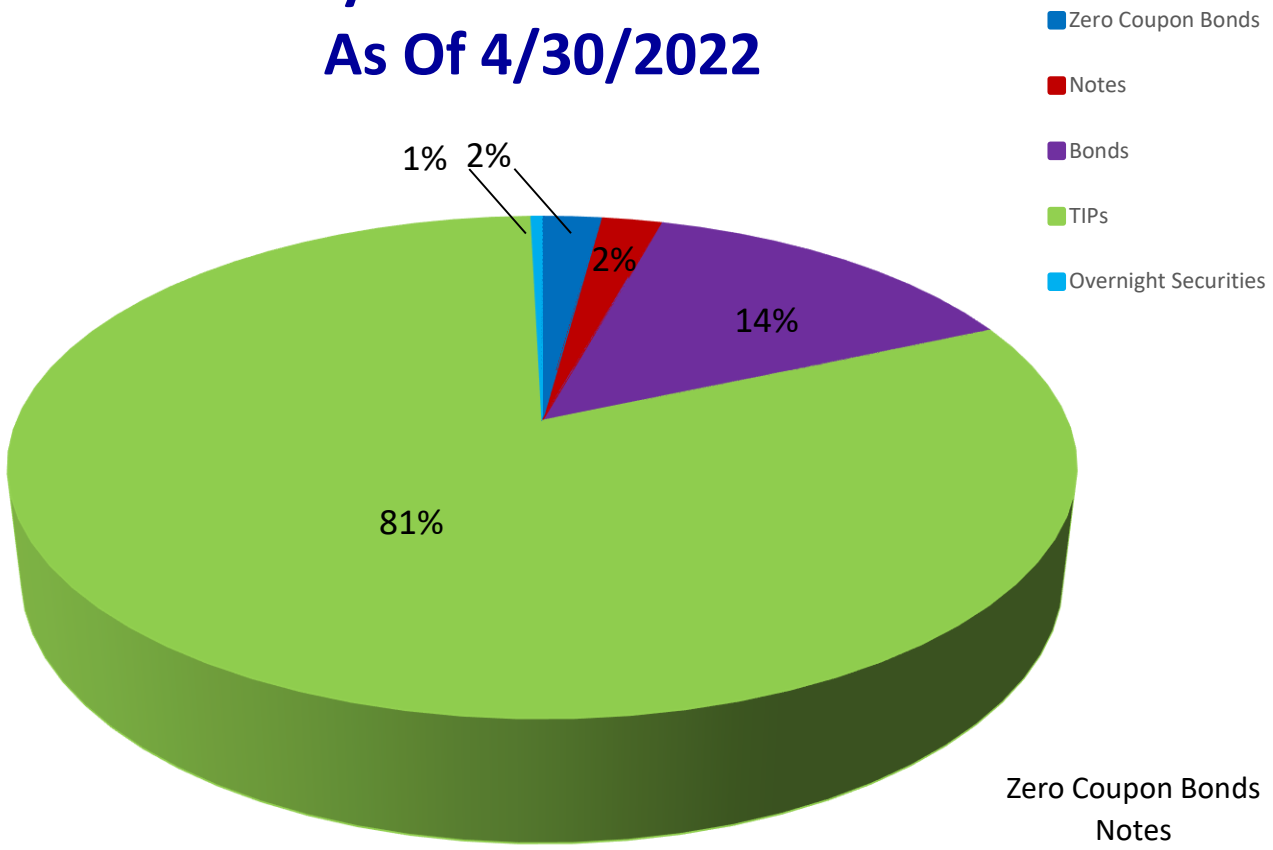
FINANCIAL DATA Updated

Effective Fund Yields

FY	Yield
2012	2.94%
2013	3.10%
2014	3.16%
2015	1.79%
2016	2.34%
2017	2.92%
2018	3.82%
2019	3.01%
2020	2.67%
2021	5.34%

FUND STATUS

Military Retirement Portfolio
As Of 4/30/2022



Zero Coupon Bonds	$27.6
Notes	$28.3
Bonds	$182.7
TIPs	$1,050.8
Overnight Securities	$5.2
Total (in Billions)	$1,294.6

FUND STATUS

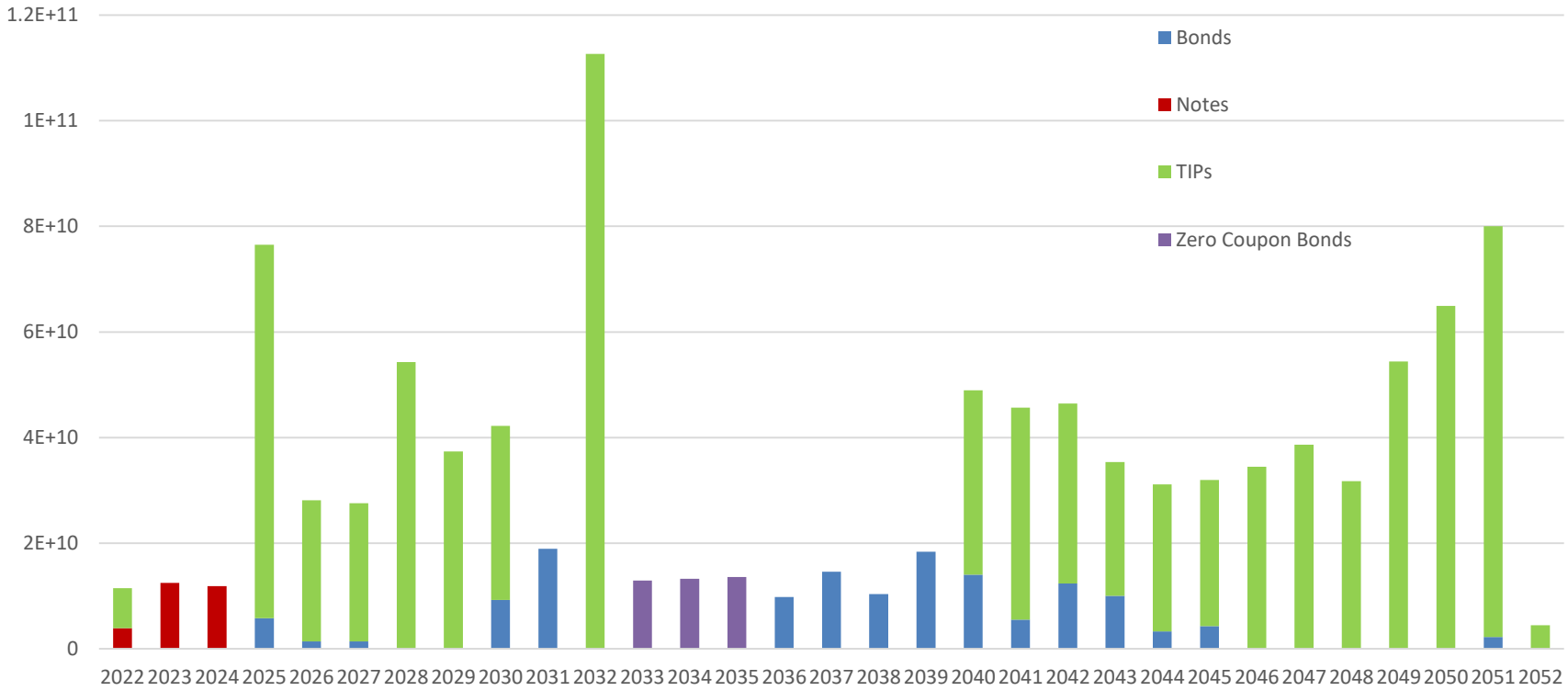
Security Description	Shares Par	Inflation Compensation	Book Value	Market Value
INTEREST ZCB 08/15/33	12,949,000,000.00	-	10,491,794,174.30	9,261,491,904.15
INTEREST ZCB 08/15/34	13,268,000,000.00	-	10,501,807,557.07	9,199,968,840.40
INTEREST ZCB 08/15/35	13,593,000,000.00	-	10,510,584,952.42	9,135,625,442.37
Zero Coupon Bond Total	**39,810,000,000.00**	**-**	**31,504,186,683.79**	**27,597,086,186.92**
MK BOND 1.875% 02/15/2051	2,233,238,900.08		2,000,948,087.21	1,757,977,746.66
MK BOND 2.500% 02/15/2045	4,280,660,325.79	-	4,055,491,195.06	3,800,423,745.49
MK BOND 2.750% 11/15/2042	6,681,701,480.89	-	6,590,077,605.42	6,234,862,694.36
MK BOND 3.000% 05/15/2042	6,695,039,147.53	-	6,890,972,430.95	6,529,755,368.58
MK BOND 3.125% 02/15/2042	2,864,461,876.61	-	3,032,321,476.59	2,851,929,855.90
MK BOND 3.125% 02/15/2043	3,349,775,799.13	-	3,534,348,241.00	3,316,278,041.14
MK BOND 3.125% 11/15/2041	2,818,271,057.13	-	2,966,109,067.82	2,803,298,992.14
MK BOND 3.500% 02/15/2039	6,039,034,048.35	-	6,146,166,221.21	6,427,796,865.21
MK BOND 3.625% 02/15/2044	3,321,324,845.08	-	3,796,465,489.50	3,550,703,842.19
MK BOND 4.250% 05/15/2039	6,479,267,826.79	-	7,538,738,699.41	7,550,371,789.41
MK BOND 4.250% 11/15/2040	5,520,767,853.28	-	6,723,902,639.12	6,400,640,229.90
MK BOND 4.375% 02/15/2038	15,221,088,782.57	-	15,942,608,098.51	17,979,911,124.41
MK BOND 4.375% 05/15/2040	4,793,071,508.45	-	5,916,335,839.18	5,664,811,389.05
MK BOND 4.375% 11/15/2039	6,831,664,626.58	-	8,085,798,478.87	8,065,634,049.76
MK BOND 4.500% 02/15/2036	19,104,981,805.28	-	20,841,038,985.79	22,794,631,416.42
MK BOND 4.500% 05/15/2038	4,396,913,844.83	-	5,235,190,003.59	5,262,556,258.03
MK BOND 4.500% 08/15/2039	5,861,210,424.29	-	7,092,922,086.48	7,035,284,137.41
MK BOND 4.625% 02/15/2040	2,399,775,551.83	-	3,073,812,925.42	2,924,726,453.79
MK BOND 4.750% 02/15/2037	9,697,894,474.30	-	11,651,068,071.33	11,864,767,770.90
MK BOND 5.000% 05/15/2037	4,912,921,714.87	-	6,133,082,223.11	6,161,110,888.05
MK BOND 5.375% 02/15/2031	18,948,966,774.83	-	24,957,700,866.50	22,578,878,222.63
MK BOND 6.000% 02/15/2026	1,400,000,000.00	-	1,526,550,735.36	1,550,937,500.00
MK BOND 6.250% 05/15/2030	9,225,255,976.51	-	11,583,052,190.48	11,424,902,948.41
MK BOND 6.625% 02/15/2027	1,400,000,000.00	-	1,590,064,971.08	1,626,625,000.00
MK BOND 6.875% 08/15/2025	3,800,000,000.00	-	4,326,019,135.70	4,270,250,000.00
MK BOND 7.625% 02/15/2025	2,000,000,000.00	-	2,223,256,880.06	2,254,375,000.00
Bond Total	**160,277,288,645.00**	**-**	**191,358,036,430.72**	**182,683,441,329.84**
MK NOTE 1.625% 08/15/2022	3,925,267,912.20	-	3,958,883,265.26	4,002,546,624.22
MK NOTE 2.000% 02/15/2023	12,496,163,515.85	-	12,705,640,336.40	12,906,193,881.21
MK NOTE 2.750% 02/15/2024	11,884,976,088.44	-	12,399,891,103.72	12,694,640,084.46
Note Total	**28,306,407,516.49**	**-**	**28,773,037,679.94**	**28,338,921,125.00**

FUND STATUS cont.

Security Description	Shares Par	Inflation Compensation	Book Value	Market Value
MK TIPS 0.125% 01/15/2030	32,292,714,800.06	3,306,773,995.00	37,638,548,793.28	36,151,951,046.66
MK TIPS 0.125% 07/15/2022	6,605,000,000.00	6,955,611,519.00	13,909,916,187.32	7,843,266,100.25
MK TIPS 0.250% 02/15/2050	58,854,771,145.64	82,866,384.55	69,605,858,246.59	64,111,950,036.32
MK TIPS 0.625% 02/15/2043	22,156,985,598.00	1,541,408,850.00	19,851,280,187.23	29,056,754,902.04
MK TIPS 0.750% 02/15/2042	29,278,329,999.00	6,074,400,930.00	33,869,801,115.34	39,993,467,918.32
MK TIPS 0.750% 02/15/2045	24,791,139,787.00	2,893,621,835.94	27,257,986,118.49	32,590,155,323.00
MK TIPS 0.875% 02/15/2047	35,491,724,098.11	3,171,895,382.65	38,141,991,943.29	47,338,769,101.75
MK TIPS 1.000% 02/15/2046	31,047,295,342.32	3,409,613,974.50	36,289,808,354.58	42,898,852,099.43
MK TIPS 1.000% 02/15/2048	29,787,977,975.60	1,977,325,978.02	31,412,153,211.46	40,173,182,843.84
MK TIPS 1.000% 02/15/2049	52,067,680,448.21	2,344,607,650.58	61,069,105,771.79	69,273,644,285.78
MK TIPS 1.375% 02/15/2044	24,671,862,429.00	3,165,893,386.89	30,255,404,133.27	36,876,327,157.36
MK TIPS 1.750% 01/15/2028	7,000,000,000.00	1,786,610,000.00	9,830,106,214.18	10,675,731,150.00
MK TIPS 2.000% 01/15/2026	20,167,675,000.00	6,552,880,961.00	27,067,320,052.56	31,805,811,767.33
MK TIPS 2.125% 02/15/2040	28,691,811,638.98	6,216,080,991.58	41,459,663,068.38	50,725,531,478.79
MK TIPS 2.125% 02/15/2041	33,452,277,019.97	6,717,551,748.38	48,315,405,852.90	58,823,693,002.65
MK TIPS 2.375% 01/15/2025	50,700,000,000.00	20,030,049,000.00	73,188,686,130.83	83,218,323,276.56
MK TIPS 2.375% 01/15/2027	20,071,880,000.00	6,101,450,082.40	26,998,520,861.41	32,356,779,314.37
MK TIPS 2.500% 01/15/2029	7,000,000,000.00	1,573,670,000.00	10,166,782,070.39	11,084,147,746.88
MK TIPS 3.375% 04/15/2032	76,051,206,552.50	36,618,655,955.03	124,587,044,340.25	165,835,953,878.27
MK TIPS 3.625% 04/15/2028	28,000,000,000.00	17,524,080,000.00	48,714,690,510.41	61,784,712,325.00
MK TIPS 3.875% 04/15/2029	18,000,000,000.00	10,793,160,000.00	31,777,585,892.60	40,715,327,812.50
TIPS Total	**718,364,000,172.00**	**210,041,227,474.65**	**989,685,609,609.59**	**1,050,835,739,447.00**
ONE DAY 0.380% 05/02/2022	$ 5,190,219,082.00	-	$ 5,190,219,082.00	$ 5,190,219,082.00
Total Portfolio	**951,947,915,416.00**	**210,041,227,474.65**	**1,246,511,144,271.69**	**1,294,645,407,170.92**

FUND STATUS

MRF Maturities
As of April 30, 2022



22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
17.2	12.5	11.9	82.1	30.2	29.6	58.6	40.3	44.8	18.9	121.5	12.9	13.3	13.6	19.1	14.6	19.6	25.2	50.4	46.1	52.9	30.6	33.3	34.1	37.1	41.7	34.3	58.6	64.9	86.9	4.5

QUESTIONS

Military Retirement Fund Board Meeting Objectives

1. Review and approve the September 30, 2021 closed group valuation results and amortization schedule
   a. Population as of September 30, 2021
   b. Actuarial status information as of September 30, 2021
   c. Change in unfunded liability for FY 2021
   d. The October 1, 2022 Treasury amortization payment and normal cost payment
      - The amounts will be sent in a letter to the Secretary of Defense

2. Set the long-term economic assumptions for the September 30, 2022 valuation and FY 2024 Normal Cost Percentages (NCPs)
   a. COLA
   b. Interest Rate
   c. Salary

3. Review and approve proposed non-economic actuarial assumptions for the September 30, 2022 valuation and FY 2024 NCPs
   a. VA offset parameters and retired pay adjustment factor
   b. Retiree death rates, other loss rates and transfer rates from temporary disability to permanent disability
   c. Mortality improvement scales

4. Set FY 2024 DoD NCP. The NCPs will be sent in a letter to the DoD Comptroller and Secretary of Homeland Security (Coast Guard).

INITIAL ACCOUNTING FIGURES AS OF SEPTEMBER 30
($ in billions)

	2021	2020
Total Active Duty Personnel + Full-Time Reservists	1,425,020	1,419,813
Total Annualized Basic Pay	$67.78	$65.50
Non-BRS	739,965	812,291
Total Annualized Basic Pay	$43.93	$45.11
BRS	685,055	607,522
Total Annualized Basic Pay	$23.85	$20.38
Total Selected Drilling Reservists	702,629	708,004
Total Annualized Basic Pay	$8.40	$8.23
Non-BRS	434,854	485,514
Total Annualized Basic Pay	$6.13	$6.36
BRS	267,775	222,490
Total Annualized Basic Pay	$2.27	$1.86
Total Non-Selected Reservists (with 20 years)	182,944	189,644
Total Annualized Basic Pay	-N/A-	-N/A-
Total Number of Nondisability Retirees	1,866,453	1,875,046
Total Annualized Retired Pay	$56.92	$56.13
Total Number of Disability Retirees	130,024	128,921
Total Annualized Retired Pay	$1.96	$1.90
Total Number of Surviving Families	317,764	321,054
Total Annualized Survivor Annuities	$4.60	$4.55

MILITARY RETIREMENT SYSTEM
ACTUARIAL STATUS INFORMATION

($ in billions)

	9/30/21	9/30/20	Difference	
1. Present Value of Future Benefits (PVFB)				
a. Retirees and Survivors	$1,198.5	$1,107.4	$91.1	8%
b. Reserves	$221.9	$215.1	$6.8	3%
c. Active Duty	$795.8	$748.0	$47.8	6%
TOTAL	$2,216.3	$2,070.5	$145.8	7%
2. Present Value of Future Normal Cost Contributions (PVFNC) [1]	$364.6	$337.8	$26.8	8%
3. Actuarial Accrued Liability (1 - 2)	$1,851.6	$1,732.7	$118.9	7%
4. Actuarial Value of Assets [2]	$1,106.5	$979.4	$127.1	13%
5. Unfunded Accrued Liability (3 - 4)	$745.1	$753.3	($8.2)	-1%
6. Valuation DoD Normal Cost Percentage (NCP)	FY 2022	FY 2021		
a. Full-time	37.4%	35.6%		1.8%
b. Part-time	24.7%	26.0%		-1.3%
7. Implemented DoD Normal Cost Percentage, Applied to Basic Pay in Fiscal Year [3]	FY 2023	FY 2022		
a. Full-time	36.9%	35.1%		1.8%
b. Part-time	24.5%	25.7%		-1.2%
8. Implemented Treasury Normal Cost Percentage, Applied to Basic Pay in Fiscal Year [4]	FY 2023	FY 2022		
a. Full-time	16.2%	16.5%		-0.3%
b. Part-time	3.8%	4.4%		-0.6%

[1] 9/30/21 PVFNC reflects a reduction of $956.658 million due to sequestration of the 10/1/2021 Treasury Concurrent Receipt normal cost contribution. The 9/30/20 PVFNC reflects a reduction of $891.088 million due to sequestration of the prior Treasury Concurrent Receipt normal cost contribution.

[2] The following is a reconciliation of assets during FY21 ($ in billions):

Beg. of Year	PLUS Contributions				MINUS	End of Year
	DoD Accrual	Treas. Accrual	Unfund. Liab.	Int. Income	Fund Disb.	
$979.4	$25.2	$9.9	$98.1	$56.9	$63.0	$1,106.5

[3] Line 7 may differ from Line 6 in the portion of military personnel assumed to be under the Final Pay, Hi-3, REDUX, and Blended Retirement System retirement benefit formulas.

[4] Line 8 refers to the increase in the normal cost due to concurrent receipt benefits, which is paid by Treasury.

NOTE: Some figures may not add precisely due to rounding.

* The data and assumptions supporting this handout are to be summarized in the DoD Office of the Actuary's September 30, 2021, Valuation of the Military Retirement System.

** Coast Guard (CG) will be included in the Military Retirement Fund per NDAA 2021 in the 9/30/2022 valuation.

Long-Term Economic Assumptions

9/30/21 Val	9/30/20 Val
COLA (2.50%)	COLA (2.50%)
Salary (2.75%)	Salary (2.75%)
Interest (4.00%)	Interest (4.25%)

9/30/2021 CHANGE IN UNFUNDED LIABILITY

($ in billions)

(A Negative Change Indicates a Gain and
A Positive Change Indicates a Loss)

1. 9/30/20 Unfunded Liability	$753.3		
2. 10/01/20 Amortization Payment on Unfunded Liability	$98.1		
3. Interest Assumption	1.0425		
4. Expected Unfunded Liability on 9/30/21 (1 - 2) X 3	$683.1		
5. Actual Unfunded Liability	$745.1		
6. Total Change in Unfunded Liability (5 - 4)	**$62.1**	3.4%	
A. Total Experience (gain) loss	**$30.5**	1.6%	
1. COLA, Salary, and Interest	$25.7	1.4%	
a. Interest [1]:	-$11.6	-0.6%	--> -1.1%
b. Salary [2]:	-$0.2	0.0%	
c. COLA [3]:	$37.5	2.0%	
2. Noneconomic Experience[4]:	$4.8	0.3%	
B. 10/1/21 unpaid contribution [5]:	**$1.0**	0.1%	
C. Total benefit change (gain) loss:	**$0.0**	0.0%	
D. Total assumption change (gain) loss	**$30.6**	1.7%	
1. Updated Mortality Improvement	-$22.3	-1.2%	
2. Updated Active Duty Rates	-$29.5	-1.6%	
3. Updated Reserve Rates	$2.5	0.1%	
4. New Economic Assumptions [6]	$79.9	4.3%	

(Percentages shown are ratios of values of each gain or loss component to the accrued liability; the ratio of the interest gain to the actuarial value of assets is shown as well).

[1] Valuation assumption: 4.25% investment return; FY21 dollar-weighted fund yield: 6.4%

[2] Valuation assumption: 2.75% long-term salary; 1/1/22 across-the-board pay increase: 2.7%

[3] Valuation assumption: 2.50% long-term COLA; 1/1/22 COLA: 5.9%

[4] (Gains)/losses as a percent of liability for each population are as follows:
Active (0.9%), Reserves (-0.1%), Retiree (-0.1%), Survivor (3.2%)

[5] Loss due to $956.658 million sequestration (reduction) to the 10/1/2021 Treasury Concurrent Receipt normal cost contribution.

[6] Loss due to lowering real rate of interest assumption to 1.50% (from 1.75%).

NOTE: Some figures may not add precisely due to rounding.

* The data and assumptions supporting this handout are to be summarized in the DoD Office of the Actuary's September 30, 2021, valuation of the Military Retirement System.

TOTAL TREASURY PAYMENT

($ in billions)

	October 1, 2022	October 1, 2021
1. Amortization Payment for:		
a. Initial Unfunded Liability	$105.404	$103.197
b. Benefits Changes	$7.676	$7.679
c. Actuarial Assumptions	$17.162	$15.309
d. Actuarial Experience	($10.799)	($12.651)
e. Prior year unpaid contribution [1]	$0.995	$0.929
Total amortization payment	**$120.438**	**$114.463**
2. Normal Cost payment [2]	**$11.573**	**$10.569**
3. Total Treasury payment	**$132.011**	**$125.032**

The remaining amortization period as of October 1, 2022 for 1.a. is 4 years; 1.b-1.d. is 19.1 years; 1.e. is 1 year.

Amortizations are scheduled to increase as a percent of basic pay.

[1] Prior year unpaid contribution of $929 million is due to 8.3% sequestration of the 10/1/2021 Treasury Concurrent Receipt normal cost contribution ($929 million is equal to $891.088 million plus one year of interest at the assumed rate of 4.25%). It is treated as an actuarial experience loss, and amortized over one year.

[2] Treasury contribution to pay for Concurrent Receipt benefits. The 10/1/2021 normal cost payment of $10.569 billion is net of the $956.658 million sequestration reduction. The 10/1/2022 normal cost payment of $11.573 billion does not reflect an expected sequestration reduction.

NOTE: Some figures may not add precisely due to rounding.

* The data and assumptions supporting the October 1, 2022, payment are to be summarized in the DoD Office of the Actuary's September 30, 2021, Valuation of the Military Retirement System report. Support for the prior year's payment is summarized in the September 30, 2020, valuation report.

Economic Assumptions – At A Glance (Page 1 of 2)

Other Systems Current Economic Assumptions in Nominal and Real Terms

Economic Assumption - Nominal Terms	MRF Current 2021	OPM 2022	SSA OASDI Trustee's Report 2022			MRF Financial Statements 2021	CBO Inflation and 10 Yr Treas. Note 2021	Blue Chip Consensus Inflation and 10 Yr Treas. Note 2021
			Low Cost	Intermediate	High Cost			
Reference Date	7/30/2021	5/10/2022	6/2/2022	6/2/2022	6/2/2022	11/8/2021	7/1/2021	12/1/2021
Rate Projection Period	75-100 Yrs Forward	75-100 Yrs Forward	Inf: '24 to '96 Sal: '31 to '96 Int: '31 to '96	Inf: '24 to '96 Sal: '31 to '96 Int: '31 to '96	Inf: '24 to '96 Sal: '31 to '96 Int: '31 to '96	10 Yr Look Back	2027 to 2031	2028 to 2032
Inflation	2.50%	2.40%	3.00%	2.40%	1.80%	1.60%	2.40%	2.20%
Salary	2.75%	2.65%	4.77%	3.55%	2.33%	2.00%	---	---
Interest Rate	4.00%	4.00%	5.80%	4.70%	3.60%	2.90%	3.30%	3.30%

Notes:

(1) **MRF securities are purchased at market, but valued at book.** TIPS are valued at experienced inflation rates to date.

(2) "Salary" refers to Across-The-Board Pay Increase for MRF and OPM, but Total Wage Increase for SSA.
Total Wage Increase for SSA = productivity growth + hours growth + earnings growth + CPI adjusted for substitution

(3) Inflation assumptions for MRF, OPM, and SSA are CPI-W, all other are CPI-U (including Blue Chip).

(4) Above reference dates refer to when the projection and underlying assumptions were adopted.

(5) 'MRF Financial Statements' refers to economic assumptions prescribed by Statement of Federal Financial Accounting Standards (SFFAS) No. 33.

(6) SSA Note that a higher price inflation rate results in faster earnings and revenue growth immediately, while the resulting added growth in benefit levels occurs with a delay, causing an overall improvement in the actuarial balance. Similarly, a lower price inflation rate causes an overall decline in the actuarial balance.

Economic Assumptions – At A Glance (Page 2 of 2)

Economic Assumption - Real Terms	MRF Current 2021	OPM 2022	SSA OASDI Trustee's Report 2022			MRF Financial Statements 2021	CBO Inflation and 10 Yr Treas. Note 2021	Blue Chip Consensus Inflation and 10 Yr Treas. Note 2021
			Low Cost	Intermediate	High Cost			
Reference Date	**7/30/2021**	**5/10/2022**	**6/2/2022**	**6/2/2022**	**6/2/2022**	**11/8/2021**	**7/1/2021**	**12/1/2021**
Rate Projection Period	**75-100 Yrs Forward**	**75-100 Yrs Forward**	**Inf: '24 to '96 Sal: '31 to '96 Int: '31 to '96**	**Inf: '24 to '96 Sal: '31 to '96 Int: '31 to '96**	**Inf: '24 to '96 Sal: '31 to '96 Int: '31 to '96**	**10 Yr Look Back**	**10 Yrs Forward**	**10 Yrs Forward**
Salary (Real)	0.25%	0.25%	1.77%	1.15%	0.53%	0.40%	---	---
Interest Rate (Real)	1.50%	1.60%	2.80%	2.30%	1.80%	1.30%	0.90%	1.10%

Blue Chip Long-Term Index	Year				
	Dec 2021	**Jun 2021**	**Dec 2020**	**Dec 2019**	**Jun 2019**
Projection Period	**10 Yrs**	**10 Yrs**	**10 Yrs**	**10 Yrs**	**10 Yrs**
CPI	**2.20%**	**2.20%**	**2.20%**	**2.10%**	**2.10%**
30 Year Treasury	**3.80%**	**3.90%**	**3.60%**	**3.70%**	**3.80%**
Real Return	1.60%	1.70%	1.40%	1.60%	1.70%

Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2023 through 2027 and averages for the five-year periods 2023-2027 and 2028-2032. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		Average For The Year					Five-Year Averages	
		2023	2024	2025	2026	2027	2023-2027	2028-2032
1. Federal Funds Rate	**CONSENSUS**	**0.8**	**1.6**	**2.0**	**2.2**	**2.3**	**1.8**	**2.2**
	Top 10 Average	1.2	2.2	2.7	2.7	2.8	2.3	2.9
	Bottom 10 Average	0.4	1.0	1.4	1.7	1.8	1.2	1.5
2. Prime Rate	**CONSENSUS**	**4.0**	**4.7**	**5.1**	**5.3**	**5.4**	**4.9**	**5.3**
	Top 10 Average	4.3	5.3	5.8	5.8	5.9	5.4	6.0
	Bottom 10 Average	3.6	4.1	4.5	4.9	5.0	4.4	4.6
3. LIBOR, 3-Mo.	**CONSENSUS**	**1.0**	**1.7**	**2.2**	**2.4**	**2.5**	**1.9**	**2.4**
	Top 10 Average	1.3	2.1	2.7	2.9	3.0	2.4	3.1
	Bottom 10 Average	0.7	1.2	1.6	1.9	2.0	1.5	1.8
4. Commercial Paper, 1-Mo	**CONSENSUS**	**0.9**	**1.6**	**2.1**	**2.3**	**2.4**	**1.9**	**2.4**
	Top 10 Average	1.2	2.0	2.6	2.8	2.9	2.3	2.9
	Bottom 10 Average	0.6	1.2	1.6	1.9	2.0	1.5	1.8
5. Treasury Bill Yield, 3-Mo	**CONSENSUS**	**0.8**	**1.4**	**1.8**	**2.0**	**2.3**	**1.7**	**2.2**
	Top 10 Average	1.2	1.9	2.5	2.6	2.8	2.2	2.9
	Bottom 10 Average	0.4	0.8	1.2	1.5	1.8	1.1	1.6
6. Treasury Bill Yield, 6-Mo	**CONSENSUS**	**0.8**	**1.4**	**1.9**	**2.1**	**2.4**	**1.7**	**2.3**
	Top 10 Average	1.2	2.0	2.6	2.7	2.9	2.3	3.0
	Bottom 10 Average	0.4	0.9	1.2	1.6	1.9	1.2	1.7
7. Treasury Bill Yield, 1-Yr	**CONSENSUS**	**1.0**	**1.6**	**2.1**	**2.4**	**2.5**	**1.9**	**2.4**
	Top 10 Average	1.4	2.1	2.7	2.8	3.0	2.4	3.1
	Bottom 10 Average	0.6	1.2	1.5	1.9	2.0	1.4	1.8
8. Treasury Note Yield, 2-Yr	**CONSENSUS**	**1.3**	**1.9**	**2.4**	**2.6**	**2.6**	**2.2**	**2.6**
	Top 10 Average	1.7	2.5	3.0	3.1	3.2	2.7	3.4
	Bottom 10 Average	0.8	1.4	1.8	2.0	2.1	1.6	1.9
9. Treasury Note Yield, 5-Yr	**CONSENSUS**	**1.9**	**2.4**	**2.8**	**2.9**	**2.9**	**2.6**	**3.0**
	Top 10 Average	2.3	3.0	3.4	3.5	3.6	3.1	3.8
	Bottom 10 Average	1.5	1.9	2.1	2.3	2.3	2.0	2.2
10. Treasury Note Yield, 10-Yr	**CONSENSUS**	**2.4**	**2.8**	**3.1**	**3.2**	**3.2**	**2.9**	**3.3**
	Top 10 Average	2.8	3.3	3.7	3.8	3.9	3.5	4.2
	Bottom 10 Average	2.0	2.3	2.4	2.5	2.5	2.3	2.4
11. Treasury Bond Yield, 30-Yr	**CONSENSUS**	**2.9**	**3.3**	**3.6**	**3.7**	**3.7**	**3.4**	**3.8**
	Top 10 Average	3.4	3.9	4.3	4.4	4.4	4.1	4.6
	Bottom 10 Average	2.4	2.8	2.9	3.0	3.0	2.8	3.0
12. Corporate Aaa Bond Yield	**CONSENSUS**	**3.7**	**4.2**	**4.5**	**4.6**	**4.8**	**4.4**	**4.9**
	Top 10 Average	4.3	4.7	5.1	5.2	5.4	4.9	5.6
	Bottom 10 Average	3.2	3.7	3.9	4.1	4.2	3.8	4.2
13. Corporate Baa Bond Yield	**CONSENSUS**	**4.6**	**5.0**	**5.3**	**5.5**	**5.6**	**5.2**	**5.7**
	Top 10 Average	5.1	5.5	5.9	6.1	6.2	5.7	6.5
	Bottom 10 Average	4.0	4.5	4.8	4.9	5.0	4.7	5.0
14. State & Local Bonds Yield	**CONSENSUS**	**3.2**	**3.7**	**3.9**	**4.1**	**4.2**	**3.8**	**4.3**
	Top 10 Average	3.8	4.3	4.5	4.7	4.8	4.4	5.0
	Bottom 10 Average	2.7	3.2	3.4	3.5	3.6	3.3	3.6
15. Home Mortgage Rate	**CONSENSUS**	**4.0**	**4.4**	**4.7**	**4.8**	**4.8**	**4.5**	**4.9**
	Top 10 Average	4.5	5.0	5.3	5.4	5.4	5.1	5.7
	Bottom 10 Average	3.6	3.9	4.1	4.1	4.2	4.0	4.1
A. Fed's AFE Nominal $ Index	**CONSENSUS**	**106.2**	**106.0**	**106.1**	**106.2**	**106.4**	**106.2**	**106.5**
	Top 10 Average	108.1	108.4	108.9	109.0	109.2	108.7	110.1
	Bottom 10 Average	104.4	104.0	103.7	103.7	103.9	103.9	103.1
		Year-Over-Year, % Change					Five-Year Averages	
		2023	2024	2025	2026	2027	2023-2027	2028-2032
B. Real GDP	**CONSENSUS**	**2.6**	**2.2**	**2.1**	**2.0**	**2.0**	**2.2**	**2.0**
	Top 10 Average	3.1	2.6	2.5	2.4	2.3	2.6	2.4
	Bottom 10 Average	2.2	1.7	1.7	1.7	1.7	1.8	1.7
C. GDP Chained Price Index	**CONSENSUS**	**2.5**	**2.2**	**2.2**	**2.1**	**2.1**	**2.2**	**2.1**
	Top 10 Average	3.0	2.7	2.5	2.4	2.4	2.6	2.4
	Bottom 10 Average	2.0	1.9	1.9	1.9	1.9	1.9	1.8
D. Consumer Price Index	**CONSENSUS**	**2.6**	**2.3**	**2.3**	**2.2**	**2.2**	**2.3**	**2.2**
	Top 10 Average	3.2	2.8	2.6	2.5	2.5	2.7	2.5
	Bottom 10 Average	2.1	2.0	2.0	2.0	2.0	2.0	1.9
E. PCE Price Index	**CONSENSUS**	**2.5**	**2.2**	**2.1**	**2.1**	**2.1**	**2.2**	**2.1**
	Top 10 Average	3.0	2.6	2.4	2.4	2.3	2.6	2.4
	Bottom 10 Average	2.0	1.9	1.9	1.9	1.9	1.9	1.9

MRF Fund Yield Projection
BASED ON 2022 SOCIAL SECURITY (SSA) - INTERMEDIATE ASSUMPTIONS

FY	Inflation	Real Fund Yield*	Nominal Fund Yield	New Invests** (Cumulative)	New Invests (Annual)
2022	4.54%	-1.46%	3.08%	1.80%	1.80%
2023	2.33%	0.67%	3.00%	2.05%	2.30%
2024	2.40%	0.65%	3.05%	2.49%	2.90%
2025	2.40%	0.66%	3.06%	2.81%	3.30%
2026	2.40%	0.77%	3.17%	3.12%	3.70%
2027	2.40%	0.88%	3.28%	3.35%	4.10%
2028	2.40%	0.99%	3.39%	3.58%	4.30%
2029	2.40%	1.09%	3.49%	3.74%	4.50%
2030	2.40%	1.24%	3.64%	3.90%	4.60%
2031	2.40%	1.34%	3.74%	4.02%	4.70%
2032	2.40%	1.41%	3.81%	4.13%	4.70%
2033	2.40%	1.47%	3.87%	4.19%	4.70%
2034	2.40%	1.53%	3.93%	4.26%	4.70%
2035	2.40%	1.57%	3.97%	4.31%	4.70%
2036	2.40%	1.63%	4.03%	4.35%	4.70%
2037	2.40%	1.67%	4.07%	4.38%	4.70%
2038	2.40%	1.72%	4.12%	4.42%	4.70%
2039	2.40%	1.75%	4.15%	4.44%	4.70%
2040	2.40%	1.80%	4.20%	4.46%	4.70%
2041	2.40%	1.84%	4.24%	4.48%	4.70%
2042	2.40%	1.89%	4.29%	4.50%	4.70%
2043	2.40%	1.91%	4.31%	4.51%	4.70%
2044	2.40%	1.94%	4.34%	4.53%	4.70%
2045	2.40%	1.97%	4.37%	4.54%	4.70%
2046	2.40%	2.00%	4.40%	4.55%	4.70%
2047	2.40%	2.02%	4.42%	4.56%	4.70%
2048	2.40%	2.04%	4.44%	4.57%	4.70%
2049	2.40%	2.08%	4.48%	4.58%	4.70%
2050	2.40%	2.13%	4.53%	4.59%	4.70%
2051	2.40%	2.19%	4.59%	4.59%	4.70%
2052	2.40%	2.20%	4.60%	4.60%	4.70%
2053	2.40%	2.20%	4.60%	4.60%	4.70%
2054	2.40%	2.21%	4.61%	4.61%	4.70%
2055	2.40%	2.21%	4.61%	4.61%	4.70%
2056	2.40%	2.22%	4.62%	4.62%	4.70%
2057	2.40%	2.22%	4.62%	4.62%	4.70%
2058	2.40%	2.23%	4.63%	4.63%	4.70%
2059	2.40%	2.23%	4.63%	4.63%	4.70%
2060	2.40%	2.23%	4.63%	4.63%	4.70%
2061	2.40%	2.24%	4.64%	4.64%	4.70%
2062	2.40%	2.24%	4.64%	4.64%	4.70%
2063	2.40%	2.24%	4.64%	4.64%	4.70%
2064	2.40%	2.24%	4.64%	4.64%	4.70%
2065+	2.40%	2.25%	4.65%	4.65%	4.70%

	Inflation	Real Fund Yield*	Nominal Fund Yield	New Invests** (Cumulative)	New Invests (Annual)
10 Yr Avg	2.60%	0.69%	3.29%	3.08%	3.62%
20 Yr Avg	2.50%	1.16%	3.67%	3.71%	4.16%
30 Yr Avg	2.47%	1.45%	3.92%	3.99%	4.34%
50 Yr Avg	2.44%	1.76%	4.20%	4.25%	4.48%
75 Yr Avg	2.43%	1.92%	4.35%	4.38%	4.55%
10 Yr Fund Wgt Avg	2.56%	0.76%	3.32%	3.18%	3.74%
20 Yr Fund Wgt Avg	2.47%	1.28%	3.75%	3.87%	4.30%
30 Yr Fund Wgt Avg	2.44%	1.62%	4.06%	4.18%	4.48%
50 Yr Fund Wgt Avg	2.41%	2.02%	4.43%	4.48%	4.62%
75 Yr Fund Wgt Avg	2.40%	2.18%	4.58%	4.59%	4.68%
Ultimate	2.40%	2.25%	4.65%	4.65%	4.70%

BoA Assumptions		
2.50%	1.50%	4.00%

Liab Mod Dur	NC FT BRS Mod Dur	NC PT BRS Mod Dur
21	30	40

NC FT Delta*** If Infl -0.25%	NC PT Delta*** If Infl -0.25%
+0.1%	+0.1%

MRF Fund Yield Notes

* Real = Nominal Fund Yield - Inflation. For inflation, fund yield, and new investment return calculations, the "X Yr Avg" calculation is geometric and the "X Yr Fund Wgt Avg" is weighted by expected fund size during FY.

** Assumes an amount equal to 5% of expected annual benefit payments is invested in overnights and new bond purchases are invested in 27-yr bonds. ASSUMES OVERNIGHT RETURNS SAME AS LONG BONDS (new bond purchases are invested in 27-yr bonds with yields equal to SSA's new-purchase yield assumptions from the 2022 Trustees Report). The long-term expected 27-yr bond rate assumes 4.70%.

***There is a +0.1 percent change to both the FY 2024 DoD Full-time (FT) and Part-time (PT) NCP, if the long-term interest rate, across-the-board salary, and COLA assumptions are each lowered by 25 basis points. For reference purposes, the current interest/salary/COLA assumptions are 4.00%/2.75%/2.50%.

--- Long term fund yield converges to 4.65%
--- Short Term Strategy: Mix of overnights and bills.
--- Portfolio Allocation: 75-90% in TIPS and 10-25% in conventional notes and bonds (except, for example, high premiums, TIPS not offered, expected decreases in future inflation, etc.)
--- Investment Policy: The Fund is required to be invested in market based Treasury special issues, and the interest assumption reflects this constraint. Current strategy includes investing the funds to coincide with the cash flow of the fund (to pay benefits and expenses when due) and holding securities to maturity, unless a cash flow requirement to pay benefits occurs. Many considerations are taken into account when making the investment decisions, including balancing various risks, targeting an expected average maturity of future investments of AT LEAST 20 years, and current and projected economic conditions.

MRF Fund Yield Projection
BASED ON BLUE CHIP ASSUMPTIONS

FY	Inflation	Real Fund Yield*	Nominal Fund Yield	New Invests** (Cumulative)	New Invests (Annual)
2022	5.22%	-0.34%	4.88%	2.21%	2.21%
2023	2.60%	1.25%	3.85%	2.47%	2.74%
2024	2.45%	0.71%	3.16%	2.86%	3.21%
2025	2.30%	0.89%	3.19%	3.10%	3.49%
2026	2.25%	1.01%	3.26%	3.29%	3.64%
2027	2.20%	1.09%	3.29%	3.38%	3.66%
2028	2.20%	1.13%	3.33%	3.46%	3.74%
2029	2.20%	1.16%	3.36%	3.52%	3.76%
2030	2.20%	1.22%	3.42%	3.56%	3.76%
2031	2.20%	1.26%	3.46%	3.59%	3.76%
2032	2.20%	1.25%	3.45%	3.62%	3.76%
2033	2.20%	1.26%	3.46%	3.64%	3.76%
2034	2.20%	1.28%	3.48%	3.65%	3.76%
2035	2.20%	1.29%	3.49%	3.66%	3.76%
2036	2.20%	1.32%	3.52%	3.68%	3.76%
2037	2.20%	1.33%	3.53%	3.68%	3.76%
2038	2.20%	1.35%	3.55%	3.69%	3.76%
2039	2.20%	1.36%	3.56%	3.70%	3.76%
2040	2.20%	1.38%	3.58%	3.70%	3.76%
2041	2.20%	1.39%	3.59%	3.71%	3.76%
2042	2.20%	1.41%	3.61%	3.71%	3.76%
2043	2.20%	1.41%	3.61%	3.72%	3.76%
2044	2.20%	1.42%	3.62%	3.72%	3.76%
2045	2.20%	1.43%	3.63%	3.72%	3.76%
2046	2.20%	1.44%	3.64%	3.73%	3.76%
2047	2.20%	1.45%	3.65%	3.73%	3.76%
2048	2.20%	1.45%	3.65%	3.73%	3.76%
2049	2.20%	1.47%	3.67%	3.73%	3.76%
2050	2.20%	1.50%	3.70%	3.73%	3.76%
2051	2.20%	1.54%	3.74%	3.74%	3.76%
2052	2.20%	1.54%	3.74%	3.74%	3.76%
2053	2.20%	1.54%	3.74%	3.74%	3.76%
2054	2.20%	1.54%	3.74%	3.74%	3.76%
2055	2.20%	1.54%	3.74%	3.74%	3.76%
2056	2.20%	1.54%	3.74%	3.74%	3.76%
2057	2.20%	1.54%	3.74%	3.74%	3.76%
2058	2.20%	1.54%	3.74%	3.74%	3.76%
2059	2.20%	1.54%	3.74%	3.74%	3.76%
2060	2.20%	1.55%	3.75%	3.75%	3.76%
2061	2.20%	1.55%	3.75%	3.75%	3.76%
2062	2.20%	1.55%	3.75%	3.75%	3.76%
2063	2.20%	1.55%	3.75%	3.75%	3.76%
2064	2.20%	1.55%	3.75%	3.75%	3.76%
2065+	2.20%	1.55%	3.75%	3.75%	3.76%

	Inflation	Real Fund Yield*	Nominal Fund Yield	New Invests** (Cumulative)	New Invests (Annual)
10 Yr Avg	2.58%	0.94%	3.52%	3.14%	3.40%
20 Yr Avg	2.39%	1.13%	3.52%	3.41%	3.58%
30 Yr Avg	2.33%	1.24%	3.56%	3.51%	3.64%
50 Yr Avg	2.28%	1.36%	3.64%	3.61%	3.69%
75 Yr Avg	2.25%	1.42%	3.67%	3.65%	3.71%
10 Yr Fund Wgt Avg	2.51%	0.98%	3.49%	3.20%	3.45%
20 Yr Fund Wgt Avg	2.33%	1.18%	3.51%	3.47%	3.63%
30 Yr Fund Wgt Avg	2.27%	1.30%	3.57%	3.58%	3.69%
50 Yr Fund Wgt Avg	2.23%	1.45%	3.68%	3.68%	3.73%
75 Yr Fund Wgt Avg	2.21%	1.51%	3.72%	3.72%	3.75%
Ultimate	2.20%	1.55%	3.75%	3.75%	3.76%

BoA Assumptions		
2.50%	1.50%	4.00%

Liab Mod Dur	NC FT BRS Mod Dur	NC PT BRS Mod Dur
21	30	40

NC FT Delta*** If Infl -0.25%	NC PT Delta*** If Infl -0.25%
+0.1%	+0.1%

MRF Fund Yield Notes

* Real = Nominal Fund Yield - Inflation. For inflation, fund yield, and new investment return calculations, the "X Yr Avg" calculation is geometric and the "X Yr Fund Wgt Avg" is weighted by expected fund size during FY.

** Assumes an amount equal to 5% of expected annual benefit payments is invested in overnights and new bond purchases are invested in 27-yr bonds. The long-term expected 27-yr bond rate assumes 3.76%.

***There is a +0.1 percent change to both the FY 2024 DoD Full-time (FT) and Part-time (PT) NCP, if the long-term interest rate, across-the-board salary, and COLA assumptions are each lowered by 25 basis points. For reference purposes, the current interest/salary/COLA assumptions are 4.00%/2.75%/2.50%.

--- Long term fund yield converges to 3.75%

--- Short Term Strategy: Mix of overnights and bills.

--- Portfolio Allocation: 75-90% in TIPS and 10-25% in conventional notes and bonds (except, for example, high premiums, TIPS not offered, expected decreases in future inflation, etc.)

--- Investment Policy: The Fund is required to be invested in market based Treasury special issues, and the interest assumption reflects this constraint. Current strategy includes investing the funds to coincide with the cash flow of the fund (to pay benefits and expenses when due) and holding securities to maturity, unless a cash flow requirement to pay benefits occurs. Many considerations are taken into account when making the investment decisions, including balancing various risks, targeting an expected average maturity of future investments of AT LEAST 20 years, and current and projected economic conditions.

PROPOSED NON-ECONOMIC CHANGES FOR
9/30/2022 MRF VALUATION AND
FY 2024 MRF NORMAL COST PERCENTAGES (NCPs)

FY 2024 NCP SUMMARY

Below is a summary of the proposed changes and their impact on the FY 2024 full- and part-time NCPs.

	Full-time	**Part-time**
FY 2023 Budgeted DoD NCPs (Prior assumptions)	36.9%	24.5%
FY 2024 DoD NCPs from 9/30/2021 Valuation (Prior assumptions)	36.5%	24.3%
FY 2024 DoD NCPs from 9/30/2022 Valuation (Prior assumptions) *	36.6%	24.4%
i. Proposed VA Offset Parameters	-4.1%	-1.5%
ii. Proposed Retiree Death and Other Loss Rates	-2.8%	-0.1%
iii. Proposed Mortality Improvement Scales	0.3%	0.3%
FY 2024 DoD NCP from 9/30/2022 Valuation**	**30.0%**	**23.1%**

* Impact of additional year of mortality improvement (advancing the valuation year from 2021 to 2022).

** The total NCP (DoD + Treasury) for FY 2024 based on the above proposed changes is 58.3% for full-time and 31.8% for part-time. Therefore, the estimated FY 2024 Treasury NCP is 28.3% for full-time and 8.7% for part-time[1].

PROPOSED VA OFFSET PARAMETERS

SUMMARY IMPACT: This proposal results in a 4.1% decrease to the FY 2024 full-time DoD NCP, a 1.5% decrease in the part-time NCP, and an increase in the 9/30/2021 accrued liability of $55.7 billion (or 3.0%).

PROPOSAL: We propose an update to the underlying experience period used to produce VA offset parameters. For nondisabled retirees from active duty, we propose to update the experience period from FYs 2008-2009[2] to an average of FYs 2004, 2005, 2018, and 2019. For nondisabled retirees from reserves, we propose to update the experience study period from FYs 2008-2009 to

[1] The projected FY 2024 Treasury NCPs using last year's assumptions are 16.1% for full-time and 3.8% for part-time.

[2] The current partial offset factors for nondisabled retirees from active is based on an average of the FYs 2004-2005 and FYs 2008-2009 experience.

FYs 2018-2019. For disabled retirees, the experience study period will stay the same (FYs 2018-2019), but will reflect the Coast Guard experience.

In our valuation model, there are factors which offset, or reduce, DoD military retired pay for *new* retirees, primarily due to receipt of VA disability pay[1]. Attachment 1 shows how the parameters are applied. Attachment 2 displays various categories of full and partial VA offset parameters.

Additionally, in our model there are factors which reflect changes to DoD military retired pay for *continuing* retirees. These factors account for non-COLA changes to average retired pay, including offsets to retired pay due to increases in VA awards at younger ages and pay bias at later ages. We propose restricting the factors for nondisabled retirees to 2 percent (i.e., the factor cannot be less than 0.98) annually. This is the same restriction that was applied to the current factors.

RATIONALE: The purpose of the update is to reflect an increase in retirees getting offsetting VA disability compensation (as shown in the data and confirmed during recent discussions with VA actuaries) and to incorporate Coast Guard experience into the parameters. Both the longer experience period of the proposed VA offset parameters and the proposed restriction on retiree pay factors for nondisabled retirees reflect concerns that recent trends may not continue and, at the same time, phase in the effect on the DoD NCPs. We will continue to monitor these parameters closely and update them within the next three years if appropriate.

PROPOSED RETIREE DEATH AND OTHER LOSS RATES

SUMMARY IMPACT: This proposal results in a 2.8% decrease in the FY 2024 full-time DoD NCP, a 0.1% decrease in the part-time NCP, and an increase in the 9/30/2021 accrued liability of $28.7 billion (or 1.6%).

PROPOSAL: We propose an update of the experience study period for death rates and other loss rates, as well as the transfer rates from temporary to permanent disability. The new experience study period is FY 2017-FY 2020. Before this update, the experience study periods were FYs 2010-2012 for non-disability rates, FYs 2014-2016 for permanent disability rates, and FYs 2007-2010 for temporary disability rates. In addition, we propose to combine the death rates for nondisabled retirees from active duty and reserves, and to use permanently disabled death and other loss rates to model temporarily disabled retirees.

RATIONALE: The purpose of this update is to reflect more recent death and non-death experience and to incorporate Coast Guard experience into the rates. See Attachment 3a for a summary of the actual-to-expected ratios for each set of rates. In general, except for temporary disability categories (TDRL1 to TDRL3), the A/E ratios for the death rates are between 95% and 105%. See Attachment 3b for graphs of various rates. As other loss rates primarily model exiting paid status due to VA disability compensation fully offsetting military retired pay for continuing retirees (used to value the DoD NCP), a similar increase to "at the point of retirement" VA offset

[1] The DoD NCP is calculated without regard to the "concurrent receipt" provisions in NDAA 2004. To accommodate this effect, the retiree offset factors and certain other assumptions in our valuation model vary depending on whether the calculation is for the DoD NCP or the total NCP and the actuarial accrued liability. The Treasury NCP, which pays for the cost of concurrent receipt, is the difference between the total NCP and the DoD NCP.

parameters can be seen. The rationale for combining death rates for nondisabled retirees from active duty and reserves is a close similarity in mortality experience between these two groups, and a reduction in operational risk (the other loss rates are different). The rationale for using permanently disabled death and other losses to model temporary disabled retirees is due to a lack of credible data on which to base a set of rates for this group. The impact on costs of these two changes is small.

PROPOSED MORTALITY IMPROVEMENT SCALES

SUMMARY IMPACT: This proposal results in a 0.3% increase to the FY 2023 full-time DoD NCP, a 0.3% increase to the part-time DoD NCP, and an increase in the accrued liability of $7.1 billion (or 0.4%).

PROPOSAL: We propose updating the military mortality improvement (Mil MI) projection scales with the following changes: (a) Combine the Mil MI for retirees from active, reserves and permanent disability, and simplify the male/female adjustment factors; (b) update the long-term rate of mortality improvement based on military experience; and (c) reflect the impact of COVID by applying a load to the mortality rates in FYs 2021-2023.

The current Mil MI factors in our valuation are based on FY00-20 military data and use modified methods underlying the SOA's MP-2020 model. The proposed Mil MI projection scales are used to improve death rates for MRF valuation retirees, survivors, and spouses of retirees[1].

RATIONALE: Updating the Mil MI factors each year enables us to incorporate emerging trends in mortality experience/projection, provide experience to new OACT staff members, and achieve a management goal of creating standard, repeatable, and transparent work processes. Last year, we incorporated FY20 data and used a 3-year step back to mitigate the possible impact of COVID. Excess deaths in FY21 were much higher than in FY20 (~16% vs. ~6%), and the prior year's step back approach did not adequately mitigate COVID's impact, nor did it adequately address the possibility of reverting to normal after a certain period of time. As a result, we did not incorporate the FY21 data, but instead we propose to continue using data from FYs 2000-2020 for the Mil MI (with a 3-year step back). We loaded the mortality rates for the short time period and reverting back to a level with no impact of COVID. We used loads the SSA applied to the mortality rates for FYs 2021-2023 in the 2021 Trustees Report[2]--that is, death rates are assumed to increase above what would have been projected in the absence of the pandemic by 15% for FY 2021, 4% for FY 2022, and 1% for FY 2023. The impact on costs due to this adjustment is not material. We plan to monitor the impact of COVID on military mortality improvement in the coming years.

We also propose several simplifications to modeling Mil MI to reduce operational risk without huge impacts on costs. We propose combining the different categories of Mil MI factors from 7 categories to 3. We also propose streamlining the male/female adjustment factors into a single

[1] The SOA's MP-2021 mortality improvement scales (with adjustment to reflect 80%/20% male/female military population mix) are proposed to project mortality rates for active duty and reserves (both part-time selected and grey area) military members. This is a change from the current improvement scale, which is SOA's MP-2020 with an 80%/20% male/female mix. The effect of this proposed update is not material.

[2] https://www.ssa.gov/OACT/TR/2021/tr2021.pdf, page 87.

array by fiscal year from the current factors that vary by age and fiscal year, as well as by retiree category.

Lastly, we propose an update to the long-term rate of mortality improvement to reflect the military experience. We used data from 1974 to 2020 and generally followed SOA's methodology in developing the long-term rate of mortality improvement for the MP-2020 mortality improvement. Most of the impact on costs this year is due to this change.

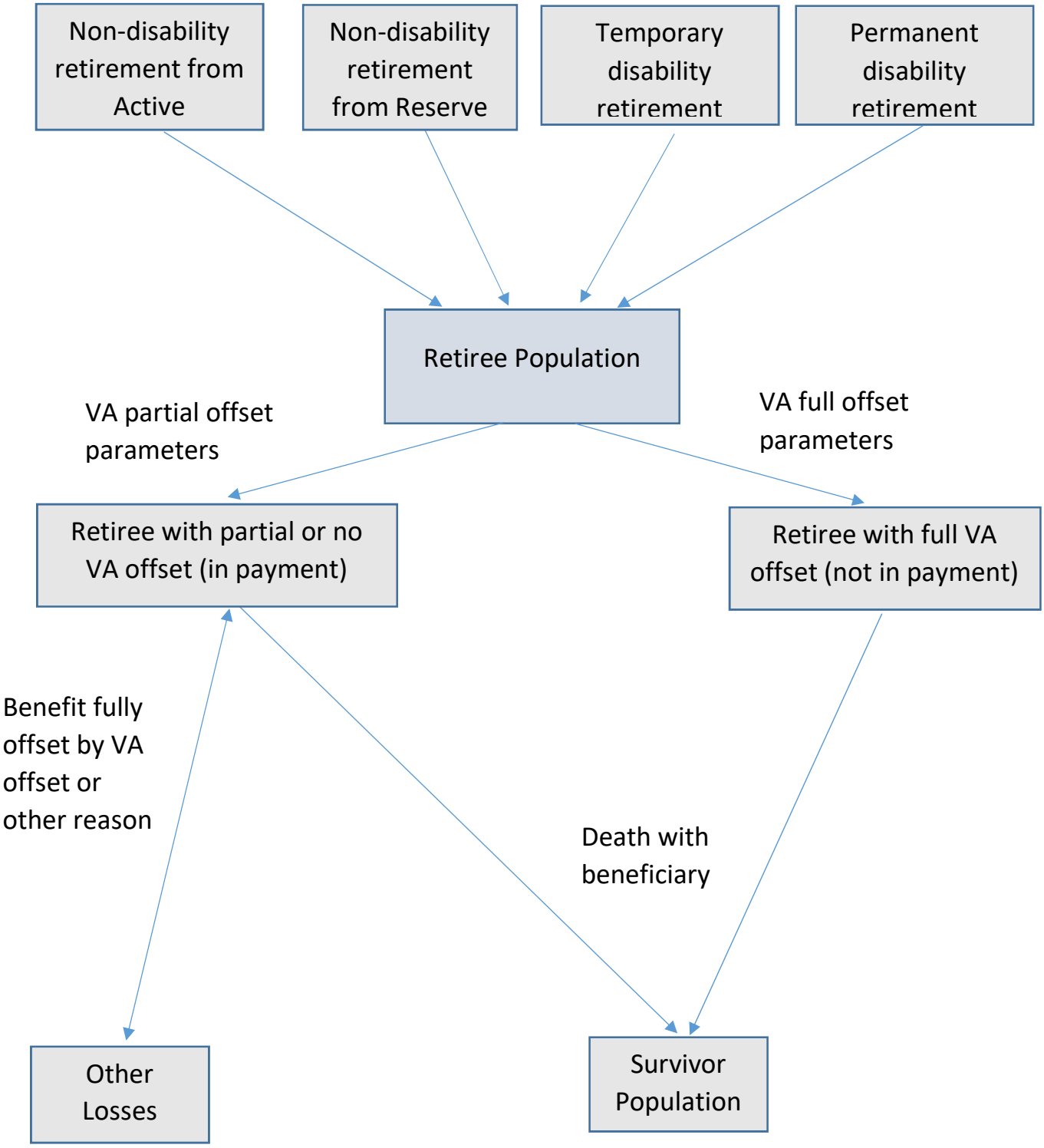
MI METHODS/ASSUMPTIONS COMPARISON:

Model Component	SOA MP 2021	DoD Current	DoD Proposed
Underlying Mortality Data	**SSA-published through 2019**	**DoD data 2000 through 2020**	
Graduation Technique	2D Whittaker Henderson; Order 3	2D P-spline model; deaths assumed to be Poisson distributed.	
Smoothing Parameters	100 in the calendar year direction; 400 in the age direction		
Edge Effect Step-back	**2 years**	**3 years**	
Interpolating from current MI to Ult MI	Cubic Polynomials: @ beginning - match value and slope (constrained to initial slope constraint immediately below), @ end – match ultimate MI and slope 0. [1]		
Initial Slope Constraint	**0**		
Long Term MI	**DoD Proposal:** Enlisted: 3.5% before age 45, linear decrease to 0.25% to age 90, then linear decrease to 0 at age 115 Propose off: 4% before age 50, linear decrease to 3.5% at age 60, then decrease to 0.25% at age 95, then decrease to 0% at age 115 Survivor: same as last year and SOA **SOA MP 2020 & DoD Current**: Flat 1.35% rate to age 62, decreasing linearly to 1.10% at age 80, further decreasing linearly to 0.40% at age 95, and then decreasing linearly to 0.00% at age 115.		
Convergence Period – Horizontal (Age)	**10 Years**		
Convergence Period – Diagonal (Cohort)	20 Years[2]		

Attachment 4 provides the heat maps for the Mil MI factors. Attachment 5 provides illustrations of the method used in the update of the long-term rate of mortality improvement.

[1] Starting MI values for young ages without credible data are set equal to the MI for the youngest credible age. Starting MI values for old ages without credible data graded to 0 at age 115, analogous to the assumed Long Term MI.
[2] DoD proposed improvement scales converge to an ultimate level in 2037 (first projection year is 2018), same as last year.

Attachment 1 - VA Offset Parameter and Other Loss Rates Illustration



Attachment 2 - Proposed VA Offset Factors

Full and Partial Offset Factors

1. Total *

	Full Offset Factors				Partial Offset Factors	
	Current **		Prop'd ** FYs 18-19 with CG		Current **	Prop'd ** FYs 18-19 with CG
	#	$	#	$	$	$
Nondisability	**FYs 08-09**				**FYs 08-09 non-CSB / CSB**	
Officer	0.000	0.000	0.000	0.000	0.02 / 0.037	0.004
Enlisted	0.000	0.000	0.000	0.000	0.037 / 0.054	0.014
	FYs 18-19				**FYs 18-19**	
Disability	**< 20 / >= 20**	**< 20 / >= 20**	**< 20 / >= 20**	**< 20 / >= 20**	**< 20 / >= 20**	**< 20 / >= 20**
Officer	0.235 / 0	0.16 / 0	0.233 / 0	0.158 / 0	0.588 / 0.111	0.583 / 0.111
Enlisted	0.741 / 0	0.685 / 0	0.737 / 0	0.681 / 0	0.563 / 0.271	0.555 / 0.141

2. DoD *

	Full Offset Factors				Partial Offset Factors	
	Current **		Prop'd **		Current **	Prop'd **
	#	$	#	$	$	$
	FYs 08-09				**FYs 08-09 non-CSB /CSB*** **	
Active Nondis	**non-CSB /CSB*** **		**(Average FYs 04-05 and 18-19)**		**(Average FYs 04-05 and 08-09)**	**(Average FYs 04-05 and 18-19)**
Officer	0.001/0.025	0.001/0.021	0.016	0.010	0.07/0.1	0.149
Enlisted	0.027/0.139	0.022/0.13	0.155	0.135	0.15/0.16	0.236
	FYs 18-19		**FYs 18-19 with CG**		**FYs 18-19**	**FYs 18-19 with CG**
Disability	**< 20 / >= 20**	**< 20 / >= 20**	**< 20 / >= 20**	**< 20 / >= 20**	**< 20 / >= 20**	**< 20 / >= 20**
Officer	0.275 / 0.118	0.192 / 0.081	0.272 / 0.117	0.19 / 0.08	0.623 / 0.59	0.618 / 0.584
Enlisted	0.844 / 0.592	0.821 / 0.552	0.839 / 0.585	0.816 / 0.546	0.617 / 0.707	0.601 / 0.692

* The law requires DoD's NCP be computed "without regard to" the CRDP and CRSC sections of the law.
The parameters in 1. are used to compute the Total NCP, the closed group liability, and open group projections, and the ones in 2. are used to compute DoD's NCP. The Treasury NCP is the difference between the Total and DoD NCP.

** Parameters under "#" are used in the projection of people and the parameters under "$" are used in the projection of dollars. The "Full Offset" parameters (for $) are the ratio of full offset dollars (due to VA or Civil Service) to gross retired pay for new retirees, and the "Partial Offset" parameters are the ratio of VA dollars to gross retired pay for new retirees in paid status.

*** The current offset factors for nondisabled retirees are further broken down by BRS and nonBRS (the factors shown are for nonBRS). For simplicity, in the current update, we propose one set of rates that apply to both BRS and nonBRS.

Acronyms: CRSC: Concurrent Receipt Special Compensation; CRDP: Concurrent Receipt Disability Pay; CSB: Career Status Bonus.

Attachment 2 - Proposed VA Offset Factors (Cont.)

DoD nondisabled retiree from active only

FYs 04-05 and FYs 18-19 experience used in averaging

DoD

	Full Offset Factors*					
	FYs 04-05		FYs 18-19		Average	
	#	$	#	$	#	$
Active Nondis						
Officer	0.000	0.000	0.033	0.019	0.016	0.010
Enlisted	0.012	0.009	0.299	0.261	0.155	0.135

DoD

	Partial Offset Factors*		
	FYs 04-05	FYs 18-19	Average
Active Nondis			
Officer	0.049	0.249	0.149
Enlisted	0.114	0.359	0.236

*Parameters under "#" are used in the projection of people and the parameters under "$" are used in the projection of dollars. The "Full Offset" parameters (for $) are the ratio of full offset dollars (due to VA or Civil Service) to gross retired pay for new retirees, and the "Partial Offset" parameters are the ratio of VA dollars to gross retired pay for new retirees in paid status.

Attachment 3a - A/E for Death & Other Losses Rates

Death Rates[1]

	Off			Enl		
	Expected	Actual	Actual/Expected	Expected	Actual	Actual/Expected
NDIS	34,240	34,182	100%	107,782	109,046	101%
RESE	20,565	20,620	100%	30,044	30,519	102%
PDRL	2,312	2,357	102%	7,474	7,379	99%
TDRL1	16	4	24%	43	20	46%
TDRL2	11	1	9%	33	19	58%
TDRL3	5	6	115%	24	31	129%

Other Losses Rates for Total

	Off			Enl		
	Expected	Actual	Actual/Expected	Expected	Actual	Actual/Expected
PDRL	614	460	75%	7,998	1,995	25%
TDRL1	50	22	44%	1,333	-73	-5%
TDRL2	149	20	13%	1,945	27	1%
TDRL3	256	98	38%	3,874	853	22%

Other Losses Rates for DoD

	Off			Enl		
	Expected	Actual	Actual/Expected	Expected	Actual	Actual/Expected
NDIS	1,733	4,200	242%	28,777	75,484	262%
RESE	1,273	2,587	203%	6,428	10,986	171%
PDRL	1,088	984	90%	15,902	11,199	70%
TDRL1	61	90	148%	1,447	1,922	133%
TDRL2	165	30	18%	1,262	357	28%
TDRL3	258	94	36%	1,994	765	38%

Transfer from Temporary to Permanent Disability

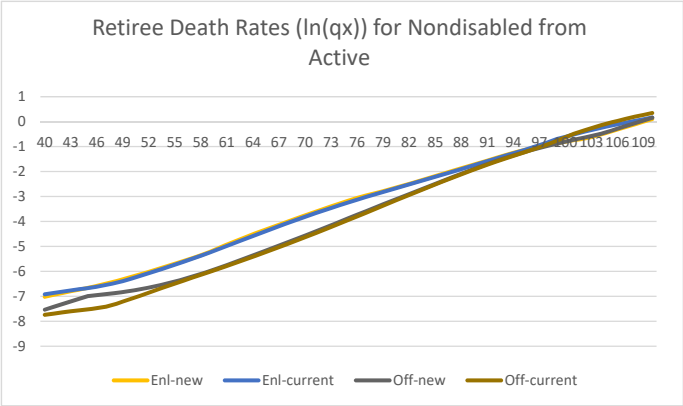
	Off			Enl		
	Expected	Actual	Actual/Expected	Expected	Actual	Actual/Expected
TDRL1	244	286	117%	480	1,258	262%
TDRL2	295	922	313%	757	4,264	563%

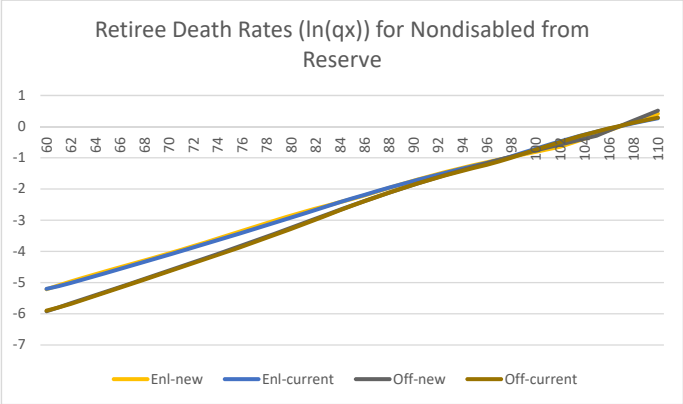
Legend

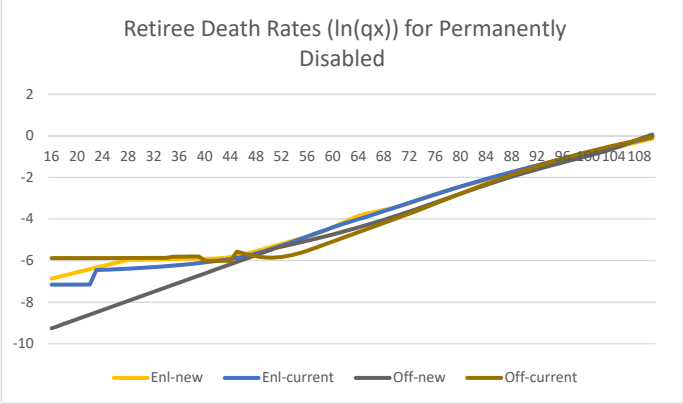
NDIS - Nondisabled Retirement from Active
RESE - Nondisabled Retirement from Reserve
PDRL - Permanent Disabled
TDRL1 - Temporarily Disabled, in Temporary Disabled Status less than 1 year
TDRL2 - Temporarily Disabled, in Temporary Disabled Status less than 2 years, but more than 1 years
TDRL3 - Temporarily Disabled, in Temporary Disabled Status less than 3 years, but more than 2 year

1. Expected deaths includes the improvement of the mortality rates to the midpoint of the new experience study period.

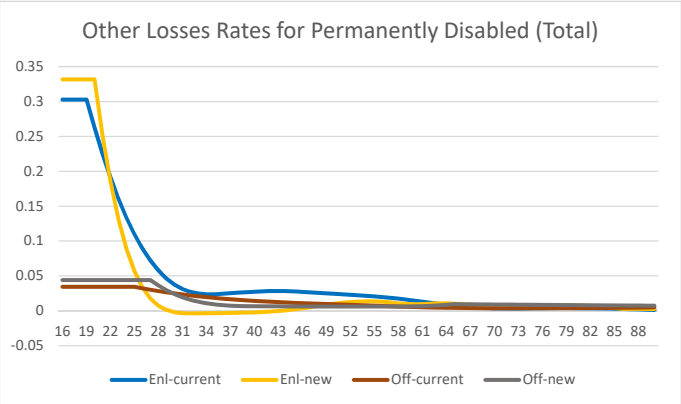
Attachment 3b - Graphs for A/E for Death & Other Losses Rates

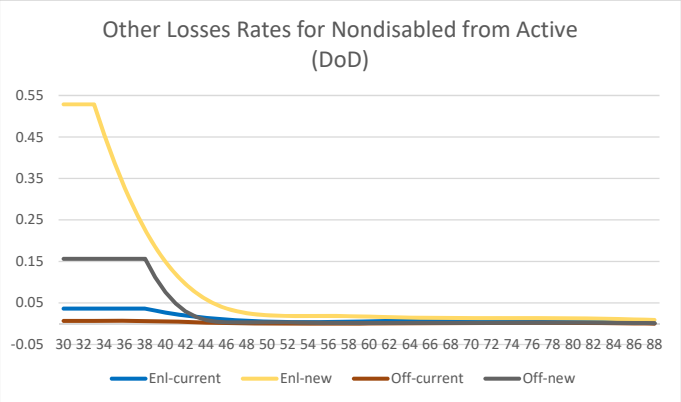


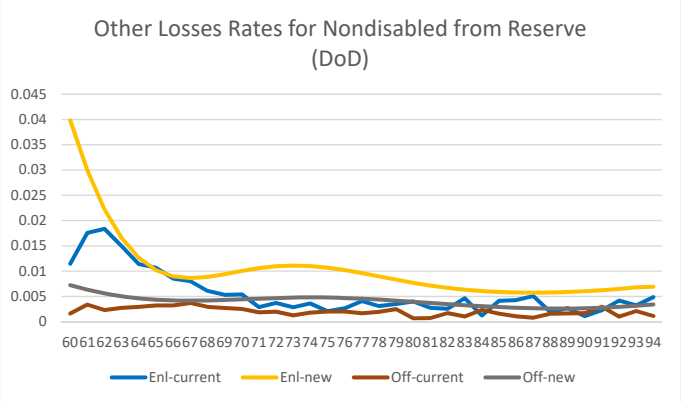


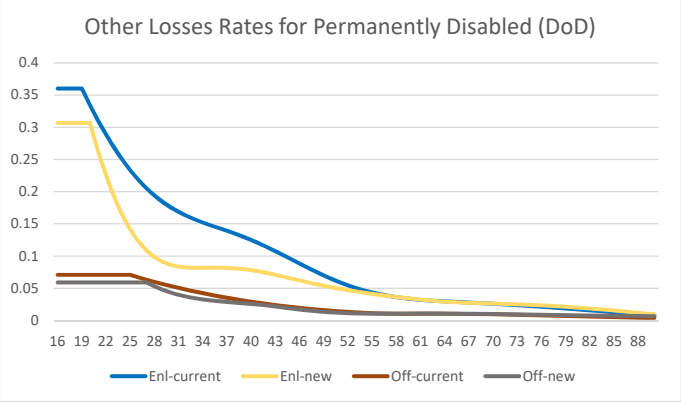


Attachment 3b - Graphs for A/E for Death & Other Losses Rates (Cont.)

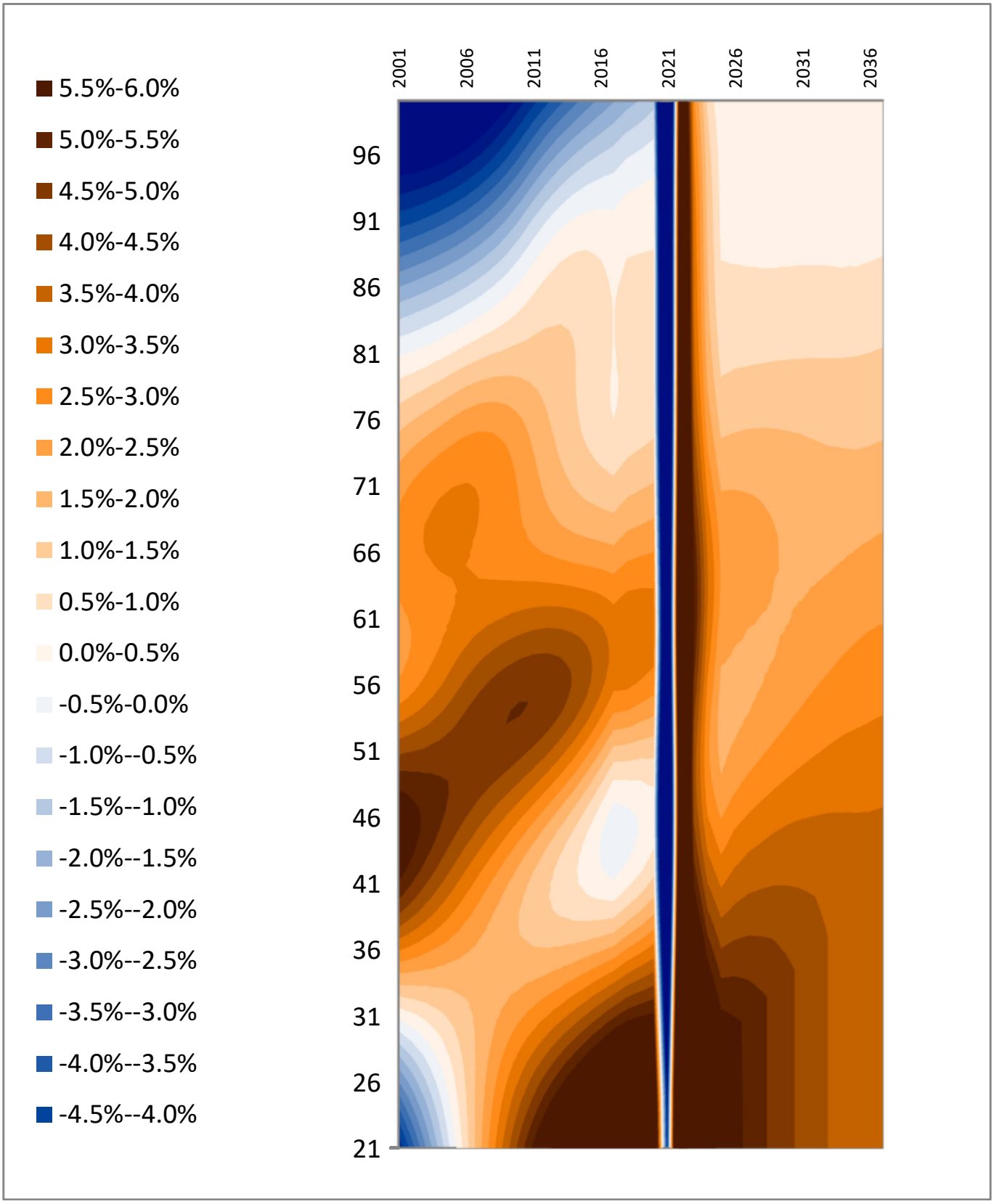




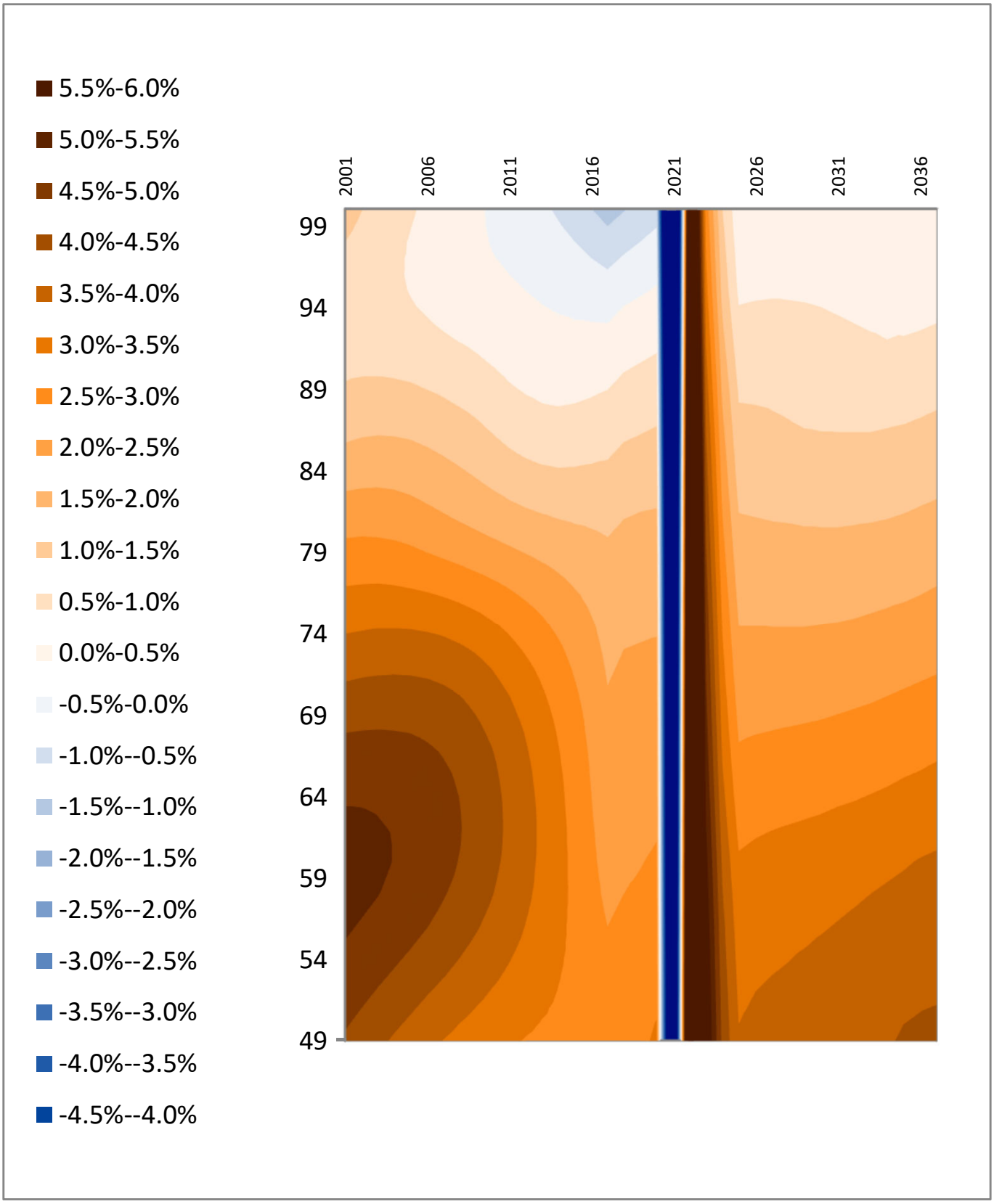




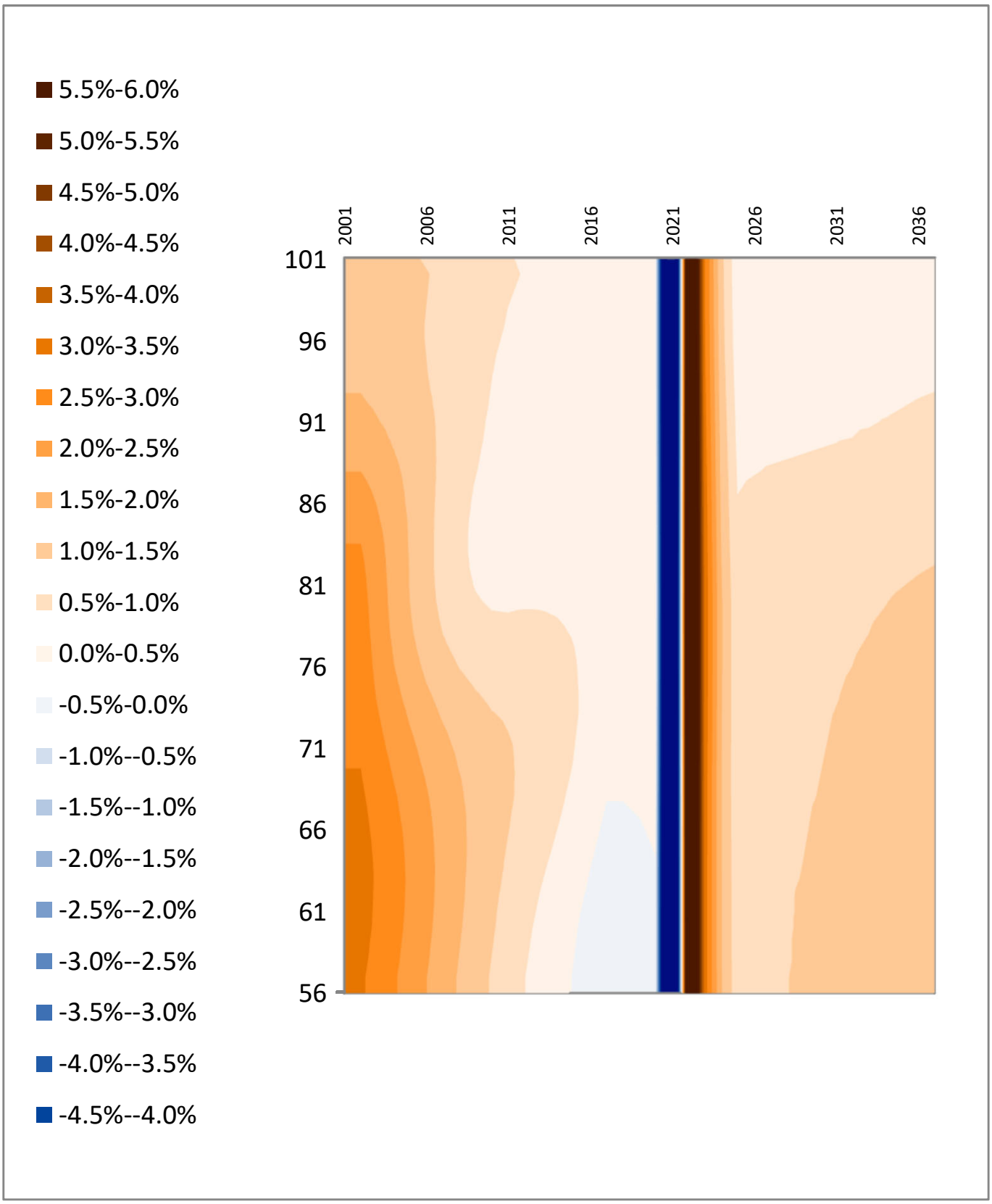
Attachment 4 - DoD Mortality Improvement Heat Map - Retired Enlisted



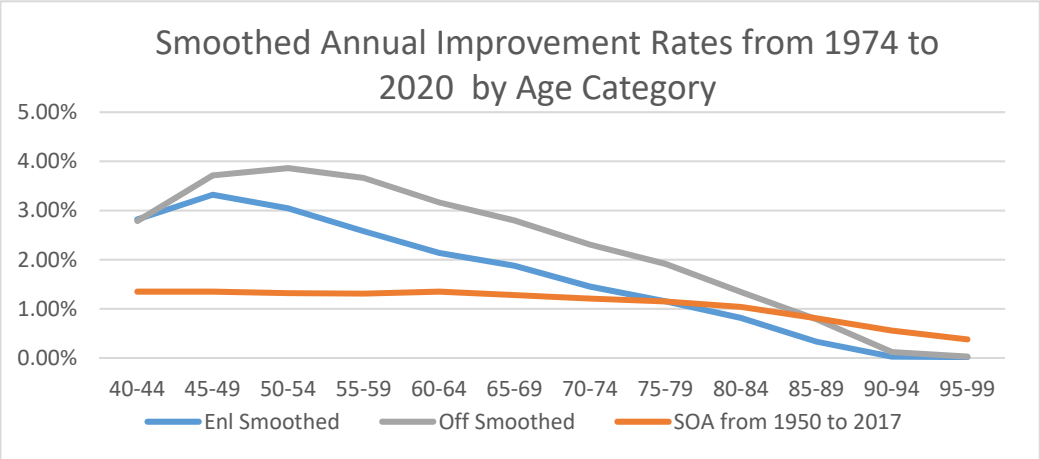
Attachment 4 - DoD Mortality Improvement Heat Map - Retired Officer

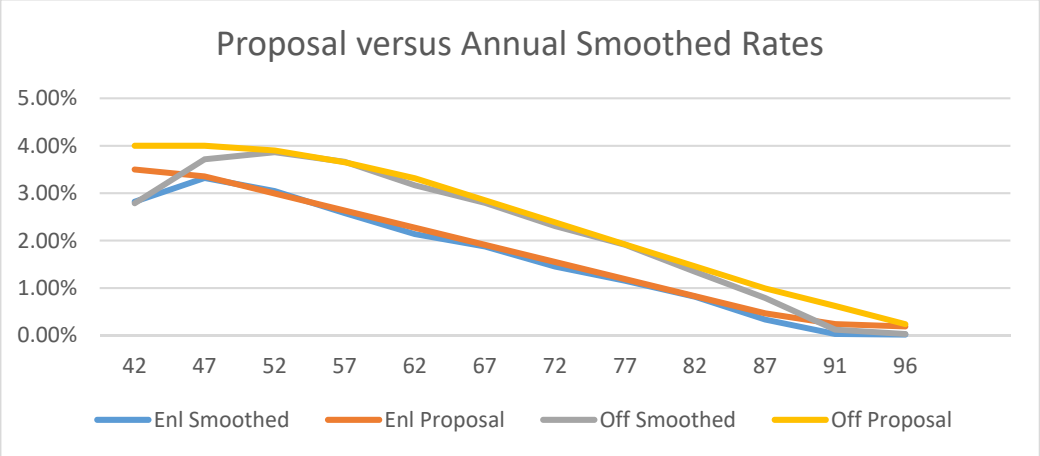


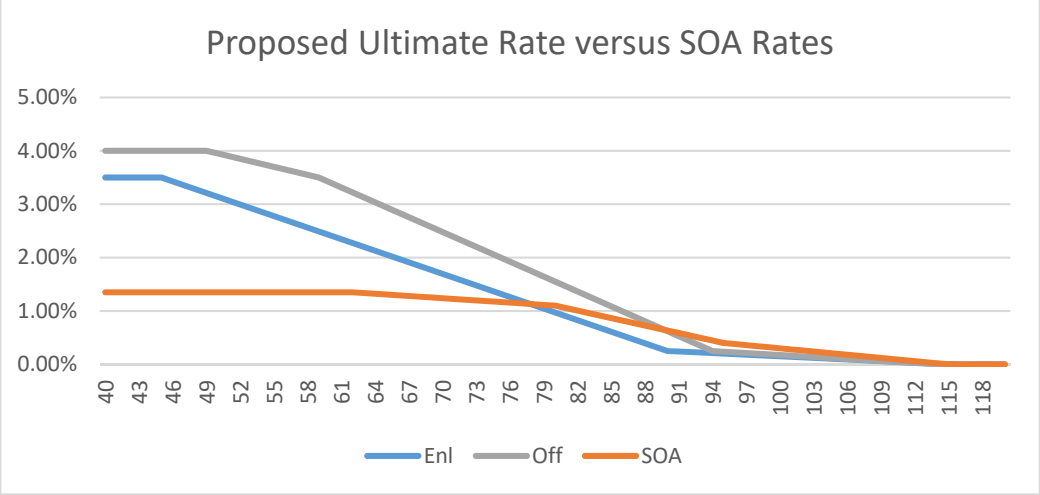
Attachment 4 - DoD Mortality Improvement Heat Map - Spouse



Attachment 5 - Long Term Rate of Mortality Improvement Development







Voluntary Separation Incentive Fund
Board of Actuaries Meeting

Defense Finance and Accounting Service

Coralita Jones/Lori Haines
Enterprise Solutions and Standards
Financial Reporting
June 22, 2022

Agenda

- Overview
- Financial Data
- Fund Status

OVERVIEW

- Short Term Liquidity
  - ✓ No new investing
    - ✓ $ 4.8M in overnights (30 April)
    - ✓ $ 3.0M in cash (30 April)
  - ✓ Outflows on track to surpass inflows
    - ✓ FY 2022 program expense $15.1 M
    - ✓ FY 2022 program revenue $15.7 M
    - ✓ FY 2022 interest revenue $0.8 M

- Long Term Liquidity
  - ✓ $46.3 M long-term par
  - ✓ No new program entrants since 2001

Summary Financial Analysis

Year Ended September 30

(In Millions)

	FY 2021	FY 2020	% Change
Service Contributions	$21.4M	$25.9M	-17%
Interest Income	$1.6M	$2.2M	-27%
Total Revenue	$23.0M	$28.1M	-18%
Benefit Payments	$37.1M	$46.2M	-20%
Total Expense	$37.4M	$46.9M	-20%

Interest Analysis

Year Ended September 30

(In Millions)

Interest Income

	FY 2021	FY 2020	$ Change
Interest Revenue--Par	$2.1	$2.7	-$0.6
Interest Revenue--Inflation	$0.0	$0.0	$0.0
Interest Revenue--Discount	$0.1	$0.1	$0.0
Interest Revenue--Premium	-$0.6	-$0.6	$0.0
	$1.6	$2.2	-$0.6

FINANCIAL DATA

Voluntary Separation Incentive
For the Year Ending September 30, 2021

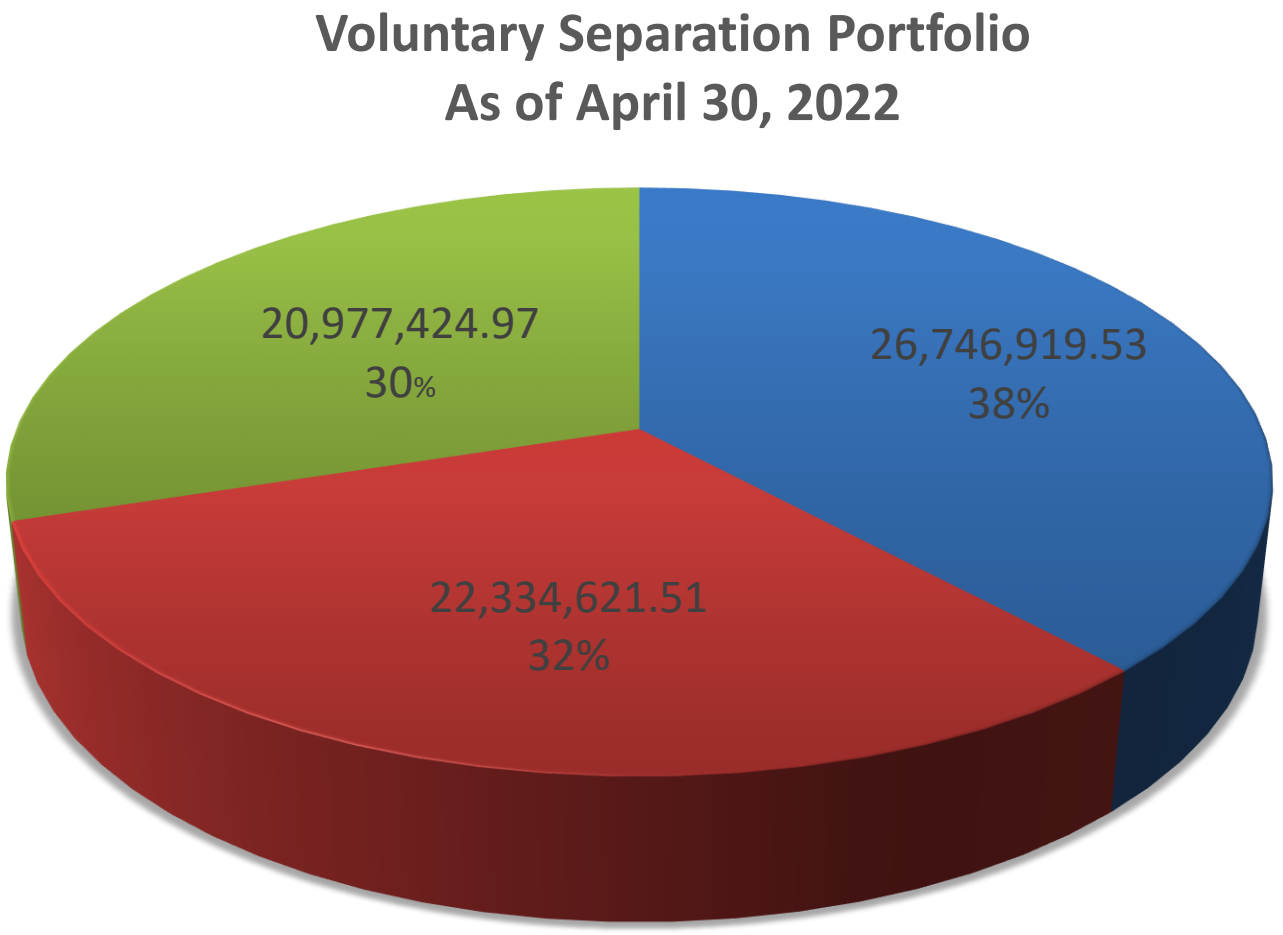
(in millions)

Assets	
Fund Balance with Treasury	$ 3.00
Investments	
Overnight	$4.78
Long term	
Par	$57.24
Premium outstanding	$2.74
Discount outstanding	-$.10
Interest receivable	$.52
Total Long Term Investments	$60.40
Total Investments	$65.18
Total Assets	$68.18
Liabilities	
Military Retirement and Other Federal Employment Benefits	
Due and Payable	$1.84
Actuarial Liability	$136.46
Total Military and Other Federal Employment Benefits	$138.30
Total Liabilities	$138.30
Net Position	
Cumulative Results of Operations	-70.12
Total Liabilities and Net Position	$68.18

Effective Fund Yields

FY	Yield
2011	3.81%
2012	3.19%
2013	2.60%
2014	1.43%
2015	1.41%
2016	1.50%
2017	1.75%
2018	2.15%
2019	2.43%
2020	2.21%
2021	2.08%

FUND STATUS

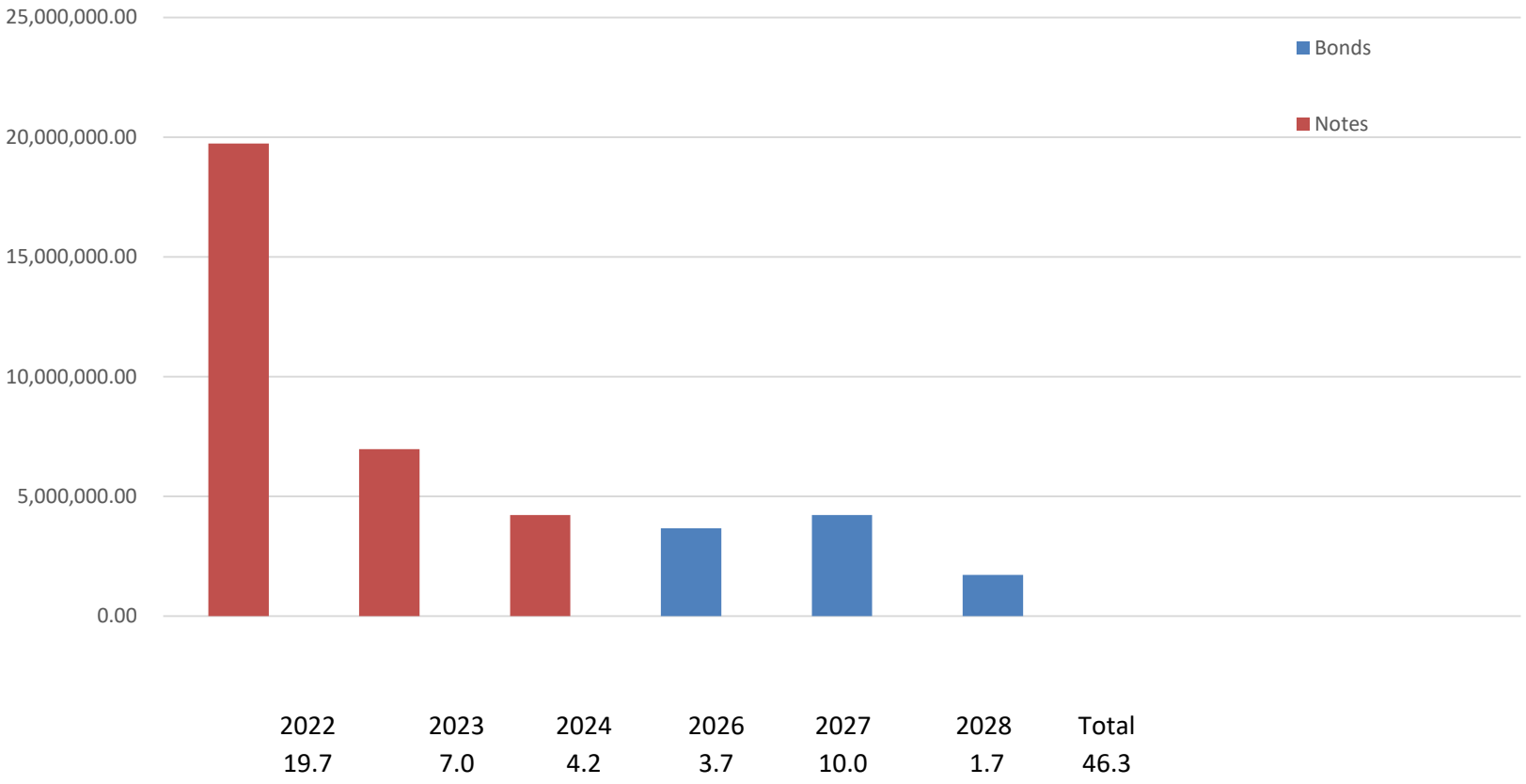

Voluntary Separation Portfolio
As of April 30, 2022
20,977,424.97
30%
26,746,919.53
38%
22,334,621.51
32%
Notes
Bonds
Overnight

FUND STATUS

Security Description	Shares/Par	Book Value	Market Value
MK BOND 7.500% 11/15/2024	$ 4,218,497.61	$ 4,894,871.66	$ 4,698,351.71
MK BOND 6.000% 02/15/2026	$ 3,667,977.19	$ 4,174,348.99	$ 4,063.430.98
MK BOND 6.625% 02/15/2027	$ 10,000,000.00	$ 11,238,422.34	$ 11,618.750.00
MK BOND 5.250% 11/15/2028	$ 1,721,664.16	$ 2,022,685.45	$ 1,954,088.82
Total BONDS	$ 19,608,138.96	$ 22,330,328.44	$ 22,334,621.51
MK NOTE 1.625% 11/15/2022	$ 19,737,380.52	$ 19,835,335.09	$ 19,749,716.38
MK NOTE 2.750% 11/15/2023	$ 6,997,578.71	$ 7,106,415.94	$ 6,997,203.15
Total NOTES	$ 26,714,959.23	$ 26,941,751.03	$ 26,746,919.53
ONE DAY 0.380% 04/30/2022	$ 20,997,424.97	$ 20,997,424.97	$ 20,997,424.97
Total	$ 67,300,523.16	$ 70,249,504.44	$ 70,058,966.01

FUND STATUS

VSI Maturities
As of April 30, 2022



QUESTIONS

Voluntary Separation Incentive (VSI)

BRIEF HISTORY: At the end of the 1980s, the Department of Defense (DoD) began drawing down the size of the U.S. military's active force, from a post-Vietnam peak of 2.2 million in FY 1987 to 1.6 million by FY 1997, a decline of about 25 percent. Initially, the focus of the drawdown was on cutting the number of entrants into the armed forces, but DoD also needed to reduce the number of mid-careerists. To accomplish this reduction in personnel while treating service members fairly and maintaining a high state of readiness, DoD chose to rely on voluntary rather than involuntary separations.

In January 1992, the Voluntary Separation Incentive (VSI) was authorized for all branches of the armed forces to help DoD complete the reduction-in-force while avoiding serious skill and grade imbalances. The program stopped taking new applicants in October 2001. VSI offered members an annuity payable for twice as long as their years of service and equal to 2.5 percent of basic pay times years of service.

To be eligible to receive VSI, an individual must have met all of the following requirements:

- six years of active duty as of December 1991
- five years of continuous active service at separation
- be in a rank that has more people in it than are needed to maintain force readiness
- continue military service in a reserve component

VSI Fund Yield Projection and Current Interest Assumption

FY	Inflation	Real*	Fund Yield	Blue Chip Return on New Invests**
2022	5.22%	-2.32%	2.90%	0.68%
2023	2.60%	0.13%	2.73%	1.17%
2024	2.45%	0.38%	2.83%	1.82%
2025	2.30%	0.58%	2.88%	2.27%
2026	2.25%	0.72%	2.97%	2.55%
2027	2.20%	0.84%	3.04%	2.60%
2028	2.20%	0.45%	2.65%	2.60%
2029	2.20%	0.45%	2.65%	2.60%
2030	2.20%	0.40%	2.60%	2.60%
2031	2.20%	0.40%	2.60%	2.60%
5 Yr Avg	2.96%	-0.10%	2.86%	1.70%
5 Yr Fund Wgt Avg	3.30%	-0.46%	2.85%	1.45%

FY	Inflation	Real*	Fund Yield	Blue Chip Return on New Invests**
2032	2.20%	0.40%	2.60%	2.60%
2033	2.20%	0.40%	2.60%	2.60%
2034	2.20%	0.40%	2.60%	2.60%
2035	2.20%	0.40%	2.60%	2.60%
2036	2.20%	0.40%	2.60%	2.60%
2037	2.20%	0.40%	2.60%	2.60%
2038	2.20%	0.40%	2.60%	2.60%
2039	2.20%	0.40%	2.60%	2.60%
2040	2.20%	0.40%	2.60%	2.60%
2041	2.20%	0.40%	2.60%	2.60%

Current Interest Assumption
2.25%

Asset Duration	Liability Duration
2.8	3.7

Notes:

* Real = Fund Yield - Inflation (after 3 mths TIPS inflation lag). For inflation, fund yield, and Blue Chip return calculations, the "X Yr Avg" calculation is geometric and the "X Yr Fund Wgt Avg" is weighted by expected fund size during FY.

** Assumes available funds are invested in 2 yr bonds, until maturity values would be more than future expected payments.

--- Short Term Strategy: Mix of overnights and bills.
--- Portfolio Allocation: Notes and bonds (No TIPS).
--- Investment Policy: Maturities matched to cash flows and liquidity requirements. Minimize risks to the funds--all securities are market based Treasury special issues. Hold to maturity policy.

VSI Population by Number of Remaining Payments

(as of September 30, 2021)

Remaining Annual Payments	Enlisted					Officer				
	WITH VA Offset			W/O VA Offset		WITH VA Offset			W/O VA Offset	
	Count	Avg Annual VSI Gross	Avg Annual VA Pay	Count	Avg Annual VSI Gross	Count	Avg Annual VSI Gross	Avg Annual VA Pay	Count	Avg Annual VSI Gross
1	59	$7,451	$3,565	261	$7,170	69	$14,880	$5,566	213	$14,390
2	65	$7,826	$3,148	214	$7,526	47	$15,416	$5,078	143	$14,835
3	51	$8,359	$3,708	180	$7,875	53	$16,499	$6,653	134	$15,159
4	45	$8,894	$3,869	158	$8,064	38	$16,824	$6,159	106	$16,662
5	33	$8,837	$3,449	133	$8,774	27	$17,068	$5,116	98	$16,828
6	36	$9,690	$4,185	110	$9,456	33	$19,334	$4,936	53	$17,804
7	37	$9,783	$3,674	99	$9,545	25	$19,880	$3,903	61	$18,508
8	23	$10,349	$4,569	84	$9,484	10	$20,207	$6,282	38	$18,596
9	23	$10,402	$3,709	86	$9,525	8	$20,355	$9,366	43	$16,307
10	18	$11,304	$4,392	33	$10,726	5	$21,371	$12,425	29	$16,979
11	13	$11,969	$4,173	31	$11,745	9	$22,341	$7,304	18	$23,559
12	4	$12,405	$1,728	13	$12,317	5	$24,747	$4,584	11	$23,772
13	2	$13,365	$4,662	5	$11,955	2	$22,673	$8,370	6	$24,525
14	1	$22,747	$3,408	1	$22,808	1	$36,771	$1,728	0	$0
15	0	$0	$0	0	$0	1	$23,312	$1,728	3	$30,403
16	0	$0	$0	0	$0	2	$31,674	$15,888	0	$0
17	0	$0	$0	0	$0	2	$39,049	$10,800	0	$0
18	1	$24,676	$10,860	0	$0	1	$26,391	$8,460	0	$0
19	1	$27,253	$11,904	0	$0	1	$27,253	$15,012	0	$0
Total	412	$9,137	$3,749	1,408	$8,453	339	$17,575	$5,881	956	$16,245

NOTE: (i) Table includes 3,115 VSI annuitants who have remaining benefit payments.
(ii) Table includes 470 survivors receiving benefits from 359 deceased VSI members.
(iii) Table excludes 588 eligible VSI members who have a full VA offset.
(iv) A total of 18,430 service members have elected VSI since the program's inception.
(v) Final payment is often a partial payment.

10 U.S. Code § 1175 - Voluntary Separation Incentive: http://www.law.cornell.edu/uscode/text/10/1175

VSI
CHANGE IN UNFUNDED LIABILITY (UFL)
($ in Millions)

(A Negative Change Indicates a Gain and a Positive Change Indicates a Loss)

Based on 2.25% interest, 2.2% COLA on VA Offsets and 1.0% Non-COLA increase on VA Offsets

1. 10/1/2020 Unfunded Liability	$87.5	
2. 1/1/2021 Amortization Payment on UFL	$21.4	
3. Interest Rate Assumption	1.0225	
4. Expected Unfunded Liability on 10/1/2021 (1 X 3) - (2 X 3 ^ 0.75)	$67.7	
5. Actual Unfunded Liability on 10/1/2021	$67.3	
6. Total (Gain)/Loss in Unfunded Liability (5 - 4)	**-$0.33**	-0.2%
A. Total (Gain)/Loss Due to Assets	**$0.01**	0.0%
1. Asset (Gain)/Loss-Yield[1]	$0.13	0.1% --> 0.2%
2. Asset (Gain)/Loss-Benefit Payments[2]	-$0.1	-0.1%
B. Total(Gain)/Loss Due to Liability	**-$0.34**	-0.3%
1. Liability (Gain)/Loss-2022 COLA[3]	-$0.3	-0.25%
2. Liability (Gain)/Loss-2021 VA Update[4]	-$1.6	-1.2%
3. Liability (Gain)/Loss-Interest Rate	$0.0	0.0%
4. Liability (Gain)/Loss-VA Incr. Assump.	$0.0	0.0%
5. Liability (Gain)/Loss-Residual[5]	$1.6	1.2%

(Percentages shown are ratios of values of each gain or loss component to the PVFB; the ratio of the yield loss to the VSI fund is shown as well).

NOTE:

[1] Valuation assumption: 2.25% fund yield; actual fund yield: 2.08%

[2] Projected FY21 benefit payments: $37.2M; actual FY21 benefit payments: $37.1M

[3] Projected 2022 COLA (excluding the VA Increase Assumption): 2.2%; actual 2022 COLA: 5.9%

[4] Represents actual 2021 VA offsets being different than expected.

[5] Represents DFAS data changes and residual.

S:\TERA-VSI-SSB\2022 Val\vsi2109 at 2.25% DFAS (decreasing amort) JAN pmt (Updated Liability) mtg handout B

VSI AMORTIZATION

($ in Millions)

Based on 2.25% interest, 2.2% COLA on VA Offsets and 1.0% Non-COLA increase on VA Offsets

VSI Valuation Results as of 9/30/2021:

a. 9/30/2021 PVFB $133.7 PVFB Sensitivity at 25 basis points: 1%

b. 10/1/2021 Fund $66.3

c. 10/1/2021 UFL $67.4

Amortization Schedule - DECREASING Amortization Payments:

d. 1/1/2023 $13.0

e. 1/1/2024 - expiration 49.8% of FY Projected Benefit Payments

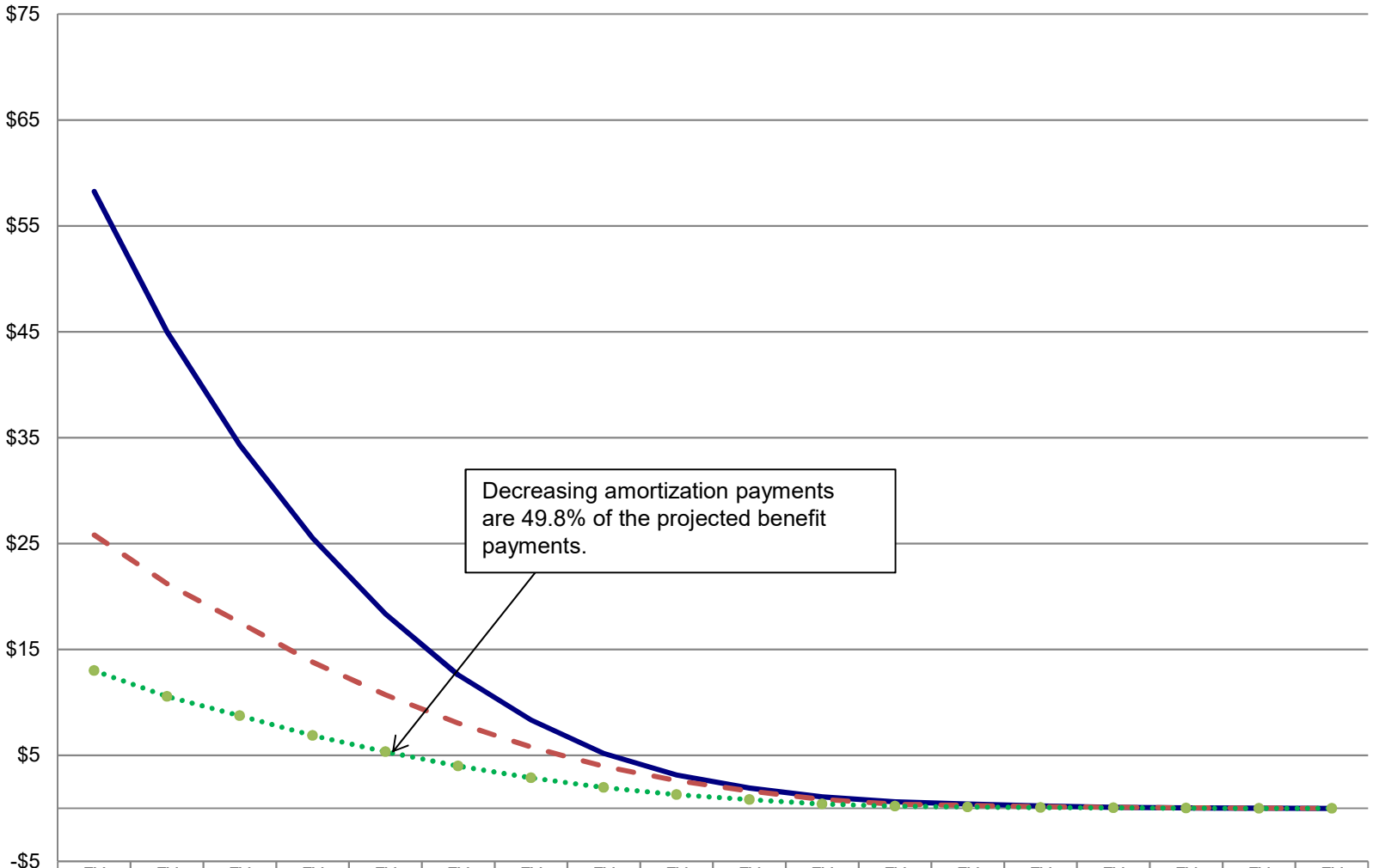
VSI Fund Projections:

	Contributions (paid on Jan. 1)	Jan-1 Fund Balance (After Contribution)	Interest Earned during FY	Benefit Payments during FY	End-of-Fiscal Year Fund Balance
FY 2022	$15.7	$73.7	$1.4	$31.1	$52.4
FY 2023	$13.0	$58.3	$1.1	$25.8	$40.8
FY 2024	**$10.6**	$45.0	$0.9	$21.2	$31.0
FY 2025	$8.7	$34.3	$0.7	$17.5	$22.8
FY 2026	$6.9	$25.5	$0.5	$13.8	$16.4
FY 2027	$5.3	$18.4	$0.3	$10.7	$11.3
FY 2028	$4.0	$12.6	$0.2	$8.0	$7.5
FY 2029	$2.9	$8.3	$0.2	$5.8	$4.8
FY 2030	$2.0	$5.2	$0.1	$4.0	$2.9
FY 2031	$1.3	$3.1	$0.1	$2.6	$1.6
FY 2032	$0.81	$1.9	$0.03	$1.6	$0.9
FY 2033	$0.42	$1.1	$0.018	$0.8	$0.4
FY 2034	$0.19	$0.6	$0.011	$0.4	$0.3
FY 2035	$0.13	$0.4	$0.007	$0.3	$0.1
FY 2036	$0.08	$0.2	$0.004	$0.2	$0.06
FY 2037	$0.04	$0.1	$0.002	$0.1	$0.02
FY 2038	$0.021	$0.05	$0.001	$0.04	$0.003
FY 2039	$0.003	$0.01	$0.0001	**$0.006**	$0.000
FY 2040	$0.0000	$0.000	$0.00000	$0.0000	$0.0000

NOTE: VA compensation offsets VSI payments; VSI liability calculations reflect VA offsets
The last net VSI payment is projected to be in 2039.
49.8% is calculated by finding the percentage that draws fund to zero by the last benefit payment.

VSI CASH FLOW PROJECTIONS

($ in Millions)



	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040
FY Fund Dollars	$58.3	$45.0	$34.3	$25.5	$18.4	$12.6	$8.3	$5.2	$3.1	$1.9	$1.1	$0.6	$0.4	$0.2	$0.1	$0.05	$0.01	$0.000
Benefit Payments	$25.8	$21.2	$17.5	$13.8	$10.7	$8.0	$5.8	$4.0	$2.6	$1.6	$0.8	$0.4	$0.3	$0.2	$0.1	$0.04	$0.006	$0.0000
Contributions	$13.0	$10.6	$8.7	$6.9	$5.3	$4.0	$2.9	$2.0	$1.3	$0.81	$0.42	$0.19	$0.13	$0.08	$0.04	$0.021	$0.003	$0.0000

S:\TERA-VSI-SSB\2022 Val\vsi2109 at 2.25% DFAS (decreasing amort) JAN pmt (Updated Liability)
mtg Chart D

ATTACHMENT 3 (CONTINUED)

Meeting Handouts for the
Department of Defense Board of Actuaries Meeting
(Education Benefits Fund)

Education Benefits Fund
Board of Actuaries Meeting

Defense Finance and Accounting Service

Coralita Jones / Lori Haines
Enterprise Solutions and Standards (ESS)
Financial Reporting
June 22, 2022

AGENDA

- Overview
- Financial Data
- Fund Status

OVERVIEW

- Short Term Liquidity
  - ✓ Current Year Purchases
    - ✓ Mar 2022 purchased a $75.0M Note
    - ✓ Anticipate continued ability to invest annually going forward.
  - ✓ Current Year Maturities
    - ✓ Jan 2022 maturity $115.4M
    - ✓ Apr 2022 maturity $29.8M
  - ✓ Outflows exceeding Inflows
    - ✓ FY 2022 disbursements through Apr $104.8M
    - ✓ FY 2022 receipts through Apr $54.8M
    - ✓ FY 2022 overnights/cash as of Apr 30 $93.4M
- Long Term Liquidity
  - ✓ New investing for FY 2022
    - ✓ Average 5-year term
    - ✓ Will be used to rebalance investment mix
  - ✓ FY 2023-2027 projected investments of $391.5M

Summary Financial Analysis

Year Ended September 30

(In Thousands)

	FY 2021	FY 2020	% Change
Service Contributions	$69,477	$141,966	-51%
Interest Income	34,166	19,972	71%
Total Revenue	$103,643	$161,938	-36%
Benefit Payments	$154,683	$184,687	-16%
Total Expense	$154,639	$184,786	-16%

Summary Financial Analysis

Year Ended September 30

(In Thousands)

Interest Income

	FY 2021	FY 2020	$Change
Interest Revenue--Par	$17,490	$26,491	-$9,001
Interest Revenue--Inflation	26,509	4,243	22,266
Interest Revenue--Discount	394	1,067	-673
Interest Revenue--Premium	-10,293	-11,829	1,536
	$34,100	$19,972	$14,128

FINANCIAL DATA

Education Benefits Fund
For the Year Ending September 30, 2021

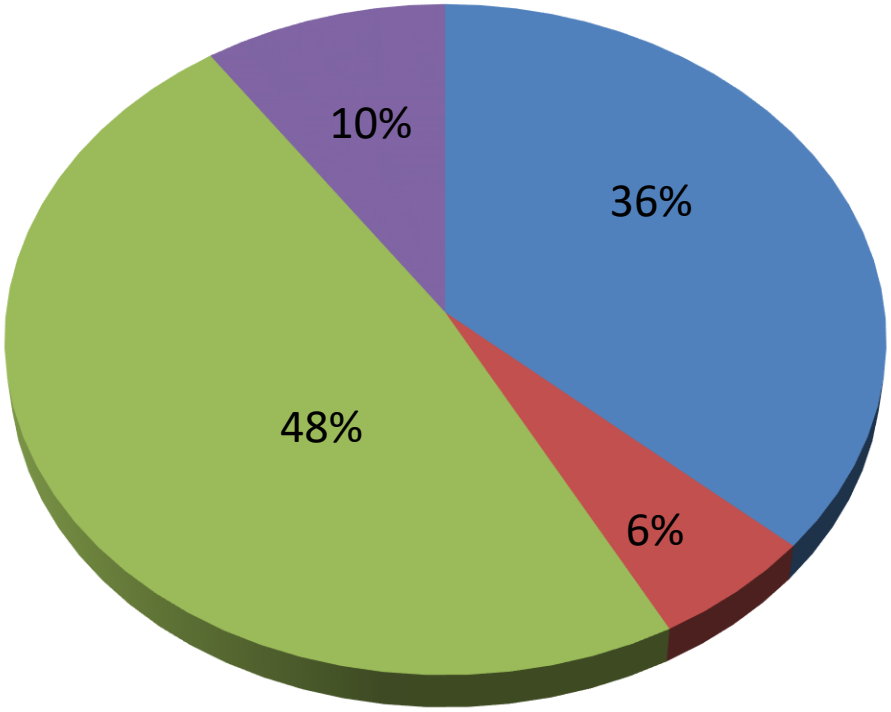
	(in thousands)
Assets	
Fund Balance with Treasury	$100.0
Investments	
Overnight	$76,912.4
Long term	
Par	$856,830.4
Inflation purchased	$44,257.5
Inflation earned	$30,707.0
Premium outstanding	$20,164.9
Discount outstanding	-$157.4
Interest receivable	$1,553.5
Total Long Term Investments	$953,355.9
Total Investments	$
Accounts Receivable, net	$901.2
Total Assets	$1,031,269.5
Liabilities	
Military Retirement and Other Federal Employment Benefits	
Benefits Payable to Beneficiaries	$621.5
Actuarial Liability	$565,778.0
Total Military and Other Federal Employment Benefits	$566,399.5
Other Liabilities	$2.7
Total Liabilities	$566,402.2
Net Position	
Cumulative Results of Operations	$464,867.3
Total Liabilities and Net Position	$1,031,269.5

FINANCIAL DATA Updated

Effective Fund Yields

FY	Yield
2012	2.94%
2013	3.10%
2014	3.16%
2015	1.79%
2016	2.34%
2017	2.92%
2018	3.82%
2019	3.01%
2020	3.01%
2021	2.92%

Education Benefits Portfolio
As Of 04/30/22

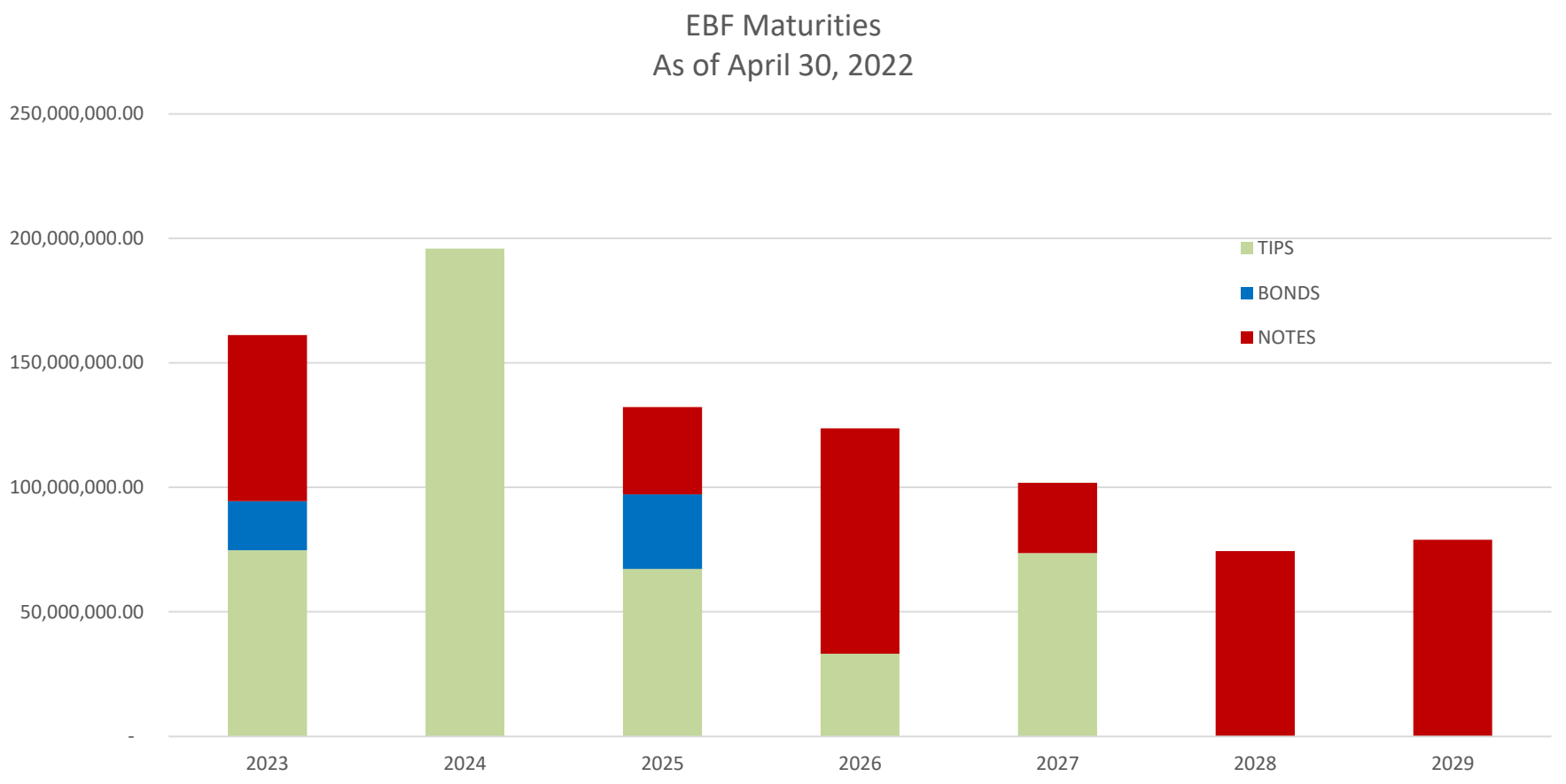


Notes	$352,395,312.11
Bonds	$54,140,106.31
TIPs	$464,962,783.92
Overnight Securities	$93,269,118.84
Total	$964,767,321.18

FUND STATUS

Security Description	Shares Par	Book Value	Market Value
MK BOND 6.875% 08/15/2025	30,000,000.00	33,051,267.08	33,712,500.00
MK BOND 7.125% 02/15/2023	19,659,651.19	20,785,907.08	20,427,606.31
TOTAL BONDS	**49,659,651.19**	**53,837,174.16**	**54,140,106.31**
MK NOTE 0.375% 04/30/2025	25,257,378.17	25,009,909.19	23,442,004.11
MK NOTE 0.750% 08/31/2026	25,258,185.58	25,049,419.55	23,008,628.43
MK NOTE 1.250% 03/31/2028	74,437,713.07	74,609,464.42	67,528,962.83
MK NOTE 1.625% 02/15/2026	65,292,466.40	68,746,311.44	62,211,478.14
MK NOTE 1.625% 08/15/2029	78,985,623.85	75,194,444.50	72,321,211.84
MK NOTE 2.250% 08/15/2027	28,200,032.62	29,768,937.06	27,221,843.99
MK NOTE 2.750% 02/28/2025	9,738,025.93	9,891,702.09	9,704,551.47
MK NOTE 2.750% 08/31/2023	66,706,481.99	68,098,393.73	66,956,631.30
TOTAL NOTES	**373,875,907.61**	**376,368,581.98**	**352,395,312.11**
MK TIPS 0.125% 01/15/2023	14,183,455.00	17,428,347.82	17,913,071.70
MK TIPS 0.125% 07/15/2024	84,717,357.00	101,387,904.60	105,180,311.98
MK TIPS 0.250% 01/15/2025	35,503,274.93	43,658,712.32	44,135,694.08
MK TIPS 0.375% 01/15/2027	62,715,061.70	78,686,608.62	76,514,634.00
MK TIPS 0.375% 07/15/2023	47,066,944.00	57,395,605.65	59,568,699.61
MK TIPS 0.625% 01/15/2024	78,694,565.08	95,897,600.39	99,754,142.81
MK TIPS 0.625% 01/15/2026	27,772,869.71	33,347,543.17	34,819,583.34
MK TIPS 2.375% 01/15/2025	16,405,437.41	26,155,671.23	27,076,646.40
TOTAL TIPS	**367,058,964.83**	**453,957,993.80**	**464,962,783.92**
ONE DAY 0.380% 05/02/2022	**93,269,118.84**	**93,269,118.84**	**93,269,118.84**
TOTAL PORTFOLIO	**883,863,642.47**	**977,432,868.78**	**964,767,321.18**

FUND STATUS



2023	2024	2025	2026	2027	2028	2029	Total
161.1	195.9	132.2	123.7	101.8	74.4	79.0	868.1

QUESTIONS

FY 2021 Valuation of

DoD Education Benefits Fund

Presented before the DoD Board of Actuaries
by Richard Allen, Richard.S.Allen40.civ@mail.mil
Philip Davis, Philip.B.Davis15.civ@mail.mil
June 24, 2022

Meeting Objectives

1. Review and approve actuarial methods and assumptions needed for September 30, 2021 actuarial valuation of the Department of Defense Education Benefits Fund. They are;

   a. Chapter 30 Kicker Benefits
   b. Chapter 1606 Basic & Kicker Benefits
   c. Category III Benefits

2. Review the actuarial liability as of September 30, 2021 for each of the benefit plans by active duty and reserve service component, including the Coast Guard

3. Set FY 2024 Per Capita Contribution Amounts and October 1, 2023 Amortization Payments for each of these benefit plans by active duty and reserve component. These amounts will be sent in letters to the DoD Comptroller and the Secretary of Homeland Security (Coast Guard).

Presentation to the DoD Board of Actuaries

1. Military Educational Benefits
2. Executive Summary of September 30, 2021 Actuarial Valuation Results
3. Education Benefit Usage Model
4. Benefit Usage and Withdrawal Rates
5. Data Sources
6. Data Reconciliation and Census Assumptions
7. Economic Assumptions
8. Chapter 30 Results
9. Chapter 1606 Results
10. Cat III Methodology and Results
11. Appendix

Military Education Benefits

Program	Funded By	Participants	Eligibility	FY 2021 Benefit	Per Capita Amount	Amortization	Transferability	Dates
Post 9/11 Chapter 33 Basic	VA	Active Duty or Reserve	Active – Serve 3 Years (Full) Serve 90+ days (Partial) Reserve – Serve 90+ Days in Active Duty Status Ends 15 Years after Separation	In State Tuition, Housing & Stipend up to $26,042.81	N/A	None	Serve 10+ Years. Members must apply after 6 years while still in active status	August, 2009 - Present
Montgomery GI Bill Chapter 30 Basic	VA	Active Duty	Enlistment of 3 Years (Full Amount) or Contracted Enlistment Ends 10 Years after Separation	$2,150 Per Month indexed to NCES	N/A	None	None	July, 1985 - Present
Chapter 30 Kicker	DoD Services Contribute to EBF	Active Duty	Offered by DoD at Time of Recruitment. Contract Period of 2-6 years. Corresponds with Chapter 30 or Chapter 33 Basic	$150 - $950 Per month. No indexing	Net Single Premium Paid at Time of Entry. Fund Surplus Offset as Determined by DoD Board of Actuaries	Determined by Board of Actuaries. Unfunded Liability by Service Paid Off in 5 Years	Same as Chapter 33 Basic	July, 1985 – Present (None offered since 2012)
Category III Post-Vietnam Veterans' Educational Assistance Program (VEAP)	DoD & VA	Active Duty	Entered service between January, 1977 ~ June, 1985 Involuntarily separated for certain reasons or separated under the VSI (Voluntary Separation Incentive) or SSB (Special Separation Benefit) Program	Same as Chapter 30	N/A	Projected amount plus interest used in prior fiscal year	Survivors and dependents may be eligible	January 1977 - Present

These are not all of the education benefits available to military members. These are only the programs funded by the Education Benefits Fund (EBF) or programs whose use by members impacts the EBF.

Military Education Benefits

Program	Funded By	Participants	Eligibility	FY 2021 Benefit	Per Capita Amount	Amortization	Transferability	Dates
Chapter 1606 Basic	DoD Reserve Components Contribute to EBF	Selected Reserves	Agree to Serve 6 Years. Ends After 14 Years of Service or Upon Leaving Reserves	$407 Per Month Indexed by CPI	Net Single Premium Paid at Time of Entry. Fund Surplus Offset as Determined by DoD Board of Actuaries	Determined by DoD Board of Actuaries. Unfunded Liability by Reserve Component Paid Off in 5 Years	Not Currently Offered	July, 1985 – Present
Chapter 1606 Kicker	DoD Reserve Components Contribute to EBF	Selected Reserves (Offered to fill special skilled positions)	Offered by DoD at Time of Recruitment. Same as Chapter 1606 Basic	$100, $200 & $350 Per Month. Not Indexed	Net Single Premium Paid at Time of Entry.	None	Not Currently Offered	July, 1985 – Present

These are not all of the education benefits available to military members. These are only the programs funded by the Education Benefits Fund (EBF) or programs whose use by members impacts the EBF.

Executive Summary of September 30, 2021 Actuarial Valuation Results

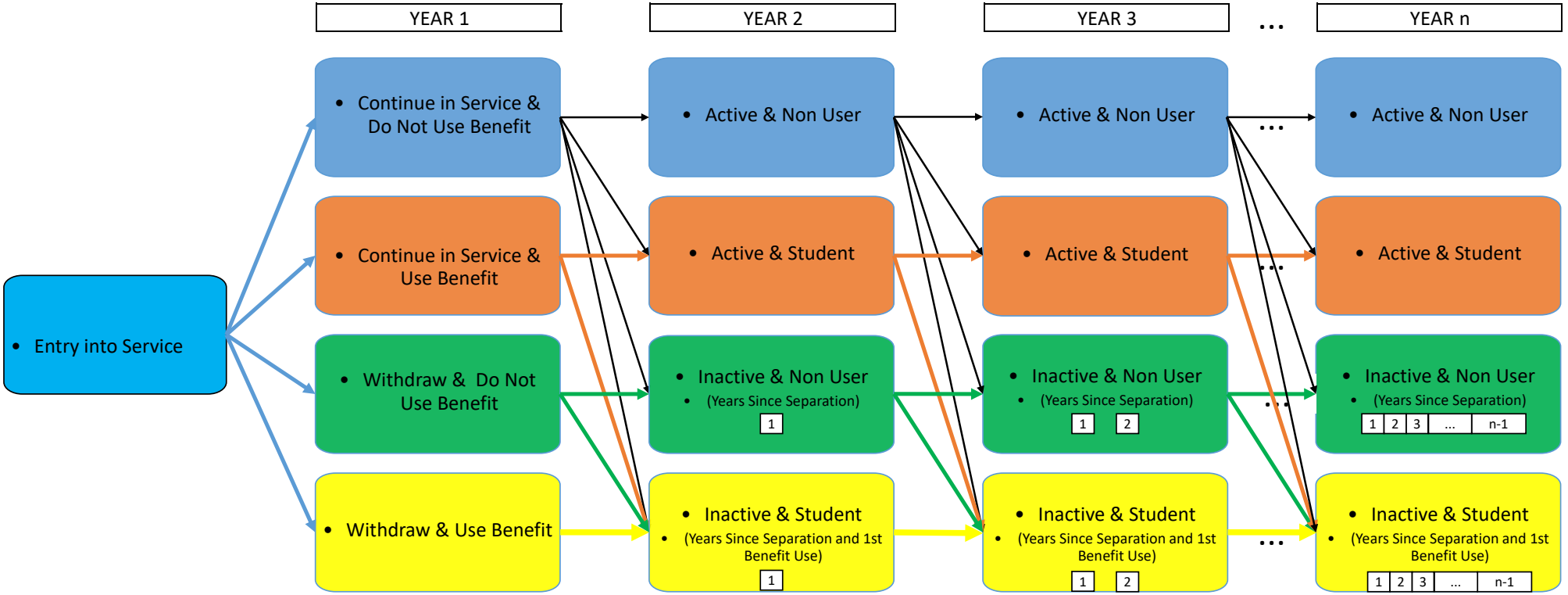
($ in millions)	Chapter 30 Kicker	Chapter 1606 Basic & Kicker	Other[2]	Total
Sept. 30, 2021 Eligibles[1]	121,468	420,593	N/A	542,061
Sept. 30, 2020 Balance & Liability				
Sept. 30, 2020 Fund Balance[3]	$375.1	$705.8	$0.5	$1,081.4
Actuarial Liability	$291.6	$312.6	$0.1	$604.2
Unfunded Liability (Surplus)	$(83.5)	$(393.2)	$(0.4)	$(477.2)
FY 2021 Fund Activity				
Oct 1, 2020 Fund Balance	$375.1	$705.8	$0.5	$1,081.4
FY21 Amortization Payments	$5.3	$0.0	$0.0	$5.4
FY21 Transfers	$0.0	$0.0	$0.0	$0.0
FY21 Per Capita Contributions	$0	64.1	$0.0	$64.1
FY21 Benefit Payments	$(42.6)	$(112.0)	$(0.1)	$(154.7)
FY21 Interest	$10.5	$20.1	$0.0	$30.7
FY21 Total Changes	$(26.7)	$(27.8)	$(0.0)	$(54.5)
Sept. 30, 2021 Fund Balance	$348.4	$678.0	$0.5	$1,026.9
Sept. 30, 2021 Balance & Liability				
Sept. 30, 2021 Fund Balance	$348.4	$678.0	$0.5	$1,026.9
Actuarial Liability	$241.4	$361.7	$0.1	$603.2
Unfunded Liability (Surplus)	$(107.0)	$(316.3)	$(0.4)	$(423.6)

[1]Members eligible for multiple programs are counted separately for each program. There have not been any new entrants into the Chapter 30 Kicker program since 2012

[2]Other is Category III, National Call to Service and Chapter 30 Section 3020 Transferability. Due to the relatively small size of benefits and no benefits paid since FY 2008 for National Call to Service and Chapter 30 Section 3020 Transferability, liability amounts for those programs have not been estimated. Liability amounts in this column represent only the Category III liability. Fund balances for National Call to Service and Chapter 30 Section 3020 Transferability are still reflected in this column.

[3]Officially, there is only one Fund. OACT allocates the Fund into separate accounts for the various programs by component, using reported contributions and benefit payments by program for each component and allocating reported interest earnings by program.

Education Benefit Usage Model



Each box has a probability of benefit usage and a probability of moving into a different box for the following year.
Benefits are discounted to the time of entry.
Active Duty model continues for 40 years. Reserve model continues for 15 years .

Preliminary Benefit Usage & Withdrawal Rates

Model calculates usage and withdrawal rates for each cell as described in Education Benefits Usage Model slide by taking weighted average over most recent 10 years.

1. **Active Model** - Most recent year (FY 2021) is given a weight of 100%. Second most recent year (FY 2020) is given a weight of 80% of most recent year. Each successive year (2012-2019) is given a weight 80% of the year it precedes.
   - Exceptions – Where there are no or very few cases to measure, model may use other measurements. For example, there have been very few Coast Guard entrants and data is sparse, so the model uses the average of all services
   - **Proposed Change for FY 2021 Valuation** – Because there have not been any new entrants since 2012, instead of using the most recent 10 years for all rates, the model uses most recent ten years that had cases to measure. For example, to determine benefit usage for active duty members who have two years of service, the model uses the 10 year weighted average ending in FY 2014, since there were not any members with 2 years of service from 2015-present.

2. **Reserve Model** - Most recent year (FY 2021) is given a weight of 100%. Second most recent year (FY 2020) is given a weight of 60% of most recent year. Each successive year (2012-2019) is given a weight 60% of the year it precedes.
   - Exceptions – Where there are no or very few cases to measure, model may use other measurements. For example, if a particular program has not offered a $100 kicker benefit, the model will use historical weighted average of the $200 and $350 kicker benefit and basic benefit and apply utilization adjustments to account for different benefit amounts.

Data Sources

Defense Finance Accounting Service (DFAS) Trial Balance

- Provides Education Benefits Trust Fund activity for each active duty service and reserve component by month
  - Total per capita contributions
  - Amortization payments
  - Total benefit payments
- Provides entire fund starting and end of year balances

Defense Manpower Data Center (DMDC) File Extracts

- Provides individual member data
  - Cumulative lifetime benefits as of file date
  - Code indicating current service or reserve component
  - Code indicating monthly benefit amount
  - Date of entry, first benefit use, and withdrawal (if no longer active)

Chapter 30 DMDC and DFAS Comparison of FY 2021 Kicker Benefit Payments

Service	**DMDC** Reports	**DFAS** Reports	$$ Difference	DMDC Reports as % of Total
Army	$31,081,702	$30,021,457	$1,060,245	103.5%
Navy	$9,433,335	$7,651,598	$1,781,737	123.3%
Marine Corps	$6,186,499	$4,773,628	$1,412,871	129.6%
Coast Guard	$53,592	$49,532	$4,060	108.2%
Unknown	$0	$129,334	-$129,334	0.0%
Total	$46,755,128	$42,625,549	$4,129,579	109.7%
FY 2020	$44,772,510	$55,282,580	-$10,510,070	81.0%
FY 2019	$60,958,830	$70,528,613	-$9,569,782	86.4%
FY 2018	$75,244,341	$85,961,445	-$10,717,103	87.5%
FY 2017	$90,826,322	$100,994,791	-$10,168,469	89.9%

Chapter 1606 DMDC and DFAS Comparison of FY 2021 Benefit Payments

	DMDC Reporting			DFAS Reporting			DMDC Reports as % of Total		
FY 2021	Chapter 1606 Basic Benefits	Chapter 1606 Kicker Benefits	Basic & Kicker Combined	Chapter 1606 Basic Benefits	Chapter 1606 Kicker Benefits	Basic & Kicker Combined	Chapter 1606 Basic Benefits	Chapter 1606 Kicker Benefits	Basic & Kicker Combined
Army National Guard	$36,444,376	$9,335,927	$45,780,303	$36,495,096	$17,492,346	$53,987,442	99.9%	53.4%	84.8%
Army Reserve	$16,777,119	$4,867,898	$21,645,017	$15,385,268	$8,011,637	$23,396,905	109.0%	60.8%	92.5%
Navy Reserve	$2,686,471	$39,018	$2,725,489	$2,036,279	$608,428	$2,644,707	131.9%	6.4%	103.1%
Marine Corps Reserve	$5,932,861	$8,531	$5,941,393	$5,893,072	$282,925	$6,175,997	100.7%	3.0%	96.2%
Air National Guard	$10,707,301	$6,872,162	$17,579,463	$10,698,967	$10,294,434	$20,993,400	100.1%	66.8%	83.7%
Air Force Reserve	$1,301,933	$824,089	$2,126,022	$1,374,863	$3,325,750	$4,700,613	94.7%	24.8%	45.2%
Coast Guard Reserve	$121,448	$0	$121,448	$94,159	$3,746	$97,905	129.0%	0.0%	124.0%
All Components	$73,971,509	$21,947,625	$95,919,134	$71,977,703	$40,019,266	$111,996,969	102.8%	54.8%	85.6%
FY 2020	$77,868,403	$26,833,908	$104,702,310	$83,983,567	$40,646,651	$124,630,218	92.7%	66.0%	84.0%
FY 2019	$80,744,845	$28,324,007	$109,068,852	$87,952,195	$37,973,464	$125,925,659	91.8%	74.6%	86.6%
FY 2018	$78,717,307	$23,144,394	$101,861,701	$93,545,267	$37,863,171	$131,408,438	84.1%	61.1%	77.5%
FY 2017	$78,015,146	$24,357,772	$102,372,919	$104,595,275	$42,551,788	$147,147,062	74.6%	57.2%	69.6%

Data Reconciliation and Census Assumptions

When summing up the individual usage data on the DMDC extracts, the total benefit dollars paid and the number of new entrants has been 10-20% less than the amount of dollars paid and the number of new entrants (obtained by dividing dollars by scheduled normal costs) according to the DFAS Trial Balances.

The model adjusts the preliminary benefit usage rates and starting population to account for the discrepancies between the data sources.

Active Duty Model

- **Rates**
  - Record the percent difference in dollars paid between the DFAS Trial Balance and the DMDC file extracts over the past ten years (FY 2012-2021).
  - Use the same weighting method as in the benefit usage rate determination to derive the initial rates "true-up" factor (see Usage & Withdrawal Rates).
  - The final true-up factor is the square root of (1+ initial true-up factor) and is split between increasing the usage rate and the number of months used. The square root is used because multiplying by the initial true-up factor to the rate will increase the number of members who move from non-usage status to usage status, which has a higher usage rate in subsequent years. This would result in increasing the output by more than the DFAS/DMDC ratio.

- **Census**

The model uses members on the DMDC file. No adjustment is made to the census because the program has not had any contributions since 2012 and DoD Compensation does not expect any new entrants for the foreseeable future.

Reserve Model

- **Rates**
  - Record the percent difference in dollars paid between DFAS Trial Balances and DMDC file extracts over the past ten years (FY 2012-2021) divided by the percent difference in contributions to the Fund between DFAS and DMDC over the same period. Unique figure for each component.
  - Use the same weighting method as in the benefit usage rate determination to derive the initial rates "true-up" factor (see Usage & Withdrawal Rates).
  - The final true-up factor is the square root of (1+ initial true-up factor) and is split between increasing the usage rate and the number of months used. The square root is used because multiplying by the initial true-up factor to the rate will increase the number of members who move from non-usage status to usage status, which has a higher usage rate in subsequent years. This would result in increasing the output by more than the DFAS/DMDC ratio.

- **Census**
  - Record the weighted average percent difference in contributions between DFAS Trial Balance and DMDC file extracts over the past ten years (FY 2012-2021). The DMDC figure is obtained by taking the number of members on the file in a given year and multiplying it by the normal cost for that year, component, and program. The model weights the calculation by the same

weighting method used in the benefit usage rate determination to derive the census true-up factor for each component.

- For the most recent year's entrants, the model uses the DFAS number (contributions divided by specific normal costs).
- For earlier years, the model uses the number of members on DMDC file and separates them by years since entry and whether they have received benefits as of valuation date (designate members as either "users" or "non-users"). The model then increases the census by the "true up" factor.
- For future years, the model uses the predicted number of entrants from DoD Compensation

Hypothetical Example to Derive True Up Factors

Suppose for 10 Year Weighted Average for Service ABC

Benefits Paid (DFAS Trial Balance)	$110,000,000
Benefits Paid (DMDC File Extracts)	$100,000,000
% DFAS / DMDC	110%
PCA Contributions to Fund (DFAS)	$52,000,000
PCA Contributions to Fund (DMDC)	$50,000,000
% DFAS / DMDC	104%
Census True Up Factor	104%
Initial Rates True Up Factor	110% / 104% = 105.8%
Final Rates True Up Factor	Square Root of 105.8% = 102.8%

Starting census except for most recent year for Service ABC is increased by 4.0%
All Probabilities for Service ABC are increased by 2.8%

EBF Fund Yield Projection and Current Interest Assumption

FY	Inflation	Real*	Fund Yield	Blue Chip Return on New Invests (Cumulative)**
2022	5.22%	-1.67%	3.54%	1.31%
2023	2.60%	-0.07%	2.53%	1.58%
2024	2.45%	-0.65%	1.80%	1.91%
2025	2.30%	-0.20%	2.10%	2.18%
2026	2.25%	-0.06%	2.19%	2.38%
2027	2.20%	0.17%	2.37%	2.50%
2028	2.20%	0.36%	2.56%	2.60%
2029	2.20%	0.80%	3.00%	2.66%
2030	2.20%	0.80%	3.00%	2.71%
2031	2.20%	0.80%	3.00%	2.75%
10 Yr Avg	2.58%	0.03%	2.61%	2.26%
10 Yr Fund Wgt	2.55%	0.07%	2.62%	2.29%

Sensitivity Analysis Interest Assumption	Sensitivity Analysis Liability Inc / -Dec
2.25%	0.82%
2.75%	-0.82%

Current Interest Assumption	Duration
2.50%	3.3

Notes:

* Real = Fund Yield - Inflation. For inflation, fund yield, and Blue Chip return calculations, the "X Yr Avg" calculation is geometric and the "X Yr Fund Wgt Avg" is weighted by expected fund size during FY.

** Assumes an amount equal to 25% of expected annual benefit payments is invested in overnights and new bond purchases are invested in 5-yr bonds.
--- Short Term Strategy: Mix of overnights and bills.
--- Portfolio Allocation: 50% conventional / 50% TIPS.
--- Investment Policy: Match cash flows to cash outflows plus a margin. Minimize risks to the funds--all securities are market based Treasury special issues. Hold to maturity policy.

Economic Assumptions - Projection of the Chapter 1606 Basic Benefit Using Blue Chip Financial Forecast of CPI - W

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	July - June	July - June CPI Increase	Chapter 1606 Monthly Basic Benefit
2020							**252.6**	**253.6**	**254.0**	**254.1**	**253.8**	**254.1**	0.0		
2021	**255.3**	**256.8**	**258.9**	**261.2**	**263.6**	**266.4**	**267.8**	**268.4**	**269.1**	**271.6**	**273.0**	**273.9**	257.0	**2.6%**	$397
2022	**276.3**	**278.9**	**283.2**	**284.6**	**288.0**	288.7	289.3	289.9	290.6	291.2	291.8	292.4	277.0	**7.7%**	$407
2023	292.9	293.5	294.1	294.7	295.4	296.0	296.6	297.3	297.9	298.5	299.2	299.8	292.7	**5.7%**	$438
2024														**2.5%**	$463
2025														**2.3%**	$475
2026														**2.3%**	$486
2027														**2.2%**	$497
2028														**2.2%**	$508
2029														**2.2%**	$519
2030														**2.2%**	$530

Bold indicates actual CPI. Otherwise, O-ACT projection.
Annual CPI = July - June 12 Month Average Divided by Previous July - June 12 Month Average rounded to the nearest tenth of percent.
Chapter 1606 monthly benefit is previous year's benefit increased by annual CPI rounded to the nearest dollar.

Source: Bureau of Labor Statistics, Urban Wage Earners and Clerical Workers CPI through May, 2022
Blue Chip Financial Forecasts, December, 2021 Consumer Price Index Estimates
Estimates are Quarterly Through 2023; Annually Thereafter

Chapter 30 Results - Determination of October 1, 2023
Amortization Payments (Adjustments) for Chapter 30 Kicker Programs

	Army	Navy	Marine Corps	Coast Guard	Total - Active
Actual Fund Balance on September 30, 2021	$271,004,313	$45,495,408	$30,771,303	$1,139,283	$348,410,307
Actual Present Value of Benefits	$169,917,904	$51,343,493	$19,284,788	$896,922	$241,443,107
Actual Unfunded Liability (Surplus)	($101,086,409)	$5,848,085	($11,486,515)	($242,361)	($106,967,200)
Amortization Payment on October 1, 2021	$0	$1,630,752	$0	$0	$1,630,752
Projected Net Receipts (Transfers + Contributions - Benefits + Interest)	($13,024,983)	($4,674,916)	($2,159,003)	($5,075)	($19,863,977)
Projected Fund Balance on September 30, 2022	$257,979,330	$42,451,244	$28,612,301	$1,134,208	$330,177,083
Projected Present Value of Benefits	$149,330,525	$46,488,605	$16,426,204	$864,315	$213,109,649
Projected Unfunded Liability (Surplus)	($108,648,804)	$4,037,361	($12,186,097)	($269,893)	($117,067,434)
Scheduled Amortization Payment on October 1, 2022	$0	$542,957	$0	$0	$542,957
Projected Net Receipts (Transfers + Contributions - Benefits + Interest)	($16,040,487)	($5,342,377)	($1,991,365)	($46,133)	($23,420,361)
Projected Fund Balance on September 30, 2023	$241,882,327	$37,651,824	$26,620,936	$1,088,076	$307,243,163
Projected Present Value of Benefits	$130,575,232	$41,233,588	$14,130,187	$811,435	$186,750,441
Projected Unfunded Liability (Surplus)	($111,307,096)	$3,581,764	($12,490,749)	($276,641)	($120,492,722)
Amortization Payment on October 1, 2023	**$0**	**$752,159**	**$0**	**$0**	**$752,159**

Amortization schedule based on 5 years at an interest rate of 2.5%

For additional detail, see Chapter 30 Kicker Projected Fund Activity in Appendix

Chapter 30 Kicker Results - Per Capita Amounts for Selected Benefits

Item	Fiscal Year	Army 2 Year $150	Army 3 Year $250	Army 4 Year $350	Army 5 Year $650	Army 6 Year $950	Navy 4 Year $450	Marines 4 Year $450	Marines 5 Year $450	Marines 6 Year $450	Coast 4 Year $450
Assumed	2023	$150	$250	$350	$650	$950	$450	$450	$450	$450	$450
Benefit	2024	$150	$250	$350	$650	$950	$450	$450	$450	$450	$450
% Benefit	2023	64.1%	65.0%	61.8%	61.2%	59.6%	58.1%	43.3%	42.2%	40.6%	61.1%
Used	2024	36.5%	35.8%	35.8%	35.6%	34.9%	46.9%	42.6%	41.5%	40.0%	37.4%
Discount	2023	0.820	0.813	0.799	0.804	0.796	0.731	0.789	0.774	0.763	0.734
Factor	2024	0.793	0.778	0.767	0.758	0.753	0.738	0.797	0.784	0.760	0.772
Normal	2023	$2,837	$4,757	$6,220	$11,500	$16,221	$6,876	$5,534	$5,299	$5,024	$7,271
Cost	2024	$1,562	$2,509	$3,462	$6,309	$8,992	$5,606	$5,502	$5,272	$4,925	$4,674
Normal Cost	2023	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Offset	2024	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Per Capita	**2023**	**$2,837**	**$4,757**	**$6,220**	**$11,500**	**$16,221**	**$6,876**	**$5,534**	**$5,299**	**$5,024**	**$7,271**
Amount	**2024**	**$1,562**	**$2,509**	**$3,462**	**$6,309**	**$8,992**	**$5,606**	**$5,502**	**$5,272**	**$4,925**	**$4,674**

Normal Cost = Assumed Benefit X % Benefit Used X Discount Factor X 36 Months
Per Capita Amount = Normal Cost - Offset

For all programs, see Appendix, page

Chapter 30 Kicker Results - All Per Capita Amounts

Fiscal Year 2023

Service / Contract	Monthly Kicker Amount $150	$250	$350	$450	$550	$650	$750	$850	$950
Army / 2 Year	$2,837	$4,759	$6,702	$8,667	$10,652	$12,656	$14,679	$16,718	$18,775
Army / 3 Year	$2,838	$4,757	$6,697	$8,657	$10,635	$12,630	$14,642	$16,671	$18,714
Army / 4 Year	$2,636	$4,419	$6,220	$8,039	$9,875	$11,727	$13,594	$15,475	$17,369
Army / 5 Year	$2,599	$4,352	$6,119	$7,900	$9,694	$11,500	$13,319	$15,149	$16,989
Army / 6 Year	$2,479	$4,151	$5,838	$7,538	$9,251	$10,976	$12,714	$14,462	$16,221
Navy / 4 Year	$2,248	$3,772	$5,315	$6,876	$8,454	$10,049	$11,659	$13,284	$14,923
Marine Corps / 4 Year	$1,795	$3,020	$4,266	$5,534	$6,821	$8,128	$9,455	$10,799	$12,162
Marine Corps / 5 Year	$1,718	$2,891	$4,085	$5,299	$6,532	$7,785	$9,057	$10,346	$11,654
Marine Corps / 6 Year	$1,637	$2,750	$3,879	$5,024	$6,184	$7,359	$8,549	$9,752	$10,968
Coast Guard / 4 Year	$2,374	$3,985	$5,618	$7,271	$8,945	$10,638	$12,349	$14,079	$15,826

Fiscal Year 2024

Service / Contract	Monthly Kicker Amount $150	$250	$350	$450	$550	$650	$750	$850	$950
Army / 2 Year	$1,562	$2,628	$3,712	$4,815	$5,936	$7,075	$8,231	$9,404	$10,594
Army / 3 Year	$1,492	$2,509	$3,544	$4,597	$5,666	$6,751	$7,853	$8,971	$10,104
Army / 4 Year	$1,460	$2,453	$3,462	$4,487	$5,526	$6,580	$7,649	$8,731	$9,827
Army / 5 Year	$1,405	$2,359	$3,327	$4,308	$5,302	$6,309	$7,328	$8,359	$9,402
Army / 6 Year	$1,353	$2,270	$3,198	$4,137	$5,088	$6,048	$7,020	$8,001	$8,992
Navy / 4 Year	$1,831	$3,073	$4,332	$5,606	$6,897	$8,202	$9,523	$10,857	$12,205
Marine Corps / 4 Year	$1,788	$3,006	$4,244	$5,502	$6,780	$8,076	$9,390	$10,722	$12,071
Marine Corps / 5 Year	$1,716	$2,884	$4,069	$5,272	$6,492	$7,728	$8,980	$10,249	$11,532
Marine Corps / 6 Year	$1,602	$2,692	$3,800	$4,925	$6,066	$7,224	$8,397	$9,586	$10,789
Coast Guard / 4 Year	$1,520	$2,555	$3,606	$4,674	$5,758	$6,857	$7,972	$9,101	$10,245

Chapter 1606 Results - Determination of October 1, 2023
Amortization Payments (Adjustments) for Chapter 1606 Basic & Kicker Programs

	Army National Guard	Army Reserve	Navy Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	TOTAL
Amount in Fund on September 30, 2021	$373,288,271	$132,129,698	$19,394,951	$32,309,693	$61,419,071	$55,586,997	$3,869,409	$677,998,090
Present Value of Benefits	$151,088,662	$80,171,600	$12,945,997	$22,821,898	$72,958,249	$24,366,583	$295,335	$364,648,325
Unfunded Liability (Surplus)	($222,199,609)	($51,958,098)	($6,448,954)	($9,487,795)	$11,539,178	($31,220,414)	($3,574,074)	($313,349,765)
Amortization Payment on October 1, 2021	$0	$0	$0	$0	$0	$0	$0	$0
Net Receipts (Asset Xfers + Contribs - Ben Pmts + Int)	$1,557,261	($4,284,572)	($1,066,723)	($2,009,803)	($3,049,383)	$932,783	$87,615	($7,832,821)
Amount in Fund on September 30, 2022	$374,845,532	$127,845,127	$18,328,229	$30,299,890	$58,369,688	$56,519,780	$3,957,024	$670,165,270
Present Value of Benefits	$152,404,357	$74,533,676	$12,900,637	$20,826,312	$68,740,456	$23,934,957	$215,034	$353,555,430
Unfunded Liability (Surplus)	($222,441,175)	($53,311,451)	($5,427,591)	($9,473,578)	$10,370,768	($32,584,823)	($3,741,990)	($316,609,840)
Amortization Payment on October 1, 2022	$0	$0	$0	$0	$0	$0	$0	$0
Net Receipts (Asset Xfers + Contribs - Ben Pmts + Int)	($33,150,960)	($9,682,001)	($2,616,009)	($110,206)	($7,657,361)	($123,041)	$15,801	($53,323,777)
Amount in Fund on September 30, 2023	$341,694,572	$118,163,125	$15,712,220	$30,189,684	$50,712,327	$56,396,740	$3,972,825	$616,841,493
Present Value of Benefits	$156,325,434	$78,200,357	$12,869,143	$22,651,451	$64,405,640	$24,727,130	$158,796	$359,337,950
Unfunded Liability (Surplus)	($185,369,138)	($39,962,769)	($2,843,077)	($7,538,233)	$13,693,313	($31,669,610)	($3,814,029)	($257,503,543)
Amortization Payment on Oct 1, 2023	**$0**	**$0**	**$0**	**$0**	**$2,875,554**	**$0**	**$0**	**$2,875,554**
Adjustment to FY 2024 Basic Benefit Normal Costs	**($39,371,001)**	**($8,487,789)**	**($603,848)**	**($1,601,064)**	**$0**	**($6,726,385)**	**($810,071)**	**($57,600,158)**

Note: Surpluses and deficits are amortized over 5 years. The interest rate is assumed to be 2.5%

For additional detail, see Chapter 1606 Basic & Kicker Projected Fund Activity in Appendix

Chapter 1606 Offsets to FY 2024 Basic Benefit Normal Costs

	Army National Guard	Army Reserve	Navy Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve
Projected Basic Normal Cost Contributions Before Offset	$41,235,225	$18,837,748	$2,903,377	$7,355,502	$6,970,340	$2,991,980	$21,846
Total Amount to be Offset	$39,371,001	$8,487,789	$603,848	$1,601,064	$0	$6,726,385	$810,071
% of Normal Costs Being Offset	95.5%	45.1%	20.8%	21.8%	0.0%	>100%	>100%
*Projected Model Entrants	27,075	18,596	2,671	4,697	3,154	3,545	6
Offset Per New Entrant for FY 2024	$1,454	$456	$226	$341	$0	$844	$3,641
Offset to Basic Benefit Normal Costs	Partial Offset	Partial Offset	Partial Offset	Partial Offset	No Offset	Full Offset	Full Offset

Percent Offset to 2023 Normal Cost

Chapter 1606 Results - Per Capita Contribution Amounts

Item	Fiscal Year	Army National Guard Basic	Army Reserve Basic	Navy Reserve Basic	Marine Corps Reserve Basic	Air National Guard Basic	Air Force Reserve Basic	Coast Guard Reserve Basic
Monthly Benefit	2023	$451	$452	$456	$451	$448	$451	$449
	2024	$496	$504	$512	$501	$499	$508	$497
% Benefit Used	2023	11.6%	6.3%	4.9%	10.8%	13.6%	5.7%	21.8%
	2024	9.2%	6.1%	6.6%	9.5%	13.3%	5.1%	22.0%
Discount Factor	2023	0.942	0.940	0.931	0.942	0.949	0.941	0.947
	2024	0.928	0.913	0.897	0.919	0.923	0.903	0.927
Normal Cost	2023	$1,769	$969	$747	$1,651	$2,081	$865	$3,336
	2024	$1,523	$1,013	$1,087	$1,566	$2,210	$844	$3,641
Normal Cost Offset	2023	$1,769	$726	$677	$509	$1,201	$865	$3,336
	2024	$1,454	$456	$226	$341	$0	$844	$3,641
Per Capita Amount	**2023**	**$0**	**$243**	**$70**	**$1,142**	**$880**	**$0**	**$0**
	2024	**$69**	**$557**	**$861**	**$1,225**	**$2,210**	**$0**	**$0**

Normal Cost = Monthly Benefit X % Benefit Used X Discount Factor X 36 Months
Per Capita Amount = Normal Cost - Offset

Chapter 1606 Results - Per Capita Contribution Amounts

Item	Fiscal Year	Army National Guard $100 Kicker	Army Reserve $100 Kicker	Navy Reserve $100 Kicker	Marine Corps Reserve $100 Kicker	Air National Guard $100 Kicker	Air Force Reserve $100 Kicker	Coast Guard Reserve $100 Kicker
Monthly Benefit	2023	$100	$100	$100	$100	$100	$100	$100
	2024	$100	$100	$100	$100	$100	$100	$100
% Benefit Used	2023	11.3%	13.7%	7.3%	13.0%	28.4%	31.0%	27.2%
	2024	7.3%	4.9%	22.6%	17.6%	18.8%	38.6%	31.3%
Discount Factor	2023	0.892	0.864	0.914	0.942	0.876	0.879	0.909
	2024	0.914	0.878	0.832	0.887	0.882	0.821	0.877
Normal Cost	2023	$361	$427	$240	$441	$896	$981	$892
	2024	$239	$153	$678	$562	$597	$1,142	$988
Normal Cost Offset	2023	$0	$0	$0	$0	$0	$0	$0
	2024	$0	$0	$0	$0	$0	$0	$0
Per Capita Amount	**2023**	**$361**	**$427**	**$240**	**$441**	**$896**	**$981**	**$892**
	2024	**$239**	**$153**	**$678**	**$562**	**$597**	**$1,142**	**$988**

Normal Cost = Monthly Benefit X % Benefit Used X Discount Factor X 36 Months
Per Capita Amount = Normal Cost - Offset
A boxed variable means that this kicker amount is currently offered by the component.

Chapter 1606 Results - Per Capita Contribution Amounts

Item	Fiscal Year	Army National Guard $200 Kicker	Army Reserve $200 Kicker	Navy Reserve $200 Kicker	Marine Corps Reserve $200 Kicker	Air National Guard $200 Kicker	Air Force Reserve $200 Kicker	Coast Guard Reserve $200 Kicker
Monthly Benefit	2023	$200	$200	$200	$200	$200	$200	$200
	2024	$200	$200	$200	$200	$200	$200	$200
% Benefit Used	2023	11.8%	14.3%	6.8%	10.8%	26.5%	26.5%	26.5%
	2024	8.1%	9.1%	9.6%	13.2%	18.2%	15.2%	22.5%
Discount Factor	2023	0.906	0.874	0.906	0.939	0.880	0.875	0.909
	2024	0.916	0.895	0.885	0.894	0.883	0.882	0.899
Normal Cost	2023	$768	$900	$445	$733	$1,678	$1,671	$1,733
	2024	$536	$587	$614	$849	$1,155	$962	$1,457
Normal Cost Offset	2023	$0	$0	$0	$0	$0	$0	$0
	2024	$0	$0	$0	$0	$0	$0	$0
Per Capita Amount	**2023**	**$768**	**$900**	**$445**	**$733**	**$1,678**	**$1,671**	**$1,733**
	2024	**$536**	**$587**	**$614**	**$849**	**$1,155**	**$962**	**$1,457**

Normal Cost = Monthly Benefit X % Benefit Used X Discount Factor X 36 Months
Per Capita Amount = Normal Cost - Offset
A boxed variable means that this kicker amount is currently offered by the component.

Chapter 1606 Results - Per Capita Contribution Amounts

Item	Fiscal Year	Army National Guard $350 Kicker	Army Reserve $350 Kicker	Navy Reserve $350 Kicker	Marine Corps Reserve $350 Kicker	Air National Guard $350 Kicker	Air Force Reserve $350 Kicker	Coast Guard Reserve $350 Kicker
Monthly Benefit	2023	$350	$350	$350	$350	$350	$350	$350
	2024	$350	$350	$350	$350	$350	$350	$350
% Benefit Used	2023	9.9%	18.1%	6.0%	11.3%	24.2%	30.6%	28.0%
	2024	8.1%	11.5%	10.7%	15.3%	19.9%	19.6%	30.7%
Discount Factor	2023	0.900	0.885	0.907	0.939	0.877	0.857	0.904
	2024	0.910	0.898	0.870	0.882	0.873	0.868	0.860
Normal Cost	2023	$1,122	$2,020	$683	$1,334	$2,669	$3,304	$3,195
	2024	$930	$1,303	$1,176	$1,697	$2,193	$2,146	$3,323
Normal Cost Offset	2023	$0	$0	$0	$0	$0	$0	$0
	2024	$0	$0	$0	$0	$0	$0	$0
Per Capita Amount	**2023**	**$1,122**	**$2,020**	**$683**	**$1,334**	**$2,669**	**$3,304**	**$3,195**
	2024	**$930**	**$1,303**	**$1,176**	**$1,697**	**$2,193**	**$2,146**	**$3,323**

Normal Cost = Monthly Benefit X % Benefit Used X Discount Factor X 36 Months
Per Capita Amount = Normal Cost - Offset
A boxed variable means that this kicker amount is currently offered by the component.

Chapter 1606 Results - Per Capita Contribution Amounts

Fiscal Year 2023

Component	Basic Only	Kicker		
		$100	$200	$350
Army National Guard	$0	$361	$768	$1,122
Army Reserve	$243	$427	$900	$2,020
Navy Reserve	$70	$240	$445	$683
Marine Corps Reserve	$1,142	$441	$733	$1,334
Air National Guard	$880	$896	$1,678	$2,669
Air Force Reserve	$0	$981	$1,671	$3,304
Coast Guard Reserve	$0	$892	$1,733	$3,195

Fiscal Year 2024

Component	Basic Only	Kicker		
		$100	$200	$350
Army National Guard	$69	$239	$536	$930
Army Reserve	$557	$153	$587	$1,303
Navy Reserve	$861	$678	$614	$1,176
Marine Corps Reserve	$1,225	$562	$849	$1,697
Air National Guard	$2,210	$597	$1,155	$2,193
Air Force Reserve	$0	$1,142	$962	$2,146
Coast Guard Reserve	$0	$988	$1,457	$3,323

Cat III Methodology

- Determine beginning of year fund balance for each service
- Subtract Cat III payment due October 1, which was set at previous year's Board of Actuaries meeting
- Get benefit payments through most recent month (May, 2022) for current fiscal year (from DFAS Trial Balance)
- Project full year spending by using ratio of 10-year average of benefit payments through most recent month to end of fiscal year
- Add projected full year spending amount
- Assess interest at combination of year to date interest earnings and Board approved rate
- Projected end of year balance and payment to charge is the sum of the beginning of year balance, projected full year of benefits, and interest assessed, less October 1 payment

Post Vietnam Veterans' Educational Assistance Program (Cat III)
Fund Activity and Annual Payments For Fiscal Year 2022

FY 2022	Army	Navy	Marine Corps	Air Force	Coast Guard	Total
Fund Balance as of September 30, 2021	-$65,539	$15,079	$4,740	-$3,047	$1,527	-$47,240
October 1, 2021 Receipts	$49,574	$0	$0	$4,006	$0	$53,580
Balance as of October 1, 2021	-$15,965	$15,079	$4,740	$959	$1,527	$6,340
Benefit Payments (Thru May, 2022)	$29,153	$0	$0	$0	$0	$29,153
Benefit Payments (Projected Full Year)	$39,032	$0	$0	$0	$0	$39,032
Interest Owed	$1,518	-$619	-$195	-$39	-$63	$603
Projected Fund Balance on October 1, 2022	**-$56,516**	**$15,698**	**$4,935**	**$999**	**$1,589**	**-$33,295**
Amount Due on October 1, 2022	**$56,516**	**$0**	**$0**	**$0**	**$0**	**$56,516**

Appendix - Chapter 30 Kicker

1. FY 2024 Normal Cost Calculations
2. Eligible Members as of September 30, 2021
3. FY 2021 Fund Activity
4. FY 2022 – 2023 Projected Fund Activity
5. FY 1985 – 2021 Per Capita Amount Contributions
6. FY 1985 – 2021 Amortization Contributions
7. FY 1985 – 2021 Benefit Payments
8. FY 1985 – 2021 Interest Earnings
9. FY 1985 – 2021 Year End Balance
10. FY 2022 – 2027 Projected Per Capita Contributions, Amortization Contributions & Benefit Payments
11. FY 2022 – 2027 Projected Interest Earnings, Year End Fund Balance & Unfunded Liability (Surplus)

Chapter 30 Fiscal Year 2024 Normal Costs

Active Duty Kicker Program	Monthly Benefit	% Benefit Used	Discount Factor	Normal Cost
Army 2-Year	$150	36.5%	0.793	$1,562
Army 2-Year	$250	36.8%	0.794	$2,628
Army 2-Year	$350	37.1%	0.795	$3,712
Army 2-Year	$450	37.4%	0.796	$4,815
Army 2-Year	$550	37.7%	0.796	$5,936
Army 2-Year	$650	37.9%	0.797	$7,075
Army 2-Year	$750	38.2%	0.798	$8,231
Army 2-Year	$850	38.5%	0.798	$9,404
Army 2-Year	$950	38.8%	0.799	$10,594
Army 3-Year	$150	35.6%	0.777	$1,492
Army 3-Year	$250	35.8%	0.778	$2,509
Army 3-Year	$350	36.1%	0.778	$3,544
Army 3-Year	$450	36.4%	0.779	$4,597
Army 3-Year	$550	36.7%	0.780	$5,666
Army 3-Year	$650	37.0%	0.780	$6,751
Army 3-Year	$750	37.2%	0.781	$7,853
Army 3-Year	$850	37.5%	0.782	$8,971
Army 3-Year	$950	37.8%	0.782	$10,104
Army 4-Year	$150	35.3%	0.765	$1,460
Army 4-Year	$250	35.6%	0.766	$2,453
Army 4-Year	$350	35.8%	0.767	$3,462
Army 4-Year	$450	36.1%	0.767	$4,487
Army 4-Year	$550	36.4%	0.768	$5,526
Army 4-Year	$650	36.6%	0.768	$6,580
Army 4-Year	$750	36.8%	0.769	$7,649
Army 4-Year	$850	37.1%	0.769	$8,731
Army 4-Year	$950	37.3%	0.770	$9,827
Army 5-Year	$150	34.4%	0.756	$1,405
Army 5-Year	$250	34.7%	0.757	$2,359
Army 5-Year	$350	34.9%	0.757	$3,327
Army 5-Year	$450	35.1%	0.757	$4,308
Army 5-Year	$550	35.3%	0.758	$5,302
Army 5-Year	$650	35.6%	0.758	$6,309
Army 5-Year	$750	35.8%	0.759	$7,328
Army 5-Year	$850	36.0%	0.759	$8,359
Army 5-Year	$950	36.2%	0.760	$9,402

Normal Cost = Monthly Benefit X %Benefit Used X Discount Factor X 36 Months

Chapter 30 Fiscal Year 2024 Normal Costs

Active Duty Kicker Program	Monthly Benefit	% Benefit Used	Discount Factor	Normal Cost
Army 6-Year	$150	33.4%	0.750	$1,353
Army 6-Year	$250	33.6%	0.751	$2,270
Army 6-Year	$350	33.8%	0.751	$3,198
Army 6-Year	$450	34.0%	0.751	$4,137
Army 6-Year	$550	34.2%	0.752	$5,088
Army 6-Year	$650	34.4%	0.752	$6,048
Army 6-Year	$750	34.6%	0.752	$7,020
Army 6-Year	$850	34.7%	0.753	$8,001
Army 6-Year	$950	34.9%	0.753	$8,992
Navy 4-Year	$150	46.1%	0.736	$1,831
Navy 4-Year	$250	46.4%	0.737	$3,073
Navy 4-Year	$350	46.6%	0.737	$4,332
Navy 4-Year	$450	46.9%	0.738	$5,606
Navy 4-Year	$550	47.1%	0.739	$6,897
Navy 4-Year	$650	47.4%	0.740	$8,202
Navy 4-Year	$750	47.6%	0.740	$9,523
Navy 4-Year	$850	47.9%	0.741	$10,857
Navy 4-Year	$950	48.1%	0.742	$12,205
Marine Corps 4-Year	$150	41.6%	0.795	$1,788
Marine Corps 4-Year	$250	42.0%	0.796	$3,006
Marine Corps 4-Year	$350	42.3%	0.796	$4,244
Marine Corps 4-Year	$450	42.6%	0.797	$5,502
Marine Corps 4-Year	$550	42.9%	0.797	$6,780
Marine Corps 4-Year	$650	43.3%	0.798	$8,076
Marine Corps 4-Year	$750	43.6%	0.798	$9,390
Marine Corps 4-Year	$850	43.9%	0.799	$10,722
Marine Corps 4-Year	$950	44.2%	0.799	$12,071

Normal Cost = Monthly Benefit X %Benefit Used X Discount Factor X 36 Months

Chapter 30 Fiscal Year 2024 Normal Costs

Active Duty Kicker Program	Monthly Benefit	% Benefit Used	Discount Factor	Normal Cost
Marine Corps 5-Year	$150	40.6%	0.782	$1,716
Marine Corps 5-Year	$250	40.9%	0.783	$2,884
Marine Corps 5-Year	$350	41.2%	0.783	$4,069
Marine Corps 5-Year	$450	41.5%	0.784	$5,272
Marine Corps 5-Year	$550	41.8%	0.784	$6,492
Marine Corps 5-Year	$650	42.1%	0.785	$7,728
Marine Corps 5-Year	$750	42.4%	0.785	$8,980
Marine Corps 5-Year	$850	42.6%	0.785	$10,249
Marine Corps 5-Year	$950	42.9%	0.786	$11,532
Marine Corps 6-Year	$150	39.1%	0.759	$1,602
Marine Corps 6-Year	$250	39.4%	0.759	$2,692
Marine Corps 6-Year	$350	39.7%	0.760	$3,800
Marine Corps 6-Year	$450	40.0%	0.760	$4,925
Marine Corps 6-Year	$550	40.3%	0.761	$6,066
Marine Corps 6-Year	$650	40.6%	0.761	$7,224
Marine Corps 6-Year	$750	40.8%	0.762	$8,397
Marine Corps 6-Year	$850	41.1%	0.762	$9,586
Marine Corps 6-Year	$950	41.4%	0.763	$10,789
Coast Guard 4-Year	$150	36.6%	0.770	$1,520
Coast Guard 4-Year	$250	36.8%	0.770	$2,555
Coast Guard 4-Year	$350	37.1%	0.771	$3,606
Coast Guard 4-Year	$450	37.4%	0.772	$4,674
Coast Guard 4-Year	$550	37.7%	0.772	$5,758
Coast Guard 4-Year	$650	37.9%	0.773	$6,857
Coast Guard 4-Year	$750	38.2%	0.773	$7,972
Coast Guard 4-Year	$850	38.4%	0.774	$9,101
Coast Guard 4-Year	$950	38.7%	0.775	$10,245

Normal Cost = Monthly Benefit X %Benefit Used X Discount Factor X 36 Months

Chapter 30 Kicker Eligible Members
As Of September 30, 2021

Army 2-Year	**2,449**
Army 3-Year	**24,363**
Army 4-Year	**41,779**
Army 5-Year	**7,944**
Army 6-Year	**5,567**
Navy 2-Year	**31**
Navy 3-Year	**458**
Navy 4-Year	**24,741**
Marine 4-Year	**8,023**
Marine 5-Year	**5,610**
Marine 6-Year	**80**
Coast Guard 4-Year	**423**
Army	**82,102**
Navy	**25,230**
Marine Corps	**13,713**
Coast Guard	**423**
Total	**121,468**

Active vs Inactive

	Still on Active Duty	Separated From A.D.
Army	**13,313**	**68,789**
Navy	**7,493**	**17,737**
Marine Corps	**1,868**	**11,845**
Coast Guard	**148**	**275**
Total	**22,822**	**98,646**

***Number Who Have Used Benefit**

	Has Used Benefit	Has Not Used Benefit
Army	**29,419**	**52,683**
Navy	**6,944**	**18,286**
Marine Corps	**2,509**	**11,204**
Coast Guard	**237**	**186**
Total	**39,109**	**82,359**

*Includes Dependents

FY 2021 Chapter 30 Kicker Fund Activity

(Dollars in Millions)

	Army	Navy	Marine Corps	Coast Guard	Total - Active
Starting Balance (Oct 20)	$293.0	$46.6	$34.5	$1.156	$375.1
Present Value of Benefits (Liability)	$211.8	$55.2	$23.6	$0.979	$291.6
Unfunded Liability (Surplus)	($81.1)	$8.7	($10.9)	($0.177)	($83.5)
Amortization Payments	$0.0	$5.2	$0.1	$0.000	$5.3
Transfer To/From Other Programs	$0.0	$0.0	$0.0	$0.000	$0.0
Per Capita Amount Contributions	$0.0	$0.0	$0.0	$0.000	$0.0
Benefit Payments	($30.1)	($7.7)	($4.8)	($0.050)	($42.6)
Interest Earnings	$8.2	$1.4	$0.9	$0.033	$10.5
Net Receipts (Excludes Amortization)	($22.0)	($6.3)	($3.8)	($0.017)	($32.1)
Ending Balance (Oct 21)	$271.0	$45.5	$30.8	$1.139	$348.4

Chapter 30 Kicker Projected Fund Activity

(Dollars in Millions)

	Army	Navy	Marine Corps	Coast Guard	Total - Active
FY 2022					
Starting Balance (Oct 21)	$271.0	$45.5	$30.8	$1.139	$348.4
Present Value of Benefits (Liability)	$169.9	$51.3	$19.3	$0.897	$241.4
Unfunded Liability (Surplus)	($101.1)	$5.8	($11.5)	($0.242)	($107.0)
Amortization Payments	$0.0	$1.6	$0.0	$0.000	$1.6
Transfer To/From Other Programs	($0.0)	$0.0	$0.0	$0.000	($0.0)
Per Capita Amount Contributions	$0.0	$0.0	$0.0	$0.000	$0.0
Benefit Payments	($23.7)	($6.5)	($3.4)	($0.051)	($33.6)
Interest Earnings	$10.7	$1.8	$1.2	$0.046	$13.7
Net Receipts (Excludes Amortization)	($13.0)	($4.7)	($2.2)	($0.005)	($19.8)
Ending Balance (Sept 22)	$258.0	$42.5	$28.6	$1.134	$330.2
FY 2023					
Starting Balance (Oct 22)	$258.0	$42.5	$28.6	$1.134	$330.2
Present Value of Benefits (Liability)	$149.3	$46.5	$16.4	$0.864	$213.1
Unfunded Liability (Surplus)	($108.6)	$4.0	($12.2)	($0.270)	($117.1)
Amortization Payments	$0.0	$0.5	$0.0	$0.000	$0.5
Transfer To/From Other Programs	($0.1)	$0.0	$0.0	$0.000	($0.1)
Per Capita Amount Contributions	$0.0	$0.0	$0.0	$0.000	$0.0
Benefit Payments	($22.2)	($6.3)	($2.7)	($0.074)	($31.3)
Interest Earnings	$6.2	$1.0	$0.7	$0.028	$7.9
Net Receipts (Excludes Amortization)	($16.0)	($5.3)	($2.0)	($0.046)	($23.4)
Ending Balance (Sept 23)	$241.9	$37.7	$26.6	$1.090	$307.3
FY 2024					
Starting Balance (Oct 23)	$241.9	$37.7	$26.6	$1.088	$307.3
Present Value of Benefits (Liability)	$130.6	$41.2	$14.1	$0.811	$186.8
Unfunded Liability (Surplus)	($111.3)	$3.6	($12.5)	($0.277)	($120.5)

Chapter 30 Kicker Per Capita Amount Contributions

(Dollars in Millions)

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total - Active
1985	$52.0	$0.0	$0.0	$0.000	$52.0
1986	$114.8	$0.0	$0.0	$0.000	$114.8
1987	$74.3	$8.3	$0.0	$0.000	$82.6
1988	$36.3	$4.9	$0.0	$0.000	$41.2
1989	$54.4	$0.1	$0.0	$0.000	$54.5
1990	-$2.4	$2.3	$0.0	$0.000	-$0.2
1991	$0.0	$1.1	$0.0	$0.000	$1.1
1992	$0.0	$2.2	$0.0	$0.000	$2.2
1993	$7.0	$2.3	$0.8	$0.000	$10.1
1994	$25.2	$5.4	$1.8	$0.000	$32.5
1995	$31.0	$19.9	$2.2	$0.000	$53.1
1996	$39.5	$12.0	$2.9	$0.000	$54.4
1997	$35.5	$17.7	$4.2	$0.000	$57.4
1998	$41.6	$24.2	$4.5	$0.000	$70.3
1999	$51.8	$31.7	$17.7	$0.000	$101.2
2000	$74.9	$20.3	$17.4	$0.000	$112.6
2001	$76.6	$32.5	$19.6	$0.000	$128.7
2002	$55.4	$23.7	$12.7	$0.000	$91.7
2003	$20.7	$5.2	$7.9	$0.000	$33.9
2004	$10.5	$5.7	$5.9	$0.005	$22.2
2005	$46.4	$6.6	$6.1	$0.000	$59.1
2006	$35.0	$1.8	$8.6	$0.000	$45.4
2007	$44.0	$4.0	$17.9	$0.000	$65.8
2008	$80.7	$6.2	$10.5	$0.000	$97.3
2009	$84.5	$5.7	$10.8	$0.000	$101.0
2010	$127.3	$5.3	$0.9	$0.000	$133.4
2011	$6.0	$0.1	$7.5	$0.000	$13.6
2012	$1.6	$0.0	$0.0	$0.000	$1.6
2013	$0.0	$0.0	$0.0	$0.000	$0.0
2014	$0.0	$0.0	$0.0	$0.000	$0.0
2015	$0.0	$0.0	$0.0	$0.000	$0.0
2016	$0.0	$0.0	$0.0	$0.000	$0.0
2017	$0.0	$0.0	$0.0	$0.000	$0.0
2018	$0.0	$0.0	$0.0	$0.000	$0.0
2019	$0.0	$0.0	$0.0	$0.000	$0.0
2020	$0.0	$0.0	$0.0	$0.000	$0.0
2021	$0.0	$0.0	$0.0	$0.000	$0.0
Total	$1,172.6	$249.2	$159.8	$0.005	$1,581.5

Chapter 30 Kicker Amortization Contributions

(Dollars in Millions)

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total - Active
1985	$0.0	$0.0	$0.0	$0.000	$0.0
1986	$0.0	$0.0	$0.0	$0.000	$0.0
1987	$0.0	$0.0	$0.0	$0.000	$0.0
1988	$0.0	$0.0	$0.0	$0.000	$0.0
1989	$0.0	$0.0	$0.0	$0.000	$0.0
1990	$0.0	$0.0	$0.0	$0.000	$0.0
1991	$0.0	$0.0	$0.0	$0.000	$0.0
1992	$0.0	$0.0	$0.0	$0.000	$0.0
1993	$0.0	$0.0	$0.0	$0.000	$0.0
1994	$1.1	$0.1	$0.0	$0.000	$1.2
1995	$19.8	$1.1	$0.2	$0.000	$21.1
1996	$18.4	$0.0	$0.1	$0.000	$18.5
1997	$23.6	$2.1	$0.2	$0.000	$25.9
1998	$16.3	$0.6	$0.1	$0.000	$17.1
1999	$15.8	$3.7	$0.5	$0.000	$20.0
2000	$16.0	$8.0	$0.2	$0.000	$24.1
2001	$16.8	$5.6	$0.8	$0.000	$23.2
2002	$20.3	$6.7	$2.4	$0.000	$29.4
2003	$15.5	$5.4	$1.1	$0.270	$22.2
2004	$0.6	$0.0	$2.1	$0.000	$2.7
2005	$0.0	$0.3	$0.3	$0.000	$0.5
2006	$0.0	$0.3	$0.0	$0.000	$0.3
2007	$0.0	$3.3	$0.5	$0.000	$3.9
2008	$0.0	$6.2	$0.0	$0.027	$6.2
2009	$1.9	$5.2	$0.0	$0.000	$7.1
2010	$44.4	$22.9	$3.7	$0.026	$71.1
2011	$29.9	$19.8	$4.1	$0.085	$53.9
2012	$12.0	$19.6	$4.9	$0.137	$36.7
2013	$0.0	$22.8	$3.2	$0.402	$26.5
2014	$0.0	$18.2	$2.4	$0.364	$20.9
2015	$0.0	$20.2	$7.0	$0.323	$27.5
2016	$4.4	$19.2	$9.6	$0.288	$33.5
2017	$0.3	$16.3	$7.1	$0.278	$23.9
2018	$15.9	$16.6	$8.6	$0.244	$41.3
2019	$0.8	$12.0	$4.7	$0.000	$17.5
2020	$5.9	$8.7	$3.6	$0.000	$18.2
2021	$0.0	$5.2	$0.1	$0.000	$5.3
Total	$279.8	$250.1	$67.6	$2.443	$599.9

Chapter 30 Kicker Benefit Payments

(Dollars in Millions)

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total - Active
1985	$0.0	$0.0	$0.0	$0.000	$0.0
1986	$0.0	$0.0	$0.0	$0.000	$0.0
1987	$0.0	$0.0	$0.0	$0.000	$0.0
1988	$3.8	$0.1	$0.0	$0.000	$3.9
1989	$16.6	$0.2	$0.0	$0.000	$16.8
1990	$40.0	$2.7	$0.0	$0.000	$42.7
1991	$53.5	$4.5	$0.0	$0.000	$57.9
1992	$67.9	$4.0	$0.0	$0.000	$71.9
1993	$77.3	$3.3	$0.0	$0.000	$80.6
1994	$77.6	$2.2	$0.0	$0.000	$79.7
1995	$73.5	$2.7	$0.0	$0.000	$76.3
1996	$69.6	$3.7	$0.0	$0.000	$73.4
1997	$69.3	$5.1	$0.1	$0.000	$74.5
1998	$65.8	$9.3	$0.7	$0.000	$75.8
1999	$60.2	$13.6	$1.5	$0.000	$75.3
2000	$54.0	$15.0	$2.4	$0.000	$71.4
2001	$49.7	$16.7	$3.4	$0.000	$69.8
2002	$47.9	$20.3	$4.8	$0.000	$73.1
2003	$47.6	$25.2	$6.8	$0.000	$79.6
2004	$48.7	$29.1	$8.3	$0.015	$86.1
2005	$51.0	$32.4	$9.7	$0.059	$93.2
2006	$51.2	$34.0	$12.3	$0.055	$97.6
2007	$49.2	$34.0	$13.6	$0.057	$96.9
2008	$44.6	$33.2	$14.6	$0.058	$92.4
2009	$36.4	$31.6	$15.6	$0.075	$83.7
2010	$45.3	$37.4	$17.3	$0.133	$100.1
2011	$39.7	$28.0	$13.3	$0.120	$81.2
2012	$56.4	$30.1	$16.9	$0.141	$103.6
2013	$71.8	$27.8	$19.7	$0.156	$119.5
2014	$84.9	$24.8	$20.5	$0.146	$130.4
2015	$86.1	$21.9	$19.6	$0.111	$127.7
2016	$82.2	$18.7	$17.2	$0.104	$118.1
2017	$72.2	$14.7	$14.0	$0.079	$101.0
2018	$61.9	$12.9	$10.9	$0.082	$85.8
2019	$50.5	$11.3	$8.6	$0.078	$70.5
2020	$39.6	$9.4	$6.2	$0.058	$55.3
2021	$30.1	$7.7	$4.8	$0.050	$42.6
Total	$1,876.3	$567.5	$262.8	$1.577	$2,708.2

Chapter 30 Kicker Interest Earnings

(Dollars in Millions)

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total - Active
1985	$0.5	$0.0	$0.0	$0.000	$0.5
1986	$8.2	$0.0	$0.0	$0.000	$8.2
1987	$17.3	$0.4	$0.0	$0.000	$17.6
1988	$22.6	$0.9	$0.0	$0.000	$23.5
1989	$27.8	$1.2	$0.0	$0.000	$28.9
1990	$30.5	$1.3	$0.0	$0.000	$31.7
1991	$28.7	$1.2	$0.0	$0.000	$29.9
1992	$25.8	$1.1	$0.0	$0.000	$26.9
1993	$21.5	$1.0	$0.0	$0.000	$22.5
1994	$17.8	$1.1	$0.1	$0.000	$19.1
1995	$16.8	$2.0	$0.3	$0.000	$19.1
1996	$15.3	$2.9	$0.5	$0.000	$18.7
1997	$16.3	$4.1	$0.8	$0.000	$21.1
1998	$16.1	$5.2	$1.1	$0.000	$22.4
1999	$15.6	$6.3	$1.7	$0.000	$23.7
2000	$18.4	$8.2	$2.9	$0.000	$29.5
2001	$21.2	$9.3	$3.9	$0.000	$34.4
2002	$20.8	$9.1	$4.2	$0.000	$34.1
2003	$18.9	$8.1	$4.1	$0.012	$31.1
2004	$14.6	$5.9	$3.4	$0.010	$23.9
2005	$14.3	$5.3	$3.4	$0.009	$23.1
2006	$19.0	$5.9	$4.5	$0.009	$29.4
2007	$19.9	$5.0	$4.9	$0.007	$29.8
2008	$23.7	$4.6	$5.6	$0.007	$33.9
2009	$7.5	$1.0	$1.6	$0.001	$10.1
2010	$18.1	$1.9	$2.9	$0.000	$23.0
2011	$29.2	$2.4	$4.1	-$0.002	$35.8
2012	$21.0	$1.6	$2.9	-$0.001	$25.5
2013	$21.9	$1.6	$2.8	$0.007	$26.3
2014	$17.9	$1.2	$2.1	$0.013	$21.2
2015	$13.0	$0.9	$1.4	$0.015	$15.4
2016	$12.5	$1.0	$1.4	$0.022	$15.0
2017	$12.4	$1.2	$1.4	$0.031	$15.0
2018	$12.7	$1.5	$1.5	$0.042	$15.7
2019	$9.2	$1.2	$1.1	$0.033	$11.5
2020	$5.6	$0.9	$0.7	$0.021	$7.3
2021	$8.2	$1.4	$0.9	$0.033	$10.5
Total	$640.4	$108.0	$66.2	$0.269	$814.9

Chapter 30 Kicker Year End Fund Balance

(Dollars in Millions)

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total - Active
1985	$52.5	$0.0	$0.0	$0.0	$52.5
1986	$175.4	$0.0	$0.0	$0.0	$175.4
1987	$266.9	$8.7	$0.0	$0.0	$275.6
1988	$322.0	$14.4	$0.0	$0.0	$336.3
1989	$387.5	$15.4	$0.0	$0.0	$403.0
1990	$375.5	$16.3	$0.0	$0.0	$391.8
1991	$350.8	$14.1	$0.0	$0.0	$364.9
1992	$308.6	$13.4	$0.0	$0.0	$322.0
1993	$259.8	$13.5	$0.9	$0.0	$274.1
1994	$226.3	$18.0	$2.8	$0.0	$247.1
1995	$220.4	$38.3	$5.5	$0.0	$264.2
1996	$223.9	$49.5	$9.0	$0.0	$282.3
1997	$230.1	$68.2	$14.0	$0.0	$312.4
1998	$238.3	$88.9	$19.1	$0.0	$346.3
1999	$261.4	$117.1	$37.4	$0.0	$415.9
2000	$316.7	$138.5	$55.5	$0.0	$510.7
2001	$381.6	$169.3	$76.4	$0.0	$627.2
2002	$430.1	$188.4	$90.9	$0.0	$709.3
2003	$437.6	$181.8	$97.2	$0.3	$716.9
2004	$414.7	$164.3	$100.4	$0.3	$679.6
2005	$424.5	$144.0	$100.5	$0.2	$669.2
2006	$427.3	$118.0	$101.2	$0.2	$646.7
2007	$442.0	$96.3	$111.0	$0.1	$649.4
2008	$501.8	$80.1	$112.5	$0.1	$694.5
2009	$559.3	$60.4	$109.2	$0.0	$729.0
2010	$703.9	$53.1	$99.4	-$0.1	$856.4
2011	$729.4	$47.4	$101.8	-$0.1	$878.5
2012	$707.6	$38.6	$92.7	-$0.1	$838.7
2013	$657.1	$35.2	$79.0	$0.1	$771.5
2014	$589.6	$29.9	$62.9	$0.4	$682.8
2015	$516.6	$29.1	$51.8	$0.6	$598.1
2016	$451.3	$30.7	$45.6	$0.8	$528.4
2017	$391.8	$33.5	$40.1	$1.0	$466.4
2018	$358.5	$38.6	$39.2	$1.2	$437.6
2019	$317.9	$40.5	$36.4	$1.2	$396.0
2020	$293.0	$46.6	$34.5	$1.2	$375.1
2021	$271.0	$45.5	$30.8	$1.1	$348.4

Chapter 30 Kicker Projections

Fiscal Years 2022 - 2027

(Dollars in Millions)

Per Capita Amount Contributions

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total
2022	$0.0	$0.0	$0.0	$0.0	$0.0
2023	$0.0	$0.0	$0.0	$0.0	$0.0
2024	$0.0	$0.0	$0.0	$0.0	$0.0
2025	$0.0	$0.0	$0.0	$0.0	$0.0
2026	$0.0	$0.0	$0.0	$0.0	$0.0
2027	$0.0	$0.0	$0.0	$0.0	$0.0

Amortization Contributions

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total
2022	$0.0	$1.6	$0.0	$0.000	$1.6
2023	$0.0	$0.5	$0.0	$0.000	$0.5
2024	$0.0	$0.8	$0.0	$0.000	$0.8
2025	$0.0	$0.6	$0.0	$0.000	$0.6
2026	$0.0	$0.5	$0.0	$0.000	$0.5
2027	$0.0	$0.4	$0.0	$0.000	$0.4

Benefit Payments

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total
2022	$23.7	$6.5	$3.4	$0.051	$33.6
2023	$22.2	$6.3	$2.7	$0.074	$31.3
2024	$18.6	$6.2	$2.2	$0.079	$27.0
2025	$15.6	$5.8	$1.9	$0.081	$23.4
2026	$13.6	$5.2	$1.6	$0.090	$20.5
2027	$11.9	$4.6	$1.4	$0.095	$18.0

Chapter 30 Kicker Projections

Fiscal Years 2022 - 2027

(Dollars in Millions)

Interest Earnings

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total
2022	$10.7	$1.8	$1.2	$0.05	$13.7
2023	$6.2	$1.0	$0.7	$0.03	$7.9
2024	$5.8	$0.9	$0.6	$0.03	$7.4
2025	$5.5	$0.8	$0.6	$0.02	$7.0
2026	$5.3	$0.7	$0.6	$0.02	$6.6
2027	$5.1	$0.6	$0.6	$0.02	$6.3

Year End Fund Balance

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total
2022	$258.0	$42.5	$28.6	$1.13	$330.2
2023	$241.9	$37.7	$26.6	$1.09	$307.3
2024	$229.2	$33.1	$25.1	$1.04	$288.4
2025	$219.0	$28.7	$23.8	$0.98	$272.5
2026	$210.7	$24.7	$22.8	$0.91	$259.1
2027	$203.9	$21.0	$22.0	$0.84	$247.8

Unfunded Liability (Surplus) at End of Year

Fiscal Year	Army	Navy	Marine Corps	Coast Guard	Total
2022	($108.6)	$4.0	($12.2)	($0.27)	($117.1)
2023	($111.3)	$3.6	($12.5)	($0.28)	($120.5)
2024	($114.0)	$2.9	($12.8)	($0.28)	($124.2)
2025	($116.8)	$2.4	($13.1)	($0.29)	($127.9)
2026	($119.7)	$1.9	($13.5)	($0.30)	($131.5)
2027	($122.7)	$1.6	($13.8)	($0.30)	($135.2)

Appendix - Chapter 1606 Basic & Kicker

1. Eligible Members as of September 30, 2021
2. FY 2021 Fund Activity
3. FY 2022 – 2023 Projected Fund Activity
4. FY 1985 – 2021 Per Capita Amount Contributions
5. FY 1985 – 2021 Amortization Contributions
6. FY 1985 – 2021 Benefit Payments
7. FY 1985 – 2021 Interest Earnings
8. FY 1985 – 2021 Year End Fund Balance
9. FY 2022 – 2027 Projected Per Capita Contributions, Amortization Contributions & Benefit Payments
10. FY 2022 – 2027 Projected Interest Earnings, Year End Fund Balance & Unfunded Liability (Surplus)

Chapter 1606 Reservists Eligible for Basic & Kicker Benefits As of September 30, 2021

Eligible for the Basic Benefit	**420,593**
Army National Guard	208,780
Army Reserve	109,458
Navy Reserve	17,464
Marine Corps Reserve	23,373
Air National Guard	42,737
Air Force Reserve	18,176
Coast Guard Reserve	606
Eligible for the Kicker Benefit	**174,103**
Army National Guard	83,965
Army Reserve	44,817
Navy Reserve	1,710
Marine Corps Reserve	3,144
Air National Guard	29,130
Air Force Reserve	11,336
Coast Guard Reserve	2

FY 2021 Chapter 1606 Fund Activity for Basic and Kicker Combined

(Dollars in Millions)

	Army National Guard	Army Reserve	Navy Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
FY 2021								
Starting Balance (Oct 20)	$376.9	$139.7	$21.0	$35.6	$71.4	$57.4	$3.9	$705.8
Present Value of Benefits (Liability)	$136.0	$68.4	$10.9	$19.9	$53.8	$23.4	$0.2	$312.6
Unfunded Liability (Surplus)	($240.9)	($71.3)	($10.1)	($15.6)	($17.6)	($34.0)	($3.6)	($393.2)
Amortization Payments	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Transfer To/From Other Programs	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Per Capita Amount Contributions	$39.4	$11.9	$0.5	$1.9	$9.0	$1.3	$0.0	$64.1
Benefit Payments	($54.0)	($23.4)	($2.6)	($6.2)	($21.0)	($4.7)	($0.1)	($112.0)
Interest Earnings	$10.9	$4.0	$0.6	$1.0	$1.9	$1.6	$0.1	$20.1
Net Receipts (Excludes Amortization)	($3.6)	($7.5)	($1.6)	($3.2)	($10.0)	($1.8)	$0.0	($27.8)
Ending Balance (Sept 21)	$373.3	$132.1	$19.4	$32.3	$61.4	$55.6	$3.9	$678.0

Chapter 1606 Projected Fund Activity
Basic & Kicker Combined
(Dollars in Millions)

	Army National Guard	Army Reserve	Navy Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
FY 2022								
Starting Balance (Oct 21)	$373.3	$132.1	$19.4	$32.3	$61.4	$55.6	$3.9	$678.0
Present Value of Benefits	$151.1	$80.2	$12.9	$22.8	$73.0	$24.4	$0.3	$364.6
Unfunded Liability (Surplus)	($222.2)	($52.0)	($6.4)	($9.5)	$11.5	($31.2)	($3.6)	($313.3)
Amortization Payments	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Transfer To/From Other Programs	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Per Capita Amount Contributions	$42.4	$10.3	$0.1	$2.1	$13.0	$1.4	$0.0	$69.3
Benefit Payments	($56.1)	($19.8)	($1.9)	($5.4)	($18.5)	($2.7)	($0.1)	($104.5)
Interest Earnings	$15.2	$5.3	$0.8	$1.3	$2.5	$2.3	$0.2	$27.4
Net Receipts (Excludes Amortization)	$1.6	($4.3)	($1.1)	($2.0)	($3.0)	$0.9	$0.1	($7.8)
Ending Balance (Sept 22)	$374.8	$127.8	$18.3	$30.3	$58.4	$56.5	$4.0	$670.2
FY 2023								
Starting Balance (Oct 22)	$374.8	$127.8	$18.3	$30.3	$58.4	$56.5	$4.0	$670.2
Present Value of Benefits	$152.4	$74.5	$12.9	$20.8	$68.7	$23.9	$0.2	$353.6
Unfunded Liability (Surplus)	($222.4)	($53.3)	($5.4)	($9.5)	$10.4	($32.6)	($3.7)	($316.6)
Amortization Payments	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Transfer To/From Other Programs	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Per Capita Amount Contributions	$10.4	$9.5	$0.2	$5.7	$9.1	$3.7	$0.0	$38.7
Benefit Payments	($52.5)	($22.3)	($3.2)	($6.6)	($18.1)	($5.2)	($0.1)	($108.1)
Interest Earnings	$8.9	$3.1	$0.4	$0.8	$1.4	$1.4	$0.1	$16.0
Net Receipts (Excludes Amortization)	($33.2)	($9.7)	($2.6)	($0.1)	($7.7)	($0.1)	$0.0	($53.3)
Ending Balance (Sept 23)	$341.7	$118.2	$15.7	$30.2	$50.7	$56.4	$4.0	$616.8
FY 2024								
Starting Balance (Oct 23)	$341.7	$118.2	$15.7	$30.2	$50.7	$56.4	$4.0	$616.8
Present Value of Benefits	$156.3	$78.2	$12.9	$22.7	$64.4	$24.7	$0.2	$359.3
Unfunded Liability (Surplus)	($185.4)	($40.0)	($2.8)	($7.5)	$13.7	($31.7)	($3.8)	($257.5)

Chapter 1606 Basic & Kicker Per Capita Contributions

(Dollars in Millions)

Fiscal Year	Army Nat'l Guard	Army Reserve	Navy Reserve	Marines Reserve	Air Nat'l Guard	Air Force Reserve	Coast Guard Reserve	All Components
1985	$2.7	$3.4	$2.5	$3.3	$1.1	$0.5	$0.0	$13.6
1986	$64.4	$23.2	$11.0	$4.4	$7.9	$6.5	$0.0	$117.4
1987	$78.0	$34.5	$16.7	$6.2	$20.1	$12.5	$0.0	$167.8
1988	$35.5	$27.1	$13.8	$6.2	$8.9	$8.7	$0.0	$100.3
1989	$29.5	$12.3	$10.0	$5.5	$8.6	$8.9	$0.0	$74.8
1990	$31.4	$33.0	$9.6	$5.1	$11.6	$9.9	$0.0	$100.6
1991	$30.8	$18.7	$2.2	$6.5	$10.3	$10.6	$0.0	$79.2
1992	$0.0	$20.2	$2.6	$7.9	$6.6	$1.7	$0.0	$39.1
1993	$0.0	$14.2	$4.8	$8.3	-$2.1	$1.2	$0.0	$26.4
1994	$11.0	$10.8	$4.8	$5.7	$1.1	$2.9	$0.0	$36.2
1995	$16.0	$12.6	$2.9	$6.6	$1.7	$2.5	$0.0	$42.3
1996	$26.8	$17.2	$4.5	$6.9	$8.7	$4.0	$0.0	$68.2
1997	$29.4	$21.7	$5.9	$7.0	$8.4	$3.9	$0.0	$76.4
1998	$40.9	$20.3	$2.7	$8.3	$8.4	$0.5	$0.0	$81.1
1999	$38.0	$31.9	$2.5	$9.2	$8.3	$0.0	$0.0	$89.8
2000	$39.4	$31.3	$3.0	$14.5	$13.2	$2.0	$0.0	$103.4
2001	$38.7	$40.6	$4.1	$14.2	$12.4	$3.6	$0.0	$113.5
2002	$50.4	$53.6	$1.2	$13.8	$18.0	$9.9	$0.0	$146.9
2003	$81.7	$48.7	$0.4	$11.3	$17.0	$5.5	$0.0	$164.5
2004	$68.1	$32.1	$0.3	$10.6	$26.3	$5.4	$0.0	$142.8
2005	$78.2	$43.3	$1.0	$13.8	$27.7	$5.0	$0.0	$168.9
2006	$110.4	$49.5	$9.7	$20.9	$26.4	$8.0	$0.0	$224.9
2007	$129.7	$39.3	$4.0	$12.8	$33.3	$7.8	$0.7	$227.5
2008	$123.8	$72.9	$5.8	$9.3	$34.3	$7.5	$0.8	$254.3
2009	$113.7	$63.0	$4.4	$10.5	$25.6	$5.4	$0.6	$223.1
2010	$114.8	$54.1	$3.8	$18.1	$28.1	$10.5	$0.8	$230.3
2011	$62.6	$29.3	$2.3	$8.2	$27.6	$11.4	$1.0	$142.5
2012	$28.8	$22.8	$1.5	$6.6	$28.4	$14.6	$0.4	$103.1
2013	$49.3	$19.1	$0.7	$4.7	$29.9	$12.2	$0.0	$115.9
2014	$14.2	$6.7	$0.4	$1.2	$16.0	$3.4	$0.4	$42.2
2015	$13.0	$9.9	$0.0	$0.6	$21.3	$3.7	$0.0	$48.7
2016	$13.4	$8.9	$0.0	$0.4	$11.0	$2.4	$0.0	$36.1
2017	$1.3	$5.4	$0.2	$0.8	$10.3	$1.5	$0.0	$19.6
2018	$66.3	$32.4	$0.1	$3.9	$20.8	$2.9	$0.0	$126.3
2019	$113.9	$25.4	$0.0	$6.5	$21.2	$1.6	$0.0	$168.5
2020	$83.1	$23.5	$0.7	$2.9	$11.5	$2.0	$0.0	$123.7
2021	$39.4	$11.9	$0.5	$1.9	$9.0	$1.3	$0.0	$64.1
Total	$1,868.8	$1,024.7	$140.6	$284.7	$578.9	$201.7	$4.6	$4,103.9

Chapter 1606 Basic & Kicker Amortization Contributions

(Dollars in Millions)

Fiscal Year	Army Nat'l Guard	Army Reserve	Navy Reserve	Marines Reserve	Air Nat'l Guard	Air Force Reserve	Coast Guard Reserve	All Components
1985	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1986	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1987	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1988	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1989	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1990	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1991	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1992	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1993	$0.0	$0.0	$0.0	$1.2	$0.0	$0.0	$0.0	$1.2
1994	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1995	$0.0	$0.0	$0.0	$1.6	$0.0	$0.0	$0.0	$1.6
1996	$1.4	$4.4	$0.0	$2.9	$1.4	$0.0	$0.0	$10.1
1997	$6.2	$4.0	$0.0	$2.8	$1.9	$0.0	$0.0	$14.9
1998	$3.3	$0.0	$0.0	$2.7	$1.6	$0.0	$0.0	$7.6
1999	$1.7	$0.0	$0.0	$3.4	$1.4	$0.0	$0.0	$6.5
2000	$3.8	$1.4	$0.0	$2.5	$0.0	$0.0	$0.0	$7.8
2001	$3.2	$0.4	$0.0	$1.9	$1.0	$0.0	$0.0	$6.5
2002	$0.0	$0.0	$0.0	$1.1	$1.9	$0.0	$0.0	$3.0
2003	$2.9	$0.0	$0.0	$2.2	$10.0	$0.0	$0.0	$15.1
2004	$15.7	$0.0	$0.0	$2.8	$8.8	$0.0	$0.0	$27.3
2005	$15.7	$0.0	$0.0	$2.8	$8.8	$0.0	$0.0	$27.3
2006	$27.6	$0.0	$0.0	$0.0	$17.3	$0.1	$0.0	$45.0
2007	$0.0	$0.0	$0.0	$0.0	$12.3	$0.0	$0.2	$12.5
2008	$0.0	$0.0	$0.0	$0.0	$12.3	$0.0	$0.1	$12.5
2009	$0.0	$0.0	$0.0	$0.0	$17.8	$0.0	$0.4	$18.1
2010	$0.0	$0.0	$0.0	$0.0	$10.1	$3.0	$0.0	$13.1
2011	$0.0	$0.0	$0.0	$0.0	$3.7	$0.0	$0.7	$4.4
2012	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
2013	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
2014	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
2015	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
2016	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
2017	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
2018	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
2019	$0.0	$0.0	$0.0	$0.0	$1.7	$0.0	$0.0	$1.7
2020	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
2021	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total	$81.6	$10.2	$0.0	$28.0	$111.9	$3.2	$1.4	$236.2

Chapter 1606 Basic & Kicker Benefit Payments

(Dollars in Millions)

Fiscal Year	Army Nat'l Guard	Army Reserve	Navy Reserve	Marines Reserve	Air Nat'l Guard	Air Force Reserve	Coast Guard Reserve	All Components
1985	$0.1	$0.1	$0.0	$0.0	$0.0	$0.0	$0.0	$0.2
1986	$9.8	$6.3	$1.8	$0.6	$3.7	$1.9	$0.0	$24.0
1987	$18.8	$10.9	$4.3	$2.2	$6.2	$2.8	$0.0	$45.2
1988	$25.9	$15.8	$6.7	$4.5	$7.6	$3.7	$0.0	$64.2
1989	$30.8	$20.6	$8.5	$6.4	$7.5	$4.3	$0.0	$78.1
1990	$32.0	$22.6	$9.3	$7.6	$10.5	$5.3	$0.0	$87.3
1991	$33.9	$19.5	$8.0	$5.3	$7.4	$4.2	$0.0	$78.3
1992	$39.6	$26.0	$8.6	$10.0	$8.6	$5.6	$0.0	$98.4
1993	$38.6	$26.8	$8.1	$10.3	$9.4	$5.8	$0.0	$99.0
1994	$45.7	$30.9	$9.5	$12.0	$11.3	$6.6	$0.0	$115.9
1995	$42.0	$28.0	$8.7	$11.0	$10.3	$6.2	$0.0	$106.2
1996	$37.8	$24.1	$6.8	$10.4	$9.7	$5.6	$0.0	$94.4
1997	$34.7	$22.0	$5.5	$10.1	$8.9	$4.6	$0.0	$85.9
1998	$36.1	$21.3	$5.0	$10.4	$9.0	$4.2	$0.0	$86.0
1999	$41.9	$24.6	$4.7	$12.1	$10.4	$4.4	$0.0	$98.1
2000	$44.5	$27.0	$5.4	$13.1	$14.3	$4.8	$0.0	$109.1
2001	$56.7	$31.4	$5.2	$15.4	$19.8	$6.6	$0.0	$135.0
2002	$64.7	$36.0	$4.5	$14.1	$23.1	$7.4	$0.0	$149.9
2003	$76.2	$38.5	$5.4	$10.9	$29.8	$9.2	$0.0	$170.1
2004	$73.5	$34.1	$6.3	$13.6	$37.8	$11.7	$0.0	$176.9
2005	$72.2	$41.2	$6.1	$11.7	$39.8	$14.3	$0.0	$185.2
2006	$57.3	$29.5	$4.9	$6.9	$33.8	$14.1	$0.0	$146.6
2007	$38.9	$18.7	$3.9	$5.3	$24.1	$11.0	$0.7	$102.6
2008	$53.3	$23.7	$4.1	$7.0	$29.2	$9.4	$0.8	$127.6
2009	$66.7	$28.4	$5.0	$7.0	$27.3	$9.0	$0.8	$144.2
2010	$87.4	$42.7	$5.1	$6.7	$28.9	$8.8	$0.6	$180.2
2011	$89.7	$49.1	$4.5	$6.7	$28.7	$8.1	$0.4	$187.3
2012	$84.5	$50.0	$4.3	$6.2	$27.5	$8.7	$0.3	$181.5
2013	$79.8	$49.5	$4.5	$7.4	$25.9	$9.1	$0.3	$176.6
2014	$77.2	$45.5	$4.9	$8.3	$24.7	$9.8	$0.4	$170.9
2015	$75.4	$40.6	$5.2	$9.3	$24.5	$9.6	$0.5	$165.1
2016	$72.8	$34.9	$5.1	$9.6	$25.6	$8.5	$0.4	$156.8
2017	$67.8	$32.1	$4.9	$9.6	$25.4	$7.0	$0.3	$147.1
2018	$59.8	$27.5	$4.5	$9.2	$24.2	$6.0	$0.2	$131.4
2019	$57.6	$26.2	$4.1	$8.4	$24.1	$5.3	$0.2	$125.9
2020	$58.5	$26.2	$3.6	$7.7	$23.2	$5.3	$0.1	$124.6
2021	$54.0	$23.4	$2.6	$6.2	$21.0	$4.7	$0.1	$112.0
Total	$1,936.1	$1,055.6	$199.8	$312.9	$703.2	$253.7	$6.4	$4,467.7

Chapter 1606 Basic & Kicker Interest Earnings

(Dollars in Millions)

Fiscal Year	Army Nat'l Guard	Army Reserve	Navy Reserve	Marines Reserve	Air Nat'l Guard	Air Force Reserve	Coast Guard Reserve	All Components
1985	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.1
1986	$2.3	$0.9	$0.5	$0.4	$0.2	$0.2	$0.0	$4.5
1987	$7.3	$2.7	$1.5	$0.8	$1.0	$0.8	$0.0	$14.2
1988	$10.4	$4.3	$2.4	$1.0	$1.7	$1.5	$0.0	$21.3
1989	$11.8	$4.8	$3.0	$1.2	$2.0	$2.0	$0.0	$24.7
1990	$13.1	$5.4	$3.4	$1.2	$2.3	$2.6	$0.0	$27.9
1991	$13.9	$6.2	$3.4	$1.2	$2.6	$3.3	$0.0	$30.5
1992	$13.0	$6.4	$3.1	$1.3	$2.8	$3.6	$0.0	$30.2
1993	$10.5	$5.8	$2.9	$1.2	$2.4	$3.4	$0.0	$26.3
1994	$8.2	$4.9	$2.7	$1.0	$1.7	$3.2	$0.0	$21.7
1995	$6.4	$3.8	$2.5	$0.8	$1.1	$3.1	$0.0	$17.7
1996	$5.1	$3.3	$2.2	$0.7	$0.8	$2.9	$0.0	$14.9
1997	$5.5	$3.7	$2.3	$0.7	$1.0	$3.1	$0.0	$16.2
1998	$5.9	$3.8	$2.4	$0.7	$1.1	$3.1	$0.0	$17.0
1999	$5.9	$3.8	$2.2	$0.8	$1.1	$2.8	$0.0	$16.5
2000	$6.4	$4.7	$2.2	$0.9	$1.1	$2.8	$0.0	$18.1
2001	$6.0	$5.1	$2.1	$1.1	$0.9	$2.7	$0.0	$17.9
2002	$4.4	$5.2	$1.8	$1.0	$0.6	$2.3	$0.0	$15.3
2003	$3.9	$5.3	$1.4	$1.0	$0.6	$2.1	$0.0	$14.2
2004	$3.8	$4.5	$1.0	$0.9	$0.3	$1.5	$0.0	$12.0
2005	$4.4	$4.7	$0.8	$1.0	$0.2	$1.3	$0.0	$12.5
2006	$9.0	$7.0	$1.1	$1.8	$0.8	$1.5	$0.0	$21.2
2007	$10.4	$6.9	$1.1	$1.8	$0.9	$1.2	$0.0	$22.3
2008	$16.1	$9.8	$1.3	$2.3	$2.1	$1.3	$0.0	$32.7
2009	$5.5	$3.4	$0.4	$0.7	$0.9	$0.3	$0.0	$11.2
2010	$12.1	$7.4	$0.7	$1.4	$2.0	$0.7	$0.1	$24.3
2011	$17.4	$10.4	$1.0	$2.3	$3.1	$1.2	$0.1	$35.6
2012	$11.8	$7.1	$0.8	$1.8	$3.1	$1.5	$0.1	$26.2
2013	$12.0	$7.2	$0.9	$2.0	$3.4	$1.9	$0.1	$27.6
2014	$9.7	$5.2	$0.8	$1.7	$2.6	$1.7	$0.1	$21.7
2015	$8.1	$3.5	$0.5	$1.2	$2.0	$1.2	$0.1	$16.8
2016	$8.1	$3.9	$0.9	$1.4	$2.4	$1.7	$0.1	$18.6
2017	$8.6	$4.1	$0.9	$1.4	$2.6	$1.9	$0.1	$19.7
2018	$9.2	$4.5	$1.0	$1.4	$2.7	$2.1	$0.1	$21.0
2019	$8.7	$3.8	$0.7	$1.1	$2.3	$1.6	$0.1	$18.3
2020	$6.6	$2.6	$0.4	$0.7	$1.4	$1.1	$0.1	$12.8
2021	$10.9	$4.0	$0.6	$1.0	$1.9	$1.6	$0.1	$20.1
Total	$312.4	$180.2	$56.8	$42.7	$59.6	$70.8	$1.3	$723.8

Chapter 1606 Basic & Kicker Year End Fund Balance

(Dollars in Millions)

Fiscal Year	Army Nat'l Guard	Army Reserve	Navy Reserve	Marines Reserve	Air Nat'l Guard	Air Force Reserve	Coast Guard Reserve	All Components
1985	$2.7	$3.4	$2.6	$3.3	$1.1	$0.5	$0.0	$13.5
1986	$59.6	$21.3	$12.3	$7.5	$5.6	$5.3	$0.0	$111.4
1987	$126.1	$47.5	$26.2	$12.2	$20.5	$15.8	$0.0	$248.3
1988	$146.2	$63.1	$35.7	$15.0	$23.5	$22.2	$0.0	$305.6
1989	$156.7	$59.5	$40.1	$15.3	$26.5	$28.8	$0.0	$327.0
1990	$169.1	$75.4	$43.8	$14.0	$29.9	$35.9	$0.0	$368.2
1991	$179.9	$80.7	$41.4	$16.5	$35.4	$45.6	$0.0	$399.5
1992	$153.3	$81.3	$38.6	$15.7	$36.2	$45.4	$0.0	$370.4
1993	$125.2	$74.5	$38.2	$16.2	$27.1	$44.2	$0.0	$325.4
1994	$98.7	$59.3	$36.2	$10.9	$18.6	$43.7	$0.0	$267.4
1995	$79.1	$47.7	$32.8	$9.0	$11.0	$43.1	$0.0	$222.8
1996	$74.7	$48.5	$32.7	$9.1	$12.3	$44.4	$0.0	$221.7
1997	$81.2	$55.9	$35.4	$9.5	$14.6	$46.8	$0.0	$243.4
1998	$95.3	$58.6	$35.4	$10.8	$16.8	$46.3	$0.0	$263.0
1999	$99.0	$69.7	$35.3	$12.1	$18.0	$44.7	$0.0	$278.7
2000	$104.2	$80.1	$35.1	$16.9	$18.0	$44.7	$0.0	$299.0
2001	$95.4	$94.8	$36.1	$18.7	$12.5	$44.4	$0.0	$301.9
2002	$85.5	$117.6	$34.6	$20.6	$9.7	$49.2	$0.0	$317.2
2003	$97.7	$133.1	$31.0	$24.2	$7.5	$47.5	$0.0	$340.9
2004	$111.7	$135.6	$26.0	$24.9	$5.1	$42.8	$0.0	$346.0
2005	$137.9	$142.5	$21.6	$30.7	$2.0	$34.8	$0.0	$369.5
2006	$227.5	$169.5	$27.5	$46.5	$12.8	$30.3	$0.0	$514.1
2007	$273.7	$163.6	$23.9	$42.6	$22.8	$24.8	-$0.2	$551.2
2008	$360.3	$222.6	$26.9	$47.1	$42.3	$24.1	-$0.2	$723.1
2009	$412.8	$260.7	$26.7	$51.2	$59.1	$20.9	-$0.1	$831.2
2010	$452.3	$273.6	$26.1	$55.9	$70.5	$26.4	$1.9	$906.6
2011	$424.4	$254.0	$25.0	$59.8	$76.1	$30.8	$3.2	$873.4
2012	$380.5	$234.0	$27.7	$62.0	$106.0	$55.0	$4.1	$869.2
2013	$362.0	$210.8	$28.0	$61.3	$107.8	$59.9	$4.4	$834.2
2014	$308.7	$163.3	$24.2	$55.9	$85.9	$55.1	$4.5	$697.6
2015	$317.5	$136.2	$19.6	$48.4	$84.7	$50.5	$4.0	$660.9
2016	$285.1	$138.0	$33.3	$51.2	$87.8	$65.1	$4.2	$664.8
2017	$262.4	$126.5	$30.4	$44.5	$80.6	$62.9	$4.1	$611.3
2018	$282.6	$137.4	$26.9	$40.6	$80.7	$61.8	$4.0	$634.0
2019	$348.4	$140.5	$23.6	$39.8	$81.9	$59.9	$3.9	$698.1
2020	$376.9	$139.7	$21.0	$35.6	$71.4	$57.4	$3.9	$705.8
2021	$373.3	$132.1	$19.4	$32.3	$61.4	$55.6	$3.9	$678.0

Chapter 1606 Basic & Kicker Projections
FY 2022 - 2027
(Dollars in Millions)

Interest Earnings

Fiscal Year	Army Guard	Army Reserve	Navy Reserve	Marine Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
2022	$15.2	$5.3	$0.8	$1.3	$2.5	$2.3	$0.2	$27.4
2023	$8.9	$3.1	$0.4	$0.8	$1.4	$1.4	$0.1	$16.0
2024	$8.1	$2.9	$0.4	$0.8	$1.3	$1.4	$0.1	$14.9
2025	$7.4	$2.8	$0.4	$0.8	$1.3	$1.3	$0.1	$14.1
2026	$6.9	$2.7	$0.4	$0.8	$1.3	$1.3	$0.1	$13.6
2027	$6.6	$2.7	$0.4	$0.8	$1.3	$1.2	$0.1	$13.1

Year End Fund Balance

Fiscal Year	Army Guard	Army Reserve	Navy Reserve	Marine Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
2022	$374.8	$127.8	$18.3	$30.3	$58.4	$56.5	$4.0	$670.2
2023	$341.9	$118.3	$15.7	$30.2	$50.8	$56.4	$4.0	$617.2
2024	$307.6	$112.4	$15.3	$30.5	$50.6	$55.0	$4.0	$575.3
2025	$285.5	$109.0	$15.1	$31.2	$51.1	$53.6	$4.1	$549.5
2026	$270.2	$106.9	$15.1	$32.0	$51.9	$51.9	$4.1	$532.1
2027	$256.6	$105.2	$15.2	$32.6	$52.8	$47.6	$4.2	$514.2

Unfunded Liability (Surplus) at End of Year

Fiscal Year	Army Guard	Army Reserve	Navy Reserve	Marine Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
2022	($223.7)	($54.2)	($5.6)	($9.7)	$10.0	($32.7)	($3.7)	($319.6)
2023	($186.7)	($40.8)	($3.0)	($7.8)	$13.3	($31.8)	($3.8)	($260.6)
2024	($151.2)	($33.1)	($2.5)	($6.3)	$10.8	($29.5)	($3.9)	($215.6)
2025	($122.4)	($26.8)	($2.0)	($5.1)	$8.7	($27.2)	($4.0)	($178.7)
2026	($99.1)	($21.7)	($1.6)	($4.1)	$7.1	($24.9)	($4.0)	($148.4)
2027	($80.3)	($17.5)	($1.3)	($3.4)	$5.7	($22.4)	($4.1)	($123.3)

Chapter 1606 Basic & Kicker Projections
FY 2022 - 2027
(Dollars in Millions)

Per Capita Amount Contributions

Fiscal Year	Army Guard	Army Reserve	Navy Reserve	Marine Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
2022	$42.4	$10.3	$0.1	$2.1	$13.0	$1.4	$0.0	$69.3
2023	$10.4	$9.5	$0.2	$5.7	$9.1	$3.7	$0.0	$38.7
2024	$9.5	$13.7	$2.3	$6.2	$12.1	$2.4	$0.0	$46.2
2025	$21.2	$15.6	$2.5	$6.9	$12.2	$2.4	$0.0	$60.9
2026	$31.2	$17.3	$2.7	$7.4	$12.3	$2.4	$0.0	$73.3
2027	$36.2	$18.7	$2.9	$7.9	$12.3	$0.0	$0.0	$78.0

Amortization Contributions

Fiscal Year	Army Guard	Army Reserve	Navy Reserve	Marine Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
2022	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
2023	$0.0	$0.0	$0.0	$0.0	$2.9	$0.0	$0.0	$2.9
2024	$0.0	$0.0	$0.0	$0.0	$2.3	$0.0	$0.0	$2.3
2025	$0.0	$0.0	$0.0	$0.0	$1.9	$0.0	$0.0	$1.9
2026	$0.0	$0.0	$0.0	$0.0	$1.5	$0.0	$0.0	$1.5
2027	$0.0	$0.0	$0.0	$0.0	$1.2	$0.0	$0.0	$1.2

Benefit Payments

Fiscal Year	Army Guard	Army Reserve	Navy Reserve	Marine Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
2022	$56.1	$19.8	$1.9	$5.4	$18.5	$2.7	$0.1	$104.5
2023	$52.5	$22.3	$3.2	$6.6	$18.1	$5.2	$0.1	$108.1
2024	$52.0	$22.5	$3.2	$6.8	$16.6	$5.2	$0.1	$106.3
2025	$50.9	$21.9	$3.1	$6.9	$15.4	$5.2	$0.0	$103.4
2026	$53.4	$22.1	$3.1	$7.4	$14.7	$5.4	$0.0	$106.1
2027	$56.3	$23.0	$3.2	$8.1	$14.3	$5.5	$0.0	$110.5

Chapter 1606 Basic & Kicker Projections
FY 2022 - 2027
(Dollars in Millions)

Interest Earnings

Fiscal Year	Army Guard	Army Reserve	Navy Reserve	Marine Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
2022	$15.2	$5.3	$0.8	$1.3	$2.5	$2.3	$0.2	$27.4
2023	$8.9	$3.1	$0.4	$0.8	$1.4	$1.4	$0.1	$16.0
2024	$8.1	$2.9	$0.4	$0.8	$1.3	$1.4	$0.1	$14.9
2025	$7.4	$2.8	$0.4	$0.8	$1.3	$1.3	$0.1	$14.1
2026	$6.9	$2.7	$0.4	$0.8	$1.3	$1.3	$0.1	$13.5
2027	$6.6	$2.7	$0.4	$0.8	$1.3	$1.2	$0.1	$13.1

Year End Fund Balance

Fiscal Year	Army Guard	Army Reserve	Navy Reserve	Marine Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
2022	$374.8	$127.8	$18.3	$30.3	$58.4	$56.5	$4.0	$670.2
2023	$341.7	$118.2	$15.7	$30.2	$50.7	$56.4	$4.0	$616.8
2024	$307.2	$112.3	$15.3	$30.4	$50.5	$54.9	$4.0	$574.6
2025	$285.0	$108.8	$15.1	$31.1	$51.0	$53.5	$4.1	$548.5
2026	$269.8	$106.7	$15.1	$31.9	$51.8	$51.8	$4.1	$531.2
2027	$256.2	$105.0	$15.2	$32.5	$52.7	$47.5	$4.2	$513.4

Unfunded Liability (Surplus) at End of Year

Fiscal Year	Army Guard	Army Reserve	Navy Reserve	Marine Reserve	Air National Guard	Air Force Reserve	Coast Guard Reserve	Total
2022	($222.4)	($53.3)	($5.4)	($9.5)	$10.4	($32.6)	($3.7)	($316.6)
2023	($185.4)	($40.0)	($2.8)	($7.5)	$13.7	($31.7)	($3.8)	($257.5)
2024	($150.1)	($32.4)	($2.3)	($6.1)	$11.1	($29.4)	($3.9)	($213.1)
2025	($121.5)	($26.2)	($1.9)	($4.9)	$9.0	($27.1)	($4.0)	($176.6)
2026	($98.4)	($21.2)	($1.5)	($4.0)	$7.3	($24.8)	($4.0)	($146.6)
2027	($79.7)	($17.2)	($1.2)	($3.2)	$5.9	($22.3)	($4.1)	($121.8)

ATTACHMENT 4

Transcript of the
Department of Defense Board of Actuaries Meeting

UNITED STATES DEPARTMENT OF DEFENSE
DEFENSE HUMAN RESOURCES ACTIVITY
OFFICE OF THE ACTUARY

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BOARD OF ACTUARIES MEETING

+ + + + +

FRIDAY
JUNE 24, 2022

+ + + + +

The Board of Actuaries met via Video Teleconference, at 10:00 a.m. EDT, Marcia Dush, Chair, presiding.

PRESENT

MARCIA DUSH, Chair

MIKE CLARK, Board Member

JOHN MOORE, Board Member

ALSO PRESENT

PETE ZOURAS, Chief Actuary
PETE ROSSI, Deputy Chief Actuary
PETE ABRAHAM, DMDC
RICHARD ALLEN, Actuary
ELAINE CRAWLEY, OGC
PHILLIP DAVIS, Actuary
PAUL DOTTO, OPM
NICK GARCIA, Actuary
CRAIG GRABY, Korn Ferry Hay Group
LORI HAINES, DFAS-IN
HYUNG HAM, Actuary
COLLEEN HARTMAN, OUSD (C)
JOE LAM, Actuary
PATTY LEOPARD, Advisor
ALICIA LITTS, OUSD (C)

TOM LIUZZO, OSD (P&R)

QIAN MAGEE, Actuary

DAN MENDOZA, USCG

BRENT MOWERY, Korn Ferry Hay Group

WILLIAM MOORHOUSE, DHRA OGC

JAMES O'NEILL, USCG

INGER PETTYGROVE, DFO, Actuary

SCHILEEN POTTER, DMDC

DAVID RAFFERTY, CBO

EDITH SMITH, Military Survivor

VINCENT D. SUICH, DMDC

ROWENA VICENCIO, USCG

RICHARD VIRGILE, USCG

C-O-N-T-E-N-T-S

P-R-O-C-E-E-D-I-N-G-S

(10:01 a.m.)

MR. ZOURAS: Welcome, everyone, to the Department of Defense Board of Actuaries meeting for 2022. Today, from the Office of the Actuary, we will have Qian Magee, Phil Davis, and Drew May speaking, as well as Rich Allen for Education, and all our actuaries and Drew May is our newest employee.

So with that, I'll hand it over to Marcia.

MS. DUSH: Thanks, Pete. Again, welcome. A few housekeeping items. As you just heard, we are being recorded. Please ensure that your audio is muted when you are not speaking or actively participating, and please identify yourself before asking a question.

And I think, in order to ensure that Teams runs well, please leave your camera off unless you're speaking.

I'd also like to introduce my colleagues, John Moore and Mike Clark, who are

the other members of the board. I'm Marcia Dush, and we're going to begin with the Military Retirement Fund.

And I think if you have questions, raise your hand and between Inger and I, we will try to respond as quickly as we can, but with that, I would like to turn it over to Qian Magee and have us start on the Military Retirement Fund.

MS. MAGEE: Thank you so much, Marcia. Drew, so if we could go to the meeting --

MS. DUSH: Qian, I apologize. I forgot something very, very important. And that is, we have a highly-respected guest, a former member of OACT, Pete Rossi, who is joining us on this meeting.

And because he has recently left OACT and joined GAO, I wanted to say just a couple words before we get started, and I apologize for turning things over to you, Qian, so give me a minute here.

I just wanted to extend our thanks to

Pete Rossi. Unbelievably, this is a man who has wanted to be an actuary since he was 15. He's worked -- he had worked at OACT right after college. He joined OACT in 2003, so he was there for almost 19 years.

While he was there, Pete worked hard on legislation, the valuation, a variety of projects both within and outside of the Office of the Actuary.

And I think the thing that we board members have appreciated is that he has really, I think, helped maintain excellent relationships with all of our stakeholders for these programs.

And to tell you the truth, he's also been a very active volunteer for the profession. Pete, we're going to miss you very much and we wish you and your family nothing but the best as you continue your career at GAO. Thanks again.

And with that, now I will turn it back over to you, Qian, and I apologize for the interruption.

MS. MAGEE: No, no, thank you so much.

That is a great statement. So okay, now let's get started. Let's go through the meeting objectives for MRF to set the stage.

First, the board is to review the September 30, 2021 closed group valuation results and approve the methods used to compute the 10/1/22 treasury amortization payment.

Items 2 and 3, they are proposed methods and assumptions used to compute liability for the September 30, 2022 valuation and the face code 2024 normal cost percentages.

Item 2 is for the board to set the long-term economic assumptions and item 3 is to approve the non-economic assumptions, and this year, we have three proposals.

Items 4 is to formally declare what the fiscal '24 DoD normal cost percentages are after all the assumptions are said and approved to be included in your board matters.

Any questions on this page? So okay, so let's move on. First valuation results. Drew, if you could go to the starting population.

Drew? Drew, can you move to the -- okay. That's better.

MR. MAY: It's up on the screen. Are you not seeing it?

MS. MAGEE: Oh, yes, here it is. Okay. Sorry, I didn't see it. So thank you, Drew.

So the first item in the valuation results is initial accounting figure as of September 30, 2021. For the pre-retirement population, we have active duty members, which include full-time reservists, then part-time selected reservists, as well as non-selected reservists with 20 good years or gray areas.

You can see that there is a slight increase in active population and a slight decrease in selected and non-selected reservists' population.

We've heard anecdotally that the services have had trouble meeting recruiting targets in the current environment, so they have met the targets through increased retention,

which we have seen in our experience study, but in general, not a lot of changes from one year to the next.

The populations are pretty stable. For the retiree population, we have non-disabled retirees, disabled retirees, and the surviving families.

The retiree tanks decreased a little. There were some excess death from COVID, along with fewer than expected retirements, but in general, the population is stable as well.

Now I want to speak to some numbers that are not showing here, but will be useful in setting the stage for two of our proposals for non-economic assumptions relating to concurrent receipt.

So as of 9/30/2021, 800,000 out of 2 million, or 40 percent of retirees, benefit from concurrent receipt and in terms of monthly retired pay, the percentage is 30 percent, or 1.4 billion out of 4.9 billion.

These percentages have been growing

over the years since the passage of concurrent receipt law in 2004 and Treasury is required by law to pay for the cost of it in their annual concurrent receipt accrual payment, and the Treasury payments have been increasing as well.

So that's what we have on this page. Any questions or comments?

MS. DUSH: Qian, this is Marcia.

MS. MAGEE: Yes.

MS. DUSH: Again, whether you or one of the OACT members can answer this, for new retirees, about how many new retirees are subject to concurrent receipt?

If you say it's been increasing and overall now, it's 40 percent of the retirees, what has it been lately? Is it -- I would assume it's higher than that.

MS. MAGEE: Definitely. The numbers definitely are higher than that. Currently, I don't have a number handy to answer that question, but one number I remember is that, of the new retirees, about 70 percent of the

retirees are getting a VA award.

And I would expect that -- so the people that receive concurrent receipt will definitely be higher than 40, but probably a little bit lower than 70, but we can look it up later. Yes.

MS. DUSH: Okay. And again, on concurrent receipt, if it is a combat-related disability, they are eligible for concurrent receipt and if they have a rating -- if it is not combat-related, if it's a rating over 50 percent, they are eligible for concurrent receipt.

And so that's why not all 70 percent would be eligible for concurrent.

MS. MAGEE: Non-combat-related, they have to have 20 years of service.

MS. DUSH: They have to what? I'm sorry, could you repeat that?

MR. MAY: They have 20 years of service requirement.

MS. DUSH: Okay. But if they're a retiree from the MRF, they would have 20 years of

service, correct? Okay.

MS. MAGEE: That's correct. Yes.

MS. DUSH: All right. Thank you, Qian. I think that will help us understand your proposals later on down the road. Please continue.

MS. MAGEE: Okay. So moving on to the next page, we have the actuarial status as of September 30, 2021. And for comparison purpose, we have the actuary status as of September 30, 2020.

So comparing to last year, the unfunded liability decreased 8.2 billion, or 1 percent, we will see the reconciliation of the unfunded liability on the next page.

So items 6, 7, and 8 are normal cost percentages. Item 6 is the fiscal '22 NCPs from the current year valuation. Items 7 and 8 are the implemented NCPs for fiscal year '23.

The implemented NCPs are the NCPs that were approved in last year's vote meeting. The only difference between items 6 and 7 is that

fiscal '22 NCPs are based on assumption of people covered under different plans for fiscal '22, and fiscal '23 implemented NCPs are based on assumption for fiscal '23.

So beginning in fiscal '23, starting October 1st, the contribution percentage applied to the basic pays are, for DoD, 36.9 percent for full-time, 24.5 percent for part-time, and for Treasury, 16.8 for full-time and 3.8 percent for part-time.

And the red box here highlights the underlying non-term economic assumptions set by the Board for the 9/30/2021 valuation and the 9/30/2020 valuation.

You will see that the real interest rate decreased by 1/4 percent which led to increases in the present value of benefits, the present value of future normal cost, and NCPs.

So the last footnote on this page is on Coast Guard, per NDAA 2021, Coast Guard will be included in the 9/30/2022 valuation and the Board will decide the method to amortize the

initial liability at next year's meeting, with the first payment on October 1st, 2023.

Any questions here before I move on? No? Okay.

So let's move on to PDF Page 4 on the package. So this is -- Marcia, do you have a question?

MS. DUSH: No, no, I'm sorry. Just flipping the page.

MS. MAGEE: Okay. That's okay. Okay. Sounds good. So Page 4 of the PDF package is a fiscal '21 change in unfunded liability. So if everything goes as expected, then the expected unfunded liability will equal the actual. In reality, it is never the case, so this page is to reconcile the difference.

We see that the expected unfunded liability is 683.1 billion, and the actual is 745.1 billion, so we have a loss of 62.1 billion.

You can see that almost half of the loss is due to assumption change and the other half is due to experience. The experience loss

is due to the fact that salary increased, COLA increased, and the return on assets are not the same as expected.

So the residual experience loss is about 4.8 billion, which is due to other changes in population. This is about 0.4 percent of the liability, which is small, so this is a measure of how well our non-economic assumptions, modeling retirements, deaths, promotion, match the actual experience.

Even though the percent residual loss is small, we still want to make sure there weren't any big pluses or minuses by source. So this year, we did some extra work to isolate the residual loss by source, which confirmed that there's no big offsetting gains and losses.

We found that the active, the survivor, are the two categories that have a bigger gain or loss, the actives have less withdrawal than expected, which caused a loss, and for the survivors, the loss was mainly due to some cleanup of the benefit amount.

So the rest of the loss is due to assumption changes that were proposed and approved in last year's meeting. The increase in accrued liability due to each assumption change is consistent with what we estimated last year.

Most importantly, you'll see the increase in interest rate of 25 basis point increased the liability by 80 billion. Any questions on this page before I move on?

MS. DUSH: No, I think it's interesting, though, that the -- what we're seeing here is that the granting of the cost of living increase at a much higher rate than our CPI assumption adds a considerably more to liability than the loss we have on the assets.

So it's just something we have to watch.

MS. MAGEE: Yes. Thank you, Marcia. So let's move on to PDF Page 5. So we will see the total Treasury payment. Here, you will see the amortization payments for initial unfunded liability, benefit change, assumption change,

experience gain or loss, and the prior year unpaid contribution.

Now, you will notice that the amortization period for benefit change, assumption change, and experience gains and loss is the same, which is 19.1 years.

This is a result of a change from last year's board meeting to have a single amortization schedule for these three types of balances and level out the amortization payments in the future.

So all the new gains and losses will be amortized in 20 years and the amortization period for all the basis is calculated as the weighted average of the remaining amortization period for the old basis and 20 years for the new basis.

So that's all I have for the valuation results. Anyone have any questions on this page?

MS. DUSH: If there are no questions, I will need a motion on the method used to amortize the unfunded liability for Treasury.

MR. MOORE: Chair, this is John Moore, and I'll so move.

MR. CLARK: And Mike Clark, second the motion.

MS. DUSH: Okay. All in favor?

(Chorus of aye.)

MS. DUSH: All right. I think we can keep moving then. Thank you, Qian.

MS. MAGEE: Thank you, Marcia. So next up will be my co-worker, Phil Davis.

MR. DAVIS: Awesome. Thank you, Qian. So I'll be covering the economic assumptions, and on this page we have the other systems current economic assumptions.

So you can see in the first column, we have the inflation rate, salary rate, interest rate set by the board at this meeting last year. And then we have the OPM rates that was set in May, and those are unchanged from last year, and then we have the Social Security Administration's low-cost, intermediate, and high-cost rates that were set earlier this month, that are also

unchanged from last year.

And then to the right of that we have the rates from the MRF financial statement, the rates from CBO, and then the rates from the December blue chip. Are there any questions or comments regarding this page?

MS. DUSH: I think, why don't you go to the next page, and then I think we will have some discussion.

MR. DAVIS: Okay. So, Drew, if you could scroll down. Okay. So on this page, we do some simple math for the Board just to get the real across the board salary rates and the real interest rates for all of these systems that I previously mentioned.

And below that, we have the blue chip long-term indexes for CPI, the 30-year Treasury, and the real return from December of 2021 through June of 2019, and I just want to point out that we do not have access to the June 2022 blue chip yet.

MS. DUSH: All right. Let me just

make a couple of comments before we have some discussion here. First of all, I think it goes without saying that we are in a period of economic turmoil, but again, I don't think -- and we discussed this somewhat last year, that we were expecting higher inflation, but we expected it to be transitory.

I think from what I hear, it's still expected to be transitory, but it may take a couple of years to settle down.

I also want to point out, I think something that I always look at when we review this is the salary real rate compared to Social Security.

There's an apparent, a big difference, between the intermediate and the rates that we use, but again, they're two different assumptions; the Social Security assumption is all pay, and our assumption does not include merit and aging in the service.

So it is strictly beyond, it's the across-the-board portion of the salary increase,

so again, I don't want us to get tripped up on the differences between our assumption and Social Security.

Again, the blue chip numbers are dated. I think, and I'd look to my colleagues, since I'm retired, but I do listen and read a lot, but I would be curious as to their thoughts on CPI, but what I have heard recently is that while the fed -- most economists don't expect the fed's target to remain at 2 percent for CPI, they do expect it to settle in the 2-1/2 to 3 percent range for a long-term basis.

And I think what I heard on CNBC yesterday was that the bond market appears to be pricing in a long-term assumption of CPI, around 2-1/2 percent.

So I would welcome my colleagues' thoughts on the economic assumptions at this point.

MR. CLARK: Yes, this is Mike Clark. I can go first. I generally agree with you, Marcia. I think that, you know, there's

certainly concern that inflation will level out at a higher point and remain -- it would have to remain there for a long period of time to really affect the assumption, so I think we're okay to kind of watch and wait on that.

And, you know, the fact that our current assumption is 2-1/2, which is above, you know, at least the pre-2022 fed target, you know, we could actually have a little bit of room, I think, there for that to work itself in, so I'm comfortable with 2-1/2 inflation assumption in the long term for the time-being.

And, yes, it will be interesting to see how the bond rates react and if there is any effect on the real interest rate over the next couple of years.

MR. MOORE: This is John Moore. I'll just echo those comments. We had our inflation a little higher already expecting there would be some uptick over the long term, and maybe this is just the first step, again, but would expect it to settle down.

And then also, for our fund, the critical interest rate is the real interest rate, so it's the spread between the inflation and the interest rate that really drives our results, so another reason I'm also comfortable holding tight at 2-1/2 percent for now.

MS. DUSH: Okay. Yes, and we'll discuss real rate when we see the fund projection. You know, there's another thought that we, you know, using only the 1/4 point on the real salary increase, and again, it'll be interesting to see how much of the inflation does creep into salary increases.

We heard Qian mention that there was some issues with recruiting and meeting targets. And so -- but they've been able to meet their targets by holding on to more people, incenting more people to stay.

So I think we've got to watch the CPI increase, we've got to watch the -- how the salary increase is affected by manpower issues, but for CPI and salary, I think I'm content to

wait and see at this point.

Any thoughts beyond that?

MR. CLARK: I agree.

MR. MOORE: Agree.

MS. DUSH: Okay. Let's go on and talk a little bit more about the blue chip numbers and the fund projections. Again, recognizing that the blue chip numbers are a bit out of date.

MR. DAVIS: Okay. Drew, if you could scroll to the next page, so just, this is the page of the long-range survey for the December blue chip, where we get those assumptions from. If you want to go back and look at it after the meeting, but, Drew, if you could then continue on to the next one.

So here we have the fund yield projection for MRF based on the Social Security Administration's intermediate assumptions. The first column on the left is the fiscal year, then the corresponding inflation rate for that year, then the corresponding real fund yield, then the nominal fund yield, then new investments on a

cumulative basis, and new investments on an annual basis.

And we have this from 2022 through 2065. And then on the right here, we have geometric averages for 10, 20, 30, 50, and 75 years for all of these rates, and then below that, we have, for the same time periods, fund-weighted averages.

And then right below that we have the alternate rates of 2.4 percent inflation, 2.25 percent of real fund yield, 4.65 nominal, 4.65 percent new investments cumulatively, and 4.7 percent annual.

And just want to point out the current Board assumptions of 2-1/2 percent inflation, 1-1/2 percent real, and 4 percent nominal.

Any comments on this page or would we like to see the blue chip projections?

MS. DUSH: Again, the Social Security projection is something that we've paid a great deal of attention to in prior years. It will be interesting to see the blue chip as well.

The one thing I would point out here is, you know, we've paid a lot of attention in the past to the 30 to 50-year fund-weighted average yields, which do show an increase in the real fund yield over that period of time, but I would also point out that we don't actually hit a 1-1/2 percent real fund yield for another ten years, If you look down the column, under real fund yield.

So I'm a little reluctant to put too much weight into the 30 and 50-year at this point in time. Also, because the initial inflation, I think, here in your model, probably takes into account actual inflation to date and with some lower projection for the rest of the year, we know it's going to be higher than 4-1/2 percent, so we'll see a real fund yield that's perhaps much more negative this year and next year.

So again, while we do pay very close attention to this projection, I'm not sure it's that I'm putting as much weight as I normally would into it.

I would also point out that you do make a comment about the effect of just changing the inflation rate on the plan, and because both the inflation rate is used in projecting benefits, because benefits are subject to salary increases and post-retirement cost of living increases, as well as the CPI affects the discount rate, the effect of just changing the inflation rate is actually very small.

So as I think one of my colleagues said earlier, the elephant in the room is really our assumption regarding the real fund yield.

Why don't we take a quick look at the blue chip forecast and then we can make some decisions on the overall economic package.

MR. DAVIS: Okay. Thank you, Drew, for scrolling down. So reading this chart is the same as the Social Security one, just now, we are basing this off the December blue chip assumptions, so I'll just read through the alternate rates.

It's 2.2 percent inflation, 1.55

percent real, 3.75 percent nominal, 3.75 percent new investments cumulatively, and 3.76 percent for new investments annually.

MS. DUSH: So again, the blue chip information is somewhat dated, much more conservative on real fund yields, so but again, I am interested in my colleagues' thoughts on the real assumption, the real fund yield assumption, at this point.

MR. CLARK: This is Mike Clark, so, Marcia, I agree with you that, you know, I think that we do need to, sort of, keep our eye on the near term to see if it does have any sort of long-term effects, but I like to use these are guardrails.

And as I look at the blue chip and the Social Security, I'm looking at the real fund yield, 30 to 50-year weighted average, and the blue chip is slightly below our assumption of 1.5, and the Social Security one is a bit above it, so I feel like at least we're in a reasonable range.

And, you know, we will have to see what the -- what happens when the inflation question is answered.

MR. MOORE: All right. And this is John Moore. Nothing specific to add additionally. I'm still comfortable with where we sit on the real.

MS. DUSH: Can I have a motion on the three economic assumptions?

MR. CLARK: Sure. I can move for that. So I will move that for the 2022 valuation, we adopt the assumptions of inflation at 2.5 percent, a real fund yield of 1.5 percent, which would become a nominal fund yield of 4 percent, and a salary base increase assumption of 2.75 percent per year.

MR. MOORE: And I will second that motion to retain those rates.

MS. DUSH: All in favor?

(Chorus of aye.)

MS. DUSH: Thank you. Thank you. Qian, are we back to you for the proposals on

non-economic assumptions?

MS. MAGEE: Yes, yes. I'm back. Okay. So now I'm going to discuss the various proposals for non-economic assumptions. First, let's look at the summary table. You can see that before any change in assumptions, the fiscal '24 DoD full-time NCP from 9/30/2022 valuation, which is in the middle of this table, it is 36.6 percent for full-time and 24.4 for part-time.

So the following are three proposals we have for this year. First is an update to the VA offset parameters. You can see that this one has the most impact, reducing the DoD full-time NCP by 4.1 percent and the part-time NCP by 1.5 percent.

Next up is an update of the death and other loss rates reducing the DoD full-time NCP by 2.8 percent and part-time NCP by 0.1 percent.

Last May, we proposed to update the mortality improvement scales, which is an update we do every year, but this year, we proposed updates in some of the parameters.

The NCPs increased by 0.3 percent for both full-time and part-time. So these are the three proposals we have and in our judgement, all of the other non-economic assumptions in the valuation are reasonable.

Okay. So the bottom line fiscal year 2024 NCPs, after all the assumption changes, will be 30 percent for full-time and 23.1 percent for part-time.

On the other hand, you can see that the estimated fiscal '24 Treasury NCPs are 28.3 percent for full-time and 8.7 percent for part-time. If you look at Footnote 1, it shows that the projected fiscal '24 Treasury NCPs, before any assumption changes, they are 16.1 percent for full-time and 3.8 percent for part-time.

So the Treasury NCPs increased from 16.1 percent to 28.3 percent. This means that the DoD full-time NCP decreased by 6.6 percent, but the Treasury full-time NCP almost doubled.

So before I go on to discuss the proposals, do you have any comments on the

summary?

MS. DUSH: Well, I think here is the big discussion point for today's meeting. It is pretty astounding that the relationship between the DoD NCP and the Treasury NCP is changing so dramatically, having to do with the VA offset parameters.

And again, you know, we saw a 4 percentage drop in the DoD NCP, but what we're really seeing a huge increase in the Treasury NCP, so I think you're going to provide us with some background on how we got here, but I think part of it is that, in reviewing the assumptions, you're seeing, like I say, 70 percent of new retirees have a VA payment.

And most of those are subject to concurrent receipts, so I think this is a really important discussion point here.

So why don't you continue on with the -- give us the background on the VA offset parameter issue.

MS. MAGEE: Okay. So let's start with

the VA offset parameters. So this is a proposal that has the biggest impact, like Marcia said, caused a 4.1 percent decrease in the full-time NCP, 1.5 percent in the part-time NCP, and an increase in accrued liability of 55.7 percent, or 3 percent.

The proposal is to update the experience target period for the VA offset parameters. As a background, so the Google model applies VA offset parameters at the point of retirement to reflect how much of their retired pay is offset, or waived, mostly due to the VA award.

We have different assumptions for DoD versus DoD plus Treasury, which record the total cost, this is because the law requiring DoD's normal cost percentage, not including the cost of the concurrent receipt.

The Treasury will pay the cost. Since the enactment of concurrent receipt law, the value of VA disability benefits has increased rapidly.

As I mentioned earlier, payments for concurrent receipt represents a significant portion of retiree outlays, and several forces appear to be driving the increase in VA disability benefits, so including increased incentive to apply for benefits under concurrent receipt rules, broader definition of disability and higher disability ratings by VA, as well as a higher incidence of combat-related disability from recent conflicts.

So some of these increases is due to combat that likely may not persist in the future. To be conservative, we've proposed now to use the most recent rates, but rather, average in the rates over a long period of time.

In particular, we're proposing to use the average factors from fiscal '04 and '05 with the factors based on fiscal '18 and '19 experience. We're proposing the averaging only for the DoD non-disabled retiree offset parameters.

For the parameters for disabled, we

propose to continue to use fiscal '18 and '19 experience, but update with Coast Guard experience.

I also want to mention that we're also proposing an update to the retirement pay adjustment factors. These factors apply to the continuing retirees to reflect the increase or decrease of their pay during the year that is not due to COLA adjustments.

Most of the changes is due to the offset resulting from the VA award, that is, people might get the VA award and their retirement pay will decrease during the year.

We capped the reduction at 2 percent for the calculation of DoD NCP. So here, this is what I have for the offset, please, comments and questions?

MS. DUSH: Qian, so I think the thing that has been a little difficult for me to grab on to was, we have an effect here for both the valuation of disability retirement, so perhaps we are recognizing that more people are going out on

disability retirement, and getting concurrent receipt benefits, but also, people who are normal retirements from the MRF are also getting VA awards, and therefore, we're seeing, that's that huge increase in retiree benefits being subject to concurrent receipt.

So it's both assumptions, the disability retirement assumption, as well as affecting the regular retirement assumption, is that correct?

MS. MAGEE: That's correct. And so for the non-disabled, like you said, Marcia, that even though those people retired under non-disabled disability in DoD, that does not mean that they are not disabled under the VA criteria, so they are still receiving VA compensation and get concurrent receipt.

So this time, the updating of the non-disability factor has a much higher impact, just because we recently updated the disability factor in 2020, and also, the non-disability factor affect a much broader population, so the impact

you see is much bigger.

MS. DUSH: All right. And if we had to use just recent data, the effect would be even greater, because we are -- we think we're seeing, you know, the effect of combat-related disabilities in there, and again, I think that's -- I would agree that, you know, it is not for us, necessarily, to project, kind of, the continuing combat-related disabilities.

But again, this is such a dramatic change, I think it's something that really needs to be looked at. I welcome comments from my colleagues.

MR. CLARK: Sure. Thanks, Marcia. So as the newest board member, I kind of have the benefit of coming into this with a little bit of fresh perspective, I guess, but I just came in and looked at the normal cost percentages for the full-time, and when I saw that the, you know, cost of ongoing pension accruals was almost half covered by Treasury, and if the trend continues, likely more than half at some point in the

relatively near future.

I just had to ask the kind of high-level question, is that the intent of what the concurrent receipt rules were supposed to do.

So I realize that, you know, it's kind of a difficult question for people to consider, but to me, I think you just look at the two main factors. I mean, we mentioned the combat-related disability, I think that the evolving definition of disability over time, since 2004, is playing a big part here, obviously.

And the fact that the concurrent receipt itself drives higher utilization because there's a benefit to the participant to have both benefits.

So, you know, I think it's pretty clear that what we see now is different from what the landscape was when the law was initially passed, and possibly, an unintended consequence of that, so I'll just stop there.

MS. DUSH: John, your thoughts?

MR. MOORE: Yes, this is John Moore,

I agree, the growth in this is stunning and warrants additional thought and discussion about, is this really what was intended to happen and we're going to try to address that, but for as far as the valuation is concerned, this is what we're seeing and it is driving these current results, and it's still, even as we're talking here, I think we're still being somewhat, I don't know if the word is conservative or not, we're not -- the growth could be even -- current growth even exceeds the assumption movements we're talking about making here.

So it could be even more significant down the road.

MS. DUSH: Yes, again, there's got to be a lag in the recognition of disability over time. I mean, I'm sure we still haven't seen the peak yet, having to do with prior combat-related engagements.

You know, I guess where I'm coming from is that, I'm comfortable being somewhat conservative by averaging the, kind of, pre-

concurrent reserve experience with the most recent experience, but I guess I would put it to OACT staff that this is something we're going to have to watch much more closely and I would expect that, you know, within the next three years, that we have an update on this.

And in the meantime, I guess I would suggest, you know, Mike, I think you used the comment, unintended consequence, I think, John, you did as well, I think it's worthwhile.

I think the committee of actuaries, the Board of Actuaries here, has the ability to notify stakeholders of things that are affecting the MRF, and I would suggest that we draft a follow-up letter.

I think that this more urgent than, kind of, baring it in a quad report, quadrennial report, so I would suggest that we kind of do something to notify stakeholders.

Again, you know, it could be what is intended, but it just seems a bit odd, I think, to all of us that almost half of the cost of the

pension plan is now being, essentially, diverted to Treasury.

Do you folks agree?

MR. CLARK: I do.

MR. MOORE: Marcia, this is John -- oh, sorry.

MR. CLARK: I was just going to say, I mean, you know, all we can do is report what we're observing here and I think it's a significant observation.

MS. DUSH: John?

MR. MOORE: Yes, and I agree, I think a letter from the Board to the appropriate stakeholders here would be warranted, so agree that that should be a next step for us.

MS. DUSH: Okay. All right. Qian, I think we are good on this part of the demographic assumption, so maybe take us through the remainder. I think that was the big -- that is the, I think, biggest issue we needed to talk about.

MS. MAGEE: Thank you, Marcia --

LT. COL. PICCONE: Hey, Marcia?

MS. MAGEE: -- and thank you, John and Mike, for the comment.

MS. DUSH: Yes.

LT. COL. PICCONE: Marcia, this is Lt. Col. Steven Piccone. You know, just a comment, hearing this in the background, there's a number of service members in the reserve component that transferred from active duty, and having served on active duty, they are eligible for VA disability benefits, though, it's offset with their time in service in the reserve or Guard components.

I wonder if there's a way to solicit data from the VA to see how many or what number of service members are in that pool, and that might help you project forward, the number of service members that will ultimately, at least from the reserve component, hit the 20-year retirement and have concurrent receipt of benefits, so just a thought.

MS. DUSH: Thank you. You know, I

would put that, Qian, to you and to Pete Zouras. I think it would also be interesting if we can get our hands on, you know, when people retire with concurrent receipt, is it a combat-related disability or is it other than combat?

And I realize sometimes there's -- those two things affect -- a person can have a VA rating based on multiple disability issues, but it might be good, again, to get a handle on that reserve issue as well as, you know, combat versus non-combat.

And again, I think this is something that we need to revisit within a couple years. And again, but I do think the Board needs to put its hand up and say, is this really -- this is what has happened since 2004 in the concurrent receipt, is this the intended consequence of what the legislation has done?

Any thoughts, Pete Zouras?

MR. ZOURAS: Yes, I mean, it's also what's driving the increase in the total normal cost, which, if there wasn't this requirement for

DoD to be shielded from the cost, that we may still be having this discussion.

MS. DUSH: Yes.

MR. ZOURAS: But, yes, thanks for those things. We'll follow-up on that.

MS. DUSH: Okay.

MS. PETTYGROVE: And, Marcia, I don't know if you saw in the chat that we have a comment from Gene Whitmore that, to the best of my knowledge, a VA disability payment only has to be service-connected and not necessarily combat-related.

That was just a comment I thought you should be aware of.

MS. DUSH: Okay. All right. But again, I think from our perspective -- well, from my perspective, the one thing that could potentially change is a reduction in combat, I hope. I hope there's a reduction in combat, and that could affect the number of disability, recognized disabilities.

And again, I think that would be the

hardest thing for you, or for us, to project, but thank you. Okay, Qian, you want to keep going?

MS. MAGEE: Yes. Thank you. Thanks for all the comments. So next, I want to move on to the death and other loss rates. We proposed to update the experience study period for deaths and other loss rates as well as the transfer rates from temporary to permanent disability.

So this proposal results in a 2.8 percent decrease in the fiscal '24 full-time DoD NCP, a 0.1 percent decrease in the part-time DoD NCP, and an increase in the 9/30/2021 accrued liability of 28.7 billion, or 1.6 percent.

And just a little background on this as well, in the Military Retirement Fund, a person's benefit can stop because the retiree died, but it can also stop for other reasons, including a member's pay offset by VA award or the retiree waiving military retired pay to receive a civil service annuity, or retiree could come out of temporary disability and return to active duty.

On the other hand, there are people who are originally not in payment, but their payment could start if the situation change. So therefore, the other loss rates we're proposing are net rates. Okay.

Now, let's see what the proposal is. The new experience study period is fiscal '17 to fiscal '20. Before this update, we had various experience study periods for different groups, we just want all the rates to be based on the same period.

So let's go to Attachment 3A, so this is the -- this attachment shows the actual over expected ratios for all the rates we are updating. You can see that for the death rates, we only have one set of death rates for both the DoD, NCP, and total NCP calculation to minimize operational risk.

And you can see that the actual over expect ratios are pretty good. We used the prior mortality rates improved with mortality improve scale to calculate the expected.

For other losses, we can see a difference between the DoD and total level. So on the total level, you will see that there are only rates for permanent disability and temporary disability.

This is because there is very little offsetting going on from a concurrent receipt perspective for non-disabled retirement.

You can see almost across the -- all the different categories, the actual is lower than expected, so that means, on the total level, the number of people who stopped payments in recent periods is much lower than expected, which means more and more people are eligible for concurrent receipt.

So let me draw your attention to the other loss rates for DoD for NDIS and RESE level. They are the non-disabled retiree from either active or reserve status, okay?

For them, the actual over expected ratio is high, which means that the number of people who stopped payments in recent periods is

much higher than expected, so the bottom-line is that, from DoD perspective, there is more loss from non-disabled retirees.

And finally on this page, we have the actual over expected ratios for the transfer rates from temporary disability to permanent disability.

So once a person is in temporary disability, he can recover and return to active duty or he can transfer -- he can be transferred to the temporary disability retired list, TDRL, if the person stabilized and the rating is 30 percent or higher.

So for this rates, actual being higher than expected, means more people are transferred to permanent disability than we originally assumed, so we have update this time.

We also have a set of graphs which I'm not going to go over now. If anyone's interested in the graphs, other than only the over expected ratios, you can look at the graphs.

So that's what I have for the other

loss and -- death and other loss. Some questions from the Board?

MS. DUSH: So, Qian, looking at the other losses, so now we're looking at the people who are already retired, and what we're saying is that when you look at other loss rates for DoD, once people become retired, people are becoming for either increased concurrent receipt or they are becoming, first, eligible for concurrent receipt after retirement, and so that's why you're seeing -- so if concurrent receipt had never gone into play, their benefits would have been offset.

So we're seeing that they're should have -- there should be a bigger savings for retirees, but because the total benefit is still paid, that is not a situation, so we had -- so the -- there was an expected offset for people who would not be eligible for concurrent receipt, and we're seeing that that experience is less than what we would have expected, did I say that correctly or?

MS. MAGEE: I think that for the -- on the -- I think you are saying, for the total level, on a total level, we were originally expecting, say, for example, for permanent disability, we expect 600 people to drop off because they receiving VA award, but because more of them actually are receiving concurrent receipt, so actually, we see a lower amount of people dropping off.

MS. DUSH: All right.

MS. MAGEE: Because they are receiving benefits.

MS. DUSH: All right. So we would have expected -- so on the first line, we would have expected, for officers, 614 people to get a VA award which was not subject to concurrent receipt, instead, we only got 460 because more people than we expected got concurrent receipt.

MS. MAGEE: That's correct. Yes.

MS. DUSH: All right. So that --

MS. MAGEE: And if you look at the enlisted, the difference is much larger. Sorry.

Go ahead. I'm sorry.

MS. DUSH: All right. So that's the reason for our total NCP for that -- or for the liability, that's for the total liability to go up.

MS. MAGEE: Yes.

MS. DUSH: Okay. And then, and it would also affect the NCP, so the NCP goes up. Other loss rates for DoD, again, because more than expected are, in fact, getting concurrent receipt, then we see the DoD rate go down.

And that's why they're moving in two different directions.

MS. MAGEE: Yes, yes. And for the DoD, not necessarily they have to get the concurrent receipt, but they get the much higher VA award, so there are people that dropped off.

MS. DUSH: So the rate we were talking about before is what we expect to occur at retirement. These rates pertain to what happens after retirement.

MS. MAGEE: Exactly. Yes.

MS. DUSH: Okay. All right. Thank you.

MR. CLARK: I guess I just -- Qian, if I can ask you -- so I can say it a different way so I fully understand, so the DoD perspective, those losses, if you will, you know, that would reflect somebody who got a VA award that was at least as big as the pension, therefore, you know, they still get a pension from the MRF, but the responsibility is, kind of, in the Treasury part of the field because of the concurrent receipt rules, is that --

MS. MAGEE: Yes.

MR. CLARK: I'm tracking correct?

MS. MAGEE: Yes, that's perfect. Yes.

MR. CLARK: Thanks.

MS. MAGEE: So that wraps-up my -- the proposal on other loss, and if you don't have any other questions, Drew will give you the presentation on the update on the mortality scales. Drew, you are up.

MR. MAY: Thank you, Qian. We are

proposing four changes to our retired mortality improvement scales. A combination of retiree groups, a simplification of our male/female adjustment, a new long-term rate of improvement, and an adjustment for the impact of COVID.

As Qian mentioned, in the summary, these results -- these proposals result in an increase of 0.3 percent for both full-time and part-time DoD NCPs, and an increase in the accrued liability of 7.1 billion, or 0.4 percent.

The first two changes are a large simplification of the process to reduce the operational risk of having some many sets of MI. We combined retired, actives, reserves, and permanently disabled so our MI sets are now simply enlisted, officer, and survivor.

The male/female adjustment was changed to two arrays by fiscal year, one for enlisted and one for officer, removing age and retiree category components.

The ultimately female percentage of 15 percent was also assumed to be reached in 2037.

These changes had a small impact on the NCPs. Full-time saw a decrease of 0.03 percent and part-time, an increase of 0.05 percent.

A new long-term rate of improvement accounts for most of the impact on the NCPs, resulting in a full-time increase of 0.35 percent, and a part-time increase of 0.28 percent.

The rates were created using our data from 1974 to 2020 and the same methods used by the Society of Actuaries, or SOAs, whose rates we were using prior, and they are still used for our survivor mortality improvement.

The results indicated a difference between our population and SOAs population, thus, we implemented this change. For those interested, further illustrations on the development can be seen in Attachment 5.

The last change proposed is our COVID adjustment. When we looked at including 2021 data, it impacted all the years too much for smoothing, so we looked at different approaches

before deciding on a method proposed by SOA.

We used data up to 2020 and a three-year step back, so starting our projection three years prior, and then also applied a low to the mortality rates for the years impacted by COVID.

The low applied is the age 15-plus low used in the Social Security Administration's, SSA's, trustee report, which is 15 percent in 2021, 4 percent in 2022, and 1 percent in 2023.

This is similar to the actual over expected deaths we see in our data for 2021. In the future, we will continue to look at other approaches.

The impact of our COVID adjustment is very small, no change until five decimal places, negative impact on both the full-time and part-time NCPs.

Lastly, if interested, Attachment 4 contains the mortality improvement heat maps. Due to the simplification of the groups, there's no comparison to the prior year, however, they do illustrate both the COVID adjustment and the new

long-term rates of improvement.

Are there any comments or questions?

MS. DUSH: I think it's interesting, the COVID adjustment, you know, again, through our continuing education process, there's still a tremendous amount of discussion about what mortality improvement will be after this intense period of COVID.

There are some who say, you know, mortality improvement, meaning, the people who survive COVID, you know, those who are surviving at the end of this intense period, will have longer lives because of the people who died during COVID, or perhaps the weaker portion of the human group, and others who say, you know, we don't necessarily because of long COVID, it may reduce the amount of mortality improvement that we have going forward.

So I think it, based on everything I've read and heard, we're still really up in the air as to what the effect of COVID beyond the next couple of years is going to be.

So I think what you're doing is reasonable and I also applaud simplifying the analysis, simplifying the groups, because this valuation is already so extremely complex that I appreciate trying to simplify where we can and where it's reasonable.

MR. MAY: Thank you.

MS. DUSH: John and Mike, any comments?

MR. CLARK: I'll echo your appreciation of simplicity, and I'll just say that for, you know, private pension plans, the approach with COVID is very much like we see here, where negative past experience is being picked up with data adjustments and that a future is being, sort of, held steady, kind of a wait-and-see mode.

MR. MOORE: Nothing further, Marcia.

MS. DUSH: Okay. So I guess at this point, we are ready for a motion on whether or not to accept the proposals on demographic assumptions.

And again, this assumes that everything that we haven't discussed stays the same, but just whether or not we should change these three types of assumptions.

MR. MOORE: This is John Moore, I'll -- Chair, I'll make the motion to approve the proposed changes to the non-economic assumptions for the 9/30/22 valuation, specifically, for the VA offset parameters, the death and other loss rates, and the mortality improvement scales.

MR. CLARK: I second that motion.

MS. DUSH: All in favor?

(Chorus of aye.)

MS. DUSH: Okay. My thanks to Qian, Drew, and Phil. And I think that concludes our review of the Military Retirement Fund for this year. Any --

MS. PETTYGROVE: Marcia, I just wanted to step in. I know we've had a few people join that I assume were interested in the education benefits part of the meeting. Just to let you know, we still have -- we finished retirement, we

still have the voluntary separation incentive one to do. That should not take a lot of time, so we hope to be on to education benefits in the not too distant future. How's that?

MS. DUSH: Okay. All right. So then, I think we are on to the Voluntary Separation Incentive Program and I think we have Phil to start us off on that.

MR. DAVIS: Yes, ma'am. So I'll be providing a brief introduction to Voluntary Separation Incentive, or VSI, and some background information, and then I'll be turning it over to our colleague, Drew May, to handle the rest.

So VSI was a program -- or is a program started in 1992 in an effort to downsize the active military force, and to be eligible for VSI, members had to have six years of active duty service, have five years of continuous active service at the time of separation, be in a rank that has more people than were deemed necessary, and they also have to continue drilling in the reserves.

VSI offers an annuity payable for twice as long as member's years of service and equal to 2.5 percent base pay times years of service. And this annuity is offset by VA payments.

And I also want to point out that this is a closed program, so I don't think we've accepted any members since 2001. And on that note, I'll turn it over to Drew May.

MR. MAY: Thank you, Phil. All right. On this page, we'll start with the rates used for the fund yield projection and the current interest assumption of 2.25 percent, set last year.

In this table, by fiscal year, we have the projected fund yield and inflation, and we use that to calculate the real rate of return. Below that, we have a five-year geometric average, and below that, we have a average when it is weighed by the expected value of the fund.

In the notes, there are some information on the investment strategy, and I

think it's worth mentioning that for VSI, it is not invested in TIPS, which means that when inflation is high, we have negative real rate of return.

Lastly, it's also worth mentioning the asset and liability duration for this fund is very short. Later in the presentation, we'll see that that means it's not very sensitive to changes in interest assumptions.

Are there any questions for this page?

MS. DUSH: No.

MR. MAY: This table shows the number of remaining payments broken down into various categories and details, pay grade, count, average VSI payment, and average VA payment, if applicable.

The bottom row gives us some of the counts and an average of the payments. Lastly, there are a few notes to this table. Of note is that it excludes 588 eligible VSI members who have a full VA offset. Are there any questions or comments on this page?

MS. DUSH: No. Okay.

MR. MAY: All right. Based on 2.25 interest, 2.2 percent COLA on VA offsets, and a 1 percent non-COLA increase on VA offsets approved last year, we take the -- we accumulate the unfunded liability on October 1st, 2020, a year, and the amortization payment on January 1st, 2021, 3/4 of the year, to get the expected unfunded liability on October 1st, 2021 to be 67.7 million.

The actual unfunded liability is 67.3 million, for a total gain of 330,000. This can be broken down into a 10,000 loss due to assets. In Note 1, you can see that the actual fund yield was lower at 2.08 percent, rather than the 2-1/4.

And then we have a 340,000 gain due to liability, which includes a 300,000 gain due to COLA being higher than assumption. As we can see in Note 3.

A 1.6 million gain due to VA offsets being different than expected and a 1.6 million loss due to residual and DFAS data changes.

Are there any questions or comments on this page?

MS. DUSH: All right. So in this situation, where the -- an increase in a VA benefit decreases, in all cases, the benefit here, there is no concurrent receipt here, so any time the VA benefits are increasing beyond what we expected, we are seeing gains.

And that is -- we saw a gain on the COLA, meaning that the VA benefit is subject to a COLA, so it increased more than we expected, and due to higher ratings, probably, VA benefits also increased, and we're seeing a gain on that respect. Is that correct, Drew?

MR. MAY: I believe so. Phil, can you confirm?

MR. DAVIS: Yes, ma'am, that is correct.

MS. DUSH: Okay. Any other comments? If not, please continue.

MR. MAY: The last two pages detail VSI amortization, again, based on 2-1/4 interest,

2.2 percent COLA on VA offsets, and 1 percent non-COLA increase on VA offsets, and a decreasing amortization schedule approved prior. We are looking at a contribution of 10.6 million for January 1 of fiscal year 2024.

This amount is 49.8 percent of the fiscal year projected benefit payments. This percent is such that if applied for the remaining payments, the fund will remain above zero for the last benefit payment in 2039.

And again, as mentioned earlier, at present value, future benefit sensitivity at 25 basis points is 1 percent.

The last page in this handout is the amortization in a graph form. Again, we are looking at a contribution of 10.6 million for January 1, 2024.

MS. DUSH: This is Marcia, I am personally content, because of the insensitivity to the interest rate assumptions, and really, to the other assumptions, to continue with the assumptions as they are. Again, subject to my

colleagues' thoughts.

The one thing I would -- and I would agree with the amortization process at this point, the question I would pose to OACT for further investigation before next year, would be whether or not the services are interested in, at some point, just paying off the unfunded liability, you know, especially when the amortization contribution goes below a couple million dollars.

Is it worth it to just pay this off at some point, you know, being sensitive to whether or not this, you know, really needs to be looked at further or perhaps maybe only looked at, maybe, once every couple of years, every three years or something, but I, at this point in time, would say, I'm comfortable with the current assumptions and the amortization method.

Colleagues? John, Mike?

MR. CLARK: I agree, Marcia, based on the lack of sensitivity. And also, I think that's a great comment you made. If you look

out, you know, eight, ten years on the chart we're looking at now and see that at some point, you know, is this something that requires a, you know, annual valuation and kind of a sneaking up on it, you know, contribution over a long period of time.

MR. MOORE: And I'll echo those comments.

MS. DUSH: All right. At this point, I would request a motion.

MR. CLARK: Okay. I will move that we accept the 9/30/2021 valuation results presented here and that we approve continuation of the assumptions and amortization methods, that would include, specifically, the 2-1/4 percent interest rate, the 2.2 percent COLA increase assumption on the VA offset, the 1 percent non-COLA increase assumption on the VA offset, and then the amortization as it currently stands at 1/2 of the benefit payment for the upcoming year.

MS. DUSH: Well, it's 1/2 of the -- it's the -- it's a percentage of project benefit

payments needed to extinguish the fund --

MR. CLARK: Right, yes, sorry, it's 49.8 percent this year, based on the methodology.

MS. DUSH: Right.

MR. CLARK: Okay. So moved.

MR. MOORE: I will second that motion.

MS. DUSH: All in favor?

(Chorus of aye.)

MS. DUSH: Okay. Anything else on VSI?

MS. PETTYGROVE: Marcia, if not, I'm just, if you guys would be interested in taking a short break, this would be a good time. Education will be a little bit of a chunk of time, so if you guys are happy to keep going, we can do that, otherwise, maybe a short five, ten-minute break?

MS. DUSH: I am showing 11:18 Eastern Time. I propose that we reconvene at 11:30. Would that be okay?

MS. PETTYGROVE: I think that'd be great. I just think we need to kind of gear up

for education benefits, so, everybody, we will be back -- the Teams meeting isn't going anywhere, Board will be back at 11:30.

(Whereupon, the above-entitled matter went off the record at 11:18 a.m. and resumed at 11:31 a.m.)

MS. DUSH: Before I turn it over to John, I just want to remind everybody that we are being recorded. Please ensure that your audio is muted when you are not speaking or actively participating and please identify yourself when you -- before you ask a question.

And leave your camera off unless you are speaking. And with that, John, will you and Rich start taking us through the education valuation?

MR. MOORE: Yes, Chair, thank you very much. This is John Moore. At this point, we'll move to the DoD's Education Benefits Fund. Richard Allen will take us through some key information. Richard, it's all yours.

MR. ALLEN: Okay. Thank you, John,

and Board Members, hope everyone can see the screen. This is the FY2021 valuation of DoD Education Benefits Fund, which will be presented by myself and Phil Davis will join at different times.

Okay. Very simply, here are our meeting objectives today, to review and approve the actuarial methods and assumptions needed for the September 30, 2021 actuarial valuation of the Department of Defense Education Benefits Fund, which are the Chapter 30 kicker benefits, the Chapter 1606 basic and kicker benefits, and the Category III benefits.

We will review the actuarial liability as of September 30, 2021 for each of the benefit plans by active duty and reserve service component, including the Coast Guard.

And third, we will set the FY2024 per capita contribution amounts and the October 1, 2023 amortization payments for each of these benefit plans by active duty and reserve component.

These amounts will then be sent in letters to the DoD Comptroller and the Secretary of Homeland Security for the Coast Guard benefits.

This is what I'm going to present today. These 11 items, won't read them right now, but we'll get through each of these in the presentation.

First, this is just an overview of the military education benefits, which are important to this meeting. These are either paid for through the Education Benefits Trust Fund or other benefits paid by the VA in conjunction with the Education Benefits Trust Fund.

There are other education benefits which we are not going to discuss today. Okay. So here's what the various benefits are and broken down by active and reserve. Continued on this page.

Now I'm just going to do an overview of where the fund is as of September 30, 2021, a year ago, which is where we were on September 30,

2020, we were here, at that time, there was 1,081,000,000 in the fund with a liability of 604 million.

About 2/3 of it was the Chapter 1606 basic and kicker, you can see, 705, and 375 for the Chapter 30. The fund activity throughout the year, I'll just go through the total column, 5 million was paid in amortization payments, 64 million was taken in through per capita contributions, about 155 million were paid out in benefits, the fund earned about 31 million in interest, a net change of 54-1/2, and a fund balance ending at 1,027,000,000, with a liability of about 600 million.

So the fund, as of the valuation date, was in surplus of over 400 million, and about 3/4 of that, as you see here, was in Chapter 1606, about 1/4 in Chapter 30.

Now I'm going to present the model that we used to develop the liability and the normal costs. It's a single-entry pay system, so whenever a new member enters the program and

becomes eligible for education benefits, a per capita contribution is made into the fund on behalf of that member.

And how we develop that is, we take the hypothetical cohort, starting at the entry in service right here, and at the end of each year, we put them into four -- any one of four categories.

Either they continue in service or they withdraw, and either they did not use the benefit or they did use the benefit, so there's four possibilities.

In year two, we take those people from year one and possibly move them into different categories. There's a probability associated with each box of using the benefit and a probability of where they will move from one year to the next, and then we continue this from year two to year three, and year three, and so on.

And we follow this hypothetical cohort from the time they enter the service until their education benefits eligibility runs out.

We have different probabilities for active service and different probabilities for the reserves. We also have different probabilities for each service. So the Army does not have the same probability as the Navy, although, the benefit model structure is the same for each.

Okay. I'm going to continue. And as always, feel free to interrupt with any questions you might have.

Now the question is, how do we get those benefit usage and withdrawal rates? What the model does is it calculates the usage and withdrawal rates for each cell as described on the previous page.

For the active model, what we do is, we take the most recent year, which, in this case, is fiscal year 2021, and we give that a weight of 100 percent.

We look at the second most recent year, which is fiscal year 2020, and give that a weight of 80 percent, and then each successive

year, going backwards, we give it a weight of 80 percent of the year that it precedes.

So 2019 would have a weight of 80 percent times 80 percent, and so on and so on. And then we just simply look at, what was the probability of benefit usage for each of those years and for each cell on the previous page.

There are a few exceptions. For example, when there are no or very few cases to measure, the model may use other measurements, for example, there are very few Coast Guard entrants, and the data is sparse, so the model uses the average of all services.

I do have one proposed change for the FY2021 valuation, and that is because there has not been any new entrants since 2012 for active duty. Instead of using the most recent ten years for all rates, the model is using the most recent ten years that had cases to measure.

For example, to determine the benefit usage for active duty members who have two years of service, the model uses the ten-year weighted

average ending in fiscal year 2014, since there were not any members with two years of service from 2015 through the present.

And I will continue to do this as long as there are no new entrants coming in. The method for the reserve model is, take the most recent year, 2021 again, give it a weight of 100 percent. The second most recent year is given a weight of 60 percent of the most recent year, and then each successive year is given a weight of 60 percent of the year it precedes.

Again, there are some exceptions. When there are no or very few cases to measure, the model may use other measurements. For example, if a particular program does not offer a $100 kicker benefit, the model will use the historical weighted average of the 200 and 350 kicker benefit, and the basic benefit, and then apply utilization adjustments to account for different benefit amounts.

So this gives an idea of how the probability of benefit usage and the probability

of withdrawing from service is derived and then each of the boxes on the preceding page has kind of its own probability of usage, as derived through this methodology.

Now I'm going to talk about the data sources that I have available to me, and there are primarily two. From the Defense Finance Accounting Service, or DFAS, they provide an education benefits trust fund activity for each active duty service and reserve component by month.

They give us the total per capita contributions for each service or component, for each month, amortization payments, although usually, that's only once a year, and total benefit payments, again, by month, broken out by service.

They also provide an entire fund starting and end-of-year balances. So that's the information we get from DFAS. We also get information from the Defense Manpower Data Center, or DMDC.

They produce file extracts and on these extracts, they provide individual member data and the available data that we use is cumulative lifetime benefits as of the file date, and we look at the -- we look at the file once a year, so the end of each fiscal year, which is each September.

The file also has a code indicating what the member's service or reserve component is, the code telling us what their monthly benefit amount is, and the file also provides the date of entry, the date they first used the benefit, if they have, and the date they withdrew from service, if they are no longer active.

Okay. Moving on. You might say, in theory, that these two sources of information should provide the same total amount, but they don't necessarily do.

This is looking at the Chapter 30 DMDC and DFAS comparison of the 2021 kicker benefit payments, and according to the DMDC reports, when summing up all the individuals, I had a total of

46,755,000, when looking at the DFAS trial balance and summing up the benefits paid out, it came out to 42.6, a difference of 4 million.

And here, I'm showing the difference between the two sources of information from 2020 down through 2017. And then here's the percent difference, so in this case, in 2021, the DMDC numbers were about 10 percent higher, in the previous four years, they were 80 percent of what the DFAS reports were.

Now I'm going to show the same thing for Chapter 1606. Information's a little smaller because I broke it down by kicker and basic benefit. I'll just kind of go through the percents here.

It looks like for the 1606 basic, the numbers are very close to 100 percent, a little above, a little below, but very close, which is very good.

For the kicker benefits, not so good, as you can see, some are way off, some are kind of close, and in total, we see that it kind of

averages -- it was 85 percent this year, and that's comparable to what it's been the last several years.

So overall, what we're seeing is, when summing up the individual data on the DMDC reports, it's coming in at about 85 percent of what the DFAS is saying has been spent.

So because of that, I feel there's a need to reconcile the two sources of information. And what I'm going to do is, this is going to be part of the record, but I'm not going to read through this, I'm going to explain what I do using a hypothetical example.

So suppose for the ten-year weighted average for hypothetical service ABC, the benefits paid of the trial balance was 110 million, the benefits paid according to the DMDC files, was 100 million, which means that the DFAS over DMDC was 110 percent, or 10 percent higher.

And let's suppose for the -- for this hypothetical service, the contributions were 52 million, according to DFAS, 50 million according

to DMDC, that's a 4 percent difference.

So this is how I'm determining how many people are in the program to value. And this would tell me that DFAS is saying there are 4 percent more people than what DMDC is saying, so when I do the valuation, I look at the DMDC data and increase the number of people by 4 percent.

The remainder that has to be increased, I'm going to apply to the rates. So my initial true-up factor is just simply this number divided by this number, so that would combine with this number, get us up to a 10 percent increase.

However, this number is going to turn out to be too high because of the way things are done in the model, that people will move from one box to the next box, going back to that earlier page, so I found that if I just take the square root of that, getting a little mathematical here, it leads to, kind of, the right increase.

So in this hypothetical situation, I

would increase the starting census by 4 percent, and all the rate probabilities by 2.8 percent. So I would take my earlier rate derivation and then increase everything by these two amounts.

Okay. I hope everyone followed that. I'm going to say, before we move on to the next item, which is interest, I'm going to let the Board comment, you know, and hopefully approve the methodology.

MR. MOORE: Yes, Board, I'd like to -- let's pause here and ultimately, I'd like a motion to approve the model and methodology for data reconciliation and benefit usage presented for the 9/30/21 valuation, including the one change he mentioned -- Rich mentioned on Page 8, but is there questions or discussion?

MS. DUSH: I guess, you know, we've talked about it before, but in the initial rate development, the benefit usage development, you're using a ten-year average, and for actives, you use 80 percent credibility for the prior year and each succeeding year, and in the reserve, you

use 60 percent.

Can you just remind us, the rationale behind the differences in those two numbers?

MR. ALLEN: Sure. The active model has a longer life, because people serve in active duty longer and they can use the benefits post-service. So therefore, because it's a longer duration, we want to give more weight to the years farther back, whereas, the reserves, it's a narrower duration and what happened more recently is more of an indicator what's going to happen, because it's just, the activity in the reserve model is going to happen in a much shorter amount of time.

MS. DUSH: And I assume that you've been kind of checking to see whether or not your model is doing a reasonable job of predicting future benefit payments.

MR. ALLEN: Yes, and it usually is within a -- per service, is within a few million what the model projects for a given year of spending compared to what ultimately happens.

MS. DUSH: Okay. Thank you.

MR. CLARK: Rich, I just have a quick question on the DMDC versus the DFAS data, and it would be the, you know, for the active Chapter 30 kicker, the DMDC actually came in about 10 percent above DFAS, but on the 1606 reserves, it comes in about 45 percent under.

Just, do you have any thoughts on that; on what might be driving that?

MR. ALLEN: It's possible, because the way I obtain the DMDC, if you remember, I said that the file gives me cumulative lifetime benefits, so it doesn't actually give me how much was paid in benefits in a given fiscal year, to get that, I look at the cumulative as of the end of '21, the cumulative as of the end of fiscal year 2020, and then take the difference.

So if there was some catching up in 2020, or in this case, I obtained the data in a slightly different way than I have in previous years, it's possible some of that is really spending from a prior year that I'm just learning

about now.

And I think that could explain why the DMDC is a little higher than the DFAS for '21, and maybe that was a greater factor with the active than it was with the reserves.

MR. CLARK: Thank you. It looks like we have a question.

MR. ABRAHAM: Hi. This is Peter Abraham from DMDC. So to that point, you know, based on the results in the briefing last year in this meeting, DMDC did work with VA to try to improve the quality of the reporting of usage data for each of these programs.

And it looks like, based on what I'm seeing here, that we probably did see some better reporting for Chapter 30 and 1606 basic, the 1606 kicker seems to be similar or maybe even worse than last year, and that's something that we'll certainly take a look at.

MR. CLARK: Thank you.

MR. ALLEN: Yes, and just so you know, I mean, it's a complex program, the sources of

information, not all of it outlined here, but they come from the VA, they come from the different individual services, there's timing issues, whether, you know, information that, it's possible benefits paid in one fiscal year do not get reported until the following fiscal year, so there's a lot at play here.

MR. CLARK: All right. Thank you.

MS. DUSH: John, are you ready for a motion?

MR. MOORE: Just, I'll add a comment as well, you know, normally, and for actuaries and doing these evaluations, when you get, you know, clean data, ideally, and then you, you know, really work on your assumptions and your methods to do our evaluations we do, this fund just is always so interesting because the -- a lot of -- so much of the work for this fund is actually on that front end data, given the disparate sources, and the -- it's both using the -- trying to figure out how to model what your actual population is you're starting with, as

well as then deriving those rates for movement between, you know, those colorful boxes that Rich showed us.

And so we spend more time -- every year in this part of the meeting we spend more time talking about data than we would normally do just because of the significance that it plays with this fund, so I appreciate the walk through an elaboration.

With that, I'll take a motion.

MS. DUSH: This is Marcia, I move to approve the model and the methodology for data reconciliation and data usage presented for the September 30, 2021 actuarial evaluation, and that does include one change from the previous year on the treatment of developing benefit usage for the Chapter 30 kicker benefits. So moved.

MR. CLARK: I'll second that motion.

MR. MOORE: Can I get a second?

MR. CLARK: I second.

MR. MOORE: All right. All in favor?

(Chorus of aye.)

MR. MOORE: Motion carries. All right.

MS. DUSH: John? John, I would like --

MR. MOORE: Yes.

MS. DUSH: -- to applaud the work that DMDC, you know, has done. I mean, we have, in the last several quad reports and in our letters on contributions to the EBF, we do keep expressing our concern about the quality of data, and so to the extent that there has been movement in the improvement of data, I truly applaud what DMDC has been doing with VA on this subject.

MR. CLARK: Agreed. Thank you.

MR. ALLEN: And as the person who works directly, I also agree with that. All right. And I will move on to the next section and I'm going to turn it over to Phil Davis who will take you through the interest assumption.

MR. DAVIS: Thank you, Rich. So here we have the EBF fund yield projection, along with the current interest assumption, and this model

was based off of blue chip assumptions, the December 2021 blue chip, and so the first column, we have the fiscal year from 2022 through 2031, then we have the corresponding inflation rate, then the corresponding real fund yield, then the nominal fund yield, and then the blue chip return on new investments on a cumulative basis.

And below that we have the ten-year averages for all these rates, geometrically, and then the ten-year fund-weighted averages.

And just want to highlight the current interest assumption of 2-1/2 percent. And also, the relatively short duration of this program or fund, compared to, especially, a program like MRF.

MR. MOORE: Thank you. So I'll pause here for Board discussion and we can go ahead and settle on the interest rate before we move on as well. Any comments?

MS. DUSH: Well, first of all, it -- this is Marcia, and it does, you know, we've seen this before, again, because it is such a short

duration program, the liabilities are not that sensitive, you know, under 1 percent sensitive, to a 1/4 point change in the interest rate, so again, there's not a lot of sensitivity, so I'm in favor of holding tight where we are.

MR. CLARK: Yes, this is Mike Clark, I tend to agree with you. You can tell with the shorter duration that if inflation were to, kind of, spike, you know, for some intermediate term, if we could project it out that way, I think you'd see that hit here quicker, but again, with the sensitivity of the liabilities, it's probably less of an issue.

And not much of the program is sensitive to inflation, so I'm good with 2-1/2 percent as well this year.

MR. PARKS: Can I get a motion to approve the interest rate for the September 30, '21 valuation of 2-1/2 percent, then?

MR. CLARK: I move to adopt the 2-1/2 percent valuation rate for the 9/30/2021 EBF valuation.

MS. DUSH: I second.

MR. MOORE: Perfect. Any further discussion? All right. All in favor, say, aye.

(Chorus of aye.)

MR. MOORE: All right. Motion carries. All right. Is it Phil or back to Rich?

MR. ALLEN: Okay. We'll continue with other economic assumptions, which is projection of the Chapter 1606 basic benefit using the blue chip financial forecast. By law, the basic benefit increases each year by the 12-month CPIW, which comes from the Bureau of Labor Statistics, from July through June.

That average how much that increased by over the previous year's July through June 12-month average.

So to project the next basic benefit, I've looked at the CPI and we have all those figures through May, those are the bold numbers, and then any number after, beginning with June 30, 2022 and beyond is just simply a projection.

And what I did was looked at the blue

chip financial forecast, they give projections, either quarterly or annually, and I just simply plugged that in, starting with this number, and plug in the increase, and then calculate the July through June CPI increase.

With 11 of the 12 months known, this next increase is going to be 7.7 percent. By the way, that's the highest I've seen since working here for one year, and then the following year, which is also impacted by recent inflation, would be 5.7, and then blue chip is just forecasting, you know, 2.2 to 2.5 beyond that.

So I need your approval to continue to use the blue chip financial forecast to project future increases for the Chapter 1606 monthly basic benefit.

MR. MOORE: So I'll just clarify on this, so we are -- under this approach, we are capturing inflation realized, basically, through the prior month. The projection going forward is based on blue chip, and again, I think we're -- the last blue chip report we have is from

December, so one concern would just be about the -- whether the staleness of that -- of those projections, so I think those, we consider this methodology, just want to be conscious about whether or not we think that's significant or not.

Board, any discussion?

MS. DUSH: This is Marcia, again, we probably are underestimating, you know, the next year's inflation, although, we're still seeing 5.7 percent, so I don't think there's a whole lot of what we're missing.

And so this is, perhaps, a little less conservative than I might have considered the assumption in the past, but again, we're talking about a fund that has a very substantial surplus, and I do believe we have other areas of conservatism built into this valuation.

So I'm still comfortable with this method of calculating the basic benefit for forecasting.

MR. CLARK: I agree. No further

comment here.

MR. MOORE: All right. Could I get a -- with that, could I get a motion to continue to use blue chip to project Chapter 1606 monthly basis benefit?

MS. DUSH: This is Marcia again, I move to continue to use the blue chip financial forecasts to project the Chapter 1606 monthly basic benefit.

MR. CLARK: I'll second that motion.

MR. MOORE: Any further discussion? Hearing none, all in favor, aye?

(Chorus of aye.)

MR. MOORE: Motion carries. All right. Let's continue.

MR. ALLEN: Okay. So now what I'm going to show is the results. Now that we've approved the methodology and approved the economic assumptions, it's simply plugging in those methods and assumptions into the model and generating the costs.

So what I've done here is showing the

actual fund balance as of September 30, 2021, I'm actually going to make this screen a little bit bigger, and at that point, for Chapter 30 kicker, in total, 348 million generated the liability, as just described, coming up with 241 million, a surplus of 107 million.

There was an amortization payment made and then plugging into everything else here are projections, the model projected to have 330 million at the end of '22, and then projected to have 307 million at the end of September '23, with liability figures here of 187 million.

Looking at it by individual service, three of the four services here are in surplus; the Army, the Marine Corps, and the Coast Guard. The one that is not is the Navy. It is projected to have an unfunded liability of this figure, about 3.6 million.

And what we've done in the past is set an amortization schedule of five years and the Board approved interest rate, which is 2.5 percent, so using that amortization schedule

again would lead to an amortization payment on October 1, 2023 of about 752,000.

I'll continue with some of the other results, but just keep that amortization schedule in mind.

MS. DUSH: Rich, this is Marcia, there -- you know, I think you mentioned this to us before, there are no new entrants to this program, but there are still benefit payments being made.

And so I guess at some point, again, as maybe benefit payments trickle down a little bit, there should be some -- my understanding is there's no plan for the surplus here.

If this program stays in surplus, and there are no more benefit payments to be made, there's no -- you know, right now, there's no way for the services to recover this surplus, and I think we've mentioned this in prior quad reports.

Has there been any discussion on the need to figure out what to do with this surplus?

MR. ALLEN: We've brought it up with

different people and there hasn't been any plan or, you know, action taken. They are aware of it. You've definitely brought it to their attention and they are aware of it.

MS. DUSH: Yes, I think even last year, we talked about whether Navy should be required to make its amortization payment or whether, you know, money would be transferred from one of the other services, with Navy getting a benefit somewhere outside of this fund.

It just seems, you know, again, when the overall program is in surplus, it could make sense to do some, you know, compensating relief so that -- but again, I think while these numbers are not small from my personal finances, they are probably very small for the Navy.

Again, I just wonder if there isn't something that could be done there in the future, and again, as I'm winding down my service on this Board, I would encourage my fellow Board members to, you know, keep in mind that maybe there needs to be some more thought on what to do,

legislatively, with the service that, you know, again, as we continue to, perhaps, bring this to their attention in the quad report.

That's all.

MR. ALLEN: Okay. I think that's been noted. I will continue with the results. So although we don't expect any new entrants for the Chapter 30 kicker, the program is not closed and that could change at any time.

So we, therefore, are required to generate per capita amounts and using the methodology that, and assumptions has already been discussed, this is for just some of the kicker, the per capita amounts would be these bottom figures.

Some of them are quite a bit lower than the FY23, and that is because of that one valuation methodology change that we talked about that did lead to a pretty significant decrease for the Army, not so much for the other services.

But again, these are just results based on using the methodology we discussed. And

then these are just simply the same numbers, just so you can kind of see them all together, what the fiscal year '23 costs and what the fiscal year '24 costs are.

The possible programs there are, the Army has the ability to offer a two, three, four, five, or six-year contract, the Navy, a four-year only, the Marine Corps, four, five, and six, and the Coast Guard, four, and then monthly kicker amounts between 150 and 950.

So each of these has a different cost associated with it. All right. I'll --

MS. HARTMAN: This is Colleen Hartman from Comptroller. If I could have a second.

MR. ALLEN: Sure. Go ahead.

MS. HARTMAN: One of the things we talked about, Rich and myself, and P&R, about this surplus about a year ago, you know, we were talking about, could the surplus be applied to the kicker rates, in effect, lowering them.

Should the Army, Navy, or Marine Corps decide, yes, we want to start using these

kickers, but the price is too high, is there some way that that surplus could offset or, you know, produce lower rates?

So, Rich, if you remember, we had quite the discussion about that and we're not hearing anything about the services, you know, needing or wanting to get back into the kicker business, but as you can see, they're pretty darn expensive too.

So, you know, I know that that is something we've talked about as well, but there were pros and cons to that too, correct, Rich?

MR. ALLEN: Yes. And these amounts could be reduced or, you know, offset to lower the surplus. That's something that was done in the past when the program was more active than it is now, and it's actually done with the reserves when there is a surplus.

What you see here are kind of the true amount, what the true value of the benefit is, but we could charge less than the true value to reduce the surplus.

MS. DUSH: There's no legislative requirement that the full cost be passed on.

MR. ALLEN: That is a correct statement.

MS. DUSH: I think we can -- the thought behind charging the full cost for kickers was that, in fact, these are discretionary benefits being offered and that, you know, essentially, you want to make sure people appreciate the cost of a benefit that is discretionary, but again, there's no rule that says, you know, with everybody's full knowledge, they could, in fact, be subsidized.

MR. MOORE: And, Marcia, I'll just echo that. This is John. My understanding was, yes, that discretionary nature is why we always wanted to make sure that it was very transparent on the cost.

I agree, though, I mean, if everyone really appreciated that, you know, there's a deliberate use of this surplus to lower those costs and that the economics are all understood,

then I think that that's definitely something that could be considered.

That's just why we make that distinction currently between how we offset the basic, you know, benefits versus the discretionary kickers.

MR. ALLEN: I was going to say, I would recommend if we did have an offset, that it be -- we have -- we set it at a certain amount, so in other words, we'd never offset it by 100 percent, maybe cap the offset at, you know, some amount, 50 percent, for argument's sake.

MR. MOORE: Good. I can at least see the one hand raised, but I'm not really in a position to see it, so if you got your hand raised, go ahead and, I apologize, I can't address you by name, but go ahead.

MR. ABRAHAM: Yes, sir. This is Pete Abraham from DMDC, and I apologize if I'm stepping out of turn or if I'm stepping on, maybe, something that's more appropriate for Patty Leopard, but, you know, the one thing I'll

note it, you know, the program, the Chapter 30 program, is scheduled for sunset in, I think, 2030, and there's been various discussions on other things affecting this as well.

And while it's not really my place to say, but, you know, is trying to incentivize the services to, maybe, use this kicker, you know, for a program that's going to be sunset in seven or eight years, is that the best way to go or can at least those considerations that are affecting education programs in a whole be taken into consideration before making such a decision as what's just been discussed? Over.

MR. ALLEN: Well, I think when you say the Chapter 30 program is going to be sunset, there is the Chapter 33 program and these kickers, to the best of my knowledge, would still be allowed to be offered in conjunction with the Chapter 33 basic, so in that sense, it's not really being sunset, only the Chapter 30 basic is, which is a VA program anyway.

MR. ABRAHAM: Yes, sir, and I guess

that was part of my point about trying to take a look at what's going on in other programs. I mean, if we want to incentivize kickers to be used with Chapter 33, again, Patty can correct me if I'm mistaken here, but there are kickers authorized for the Chapter 33 program, and, you know, currently, none of the services are using those.

And that's why I say, you know, if we take a look at what's best for the education programs in general, and where these programs are going in the future, you know, to be taken into consideration as we try to make these decisions. Over.

MR. ALLEN: Okay. And again, even if that's the case, people who are already in the program would still be using the benefits, you know, beyond that 2030 mark, even if no new people were coming in.

So there's still a fund to pay benefits to these people.

MR. ABRAHAM: Yes, sir, I understand

that point.

MR. ALLEN: But, you know, appreciate your thoughts.

MR. MOORE: Very good.

MR. CLARK: Rich, do have anything else?

MR. ALLEN: I was going to ask if anybody else has anymore thoughts on this before I move on. Sounds like I'll just continue.

MR. CLARK: Please.

MR. ALLEN: All right. So now, I'm just going to show the Chapter 1606 results, again, using the methodologies we've talked about. We have the amount of money in the fund as of September '21, a projected amount for September '22, and for '23, and then again, comparing the project amount in September '23 with the liability at the time, projected liability at '23, all but one of the reserve components will be in a surplus position, and we'll talk about the offset in a minute.

The one that is not is the Air

National Guard, projected to be in an unfunded position of this amount, 13.7 million. Again, using that same amortization schedule five years and an interest rate of 2.5 percent, leads to an amortization payment of 2,875,554.

And now, for those that are in surplus, and again, since the Chapter 1606 does have new entrants coming in each year, basic and kicker, we want to reduce their surplus, and using that same amortization schedule, we would reduce -- we could adjust the normal costs downward by these amounts.

So for example, the Army National Guard, if we take this surplus of 185 million, and the five year, 2.5 percent rate, we would want to adjust their normal costs by about 39 million, and I'll show you how we do that on the next page.

First, we have the project basic normal cost contributions, and I'll go over the normal cost right after this.

So for example, for the Guard, we're

projecting 41 million to come in in contributions before an offset, we have a targeted offset of 39 million, so that's 95 percent of it, since according to DoD compensation, they are projecting 27,000 new entrants in 2024, so that would be an offset per person of 39 million divided 27,000, or 1454.

And I do the same thing for the other reserve components. If this number is less than this number, we just have a partial offset. In the case of the Air Guard, where they do not have a surplus, there's just simply no offset, and for the Air Force Reserve and the Coast Guard Reserve, the targeted offset is more than the projected normal cost contributions, so we simply cap it at 100 percent, or a full offset.

MS. DUSH: Rich, this is Marcia. On Air National Guard, because I think last year, we were still predicting that they would be in surplus, looking out to the future, now we're projecting that they are going to be in an unfunded position.

Can you comment on what has changed for them?

MR. ALLEN: Sure. In terms of contributions, less contributions were received than was projected and benefits paid in the last year was higher than projected, so as a result, the amount of money in the fund turned out to be less than we were expecting, for those two reasons.

You combine that with the fact that the basic benefit, due to the CPI, even this affected all the services, went up so their liability did, and it just led to, kind of, flipping their present value being higher than their amount in the fund.

MS. DUSH: Thank you.

MR. ALLEN: And I'll just show you now how we derive the basic benefit. So we have the normal cost, which is generated through the methodology we've talked about, and then there's an offset to the normal cost, with the exception of the Air National Guard.

You know, I showed you how the Army Guard had an offset of 1454, so and then these numbers would correspond to the numbers on the previous page, and their per capita amounts are simply the normal cost, which is the true value of the benefit, less the offset, gets us the per capita amount, which is these figures.

And these last two, because they are -- they have full offsets, that's why they have a zero dollars for per capita amount.

So this is for the Chapter 1606 basic. For the Chapter 1606 kickers, there's no normal cost to offset. All of the offset is applied to the basic. Kind of discussed this briefly with the, when talking about the Chapter 30, because this is a discretionary and a recruiting tool, we want the components to pay for the true value of this benefit, not offset it, and those are these figures at the bottom.

I boxed, you know, the one service. A boxed variable means that the kicker amount is currently offered by the component. Although, at

any time, any component could offer the $100 kicker.

And then I have the same results for the 200, where these three components are offering the benefit, and then for the 350, where these -- the five that are boxed are currently offering the $350 kicker.

Okay. So at this point, while you've approved the methodology and assumptions, you need to approve the amortization method for generating an amortization payment, which is the active Navy and the Air Guard Reserve, and for approving the methodology to offset the normal cost for the Chapter 1606 basic program to get those per capita amounts.

MR. CLARK: All right.

MR. MOORE: Could I get a motion to that effect?

MR. CLARK: I can do that. So I move to accept five-year amortization at the valuation rate of unfunded liabilities, or surpluses, as to use any amortization surplus to offset 1606 basic

normal cost as the current method.

MR. MOORE: Second? Can I get a second?

MS. DUSH: You can if I can unmute myself. I second it. This is Marcia.

MR. MOORE: Any further discussion? All right. All in favor, say aye.

(Chorus of aye.)

MR. MOORE: All right. Motion carries. All right. Rich, I think, bring us home with Cat III.

MR. ALLEN: Okay. What we'll do here is just the, for the record, and just all the costs shown on one page, so you can see fiscal year '23, basic and the kickers, '24, and then on the Cat III methodology is listed here --

MR. CLARK: My apologies, guys.

MR. ALLEN: Okay. I won't read this, but I'll just show how it's generated on the next page, and it's all -- can be shown on one page. For Cat III, we start with a balance at the end of 2021, there was a payment made October 1,

2021, actually, in reality, it was a transfer from the Chapter 30 kicker program, and then that leads to a balance, which, in the case of the Army, which is the only program that is currently been paying benefits for the last few years, led to a balance of negative 15,000.

And by the way, these numbers are not in millions, like they were in other pages, these are actual numbers, thus far, for the Army, we've had benefit payments through the end of May of 29,000.

Again, as none of the other services had any payments, projecting that for a full year, projects to 39,000. The actually will be charged interest because they had a negative balance of 1500, using the 2.5 percent rate, so they have a project fund balance on October 1, 2022 of negative 56,516.

Therefore, they have to pay 56,516, although, what you've done in the past, and I would recommend again, is, instead of them actually making a payment, just simply transfer

funds out of the Chapter 30 kicker program to get it down to zero.

And that's it for Cat III.

MR. MOORE: All right. Board, any questions or discussion?

MS. DUSH: Again, this is Marcia, I think in our quad reports, I think we've recommended that, you know, again, small dollar issues here, the money all comes from the EBF, when benefits are paid, perhaps consider doing a valuation, maybe, once every three years or, you know, something else here.

And again, at some point, this program, I know Army is still paying benefits, but it does look like the other services are no longer paying benefits. If that's the case, then perhaps, you know, the money should just be reverted to their Section 30 kicker fund.

So again, for the future, just look at whether or not this is a good use of OACT's time in doing this every year.

MR. CLARK: I agree with that.

MS. DUSH: John, do you want a motion?

MR. MOORE: I would love a motion.

MS. DUSH: All right. I move to continue to use the Cat III methodology to determine the October 1, 2022 contribution and to transfer assets between Cat III and Chapter 30 kicker in order to fund the Army deficit there.

MR. CLARK: I second the motion.

MR. MOORE: Mike, would you like to second --

MR. CLARK: I would. I second.

MR. MOORE: All in favor.

(Chorus of aye.)

MR. MOORE: And then I'll yield my time back to the Chair.

MS. DUSH: Okay. At this point, I guess, Inger, correct me if I'm wrong, but do we open it up for any final comments from anyone in the audience here?

MS. PETTYGROVE: I think that would be appropriate. Does anybody have any questions, comments? I think we're looking to wrap it up if

not. And I'm just going to remind people to send me an email if you called in by phone. That would be helpful for the attendee list, and, Marcia, back to you.

MS. DUSH: All right. At that point, I -- with no other further questions, I will declare that this meeting of the Board of Actuaries for the Department of Defense is concluded and I look forward, hopefully, to seeing most of you in person next year.

You know, and I think that's it. And, Inger, should the Board members and staff stay on the line in order to finish up with the letters that --

MS. PETTYGROVE: Yes, we just have a few administrative items. So the meeting is finished. Board members and OACT, if you would hang on for just a few minutes, we can wrap-up the details.

(Whereupon, the above-entitled matter went off the record at 12:29 p.m.)

C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Board of Actuaries Meeting

Before: US DOD

Date: 06-24-22

Place: teleconference

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate complete record of the proceedings.

Neal R. Gross

Court Reporter